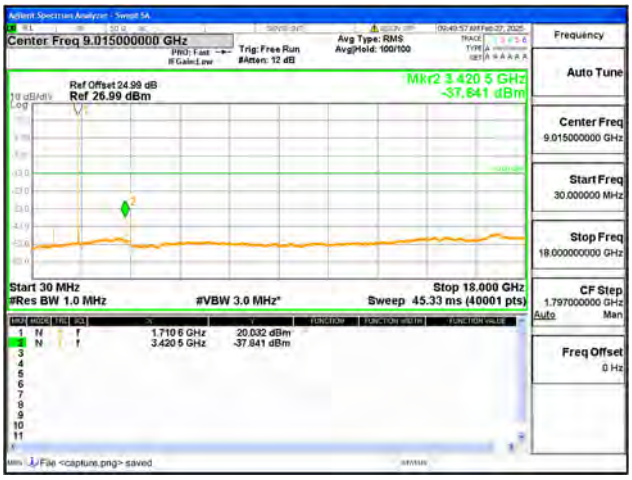
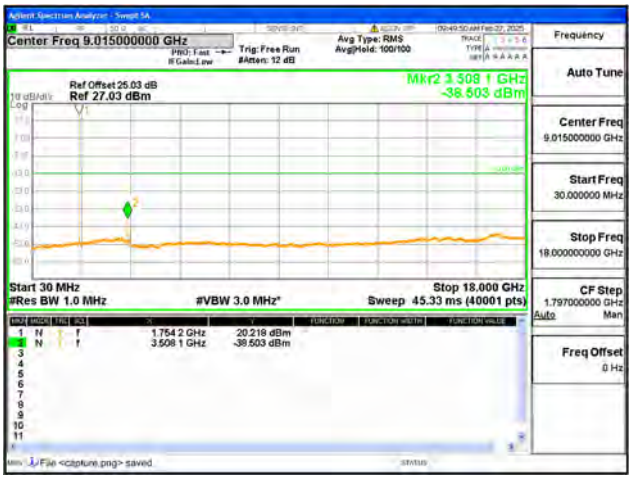


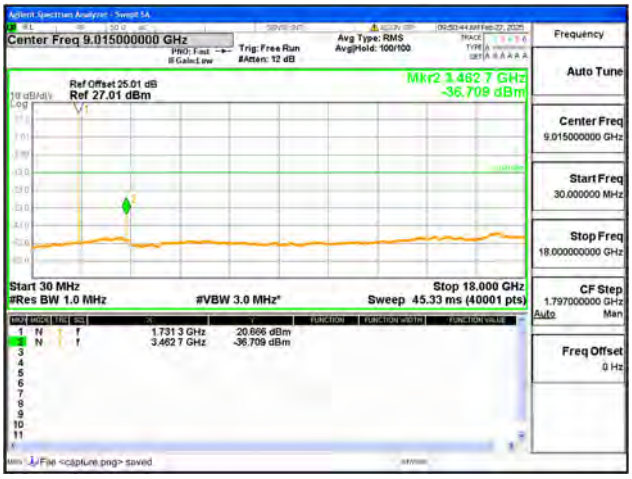
B4 / 1.4MHz / Low CH / QPSK

B4 / 1.4MHz / Mid CH / QPSK



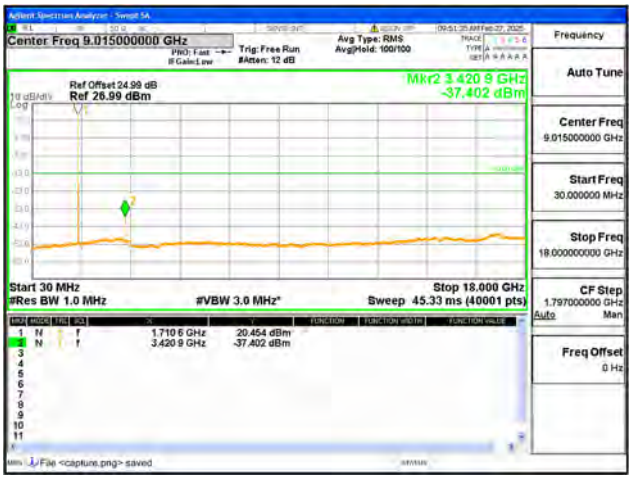
B4 / 1.4MHz / High CH / QPSK

B4 / 3MHz / Low CH / QPSK



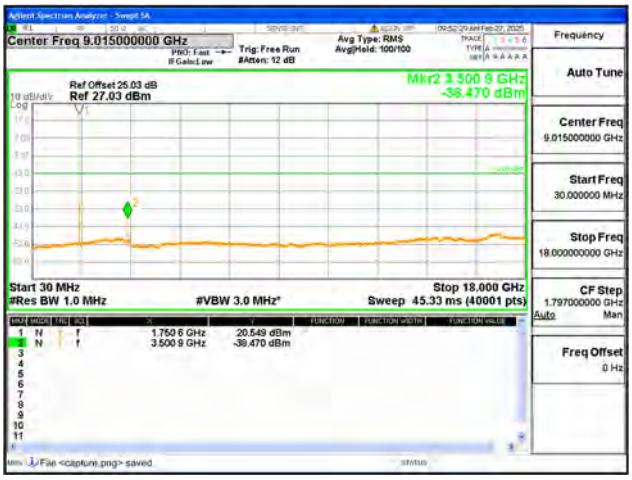
B4 / 3MHz / Mid CH / QPSK

B4 / 3MHz / High CH / QPSK



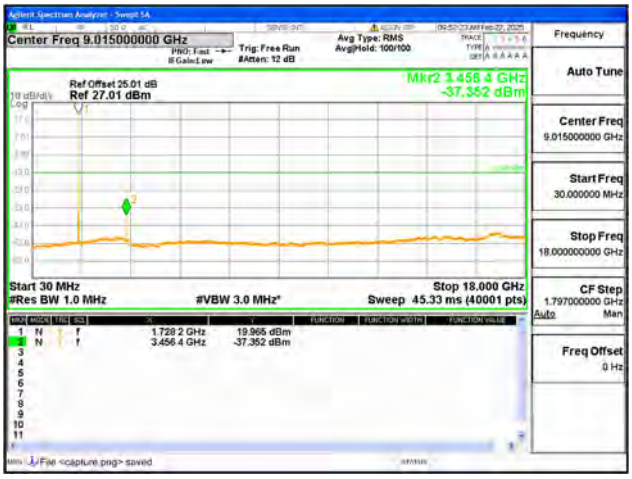
B4 / 5MHz / Low CH / QPSK

B4 / 5MHz / Mid CH / QPSK



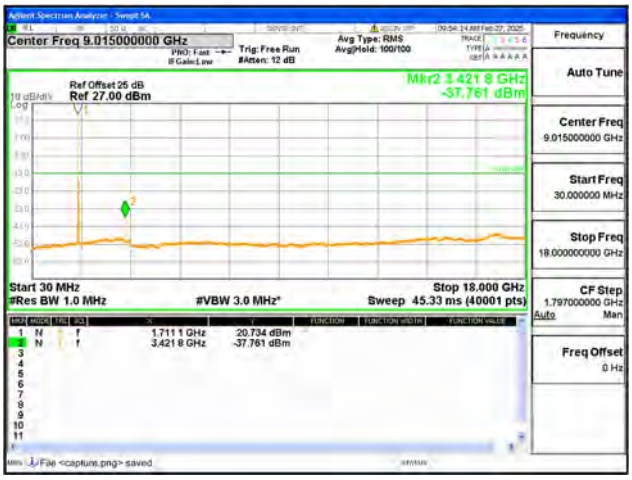
B4 / 5MHz / High CH / QPSK

B4 / 10MHz / Low CH / QPSK



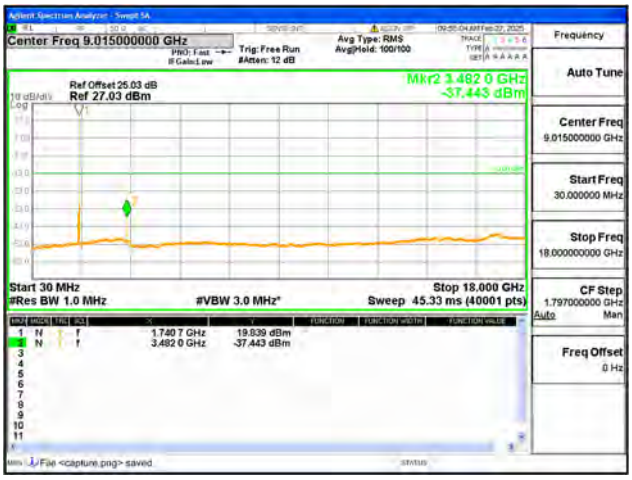
B4 / 10MHz / Mid CH / QPSK

B4 / 10MHz / High CH / QPSK



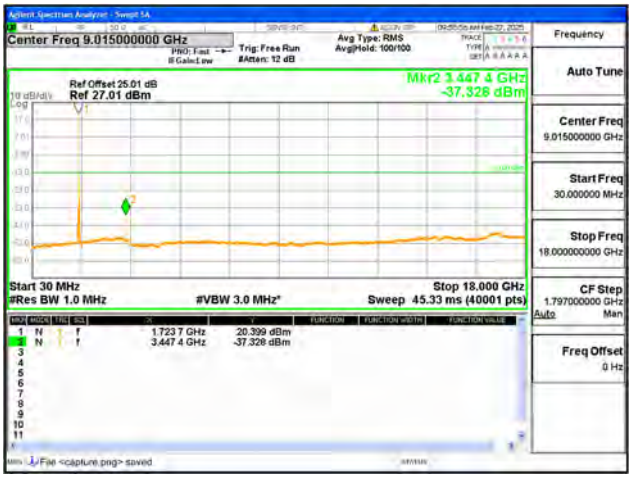
B4 / 15MHz / Low CH / QPSK

B4 / 15MHz / Mid CH / QPSK



B4 / 15MHz / High CH / QPSK

B4 / 20MHz / Low CH / QPSK



B4 / 20MHz / Mid CH / QPSK

B4 / 20MHz / High CH / QPSK

B5 / 1.4MHz / Low CH / QPSK

B5 / 1.4MHz / Mid CH / QPSK

B5 / 1.4MHz / High CH / QPSK

B5 / 3MHz / Low CH / QPSK

B5 / 3MHz / Mid CH / QPSK

B5 / 3MHz / High CH / QPSK

B5 / 5MHz / Low CH / QPSK

B5 / 5MHz / Mid CH / QPSK

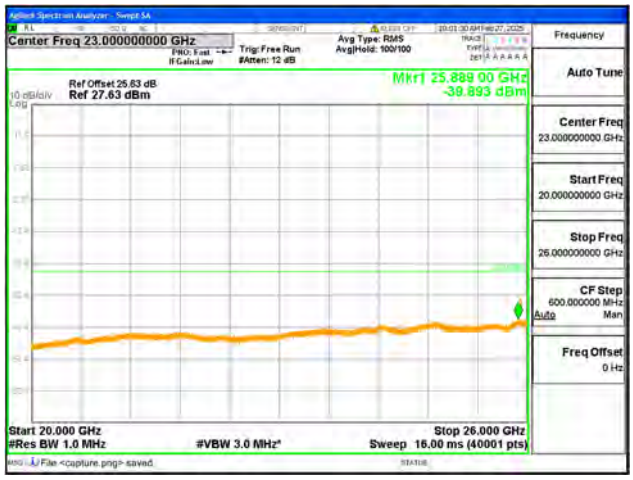
B5 / 5MHz / High CH / QPSK

B5 / 10MHz / Low CH / QPSK

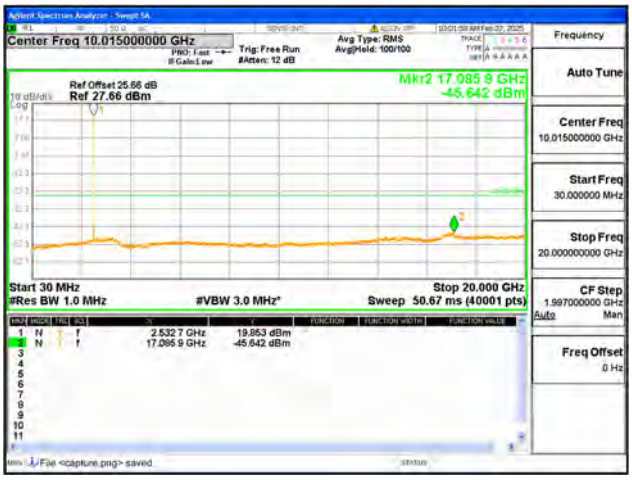
B5 / 10MHz / Mid CH / QPSK

B5 / 10MHz / High CH / QPSK

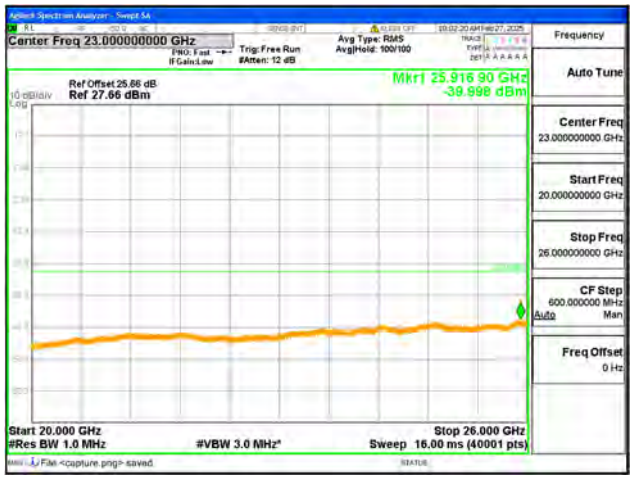
B7-30M-20G / 5MHz / Low CH / QPSK



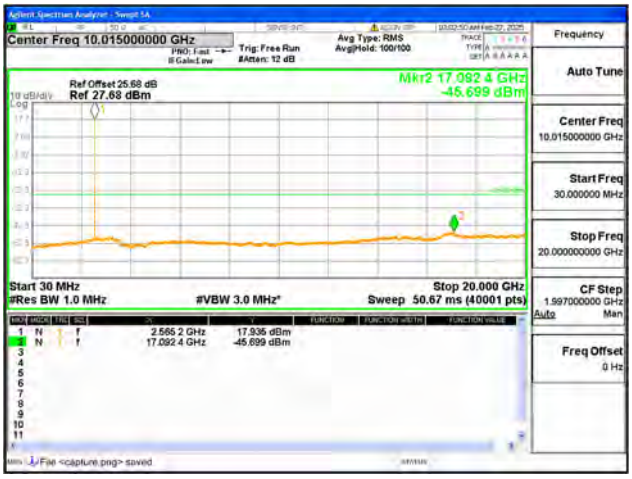
B7-20G-26G / 5MHz / Low CH / QPSK



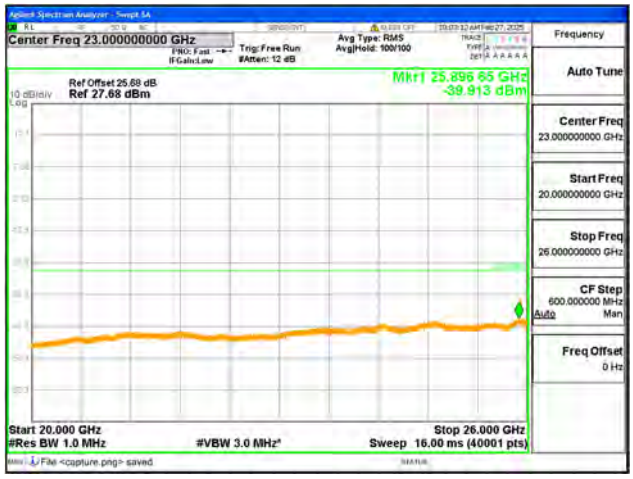
B7-30M-20G / 5MHz / Mid CH / QPSK



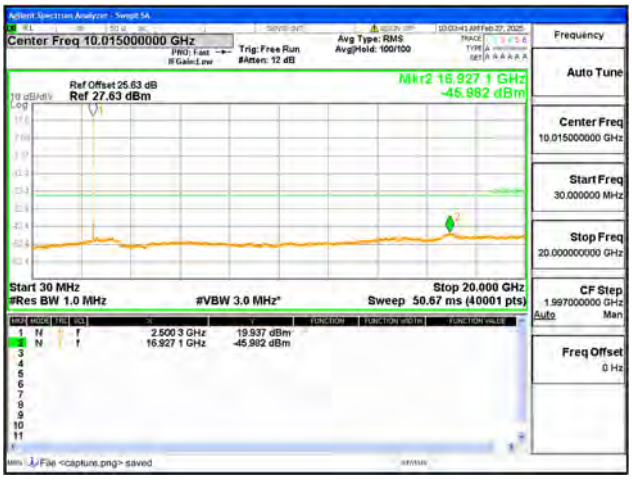
B7-20G-26G / 5MHz / Mid CH / QPSK



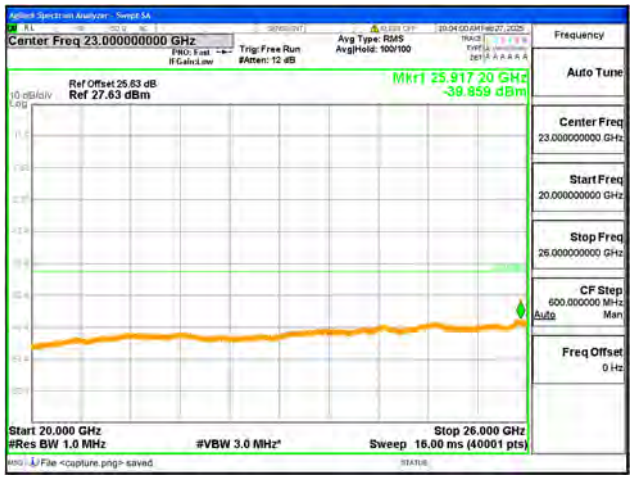
B7-30M-20G / 5MHz / High CH / QPSK



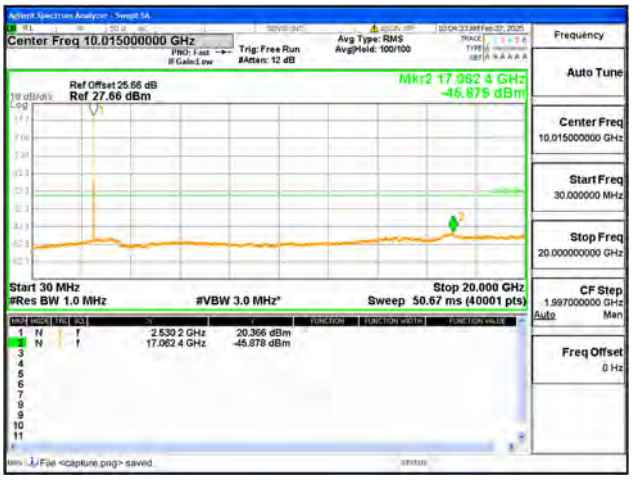
B7-20G-26G / 5MHz / High CH / QPSK



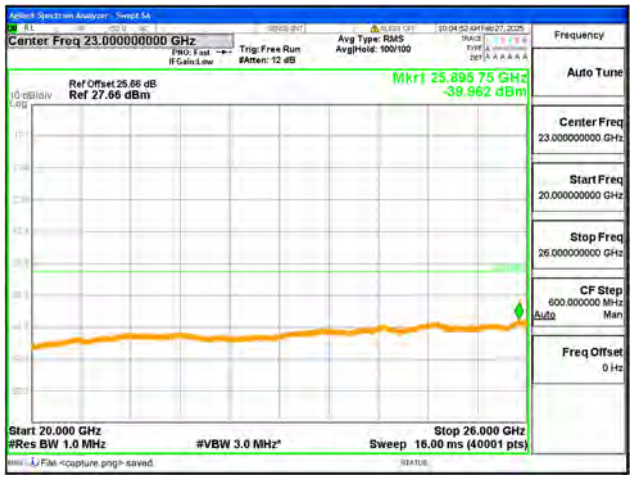
B7-30M-20G / 10MHz / Low CH / QPSK



B7-20G-26G / 10MHz / Low CH / QPSK

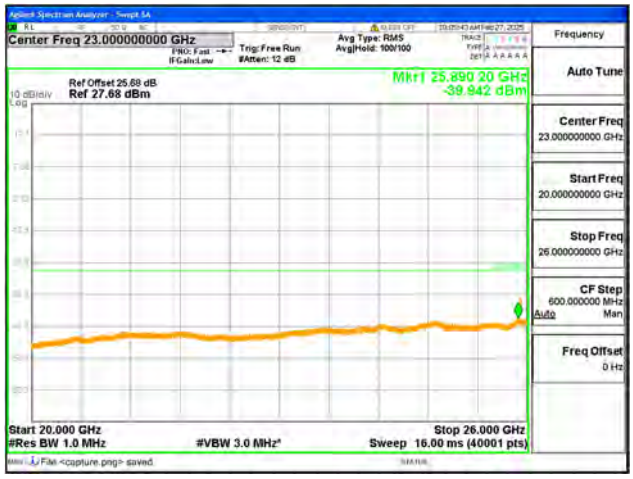


B7-30M-20G / 10MHz / Mid CH / QPSK

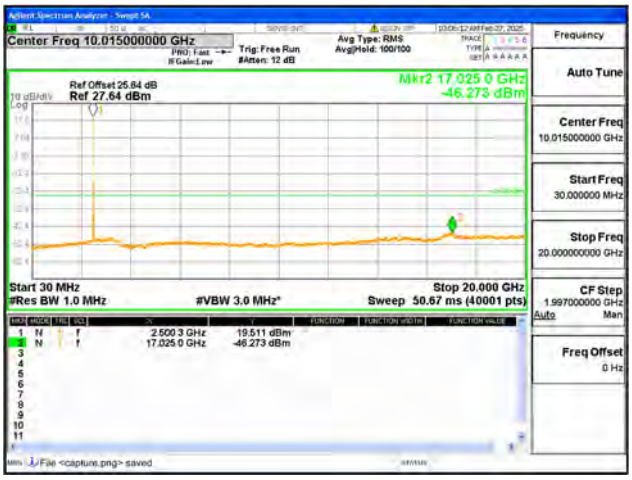


B7-20G-26G / 10MHz / Mid CH / QPSK

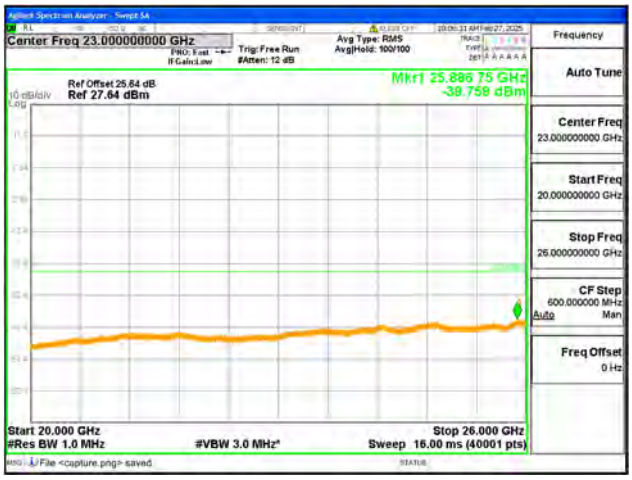
B7-30M-20G / 10MHz / High CH / QPSK



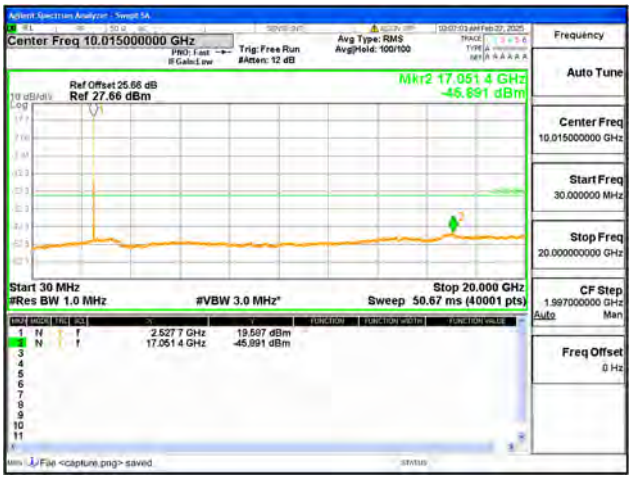
B7-20G-26G / 10MHz / High CH / QPSK



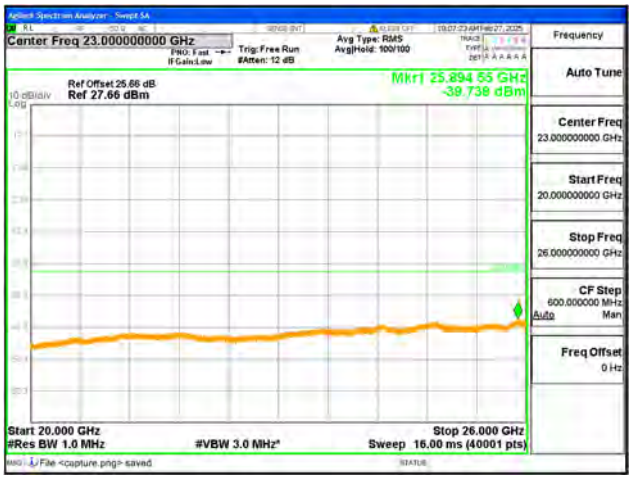
B7-30M-20G / 15MHz / Low CH / QPSK



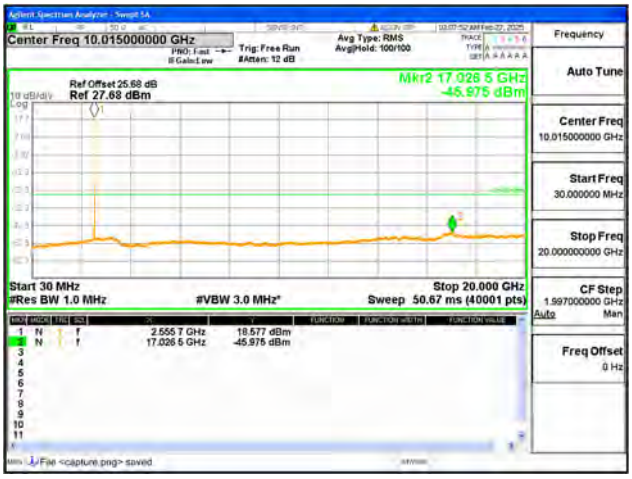
B7-20G-26G / 15MHz / Low CH / QPSK



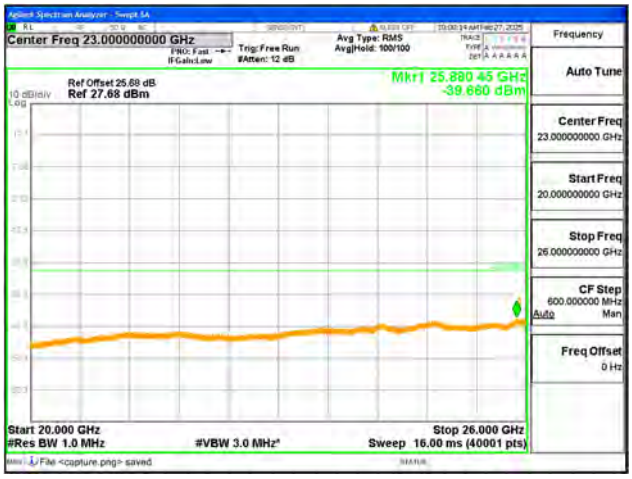
B7-30M-20G / 15MHz / Mid CH / QPSK



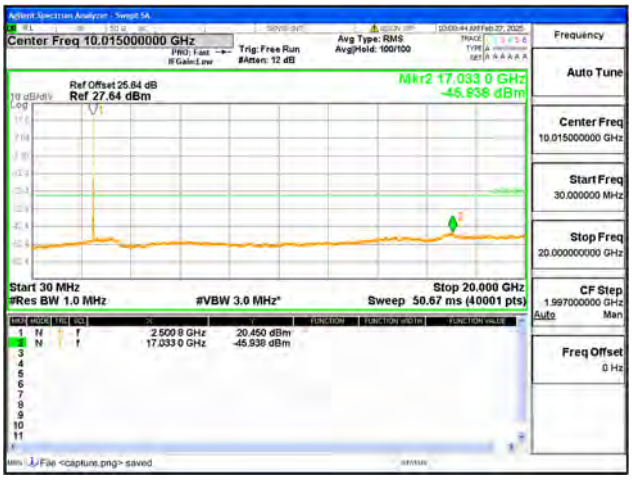
B7-20G-26G / 15MHz / Mid CH / QPSK



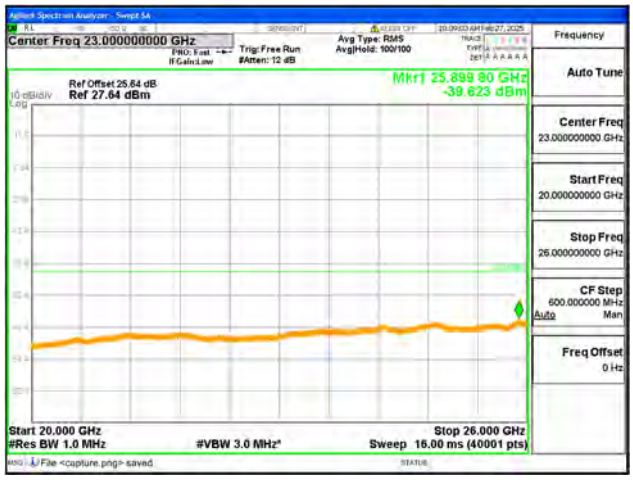
B7-30M-20G / 15MHz / High CH / QPSK



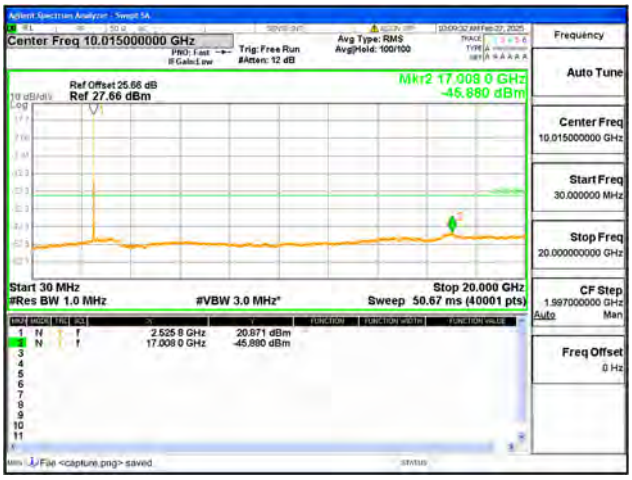
B7-20G-26G / 15MHz / High CH / QPSK



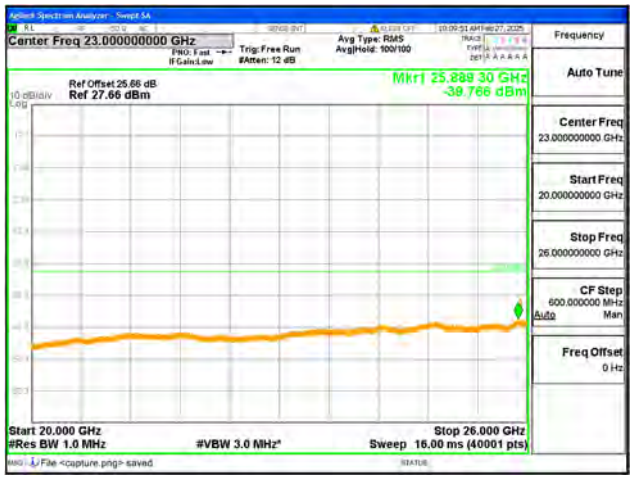
B7-30M-20G / 20MHz / Low CH / QPSK



B7-20G-26G / 20MHz / Low CH / QPSK

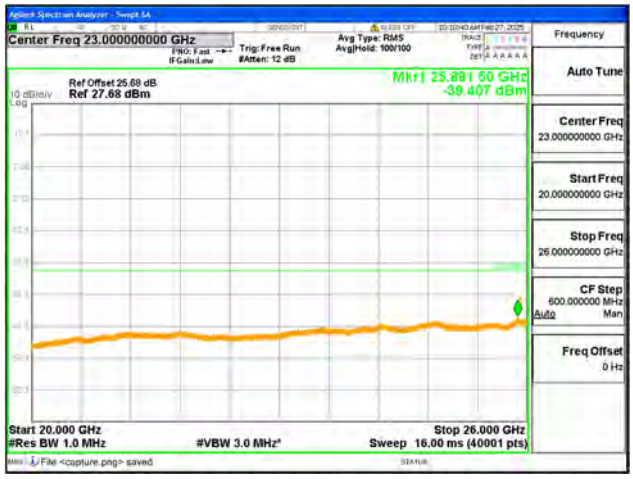


B7-30M-20G / 20MHz / Mid CH / QPSK

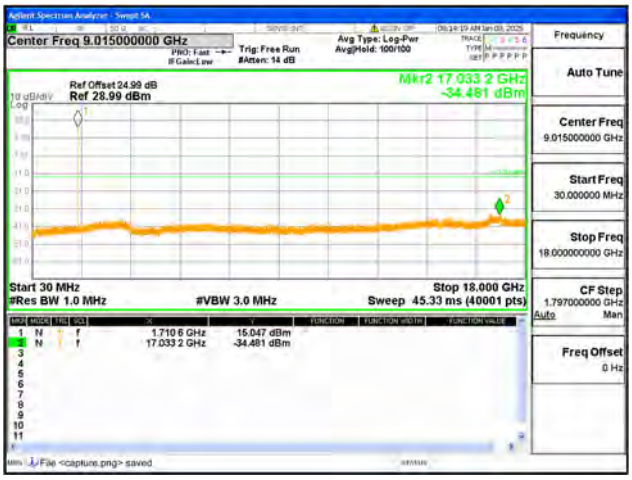


B7-20G-26G / 20MHz / Mid CH / QPSK

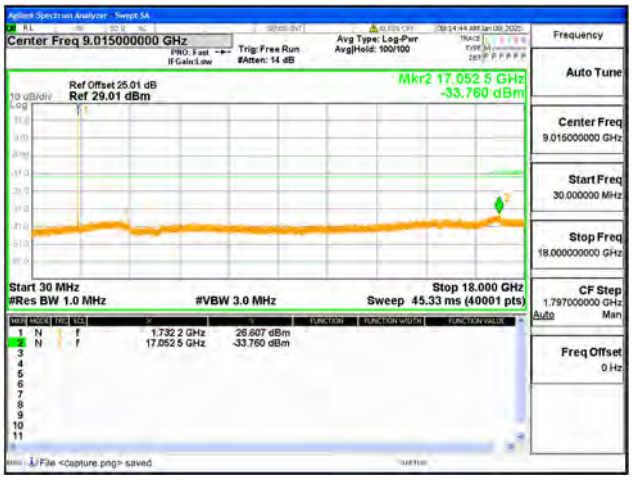
B7-30M-20G / 20MHz / High CH / QPSK



B7-20G-26G / 20MHz / High CH / QPSK

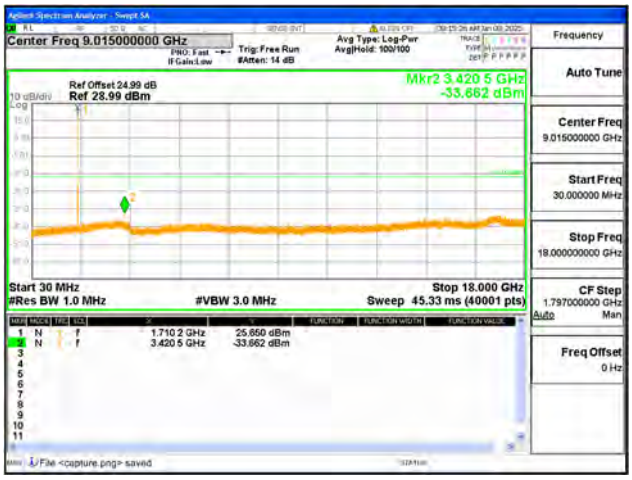


B4 / 1.4MHz / Low CH / QPSK



B4 / 1.4MHz / Mid CH / QPSK

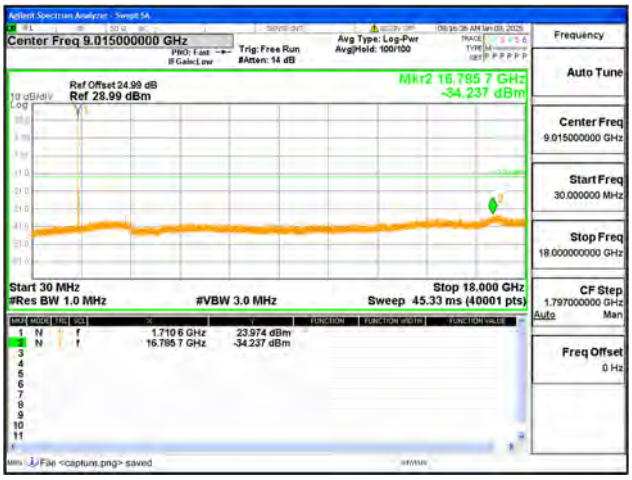
B4 / 1.4MHz / High CH / QPSK



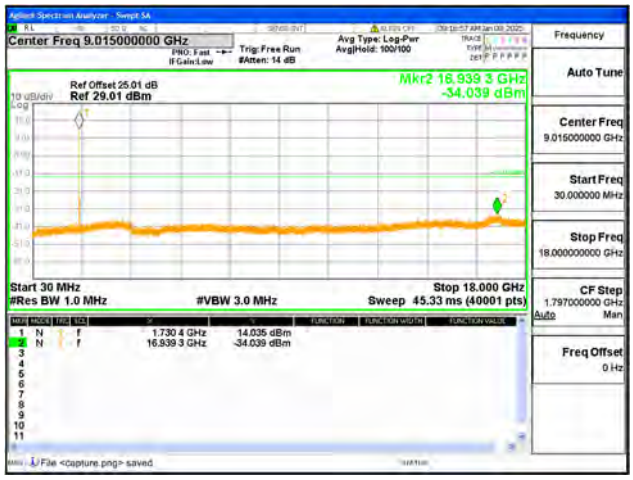
B4 / 3MHz / Low CH / QPSK

B4 / 3MHz / Mid CH / QPSK

B4 / 3MHz / High CH / QPSK

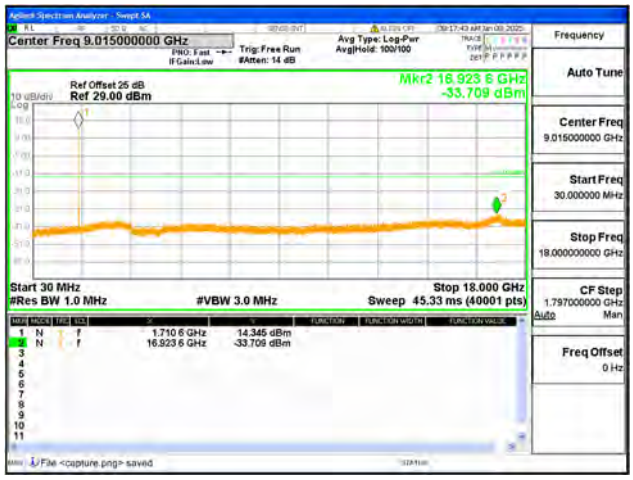


B4 / 5MHz / Low CH / QPSK



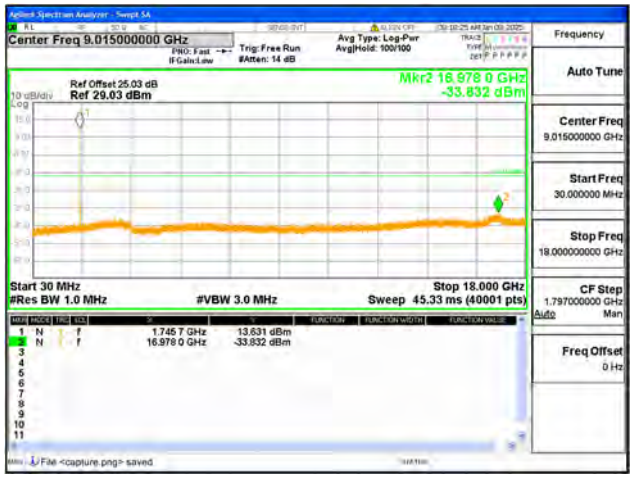
B4 / 5MHz / Mid CH / QPSK

B4 / 5MHz / High CH / QPSK

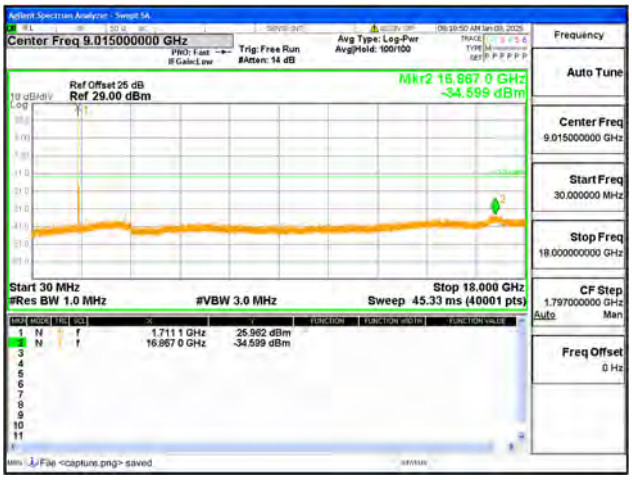


B4 / 10MHz / Low CH / QPSK

B4 / 10MHz / Mid CH / QPSK



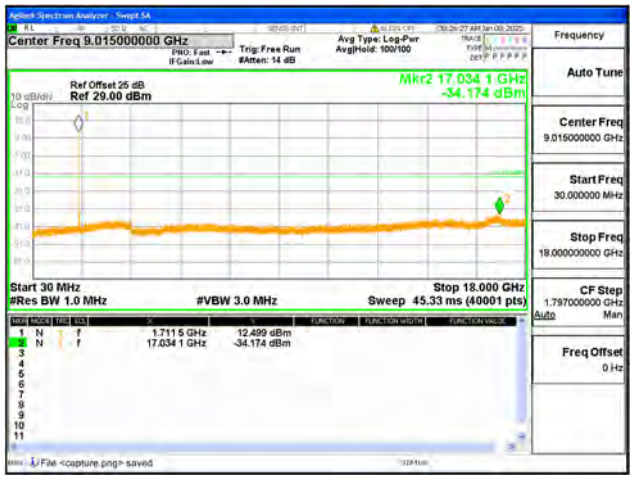
B4 / 10MHz / High CH / QPSK



B4 / 15MHz / Low CH / QPSK

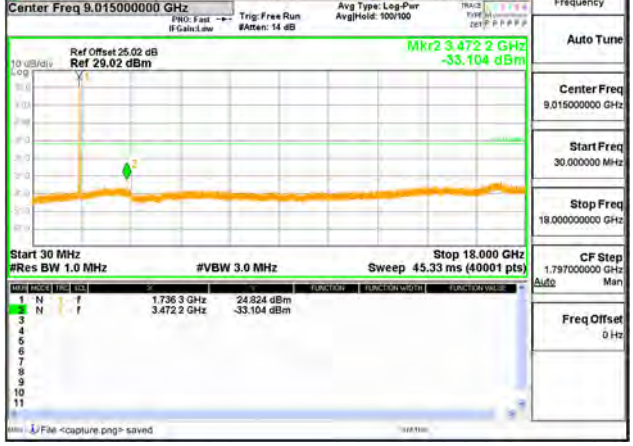
B4 / 15MHz / Mid CH / QPSK

B4 / 15MHz / High CH / QPSK

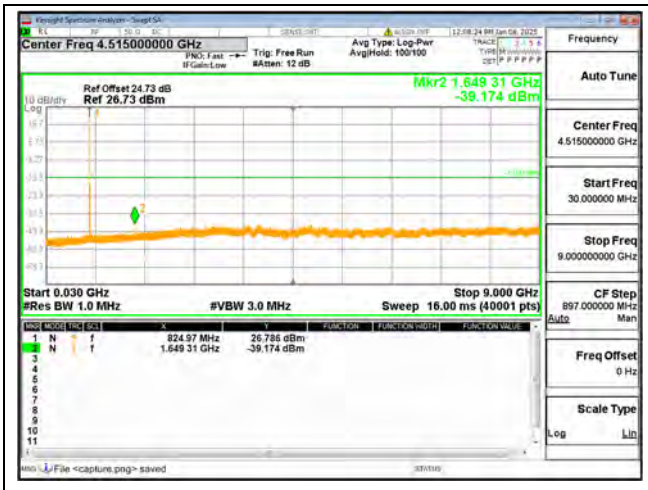


B4 / 20MHz / Low CH / QPSK

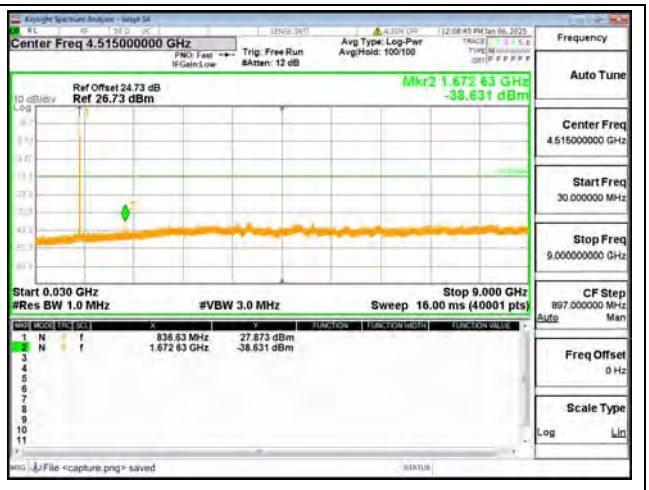
B4 / 20MHz / Mid CH / QPSK



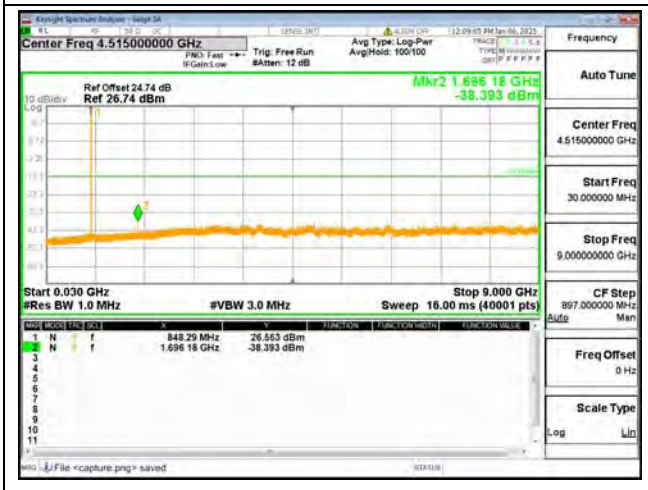
B4 / 20MHz / High CH / QPSK



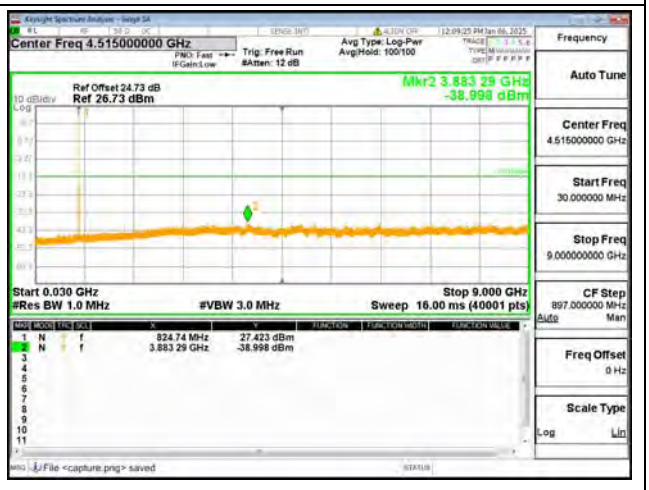
B5 / 1.4MHz / Low CH / QPSK



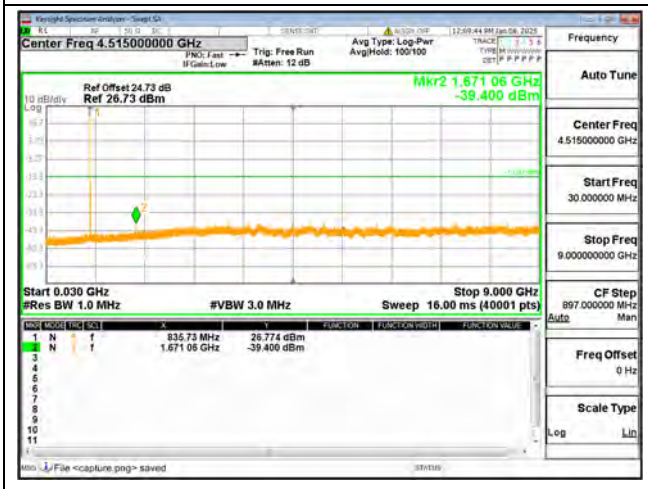
B5 / 1.4MHz / Mid CH / QPSK



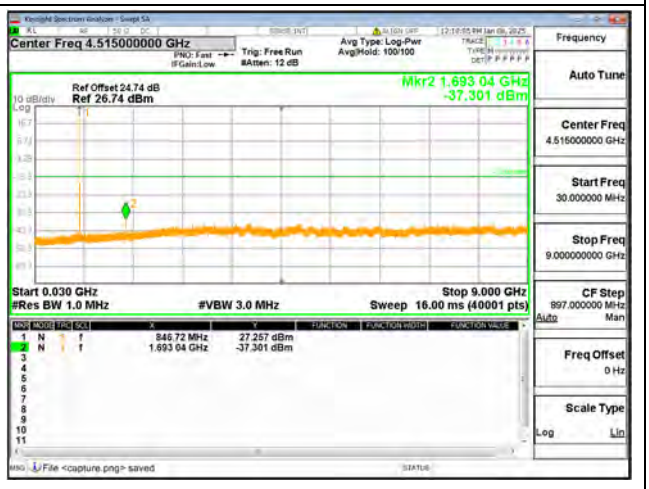
B5 / 1.4MHz / High CH / QPSK



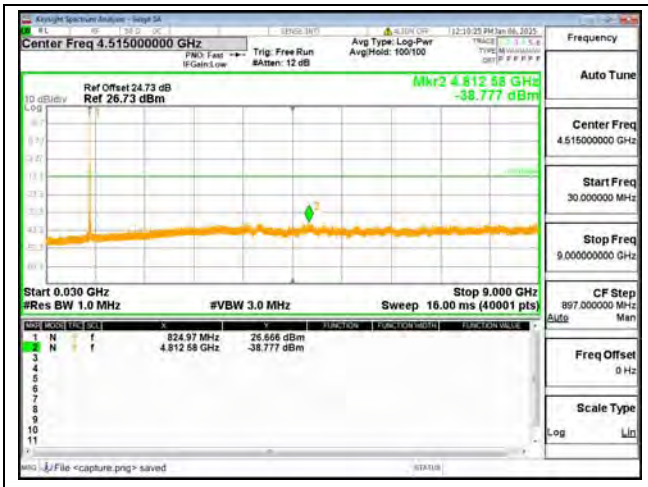
B5 / 3MHz / Low CH / QPSK



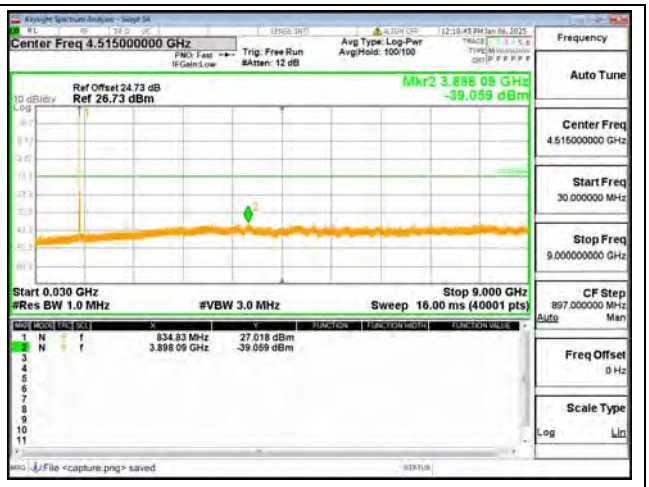
B5 / 3MHz / Mid CH / QPSK



B5 / 3MHz / High CH / QPSK

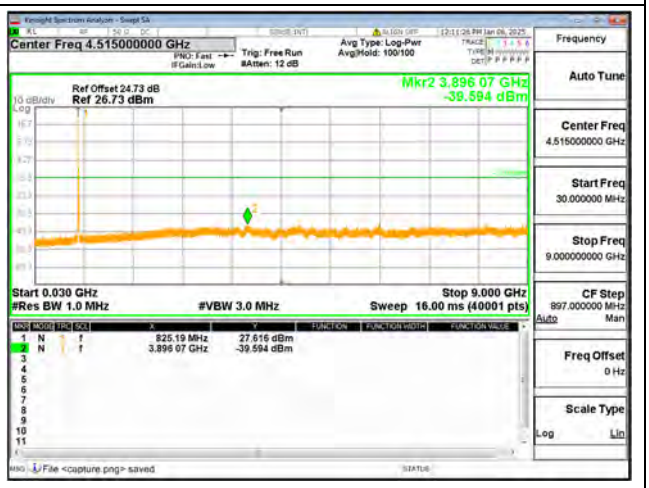


B5 / 5MHz / Low CH / QPSK

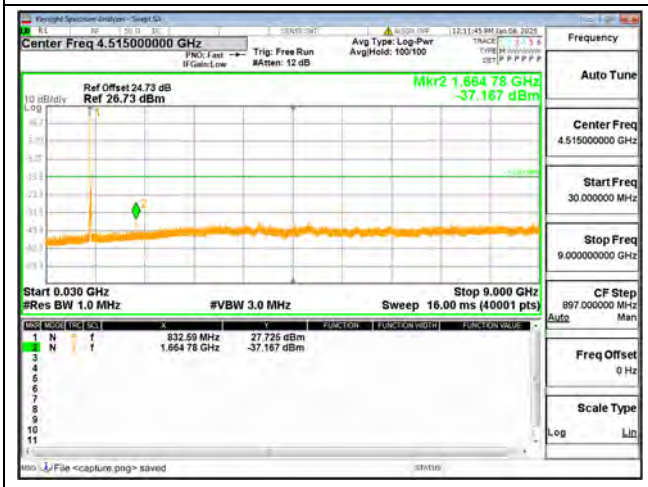


B5 / 5MHz / Mid CH / QPSK

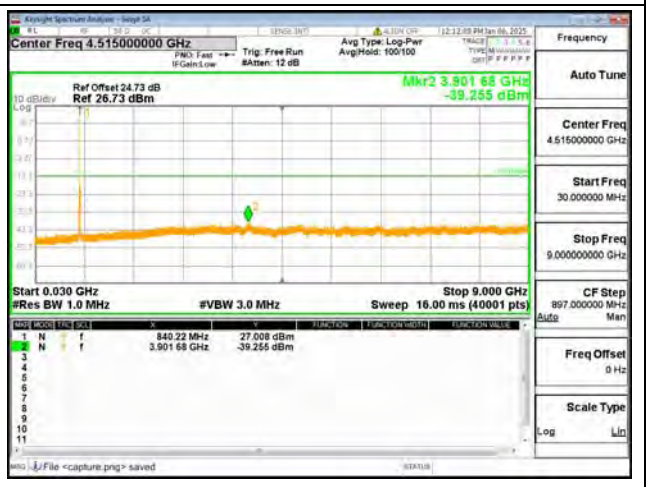
B5 / 5MHz / High CH / QPSK



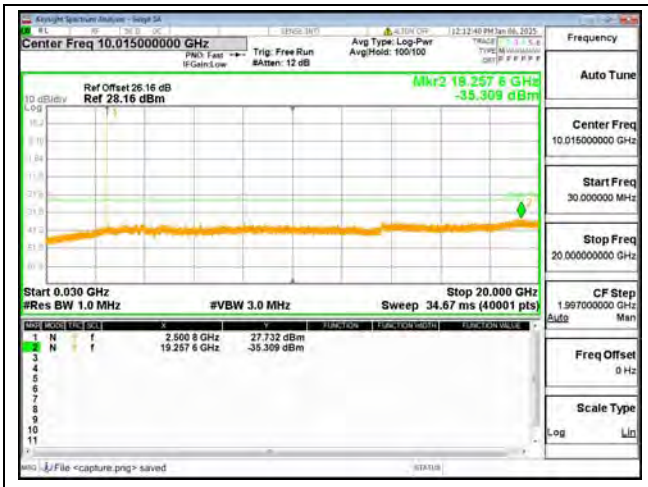
B5 / 10MHz / Low CH / QPSK



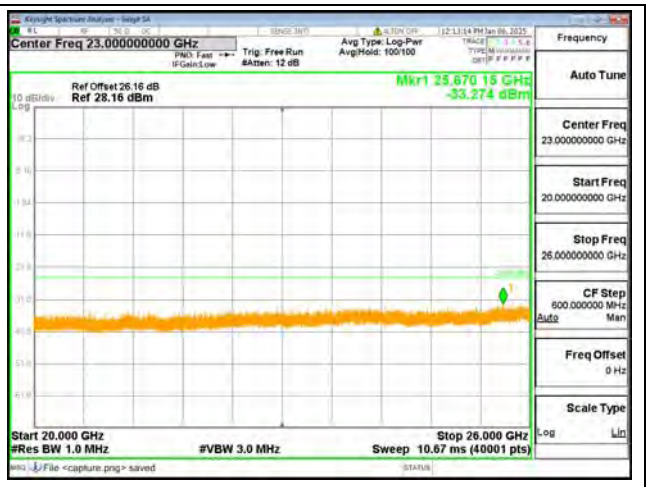
B5 / 10MHz / Mid CH / QPSK



B5 / 10MHz / High CH / QPSK

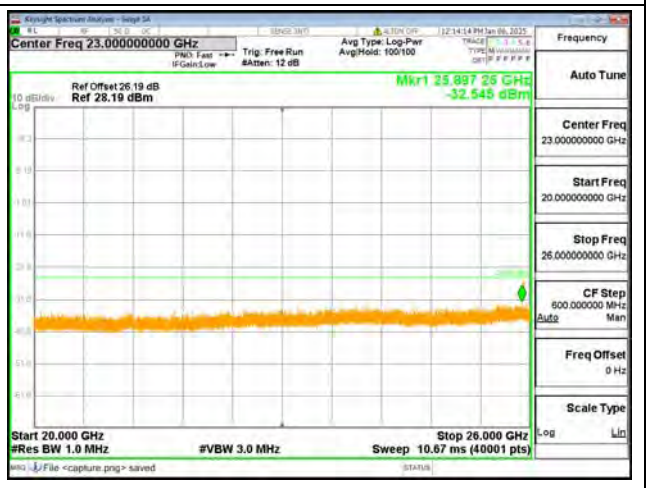


B7-30M-20G / 5MHz / Low CH / QPSK

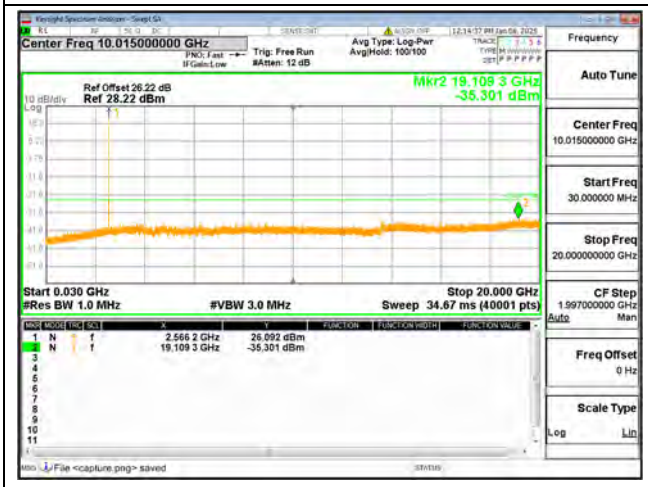


B7-20G-26G / 5MHz / Low CH / QPSK

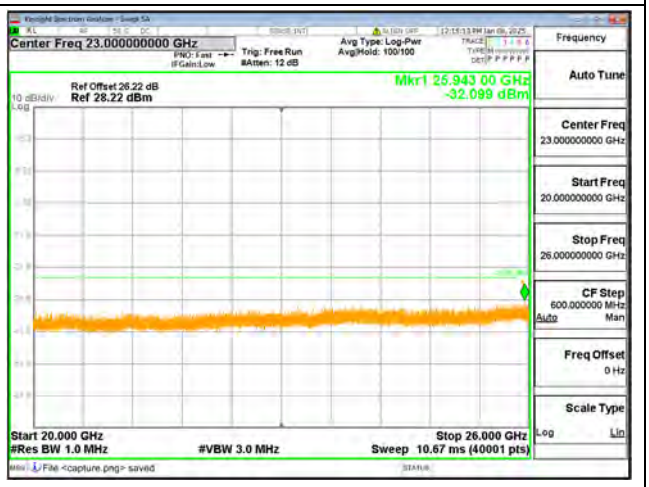
B7-30M-20G / 5MHz / Mid CH / QPSK



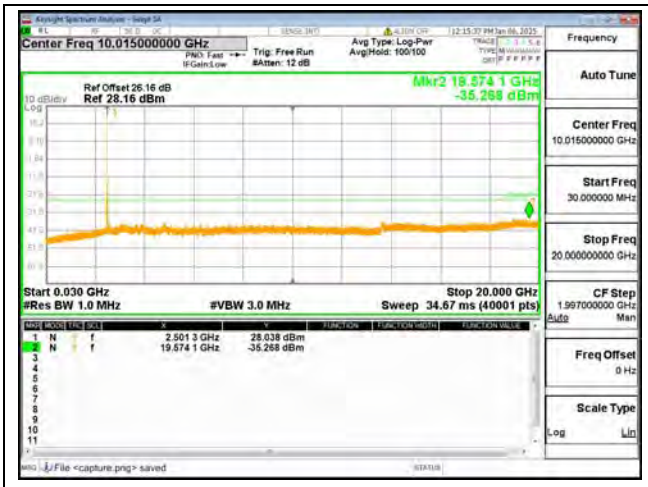
B7-20G-26G / 5MHz / Mid CH / QPSK



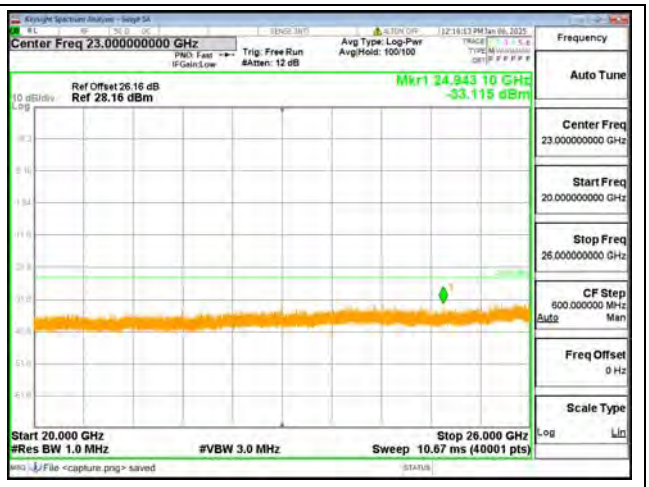
B7-30M-20G / 5MHz / High CH / QPSK



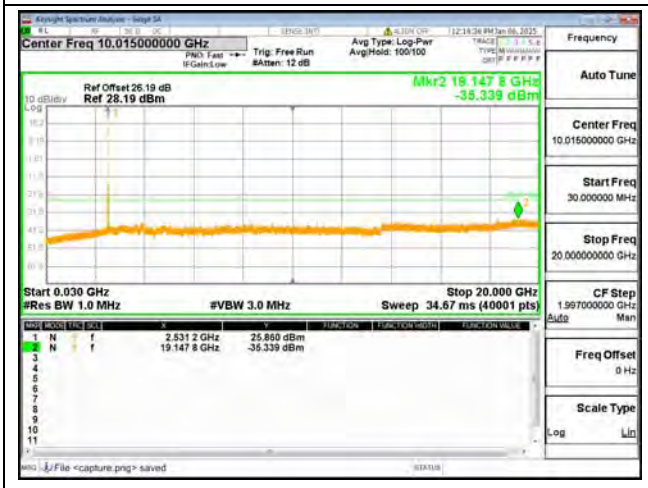
B7-20G-26G / 5MHz / High CH / QPSK



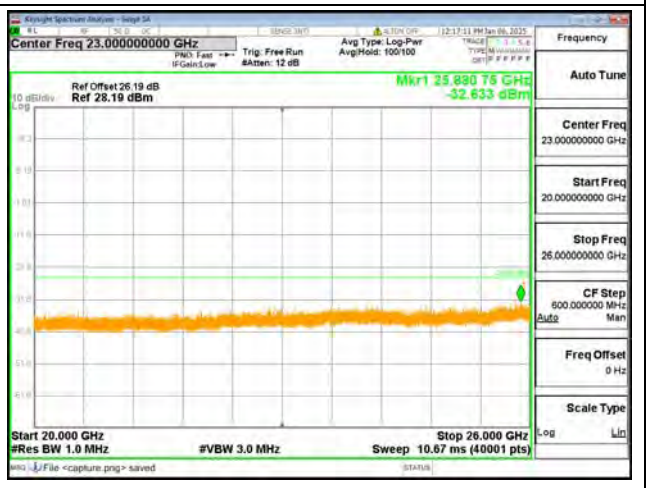
B7-30M-20G / 10MHz / Low CH / QPSK



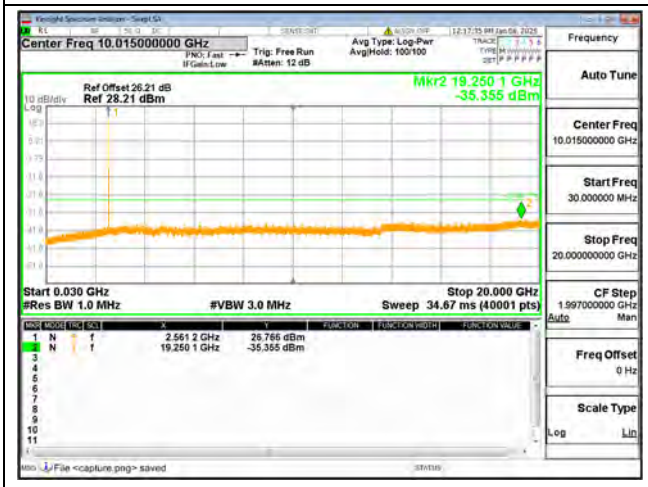
B7-20G-26G / 10MHz / Low CH / QPSK



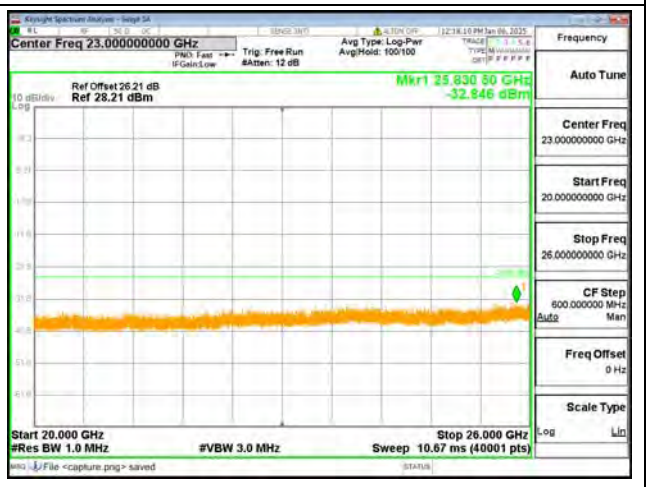
B7-30M-20G / 10MHz / Mid CH / QPSK



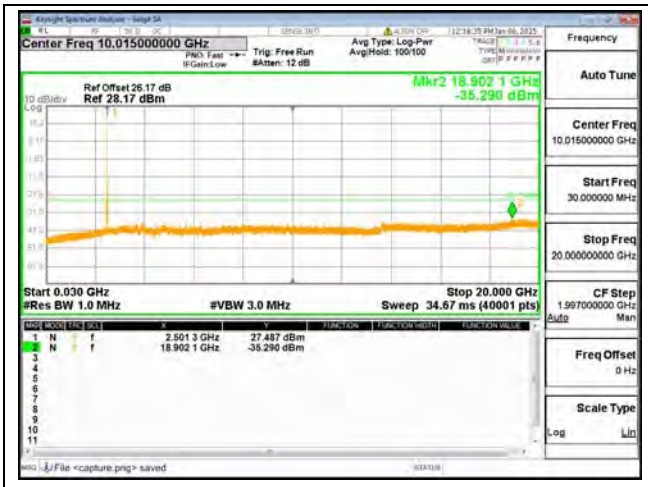
B7-20G-26G / 10MHz / Mid CH / QPSK



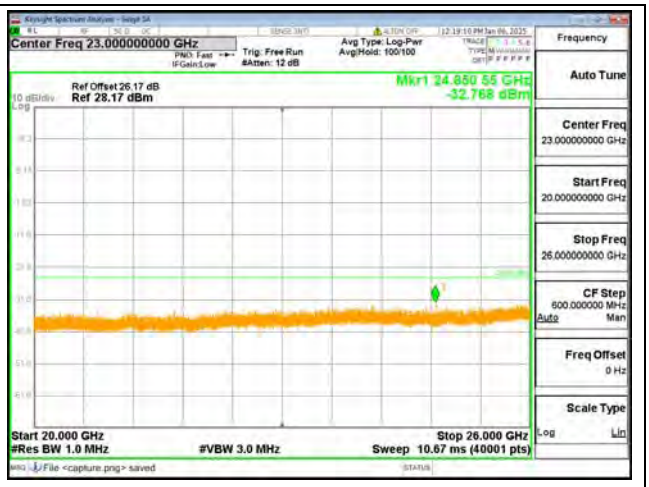
B7-30M-20G / 10MHz / High CH / QPSK



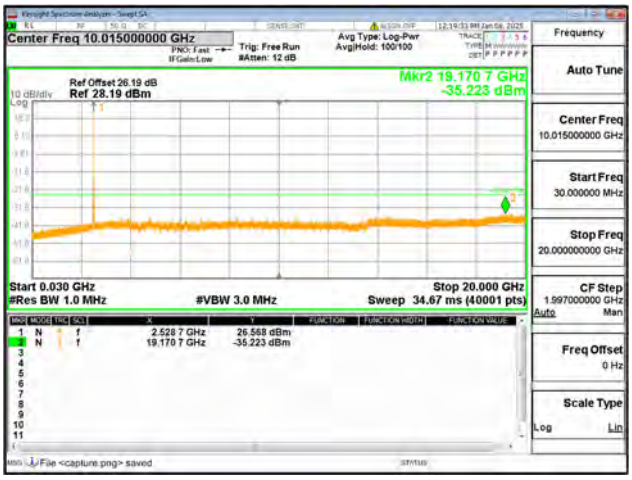
B7-20G-26G / 10MHz / High CH / QPSK



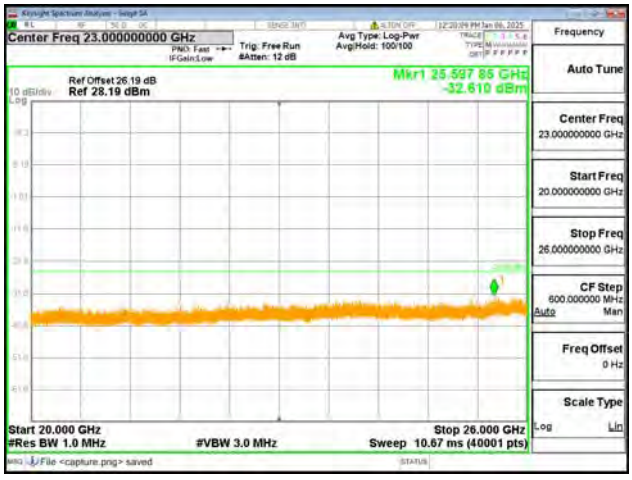
B7-30M-20G / 15MHz / Low CH / QPSK



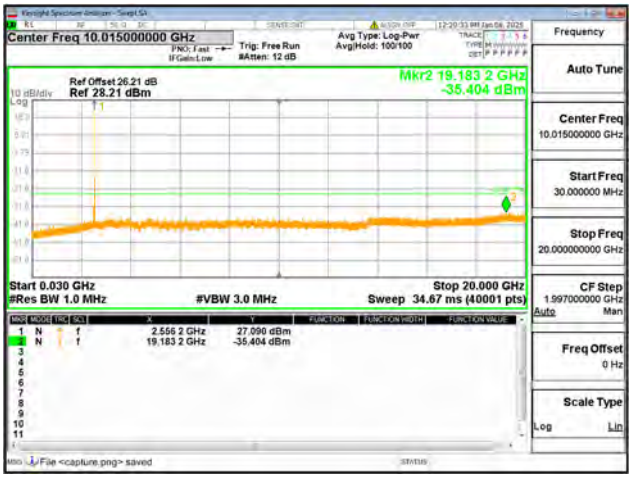
B7-20G-26G / 15MHz / Low CH / QPSK



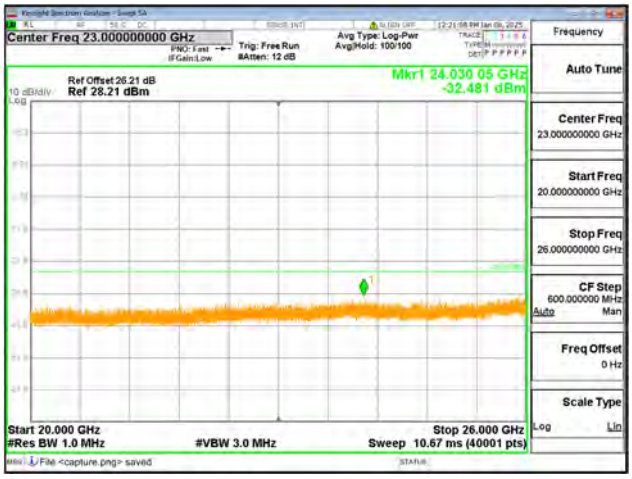
B7-30M-20G / 15MHz / Mid CH / QPSK



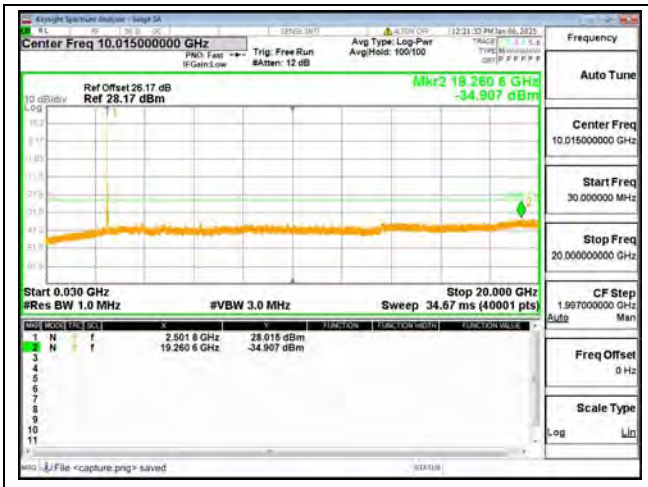
B7-20G-26G / 15MHz / Mid CH / QPSK



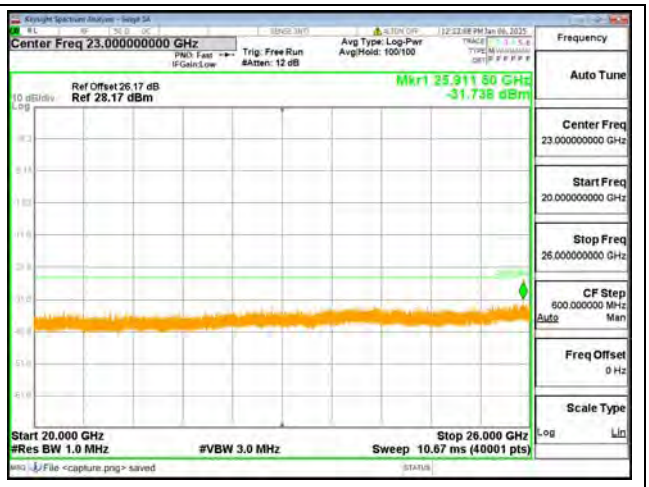
B7-30M-20G / 15MHz / High CH / QPSK



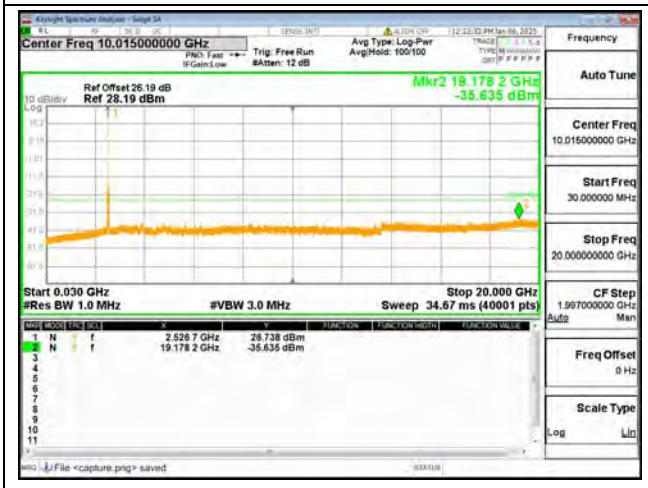
B7-20G-26G / 15MHz / High CH / QPSK



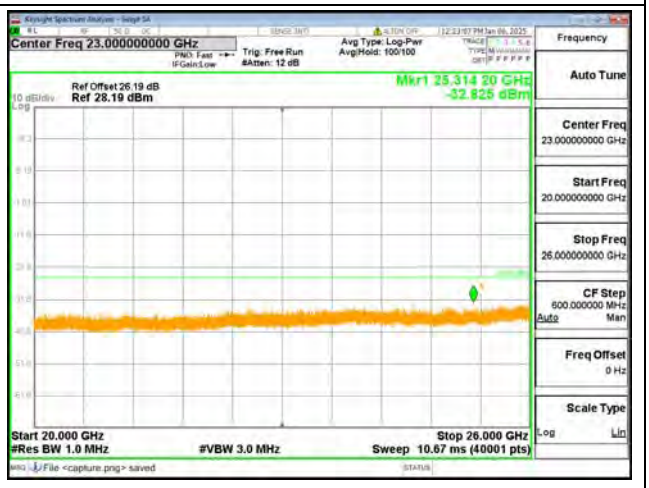
B7-30M-20G / 20MHz / Low CH / QPSK



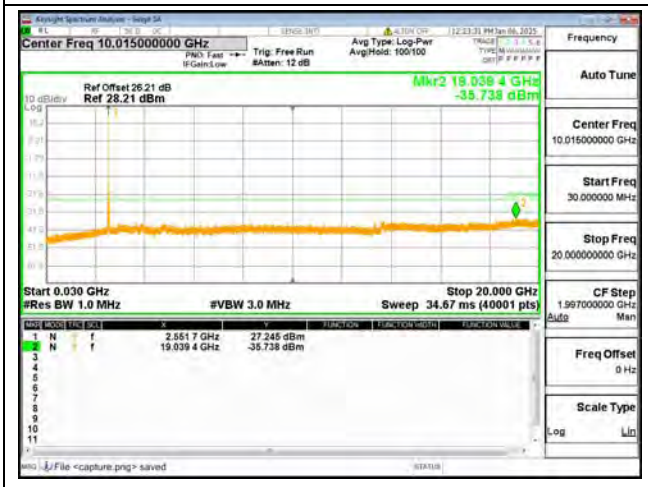
B7-20G-26G / 20MHz / Low CH / QPSK



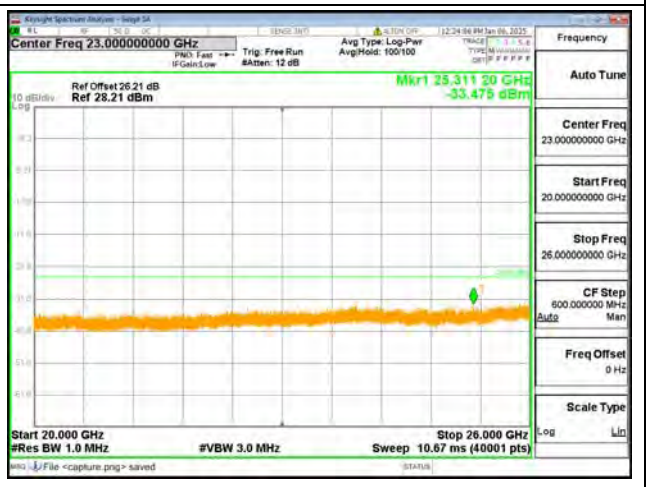
B7-30M-20G / 20MHz / Mid CH / QPSK



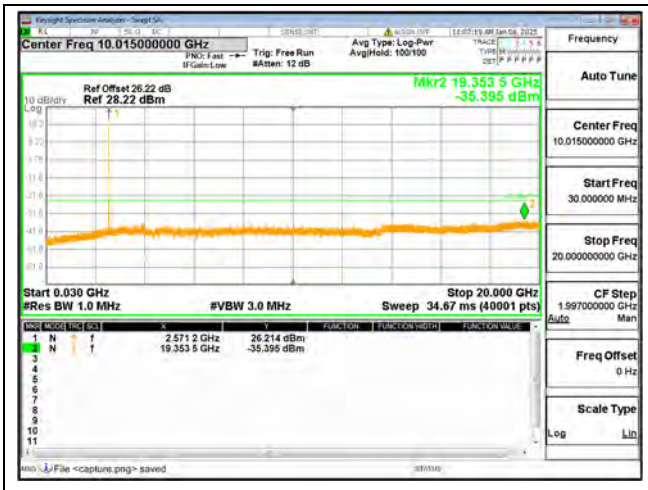
B7-20G-26G / 20MHz / Mid CH / QPSK



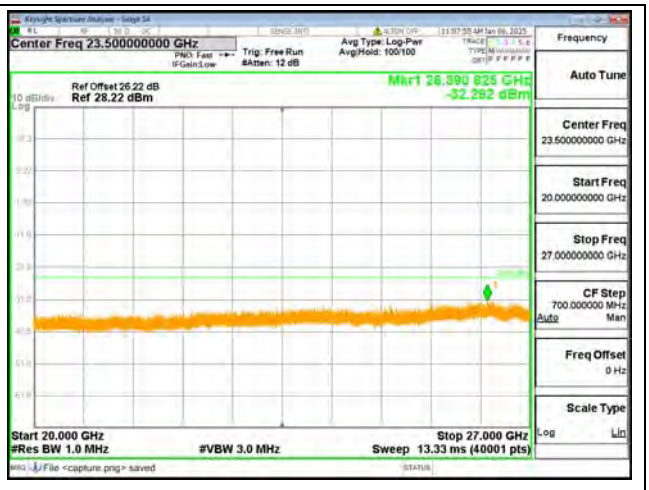
B7-30M-20G / 20MHz / High CH / QPSK



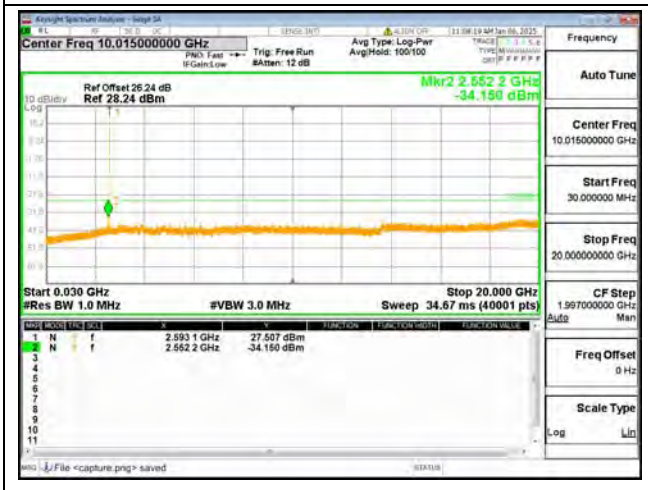
B7-20G-26G / 20MHz / High CH / QPSK



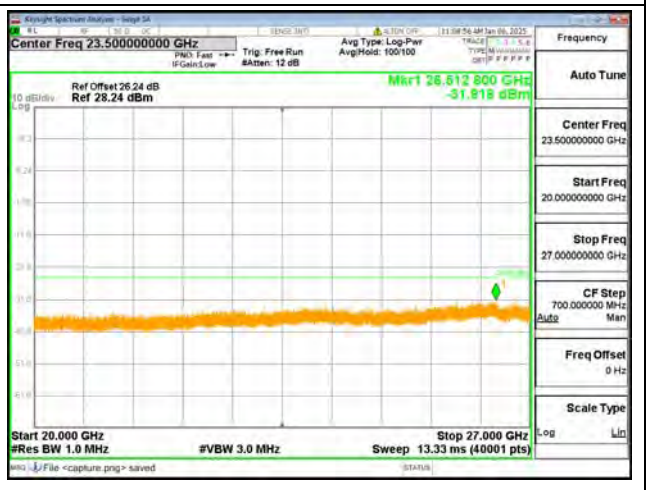
B38-30M-20G / 5MHz / Low CH / QPSK



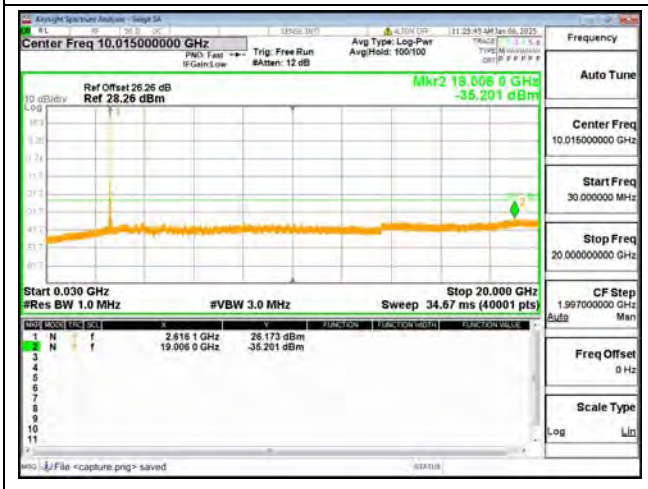
B38-20G-27G / 5MHz / Low CH / QPSK



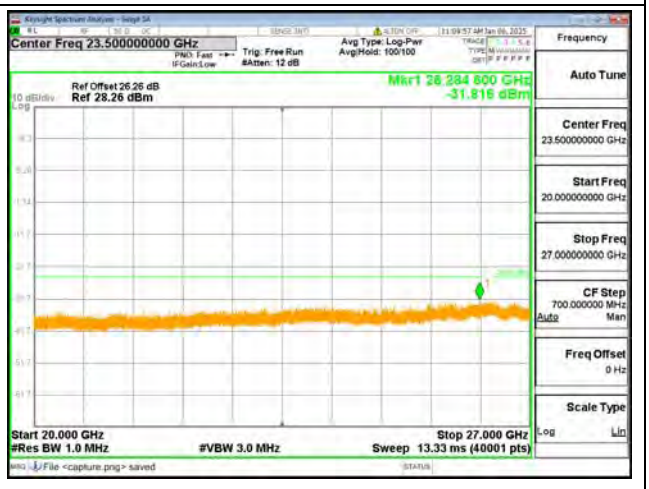
B38-30M-20G / 5MHz / Mid CH / QPSK



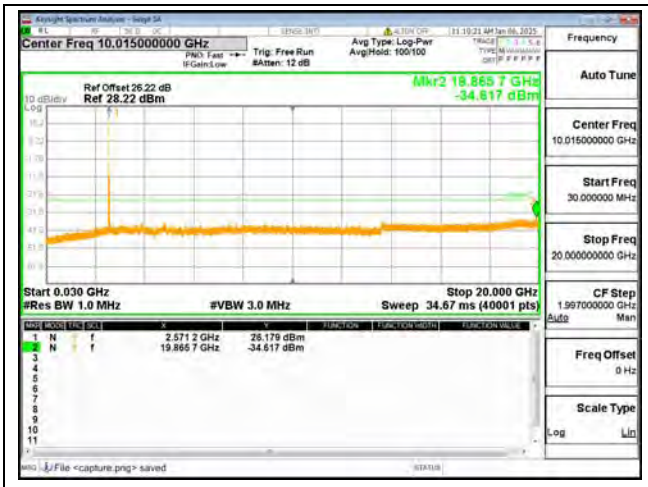
B38-20G-27G / 5MHz / Mid CH / QPSK



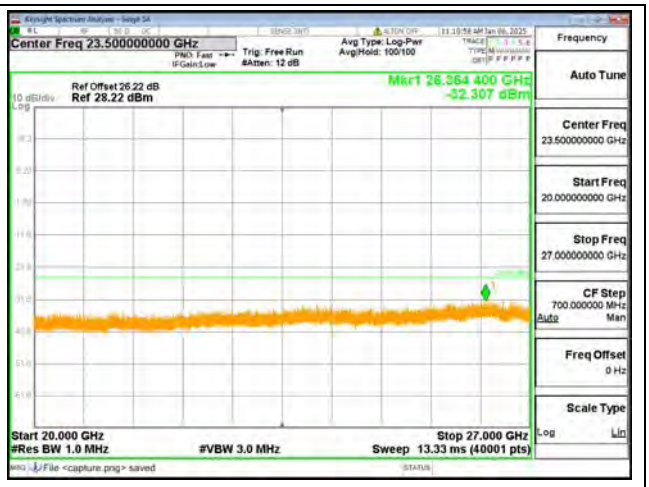
B38-30M-20G / 5MHz / High CH / QPSK



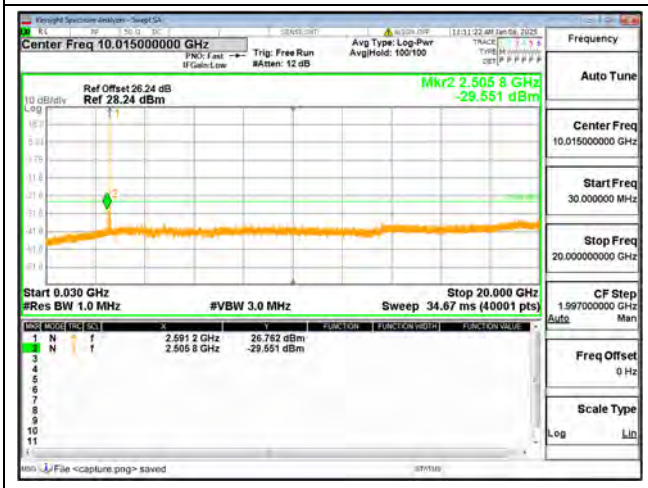
B38-20G-27G / 5MHz / High CH / QPSK



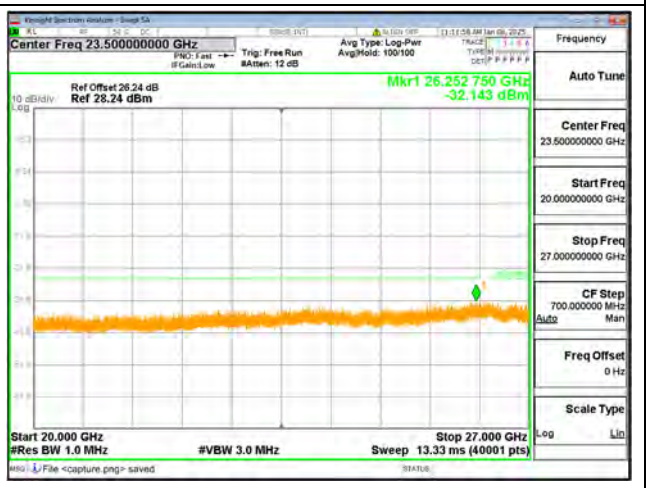
B38-30M-20G / 10MHz / Low CH / QPSK



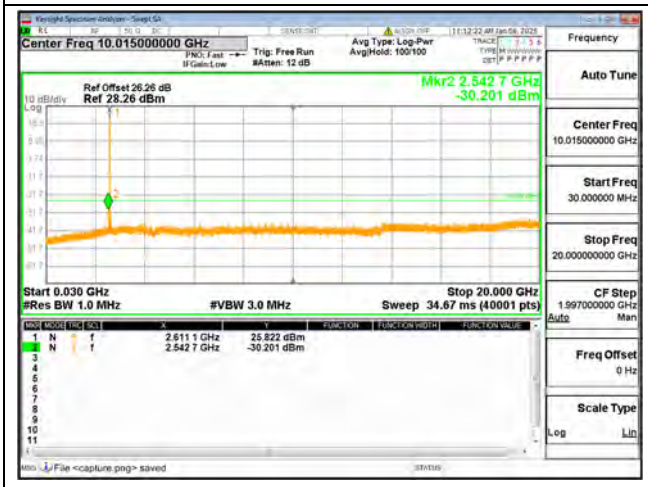
B38-20G-27G / 10MHz / Low CH / QPSK



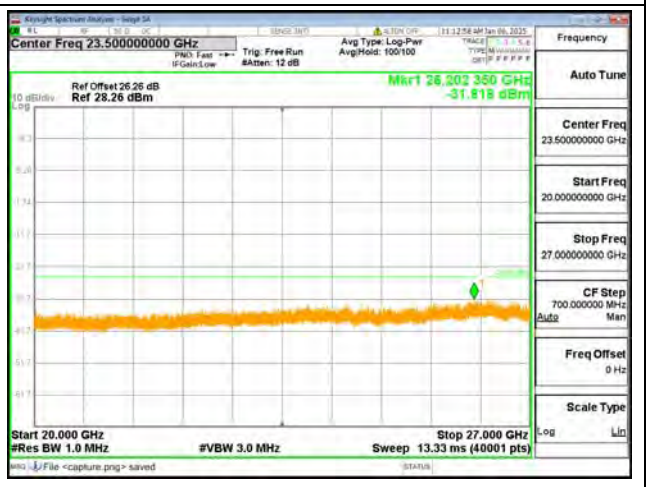
B38-30M-20G / 10MHz / Mid CH / QPSK



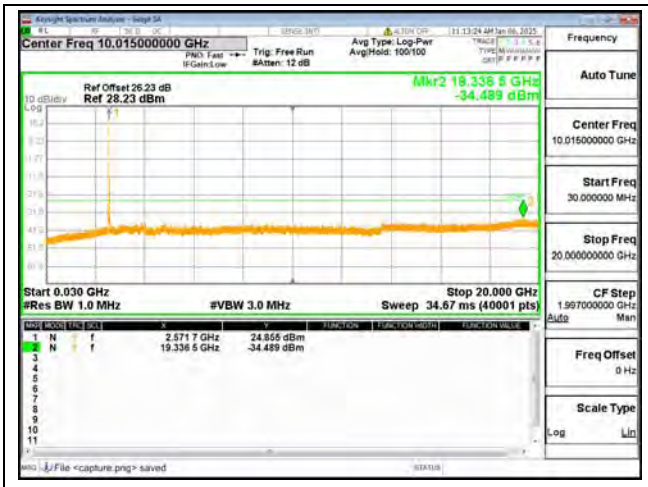
B38-20G-27G / 10MHz / Mid CH / QPSK



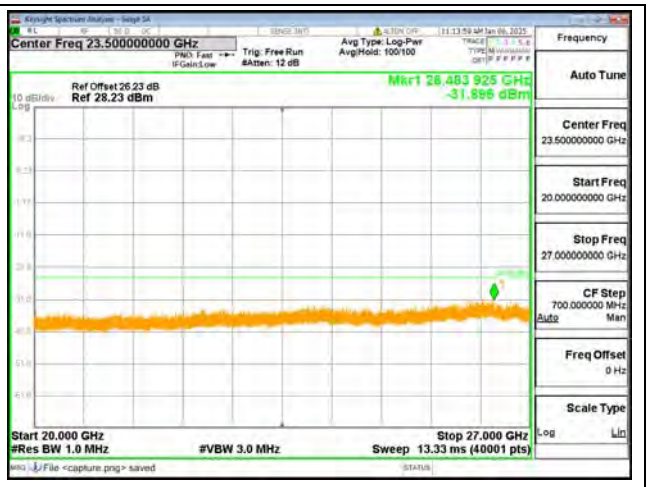
B38-30M-20G / 10MHz / High CH / QPSK



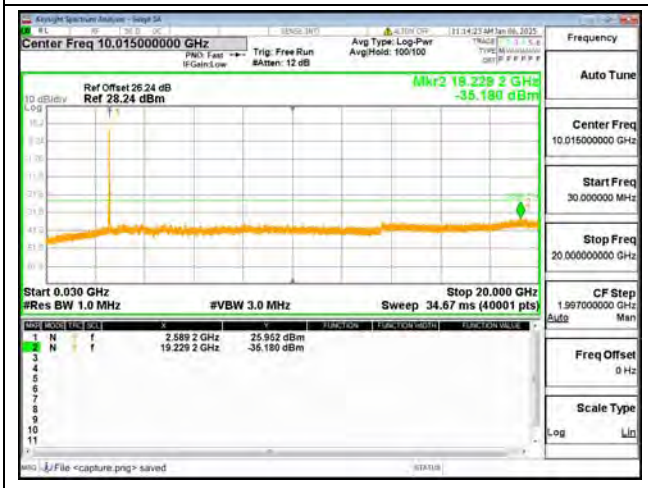
B38-20G-27G / 10MHz / High CH / QPSK



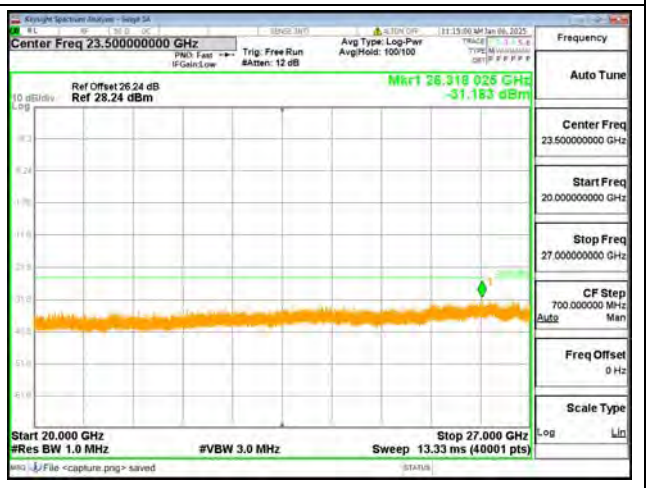
B38-30M-20G / 15MHz / Low CH / QPSK



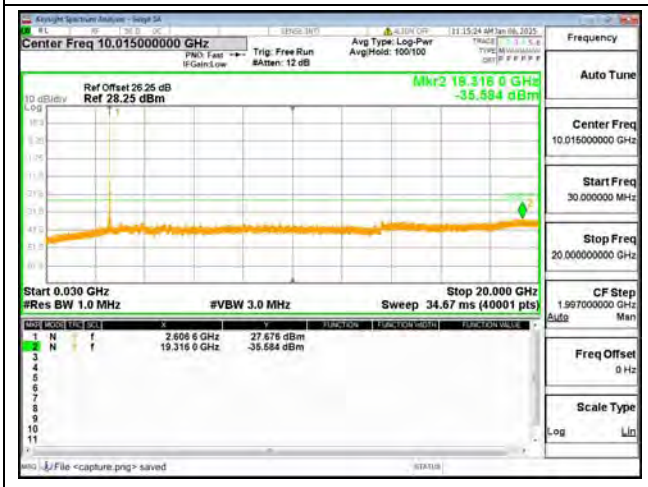
B38-20G-27G / 15MHz / Low CH / QPSK



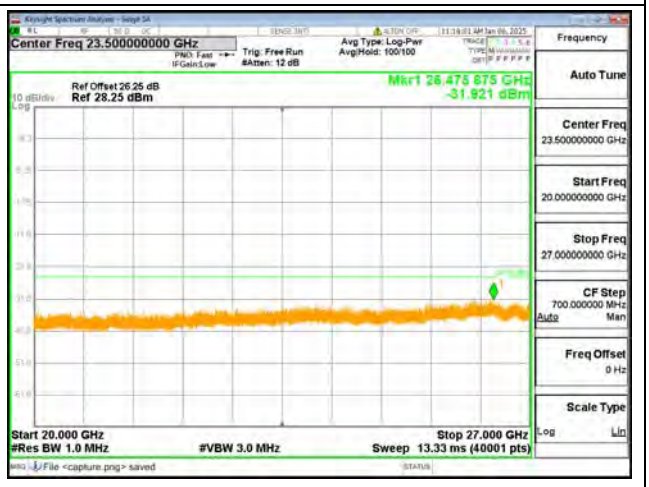
B38-30M-20G / 15MHz / Mid CH / QPSK



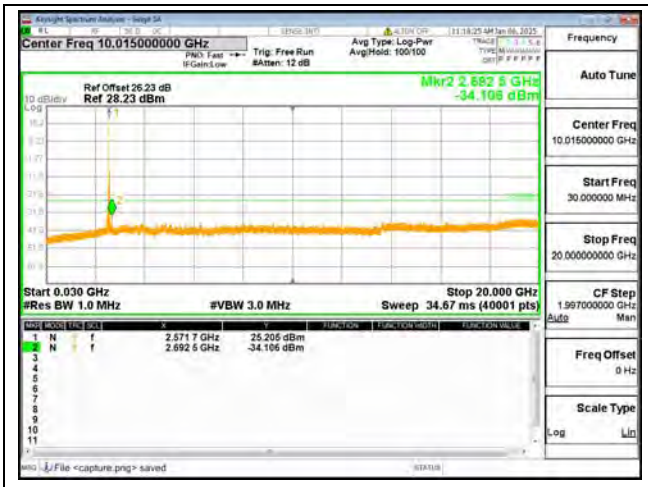
B38-20G-27G / 15MHz / Mid CH / QPSK



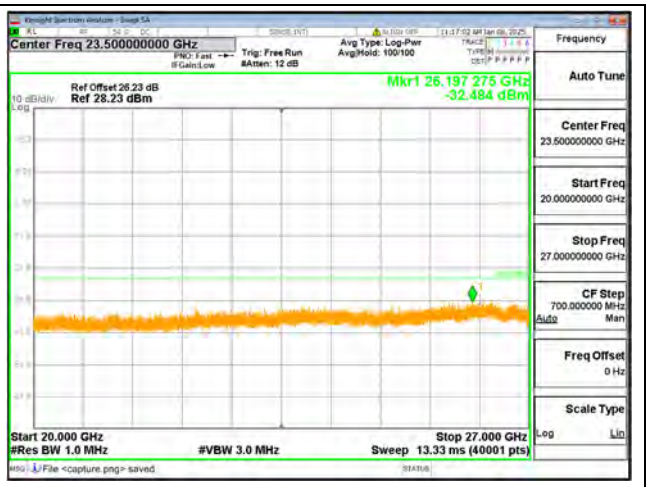
B38-30M-20G / 15MHz / High CH / QPSK



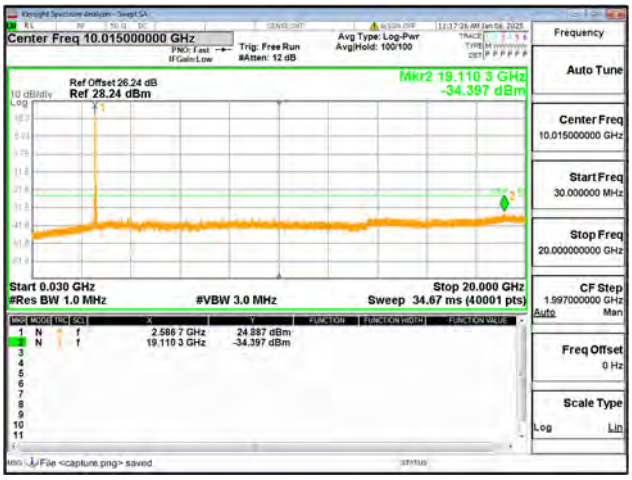
B38-20G-27G / 15MHz / High CH / QPSK



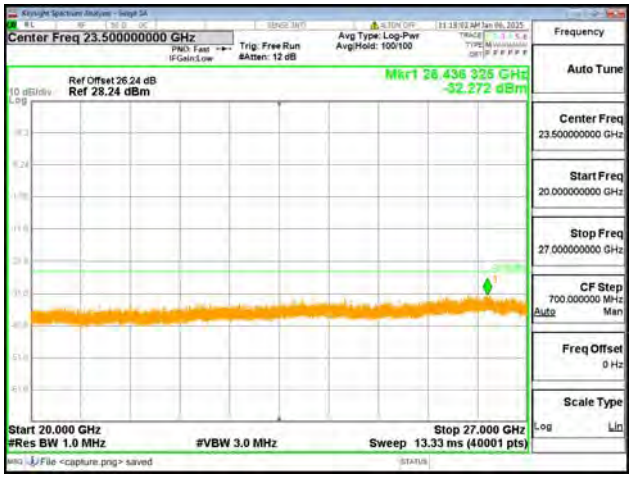
B38-30M-20G / 20MHz / Low CH / QPSK



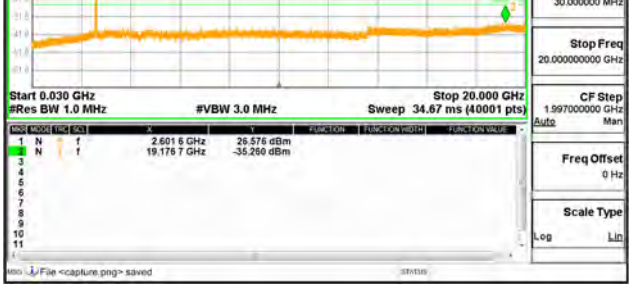
B38-20G-27G / 20MHz / Low CH / QPSK



B38-30M-20G / 20MHz / Mid CH / QPSK

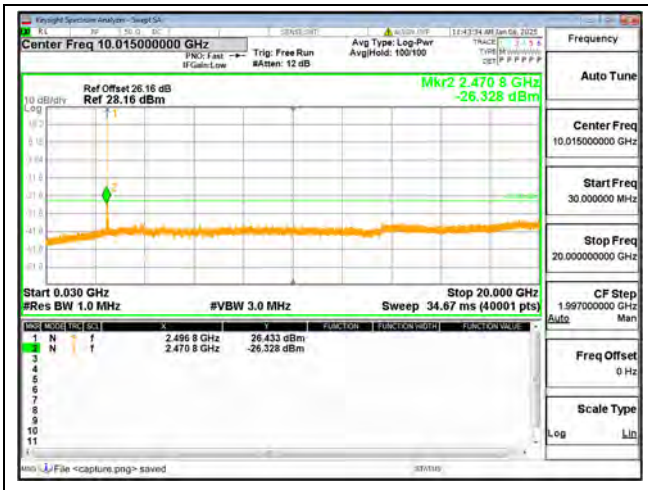


B38-20G-27G / 20MHz / Mid CH / QPSK

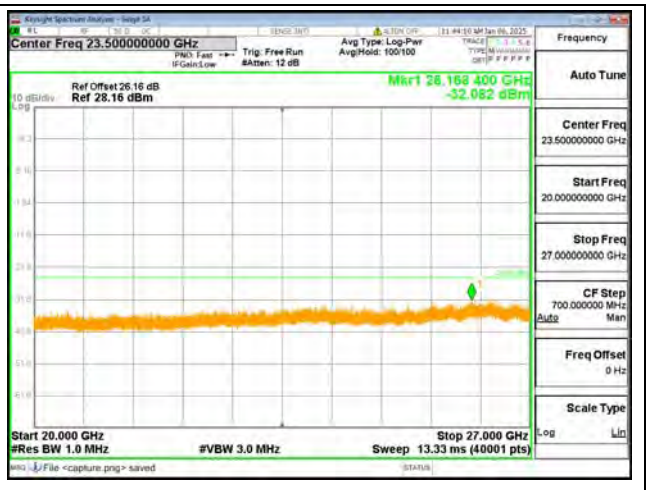


B38-30M-20G / 20MHz / High CH / QPSK

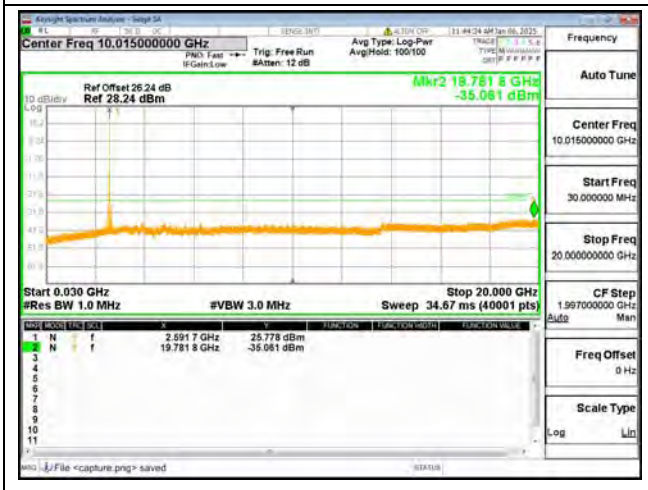
B38-20G-27G / 20MHz / High CH / QPSK



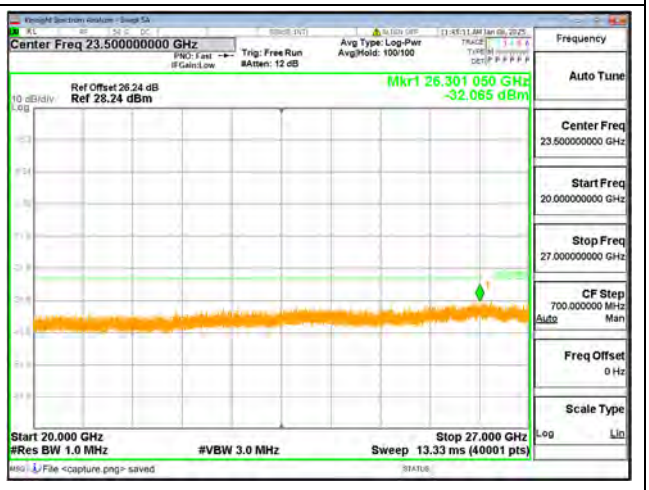
B41-30M-20G / 5MHz / Low CH / QPSK



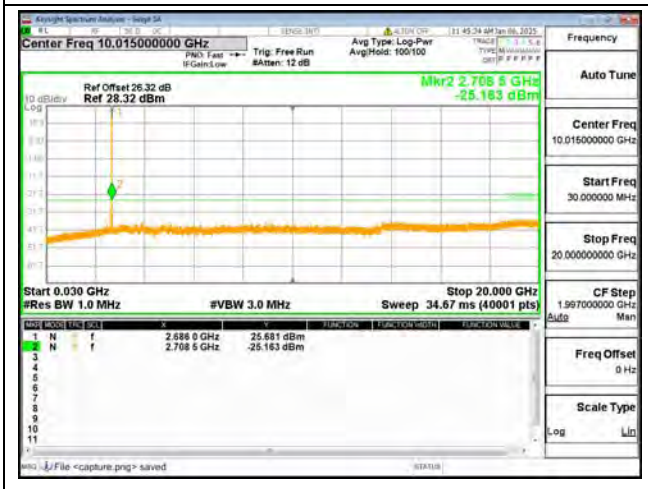
B41-20G-27G / 5MHz / Low CH / QPSK



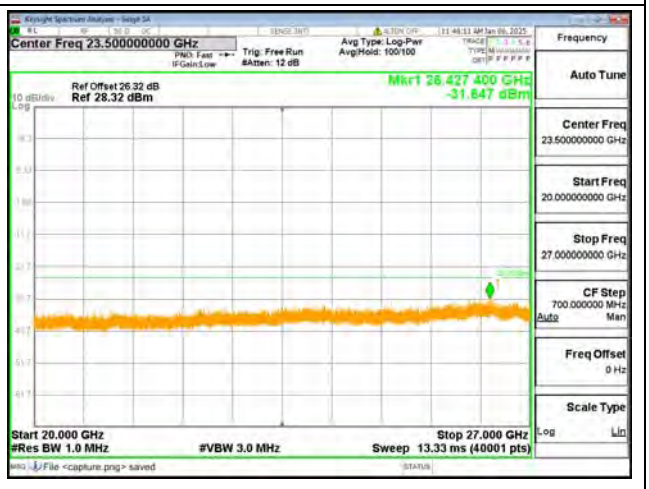
B41-30M-20G / 5MHz / Mid CH / QPSK



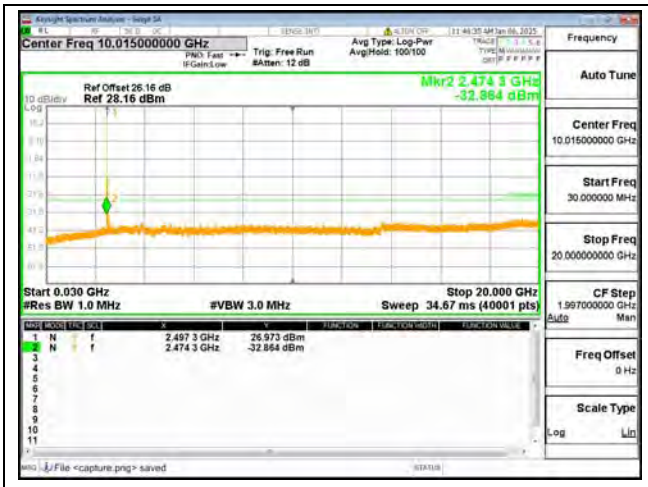
B41-20G-27G / 5MHz / Mid CH / QPSK



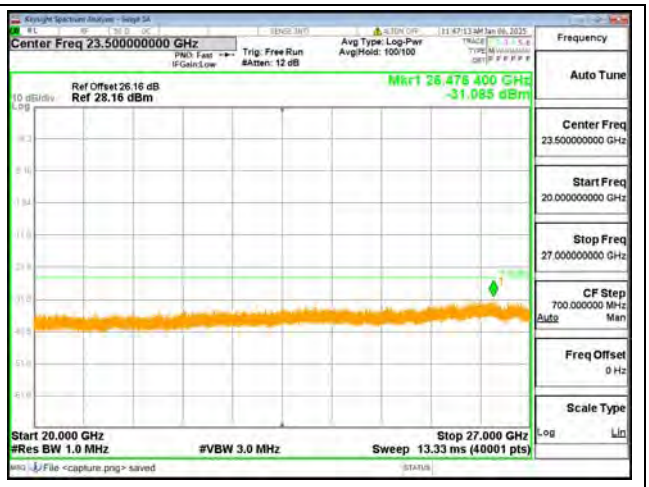
B41-30M-20G / 5MHz / High CH / QPSK



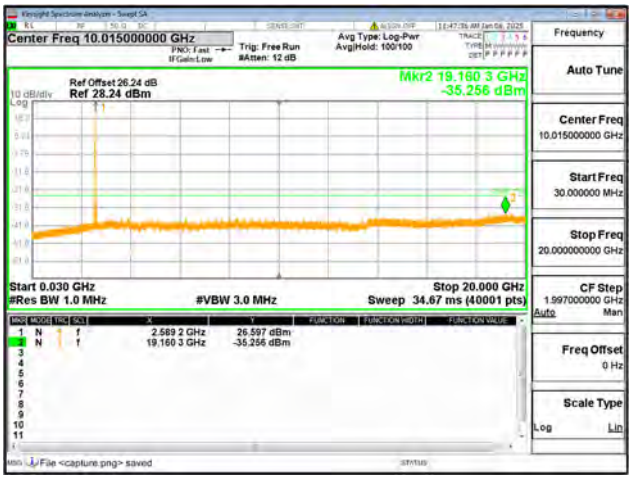
B41-20G-27G / 5MHz / High CH / QPSK



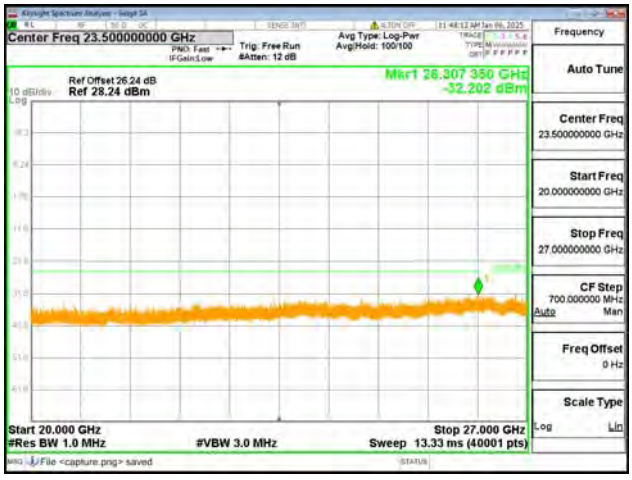
B41-30M-20G / 10MHz / Low CH / QPSK



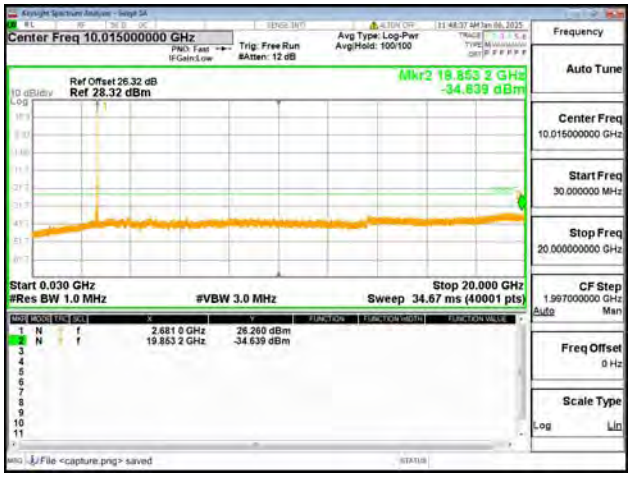
B41-20G-27G / 10MHz / Low CH / QPSK



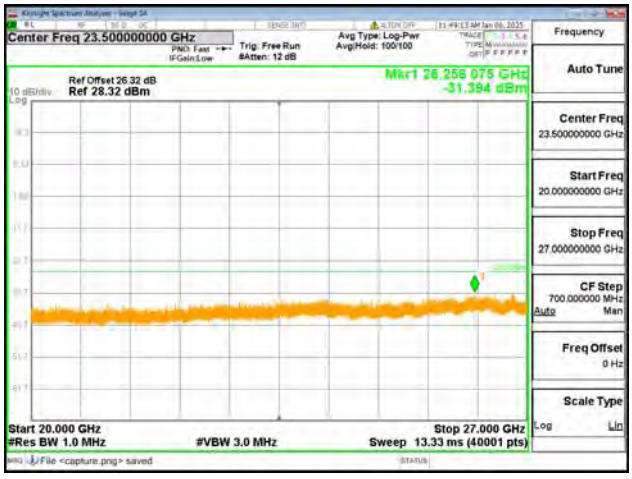
B41-30M-20G / 10MHz / Mid CH / QPSK



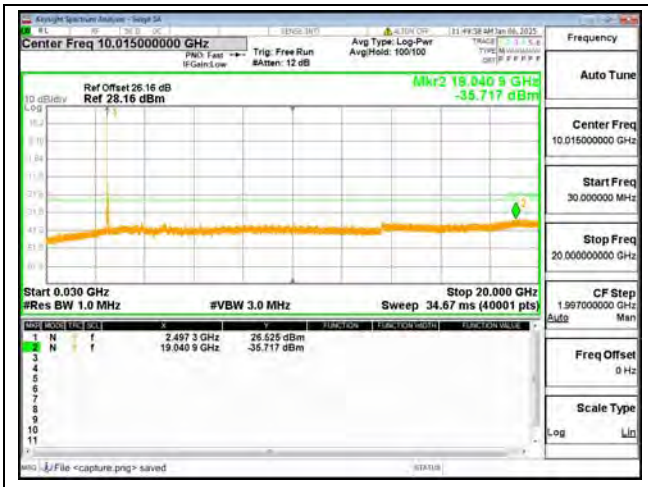
B41-20G-27G / 10MHz / Mid CH / QPSK



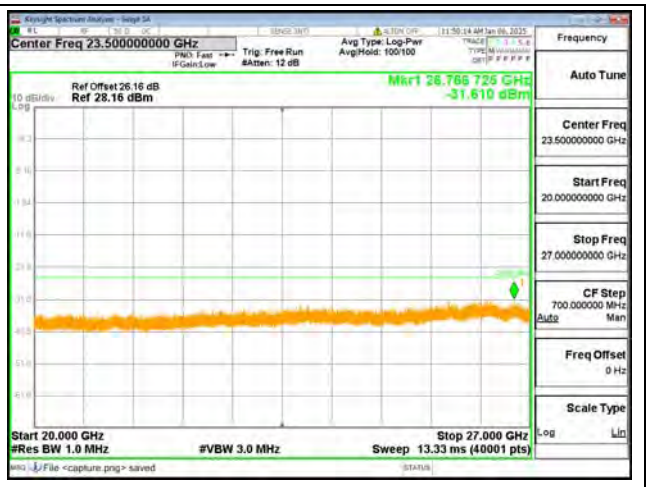
B41-30M-20G / 10MHz / High CH / QPSK



B41-20G-27G / 10MHz / High CH / QPSK

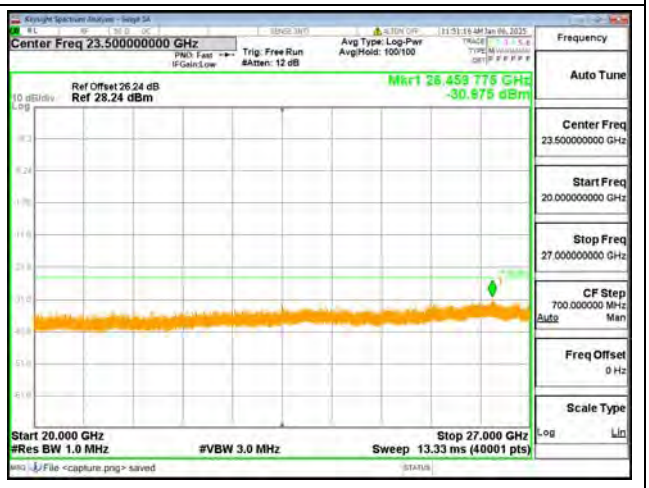


B41-30M-20G / 15MHz / Low CH / QPSK

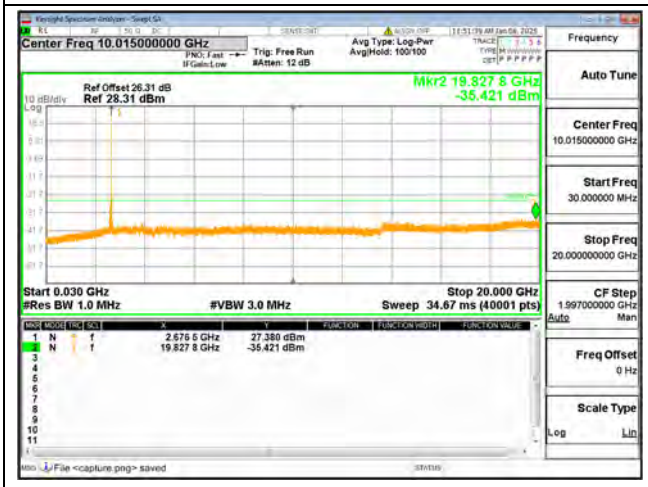


B41-20G-27G / 15MHz / Low CH / QPSK

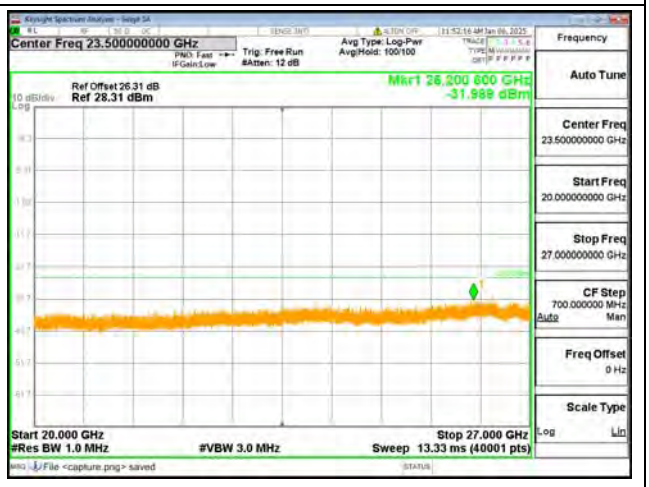
B41-30M-20G / 15MHz / Mid CH / QPSK



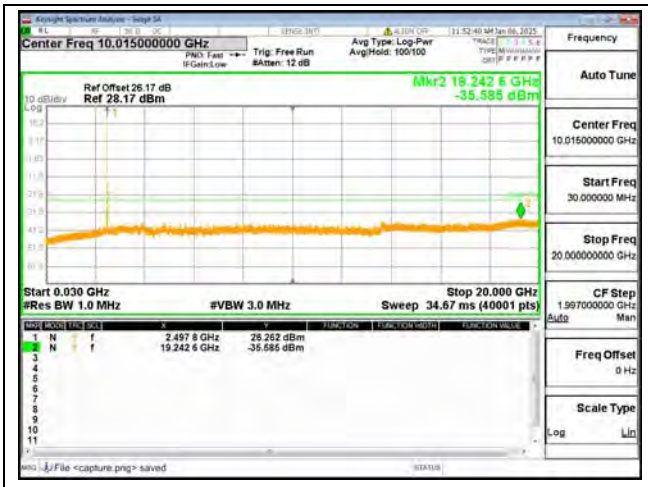
B41-20G-27G / 15MHz / Mid CH / QPSK



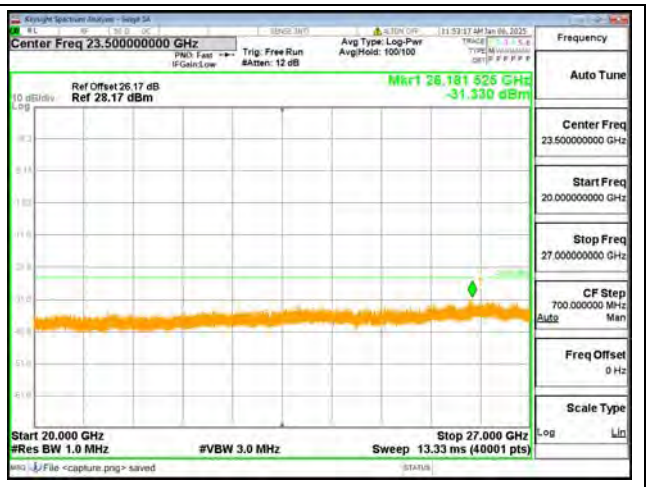
B41-30M-20G / 15MHz / High CH / QPSK



B41-20G-27G / 15MHz / High CH / QPSK

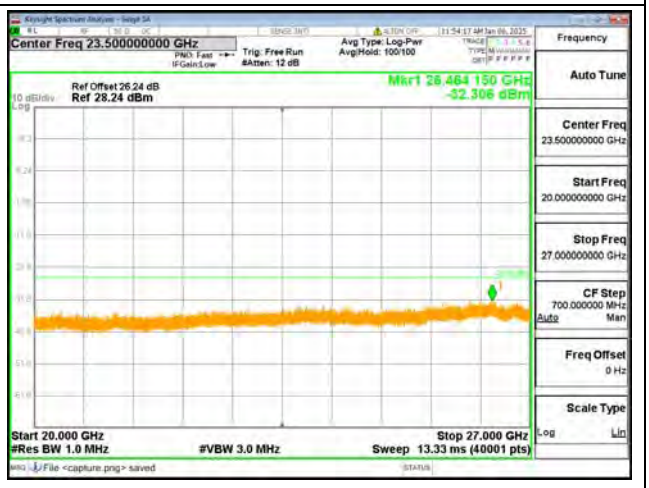


B41-30M-20G / 20MHz / Low CH / QPSK

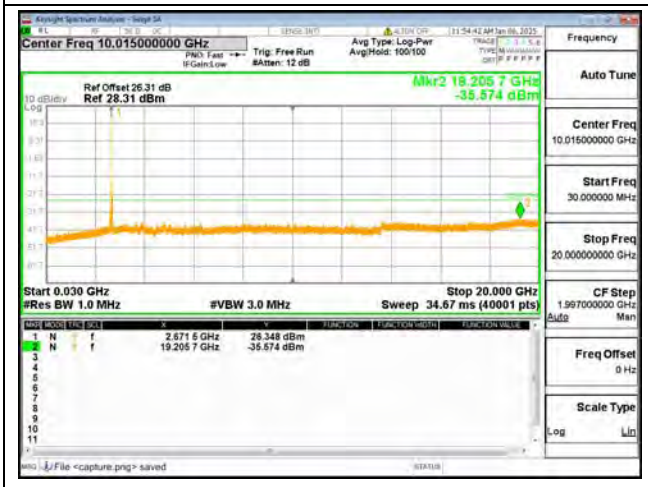


B41-20G-27G / 20MHz / Low CH / QPSK

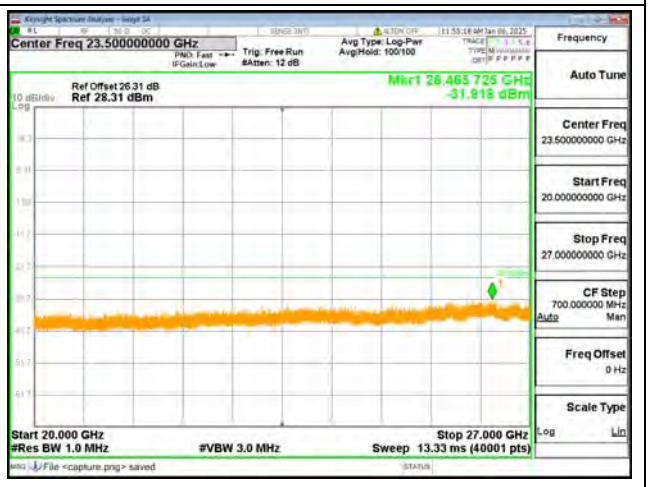
B41-30M-20G / 20MHz / Mid CH / QPSK



B41-20G-27G / 20MHz / Mid CH / QPSK



B41-30M-20G / 20MHz / High CH / QPSK



B41-20G-27G / 20MHz / High CH / QPSK

2.6. Band Edge

2.6.1. Requirement

Band 2

According to FCC section 24.238(a), for operations in the 1850–1910MHz bands, 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 in a 1MHz bandwidth. However, in the 1 MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

Band 4

According to FCC section 27.53(h), for operations in the 1710–1755MHz bands, the power of any emission outside a licensee's frequency block shall be attenuated below the transmitter power (P) by at least 43 + 10 log10(P) dB a 1MHz bandwidth. However, in the 1 MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

Band 5

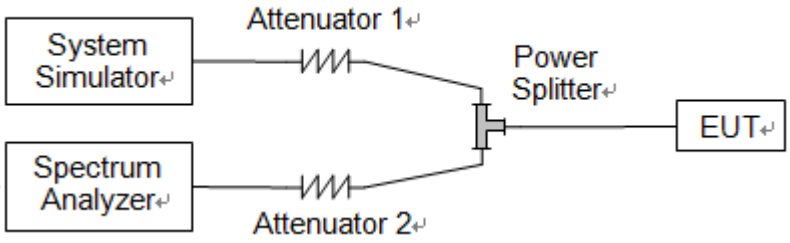
According to FCC section 22.917(a), for operations in the 824–849MHz bands, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log(P) dB in a 100kHz bandwidth. However, in the 1 MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

Band 7/38/41

According to FCC section 27.53(m) (4), for mobile digital stations, the attenuation factor shall be not less than 40 + 10 log (P) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log (P) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth as defined in paragraph (m)(6) of this section. In addition, the attenuation factor shall not be less that 43 + 10 log (P) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS

or EBS licensees.

2.6.2. Description



The EUT is coupled to the Spectrum Analyzer (SA) and the System Simulator (SS) with Attenuators through the Power Splitter; the RF load attached to the EUT antenna terminal is 50Ohm; the path loss as the factor is calibrated to correct the reading. The EUT is commanded by the SS to operate at the maximum output power. A call is established between the EUT and the SS.

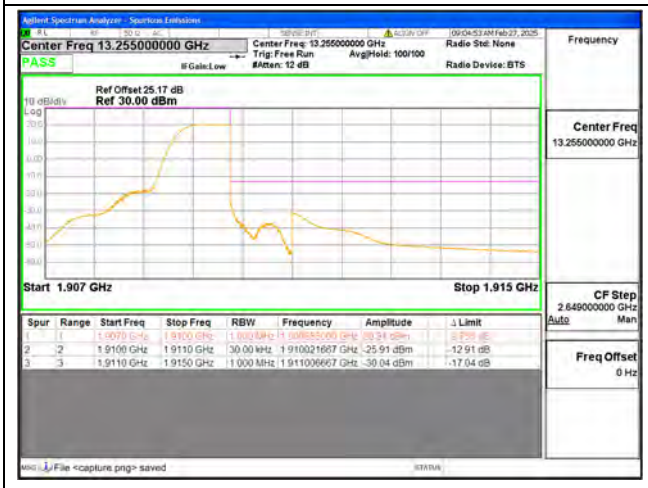
2.6.3. Test Procedure

KDB 971168 D01v03 Section 6.0 and ANSI/TIA-603-E-2016.

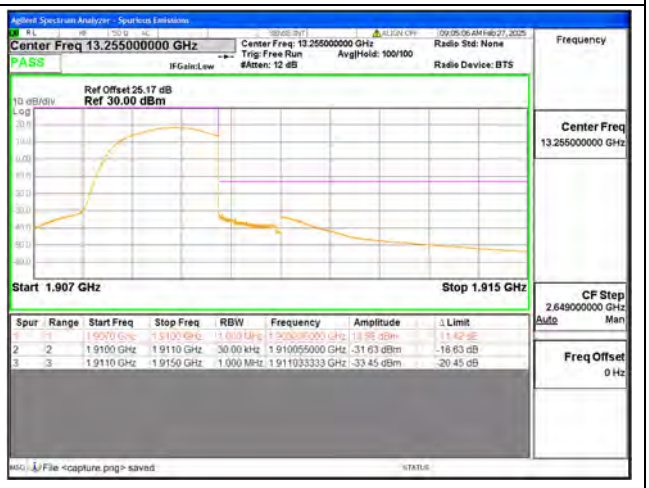
2.6.4. Test Result

B2 / 1.4MHz / Low CH / QPSK / 1 RB

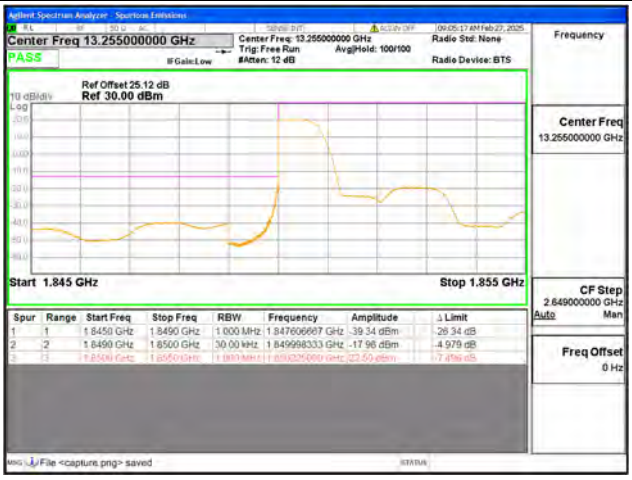
B2 / 1.4MHz / Low CH / QPSK / FULL RB



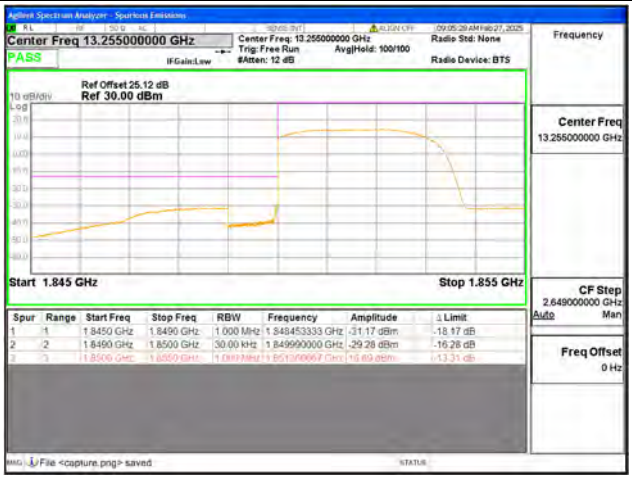
B2 / 1.4MHz / High CH / QPSK / 1 RB



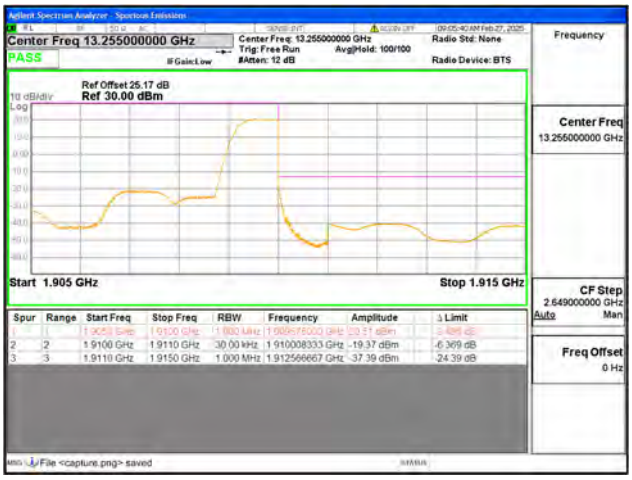
B2 / 1.4MHz / High CH / QPSK / FULL RB



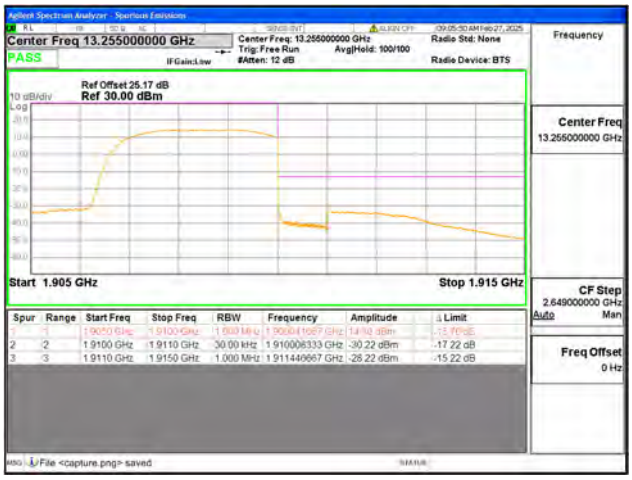
B2 / 3MHz / Low CH / QPSK / 1 RB



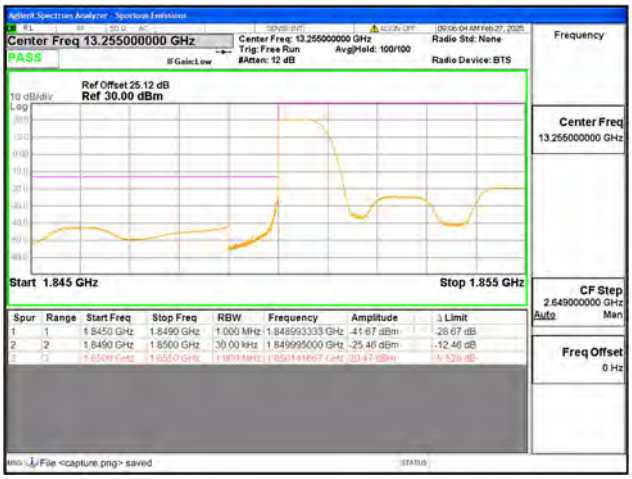
B2 / 3MHz / Low CH / QPSK / FULL RB



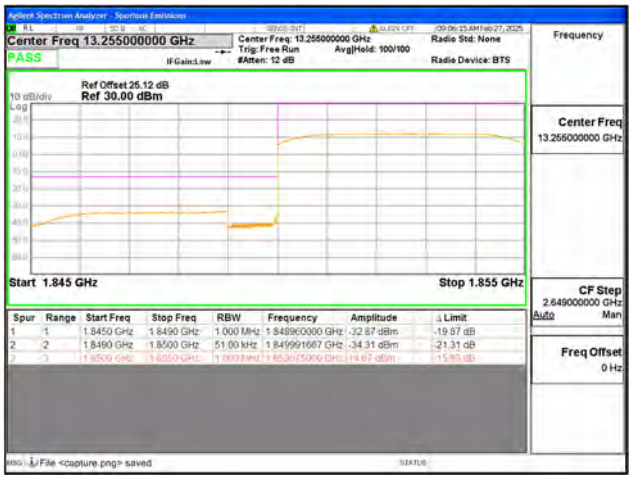
B2 / 3MHz / High CH / QPSK / 1 RB



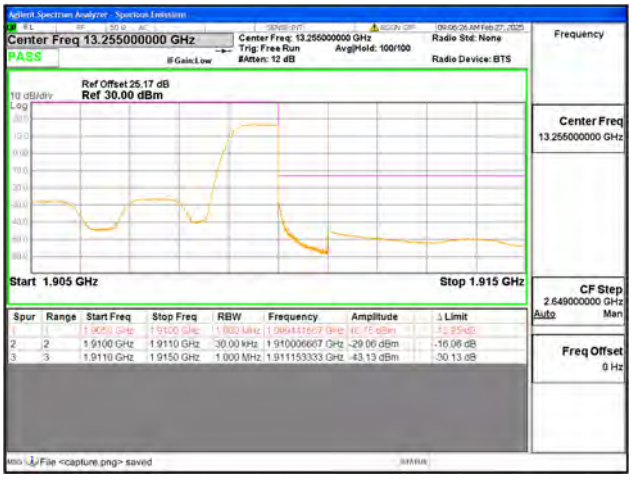
B2 / 3MHz / High CH / QPSK / FULL RB



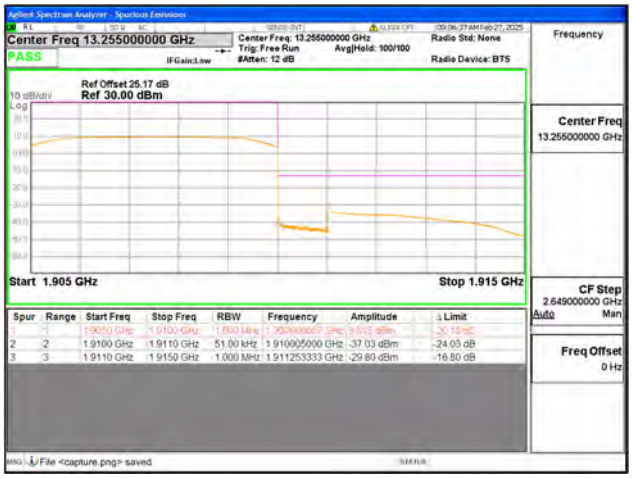
B2 / 5MHz / Low CH / QPSK / 1 RB



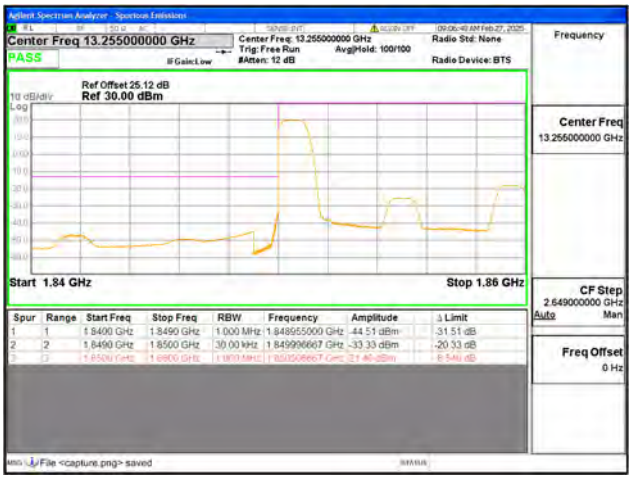
B2 / 5MHz / Low CH / QPSK / FULL RB



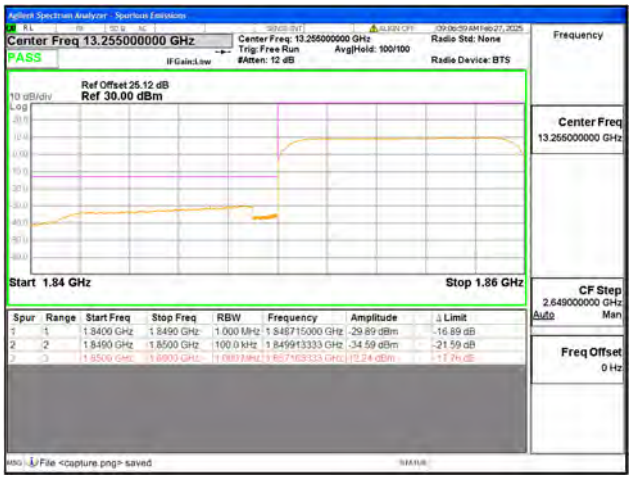
B2 / 5MHz / High CH / QPSK / 1 RB



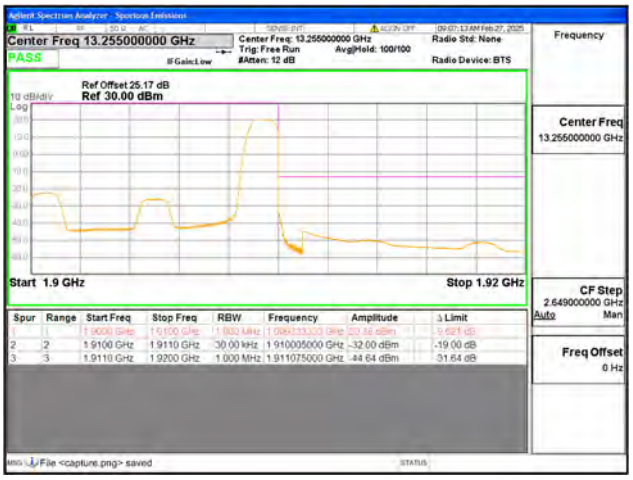
B2 / 5MHz / High CH / QPSK / FULL RB



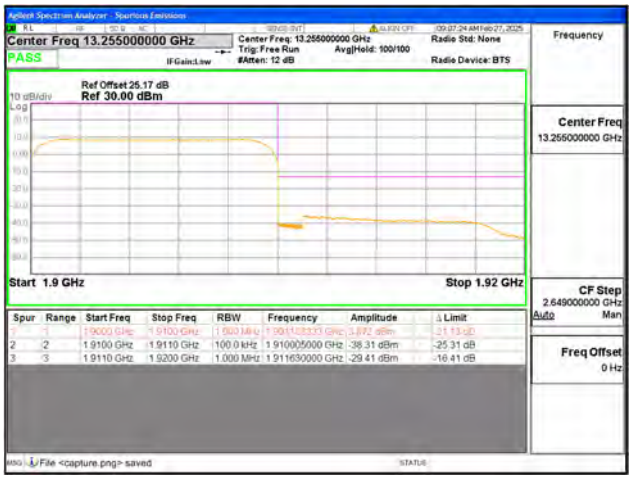
B2 / 10MHz / Low CH / QPSK / 1 RB



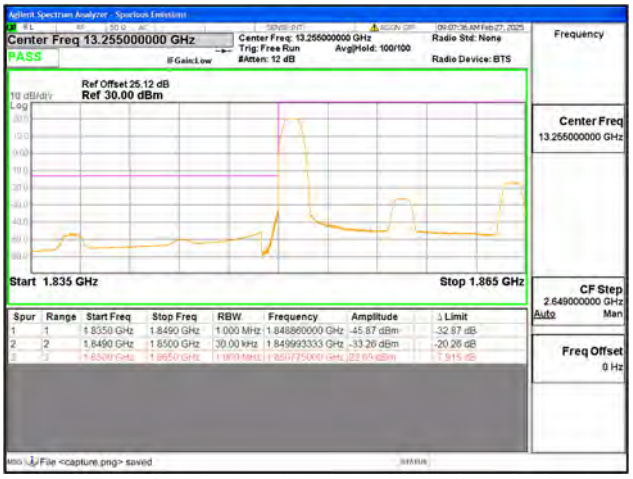
B2 / 10MHz / Low CH / QPSK / FULL RB



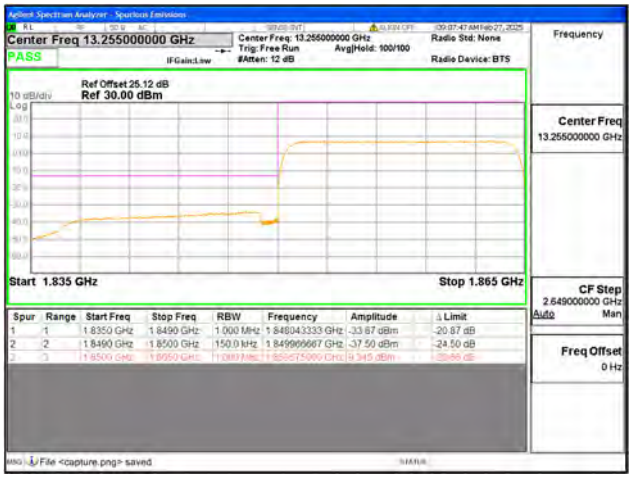
B2 / 10MHz / High CH / QPSK / 1 RB



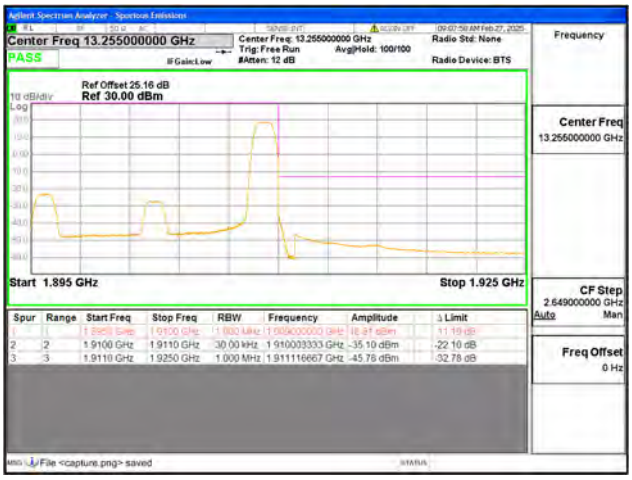
B2 / 10MHz / High CH / QPSK / FULL RB



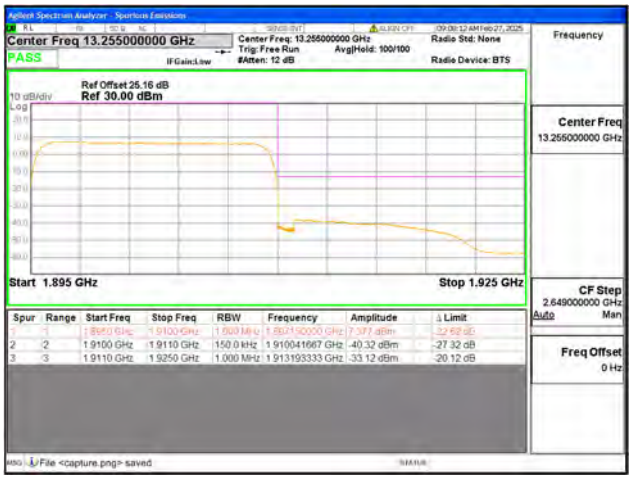
B2 / 15MHz / Low CH / QPSK / 1 RB



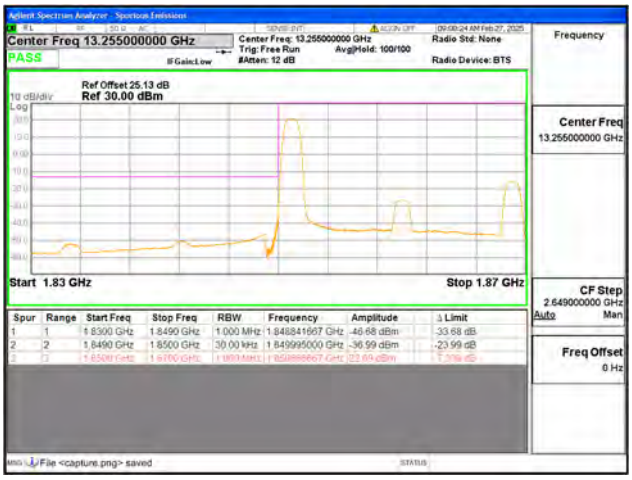
B2 / 15MHz / Low CH / QPSK / FULL RB



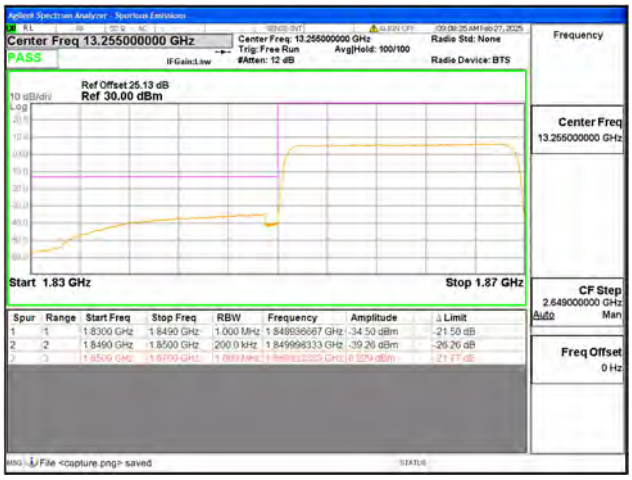
B2 / 15MHz / High CH / QPSK / 1 RB



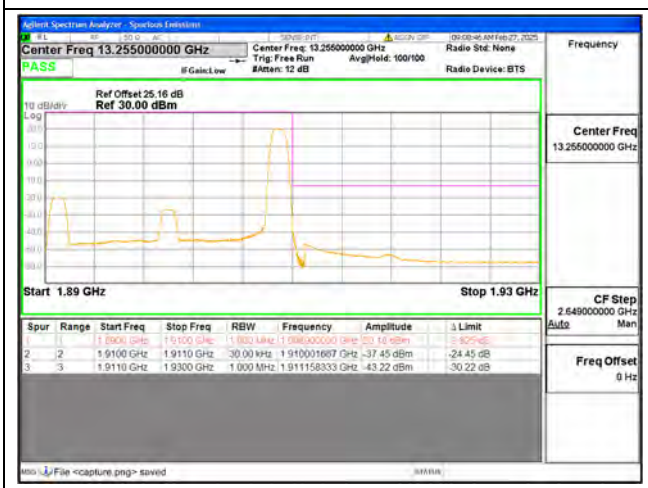
B2 / 15MHz / High CH / QPSK / FULL RB



B2 / 20MHz / Low CH / QPSK / 1 RB



B2 / 20MHz / Low CH / QPSK / FULL RB

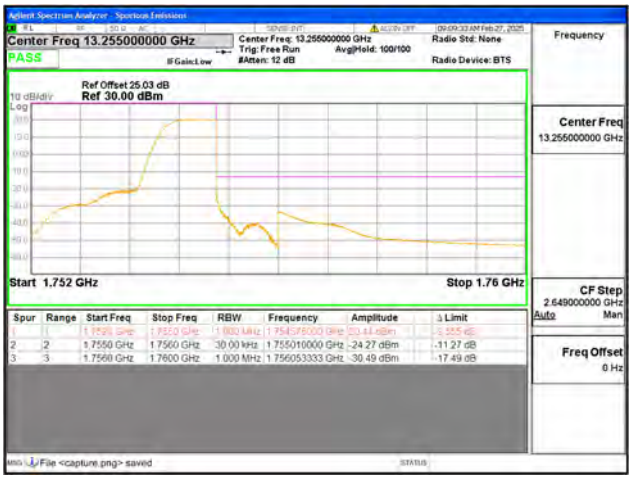


B2 / 20MHz / High CH / QPSK / 1 RB

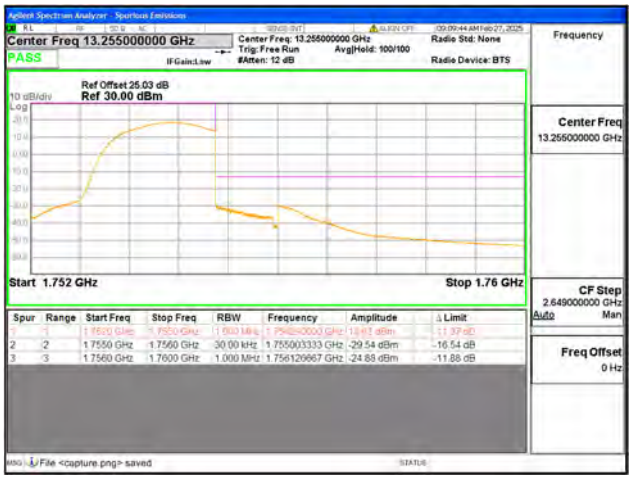
B2 / 20MHz / High CH / QPSK / FULL RB

B4 / 1.4MHz / Low CH / QPSK / 1 RB

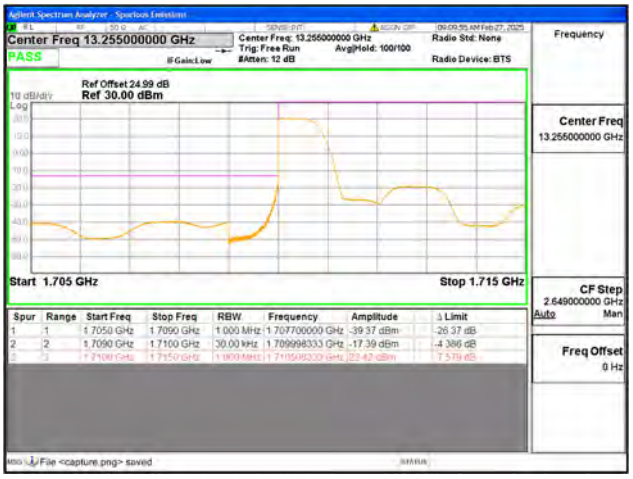
B4 / 1.4MHz / Low CH / QPSK / FULL RB



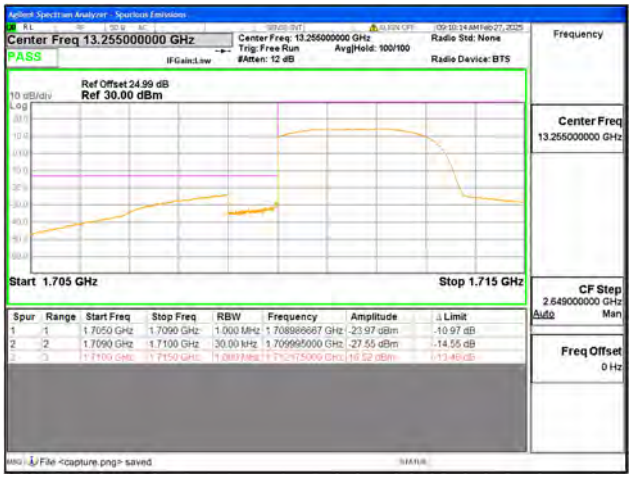
B4 / 1.4MHz / High CH / QPSK / 1 RB



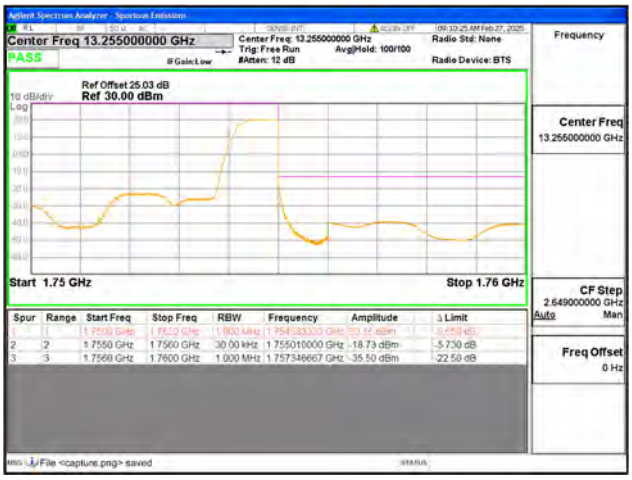
B4 / 1.4MHz / High CH / QPSK / FULL RB



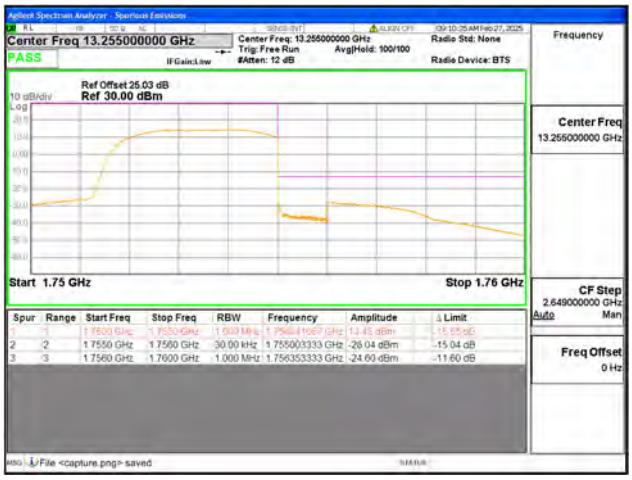
B4 / 3MHz / Low CH / QPSK / 1 RB



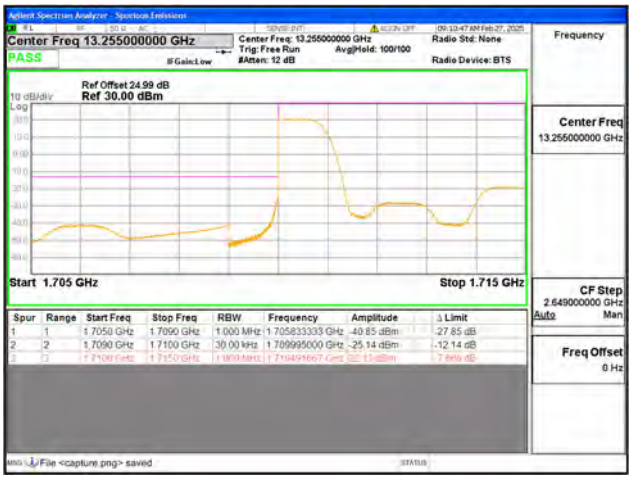
B4 / 3MHz / Low CH / QPSK / FULL RB



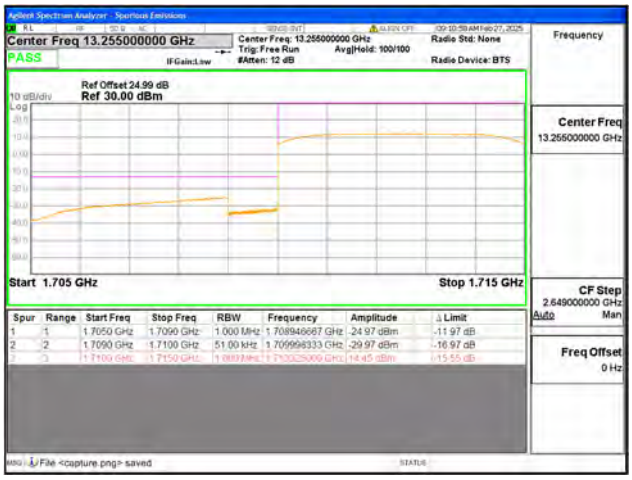
B4 / 3MHz / High CH / QPSK / 1 RB



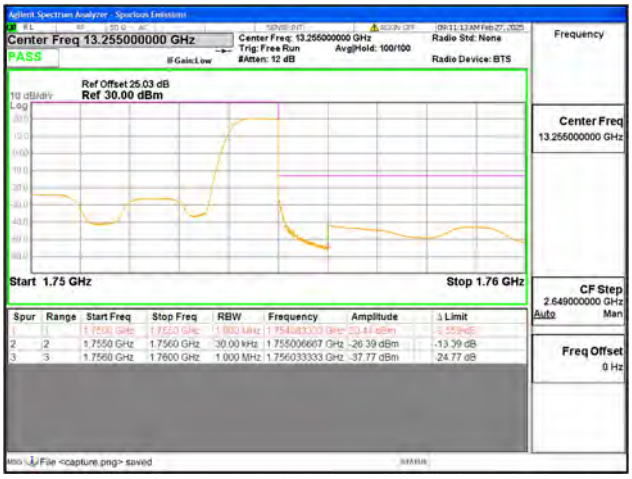
B4 / 3MHz / High CH / QPSK / FULL RB



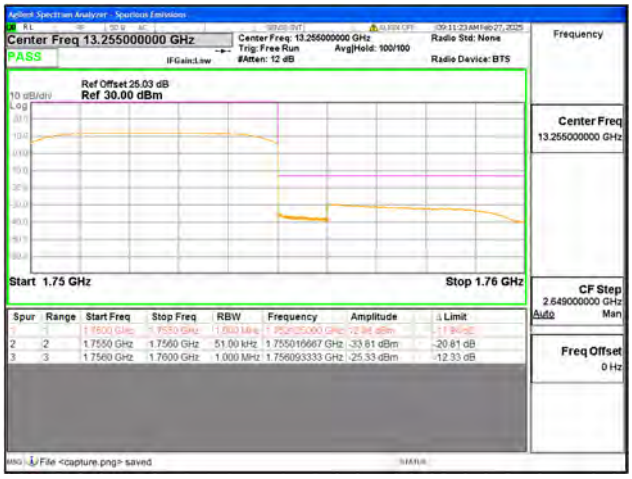
B4 / 5MHz / Low CH / QPSK / 1 RB



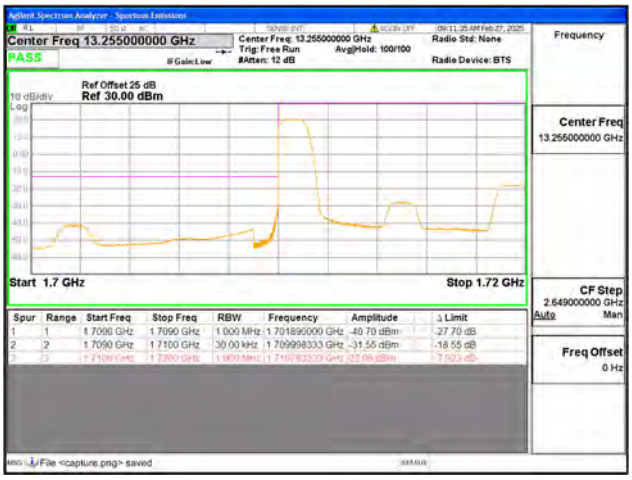
B4 / 5MHz / Low CH / QPSK / FULL RB



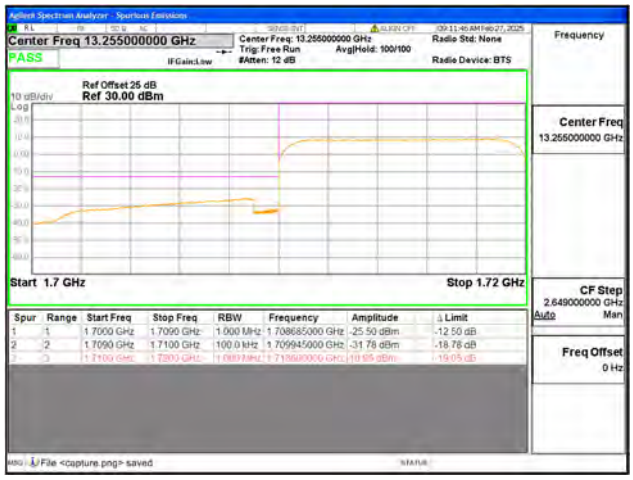
B4 / 5MHz / High CH / QPSK / 1 RB



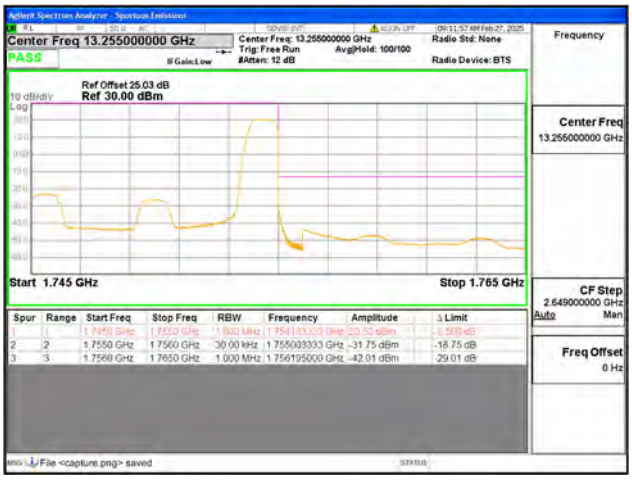
B4 / 5MHz / High CH / QPSK / FULL RB



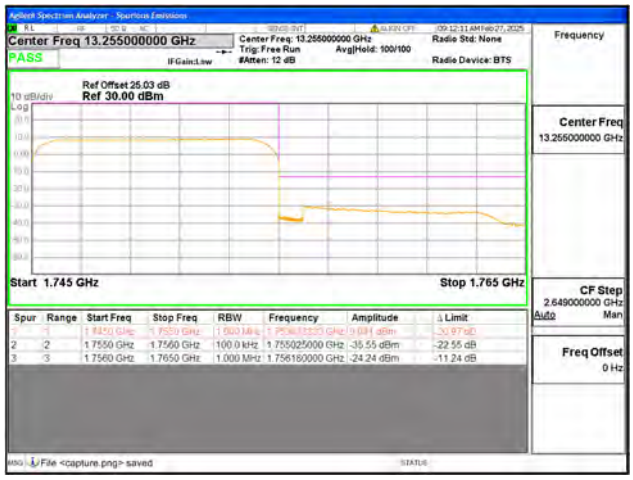
B4 / 10MHz / Low CH / QPSK / 1 RB



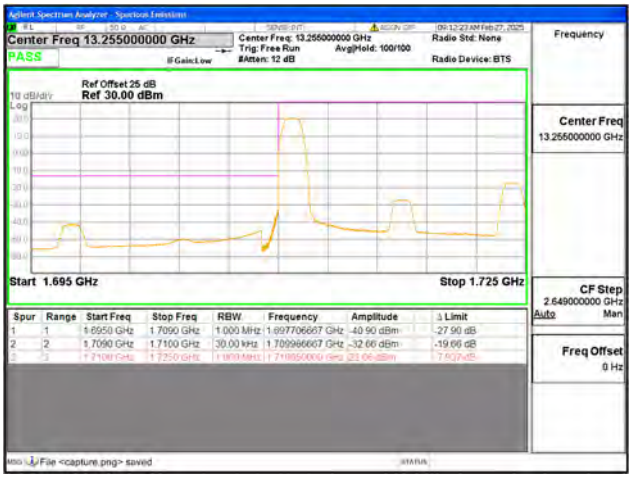
B4 / 10MHz / Low CH / QPSK / FULL RB



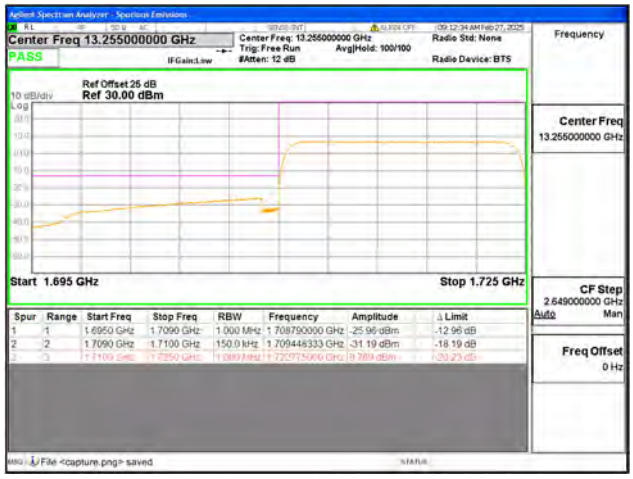
B4 / 10MHz / High CH / QPSK / 1 RB



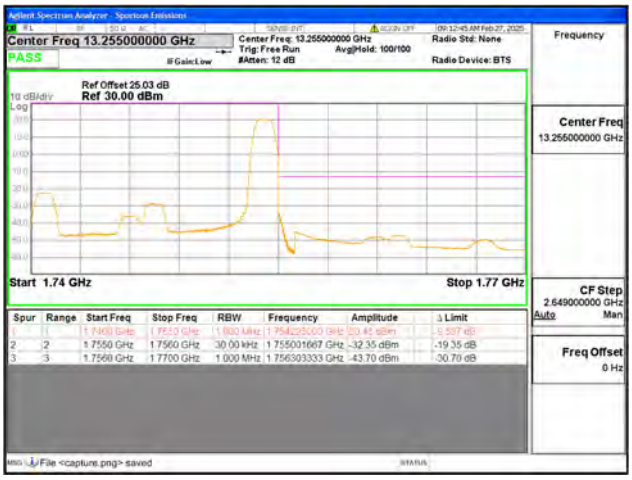
B4 / 10MHz / High CH / QPSK / FULL RB



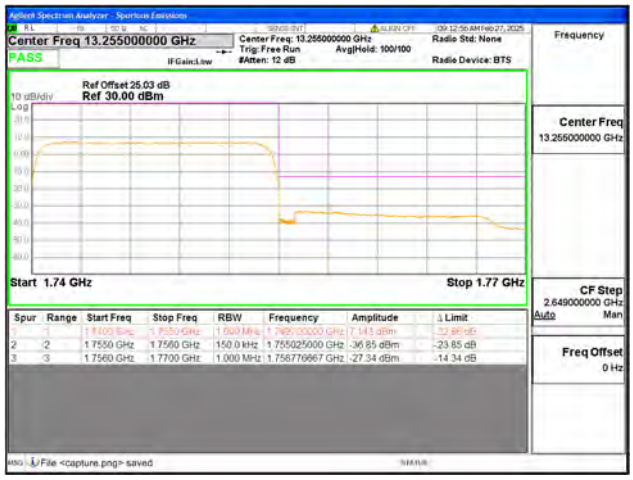
B4 / 15MHz / Low CH / QPSK / 1 RB



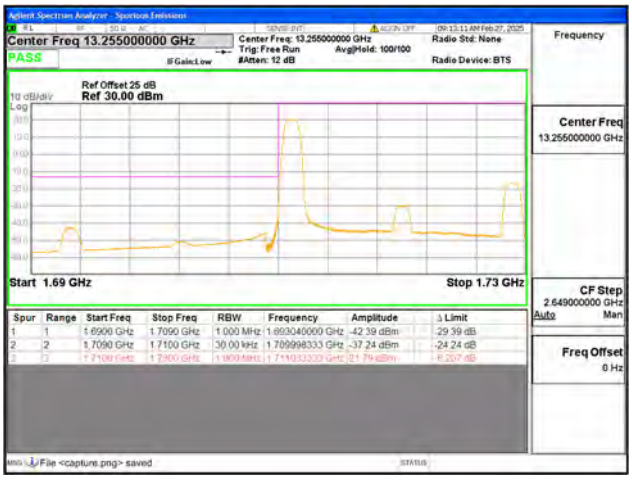
B4 / 15MHz / Low CH / QPSK / FULL RB



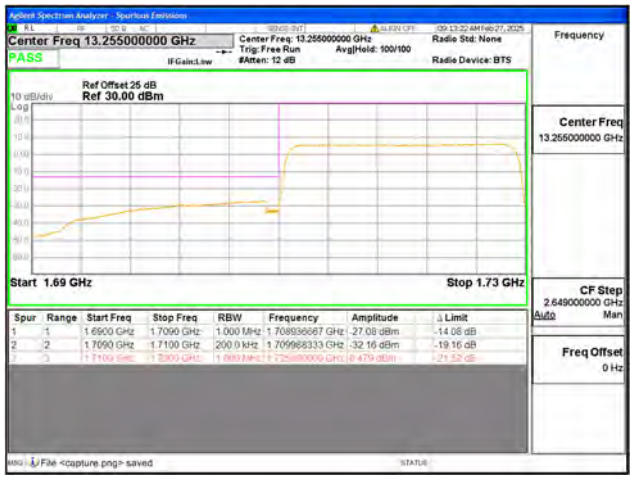
B4 / 15MHz / High CH / QPSK / 1 RB



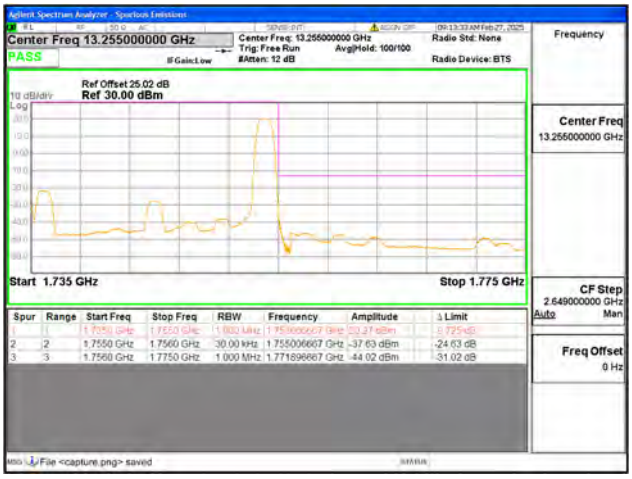
B4 / 15MHz / High CH / QPSK / FULL RB



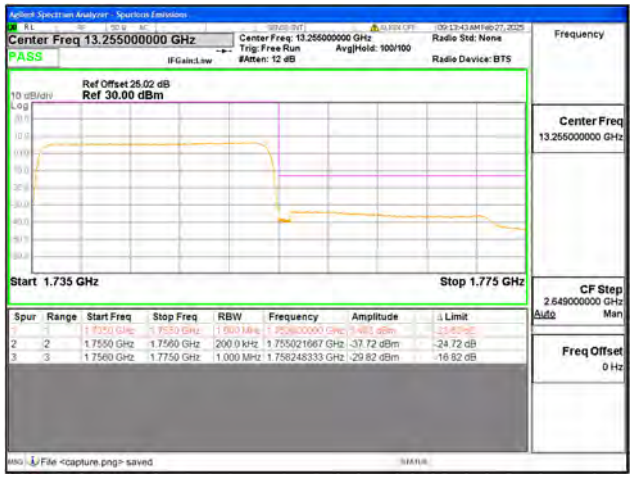
B4 / 20MHz / Low CH / QPSK / 1 RB



B4 / 20MHz / Low CH / QPSK / FULL RB



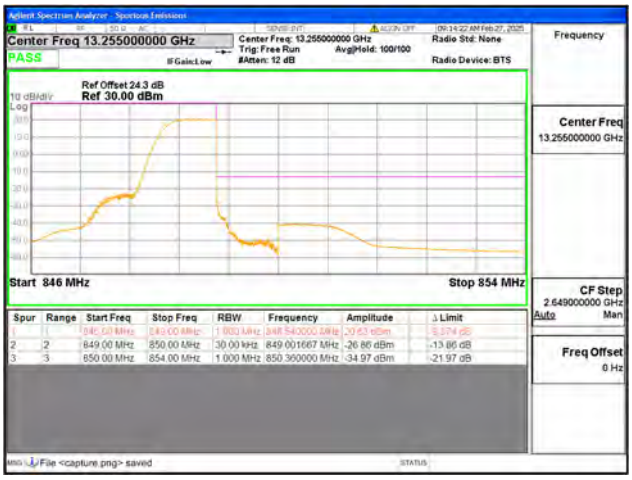
B4 / 20MHz / High CH / QPSK / 1 RB



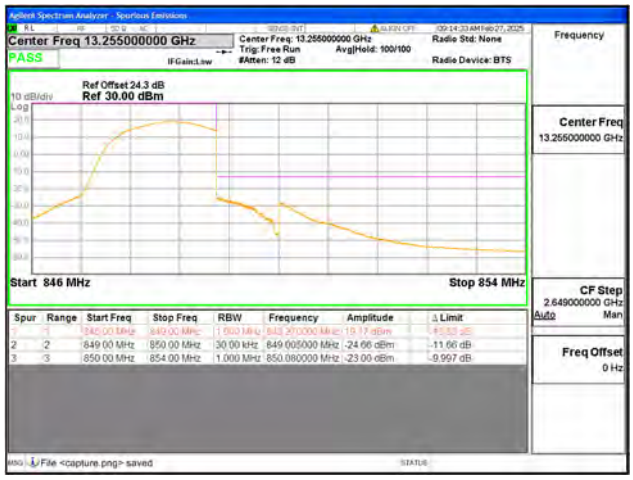
B4 / 20MHz / High CH / QPSK / FULL RB

B5 / 1.4MHz / Low CH / QPSK / 1 RB

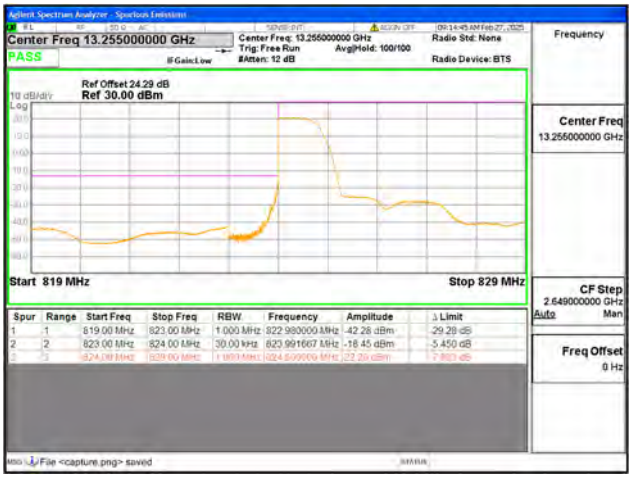
B5 / 1.4MHz / Low CH / QPSK / FULL RB



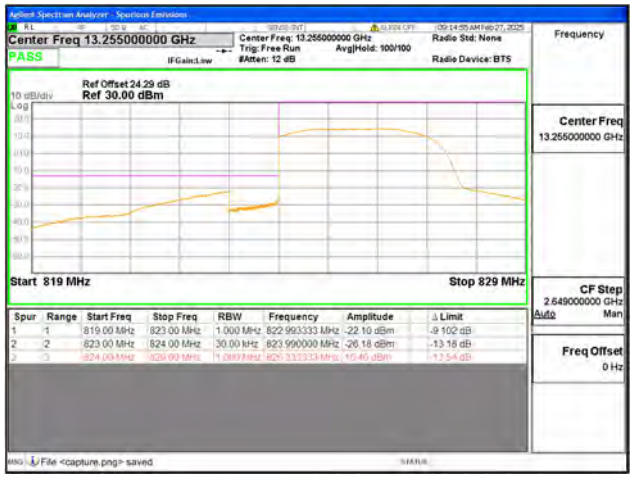
B5 / 1.4MHz / High CH / QPSK / 1 RB



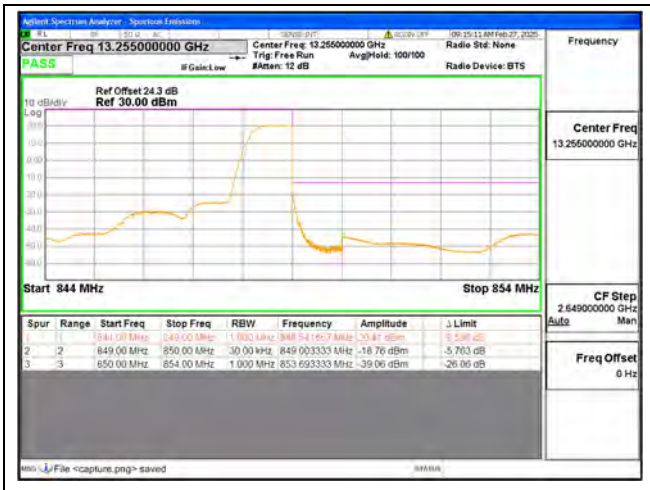
B5 / 1.4MHz / High CH / QPSK / FULL RB



B5 / 3MHz / Low CH / QPSK / 1 RB

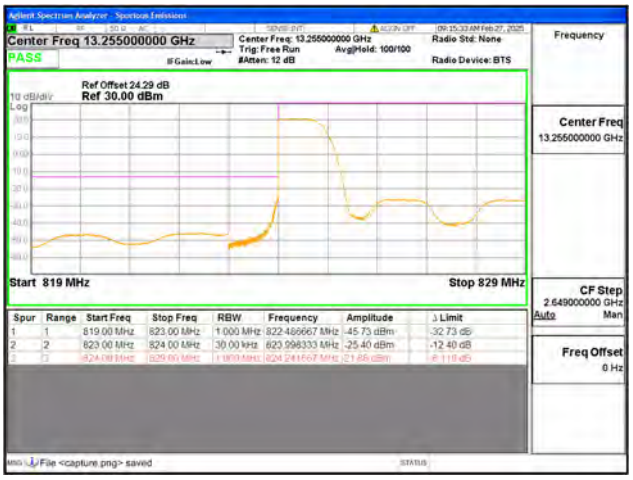


B5 / 3MHz / Low CH / QPSK / FULL RB

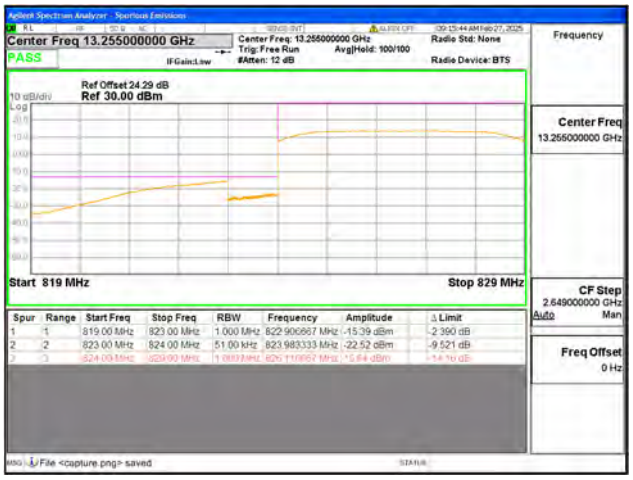


B5 / 3MHz / High CH / QPSK / 1 RB

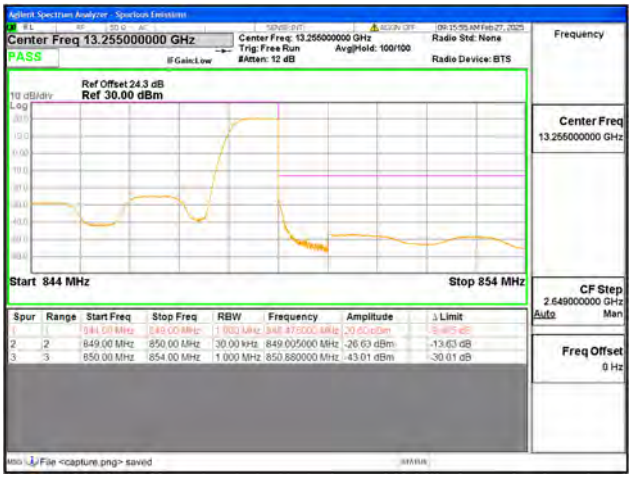
B5 / 3MHz / High CH / QPSK / FULL RB



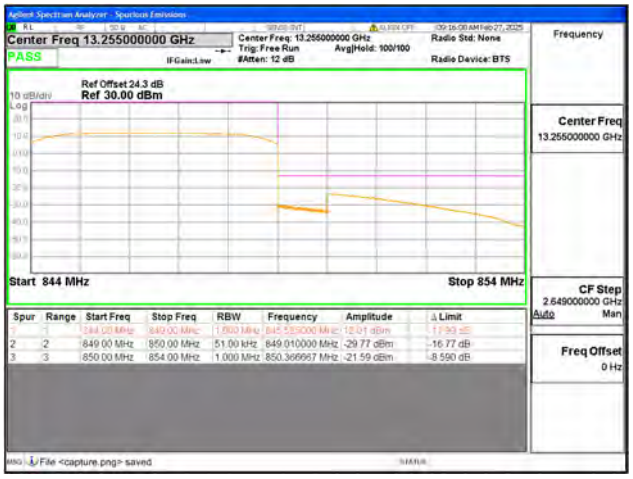
B5 / 5MHz / Low CH / QPSK / 1 RB



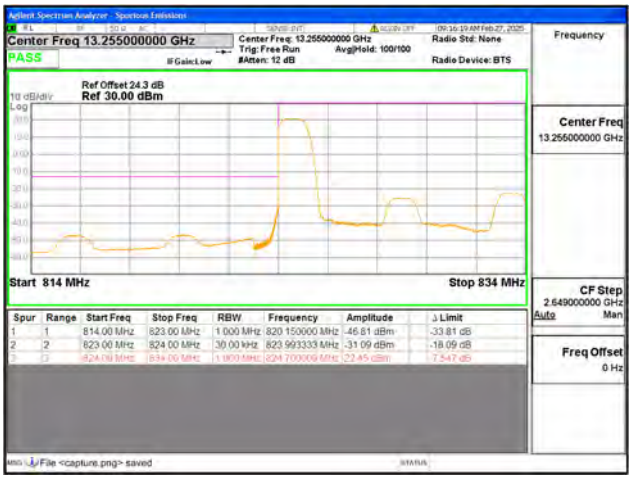
B5 / 5MHz / Low CH / QPSK / FULL RB



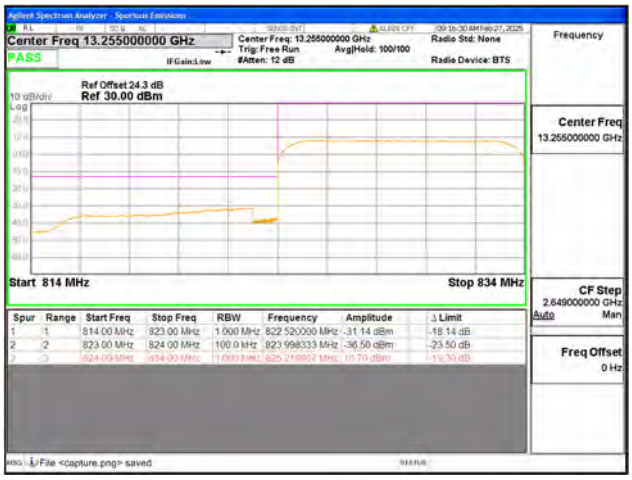
B5 / 5MHz / High CH / QPSK / 1 RB



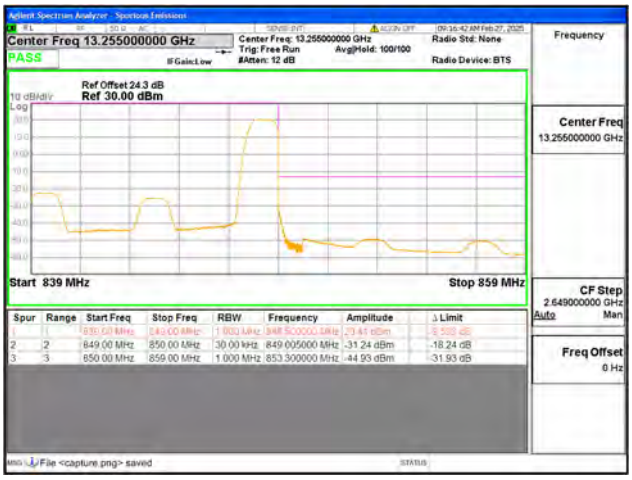
B5 / 5MHz / High CH / QPSK / FULL RB



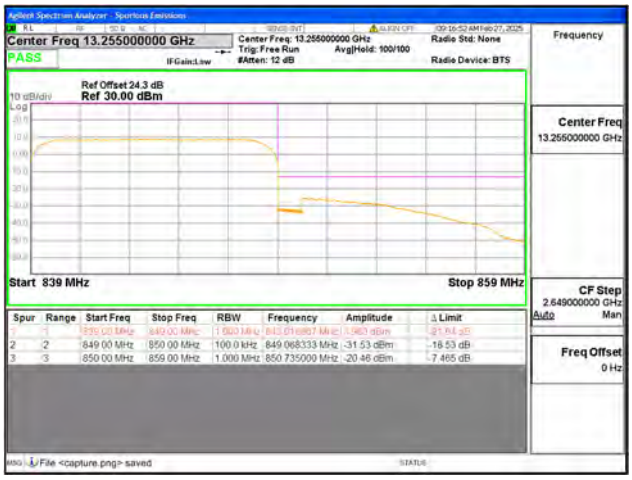
B5 / 10MHz / Low CH / QPSK / 1 RB



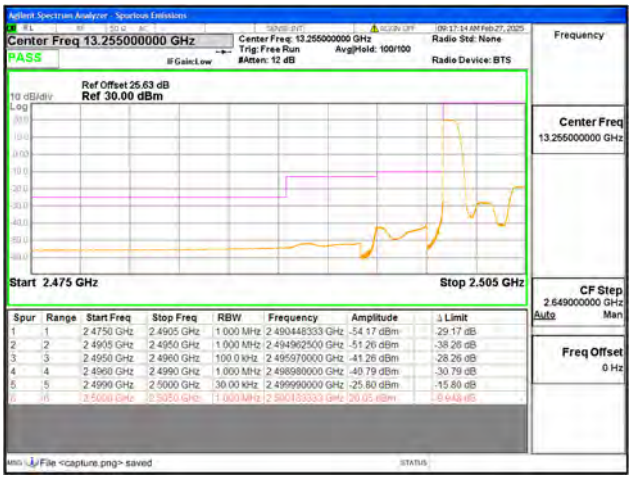
B5 / 10MHz / Low CH / QPSK / FULL RB



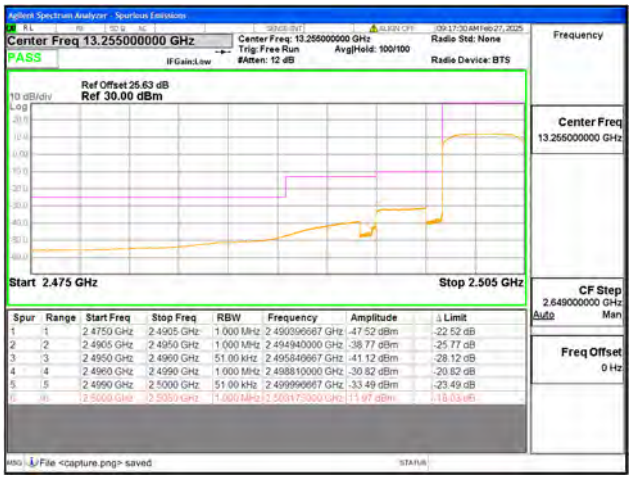
B5 / 10MHz / High CH / QPSK / 1 RB



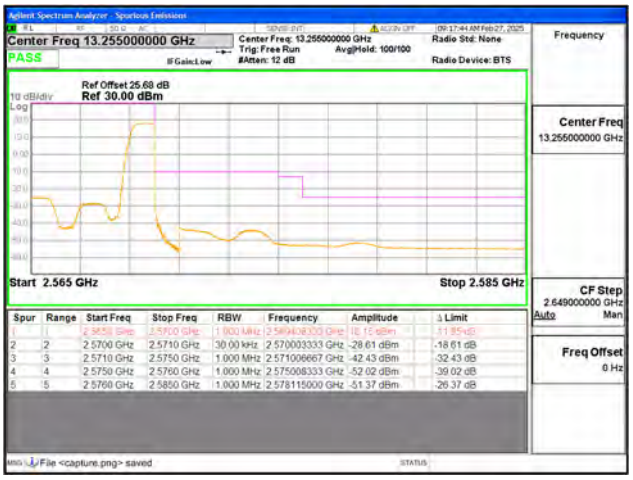
B5 / 10MHz / High CH / QPSK / FULL RB



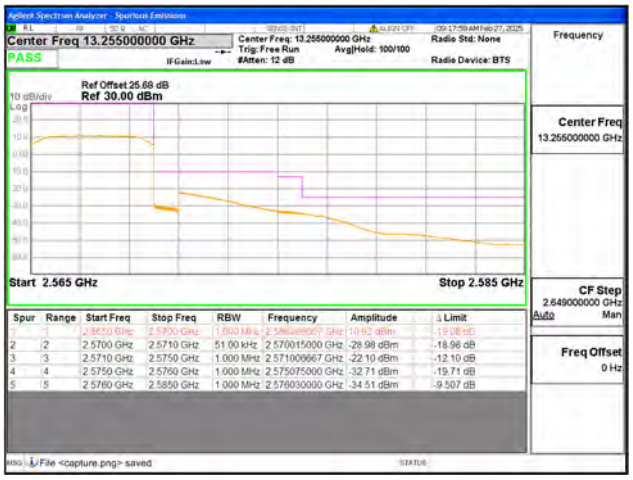
B7 / 5MHz / Low CH / QPSK / 1 RB



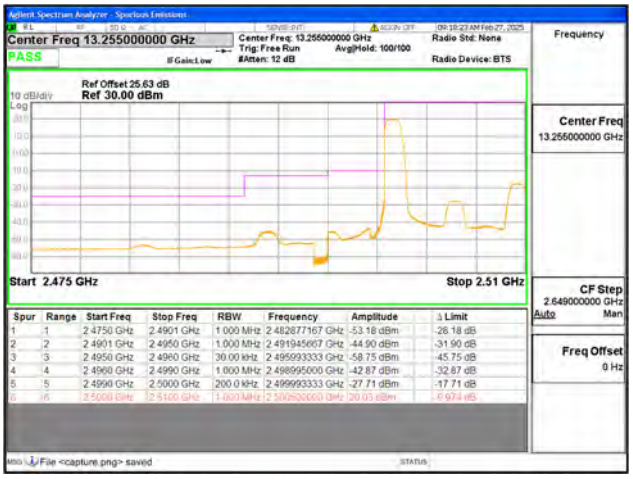
B7 / 5MHz / Low CH / QPSK / FULL RB



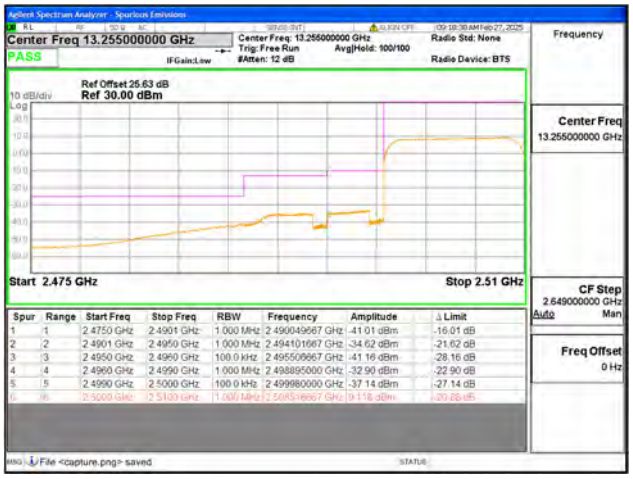
B7 / 5MHz / High CH / QPSK / 1 RB



B7 / 5MHz / High CH / QPSK / FULL RB

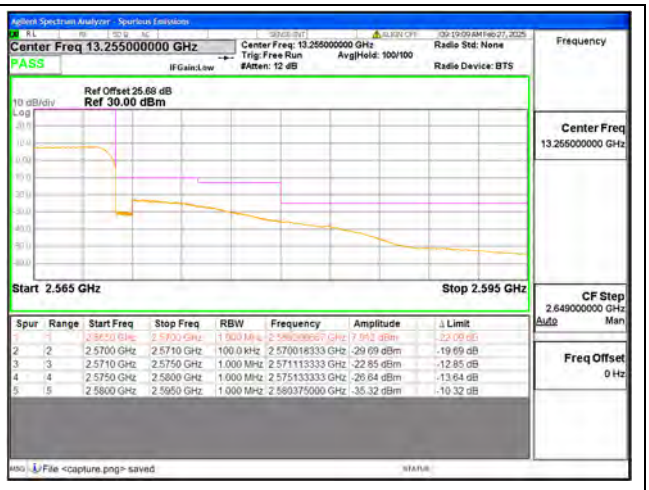


B7 / 10MHz / Low CH / QPSK / 1 RB

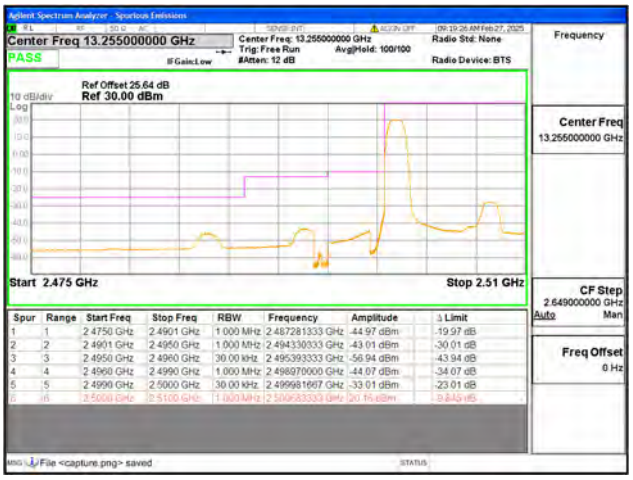


B7 / 10MHz / Low CH / QPSK / FULL RB

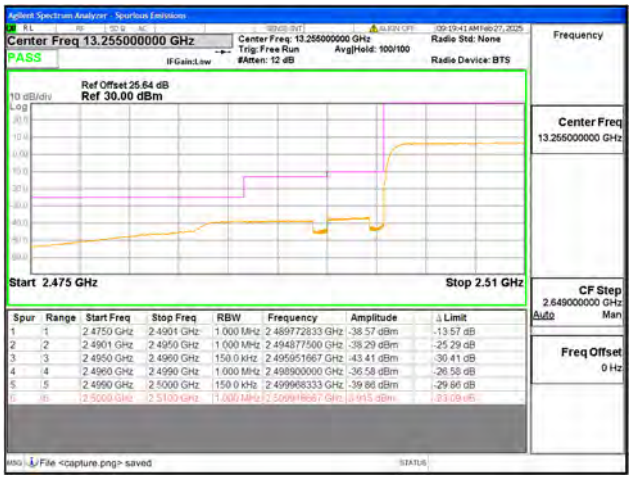
B7 / 10MHz / High CH / QPSK / 1 RB



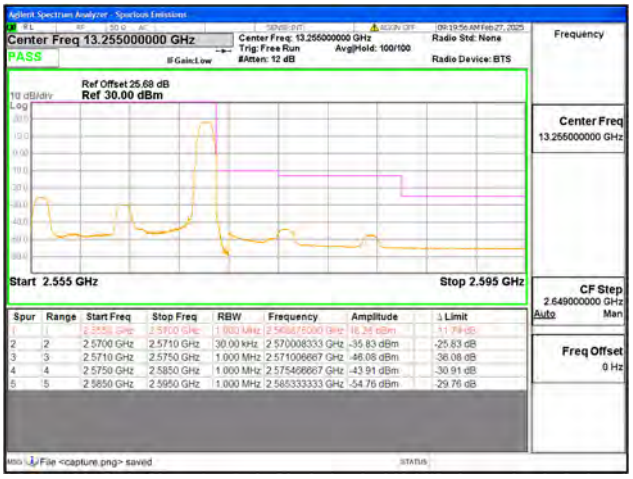
B7 / 10MHz / High CH / QPSK / FULL RB



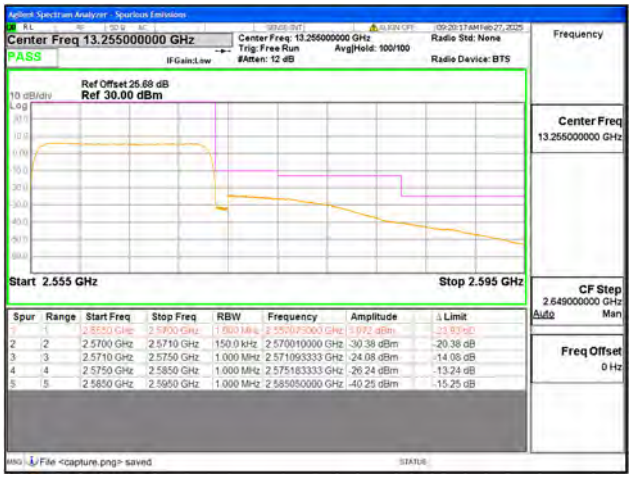
B7 / 15MHz / Low CH / QPSK / 1 RB



B7 / 15MHz / Low CH / QPSK / FULL RB



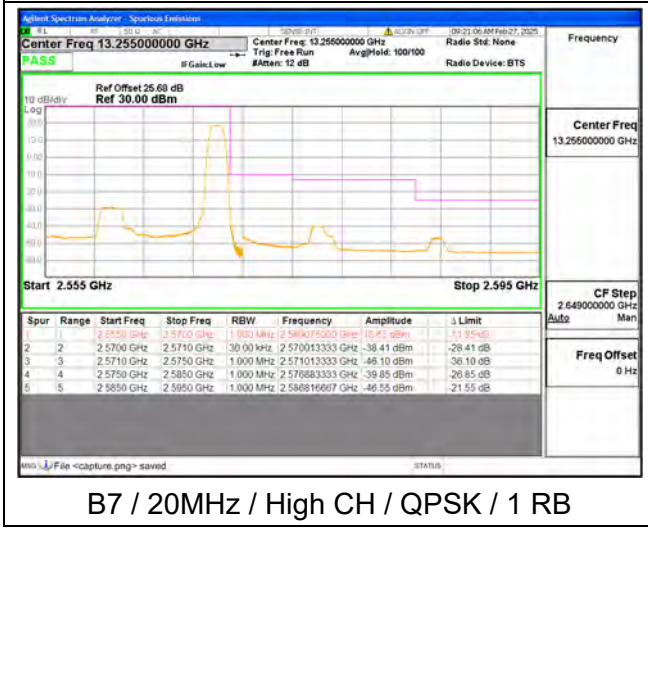
B7 / 15MHz / High CH / QPSK / 1 RB



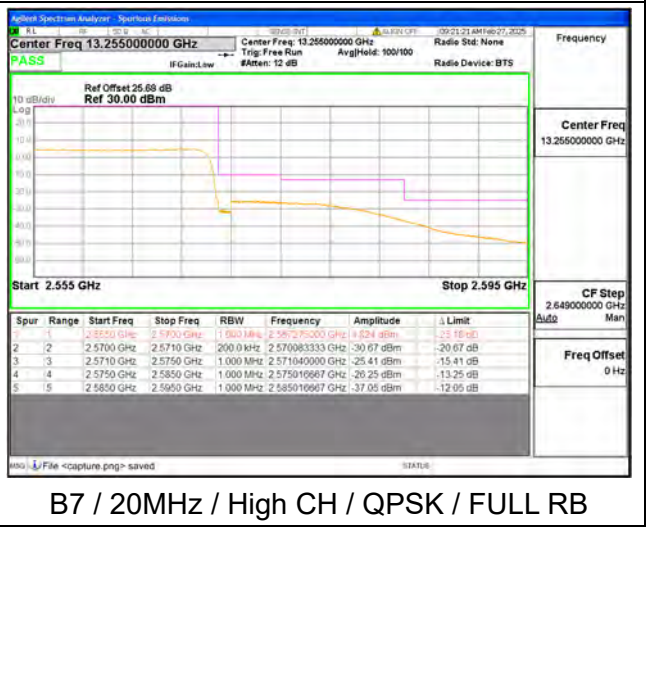
B7 / 15MHz / High CH / QPSK / FULL RB

B7 / 20MHz / Low CH / QPSK / 1 RB

B7 / 20MHz / Low CH / QPSK / FULL RB



B7 / 20MHz / High CH / QPSK / 1 RB



B7 / 20MHz / High CH / QPSK / FULL RB

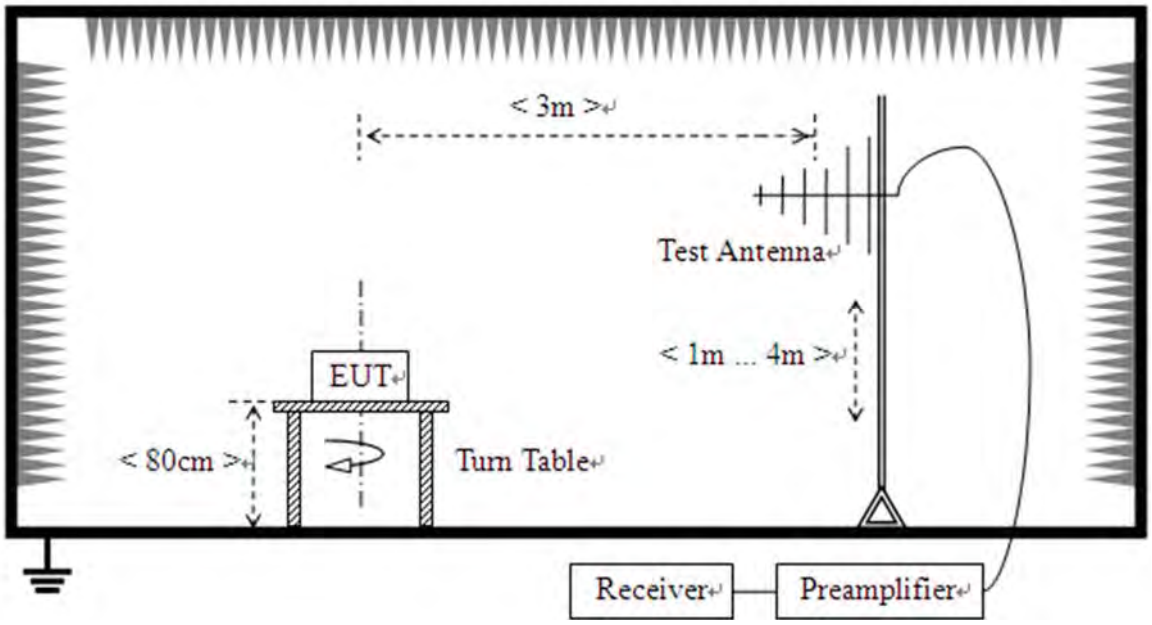
2.7. Radiated Spurious Emissions

2.7.1. Requirement

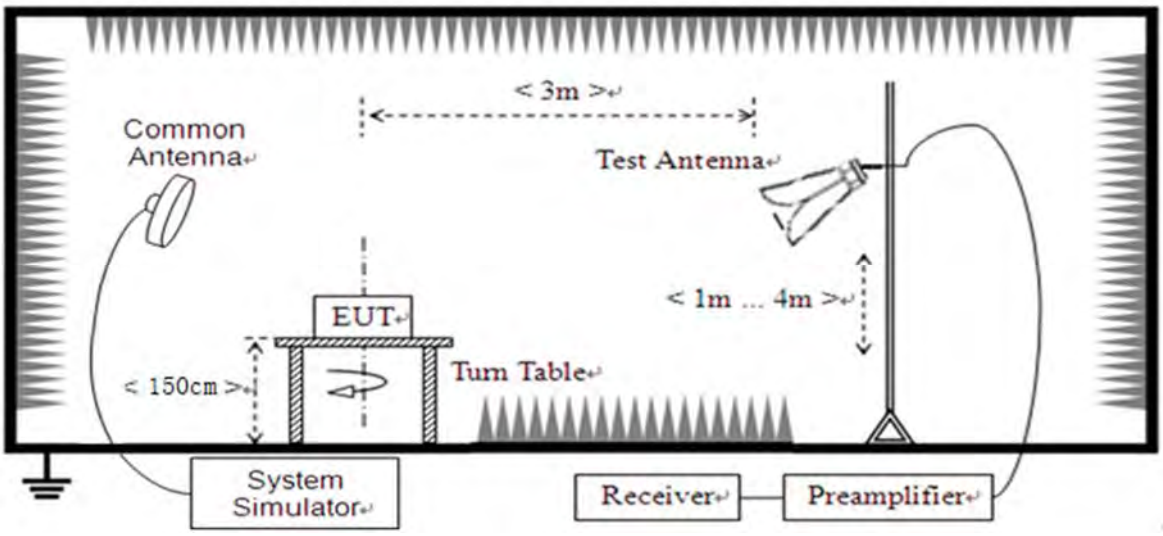
According to FCC section 2.1051, the power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43+10*log(P)dB. This calculated to be -13dBm.

Additional requirement for LTE Band 7/38/41
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.

2.7.2. 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.

2.7.3. 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.

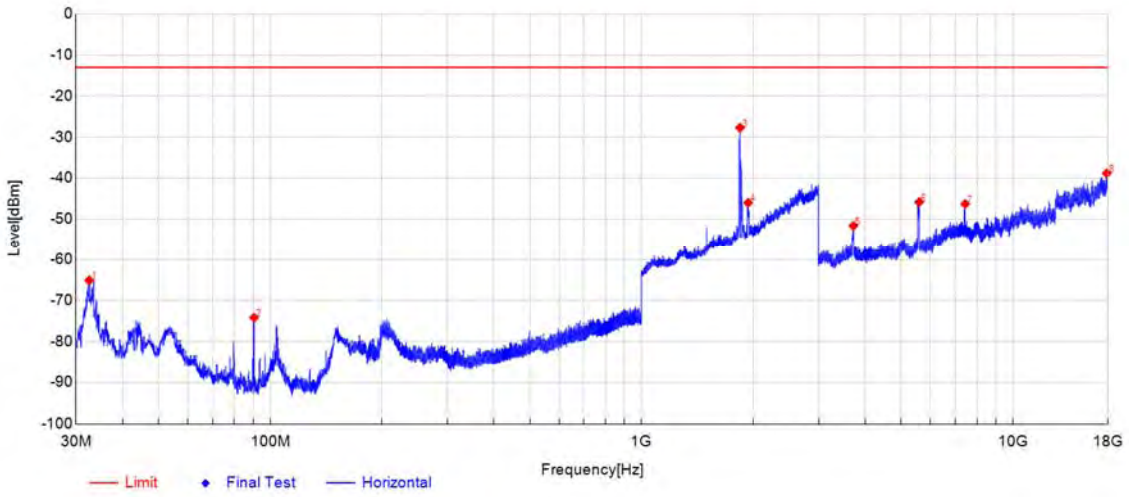
For measurements above 1GHz the resolution bandwidth is set to 1MHz, the video band width is set to 3MHz for peak measurements.

2.7.4. Test Result

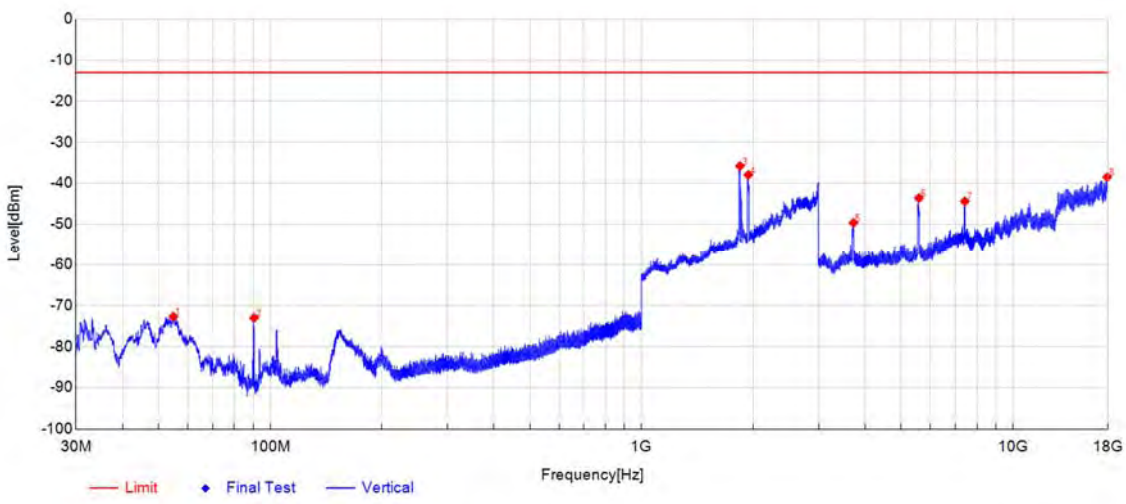
Note1: The power of the EUT transmitting frequency should be ignored.
Note2: All Spurious Emission tests were performed in X, Y, Z axis direction. And only the worst axis test condition was recorded in this test report.
Note3: All bandwidth and modulation were considered and evaluated respectively by performing full test for each band, only the worst cases (Max Bandwidth and QPSK mode) were recorded in this test report.
Note4: NA means the frequency is the basic frequency or the base station frequency, they are no need to verdict.
Note5: The amplitude of emissions(18GHz to 10th harmonics) which are attenuated more than 20 dB below the limit are not be reported.

LTE Band 2

Plot for Low Channel

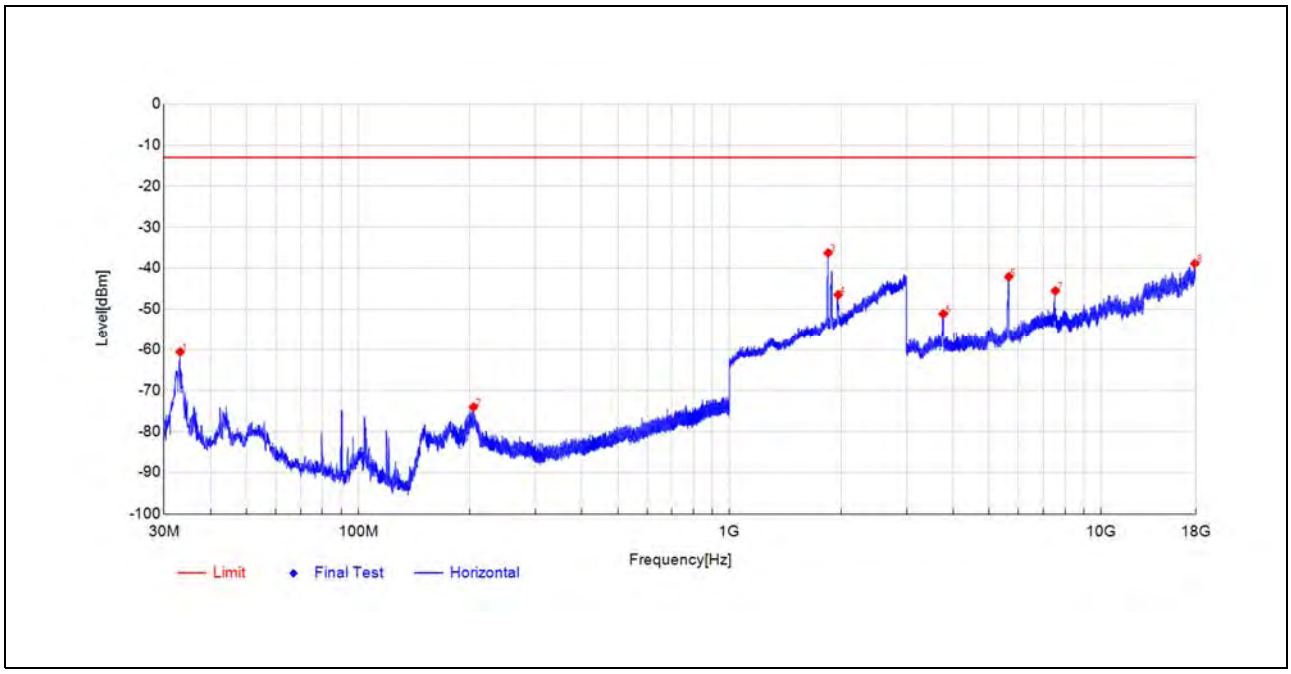


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
32.5706	-49.92	-65.13	-15.2	-13.0	52.1	Horizontal	PK	PASS
90.4825	-50.85	-74.22	-23.4	-13.0	61.2	Horizontal	PK	PASS
1841.3683	-31.93	-27.70	4.2	-13.0	14.7	Horizontal	PK	PASS
1936.5873	-50.04	-45.99	4.1	-	-	Horizontal	PK	NA
3719.5537	-53.19	-51.60	1.6	-13.0	38.6	Horizontal	PK	PASS
5591.331	-52.60	-45.80	6.8	-13.0	32.8	Horizontal	PK	PASS
7439.67	-58.74	-46.27	12.5	-13.0	33.3	Horizontal	PK	PASS
17895.934	-69.57	-38.80	30.8	-13.0	25.8	Horizontal	PK	PASS

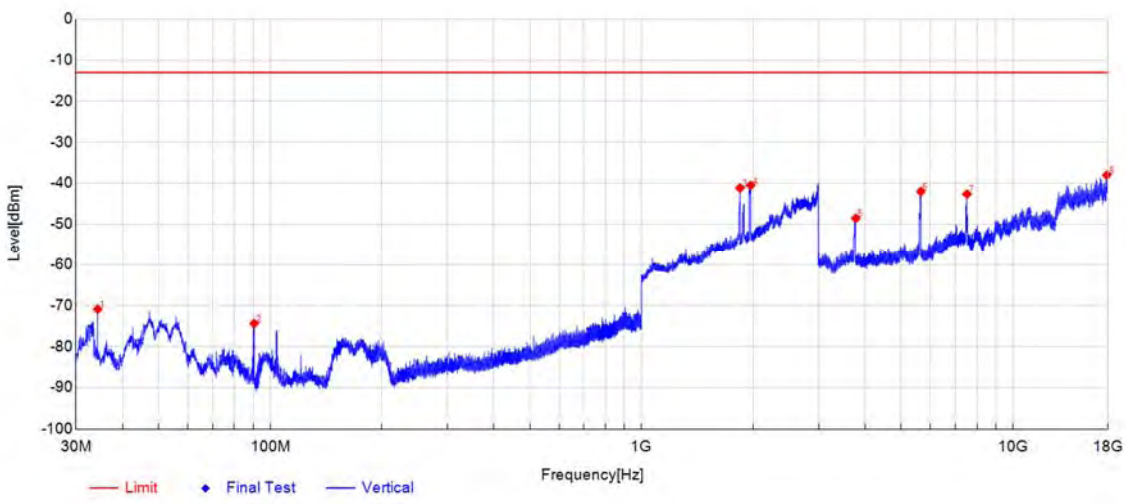


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
54.8332	-55.70	-72.72	-17.0	-13.0	59.7	Vertical	PK	PASS
90.434	-50.74	-73.02	-22.3	-13.0	60.0	Vertical	PK	PASS
1840.9682	-40.33	-35.78	4.6	-13.0	22.8	Vertical	PK	PASS
1939.3879	-41.85	-37.93	3.9	-	-	Vertical	PK	NA
3720.4913	-51.17	-49.63	1.5	-13.0	36.6	Vertical	PK	PASS
5578.6743	-50.20	-43.60	6.6	-13.0	30.6	Vertical	PK	PASS
7422.3257	-56.18	-44.40	11.8	-13.0	31.4	Vertical	PK	PASS
17937.185	-68.99	-38.51	30.5	-13.0	25.5	Vertical	PK	PASS

Plot for Mid Channel

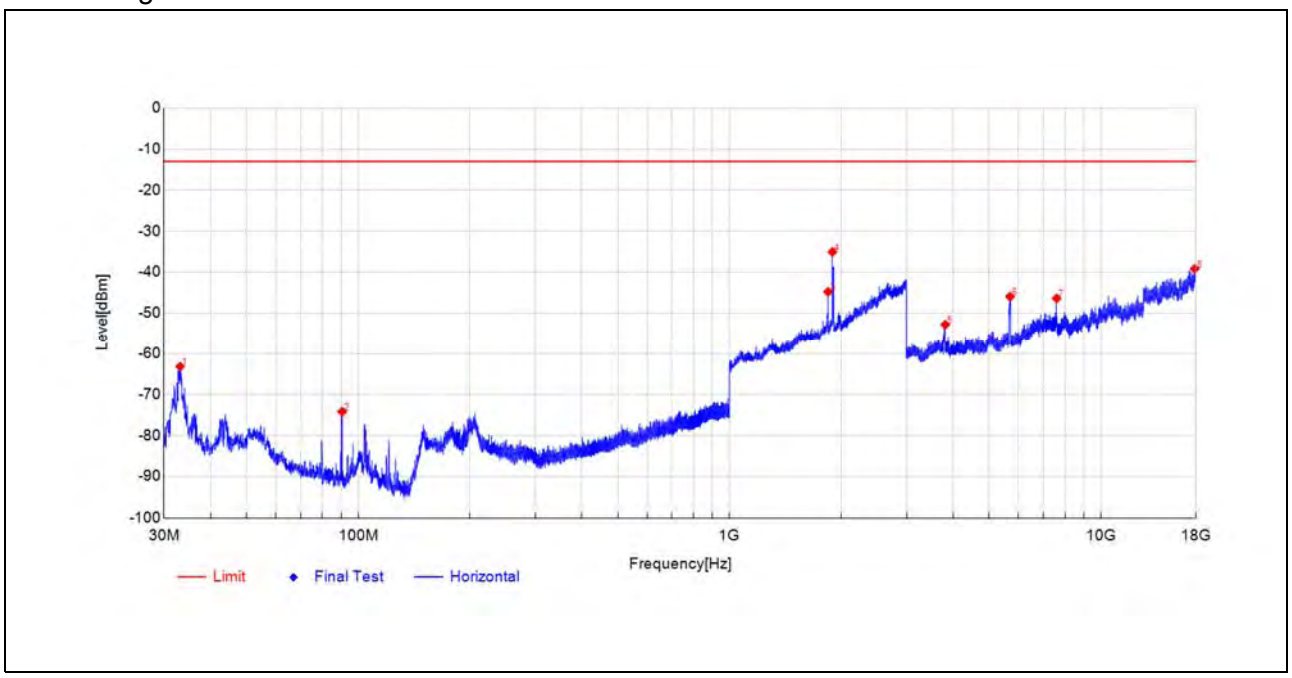


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
33.1527	-45.40	-60.62	-15.2	-13.0	47.6	Horizontal	PK	PASS
204.2207	-56.96	-74.09	-17.1	-13.0	61.1	Horizontal	PK	PASS
1842.1684	-40.52	-36.28	4.2	-13.0	23.28	Horizontal	PK	PASS
1961.3923	-50.99	-46.48	4.5	-	-	Horizontal	PK	NA
3760.3363	-52.31	-51.14	1.2	-13.0	38.1	Horizontal	PK	PASS
5645.2389	-49.21	-42.09	7.1	-13.0	29.1	Horizontal	PK	PASS
7537.6418	-57.67	-45.50	12.2	-13.0	32.5	Horizontal	PK	PASS
17905.778	-69.59	-38.86	30.7	-13.0	25.9	Horizontal	PK	PASS

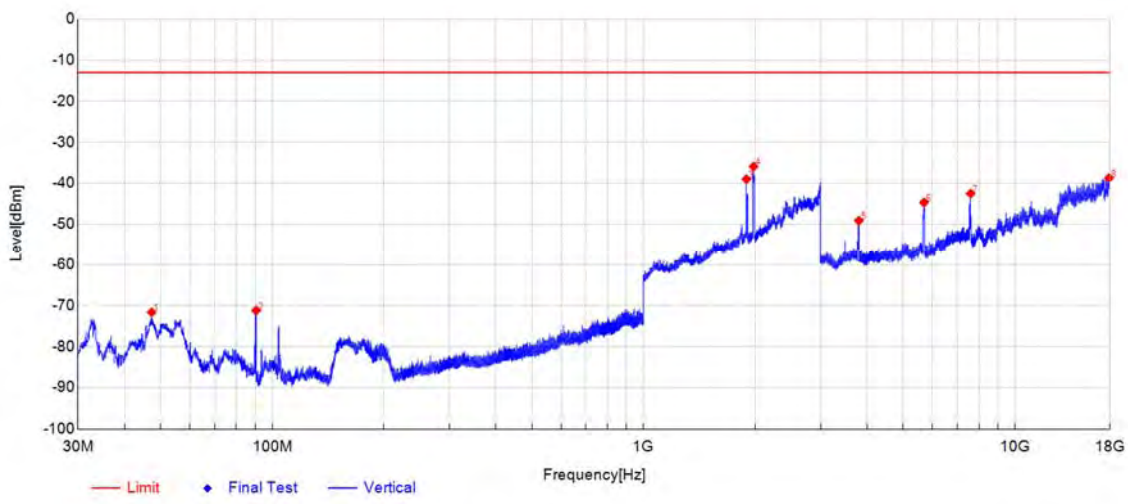


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
34.3167	-47.13	-70.92	-23.8	-13.0	57.9	Vertical	PK	PASS
90.4825	-52.12	-74.40	-22.3	-13.0	61.4	Vertical	PK	PASS
1840.9682	-45.69	-41.14	4.6	-13.0	28.1	Vertical	PK	PASS
1967.3935	-44.94	-40.50	4.4	-	-	Vertical	PK	NA
3774.3992	-49.48	-48.55	0.9	-13.0	35.6	Vertical	PK	PASS
5647.5827	-48.66	-41.98	6.7	-13.0	29.0	Vertical	PK	PASS
7520.2975	-54.48	-42.62	11.9	-13.0	29.6	Vertical	PK	PASS
17894.996	-68.84	-38.00	30.8	-13.0	25.0	Vertical	PK	PASS

Plot for High Channel



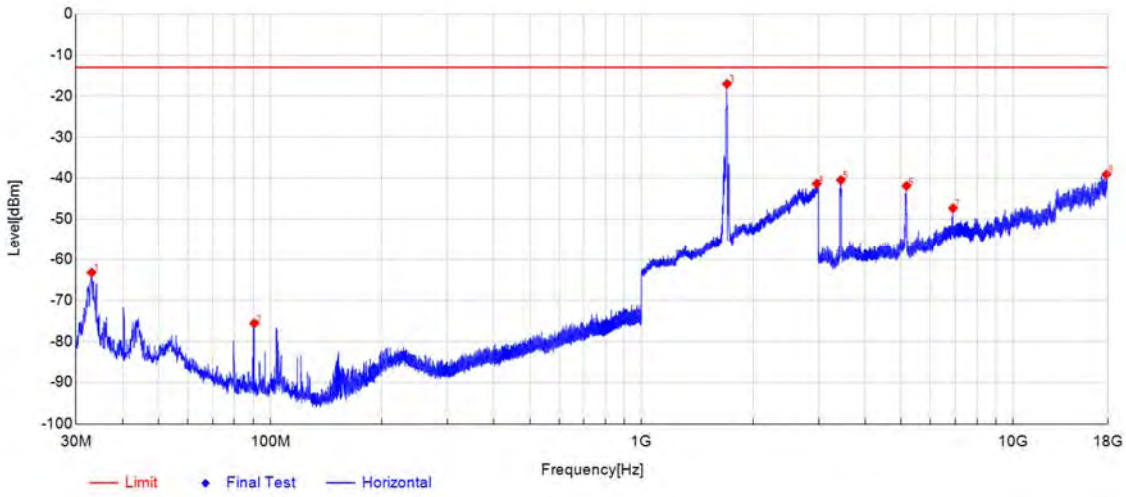
Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
33.1527	-47.99	-63.21	-15.2	-13.0	50.2	Horizontal	PK	PASS
90.4825	-50.84	-74.21	-23.4	-13.0	61.2	Horizontal	PK	PASS
1841.7684	-48.99	-44.75	4.2	-13.0	31.8	Horizontal	PK	PASS
1892.1784	-39.86	-35.05	4.8	-	-	Horizontal	PK	NA
3809.0878	-53.62	-52.79	0.8	-13.0	39.8	Horizontal	PK	PASS
5693.0529	-53.36	-45.94	7.4	-13.0	32.9	Horizontal	PK	PASS
7599.9875	-58.11	-46.36	11.8	-13.0	33.4	Horizontal	PK	PASS
17887.965	-69.87	-39.17	30.7	-13.0	26.2	Horizontal	PK	PASS



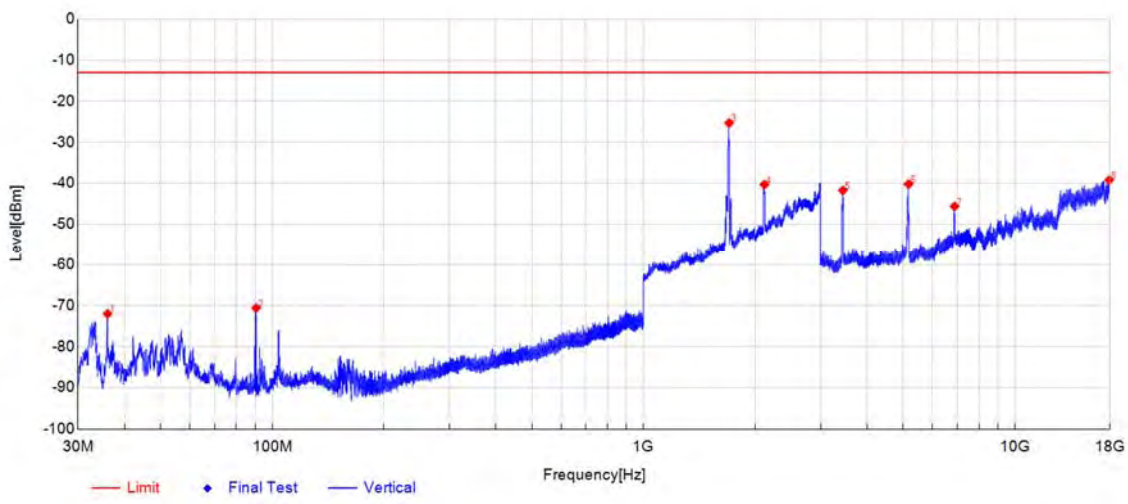
Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
47.3639	-52.21	-71.67	-19.5	-13.0	58.7	Vertical	PK	PASS
90.4825	-48.93	-71.21	-22.3	-13.0	58.2	Vertical	PK	PASS
1892.5785	-44.09	-39.00	5.1	-	-	Vertical	PK	NA
1977.7956	-40.68	-35.91	4.8	-	-	Vertical	PK	NA
3799.7125	-49.75	-49.12	0.6	-13.0	36.1	Vertical	PK	PASS
5689.3028	-51.26	-44.68	6.6	-13.0	31.7	Vertical	PK	PASS
7600.4563	-53.63	-42.50	11.1	-13.0	29.5	Vertical	PK	PASS
17918.903	-69.41	-38.72	30.7	-13.0	25.7	Vertical	PK	PASS

LTE Band 4

Plot for Low Channel

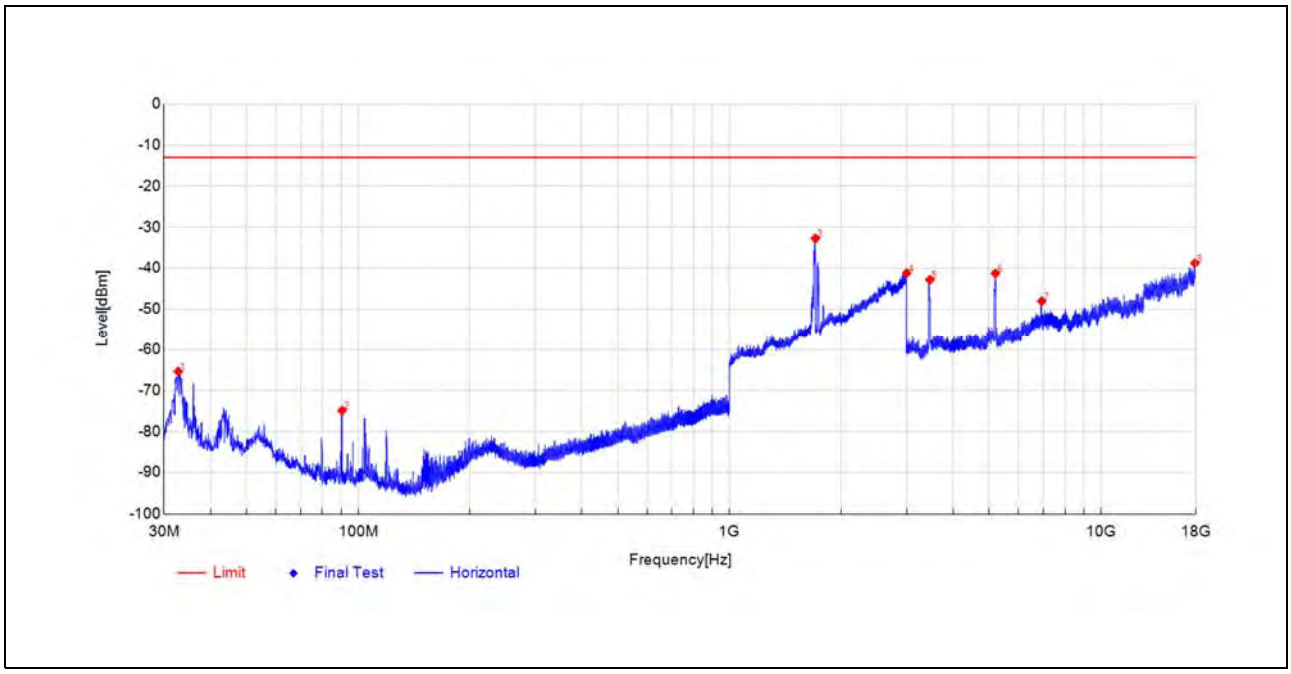


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
33.0557	-47.99	-63.22	-15.2	-13.0	50.2	Horizontal	PK	PASS
90.4825	-52.27	-75.61	-23.3	-13.0	62.6	Horizontal	PK	PASS
1698.1396	-20.24	-17.02	3.2	-13.0	4.0	Horizontal	PK	PASS
2962.3925	-55.40	-41.32	14.1	-13.0	28.3	Horizontal	PK	PASS
3440.17	-41.00	-40.45	0.6	-13.0	27.5	Horizontal	PK	PASS
5167.5677	-47.31	-41.88	5.4	-13.0	28.9	Horizontal	PK	PASS
6897.7781	-58.64	-47.32	11.3	-13.0	34.3	Horizontal	PK	PASS
17859.370	-69.58	-39.09	30.5	-13.0	26.1	Horizontal	PK	PASS

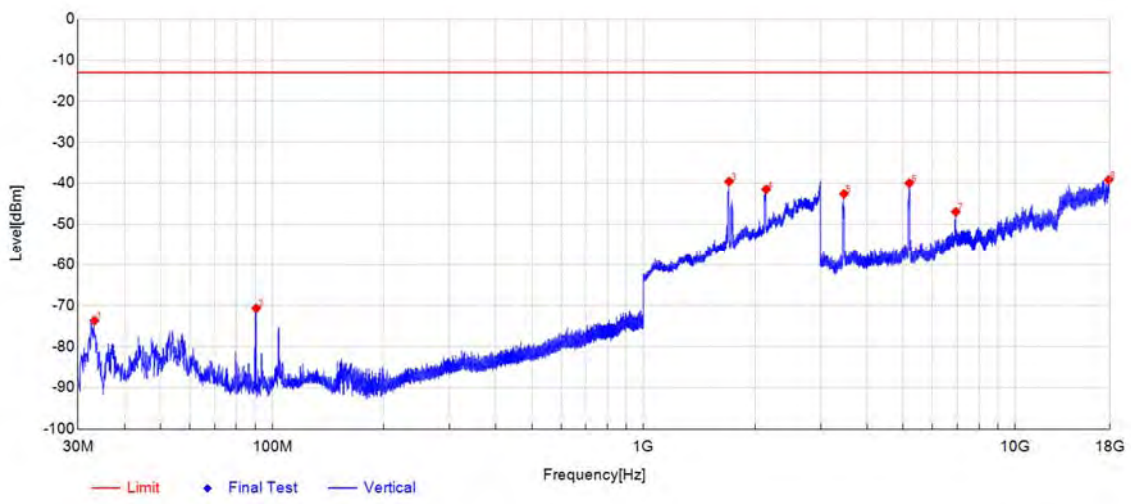


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
36.0143	-48.82	-72.05	-23.2	-13.0	59.1	Vertical	PK	PASS
90.4825	-48.36	-70.61	-22.3	-13.0	57.6	Vertical	PK	PASS
1699.3399	-28.75	-25.31	3.4	-13.0	12.3	Vertical	PK	PASS
2116.6233	-46.01	-40.31	5.7	-	-	Vertical	PK	NA
3439.7012	-42.44	-41.73	0.7	-13.0	28.7	Vertical	PK	PASS
5172.7241	-45.24	-40.18	5.1	-13.0	27.2	Vertical	PK	PASS
6879.965	-56.29	-45.62	10.7	-13.0	32.6	Vertical	PK	PASS
17948.904	-69.53	-39.19	30.3	-13.0	26.2	Vertical	PK	PASS

Plot for Mid Channel

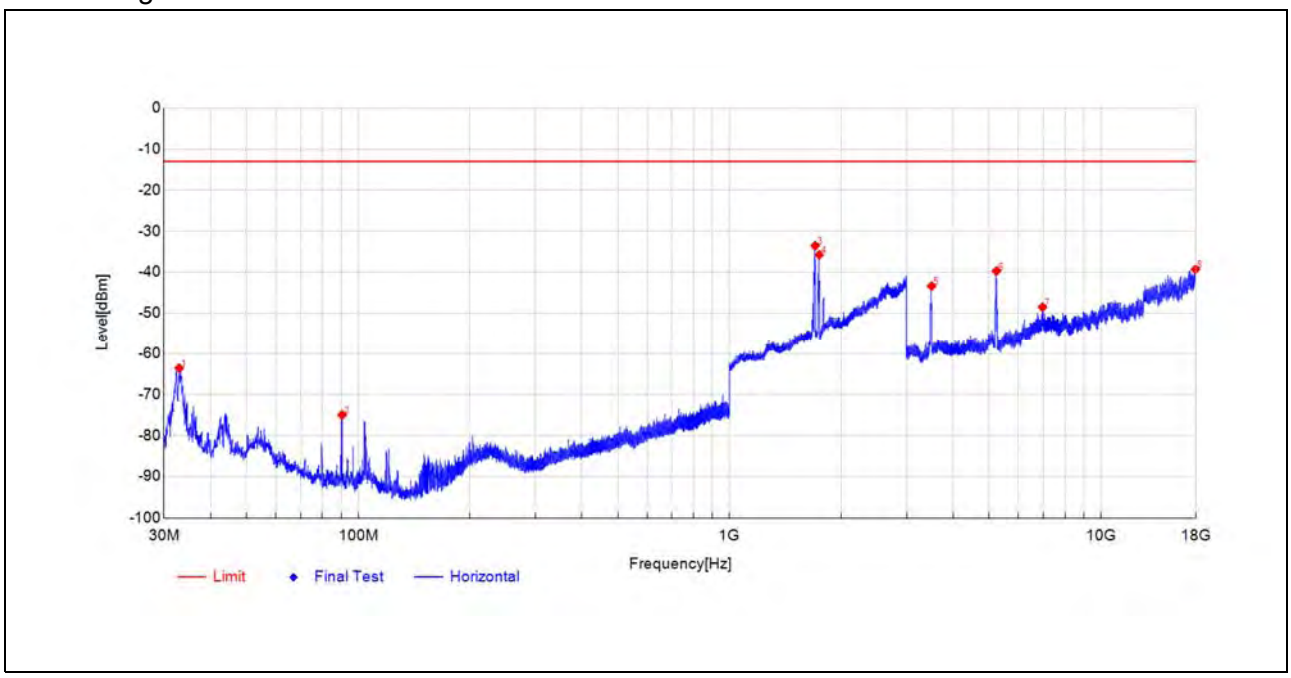


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
32.7646	-50.15	-65.38	-15.2	-13.0	52.4	Horizontal	PK	PASS
90.4825	-51.60	-74.94	-23.3	-13.0	61.9	Horizontal	PK	PASS
1703.3407	-36.10	-32.71	3.4	-13.0	19.7	Horizontal	PK	PASS
2999.1998	-55.68	-41.18	14.5	-13.0	28.2	Horizontal	PK	PASS
3465.0145	-43.56	-42.80	0.8	-13.0	29.8	Horizontal	PK	PASS
5198.5062	-46.38	-41.25	5.1	-13.0	28.3	Horizontal	PK	PASS
6930.1228	-59.43	-48.02	11.4	-13.0	35.0	Horizontal	PK	PASS
17911.403	-69.40	-38.74	30.7	-13.0	25.7	Horizontal	PK	PASS

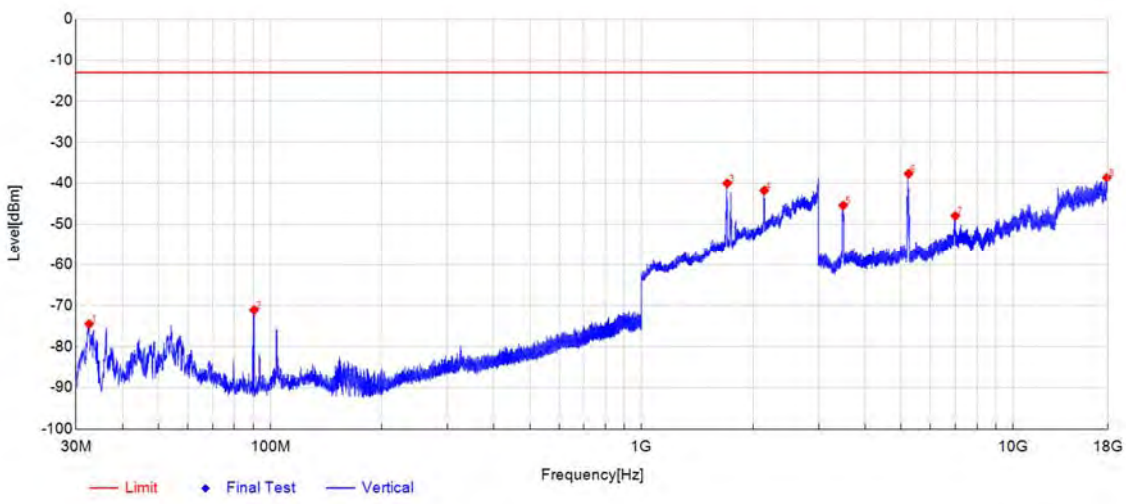


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
33.2012	-49.50	-73.67	-24.2	-13.0	60.7	Vertical	PK	PASS
90.4825	-48.46	-70.71	-22.3	-13.0	57.7	Vertical	PK	PASS
1698.9398	-42.99	-39.57	3.4	-13.0	30.0	Vertical	PK	PASS
2137.8276	-47.40	-41.48	5.9	-	-	Vertical	PK	NA
3465.0145	-43.52	-42.56	1.0	-13.0	29.6	Vertical	PK	PASS
5192.4123	-44.92	-39.97	5.0	-13.0	27.0	Vertical	PK	PASS
6930.1228	-57.73	-46.94	10.8	-13.0	33.9	Vertical	PK	PASS
17882.808	-69.88	-39.18	30.7	-13.0	26.2	Vertical	PK	PASS

Plot for High Channel



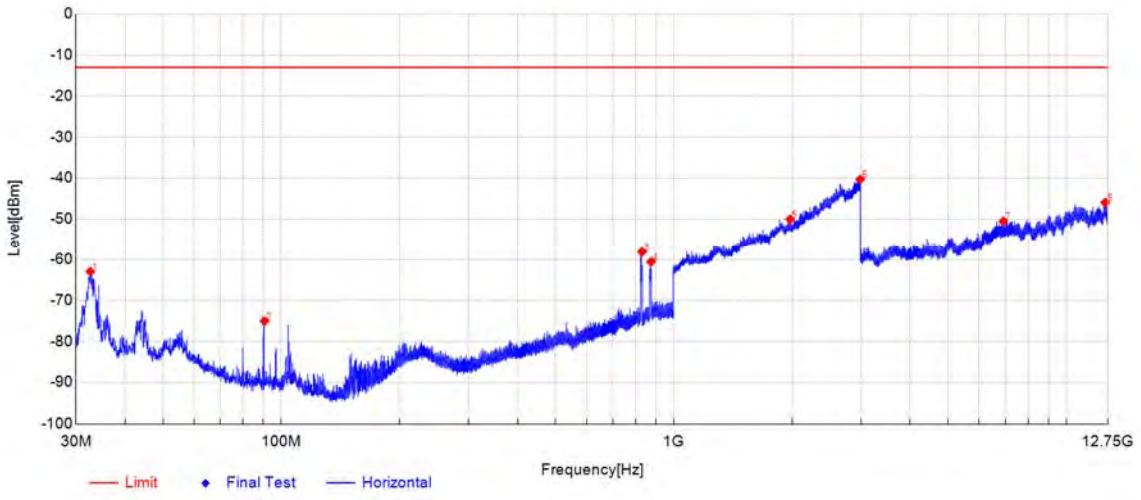
Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
32.9586	-48.36	-63.59	-15.2	-13.0	50.6	Horizontal	PK	PASS
90.4825	-51.67	-75.01	-23.3	-13.0	62.0	Horizontal	PK	PASS
1700.14	-36.87	-33.54	3.3	-13.0	20.5	Horizontal	PK	PASS
1744.1488	-38.71	-35.74	3.0	-	-	Horizontal	PK	NA
3499.2344	-44.40	-43.36	1.0	-13.0	30.4	Horizontal	PK	PASS
5232.726	-44.93	-39.71	5.2	-13.0	26.7	Horizontal	PK	PASS
6961.53	-60.04	-48.53	11.5	-13.0	35.5	Horizontal	PK	PASS
17973.749	-69.17	-39.29	29.9	-13.0	26.3	Horizontal	PK	PASS



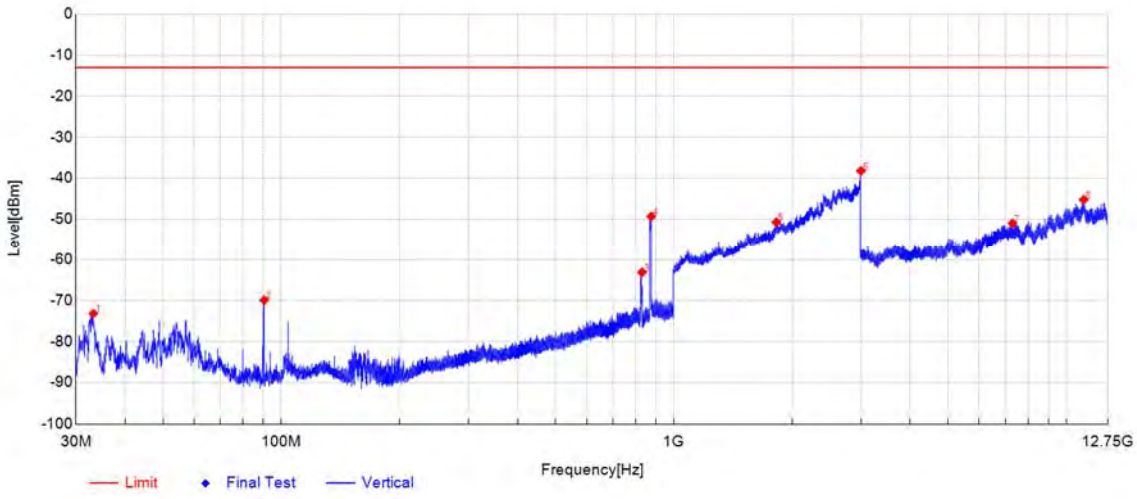
Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
32.5706	-50.14	-74.53	-24.4	-13.0	61.5	Vertical	PK	PASS
90.434	-48.85	-71.11	-22.3	-13.0	58.1	Vertical	PK	PASS
1700.14	-43.46	-39.99	3.5	-13.0	27.0	Vertical	PK	PASS
2139.4279	-47.65	-41.75	5.9	-	-	Vertical	PK	NA
3490.3278	-46.59	-45.38	1.2	-13.0	32.4	Vertical	PK	PASS
5234.1323	-42.67	-37.66	5.0	-13.0	24.7	Vertical	PK	PASS
6998.0937	-59.15	-47.93	11.2	-13.0	34.9	Vertical	PK	PASS
17894.996	-69.48	-38.64	30.8	-13.0	25.6	Vertical	PK	PASS

LTE Band 5

Plot for Low Channel

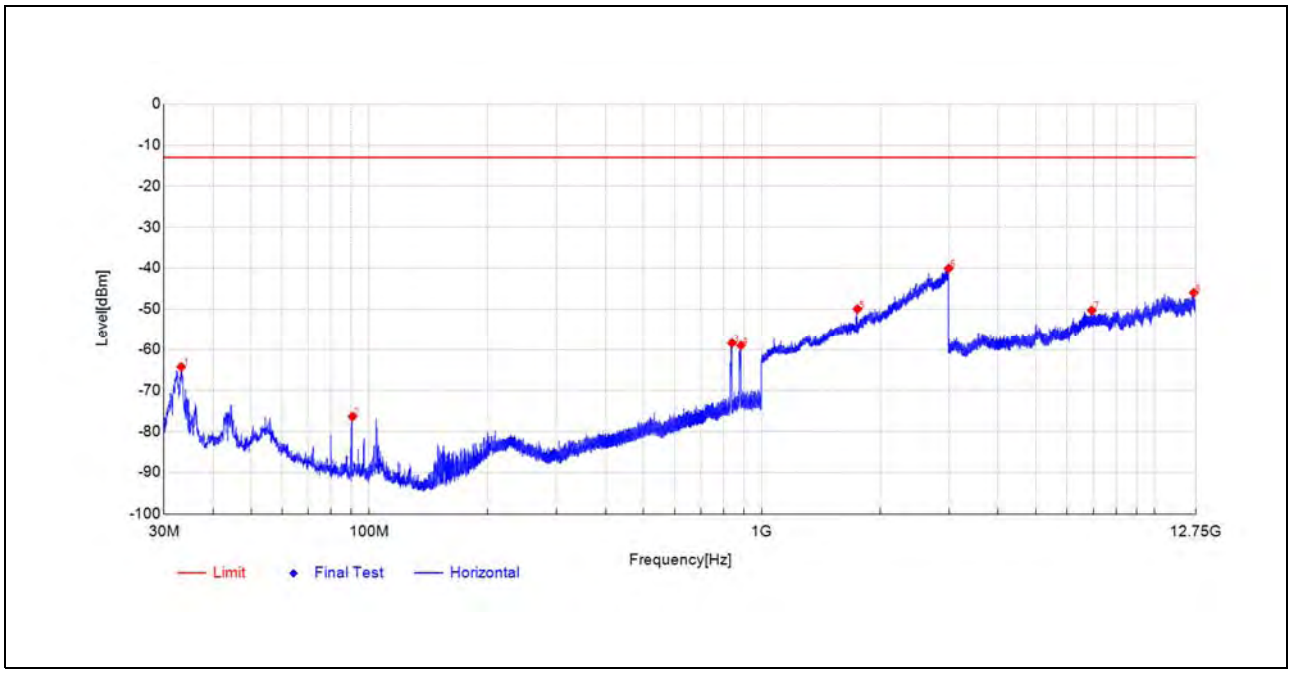


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
32.6191	-47.80	-62.98	-15.2	-13.0	50.0	Horizontal	PK	PASS
90.531	-51.88	-75.06	-23.2	-13.0	62.1	Horizontal	PK	PASS
830.193	-52.44	-58.14	-5.7	-	-	Horizontal	PK	NA
875.7853	-55.81	-60.60	-4.8	-	-	Horizontal	PK	NA
1978.5957	-55.54	-50.03	5.5	-13.0	37.0	Horizontal	PK	PASS
2985.5971	-55.04	-40.28	14.8	-13.0	27.3	Horizontal	PK	PASS
6912.8706	-61.84	-50.49	11.4	-13.0	37.5	Horizontal	PK	PASS
12560.353	-69.26	-45.96	23.3	-13.0	33.0	Horizontal	PK	PASS

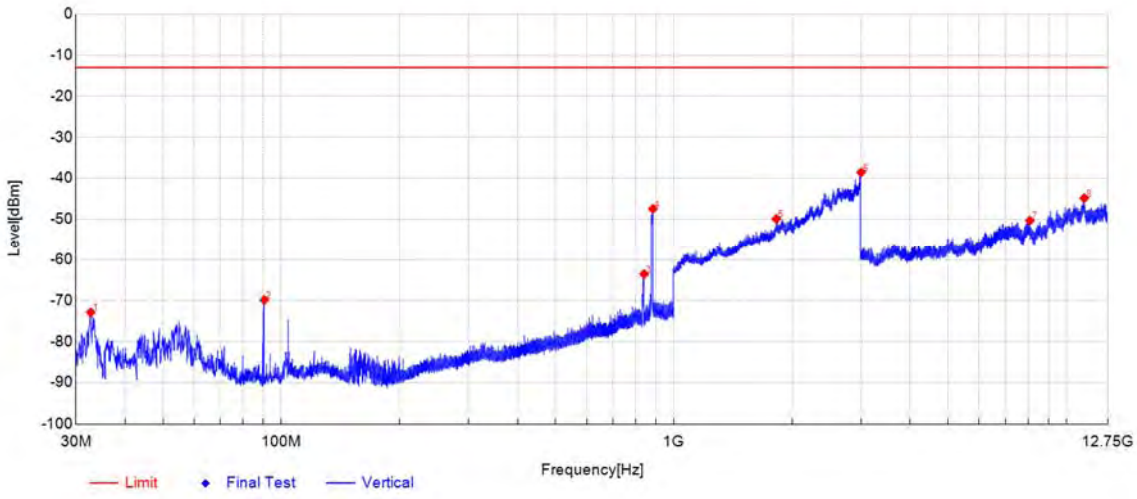


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
33.2012	-49.08	-73.21	-24.1	-13.0	60.2	Vertical	PK	PASS
90.434	-47.82	-69.92	-22.1	-13.0	56.9	Vertical	PK	PASS
829.9505	-57.16	-63.14	-6.0	-	-	Vertical	PK	NA
876.3673	-44.67	-49.28	-4.6	-	-	Vertical	PK	NA
1825.7652	-55.87	-50.70	5.2	-13.0	37.7	Vertical	PK	PASS
2997.1994	-55.14	-38.19	17.0	-13.0	25.2	Vertical	PK	PASS
7295.0898	-63.09	-50.99	12.1	-13.0	38.0	Vertical	PK	PASS
11070.478	-67.51	-45.22	22.3	-13.0	32.2	Vertical	PK	PASS

Plot for Mid Channel

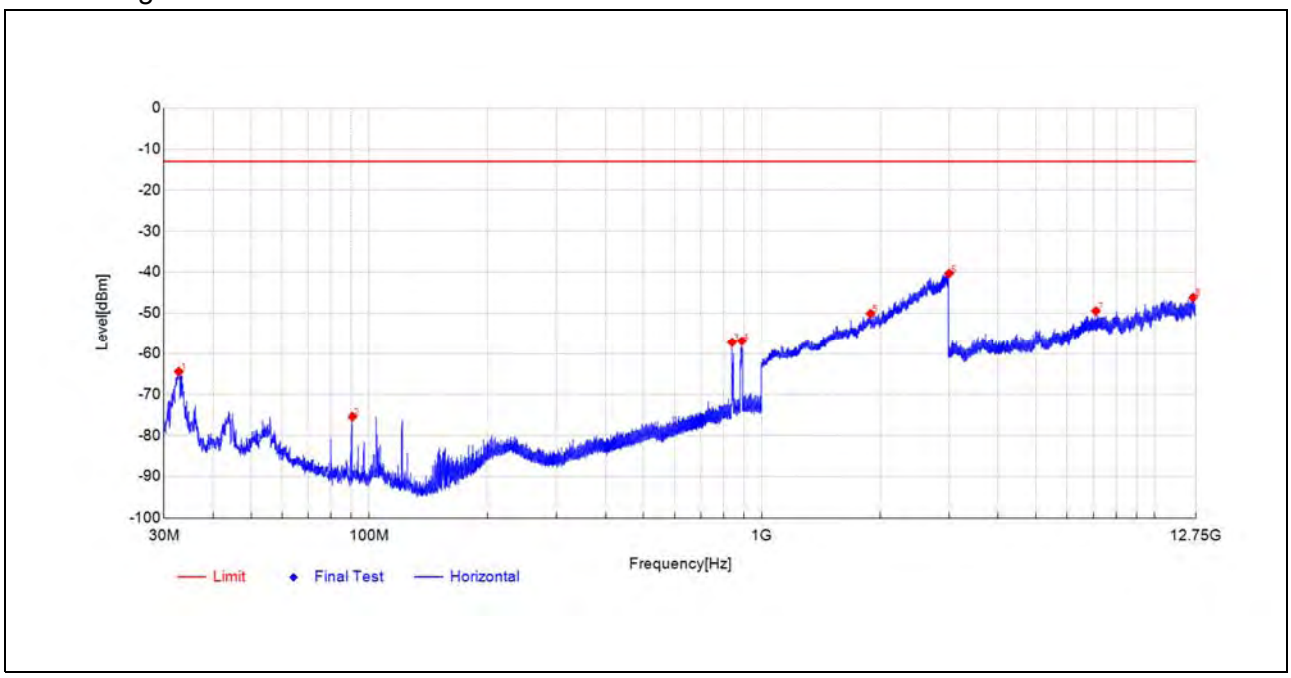


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
33.2012	-49.09	-64.28	-15.2	-13.0	51.3	Horizontal	PK	PASS
90.531	-53.23	-76.41	-23.2	-13.0	63.4	Horizontal	PK	PASS
839.3115	-52.99	-58.44	-5.5	-	-	Horizontal	PK	NA
884.9037	-54.28	-59.00	-4.7	-	-	Horizontal	PK	NA
1752.5505	-52.71	-49.94	2.8	-13.0	36.9	Horizontal	PK	PASS
2991.9984	-54.95	-40.06	14.9	-13.0	27.1	Horizontal	PK	PASS
6931.3966	-61.69	-50.28	11.4	-13.0	37.3	Horizontal	PK	PASS
12606.180	-69.17	-46.01	23.2	-13.0	33.0	Horizontal	PK	PASS

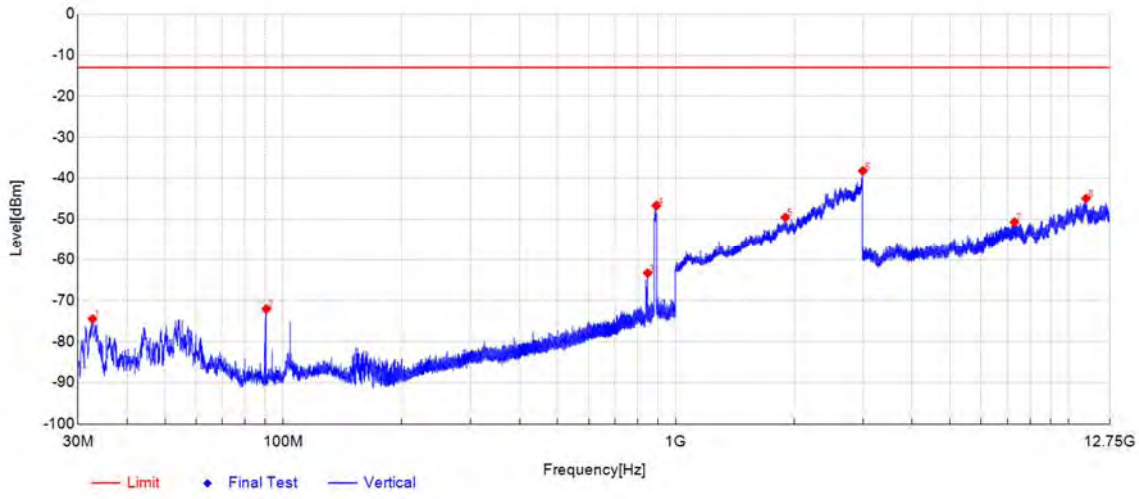


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
32.7161	-48.61	-72.90	-24.3	-13.0	59.9	Vertical	PK	PASS
90.4825	-47.78	-69.88	-22.1	-13.0	56.9	Vertical	PK	PASS
840.136	-57.84	-63.57	-5.7	-	-	Vertical	PK	NA
884.4672	-42.98	-47.44	-4.5	-	-	Vertical	PK	NA
1824.5649	-54.99	-49.89	5.1	-13.0	36.9	Vertical	PK	PASS
3000	-55.82	-38.56	17.3	-13.0	25.6	Vertical	PK	PASS
8072.6911	-63.31	-50.31	13.0	-13.0	37.3	Vertical	PK	PASS
11107.042	-67.16	-44.85	22.3	-13.0	31.9	Vertical	PK	PASS

Plot for High Channel



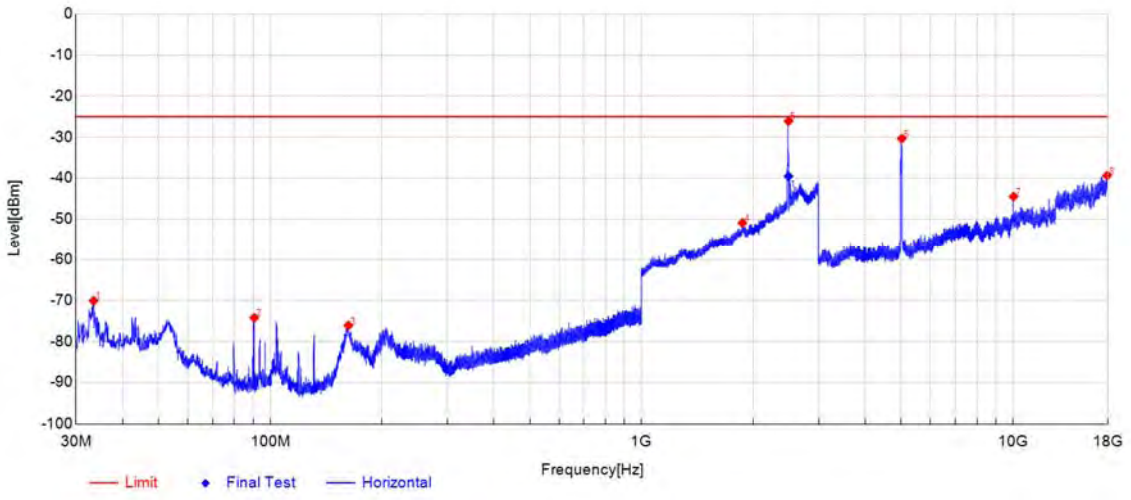
Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
32.7161	-49.27	-64.45	-15.2	-13.0	51.5	Horizontal	PK	PASS
90.531	-52.25	-75.43	-23.2	-13.0	62.4	Horizontal	PK	PASS
839.942	-51.77	-57.20	-5.4	-	-	Horizontal	PK	NA
889.269	-52.20	-56.90	-4.7	-	-	Horizontal	PK	NA
1892.5785	-55.67	-50.08	5.6	-13.0	37.1	Horizontal	PK	PASS
2998.7998	-55.33	-40.31	15.0	-13.0	27.3	Horizontal	PK	PASS
7098.1299	-61.58	-49.46	12.1	-13.0	36.5	Horizontal	PK	PASS
12560.840	-69.48	-46.17	23.3	-13.0	33.2	Horizontal	PK	PASS



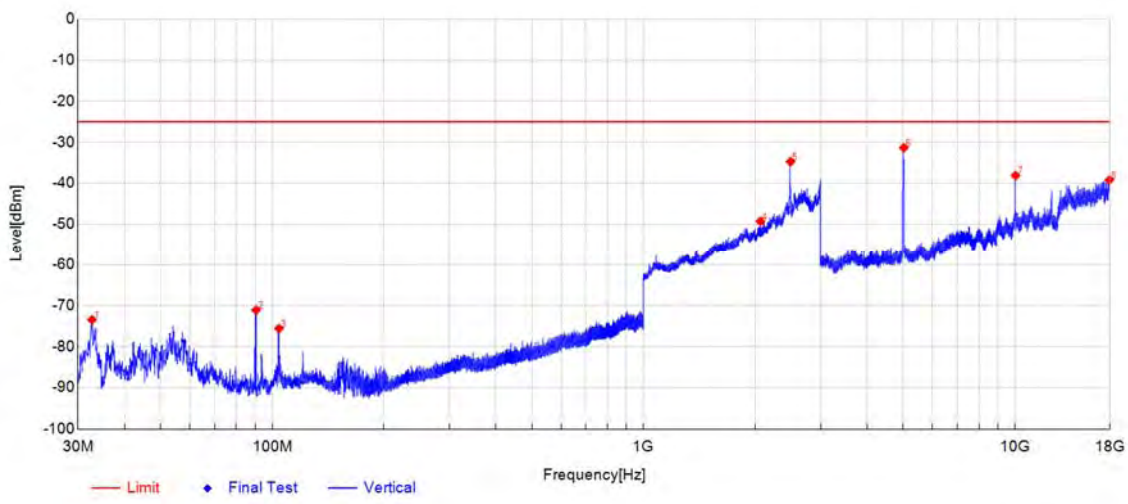
Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
32.6676	-50.23	-74.53	-24.3	-13.0	61.5	Vertical	PK	PASS
90.4825	-50.01	-72.11	-22.1	-13.0	59.1	Vertical	PK	PASS
848.0419	-57.79	-63.34	-5.6	-	-	Vertical	PK	NA
891.7911	-42.24	-46.68	-4.4	-	-	Vertical	PK	NA
1900.9802	-55.42	-49.53	5.9	-13.0	36.5	Vertical	PK	PASS
2995.9992	-55.03	-38.21	16.8	-13.0	25.2	Vertical	PK	PASS
7289.2395	-62.73	-50.69	12.0	-13.0	37.7	Vertical	PK	PASS
11101.192	-67.32	-44.93	22.4	-13.0	31.9	Vertical	PK	PASS

LTE Band 7

Plot for Low Channel

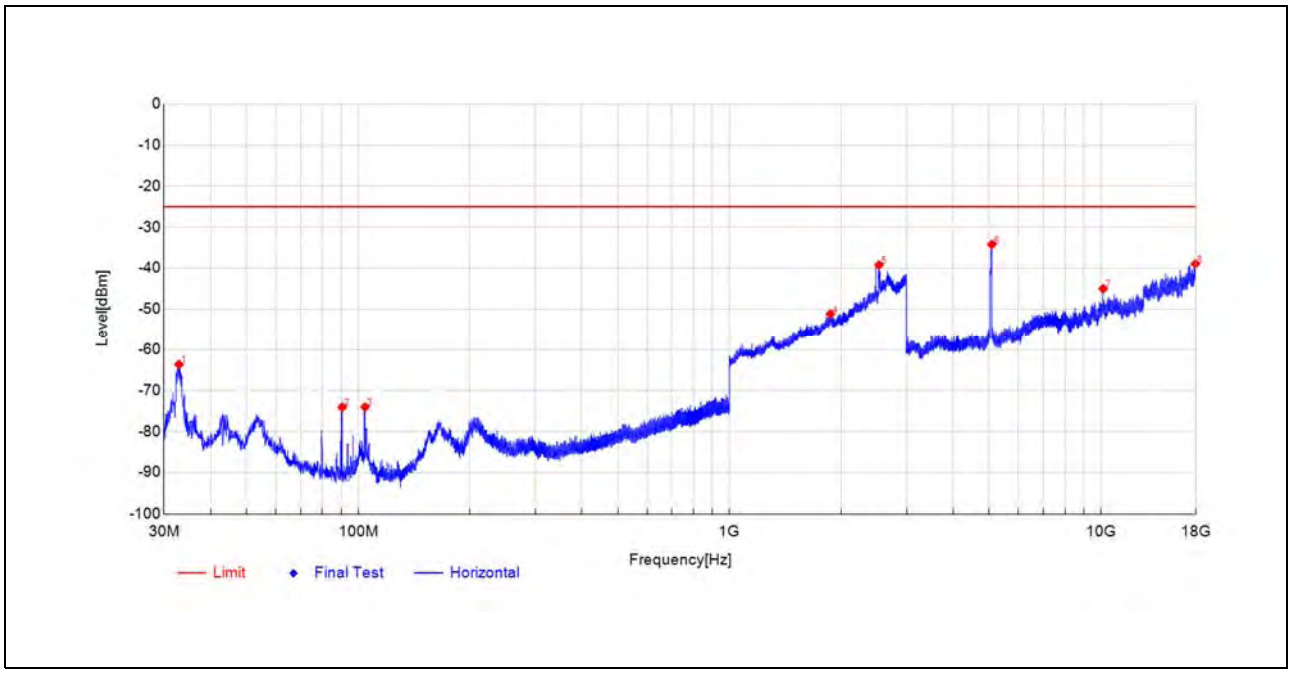


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
33.4437	-54.95	-70.11	-15.2	-25.0	45.1	Horizontal	PK	PASS
90.531	-50.95	-74.24	-23.3	-25.0	49.2	Horizontal	PK	PASS
162.3631	-52.09	-76.13	-24.0	-25.0	51.1	Horizontal	PK	PASS
1868.9738	-55.89	-50.91	5.0	-25.0	25.9	Horizontal	PK	PASS
2487.4975	-36.06	-26.10	10.0	-25.0	1.1	Horizontal	PK	NA
2487.4975	-49.48	-39.52	10.0	-25.00	14.52	Horizontal	AV	PASS
5019.9069	-36.45	-30.36	6.1	-25.0	5.4	Horizontal	PK	PASS
10039.907	-62.06	-44.46	17.6	-25.0	19.5	Horizontal	PK	PASS
17923.122	-69.89	-39.38	30.5	-25.0	14.4	Horizontal	PK	PASS

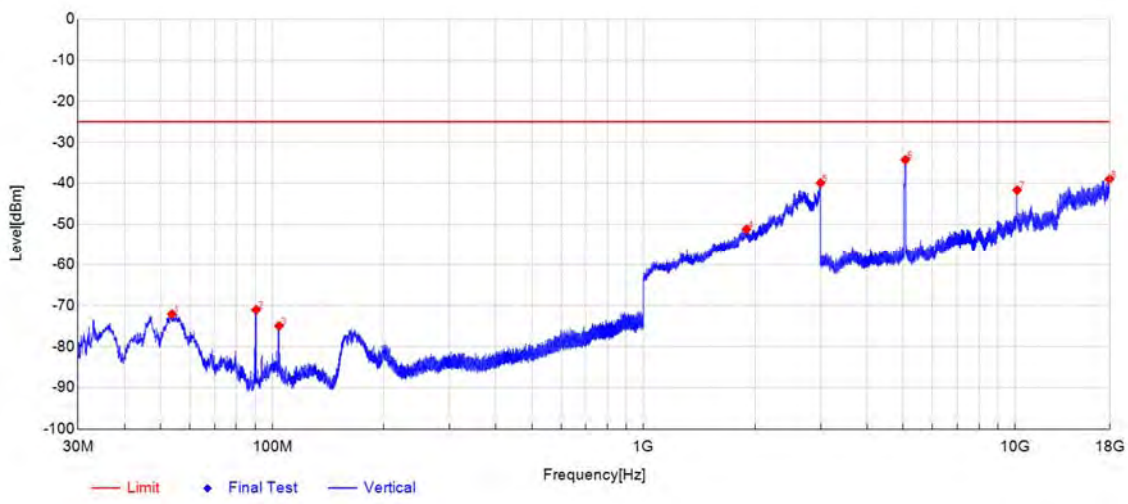


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
32.7161	-49.25	-73.51	-24.3	-25.0	48.5	Vertical	PK	PASS
90.434	-48.92	-71.14	-22.2	-25.0	46.1	Vertical	PK	PASS
104.3057	-54.62	-75.62	-21.0	-25.0	50.6	Vertical	PK	PASS
2064.2128	-54.41	-49.26	5.2	-25.0	24.3	Vertical	PK	PASS
2487.8976	-44.79	-34.71	10.1	-25.0	9.7	Vertical	PK	PASS
5019.9069	-36.84	-31.33	5.5	-25.0	6.3	Vertical	PK	PASS
10040.376	-56.37	-38.11	18.3	-25.0	13.1	Vertical	PK	PASS
17958.279	-69.42	-39.19	30.2	-25.0	14.2	Vertical	PK	PASS

Plot for Mid Channel

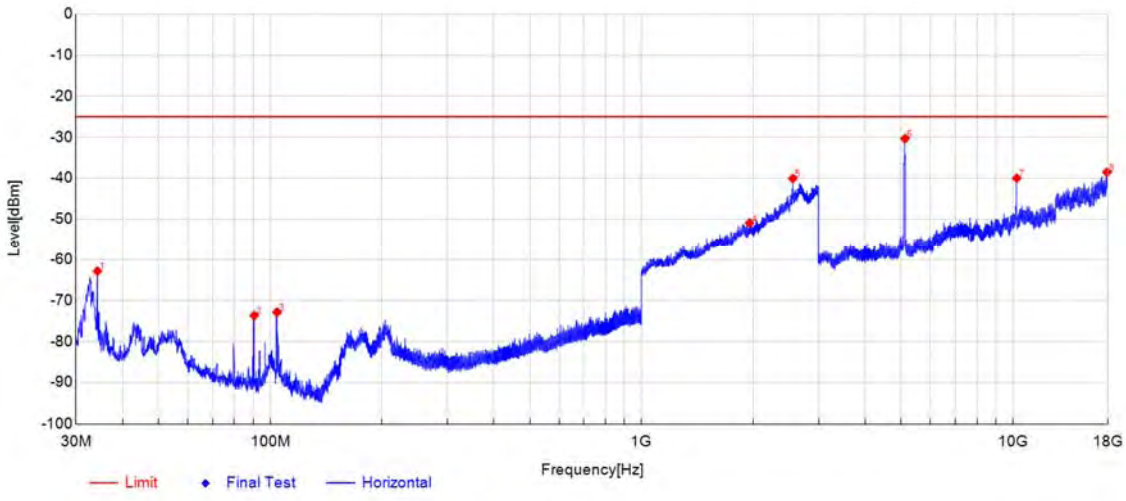


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
32.9101	-48.53	-63.68	-15.2	-25.0	38.7	Horizontal	PK	PASS
90.531	-50.82	-74.11	-23.3	-25.0	49.1	Horizontal	PK	PASS
104.3057	-51.40	-74.08	-22.7	-25.0	49.1	Horizontal	PK	PASS
1868.1736	-56.09	-51.16	4.9	-25.0	26.2	Horizontal	PK	PASS
2526.7053	-50.38	-39.20	11.2	-	-	Horizontal	PK	NA
5086.0027	-40.25	-34.19	6.1	-25.0	9.2	Horizontal	PK	PASS
10140.223	-63.19	-44.98	18.2	-25.0	20.0	Horizontal	PK	PASS
17974.217	-68.82	-38.94	29.9	-25.0	13.9	Horizontal	PK	PASS

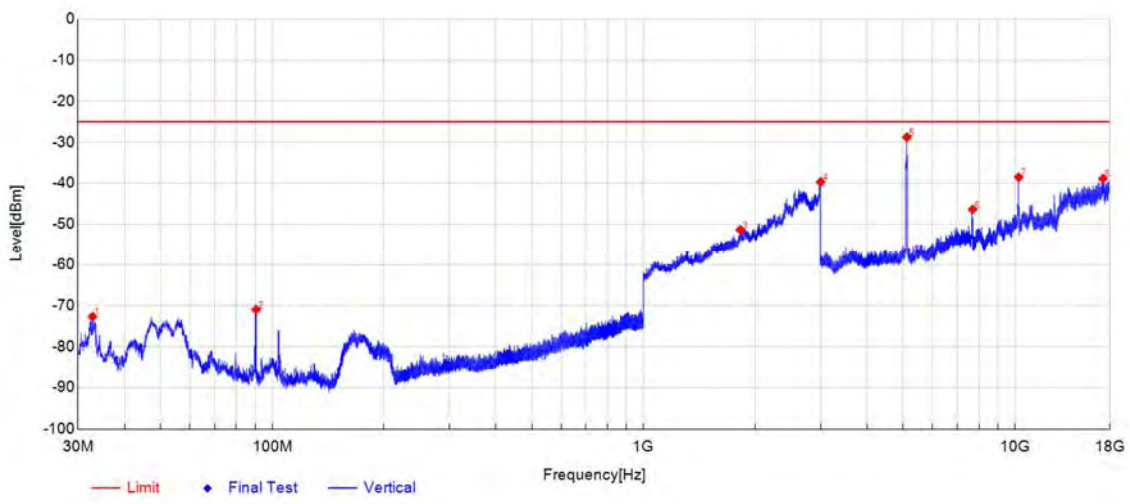


Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
53.6692	-54.78	-72.13	-17.4	-25.0	47.1	Vertical	PK	PASS
90.4825	-48.84	-71.06	-22.2	-25.0	46.1	Vertical	PK	PASS
104.3057	-53.97	-74.97	-21.0	-25.0	50.0	Vertical	PK	PASS
1893.7788	-56.23	-51.21	5.0	-25.0	26.2	Vertical	PK	PASS
2996.3993	-55.87	-39.91	16.0	-25.0	14.9	Vertical	PK	PASS
5069.5959	-39.76	-34.28	5.5	-25.0	9.3	Vertical	PK	PASS
10139.754	-60.53	-41.66	18.9	-25.0	16.7	Vertical	PK	PASS
17971.405	-69.07	-38.99	30.1	-25.0	14.0	Vertical	PK	PASS

Plot for High Channel



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
34.2682	-47.70	-62.87	-15.2	-25.0	37.9	Horizontal	PK	PASS
90.531	-50.42	-73.71	-23.3	-25.0	48.7	Horizontal	PK	PASS
104.3057	-50.20	-72.88	-22.7	-25.0	47.9	Horizontal	PK	PASS
1954.991	-55.48	-50.94	4.5	-25.0	25.9	Horizontal	PK	PASS
2555.5111	-51.30	-40.06	11.2	-	-	Horizontal	PK	NA
5119.7537	-36.22	-30.34	5.9	-25.0	5.3	Horizontal	PK	PASS
10240.07	-59.04	-39.98	19.1	-25.0	15.0	Horizontal	PK	PASS
17916.559	-69.13	-38.53	30.6	-25.0	13.5	Horizontal	PK	PASS



Frequency [MHz]	Reading [dBm]	Level [dBm]	Factor [dB]	Limit [dBm]	Margin [dB]	Polarity	Detector	Verdict
32.8131	-48.53	-72.76	-24.2	-25.0	47.8	Vertical	PK	PASS
90.4825	-48.79	-71.01	-22.2	-25.0	46.0	Vertical	PK	PASS
1822.1644	-55.76	-51.36	4.4	-25.0	26.4	Vertical	PK	PASS
2997.5995	-55.78	-39.67	16.1	-25.0	14.7	Vertical	PK	PASS
5120.2225	-34.11	-28.76	5.4	-25.0	3.8	Vertical	PK	PASS
7692.8029	-58.16	-46.39	11.8	-25.0	21.4	Vertical	PK	PASS
10240.07	-57.93	-38.50	19.4	-25.0	13.5	Vertical	PK	PASS
17264.039	-69.31	-38.86	30.5	-25.0	13.9	Vertical	PK	PASS

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 Equipment Utilized

4.1 Conducted Test Equipment

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
EXA Signal Analyzer	MY51511149	N9020A	Agilent	2024.06.19	2025.06.18
Communication Test Station	6200995016	MT8820C	Anritsu	2024.09.11	2025.09.10
Temperature Chamber	S022177101 00089002	KMT-36LF 1A0	KOMEG	2024.09.11	2025.09.10

4.2 List of Software Used

Description	Manufacturer	Software Version
MOR-2023E Test System	MORLAB	V7.99
JS36-RSE	Tonscend	5.0.0

4.3 Radiated Test Equipment

Equipment	Serial No.	Type	Manufacturer	Cal. Date	Due Date
System Simulator	152038	CMW500	R&S	2024.09.11	2025.09.10
Receiver	MY56060145	N9020A	Agilent	2024.05.30	2025.05.29
Test Antenna - Bi-Log	9163-519	VULB 9163	Schwarzbeck	2024.06.22	2025.06.21
Test Antenna - Horn	9120D-963	BBHA 9120D	Schwarzbeck	2024.06.22	2025.06.21
RF Coaxial Cable (DC-18GHz)	MRE001	PE330	Pasternack	2024.05.30	2025.05.29
RF Coaxial Cable (DC-18GHz)	MRE002	CLU18	Pasternack	2024.05.30	2025.05.29
RF Coaxial Cable (DC-18GHz)	MRE003	CLU18	Pasternack	2024.05.30	2025.05.29
RF Coaxial Cable (DC-40GHz)	22290045	QA360-40-KK-0.5	Qualwave	2024.07.03	2025.07.02
RF Coaxial Cable (DC-40GHz)	22290046	QA360-40-KKF-2	Qualwave	2024.07.03	2025.07.02
Preamplifier (10MHz-6GHz)	46732	S10M100L3802	LUCIX CORP.	2024.05.30	2025.05.29
Preamplifier (2GHz-18GHz)	61171/61172	S020180L3203	LUCIX CORP.	2024.05.30	2025.05.29
Preamplifier (18GHz-40GHz)	DS77209	DCLNA0118-40C-S	Decentest	2024.05.30	2025.05.29
Notch Filter	N/A	WRCGV -LTE B4	Wainwright	N/A	N/A
Notch Filter	N/A	WRCGV -LTE B5	Wainwright	N/A	N/A
Notch Filter	N/A	WRCGV -LTE B7	Wainwright	N/A	N/A
Notch Filter	N/A	WRCGV -LTE B38	Wainwright	N/A	N/A
Notch Filter	N/A	WRCGV -LTE B41	Wainwright	N/A	N/A
Anechoic Chamber	N/A	9m*6m*6m	CRT	2022.05.10	2025.05.09

END OF REPORT