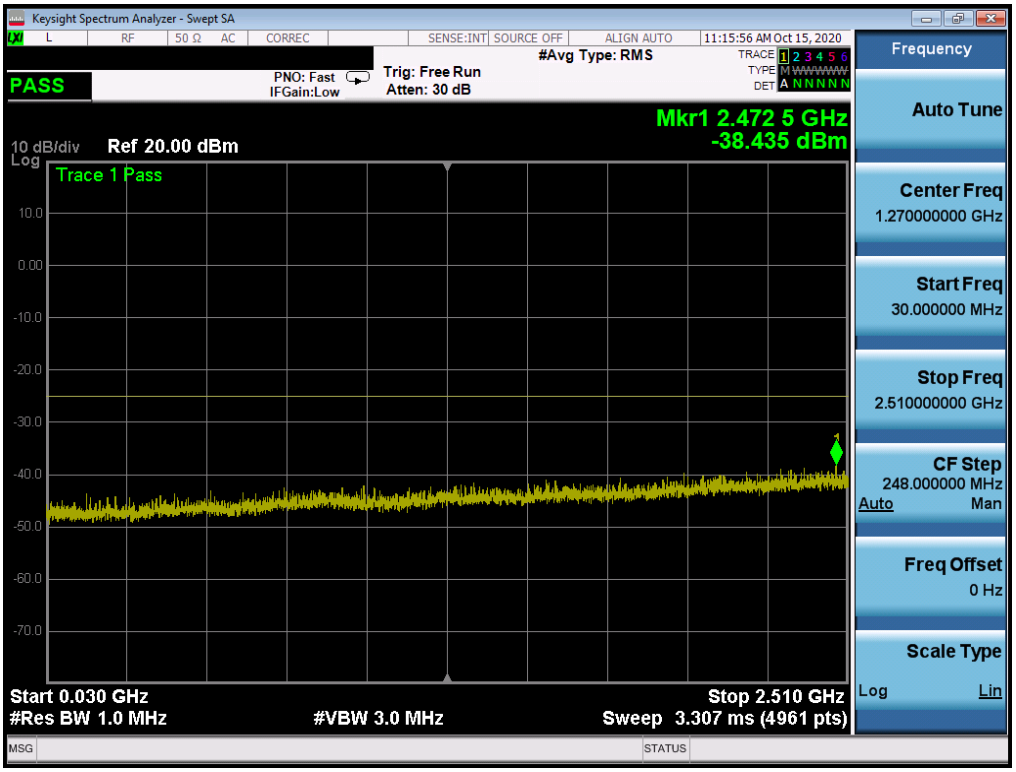
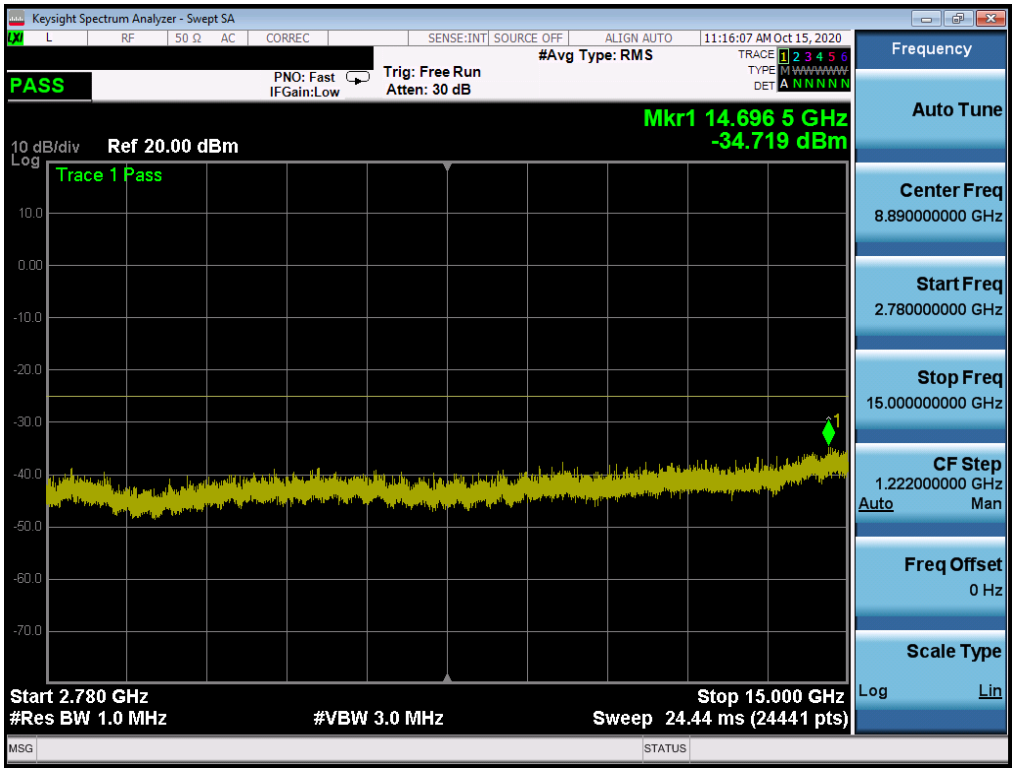
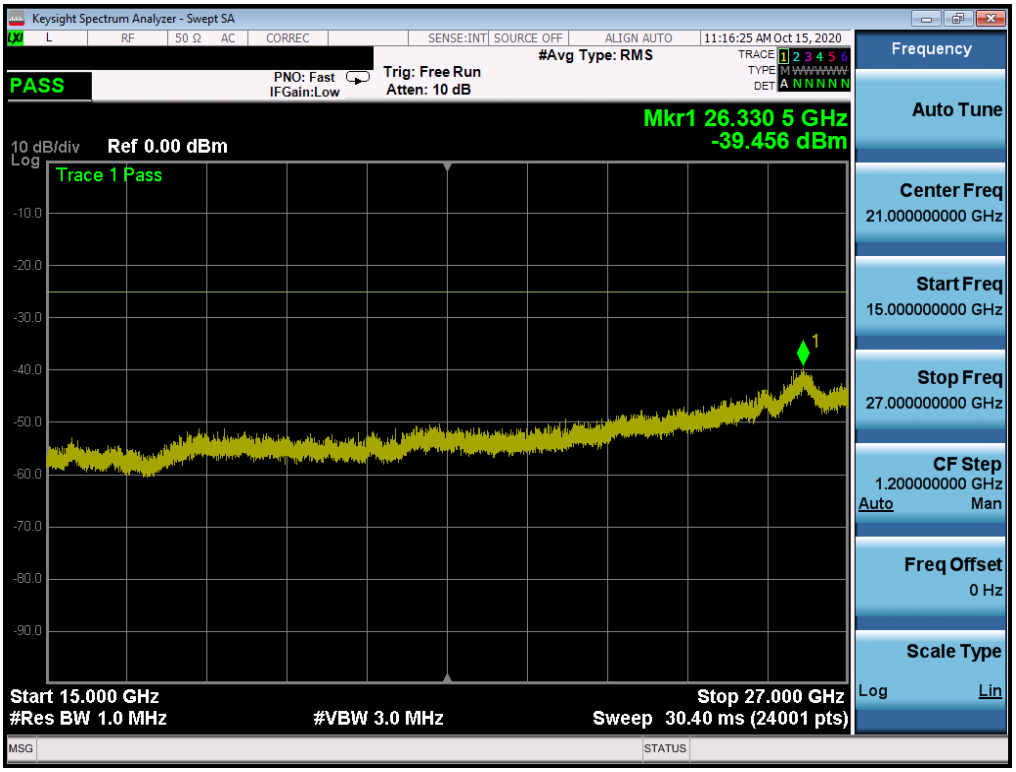


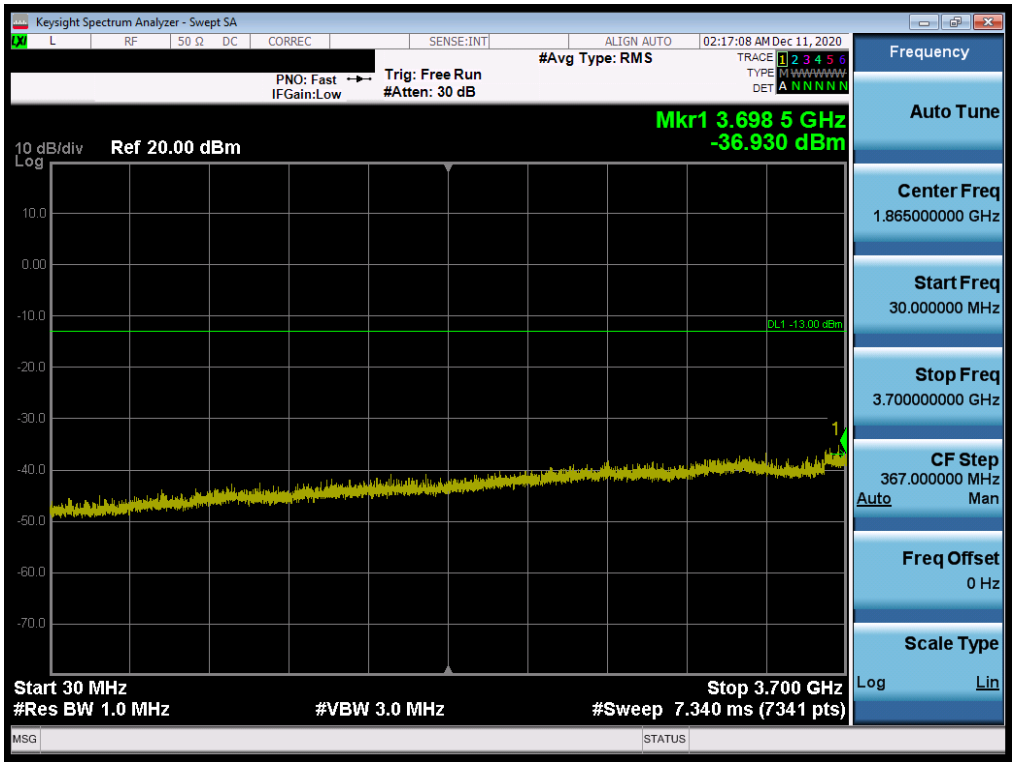
Plot 7-211. Conducted Spurious Plot (NR Band n41 - 100.0MHz - RB Size 1, RB Offset 0 - High Channel)



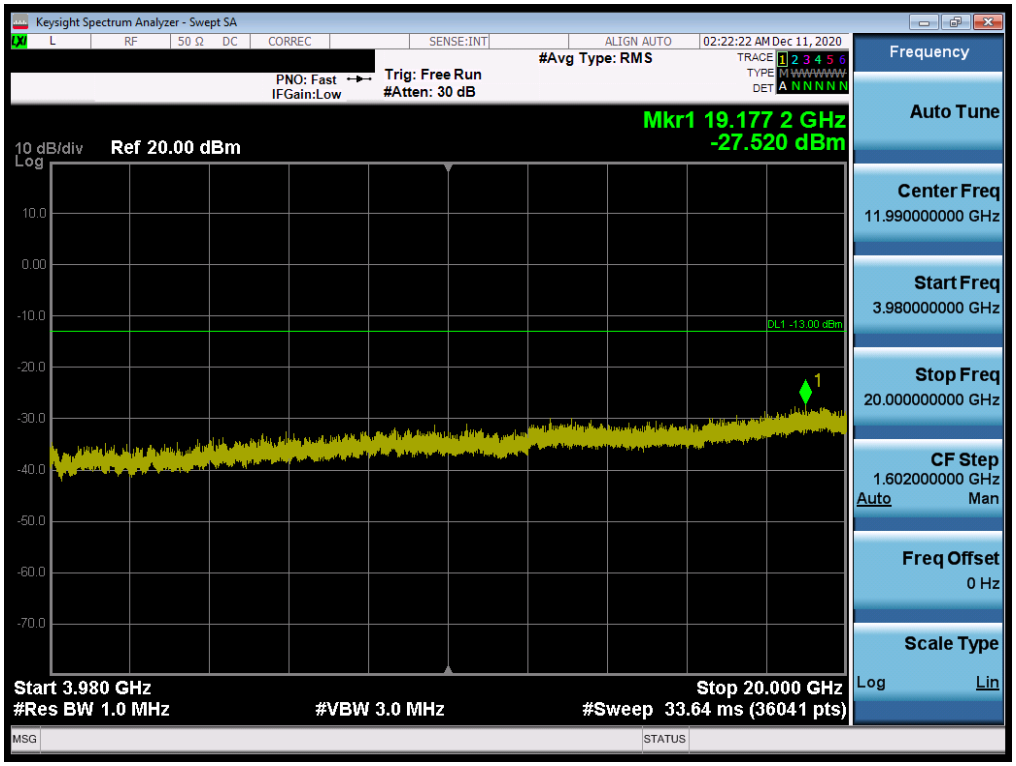
Plot 7-212. Conducted Spurious Plot (NR Band n41 - 100.0MHz - RB Size 1, RB Offset 0 - High Channel)



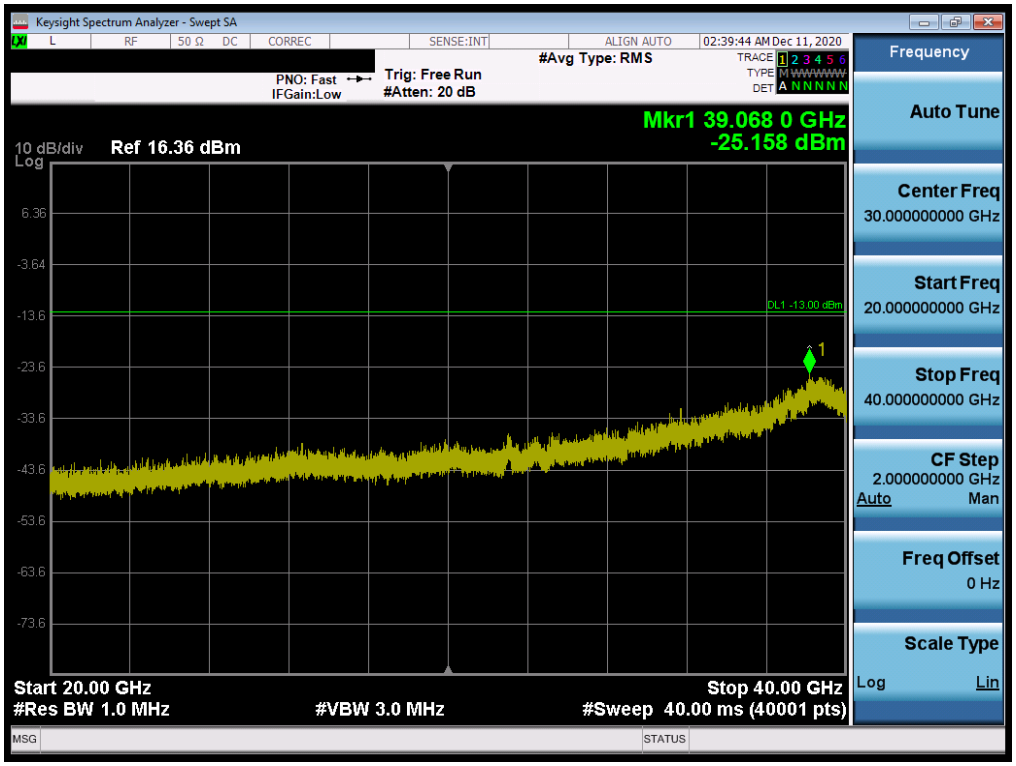
Plot 7-213. Conducted Spurious Plot (NR Band n41 - 100.0MHz - RB Size 1, RB Offset 0 - High Channel)



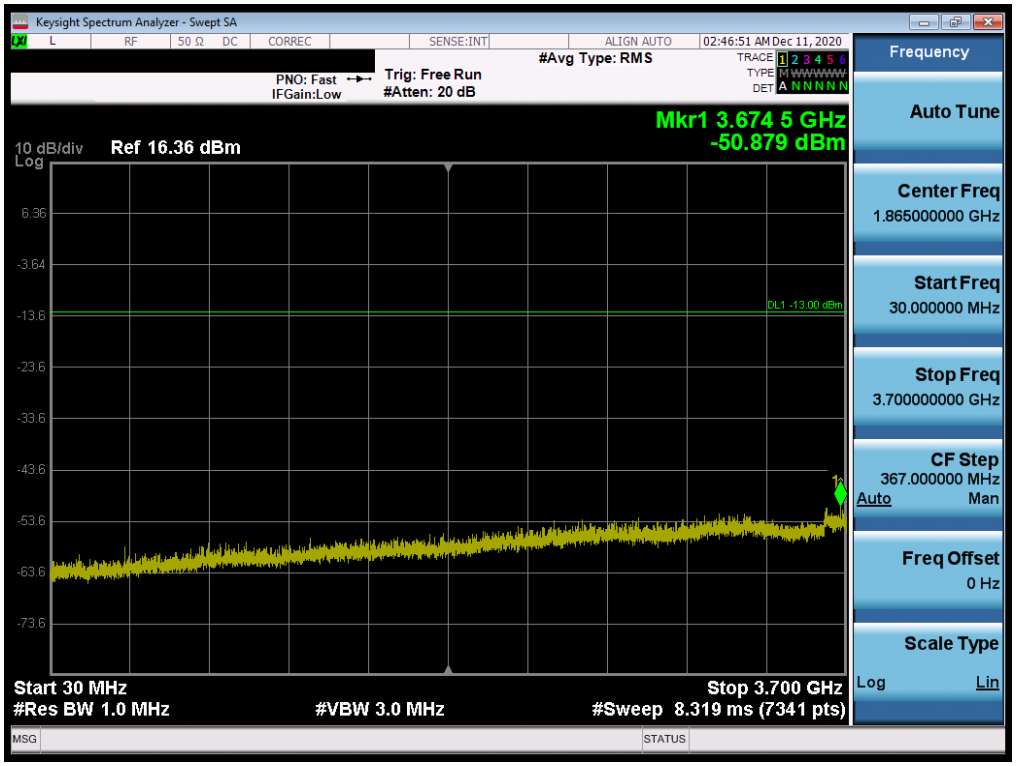
Plot 7-214. Conducted Spurious Plot (NR Band n77 -100.0MHz - RB Size 1, RB Offset 0 - Low Channel)



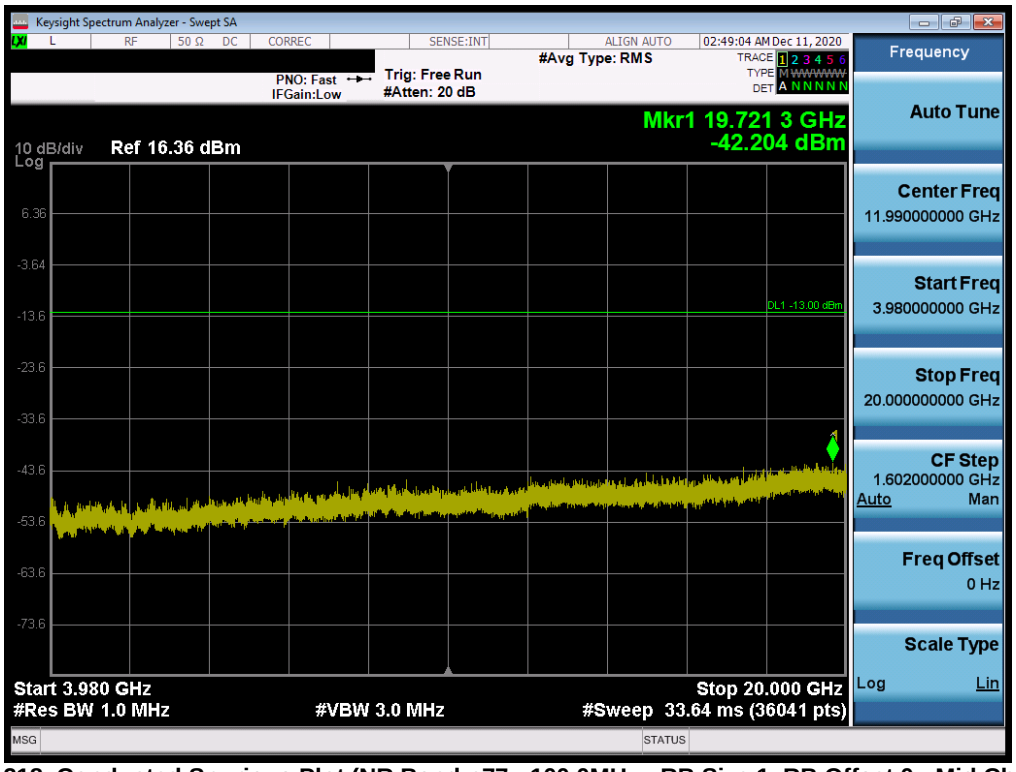
Plot 7-215. Conducted Spurious Plot (NR Band n77 - 100.0MHz - RB Size 1, RB Offset 0 - Low Channel)



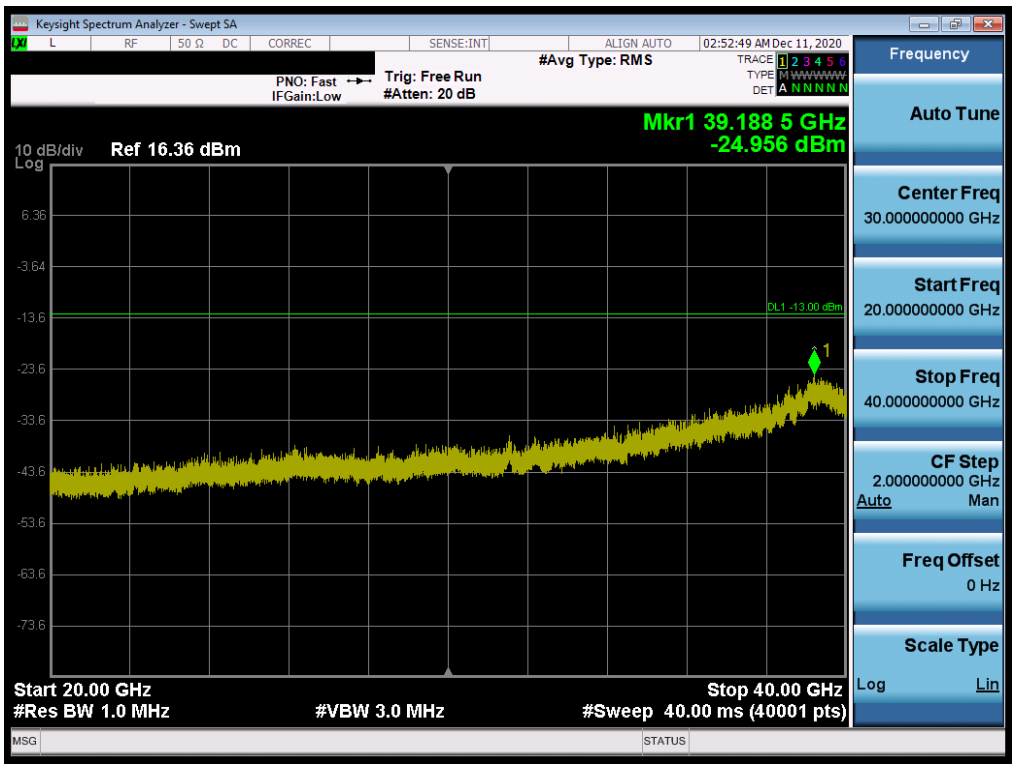
Plot 7-216. Conducted Spurious Plot (NR Band n77 - 100.0MHz - RB Size 1, RB Offset 0 - Low Channel)



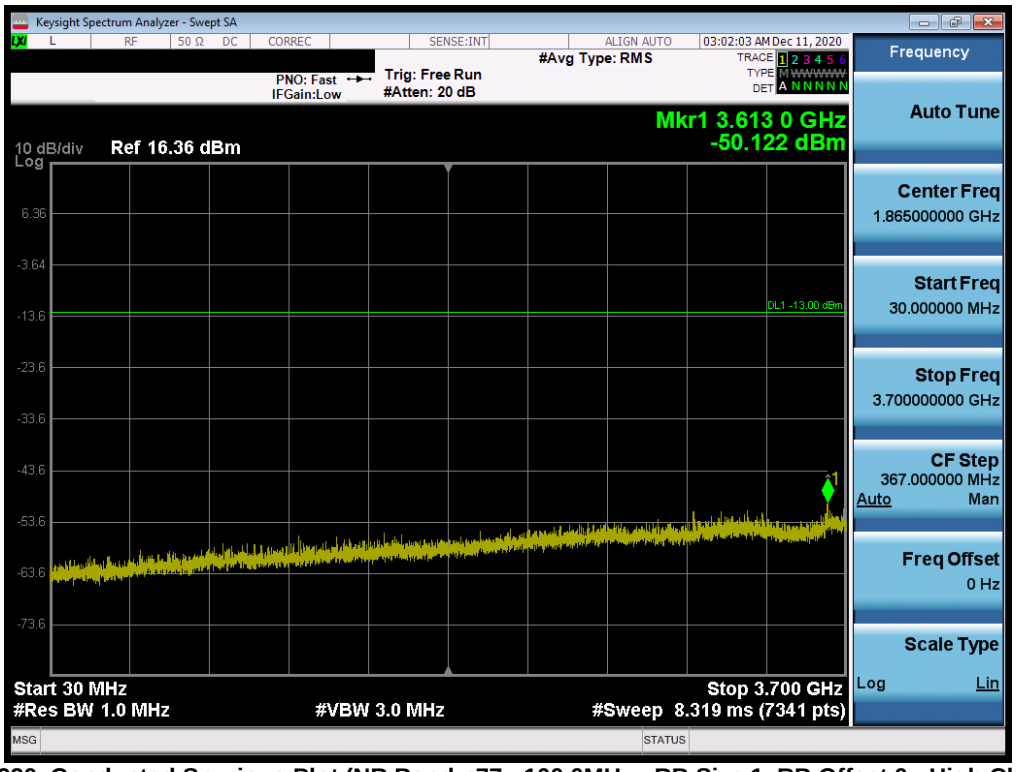
Plot 7-217. Conducted Spurious Plot (NR Band n77 - 100.0MHz - RB Size 1, RB Offset 0 - Mid Channel)



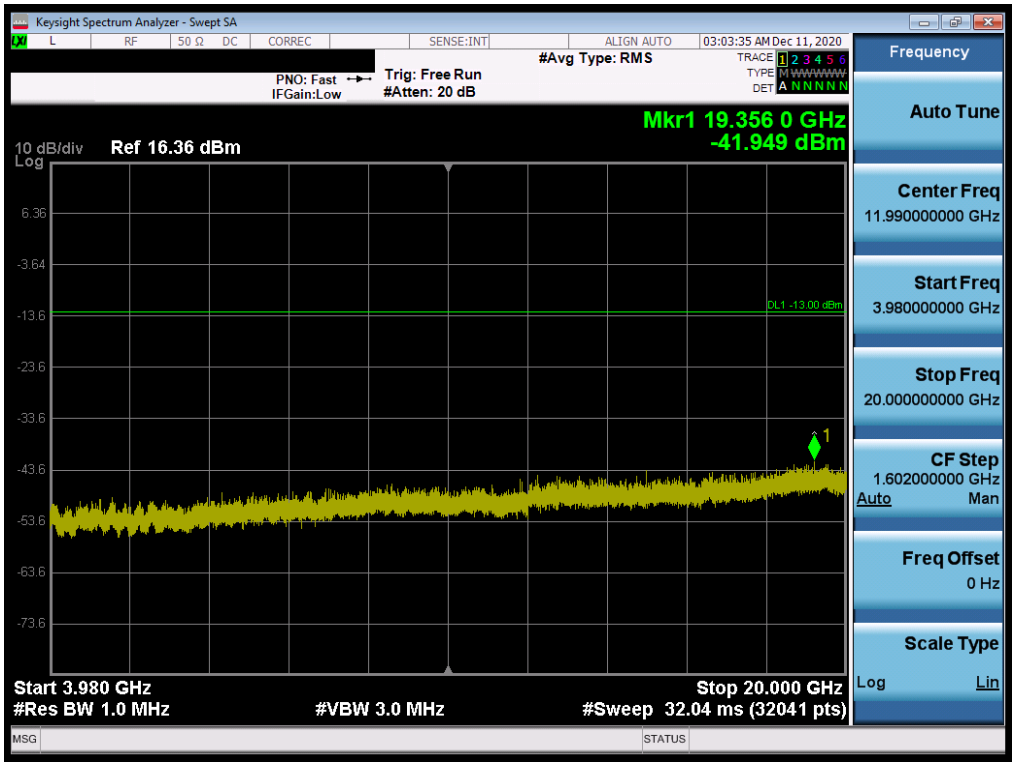
Plot 7-218. Conducted Spurious Plot (NR Band n77 - 100.0MHz - RB Size 1, RB Offset 0 - Mid Channel)



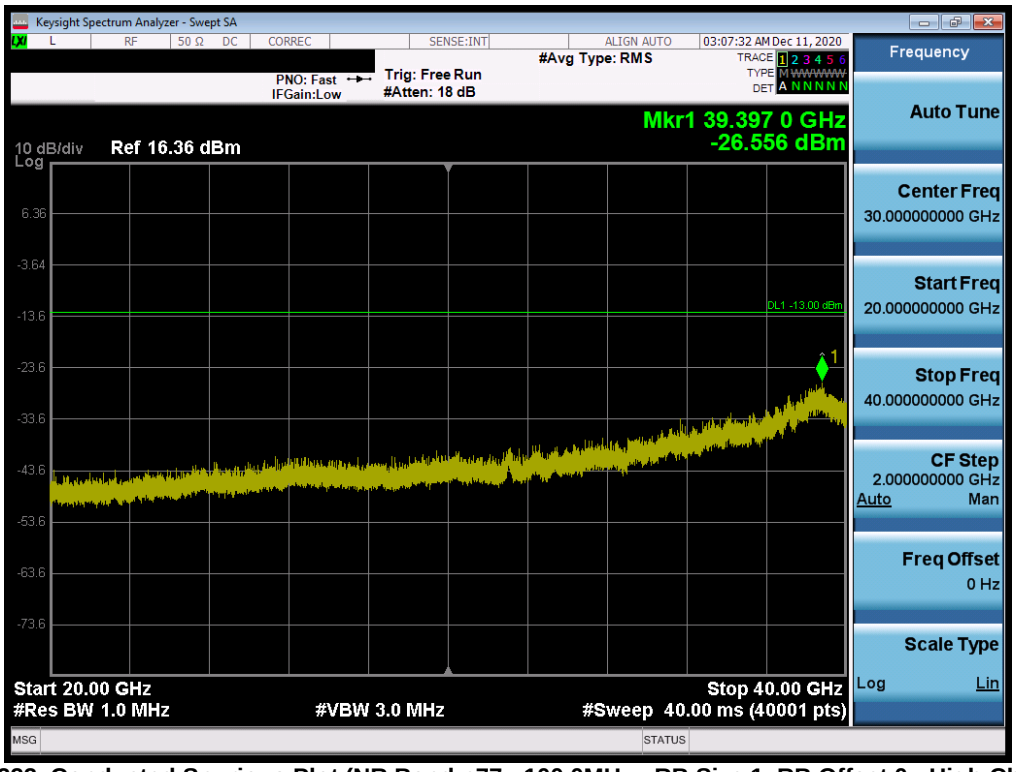
Plot 7-219. Conducted Spurious Plot (NR Band n77 - 100.0MHz - RB Size 1, RB Offset 0 - Mid Channel)



Plot 7-220. Conducted Spurious Plot (NR Band n77 - 100.0MHz - RB Size 1, RB Offset 0 - High Channel)



Plot 7-221. Conducted Spurious Plot (NR Band n77 - 100.0MHz - RB Size 1, RB Offset 0 - High Channel)



Plot 7-222. Conducted Spurious Plot (NR Band n77 - 100.0MHz - RB Size 1, RB Offset 0 - High Channel)

7.5 Band Edge Emissions at Antenna Terminal

Test Overview

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

The minimum permissible attenuation level of any spurious emission is 43 + 10 $log_{10}(P_{[Watts]})$, where P is the transmitter power in Watts.

The minimum permissible attenuation level for Band 30 is > 43 + 10 log10 (P[Watts] at 2300-2305MHz & 2345-2360MHz, > 55 + 10 log10 (P[Watts]) at 2320-2324MHz & 2341-2345MHz, > 61 + 10 log10 (P[Watts]) at 2324-2328MHz & 2337-2341MHz, > 67 + 10 log10 (P[Watts]) at 2288-2292MHz & 2328-2337MHz, and > 70 + 10 log10 (P[Watts]) at frequencies < 2288MHz & >2365MHz.

The minimum permissible attenuation level for Band 7 and 41 is as noted in the Test Notes on the following page.

Test Procedure Used

KDB 971168 D01 v03r01 – Section 6.0

Test Settings

1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
2. Span was set large enough so as to capture all out of band emissions near the band edge
3. RBW ≥ 1% of the emission bandwidth
4. VBW ≥ 3 x RBW
5. Detector = RMS
6. Number of sweep points ≥ 2 x Span/RBW
7. Trace mode = trace average for continuous emissions, max hold for pulse emissions
8. Sweep time = auto couple
9. The trace was allowed to stabilize

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

Figure 7-4. Test Instrument & Measurement Setup

Test Notes

1. Per 27.53(h), in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to demonstrate compliance with the out-of-band emissions limit. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.

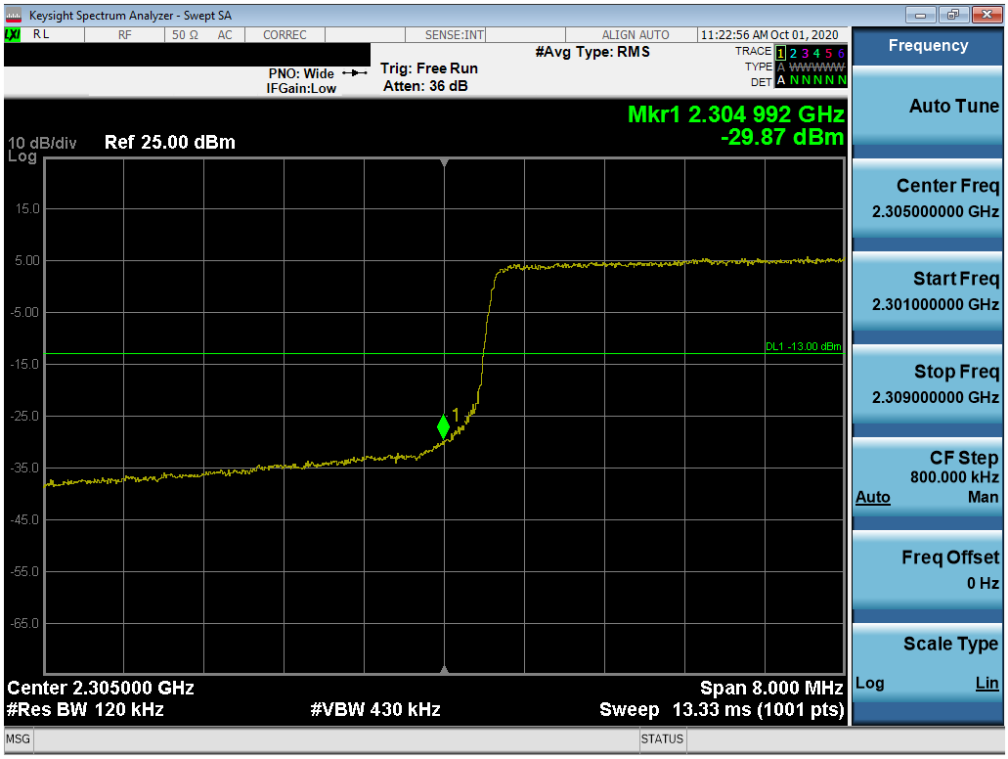
2. Per 27.53(a)(5) in the 1 MHz bands immediately outside and adjacent to the channel blocks at 2305, 2310, 2315, 2320, 2345, 2350, 2355, and 2360 MHz, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e., 1 MHz). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power.

3. Per 27.53(m) for operations in the BRS/EBS bands, 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. 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.

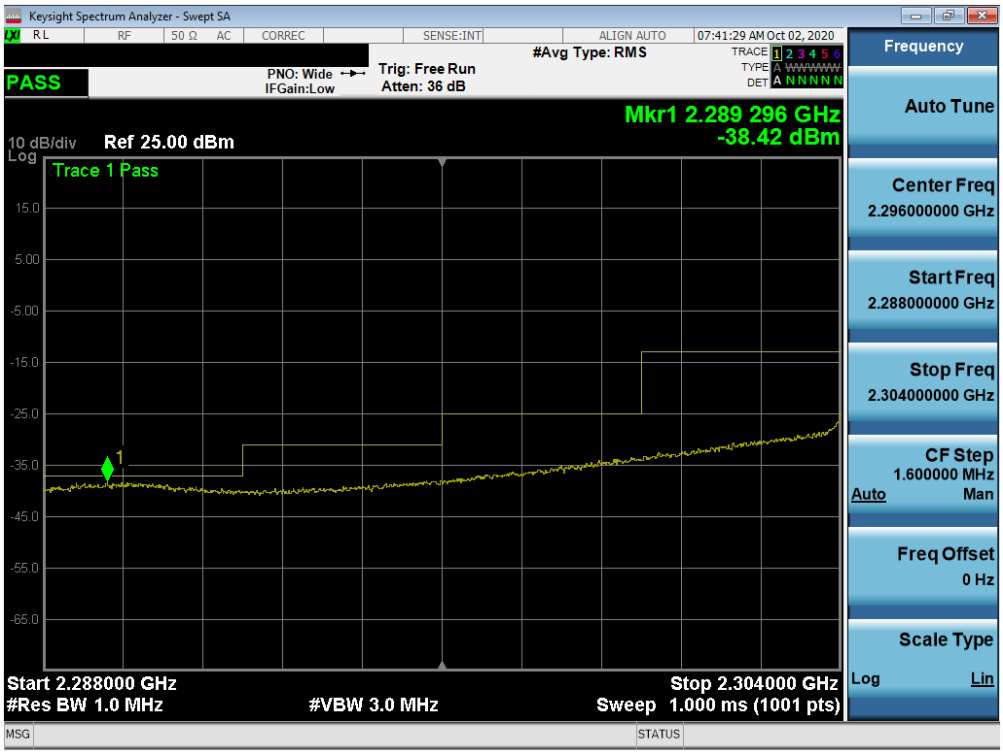
4. Per 27.53(l) for operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz.

5. For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

LTE Band 30

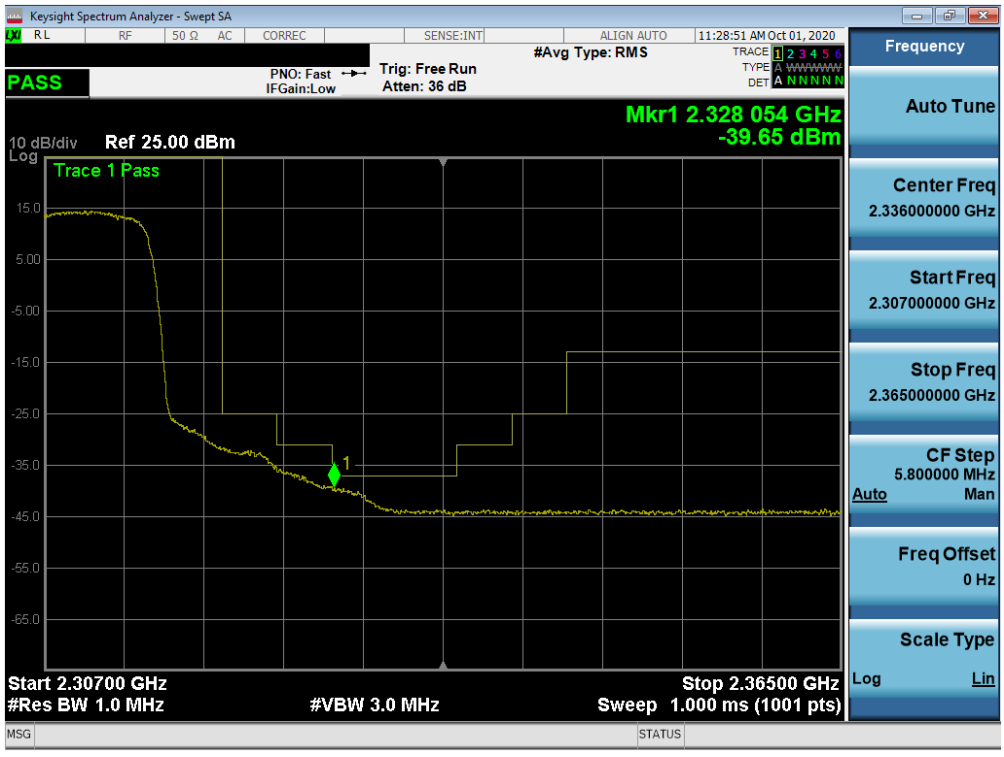


Plot 7-223. Lower Band Edge Plot (LTE Band 30 - 10MHz QPSK – Full RB Configuration)

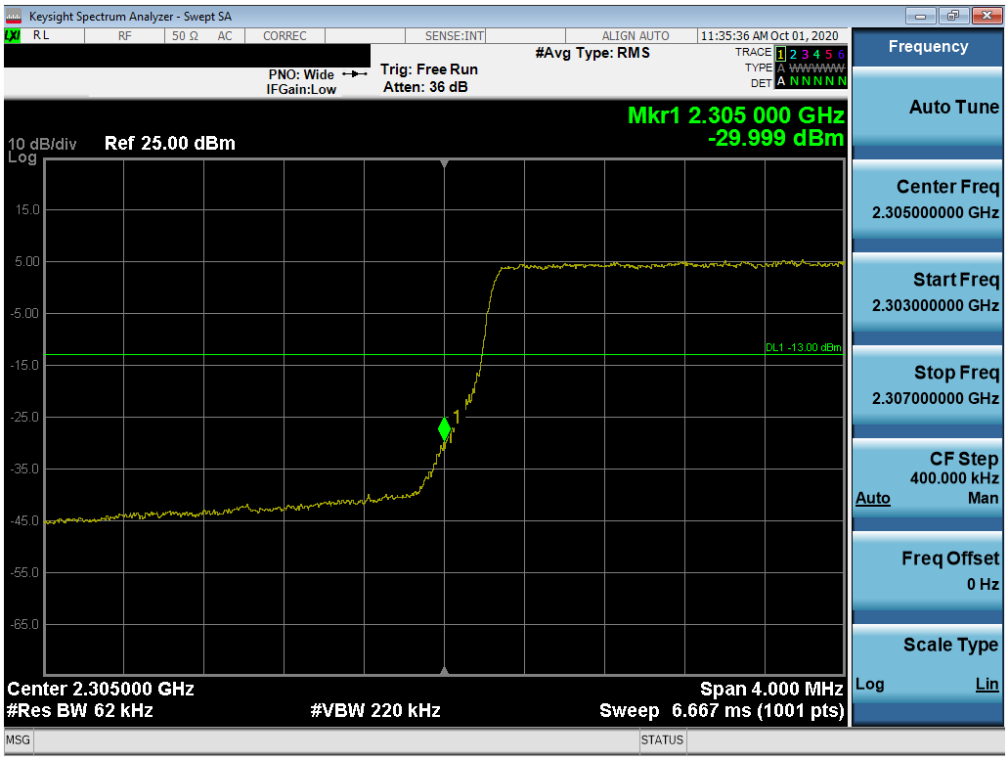


Plot 7-224. Extended Lower Band Edge Plot (LTE Band 30 - 10MHz QPSK – Full RB Configuration)

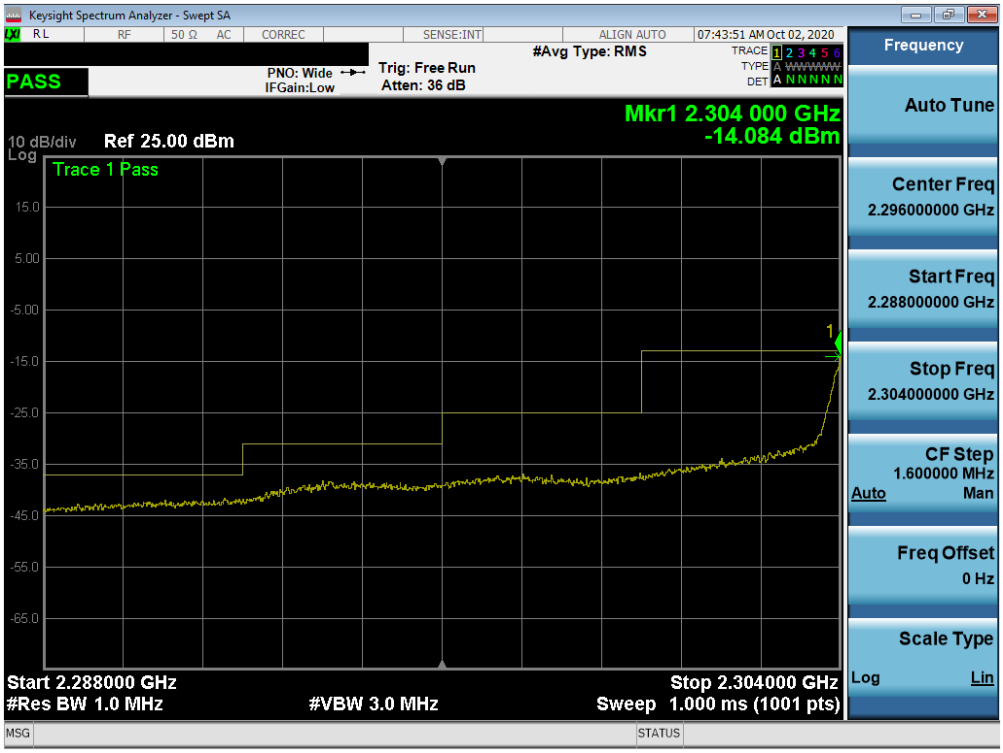
Plot 7-225. Upper Band Edge Plot (LTE Band 30 - 10MHz QPSK – Full RB Configuration)



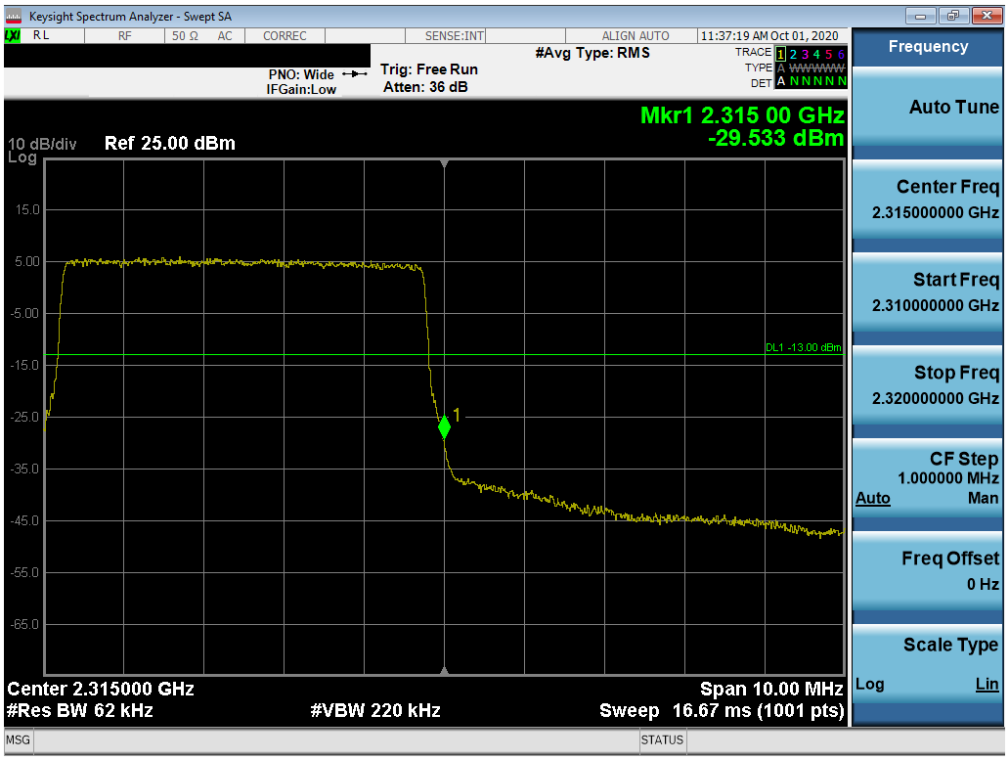
Plot 7-226. Extended Upper Band Edge Plot (LTE Band 30 - 10MHz QPSK – Full RB Configuration)



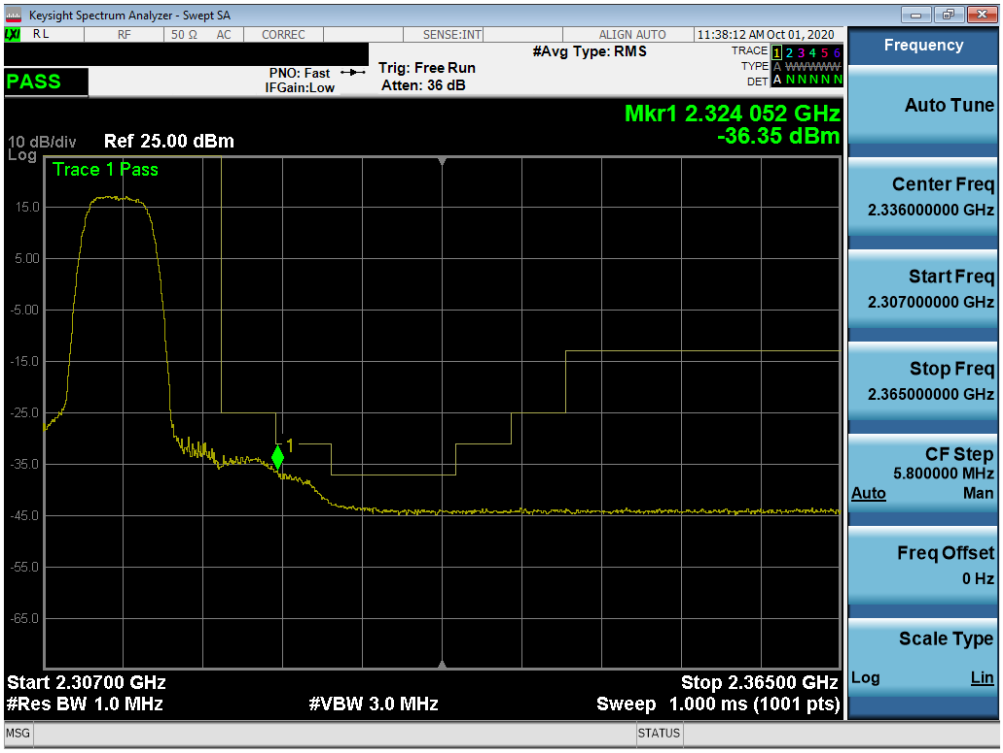
Plot 7-227. Lower Band Edge Plot (LTE Band 30 - 5MHz QPSK – Full RB Configuration)



Plot 7-228. Extended Lower Band Edge Plot (LTE Band 30 - 5MHz QPSK – Full RB Configuration)

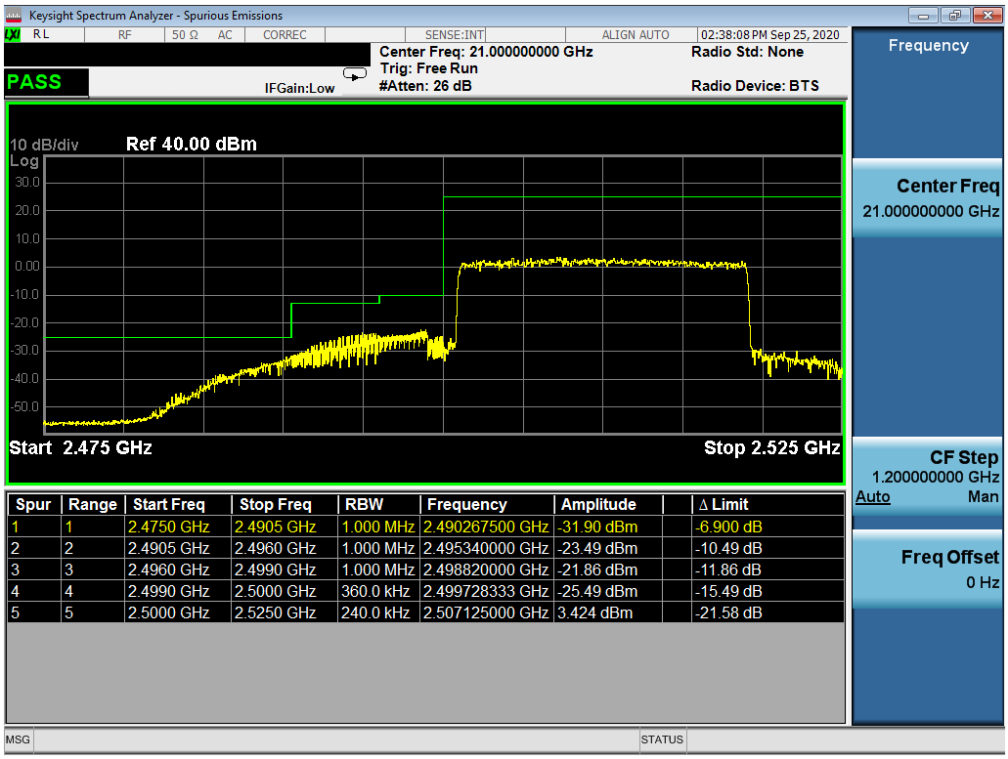


Plot 7-229. Upper Band Edge Plot (LTE Band 30 - 5MHz QPSK – Full RB Configuration)



Plot 7-230. Extended Upper Band Edge Plot (LTE Band 30 - 5MHz QPSK – Full RB Configuration)

LTE Band 7

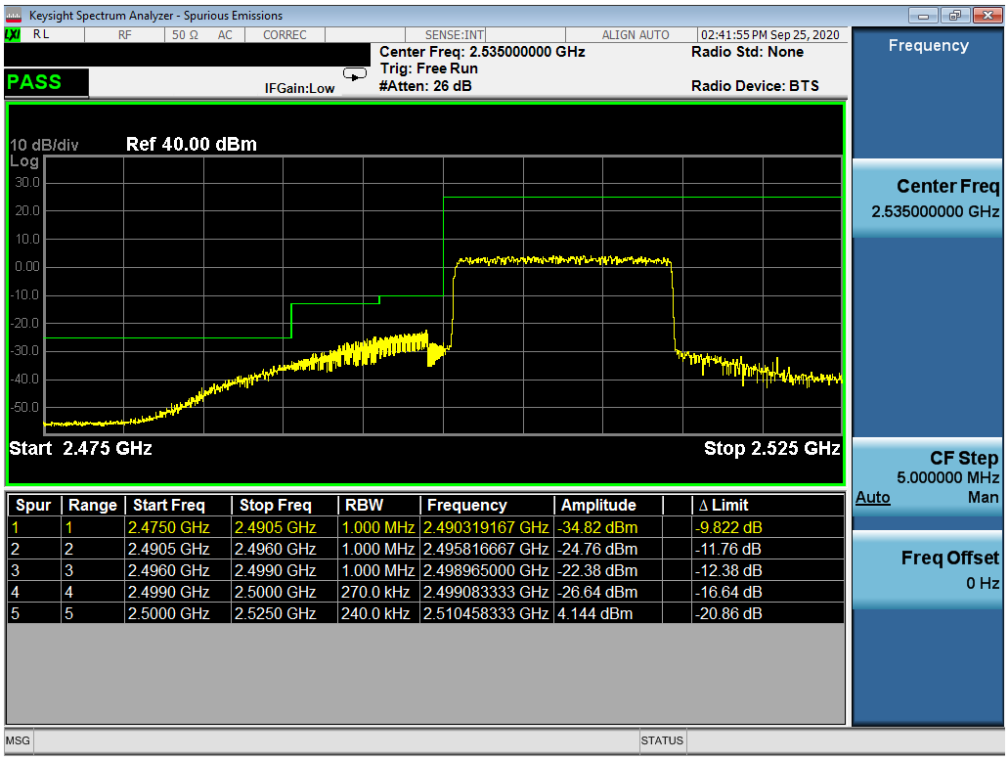


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.490267500 GHz	-31.90 dBm	-6.900 dB
2	2	2.4905 GHz	2.4960 GHz	1.000 MHz	2.495340000 GHz	-23.49 dBm	-10.49 dB
3	3	2.4960 GHz	2.4990 GHz	1.000 MHz	2.498820000 GHz	-21.86 dBm	-11.86 dB
4	4	2.4990 GHz	2.5000 GHz	360.0 kHz	2.499728333 GHz	-25.49 dBm	-15.49 dB
5	5	2.5000 GHz	2.5250 GHz	240.0 kHz	2.507125000 GHz	3.424 dBm	-21.58 dB

Plot 7-231. Lower ACP Plot (LTE Band 7 - 20MHz QPSK – Full RB Configuration)

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5450 GHz	2.5700 GHz	240.0 kHz	2.566041667 GHz	3.980 dBm	-21.02 dB
2	2	2.5700 GHz	2.5710 GHz	360.0 kHz	2.570873333 GHz	-24.99 dBm	-14.99 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571000000 GHz	-22.24 dBm	-12.24 dB
4	4	2.5750 GHz	2.5880 GHz	1.000 MHz	2.578206667 GHz	-23.99 dBm	-10.99 dB
5	5	2.5880 GHz	2.5950 GHz	1.000 MHz	2.588142862 GHz	-39.34 dBm	-14.34 dB

Plot 7-232. Upper ACP Plot (LTE Band 7 - 20MHz QPSK – Full RB Configuration)

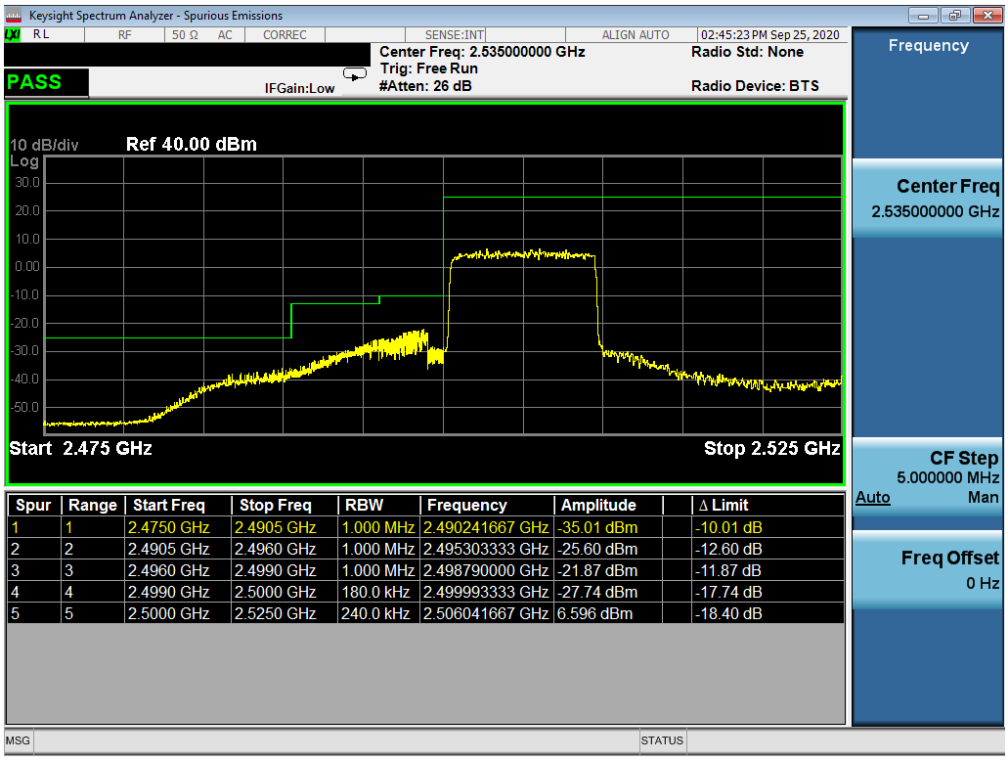


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.490319167 GHz	-34.82 dBm	-9.822 dB
2	2	2.4905 GHz	2.4960 GHz	1.000 MHz	2.495816667 GHz	-24.76 dBm	-11.76 dB
3	3	2.4960 GHz	2.4990 GHz	1.000 MHz	2.498965000 GHz	-22.38 dBm	-12.38 dB
4	4	2.4990 GHz	2.5000 GHz	270.0 kHz	2.499083333 GHz	-26.64 dBm	-16.64 dB
5	5	2.5000 GHz	2.5250 GHz	240.0 kHz	2.510458333 GHz	4.144 dBm	-20.86 dB

Plot 7-233. Lower ACP Plot (LTE Band 7 - 15MHz QPSK – Full RB Configuration)

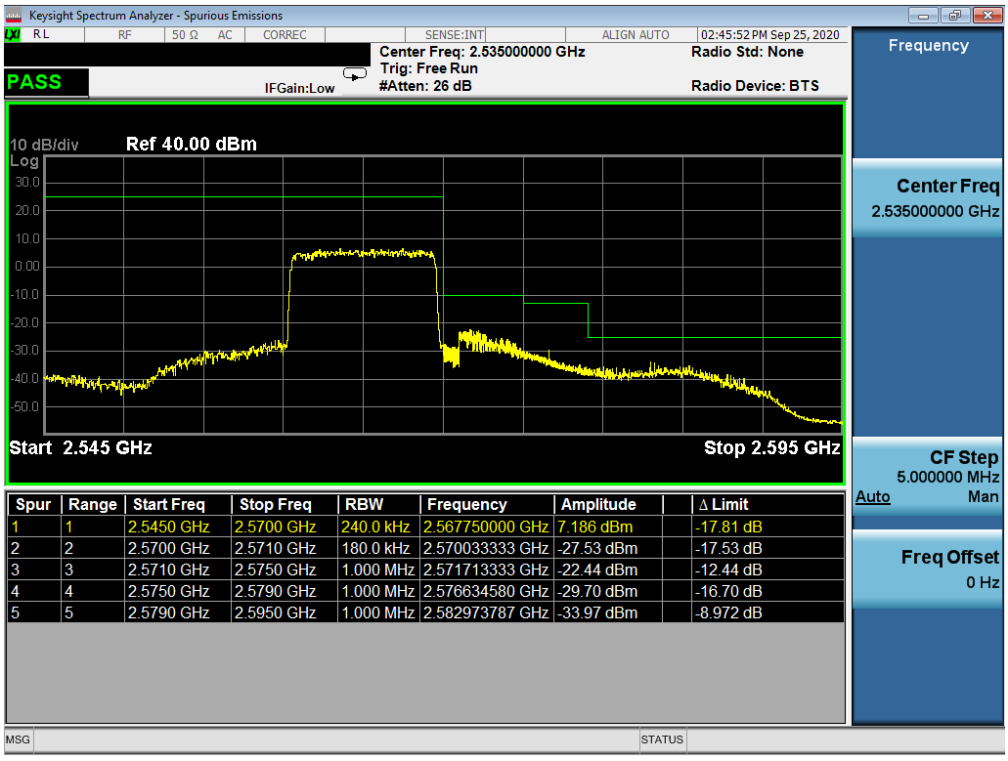
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5450 GHz	2.5700 GHz	240.0 kHz	2.566333333 GHz	4.954 dBm	-20.05 dB
2	2	2.5700 GHz	2.5710 GHz	270.0 kHz	2.570105000 GHz	-25.35 dBm	-15.35 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571080000 GHz	-20.57 dBm	-10.57 dB
4	4	2.5750 GHz	2.5835 GHz	1.000 MHz	2.575882053 GHz	-23.94 dBm	-10.94 dB
5	5	2.5835 GHz	2.5950 GHz	1.000 MHz	2.583956347 GHz	-37.83 dBm	-12.83 dB

Plot 7-234. Upper ACP Plot (LTE Band 7 - 15MHz QPSK – Full RB Configuration)



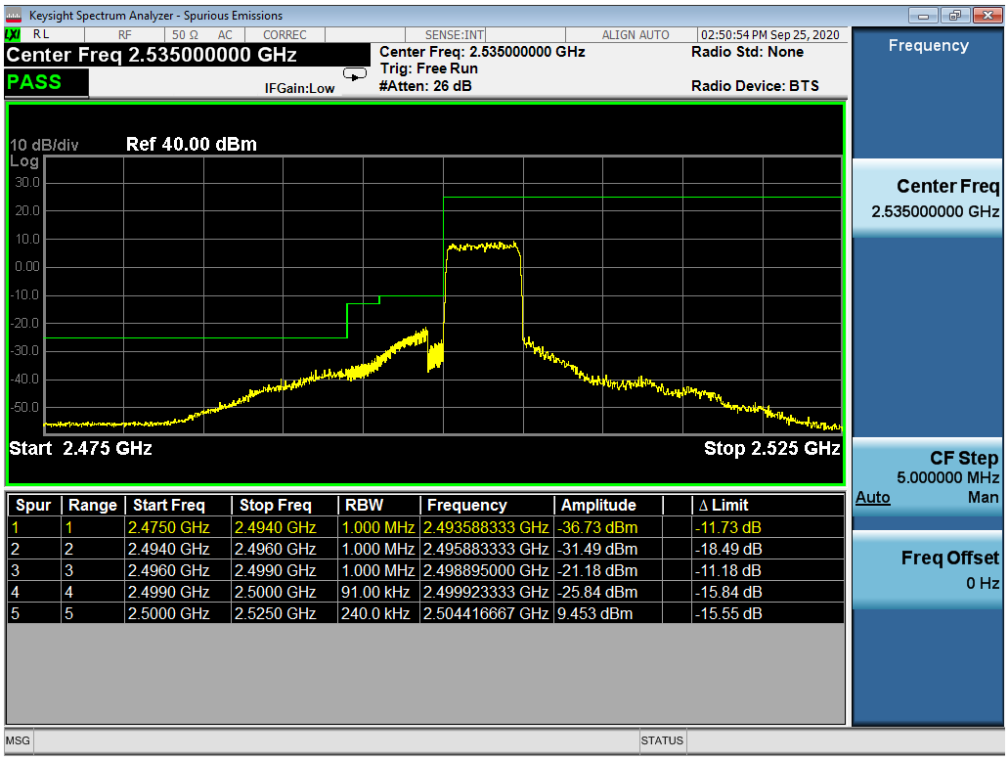
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.490241667 GHz	-35.01 dBm	-10.01 dB
2	2	2.4905 GHz	2.4960 GHz	1.000 MHz	2.495303333 GHz	-25.60 dBm	-12.60 dB
3	3	2.4960 GHz	2.4990 GHz	1.000 MHz	2.498790000 GHz	-21.87 dBm	-11.87 dB
4	4	2.4990 GHz	2.5000 GHz	180.0 kHz	2.499993333 GHz	-27.74 dBm	-17.74 dB
5	5	2.5000 GHz	2.5250 GHz	240.0 kHz	2.506041667 GHz	6.596 dBm	-18.40 dB

Plot 7-235. Lower ACP Plot (LTE Band 7 - 10MHz QPSK – Full RB Configuration)



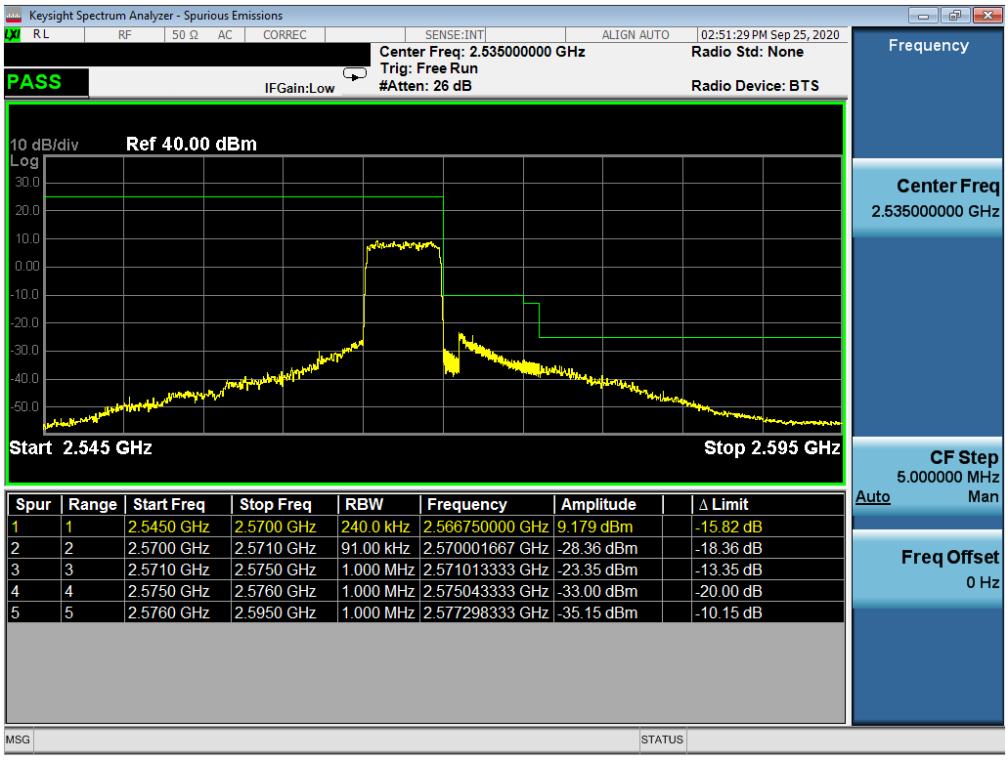
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5450 GHz	2.5700 GHz	240.0 kHz	2.567750000 GHz	7.186 dBm	-17.81 dB
2	2	2.5700 GHz	2.5710 GHz	180.0 kHz	2.570033333 GHz	-27.53 dBm	-17.53 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571713333 GHz	-22.44 dBm	-12.44 dB
4	4	2.5750 GHz	2.5790 GHz	1.000 MHz	2.576634580 GHz	-29.70 dBm	-16.70 dB
5	5	2.5790 GHz	2.5950 GHz	1.000 MHz	2.582973787 GHz	-33.97 dBm	-8.972 dB

Plot 7-236. Upper ACP Plot (LTE Band 7 - 10MHz QPSK – Full RB Configuration)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4940 GHz	1.000 MHz	2.493588333 GHz	-36.73 dBm	-11.73 dB
2	2	2.4940 GHz	2.4960 GHz	1.000 MHz	2.495883333 GHz	-31.49 dBm	-18.49 dB
3	3	2.4960 GHz	2.4990 GHz	1.000 MHz	2.498895000 GHz	-21.18 dBm	-11.18 dB
4	4	2.4990 GHz	2.5000 GHz	91.00 kHz	2.499923333 GHz	-25.84 dBm	-15.84 dB
5	5	2.5000 GHz	2.5250 GHz	240.0 kHz	2.504416667 GHz	9.453 dBm	-15.55 dB

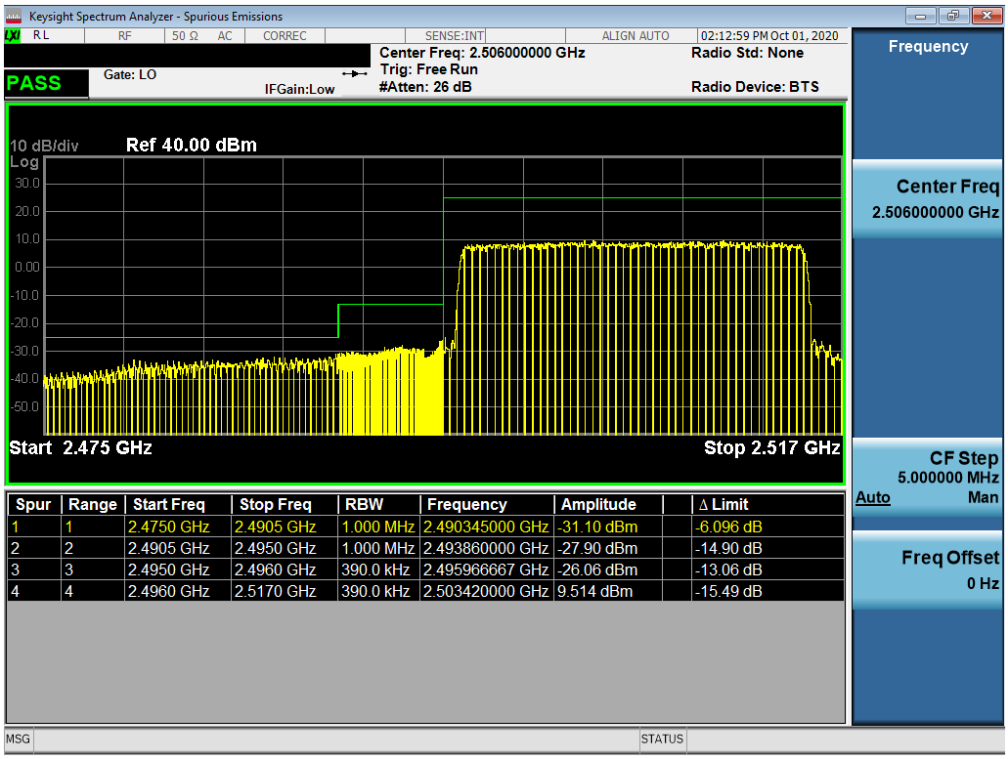
Plot 7-237. Lower ACP Plot (LTE Band 7 - 5MHz QPSK – Full RB Configuration)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5450 GHz	2.5700 GHz	240.0 kHz	2.566750000 GHz	9.179 dBm	-15.82 dB
2	2	2.5700 GHz	2.5710 GHz	91.00 kHz	2.570001667 GHz	-28.36 dBm	-18.36 dB
3	3	2.5710 GHz	2.5750 GHz	1.000 MHz	2.571013333 GHz	-23.35 dBm	-13.35 dB
4	4	2.5750 GHz	2.5760 GHz	1.000 MHz	2.575043333 GHz	-33.00 dBm	-20.00 dB
5	5	2.5760 GHz	2.5950 GHz	1.000 MHz	2.577298333 GHz	-35.15 dBm	-10.15 dB

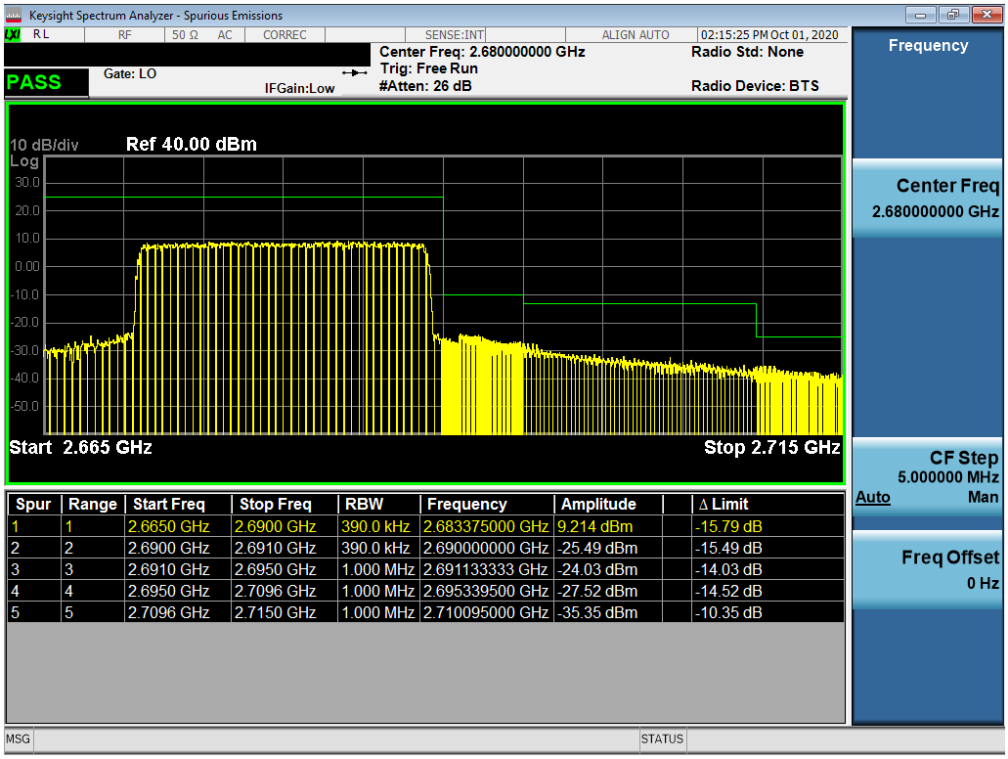
Plot 7-238. Upper ACP Plot (LTE Band 7 - 5MHz QPSK – Full RB Configuration)

LTE Band 41(PC2)



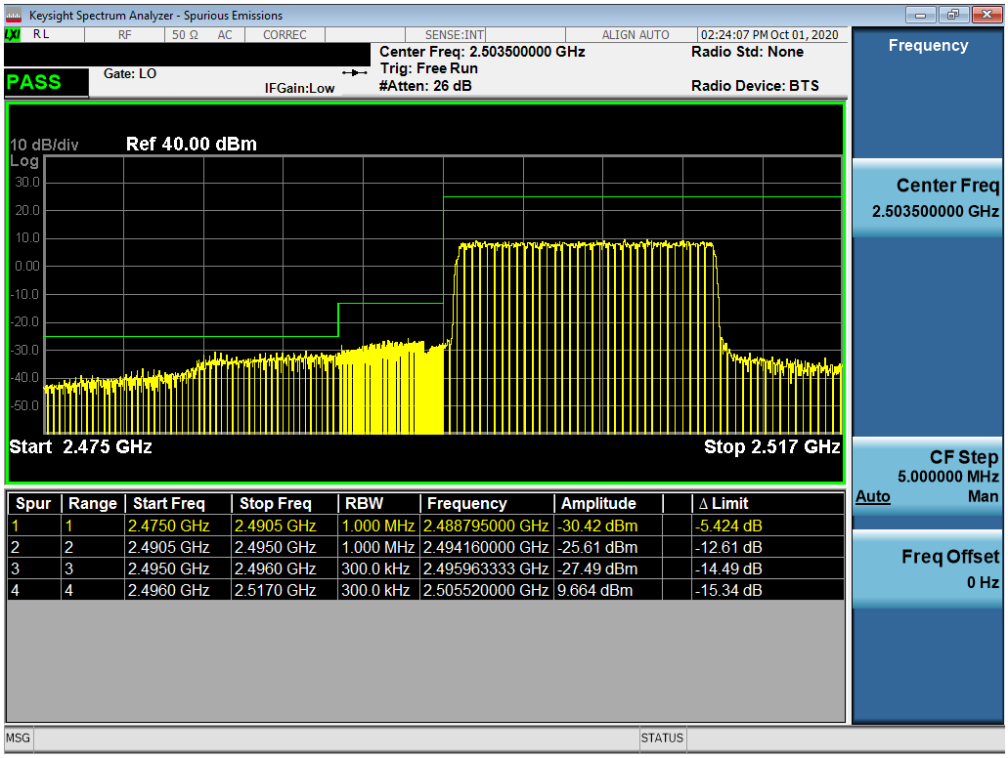
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.490345000 GHz	-31.10 dBm	-6.096 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.493860000 GHz	-27.90 dBm	-14.90 dB
3	3	2.4950 GHz	2.4960 GHz	390.0 kHz	2.495966667 GHz	-26.06 dBm	-13.06 dB
4	4	2.4960 GHz	2.5170 GHz	390.0 kHz	2.503420000 GHz	9.514 dBm	-15.49 dB

Plot 7-239. Lower ACP Plot (LTE Band 41(PC2) - 20MHz QPSK – Full RB Configuration)



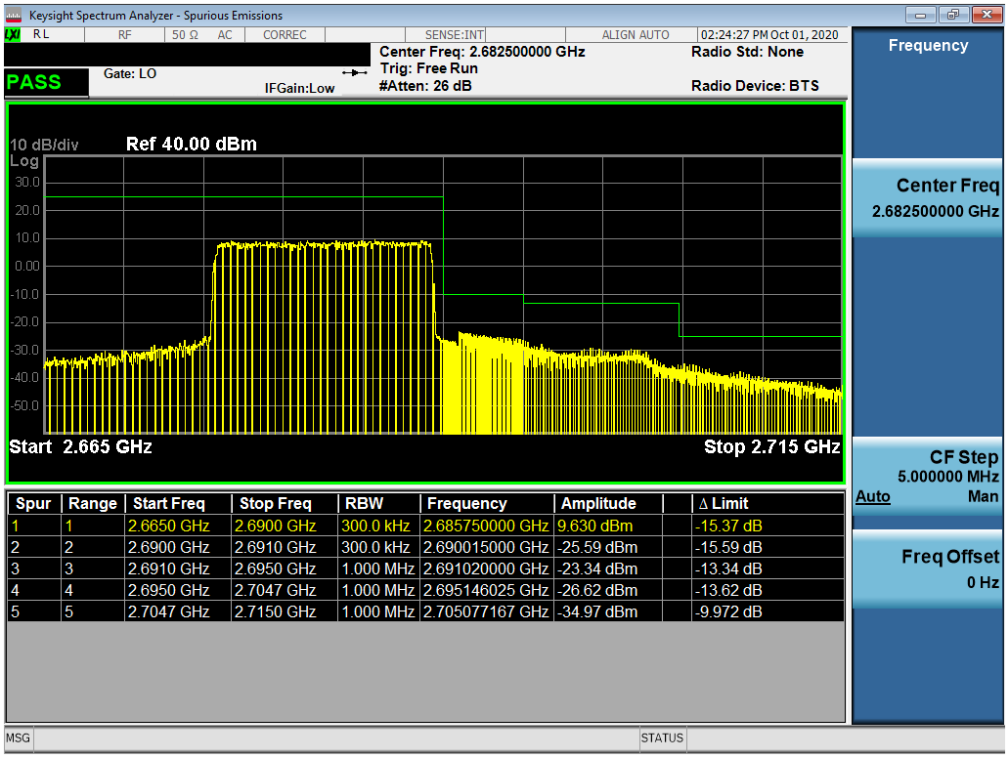
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	390.0 kHz	2.683375000 GHz	9.214 dBm	-15.79 dB
2	2	2.6900 GHz	2.6910 GHz	390.0 kHz	2.690000000 GHz	-25.49 dBm	-15.49 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691133333 GHz	-24.03 dBm	-14.03 dB
4	4	2.6950 GHz	2.7096 GHz	1.000 MHz	2.695339500 GHz	-27.52 dBm	-14.52 dB
5	5	2.7096 GHz	2.7150 GHz	1.000 MHz	2.710095000 GHz	-35.35 dBm	-10.35 dB

Plot 7-240. Upper ACP Plot (LTE Band 41(PC2) - 20MHz QPSK – Full RB Configuration)



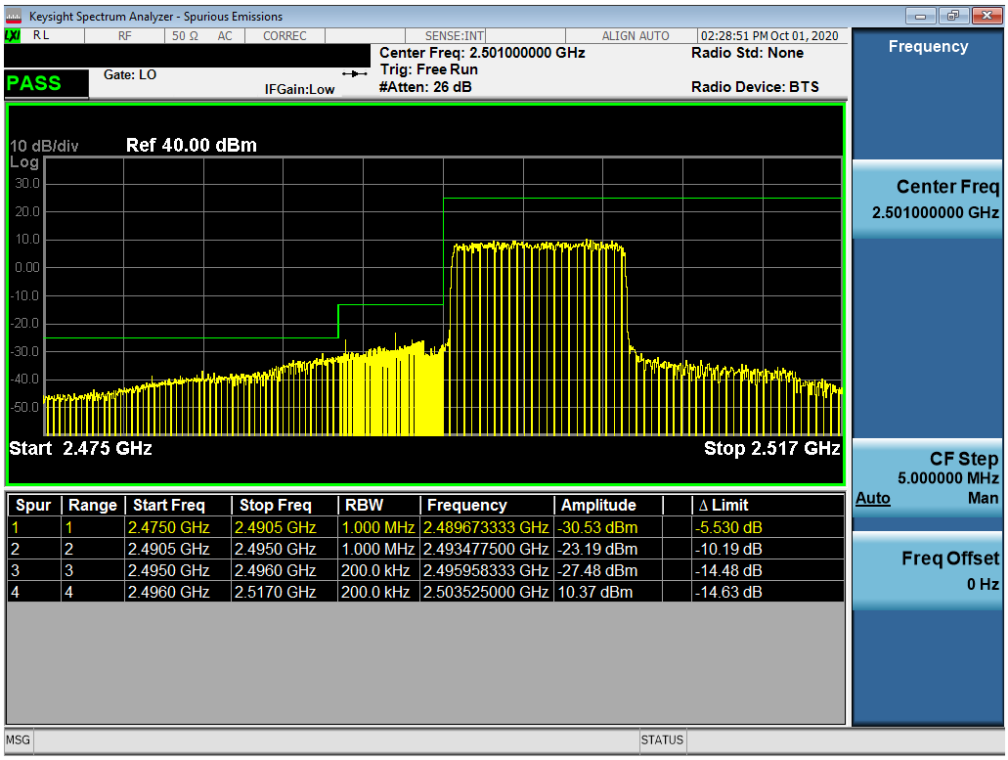
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.488795000 GHz	-30.42 dBm	-5.424 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494160000 GHz	-25.61 dBm	-12.61 dB
3	3	2.4950 GHz	2.4960 GHz	300.0 kHz	2.495963333 GHz	-27.49 dBm	-14.49 dB
4	4	2.4960 GHz	2.5170 GHz	300.0 kHz	2.505520000 GHz	9.664 dBm	-15.34 dB

Plot 7-241. Lower ACP Plot (LTE Band 41(PC2) - 15MHz QPSK – Full RB Configuration)



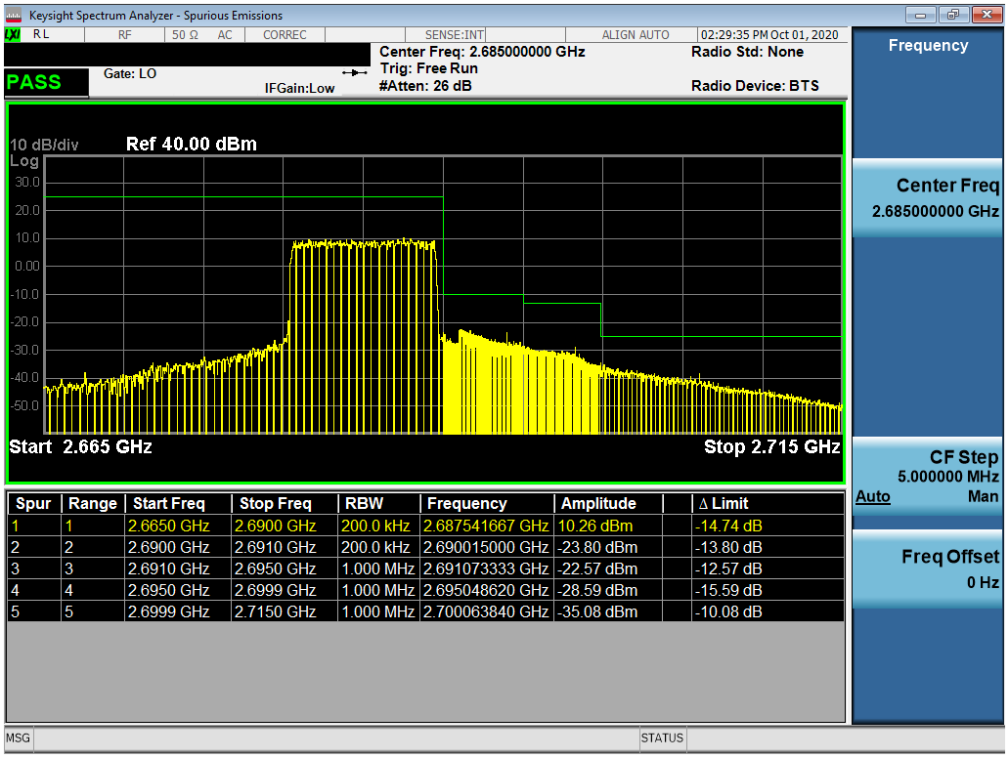
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	300.0 kHz	2.685750000 GHz	9.630 dBm	-15.37 dB
2	2	2.6900 GHz	2.6910 GHz	300.0 kHz	2.690015000 GHz	-25.59 dBm	-15.59 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691020000 GHz	-23.34 dBm	-13.34 dB
4	4	2.6950 GHz	2.7047 GHz	1.000 MHz	2.695146025 GHz	-26.62 dBm	-13.62 dB
5	5	2.7047 GHz	2.7150 GHz	1.000 MHz	2.705077167 GHz	-34.97 dBm	-9.972 dB

Plot 7-242. Upper ACP Plot (LTE Band 41(PC2) - 15MHz QPSK – Full RB Configuration)



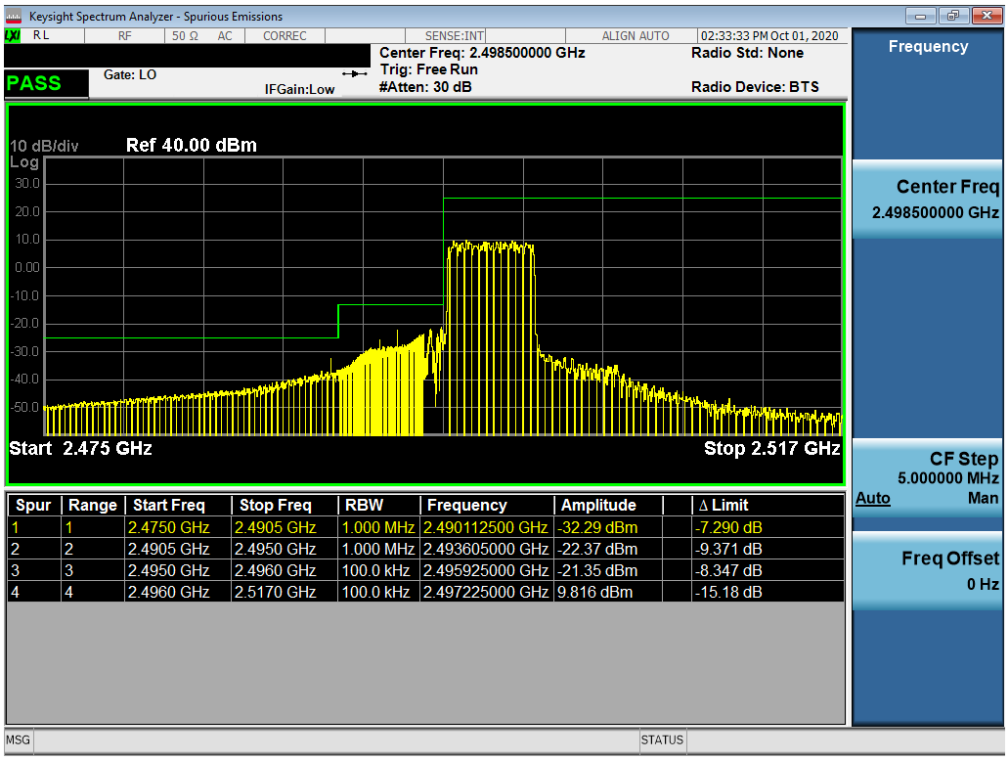
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.489673333 GHz	-30.53 dBm	-5.530 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.493477500 GHz	-23.19 dBm	-10.19 dB
3	3	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495958333 GHz	-27.48 dBm	-14.48 dB
4	4	2.4960 GHz	2.5170 GHz	200.0 kHz	2.503525000 GHz	10.37 dBm	-14.63 dB

Plot 7-243. Lower ACP Plot (LTE Band 41(PC2) - 10MHz QPSK – Full RB Configuration)



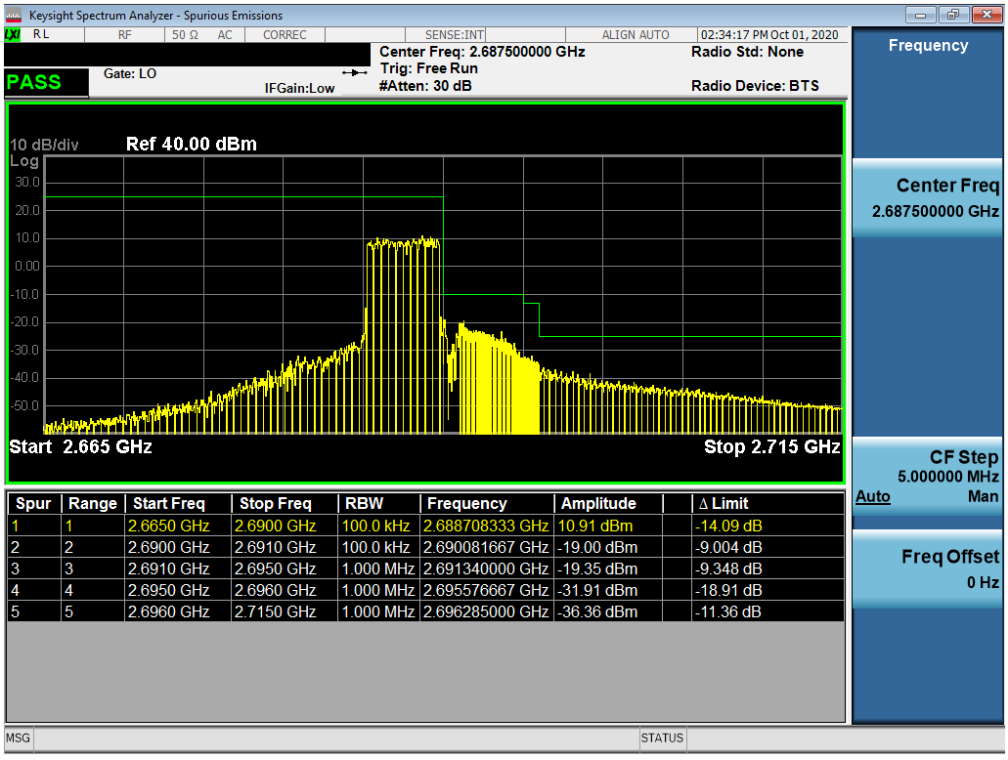
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.687541667 GHz	10.26 dBm	-14.74 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690015000 GHz	-23.80 dBm	-13.80 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691073333 GHz	-22.57 dBm	-12.57 dB
4	4	2.6950 GHz	2.6999 GHz	1.000 MHz	2.695048620 GHz	-28.59 dBm	-15.59 dB
5	5	2.6999 GHz	2.7150 GHz	1.000 MHz	2.700063840 GHz	-35.08 dBm	-10.08 dB

Plot 7-244. Upper ACP Plot (LTE Band 41(PC2) - 10MHz QPSK – Full RB Configuration)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.490112500 GHz	-32.29 dBm	-7.290 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.493605000 GHz	-22.37 dBm	-9.371 dB
3	3	2.4950 GHz	2.4960 GHz	100.0 kHz	2.495925000 GHz	-21.35 dBm	-8.347 dB
4	4	2.4960 GHz	2.5170 GHz	100.0 kHz	2.497225000 GHz	9.816 dBm	-15.18 dB

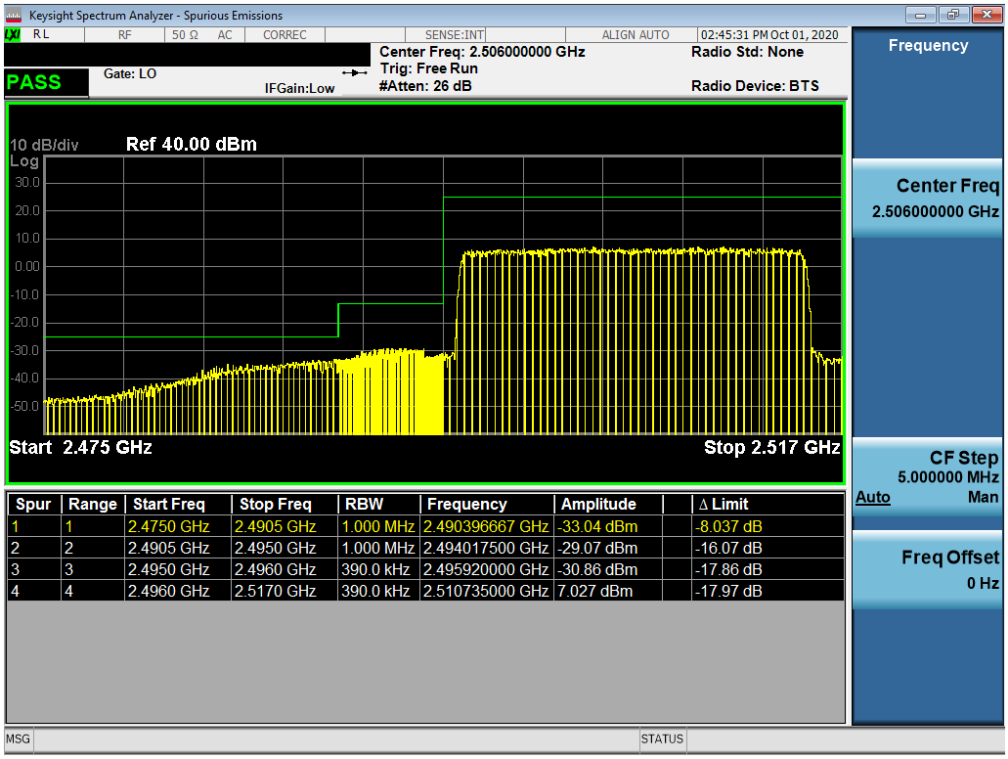
Plot 7-245. Lower ACP Plot (LTE Band 41(PC2) - 5MHz QPSK – Full RB Configuration)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	100.0 kHz	2.688708333 GHz	10.91 dBm	-14.09 dB
2	2	2.6900 GHz	2.6910 GHz	100.0 kHz	2.690081667 GHz	-19.00 dBm	-9.004 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691340000 GHz	-19.35 dBm	-9.348 dB
4	4	2.6950 GHz	2.6960 GHz	1.000 MHz	2.695576667 GHz	-31.91 dBm	-18.91 dB
5	5	2.6960 GHz	2.7150 GHz	1.000 MHz	2.696285000 GHz	-36.36 dBm	-11.36 dB

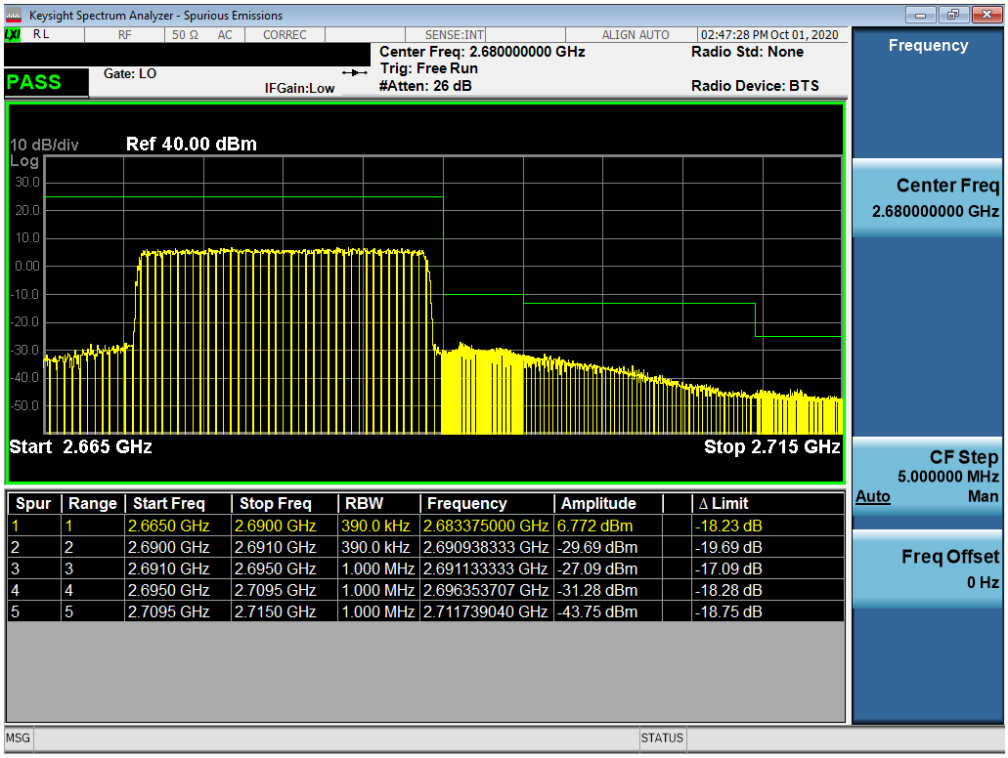
Plot 7-246. Upper ACP Plot (LTE Band 41(PC2) - 5MHz QPSK – Full RB Configuration)

LTE Band 41(PC3)



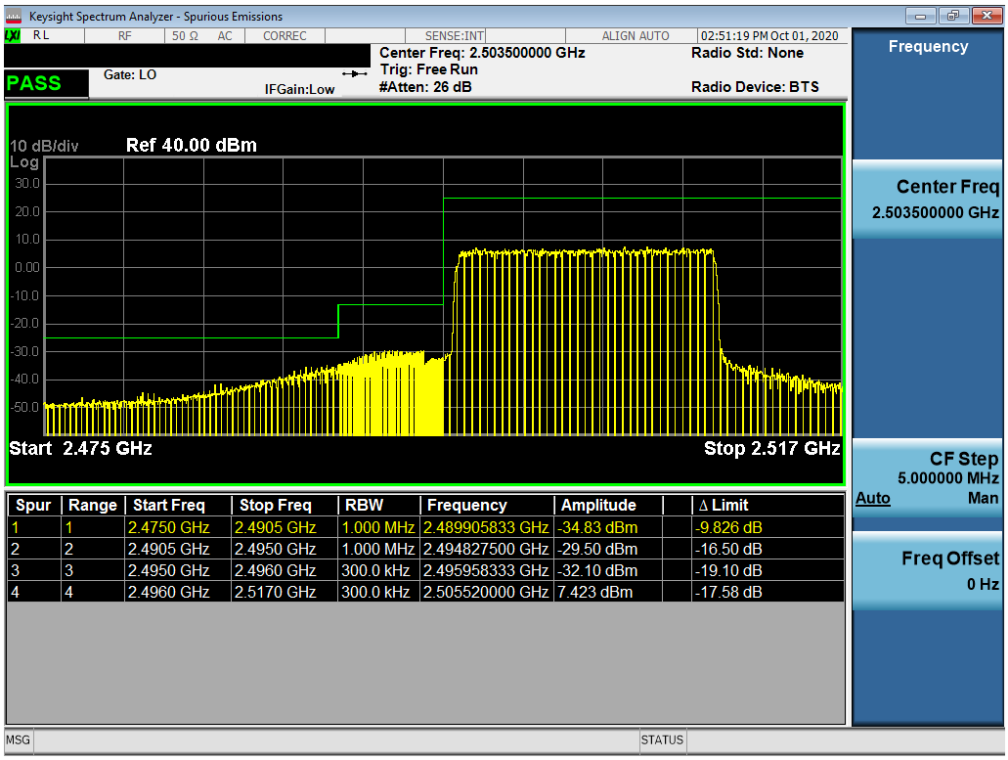
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.490396667 GHz	-33.04 dBm	-8.037 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494017500 GHz	-29.07 dBm	-16.07 dB
3	3	2.4950 GHz	2.4960 GHz	390.0 kHz	2.495920000 GHz	-30.86 dBm	-17.86 dB
4	4	2.4960 GHz	2.5170 GHz	390.0 kHz	2.510735000 GHz	7.027 dBm	-17.97 dB

Plot 7-247. Lower ACP Plot (LTE Band 41(PC3) - 20MHz QPSK – Full RB Configuration)



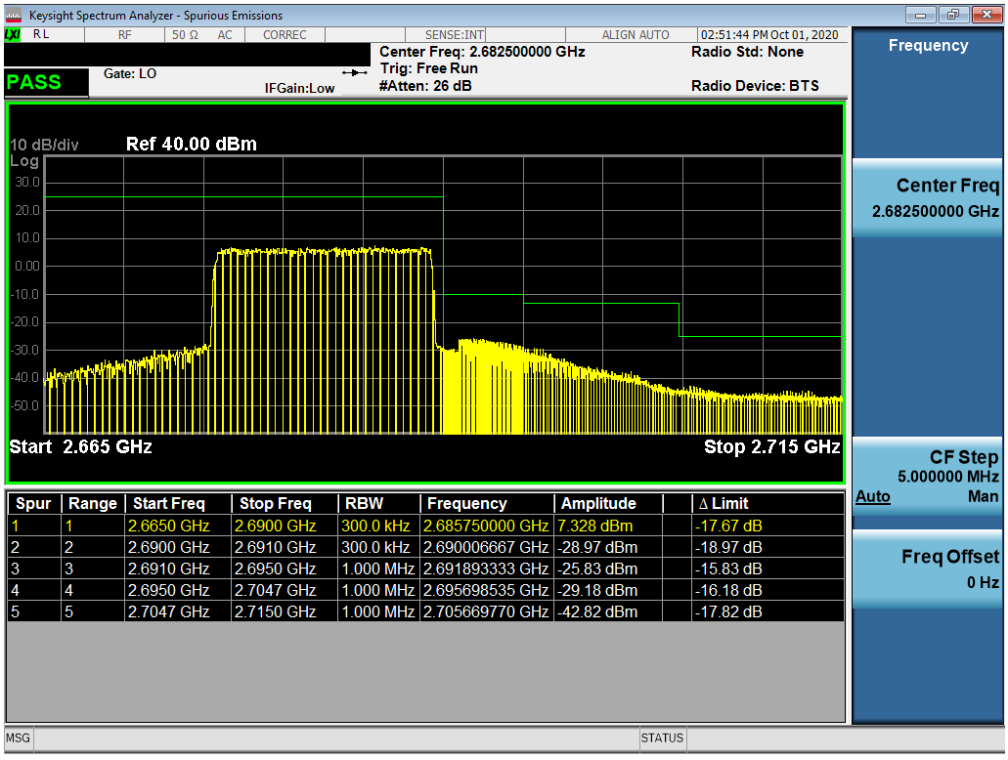
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	390.0 kHz	2.683375000 GHz	6.772 dBm	-18.23 dB
2	2	2.6900 GHz	2.6910 GHz	390.0 kHz	2.690938333 GHz	-29.69 dBm	-19.69 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691133333 GHz	-27.09 dBm	-17.09 dB
4	4	2.6950 GHz	2.7095 GHz	1.000 MHz	2.696353707 GHz	-31.28 dBm	-18.28 dB
5	5	2.7095 GHz	2.7150 GHz	1.000 MHz	2.711739040 GHz	-43.75 dBm	-18.75 dB

Plot 7-248. Upper ACP Plot (LTE Band 41(PC3) - 20MHz QPSK – Full RB Configuration)



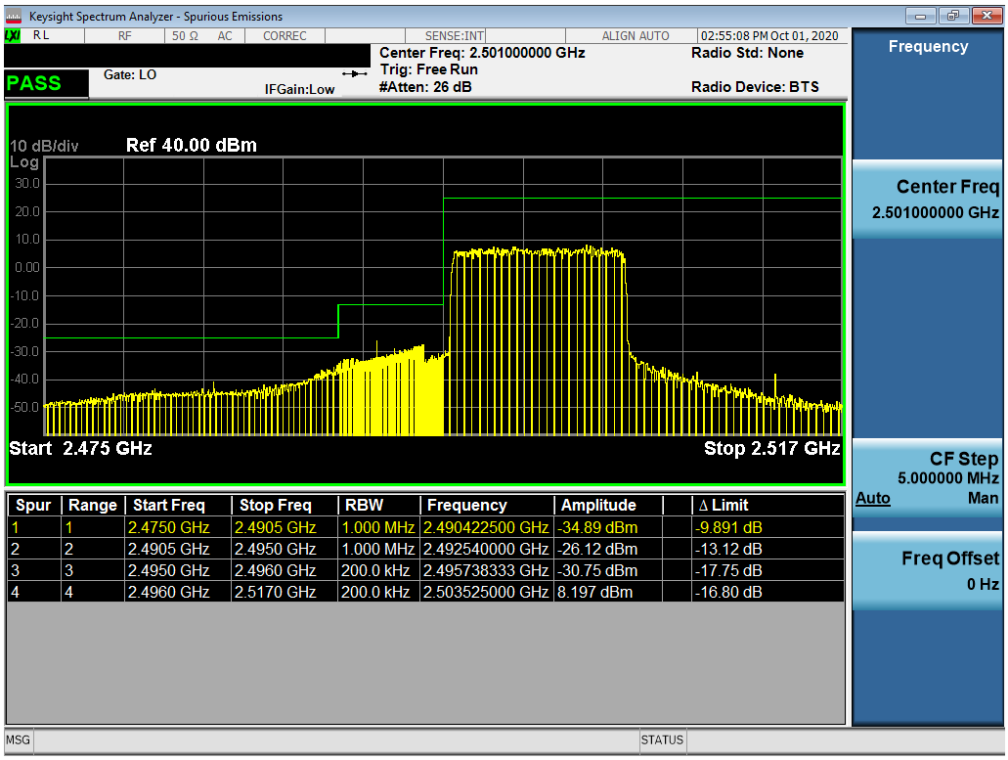
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.489905833 GHz	-34.83 dBm	-9.826 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494827500 GHz	-29.50 dBm	-16.50 dB
3	3	2.4950 GHz	2.4960 GHz	300.0 kHz	2.495958333 GHz	-32.10 dBm	-19.10 dB
4	4	2.4960 GHz	2.5170 GHz	300.0 kHz	2.505520000 GHz	7.423 dBm	-17.58 dB

Plot 7-249. Lower ACP Plot (LTE Band 41(PC3) - 15MHz QPSK – Full RB Configuration)



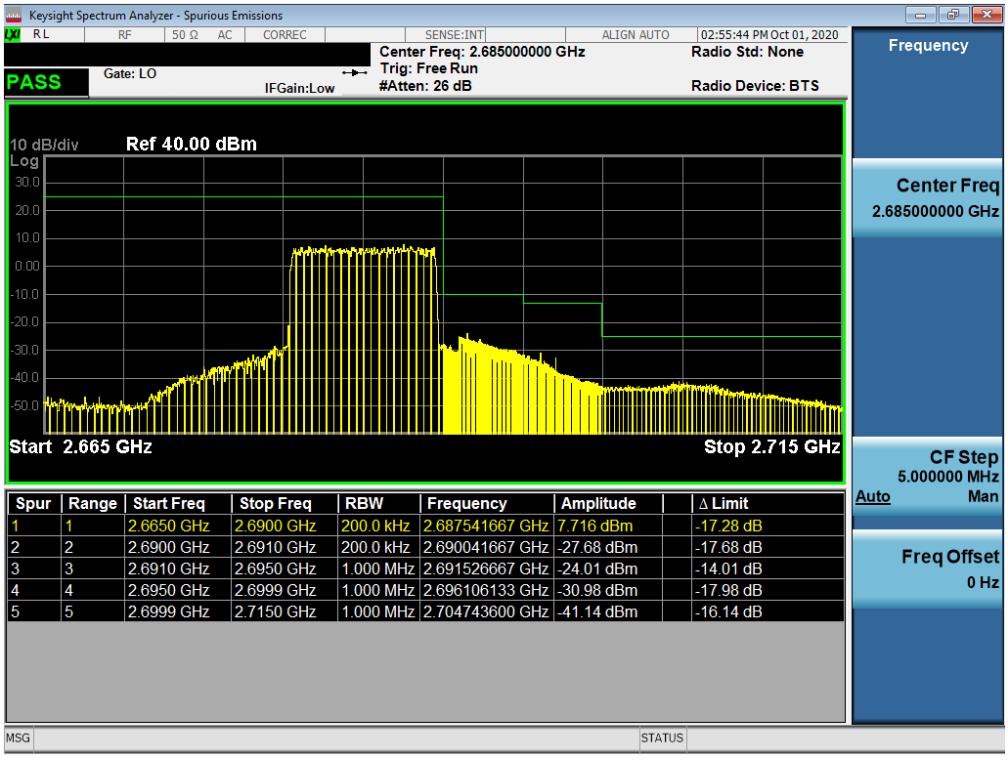
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	300.0 kHz	2.685750000 GHz	7.328 dBm	-17.67 dB
2	2	2.6900 GHz	2.6910 GHz	300.0 kHz	2.690006667 GHz	-28.97 dBm	-18.97 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691893333 GHz	-25.83 dBm	-15.83 dB
4	4	2.6950 GHz	2.7047 GHz	1.000 MHz	2.695698535 GHz	-29.18 dBm	-16.18 dB
5	5	2.7047 GHz	2.7150 GHz	1.000 MHz	2.705669770 GHz	-42.82 dBm	-17.82 dB

Plot 7-250. Upper ACP Plot (LTE Band 41(PC3) - 15MHz QPSK – Full RB Configuration)



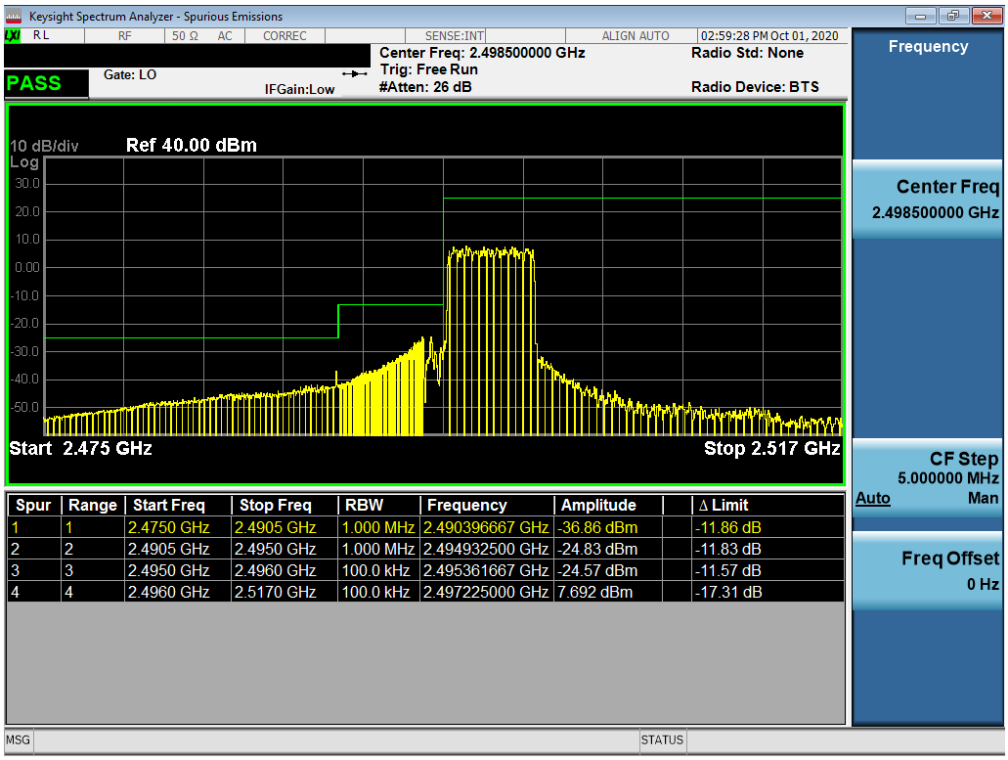
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.490422500 GHz	-34.89 dBm	-9.891 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.492540000 GHz	-26.12 dBm	-13.12 dB
3	3	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495738333 GHz	-30.75 dBm	-17.75 dB
4	4	2.4960 GHz	2.5170 GHz	200.0 kHz	2.503525000 GHz	8.197 dBm	-16.80 dB

Plot 7-251. Lower ACP Plot (LTE Band 41(PC3) - 10MHz QPSK – Full RB Configuration)



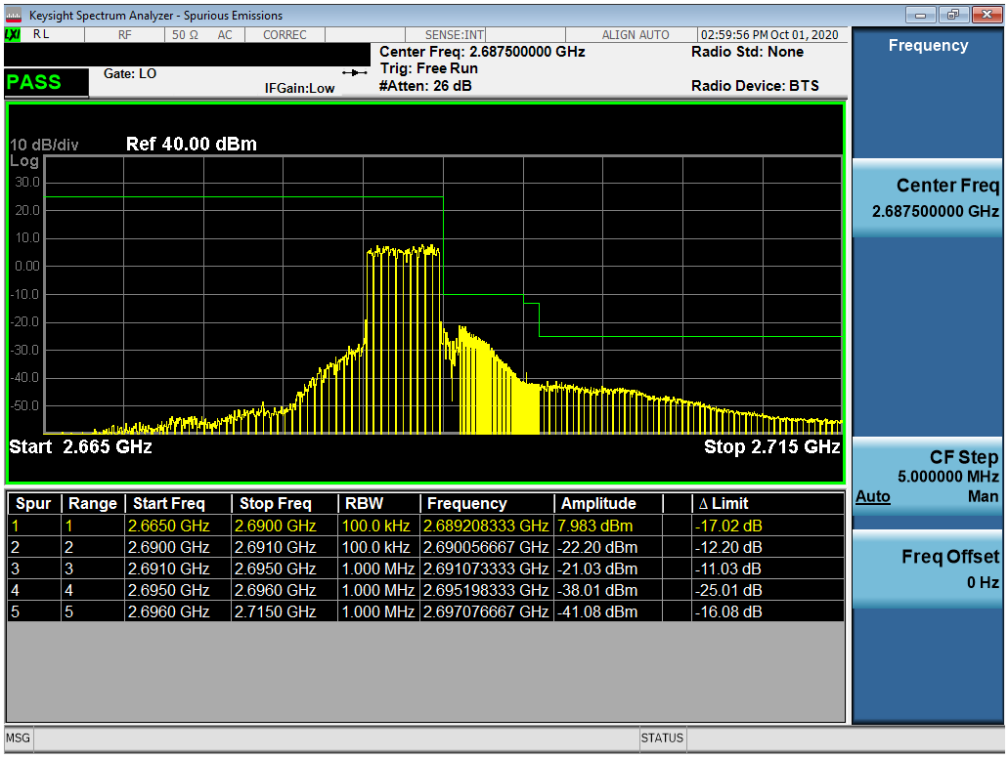
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	200.0 kHz	2.687541667 GHz	7.716 dBm	-17.28 dB
2	2	2.6900 GHz	2.6910 GHz	200.0 kHz	2.690041667 GHz	-27.68 dBm	-17.68 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691526667 GHz	-24.01 dBm	-14.01 dB
4	4	2.6950 GHz	2.6999 GHz	1.000 MHz	2.696106133 GHz	-30.98 dBm	-17.98 dB
5	5	2.6999 GHz	2.7150 GHz	1.000 MHz	2.704743600 GHz	-41.14 dBm	-16.14 dB

Plot 7-252. Upper ACP Plot (LTE Band 41(PC3) - 10MHz QPSK – Full RB Configuration)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4750 GHz	2.4905 GHz	1.000 MHz	2.490396667 GHz	-36.86 dBm	-11.86 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494932500 GHz	-24.83 dBm	-11.83 dB
3	3	2.4950 GHz	2.4960 GHz	100.0 kHz	2.495361667 GHz	-24.57 dBm	-11.57 dB
4	4	2.4960 GHz	2.5170 GHz	100.0 kHz	2.497225000 GHz	7.692 dBm	-17.31 dB

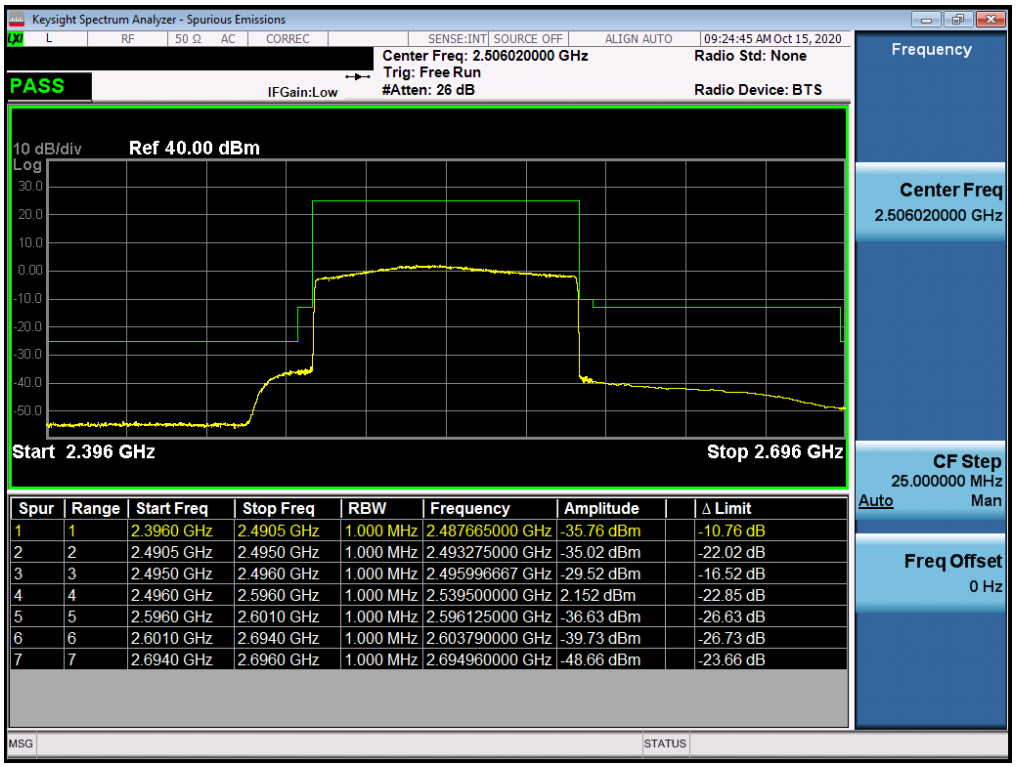
Plot 7-253. Lower ACP Plot (LTE Band 41(PC3) - 5MHz QPSK – Full RB Configuration)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6650 GHz	2.6900 GHz	100.0 kHz	2.689208333 GHz	7.983 dBm	-17.02 dB
2	2	2.6900 GHz	2.6910 GHz	100.0 kHz	2.690056667 GHz	-22.20 dBm	-12.20 dB
3	3	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691073333 GHz	-21.03 dBm	-11.03 dB
4	4	2.6950 GHz	2.6960 GHz	1.000 MHz	2.695198333 GHz	-38.01 dBm	-25.01 dB
5	5	2.6960 GHz	2.7150 GHz	1.000 MHz	2.697076667 GHz	-41.08 dBm	-16.08 dB

Plot 7-254. Upper ACP Plot (LTE Band 41(PC3) - 5MHz QPSK – Full RB Configuration)

NR Band n41 ANT E

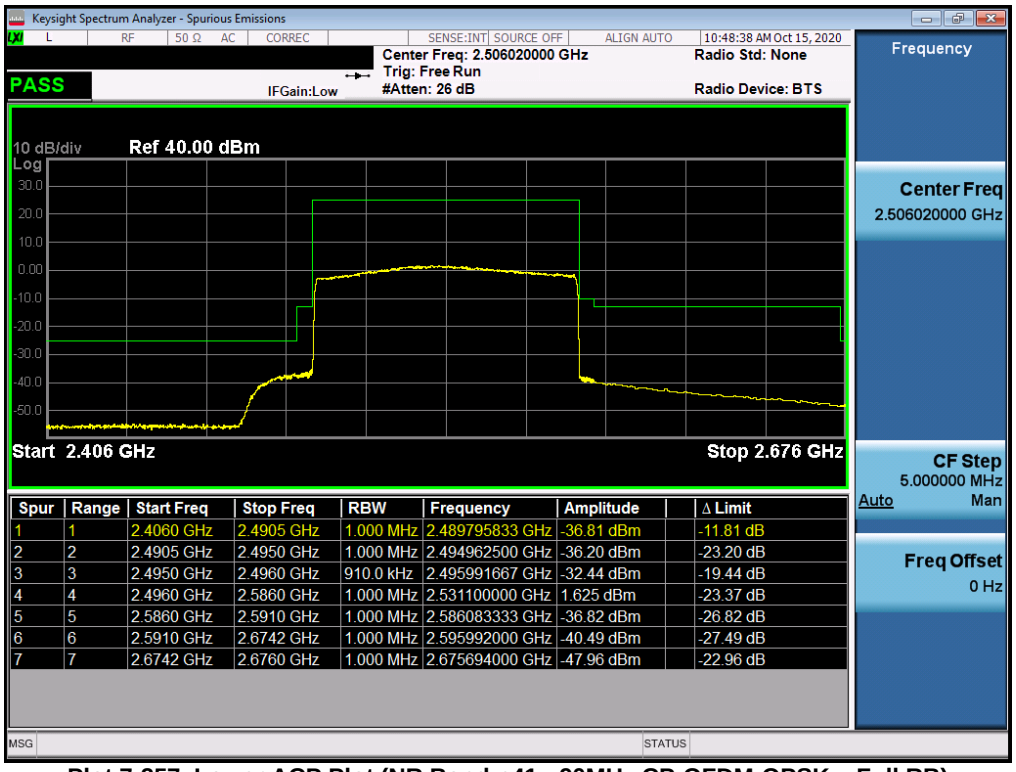


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.3960 GHz	2.4905 GHz	1.000 MHz	2.487665000 GHz	-35.76 dBm	-10.76 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.493275000 GHz	-35.02 dBm	-22.02 dB
3	3	2.4950 GHz	2.4960 GHz	1.000 MHz	2.495996667 GHz	-29.52 dBm	-16.52 dB
4	4	2.4960 GHz	2.5960 GHz	1.000 MHz	2.539500000 GHz	2.152 dBm	-22.85 dB
5	5	2.5960 GHz	2.6010 GHz	1.000 MHz	2.596125000 GHz	-36.63 dBm	-26.63 dB
6	6	2.6010 GHz	2.6940 GHz	1.000 MHz	2.603790000 GHz	-39.73 dBm	-26.73 dB
7	7	2.6940 GHz	2.6960 GHz	1.000 MHz	2.694960000 GHz	-48.66 dBm	-23.66 dB

Plot 7-255. Lower ACP Plot (NR Band n41 - 100MHz CP-OFDM-QPSK – Full RB)

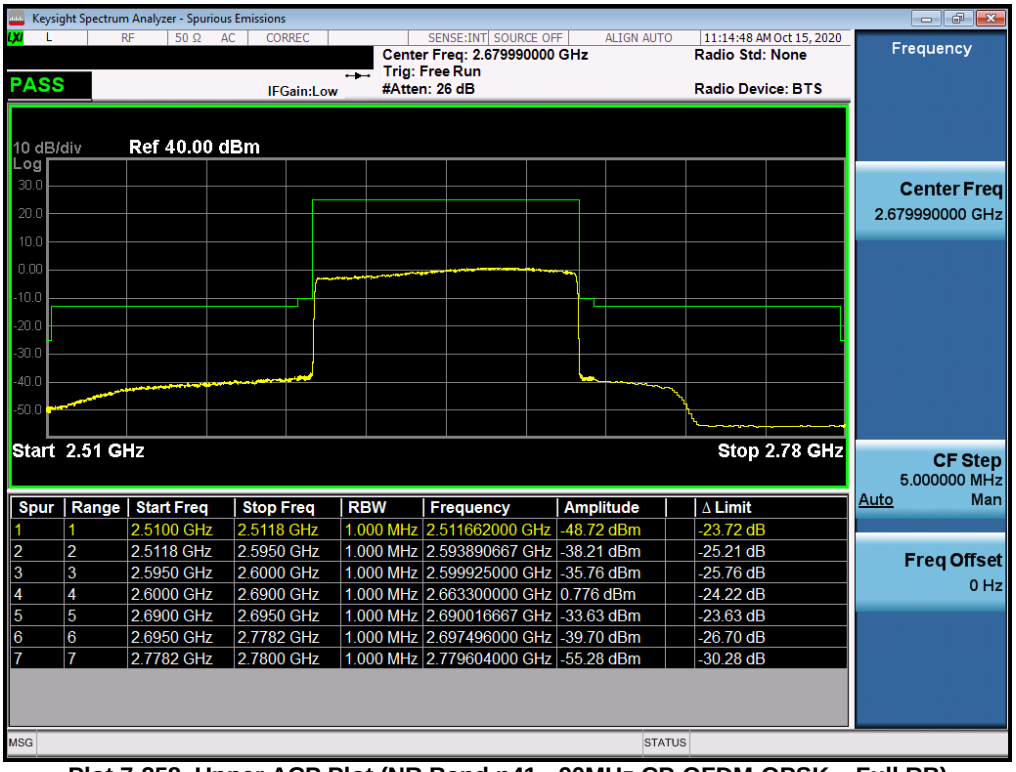
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4900 GHz	2.4920 GHz	1.000 MHz	2.491793333 GHz	-48.95 dBm	-23.95 dB
2	2	2.4920 GHz	2.5850 GHz	1.000 MHz	2.581590000 GHz	-36.99 dBm	-23.99 dB
3	3	2.5850 GHz	2.5900 GHz	1.000 MHz	2.589983333 GHz	-30.87 dBm	-20.87 dB
4	4	2.5900 GHz	2.6900 GHz	1.000 MHz	2.666500000 GHz	1.241 dBm	-23.76 dB
5	5	2.6900 GHz	2.6950 GHz	1.000 MHz	2.690141667 GHz	-35.85 dBm	-25.85 dB
6	6	2.6950 GHz	2.7880 GHz	1.000 MHz	2.695930000 GHz	-37.98 dBm	-24.98 dB
7	7	2.7880 GHz	2.7900 GHz	1.000 MHz	2.789060000 GHz	-54.26 dBm	-29.26 dB

Plot 7-256. Upper ACP Plot (NR Band n41 - 100MHz CP-OFDM-QPSK – Full RB)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4060 GHz	2.4905 GHz	1.000 MHz	2.489795833 GHz	-36.81 dBm	-11.81 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494962500 GHz	-36.20 dBm	-23.20 dB
3	3	2.4950 GHz	2.4960 GHz	910.0 kHz	2.495991667 GHz	-32.44 dBm	-19.44 dB
4	4	2.4960 GHz	2.5860 GHz	1.000 MHz	2.531100000 GHz	1.625 dBm	-23.37 dB
5	5	2.5860 GHz	2.5910 GHz	1.000 MHz	2.586083333 GHz	-36.82 dBm	-26.82 dB
6	6	2.5910 GHz	2.6742 GHz	1.000 MHz	2.595992000 GHz	-40.49 dBm	-27.49 dB
7	7	2.6742 GHz	2.6760 GHz	1.000 MHz	2.675694000 GHz	-47.96 dBm	-22.96 dB

Plot 7-257. Lower ACP Plot (NR Band n41 - 90MHz CP-OFDM-QPSK – Full RB)

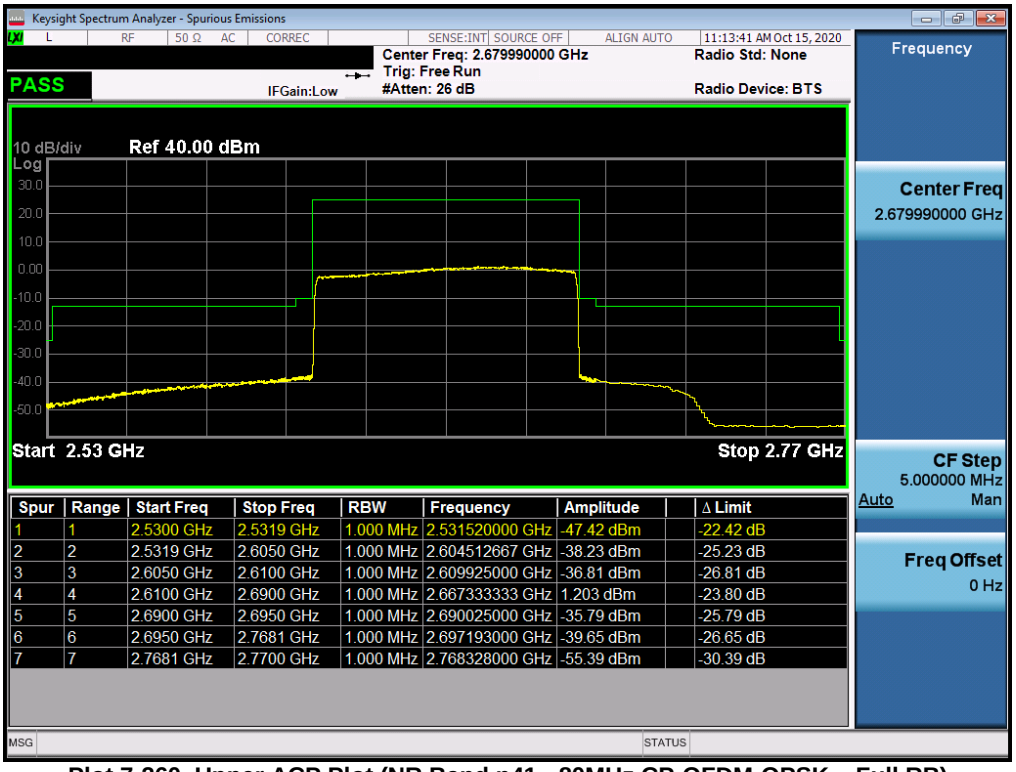


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5100 GHz	2.5118 GHz	1.000 MHz	2.511662000 GHz	-48.72 dBm	-23.72 dB
2	2	2.5118 GHz	2.5950 GHz	1.000 MHz	2.593890667 GHz	-38.21 dBm	-25.21 dB
3	3	2.5950 GHz	2.6000 GHz	1.000 MHz	2.599925000 GHz	-35.76 dBm	-25.76 dB
4	4	2.6000 GHz	2.6900 GHz	1.000 MHz	2.663300000 GHz	0.776 dBm	-24.22 dB
5	5	2.6900 GHz	2.6950 GHz	1.000 MHz	2.690016667 GHz	-33.63 dBm	-23.63 dB
6	6	2.6950 GHz	2.7782 GHz	1.000 MHz	2.697496000 GHz	-39.70 dBm	-26.70 dB
7	7	2.7782 GHz	2.7800 GHz	1.000 MHz	2.779604000 GHz	-55.28 dBm	-30.28 dB

Plot 7-258. Upper ACP Plot (NR Band n41 - 90MHz CP-OFDM-QPSK – Full RB)

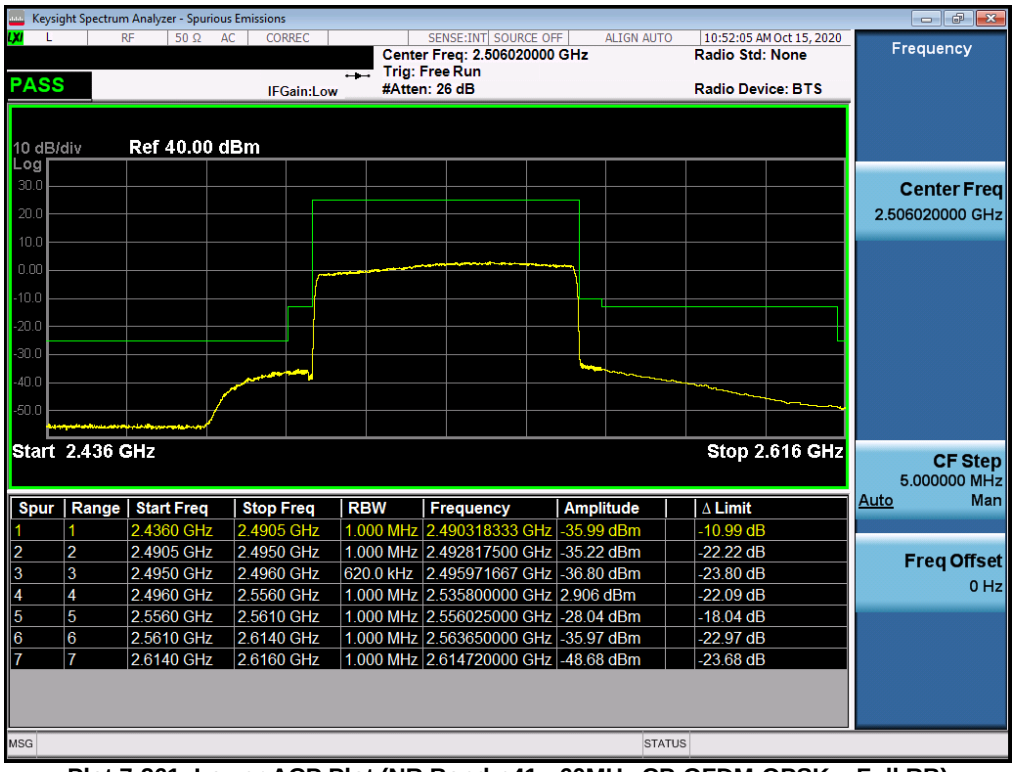
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4160 GHz	2.4905 GHz	1.000 MHz	2.489755000 GHz	-36.85 dBm	-11.85 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494572500 GHz	-36.23 dBm	-23.23 dB
3	3	2.4950 GHz	2.4960 GHz	820.0 kHz	2.495763333 GHz	-37.26 dBm	-24.26 dB
4	4	2.4960 GHz	2.5760 GHz	1.000 MHz	2.531066667 GHz	2.122 dBm	-22.88 dB
5	5	2.5760 GHz	2.5810 GHz	1.000 MHz	2.576025000 GHz	-34.71 dBm	-24.71 dB
6	6	2.5810 GHz	2.6541 GHz	1.000 MHz	2.583193000 GHz	-38.23 dBm	-25.23 dB
7	7	2.6541 GHz	2.6560 GHz	1.000 MHz	2.655240000 GHz	-47.65 dBm	-22.65 dB

Plot 7-259. Lower ACP Plot (NR Band n41 - 80MHz CP-OFDM-QPSK – Full RB)



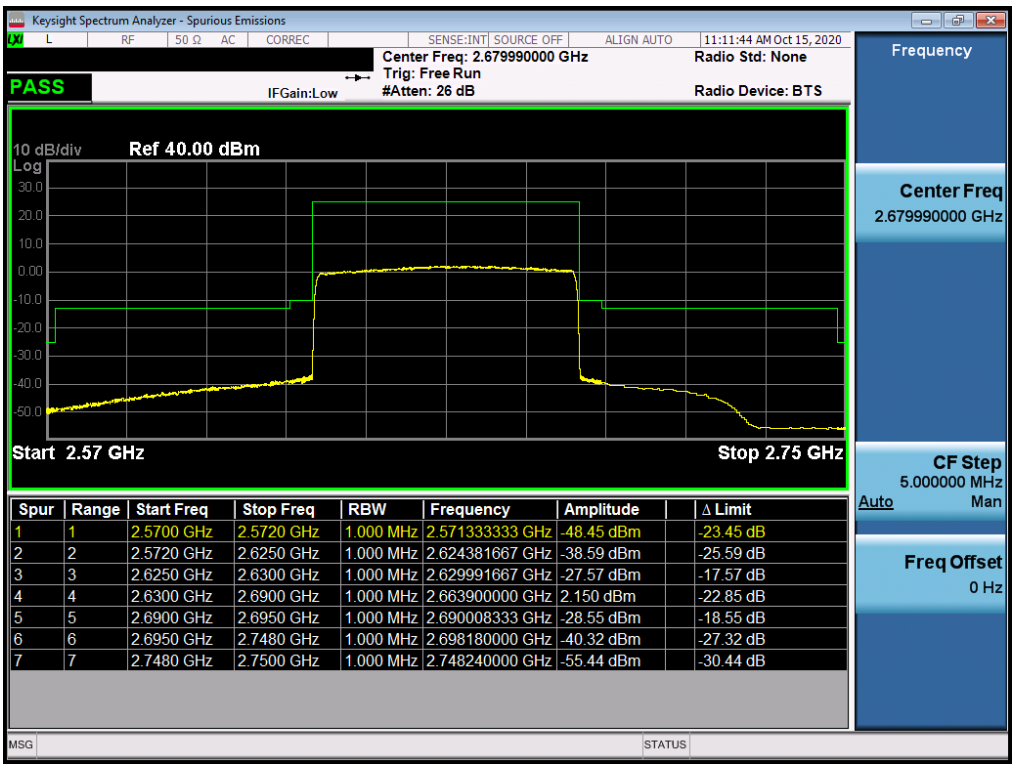
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5300 GHz	2.5319 GHz	1.000 MHz	2.531520000 GHz	-47.42 dBm	-22.42 dB
2	2	2.5319 GHz	2.6050 GHz	1.000 MHz	2.604512667 GHz	-38.23 dBm	-25.23 dB
3	3	2.6050 GHz	2.6100 GHz	1.000 MHz	2.609925000 GHz	-36.81 dBm	-26.81 dB
4	4	2.6100 GHz	2.6900 GHz	1.000 MHz	2.667333333 GHz	1.203 dBm	-23.80 dB
5	5	2.6900 GHz	2.6950 GHz	1.000 MHz	2.690025000 GHz	-35.79 dBm	-25.79 dB
6	6	2.6950 GHz	2.7681 GHz	1.000 MHz	2.697193000 GHz	-39.65 dBm	-26.65 dB
7	7	2.7681 GHz	2.7700 GHz	1.000 MHz	2.768328000 GHz	-55.39 dBm	-30.39 dB

Plot 7-260. Upper ACP Plot (NR Band n41 - 80MHz CP-OFDM-QPSK – Full RB)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4360 GHz	2.4905 GHz	1.000 MHz	2.490318333 GHz	-35.99 dBm	-10.99 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.492817500 GHz	-35.22 dBm	-22.22 dB
3	3	2.4950 GHz	2.4960 GHz	620.0 kHz	2.495971667 GHz	-36.80 dBm	-23.80 dB
4	4	2.4960 GHz	2.5560 GHz	1.000 MHz	2.535800000 GHz	2.906 dBm	-22.09 dB
5	5	2.5560 GHz	2.5610 GHz	1.000 MHz	2.556025000 GHz	-28.04 dBm	-18.04 dB
6	6	2.5610 GHz	2.6140 GHz	1.000 MHz	2.563650000 GHz	-35.97 dBm	-22.97 dB
7	7	2.6140 GHz	2.6160 GHz	1.000 MHz	2.614720000 GHz	-48.68 dBm	-23.68 dB

Plot 7-261. Lower ACP Plot (NR Band n41 - 60MHz CP-OFDM-QPSK – Full RB)

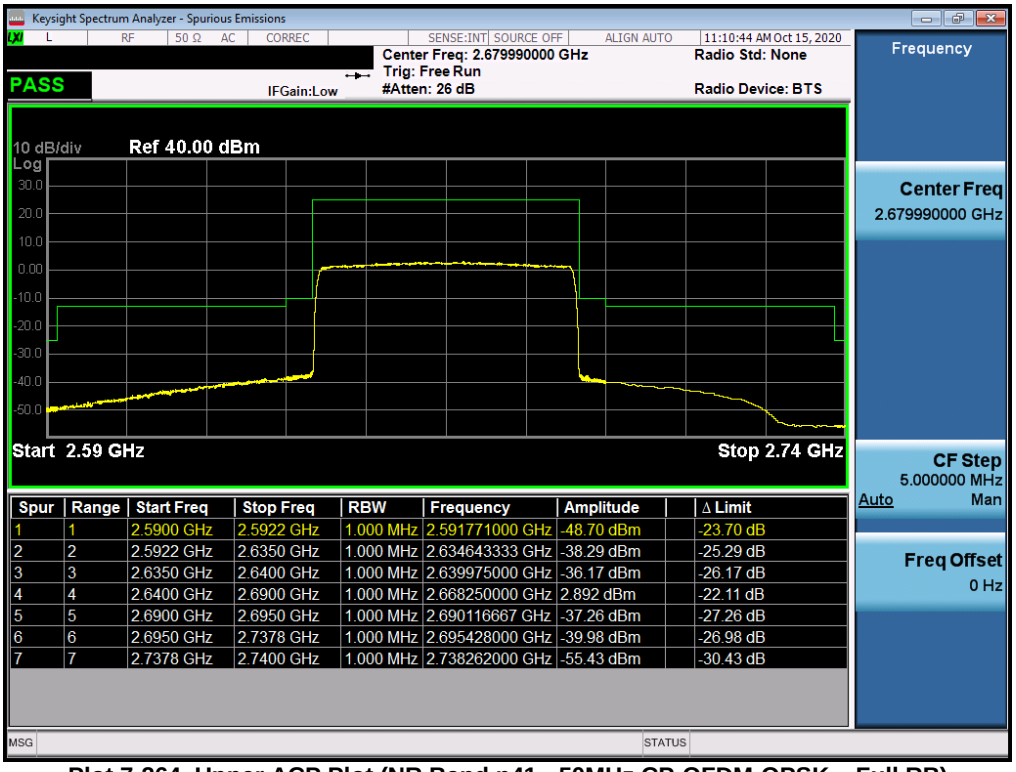


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5700 GHz	2.5720 GHz	1.000 MHz	2.571333333 GHz	-48.45 dBm	-23.45 dB
2	2	2.5720 GHz	2.6250 GHz	1.000 MHz	2.624381667 GHz	-38.59 dBm	-25.59 dB
3	3	2.6250 GHz	2.6300 GHz	1.000 MHz	2.629991667 GHz	-27.57 dBm	-17.57 dB
4	4	2.6300 GHz	2.6900 GHz	1.000 MHz	2.663900000 GHz	2.150 dBm	-22.85 dB
5	5	2.6900 GHz	2.6950 GHz	1.000 MHz	2.690008333 GHz	-28.55 dBm	-18.55 dB
6	6	2.6950 GHz	2.7480 GHz	1.000 MHz	2.698180000 GHz	-40.32 dBm	-27.32 dB
7	7	2.7480 GHz	2.7500 GHz	1.000 MHz	2.748240000 GHz	-55.44 dBm	-30.44 dB

Plot 7-262. Upper ACP Plot (NR Band n41 - 60MHz CP-OFDM-QPSK – Full RB)

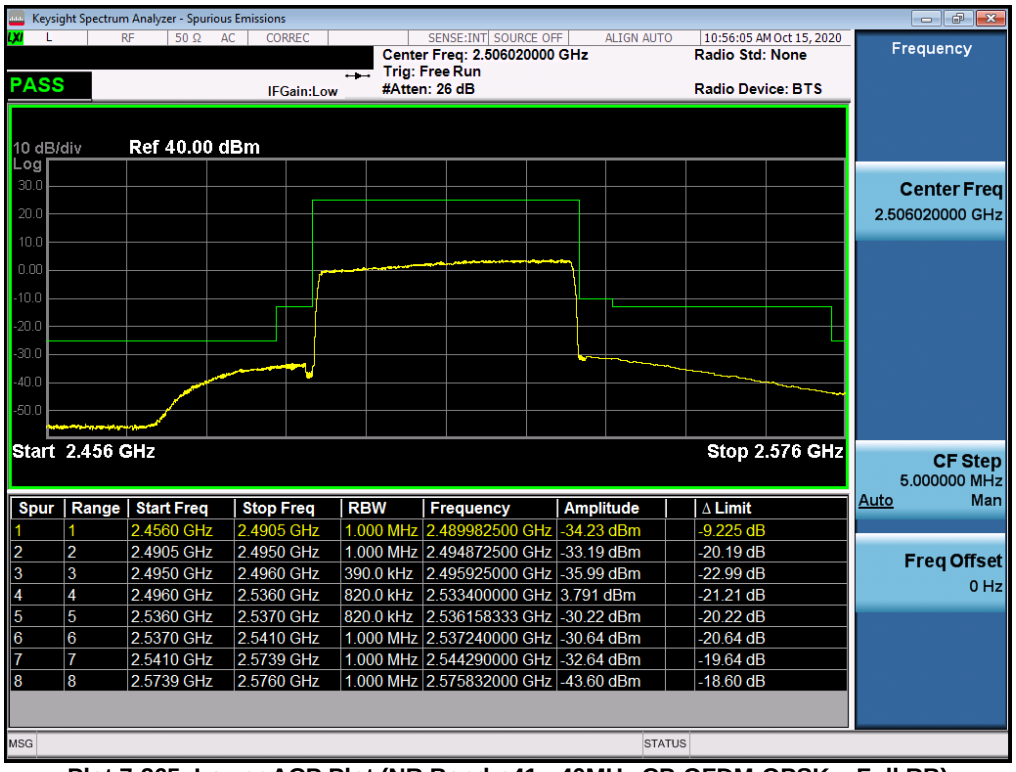
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4460 GHz	2.4905 GHz	1.000 MHz	2.490351667 GHz	-35.75 dBm	-10.75 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.493020000 GHz	-34.65 dBm	-21.65 dB
3	3	2.4950 GHz	2.4960 GHz	560.0 kHz	2.495110000 GHz	-36.84 dBm	-23.84 dB
4	4	2.4960 GHz	2.5460 GHz	1.000 MHz	2.531250000 GHz	3.841 dBm	-21.16 dB
5	5	2.5460 GHz	2.5510 GHz	1.000 MHz	2.546016667 GHz	-30.92 dBm	-20.92 dB
6	6	2.5510 GHz	2.5938 GHz	1.000 MHz	2.551856000 GHz	-34.34 dBm	-21.34 dB
7	7	2.5938 GHz	2.5960 GHz	1.000 MHz	2.595736000 GHz	-47.37 dBm	-22.37 dB

Plot 7-263. Lower ACP Plot (NR Band n41 - 50MHz CP-OFDM-QPSK – Full RB)



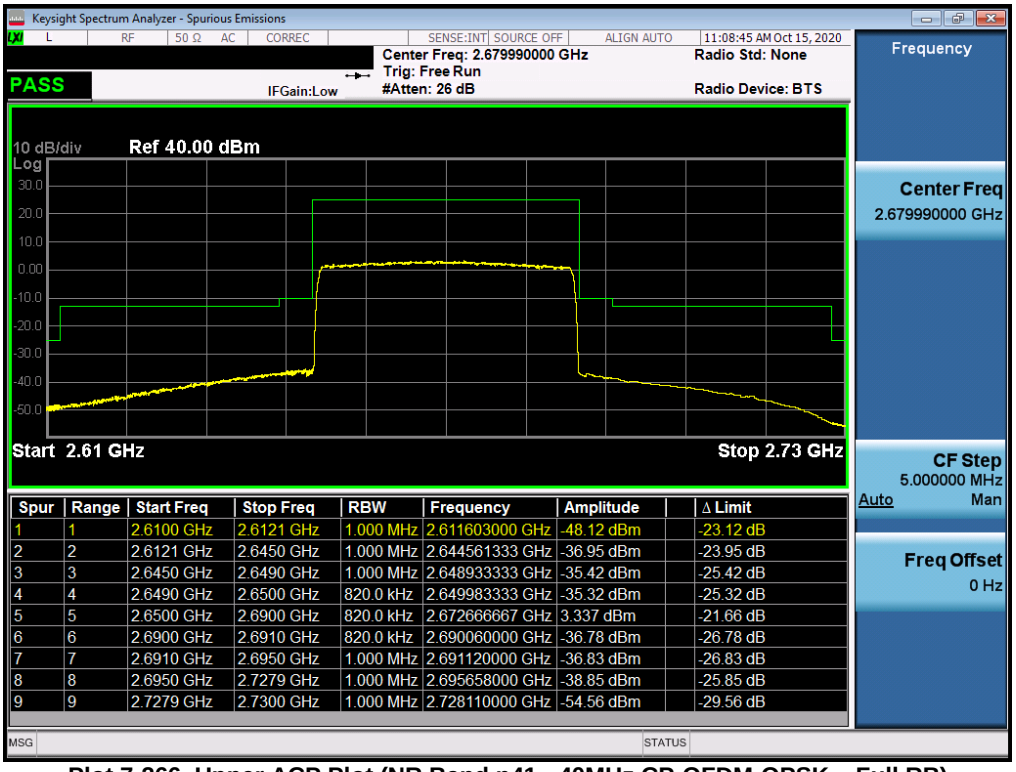
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5900 GHz	2.5922 GHz	1.000 MHz	2.591771000 GHz	-48.70 dBm	-23.70 dB
2	2	2.5922 GHz	2.6350 GHz	1.000 MHz	2.634643333 GHz	-38.29 dBm	-25.29 dB
3	3	2.6350 GHz	2.6400 GHz	1.000 MHz	2.639975000 GHz	-36.17 dBm	-26.17 dB
4	4	2.6400 GHz	2.6900 GHz	1.000 MHz	2.668250000 GHz	2.892 dBm	-22.11 dB
5	5	2.6900 GHz	2.6950 GHz	1.000 MHz	2.690116667 GHz	-37.26 dBm	-27.26 dB
6	6	2.6950 GHz	2.7378 GHz	1.000 MHz	2.695428000 GHz	-39.98 dBm	-26.98 dB
7	7	2.7378 GHz	2.7400 GHz	1.000 MHz	2.738262000 GHz	-55.43 dBm	-30.43 dB

Plot 7-264. Upper ACP Plot (NR Band n41 - 50MHz CP-OFDM-QPSK – Full RB)



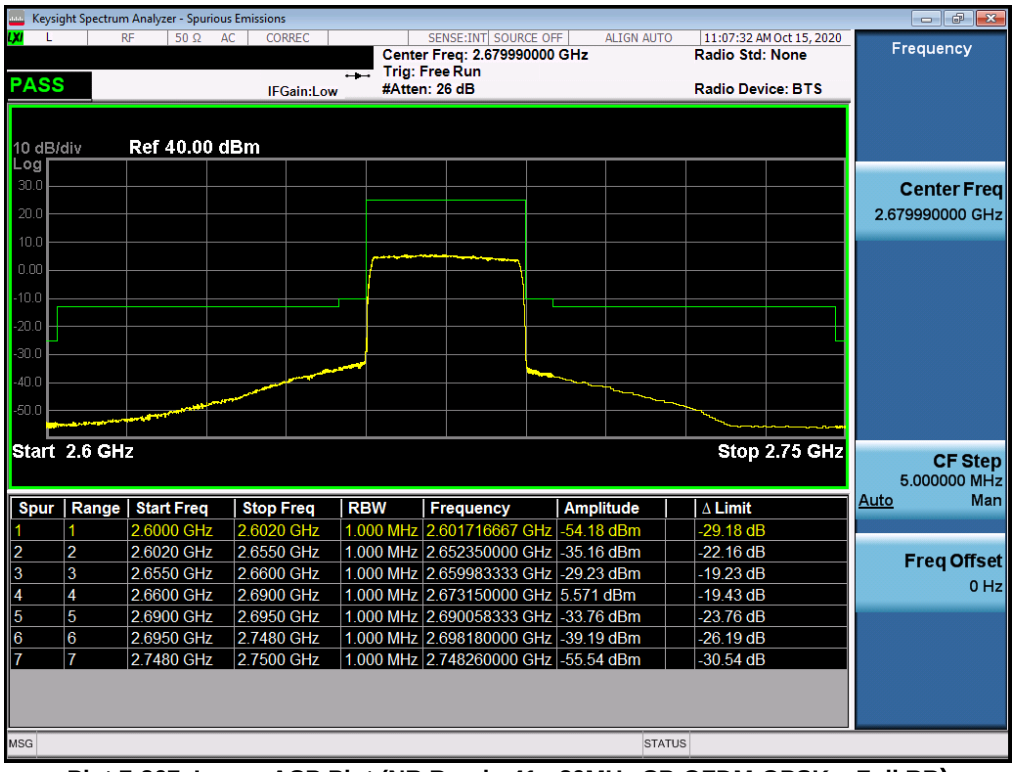
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4560 GHz	2.4905 GHz	1.000 MHz	2.489982500 GHz	-34.23 dBm	-9.225 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494872500 GHz	-33.19 dBm	-20.19 dB
3	3	2.4950 GHz	2.4960 GHz	390.0 kHz	2.495925000 GHz	-35.99 dBm	-22.99 dB
4	4	2.4960 GHz	2.5360 GHz	820.0 kHz	2.533400000 GHz	3.791 dBm	-21.21 dB
5	5	2.5360 GHz	2.5370 GHz	820.0 kHz	2.536158333 GHz	-30.22 dBm	-20.22 dB
6	6	2.5370 GHz	2.5410 GHz	1.000 MHz	2.537240000 GHz	-30.64 dBm	-20.64 dB
7	7	2.5410 GHz	2.5739 GHz	1.000 MHz	2.544290000 GHz	-32.64 dBm	-19.64 dB
8	8	2.5739 GHz	2.5760 GHz	1.000 MHz	2.575832000 GHz	-43.60 dBm	-18.60 dB

Plot 7-265. Lower ACP Plot (NR Band n41 - 40MHz CP-OFDM-QPSK – Full RB)



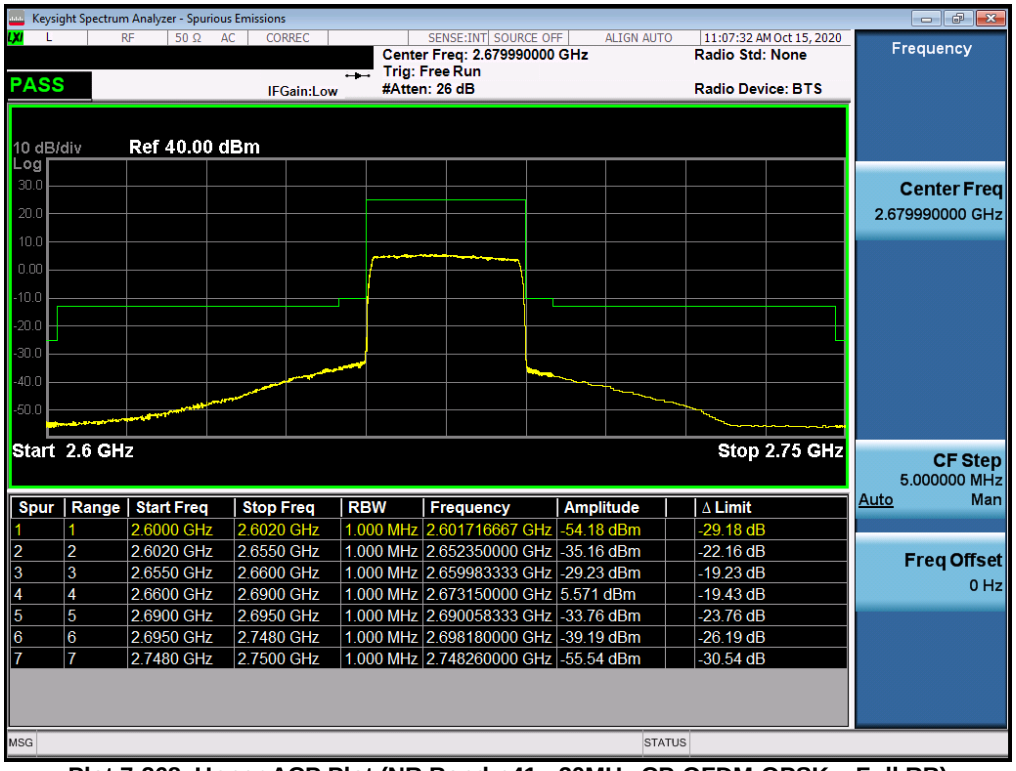
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6100 GHz	2.6121 GHz	1.000 MHz	2.611603000 GHz	-48.12 dBm	-23.12 dB
2	2	2.6121 GHz	2.6450 GHz	1.000 MHz	2.644561333 GHz	-36.95 dBm	-23.95 dB
3	3	2.6450 GHz	2.6490 GHz	1.000 MHz	2.648933333 GHz	-35.42 dBm	-25.42 dB
4	4	2.6490 GHz	2.6500 GHz	820.0 kHz	2.649983333 GHz	-35.32 dBm	-25.32 dB
5	5	2.6500 GHz	2.6900 GHz	820.0 kHz	2.672666667 GHz	3.337 dBm	-21.66 dB
6	6	2.6900 GHz	2.6910 GHz	820.0 kHz	2.690060000 GHz	-36.78 dBm	-26.78 dB
7	7	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691120000 GHz	-36.83 dBm	-26.83 dB
8	8	2.6950 GHz	2.7279 GHz	1.000 MHz	2.695658000 GHz	-38.85 dBm	-25.85 dB
9	9	2.7279 GHz	2.7300 GHz	1.000 MHz	2.728110000 GHz	-54.56 dBm	-29.56 dB

Plot 7-266. Upper ACP Plot (NR Band n41 - 40MHz CP-OFDM-QPSK – Full RB)



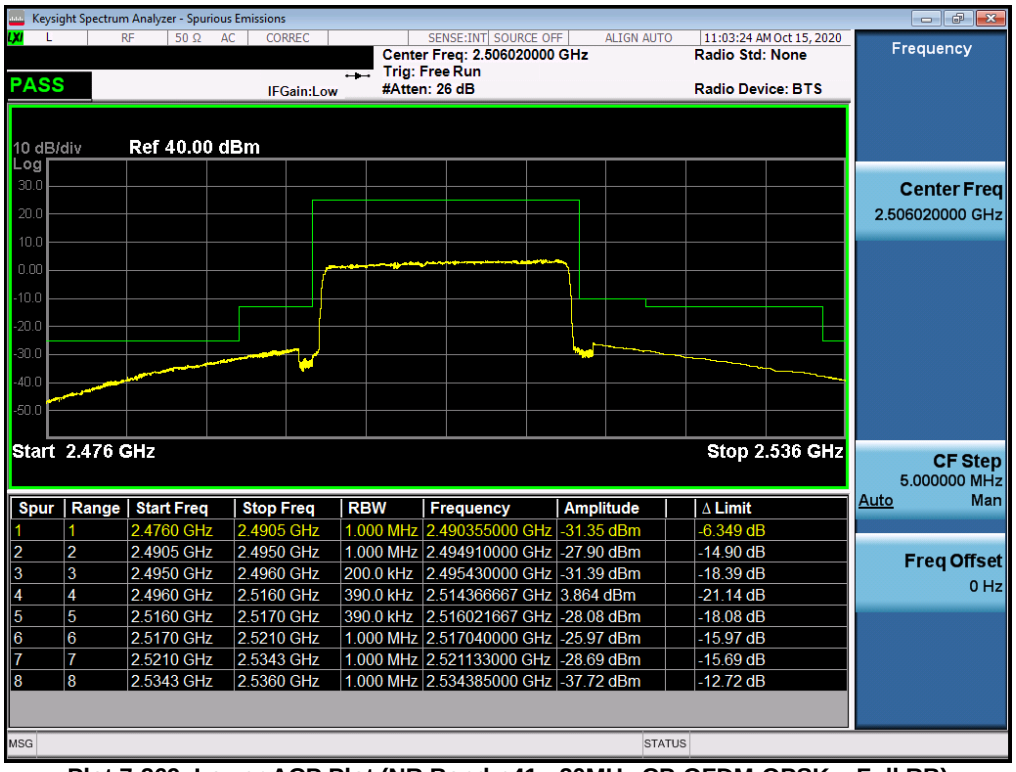
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6000 GHz	2.6020 GHz	1.000 MHz	2.601716667 GHz	-54.18 dBm	-29.18 dB
2	2	2.6020 GHz	2.6550 GHz	1.000 MHz	2.652350000 GHz	-35.16 dBm	-22.16 dB
3	3	2.6550 GHz	2.6600 GHz	1.000 MHz	2.659983333 GHz	-29.23 dBm	-19.23 dB
4	4	2.6600 GHz	2.6900 GHz	1.000 MHz	2.673150000 GHz	5.571 dBm	-19.43 dB
5	5	2.6900 GHz	2.6950 GHz	1.000 MHz	2.690058333 GHz	-33.76 dBm	-23.76 dB
6	6	2.6950 GHz	2.7480 GHz	1.000 MHz	2.698180000 GHz	-39.19 dBm	-26.19 dB
7	7	2.7480 GHz	2.7500 GHz	1.000 MHz	2.748260000 GHz	-55.54 dBm	-30.54 dB

Plot 7-267. Lower ACP Plot (NR Band n41 - 30MHz CP-OFDM-QPSK – Full RB)



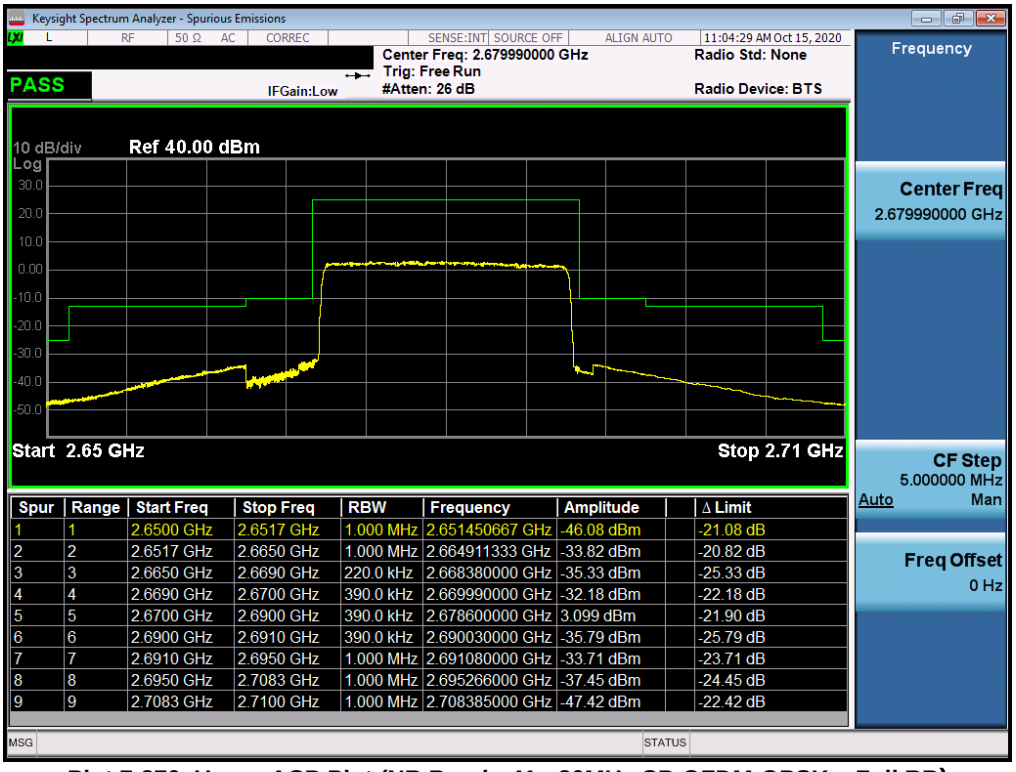
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6000 GHz	2.6020 GHz	1.000 MHz	2.601716667 GHz	-54.18 dBm	-29.18 dB
2	2	2.6020 GHz	2.6550 GHz	1.000 MHz	2.652350000 GHz	-35.16 dBm	-22.16 dB
3	3	2.6550 GHz	2.6600 GHz	1.000 MHz	2.659983333 GHz	-29.23 dBm	-19.23 dB
4	4	2.6600 GHz	2.6900 GHz	1.000 MHz	2.673150000 GHz	5.571 dBm	-19.43 dB
5	5	2.6900 GHz	2.6950 GHz	1.000 MHz	2.690058333 GHz	-33.76 dBm	-23.76 dB
6	6	2.6950 GHz	2.7480 GHz	1.000 MHz	2.698180000 GHz	-39.19 dBm	-26.19 dB
7	7	2.7480 GHz	2.7500 GHz	1.000 MHz	2.748260000 GHz	-55.54 dBm	-30.54 dB

Plot 7-268. Upper ACP Plot (NR Band n41 - 30MHz CP-OFDM-QPSK – Full RB)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4760 GHz	2.4905 GHz	1.000 MHz	2.490355000 GHz	-31.35 dBm	-6.349 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494910000 GHz	-27.90 dBm	-14.90 dB
3	3	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495430000 GHz	-31.39 dBm	-18.39 dB
4	4	2.4960 GHz	2.5160 GHz	390.0 kHz	2.514366667 GHz	3.864 dBm	-21.14 dB
5	5	2.5160 GHz	2.5170 GHz	390.0 kHz	2.516021667 GHz	-28.08 dBm	-18.08 dB
6	6	2.5170 GHz	2.5210 GHz	1.000 MHz	2.517040000 GHz	-25.97 dBm	-15.97 dB
7	7	2.5210 GHz	2.5343 GHz	1.000 MHz	2.521133000 GHz	-28.69 dBm	-15.69 dB
8	8	2.5343 GHz	2.5360 GHz	1.000 MHz	2.534385000 GHz	-37.72 dBm	-12.72 dB

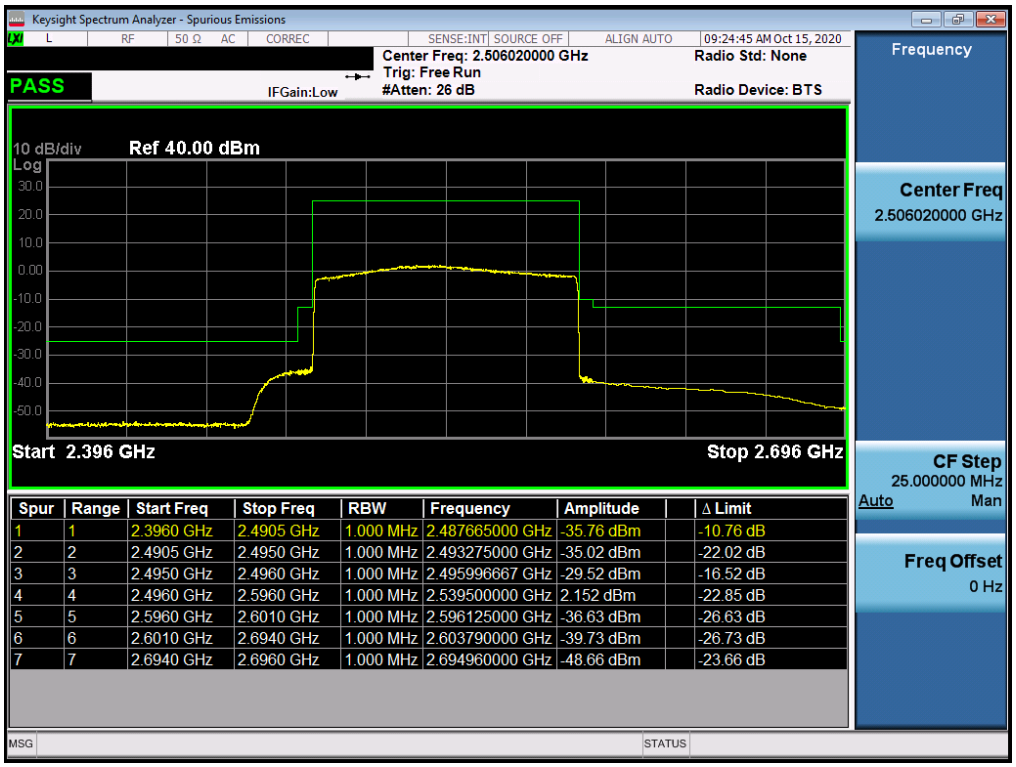
Plot 7-269. Lower ACP Plot (NR Band n41 - 20MHz CP-OFDM-QPSK – Full RB)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6500 GHz	2.6517 GHz	1.000 MHz	2.651450667 GHz	-46.08 dBm	-21.08 dB
2	2	2.6517 GHz	2.6650 GHz	1.000 MHz	2.664911333 GHz	-33.82 dBm	-20.82 dB
3	3	2.6650 GHz	2.6690 GHz	220.0 kHz	2.668380000 GHz	-35.33 dBm	-25.33 dB
4	4	2.6690 GHz	2.6700 GHz	390.0 kHz	2.669990000 GHz	-32.18 dBm	-22.18 dB
5	5	2.6700 GHz	2.6900 GHz	390.0 kHz	2.678600000 GHz	3.099 dBm	-21.90 dB
6	6	2.6900 GHz	2.6910 GHz	390.0 kHz	2.690030000 GHz	-35.79 dBm	-25.79 dB
7	7	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691080000 GHz	-33.71 dBm	-23.71 dB
8	8	2.6950 GHz	2.7083 GHz	1.000 MHz	2.695266000 GHz	-37.45 dBm	-24.45 dB
9	9	2.7083 GHz	2.7100 GHz	1.000 MHz	2.708385000 GHz	-47.42 dBm	-22.42 dB

Plot 7-270. Upper ACP Plot (NR Band n41 - 20MHz CP-OFDM-QPSK – Full RB)

NR Band n41 ANT B

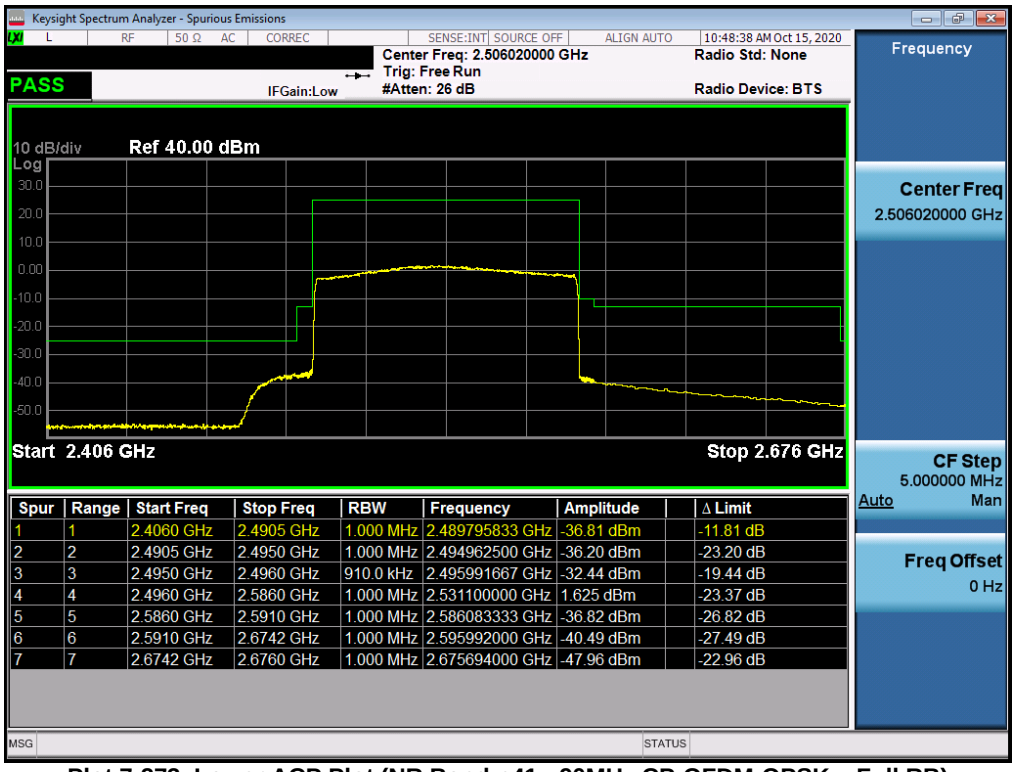


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.3960 GHz	2.4905 GHz	1.000 MHz	2.487665000 GHz	-35.76 dBm	-10.76 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.493275000 GHz	-35.02 dBm	-22.02 dB
3	3	2.4950 GHz	2.4960 GHz	1.000 MHz	2.495996667 GHz	-29.52 dBm	-16.52 dB
4	4	2.4960 GHz	2.5960 GHz	1.000 MHz	2.539500000 GHz	2.152 dBm	-22.85 dB
5	5	2.5960 GHz	2.6010 GHz	1.000 MHz	2.596125000 GHz	-36.63 dBm	-26.63 dB
6	6	2.6010 GHz	2.6940 GHz	1.000 MHz	2.603790000 GHz	-39.73 dBm	-26.73 dB
7	7	2.6940 GHz	2.6960 GHz	1.000 MHz	2.694960000 GHz	-48.66 dBm	-23.66 dB

Plot 7-271. Lower ACP Plot (NR Band n41 - 100MHz CP-OFDM-QPSK – Full RB)

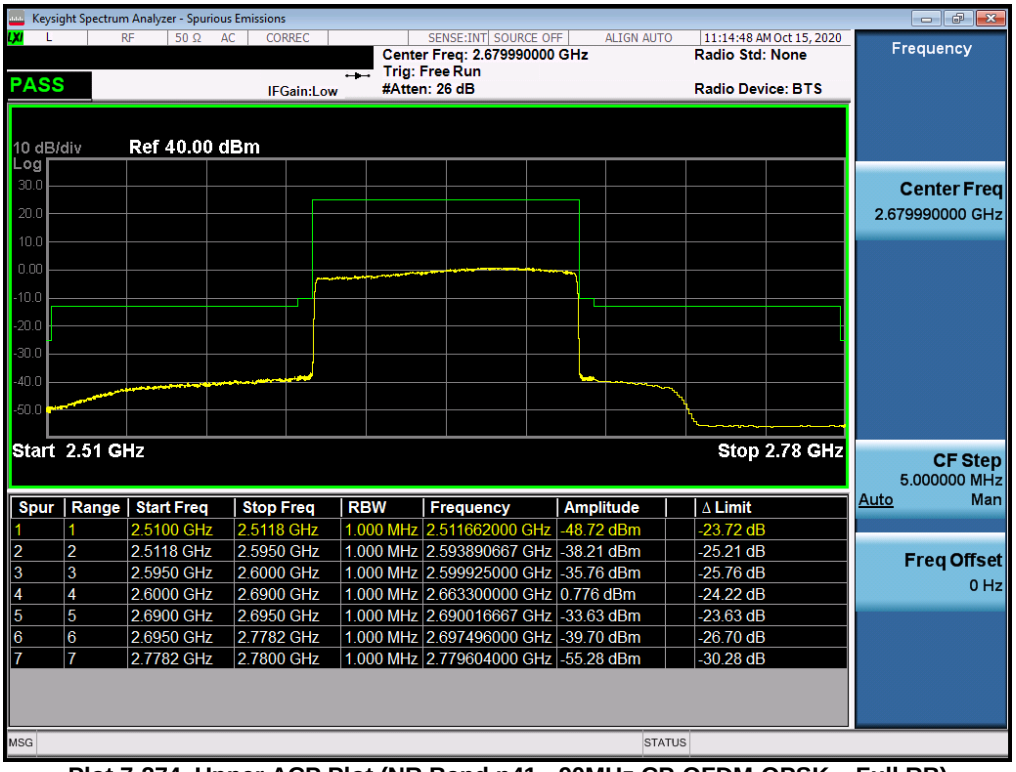
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4900 GHz	2.4920 GHz	1.000 MHz	2.491793333 GHz	-48.95 dBm	-23.95 dB
2	2	2.4920 GHz	2.5850 GHz	1.000 MHz	2.581590000 GHz	-36.99 dBm	-23.99 dB
3	3	2.5850 GHz	2.5900 GHz	1.000 MHz	2.589983333 GHz	-30.87 dBm	-20.87 dB
4	4	2.5900 GHz	2.6900 GHz	1.000 MHz	2.666500000 GHz	1.241 dBm	-23.76 dB
5	5	2.6900 GHz	2.6950 GHz	1.000 MHz	2.690141667 GHz	-35.85 dBm	-25.85 dB
6	6	2.6950 GHz	2.7880 GHz	1.000 MHz	2.695930000 GHz	-37.98 dBm	-24.98 dB
7	7	2.7880 GHz	2.7900 GHz	1.000 MHz	2.789060000 GHz	-54.26 dBm	-29.26 dB

Plot 7-272. Upper ACP Plot (NR Band n41 - 100MHz CP-OFDM-QPSK – Full RB)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4060 GHz	2.4905 GHz	1.000 MHz	2.489795833 GHz	-36.81 dBm	-11.81 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494962500 GHz	-36.20 dBm	-23.20 dB
3	3	2.4950 GHz	2.4960 GHz	910.0 kHz	2.495991667 GHz	-32.44 dBm	-19.44 dB
4	4	2.4960 GHz	2.5860 GHz	1.000 MHz	2.531100000 GHz	1.625 dBm	-23.37 dB
5	5	2.5860 GHz	2.5910 GHz	1.000 MHz	2.586083333 GHz	-36.82 dBm	-26.82 dB
6	6	2.5910 GHz	2.6742 GHz	1.000 MHz	2.595992000 GHz	-40.49 dBm	-27.49 dB
7	7	2.6742 GHz	2.6760 GHz	1.000 MHz	2.675694000 GHz	-47.96 dBm	-22.96 dB

Plot 7-273. Lower ACP Plot (NR Band n41 - 90MHz CP-OFDM-QPSK – Full RB)

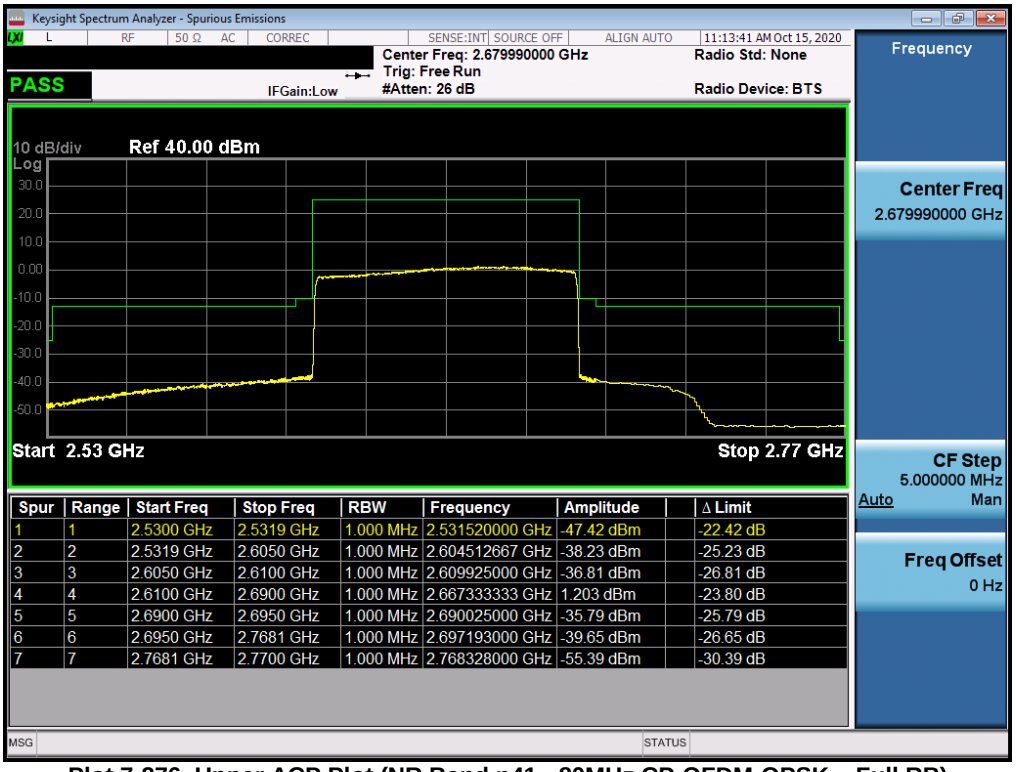


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5100 GHz	2.5118 GHz	1.000 MHz	2.511662000 GHz	-48.72 dBm	-23.72 dB
2	2	2.5118 GHz	2.5950 GHz	1.000 MHz	2.593890667 GHz	-38.21 dBm	-25.21 dB
3	3	2.5950 GHz	2.6000 GHz	1.000 MHz	2.599925000 GHz	-35.76 dBm	-25.76 dB
4	4	2.6000 GHz	2.6900 GHz	1.000 MHz	2.663300000 GHz	0.776 dBm	-24.22 dB
5	5	2.6900 GHz	2.6950 GHz	1.000 MHz	2.690016667 GHz	-33.63 dBm	-23.63 dB
6	6	2.6950 GHz	2.7782 GHz	1.000 MHz	2.697496000 GHz	-39.70 dBm	-26.70 dB
7	7	2.7782 GHz	2.7800 GHz	1.000 MHz	2.779604000 GHz	-55.28 dBm	-30.28 dB

Plot 7-274. Upper ACP Plot (NR Band n41 - 90MHz CP-OFDM-QPSK – Full RB)

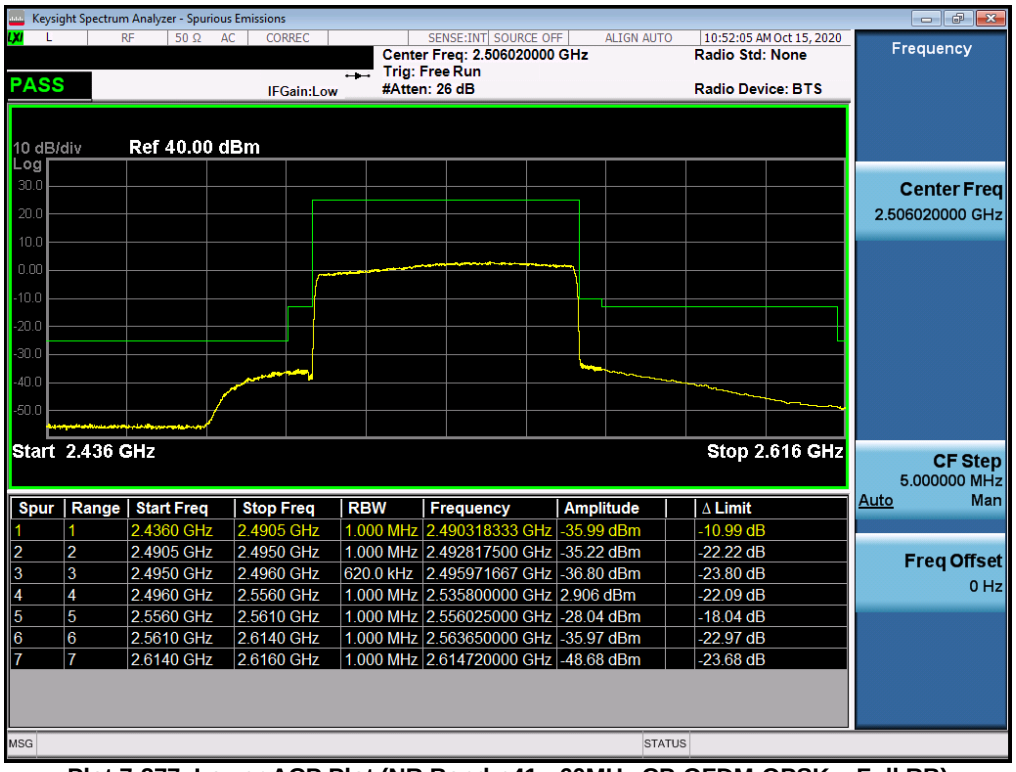
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4160 GHz	2.4905 GHz	1.000 MHz	2.489755000 GHz	-36.85 dBm	-11.85 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494572500 GHz	-36.23 dBm	-23.23 dB
3	3	2.4950 GHz	2.4960 GHz	820.0 kHz	2.495763333 GHz	-37.26 dBm	-24.26 dB
4	4	2.4960 GHz	2.5760 GHz	1.000 MHz	2.531066667 GHz	2.122 dBm	-22.88 dB
5	5	2.5760 GHz	2.5810 GHz	1.000 MHz	2.576025000 GHz	-34.71 dBm	-24.71 dB
6	6	2.5810 GHz	2.6541 GHz	1.000 MHz	2.583193000 GHz	-38.23 dBm	-25.23 dB
7	7	2.6541 GHz	2.6560 GHz	1.000 MHz	2.655240000 GHz	-47.65 dBm	-22.65 dB

Plot 7-275. Lower ACP Plot (NR Band n41 - 80MHz CP-OFDM-QPSK – Full RB)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5300 GHz	2.5319 GHz	1.000 MHz	2.531520000 GHz	-47.42 dBm	-22.42 dB
2	2	2.5319 GHz	2.6050 GHz	1.000 MHz	2.604512667 GHz	-38.23 dBm	-25.23 dB
3	3	2.6050 GHz	2.6100 GHz	1.000 MHz	2.609925000 GHz	-36.81 dBm	-26.81 dB
4	4	2.6100 GHz	2.6900 GHz	1.000 MHz	2.667333333 GHz	1.203 dBm	-23.80 dB
5	5	2.6900 GHz	2.6950 GHz	1.000 MHz	2.690025000 GHz	-35.79 dBm	-25.79 dB
6	6	2.6950 GHz	2.7681 GHz	1.000 MHz	2.697193000 GHz	-39.65 dBm	-26.65 dB
7	7	2.7681 GHz	2.7700 GHz	1.000 MHz	2.768328000 GHz	-55.39 dBm	-30.39 dB

Plot 7-276. Upper ACP Plot (NR Band n41 - 80MHz CP-OFDM-QPSK – Full RB)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4360 GHz	2.4905 GHz	1.000 MHz	2.490318333 GHz	-35.99 dBm	-10.99 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.492817500 GHz	-35.22 dBm	-22.22 dB
3	3	2.4950 GHz	2.4960 GHz	620.0 kHz	2.495971667 GHz	-36.80 dBm	-23.80 dB
4	4	2.4960 GHz	2.5560 GHz	1.000 MHz	2.535800000 GHz	2.906 dBm	-22.09 dB
5	5	2.5560 GHz	2.5610 GHz	1.000 MHz	2.556025000 GHz	-28.04 dBm	-18.04 dB
6	6	2.5610 GHz	2.6140 GHz	1.000 MHz	2.563650000 GHz	-35.97 dBm	-22.97 dB
7	7	2.6140 GHz	2.6160 GHz	1.000 MHz	2.614720000 GHz	-48.68 dBm	-23.68 dB

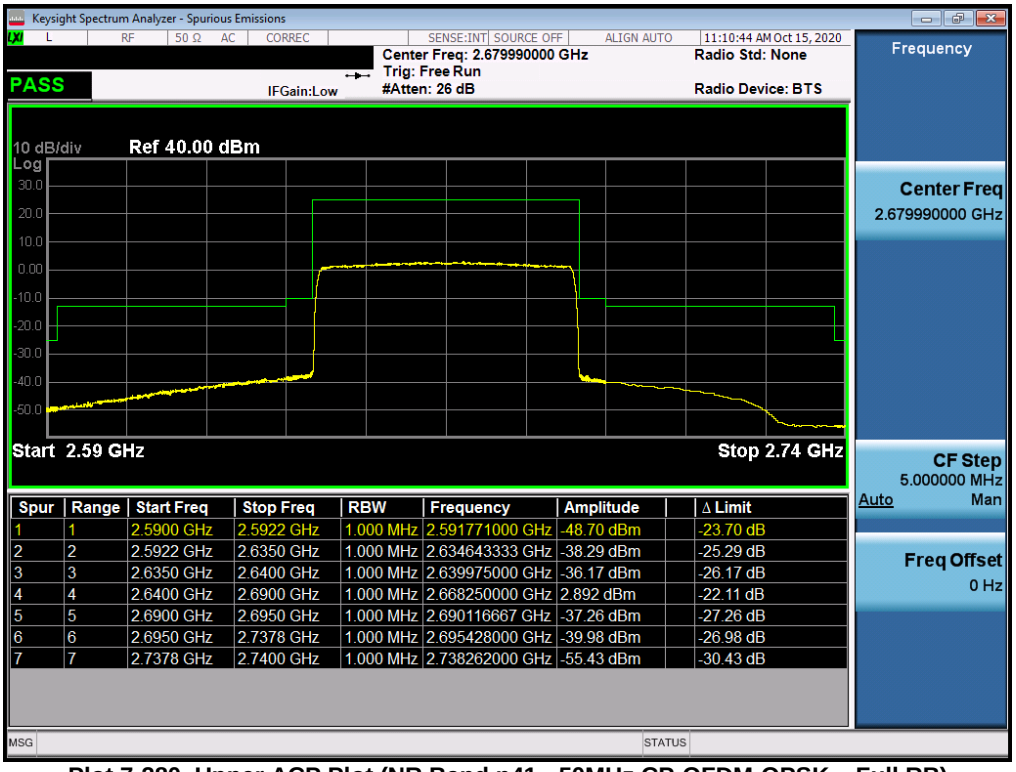
Plot 7-277. Lower ACP Plot (NR Band n41 - 60MHz CP-OFDM-QPSK – Full RB)

Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5700 GHz	2.5720 GHz	1.000 MHz	2.571333333 GHz	-48.45 dBm	-23.45 dB
2	2	2.5720 GHz	2.6250 GHz	1.000 MHz	2.624381667 GHz	-38.59 dBm	-25.59 dB
3	3	2.6250 GHz	2.6300 GHz	1.000 MHz	2.629991667 GHz	-27.57 dBm	-17.57 dB
4	4	2.6300 GHz	2.6900 GHz	1.000 MHz	2.663900000 GHz	2.150 dBm	-22.85 dB
5	5	2.6900 GHz	2.6950 GHz	1.000 MHz	2.690008333 GHz	-28.55 dBm	-18.55 dB
6	6	2.6950 GHz	2.7480 GHz	1.000 MHz	2.698180000 GHz	-40.32 dBm	-27.32 dB
7	7	2.7480 GHz	2.7500 GHz	1.000 MHz	2.748240000 GHz	-55.44 dBm	-30.44 dB

Plot 7-278. Upper ACP Plot (NR Band n41 - 60MHz CP-OFDM-QPSK – Full RB)

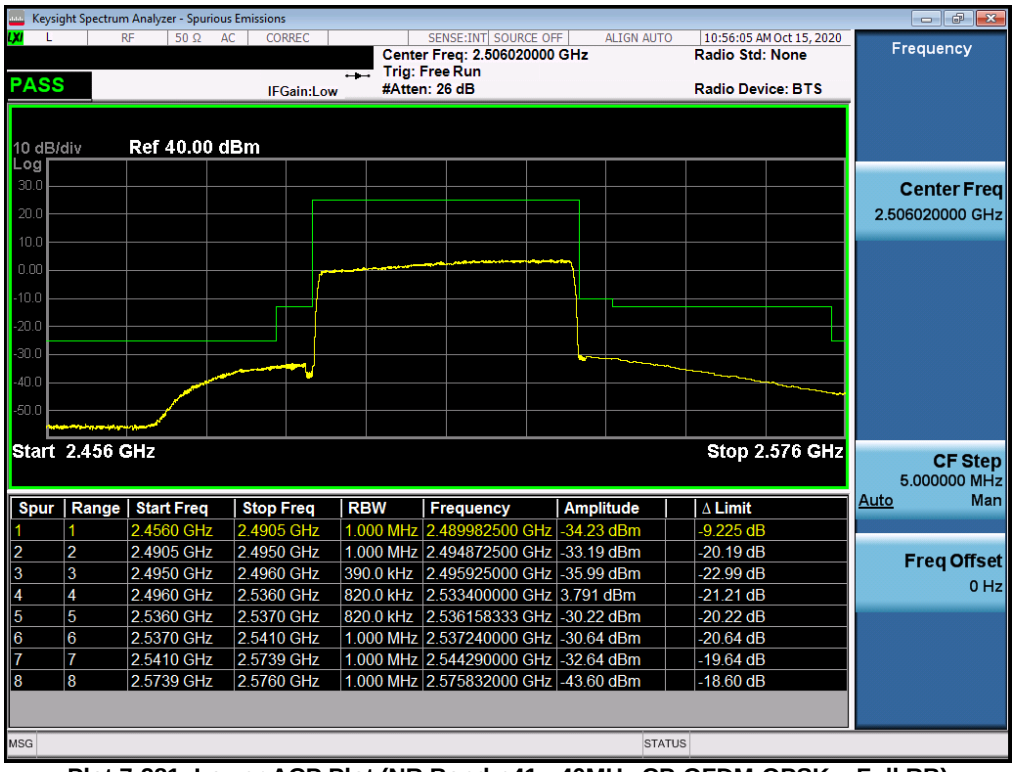
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4460 GHz	2.4905 GHz	1.000 MHz	2.490351667 GHz	-35.75 dBm	-10.75 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.493020000 GHz	-34.65 dBm	-21.65 dB
3	3	2.4950 GHz	2.4960 GHz	560.0 kHz	2.495110000 GHz	-36.84 dBm	-23.84 dB
4	4	2.4960 GHz	2.5460 GHz	1.000 MHz	2.531250000 GHz	3.841 dBm	-21.16 dB
5	5	2.5460 GHz	2.5510 GHz	1.000 MHz	2.546016667 GHz	-30.92 dBm	-20.92 dB
6	6	2.5510 GHz	2.5938 GHz	1.000 MHz	2.551856000 GHz	-34.34 dBm	-21.34 dB
7	7	2.5938 GHz	2.5960 GHz	1.000 MHz	2.595736000 GHz	-47.37 dBm	-22.37 dB

Plot 7-279. Lower ACP Plot (NR Band n41 - 50MHz CP-OFDM-QPSK – Full RB)



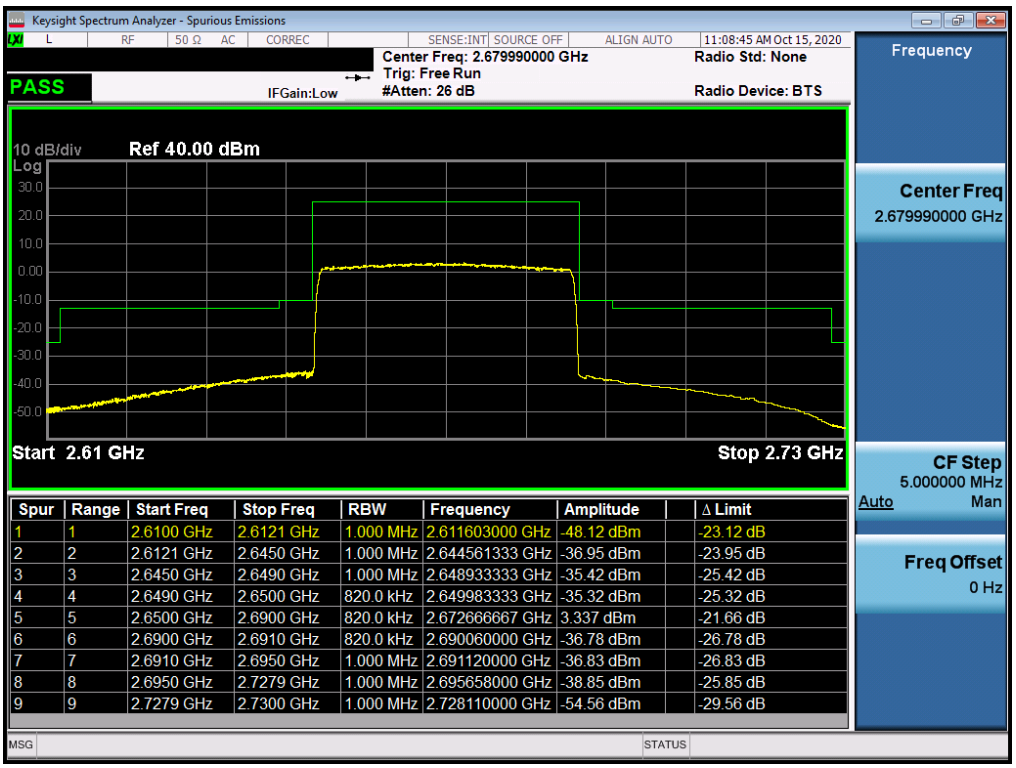
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.5900 GHz	2.5922 GHz	1.000 MHz	2.591771000 GHz	-48.70 dBm	-23.70 dB
2	2	2.5922 GHz	2.6350 GHz	1.000 MHz	2.634643333 GHz	-38.29 dBm	-25.29 dB
3	3	2.6350 GHz	2.6400 GHz	1.000 MHz	2.639975000 GHz	-36.17 dBm	-26.17 dB
4	4	2.6400 GHz	2.6900 GHz	1.000 MHz	2.668250000 GHz	2.892 dBm	-22.11 dB
5	5	2.6900 GHz	2.6950 GHz	1.000 MHz	2.690116667 GHz	-37.26 dBm	-27.26 dB
6	6	2.6950 GHz	2.7378 GHz	1.000 MHz	2.695428000 GHz	-39.98 dBm	-26.98 dB
7	7	2.7378 GHz	2.7400 GHz	1.000 MHz	2.738262000 GHz	-55.43 dBm	-30.43 dB

Plot 7-280. Upper ACP Plot (NR Band n41 - 50MHz CP-OFDM-QPSK – Full RB)



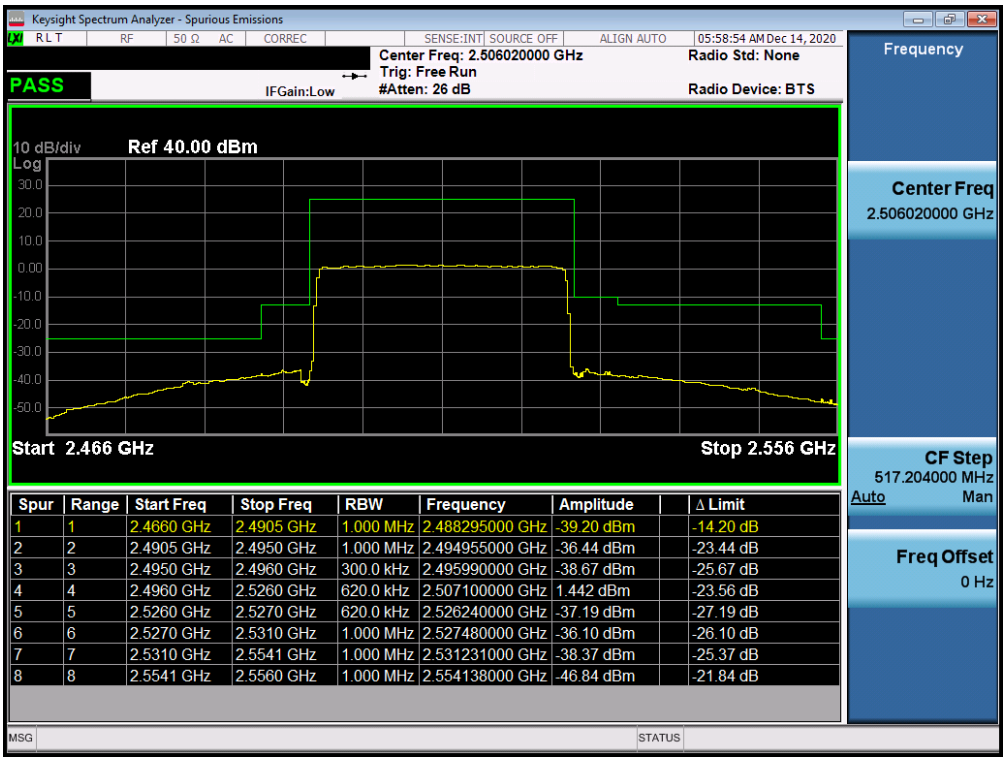
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4560 GHz	2.4905 GHz	1.000 MHz	2.489982500 GHz	-34.23 dBm	-9.225 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494872500 GHz	-33.19 dBm	-20.19 dB
3	3	2.4950 GHz	2.4960 GHz	390.0 kHz	2.495925000 GHz	-35.99 dBm	-22.99 dB
4	4	2.4960 GHz	2.5360 GHz	820.0 kHz	2.533400000 GHz	3.791 dBm	-21.21 dB
5	5	2.5360 GHz	2.5370 GHz	820.0 kHz	2.536158333 GHz	-30.22 dBm	-20.22 dB
6	6	2.5370 GHz	2.5410 GHz	1.000 MHz	2.537240000 GHz	-30.64 dBm	-20.64 dB
7	7	2.5410 GHz	2.5739 GHz	1.000 MHz	2.544290000 GHz	-32.64 dBm	-19.64 dB
8	8	2.5739 GHz	2.5760 GHz	1.000 MHz	2.575832000 GHz	-43.60 dBm	-18.60 dB

Plot 7-281. Lower ACP Plot (NR Band n41 - 40MHz CP-OFDM-QPSK – Full RB)



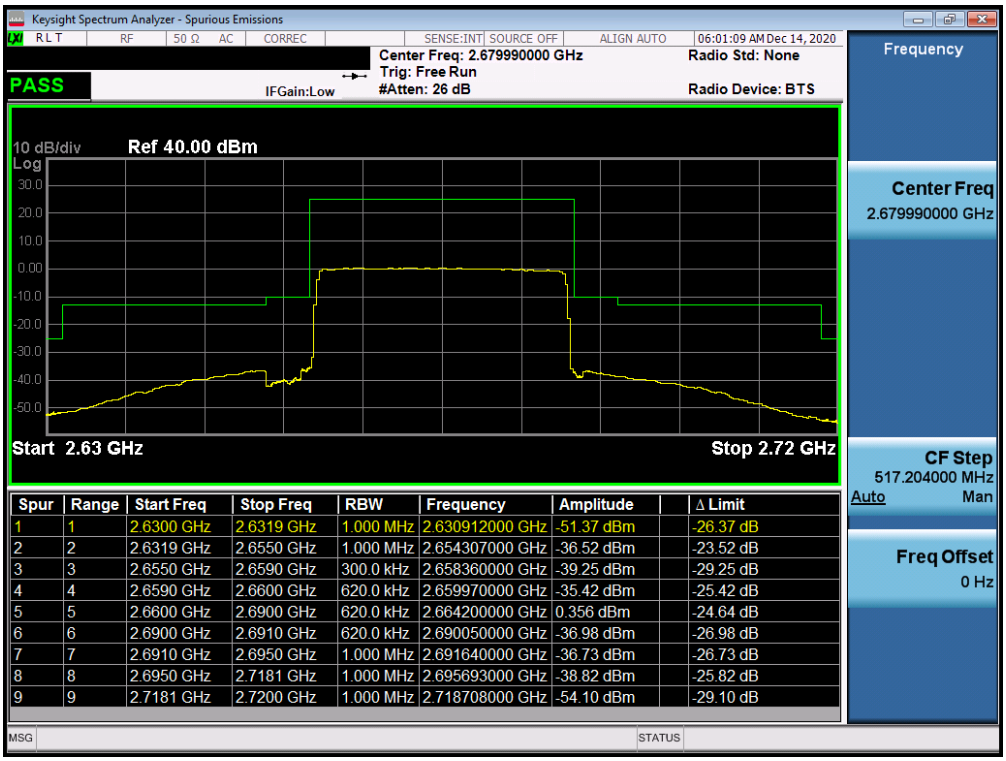
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6100 GHz	2.6121 GHz	1.000 MHz	2.611603000 GHz	-48.12 dBm	-23.12 dB
2	2	2.6121 GHz	2.6450 GHz	1.000 MHz	2.644561333 GHz	-36.95 dBm	-23.95 dB
3	3	2.6450 GHz	2.6490 GHz	1.000 MHz	2.648933333 GHz	-35.42 dBm	-25.42 dB
4	4	2.6490 GHz	2.6500 GHz	820.0 kHz	2.649983333 GHz	-35.32 dBm	-25.32 dB
5	5	2.6500 GHz	2.6900 GHz	820.0 kHz	2.672666667 GHz	3.337 dBm	-21.66 dB
6	6	2.6900 GHz	2.6910 GHz	820.0 kHz	2.690060000 GHz	-36.78 dBm	-26.78 dB
7	7	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691120000 GHz	-36.83 dBm	-26.83 dB
8	8	2.6950 GHz	2.7279 GHz	1.000 MHz	2.695658000 GHz	-38.85 dBm	-25.85 dB
9	9	2.7279 GHz	2.7300 GHz	1.000 MHz	2.728110000 GHz	-54.56 dBm	-29.56 dB

Plot 7-282. Upper ACP Plot (NR Band n41 - 40MHz CP-OFDM-QPSK – Full RB)



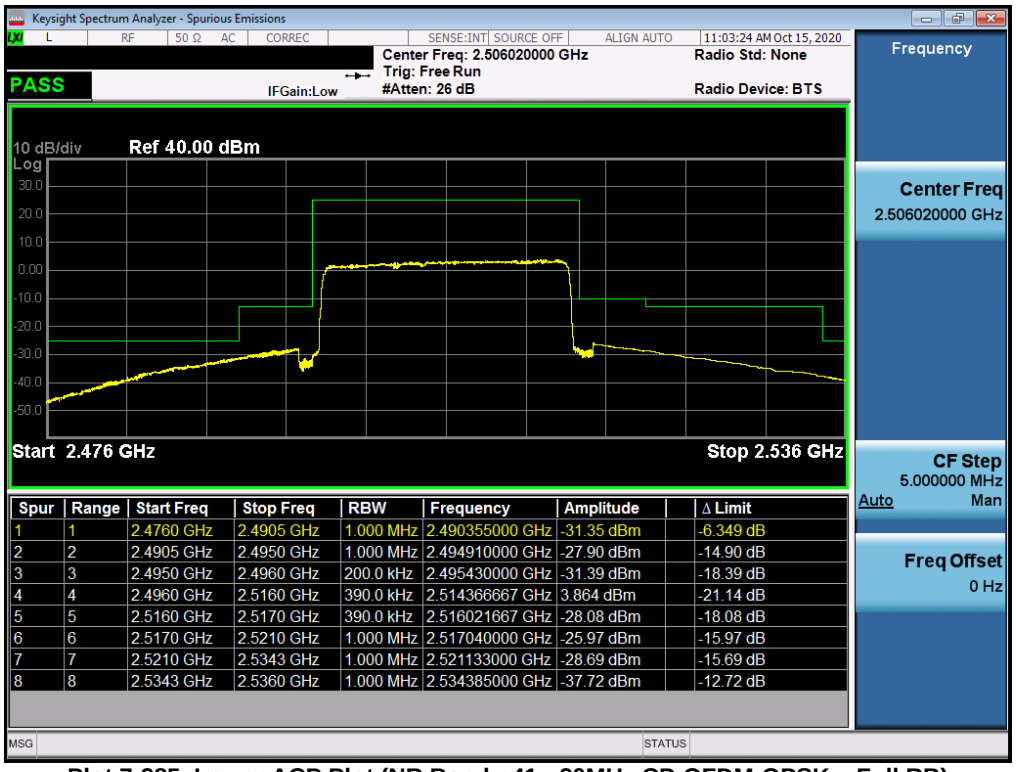
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4660 GHz	2.4905 GHz	1.000 MHz	2.488295000 GHz	-39.20 dBm	-14.20 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494955000 GHz	-36.44 dBm	-23.44 dB
3	3	2.4950 GHz	2.4960 GHz	300.0 kHz	2.495990000 GHz	-38.67 dBm	-25.67 dB
4	4	2.4960 GHz	2.5260 GHz	620.0 kHz	2.507100000 GHz	1.442 dBm	-23.56 dB
5	5	2.5260 GHz	2.5270 GHz	620.0 kHz	2.526240000 GHz	-37.19 dBm	-27.19 dB
6	6	2.5270 GHz	2.5310 GHz	1.000 MHz	2.527480000 GHz	-36.10 dBm	-26.10 dB
7	7	2.5310 GHz	2.5541 GHz	1.000 MHz	2.531231000 GHz	-38.37 dBm	-25.37 dB
8	8	2.5541 GHz	2.5560 GHz	1.000 MHz	2.554138000 GHz	-46.84 dBm	-21.84 dB

Plot 7-283. Lower ACP Plot (NR Band n41 - 30MHz CP-OFDM-QPSK – Full RB)



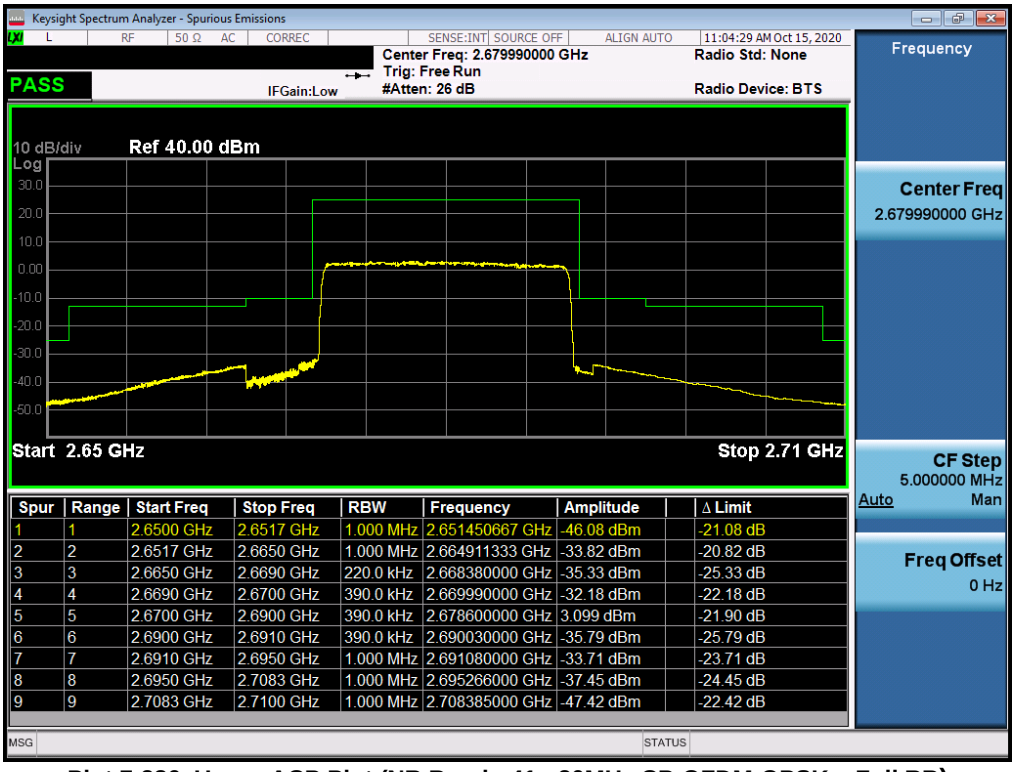
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6300 GHz	2.6319 GHz	1.000 MHz	2.630912000 GHz	-51.37 dBm	-26.37 dB
2	2	2.6319 GHz	2.6550 GHz	1.000 MHz	2.654307000 GHz	-36.52 dBm	-23.52 dB
3	3	2.6550 GHz	2.6590 GHz	300.0 kHz	2.658360000 GHz	-39.25 dBm	-29.25 dB
4	4	2.6590 GHz	2.6600 GHz	620.0 kHz	2.659970000 GHz	-35.42 dBm	-25.42 dB
5	5	2.6600 GHz	2.6900 GHz	620.0 kHz	2.664200000 GHz	0.356 dBm	-24.64 dB
6	6	2.6900 GHz	2.6910 GHz	620.0 kHz	2.690050000 GHz	-36.98 dBm	-26.98 dB
7	7	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691640000 GHz	-36.73 dBm	-26.73 dB
8	8	2.6950 GHz	2.7181 GHz	1.000 MHz	2.695693000 GHz	-38.82 dBm	-25.82 dB
9	9	2.7181 GHz	2.7200 GHz	1.000 MHz	2.718708000 GHz	-54.10 dBm	-29.10 dB

Plot 7-284. Upper ACP Plot (NR Band n41 - 30MHz CP-OFDM-QPSK – Full RB)



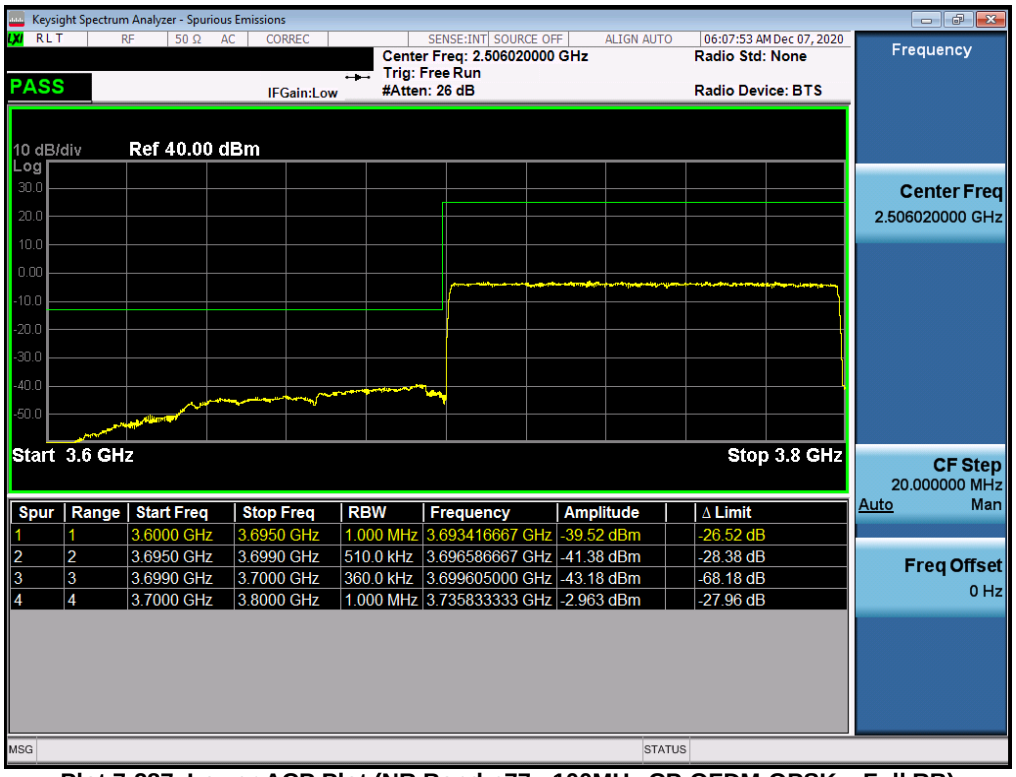
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.4760 GHz	2.4905 GHz	1.000 MHz	2.490355000 GHz	-31.35 dBm	-6.349 dB
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494910000 GHz	-27.90 dBm	-14.90 dB
3	3	2.4950 GHz	2.4960 GHz	200.0 kHz	2.495430000 GHz	-31.39 dBm	-18.39 dB
4	4	2.4960 GHz	2.5160 GHz	390.0 kHz	2.514366667 GHz	3.864 dBm	-21.14 dB
5	5	2.5160 GHz	2.5170 GHz	390.0 kHz	2.516021667 GHz	-28.08 dBm	-18.08 dB
6	6	2.5170 GHz	2.5210 GHz	1.000 MHz	2.517040000 GHz	-25.97 dBm	-15.97 dB
7	7	2.5210 GHz	2.5343 GHz	1.000 MHz	2.521133000 GHz	-28.69 dBm	-15.69 dB
8	8	2.5343 GHz	2.5360 GHz	1.000 MHz	2.534385000 GHz	-37.72 dBm	-12.72 dB

Plot 7-285. Lower ACP Plot (NR Band n41 - 20MHz CP-OFDM-QPSK – Full RB)



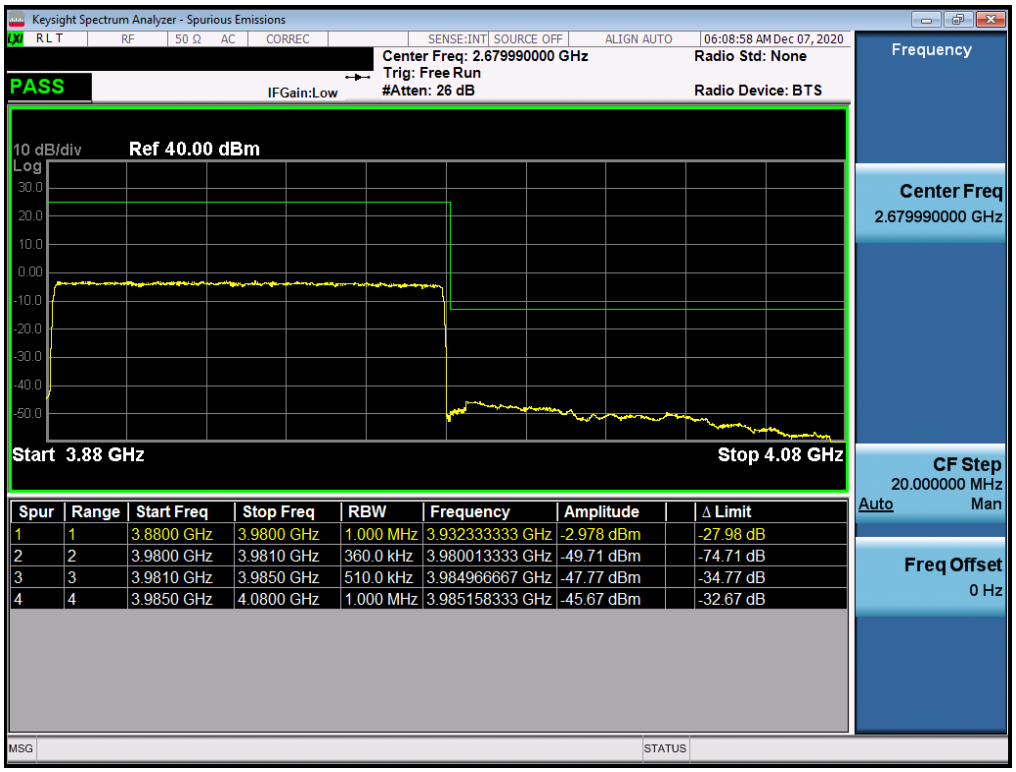
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	2.6500 GHz	2.6517 GHz	1.000 MHz	2.651450667 GHz	-46.08 dBm	-21.08 dB
2	2	2.6517 GHz	2.6650 GHz	1.000 MHz	2.664911333 GHz	-33.82 dBm	-20.82 dB
3	3	2.6650 GHz	2.6690 GHz	220.0 kHz	2.668380000 GHz	-35.33 dBm	-25.33 dB
4	4	2.6690 GHz	2.6700 GHz	390.0 kHz	2.669990000 GHz	-32.18 dBm	-22.18 dB
5	5	2.6700 GHz	2.6900 GHz	390.0 kHz	2.678600000 GHz	3.099 dBm	-21.90 dB
6	6	2.6900 GHz	2.6910 GHz	390.0 kHz	2.690030000 GHz	-35.79 dBm	-25.79 dB
7	7	2.6910 GHz	2.6950 GHz	1.000 MHz	2.691080000 GHz	-33.71 dBm	-23.71 dB
8	8	2.6950 GHz	2.7083 GHz	1.000 MHz	2.695266000 GHz	-37.45 dBm	-24.45 dB
9	9	2.7083 GHz	2.7100 GHz	1.000 MHz	2.708385000 GHz	-47.42 dBm	-22.42 dB

Plot 7-286. Upper ACP Plot (NR Band n41 - 20MHz CP-OFDM-QPSK – Full RB)



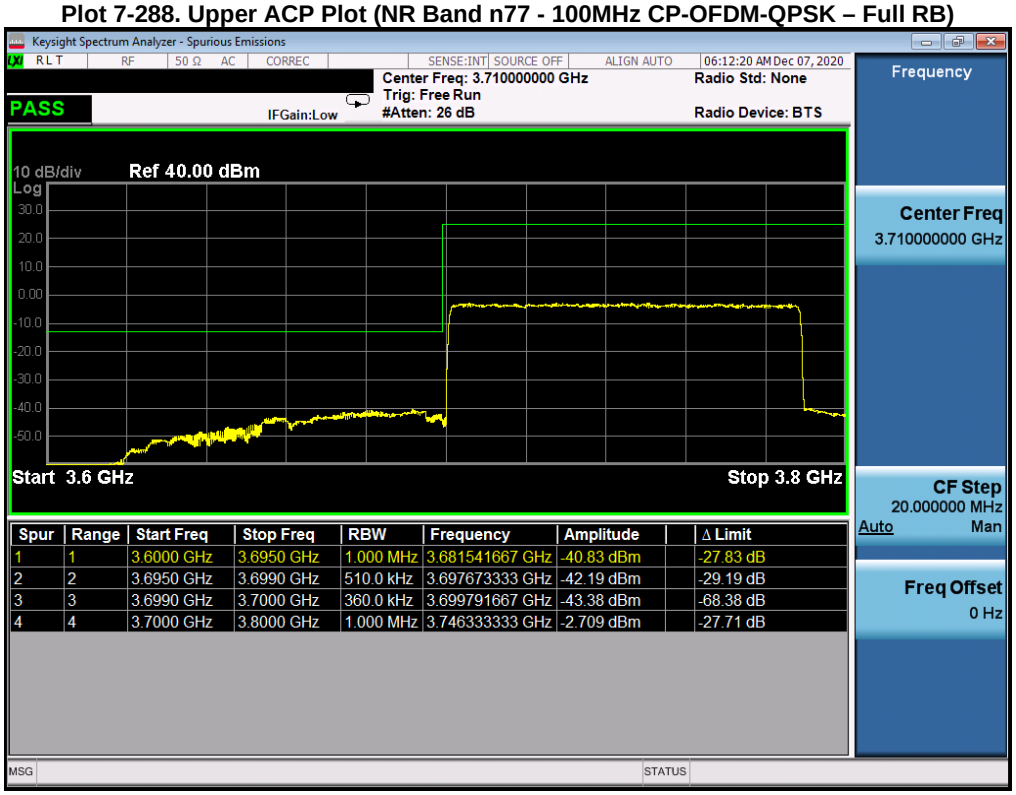
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.6000 GHz	3.6950 GHz	1.000 MHz	3.693416667 GHz	-39.52 dBm	-26.52 dB
2	2	3.6950 GHz	3.6990 GHz	510.0 kHz	3.696586667 GHz	-41.38 dBm	-28.38 dB
3	3	3.6990 GHz	3.7000 GHz	360.0 kHz	3.699605000 GHz	-43.18 dBm	-68.18 dB
4	4	3.7000 GHz	3.8000 GHz	1.000 MHz	3.735833333 GHz	-2.963 dBm	-27.96 dB

Plot 7-287. Lower ACP Plot (NR Band n77 - 100MHz CP-OFDM-QPSK – Full RB)



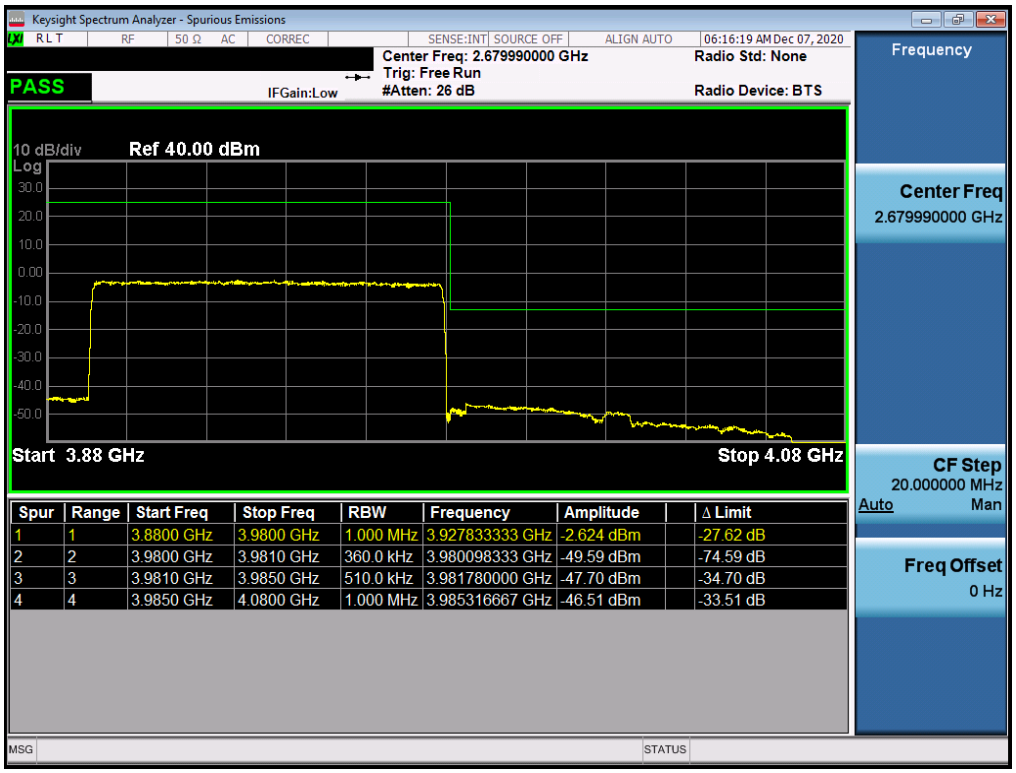
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.8800 GHz	3.9800 GHz	1.000 MHz	3.932333333 GHz	-2.978 dBm	-27.98 dB
2	2	3.9800 GHz	3.9810 GHz	360.0 kHz	3.980013333 GHz	-49.71 dBm	-74.71 dB
3	3	3.9810 GHz	3.9850 GHz	510.0 kHz	3.984966667 GHz	-47.77 dBm	-34.77 dB
4	4	3.9850 GHz	4.0800 GHz	1.000 MHz	3.985158333 GHz	-45.67 dBm	-32.67 dB

Plot 7-288. Upper ACP Plot (NR Band n77 - 100MHz CP-OFDM-QPSK – Full RB)



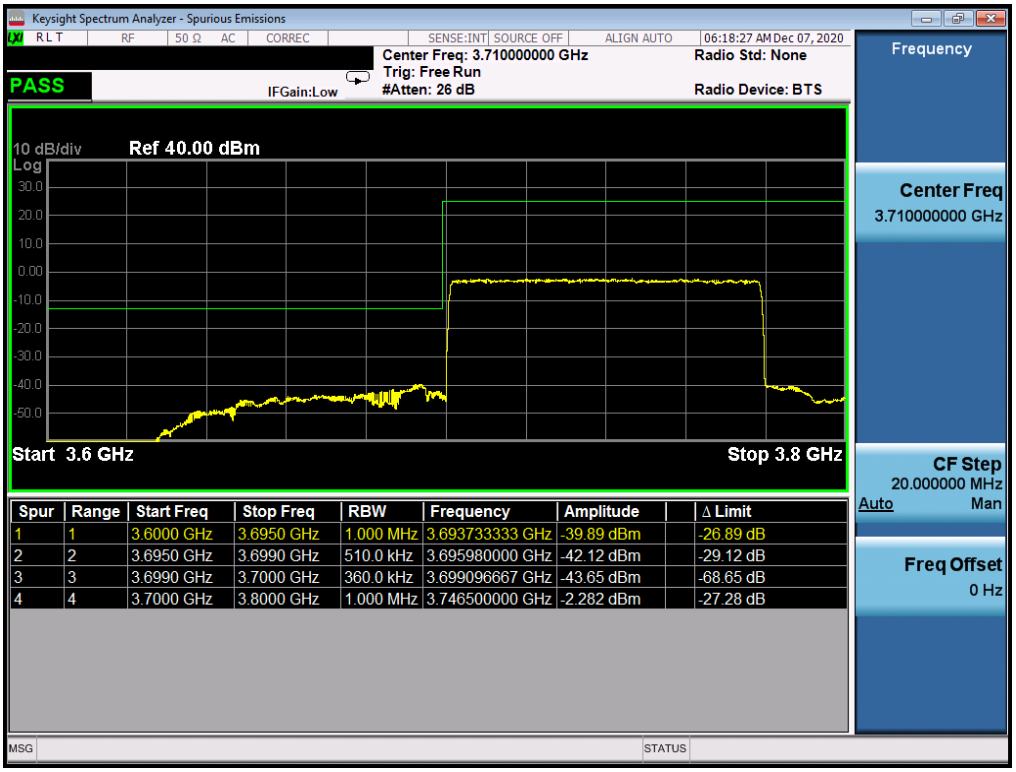
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.6000 GHz	3.6950 GHz	1.000 MHz	3.681541667 GHz	-40.83 dBm	-27.83 dB
2	2	3.6950 GHz	3.6990 GHz	510.0 kHz	3.697673333 GHz	-42.19 dBm	-29.19 dB
3	3	3.6990 GHz	3.7000 GHz	360.0 kHz	3.699791667 GHz	-43.38 dBm	-68.38 dB
4	4	3.7000 GHz	3.8000 GHz	1.000 MHz	3.746333333 GHz	-2.709 dBm	-27.71 dB

Plot 7-289. Lower ACP Plot (NR Band n77 - 90MHz CP-OFDM-QPSK – Full RB)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.8800 GHz	3.9800 GHz	1.000 MHz	3.927833333 GHz	-2.624 dBm	-27.62 dB
2	2	3.9800 GHz	3.9810 GHz	360.0 kHz	3.980098333 GHz	-49.59 dBm	-74.59 dB
3	3	3.9810 GHz	3.9850 GHz	510.0 kHz	3.981780000 GHz	-47.70 dBm	-34.70 dB
4	4	3.9850 GHz	4.0800 GHz	1.000 MHz	3.985316667 GHz	-46.51 dBm	-33.51 dB

Plot 7-290. Upper ACP Plot (NR Band n77 - 90MHz CP-OFDM-QPSK – Full RB)

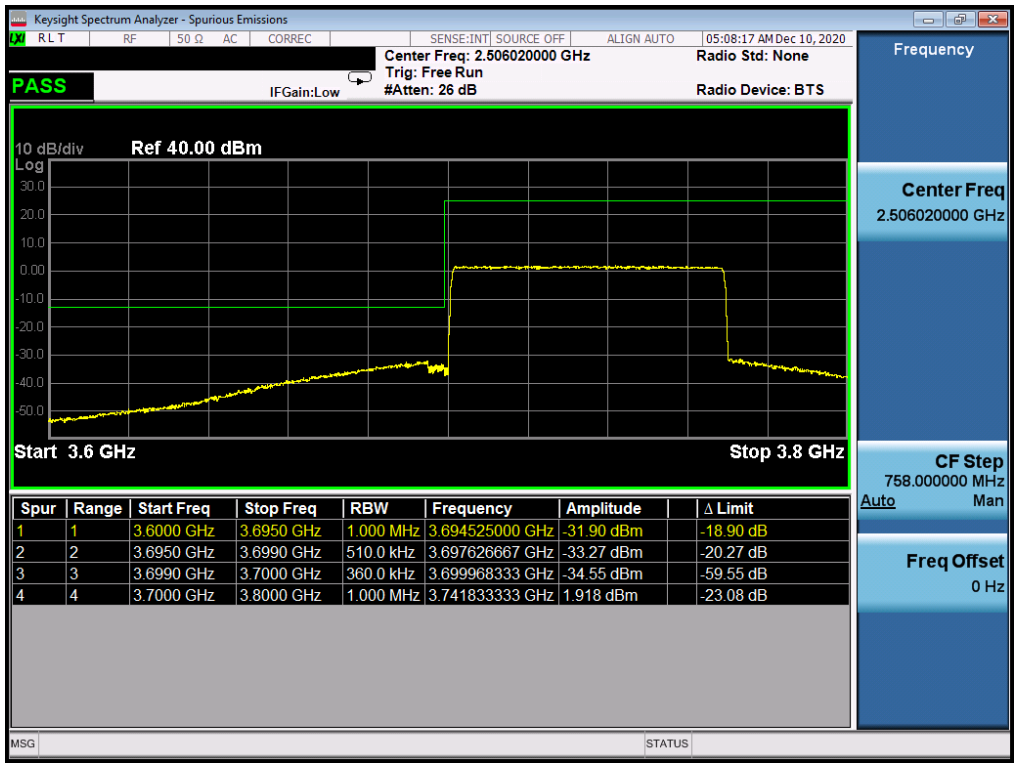


Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.6000 GHz	3.6950 GHz	1.000 MHz	3.693733333 GHz	-39.89 dBm	-26.89 dB
2	2	3.6950 GHz	3.6990 GHz	510.0 kHz	3.695980000 GHz	-42.12 dBm	-29.12 dB
3	3	3.6990 GHz	3.7000 GHz	360.0 kHz	3.699096667 GHz	-43.65 dBm	-68.65 dB
4	4	3.7000 GHz	3.8000 GHz	1.000 MHz	3.746500000 GHz	-2.282 dBm	-27.28 dB

Plot 7-291. Lower ACP Plot (NR Band n77 - 80MHz CP-OFDM-QPSK – Full RB)

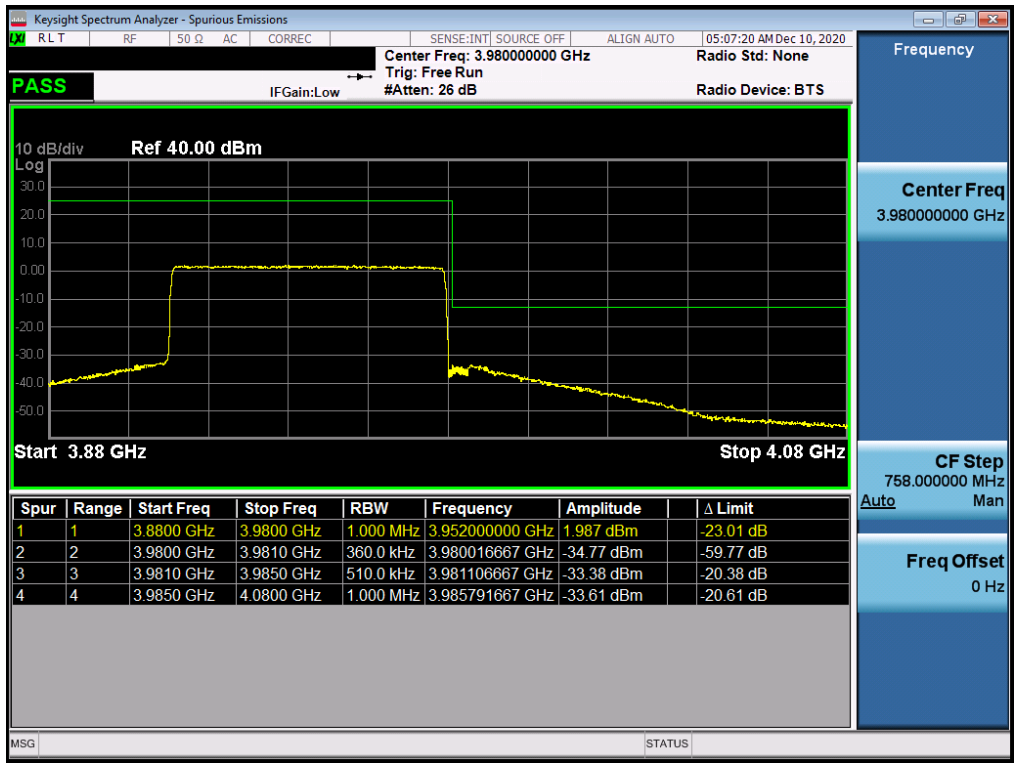
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.8800 GHz	3.9800 GHz	1.000 MHz	3.929833333 GHz	-2.048 dBm	-27.05 dB
2	2	3.9800 GHz	3.9810 GHz	360.0 kHz	3.980006667 GHz	-48.32 dBm	-73.32 dB
3	3	3.9810 GHz	3.9850 GHz	510.0 kHz	3.982726667 GHz	-47.71 dBm	-34.71 dB
4	4	3.9850 GHz	4.0800 GHz	1.000 MHz	3.986583333 GHz	-45.25 dBm	-32.25 dB

Plot 7-292. Upper ACP Plot (NR Band n77 - 80MHz CP-OFDM-QPSK – Full RB)



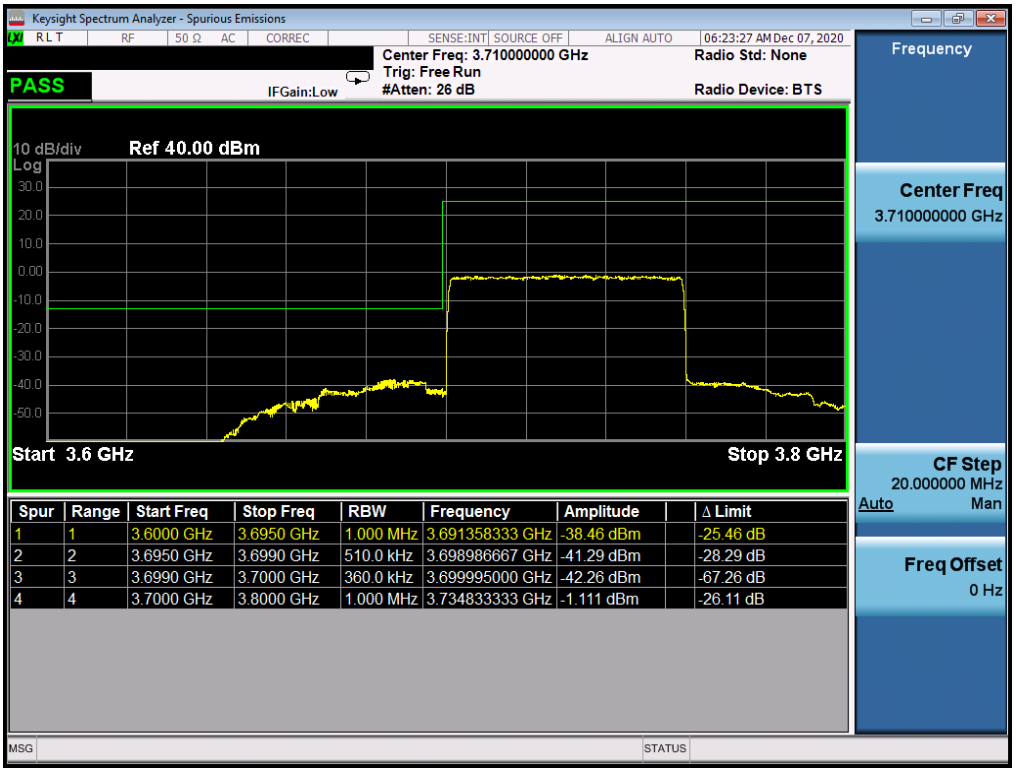
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.6000 GHz	3.6950 GHz	1.000 MHz	3.694525000 GHz	-31.90 dBm	-18.90 dB
2	2	3.6950 GHz	3.6990 GHz	510.0 kHz	3.697626667 GHz	-33.27 dBm	-20.27 dB
3	3	3.6990 GHz	3.7000 GHz	360.0 kHz	3.699968333 GHz	-34.55 dBm	-59.55 dB
4	4	3.7000 GHz	3.8000 GHz	1.000 MHz	3.741833333 GHz	1.918 dBm	-23.08 dB

Plot 7-293. Lower ACP Plot (NR Band n77 - 70MHz CP-OFDM-QPSK – Full RB)



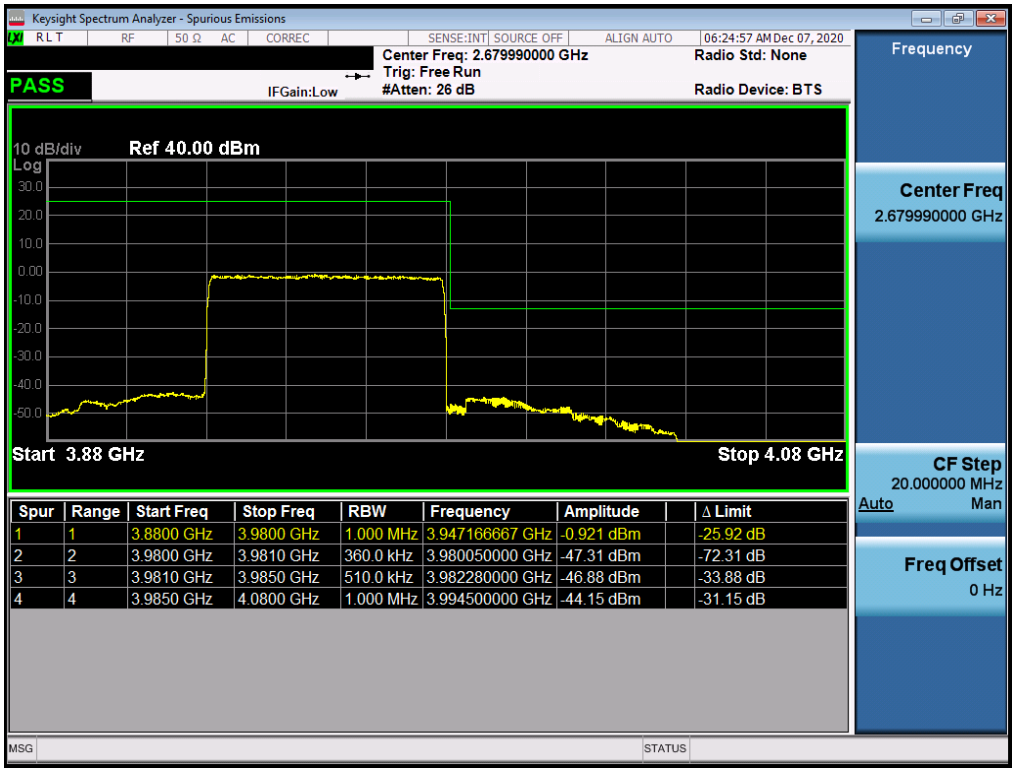
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.8800 GHz	3.9800 GHz	1.000 MHz	3.952000000 GHz	1.987 dBm	-23.01 dB
2	2	3.9800 GHz	3.9810 GHz	360.0 kHz	3.980016667 GHz	-34.77 dBm	-59.77 dB
3	3	3.9810 GHz	3.9850 GHz	510.0 kHz	3.981106667 GHz	-33.38 dBm	-20.38 dB
4	4	3.9850 GHz	4.0800 GHz	1.000 MHz	3.985791667 GHz	-33.61 dBm	-20.61 dB

Plot 7-294. Upper ACP Plot (NR Band n77 - 70MHz CP-OFDM-QPSK – Full RB)



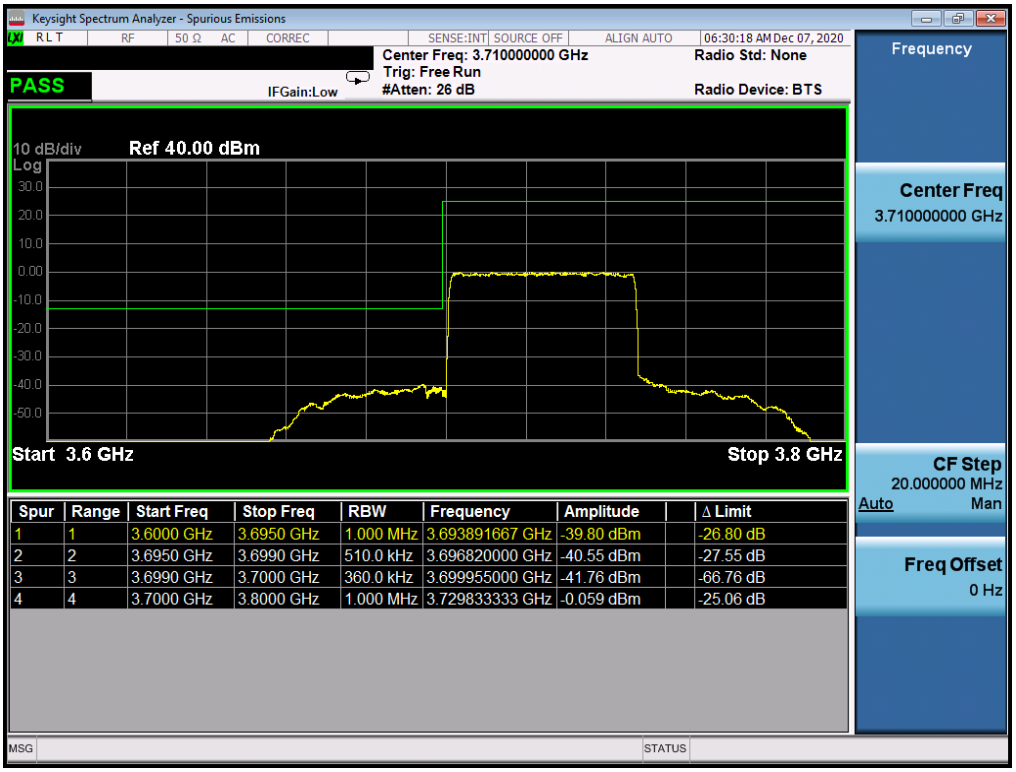
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.6000 GHz	3.6950 GHz	1.000 MHz	3.691358333 GHz	-38.46 dBm	-25.46 dB
2	2	3.6950 GHz	3.6990 GHz	510.0 kHz	3.698986667 GHz	-41.29 dBm	-28.29 dB
3	3	3.6990 GHz	3.7000 GHz	360.0 kHz	3.699995000 GHz	-42.26 dBm	-67.26 dB
4	4	3.7000 GHz	3.8000 GHz	1.000 MHz	3.734833333 GHz	-1.111 dBm	-26.11 dB

Plot 7-295. Lower ACP Plot (NR Band n77 - 60MHz CP-OFDM-QPSK – Full RB)



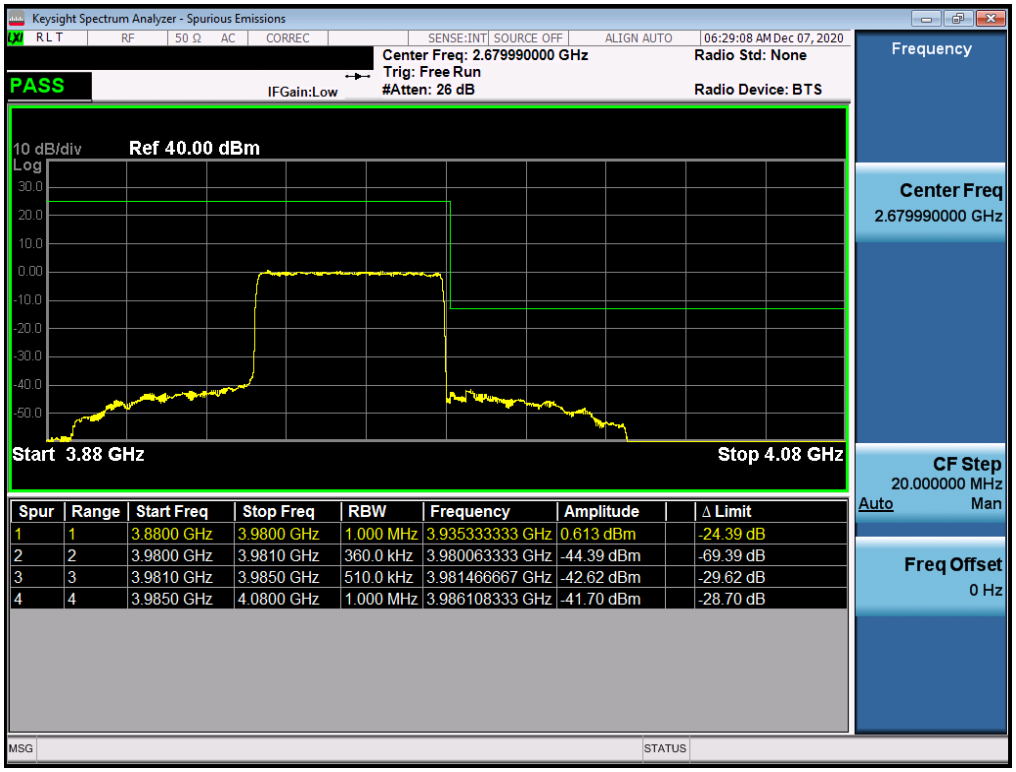
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.8800 GHz	3.9800 GHz	1.000 MHz	3.947166667 GHz	-0.921 dBm	-25.92 dB
2	2	3.9800 GHz	3.9810 GHz	360.0 kHz	3.980050000 GHz	-47.31 dBm	-72.31 dB
3	3	3.9810 GHz	3.9850 GHz	510.0 kHz	3.982280000 GHz	-46.88 dBm	-33.88 dB
4	4	3.9850 GHz	4.0800 GHz	1.000 MHz	3.994500000 GHz	-44.15 dBm	-31.15 dB

Plot 7-296. Upper ACP Plot (NR Band n77 - 60MHz CP-OFDM-QPSK – Full RB)



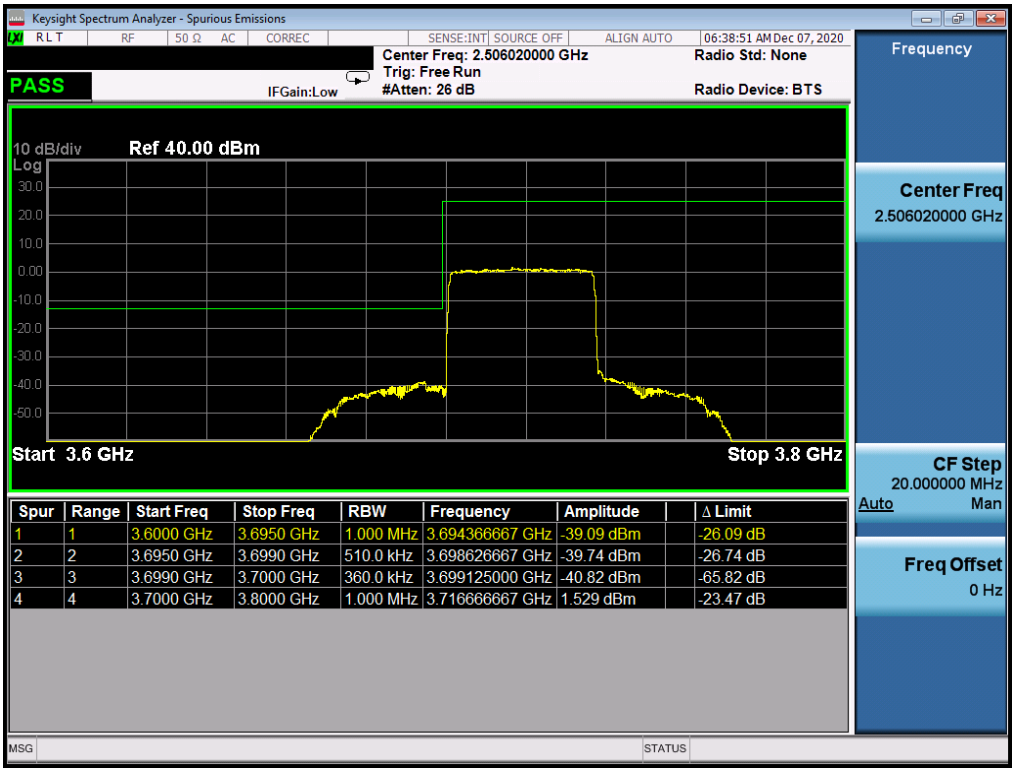
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.6000 GHz	3.6950 GHz	1.000 MHz	3.693891667 GHz	-39.80 dBm	-26.80 dB
2	2	3.6950 GHz	3.6990 GHz	510.0 kHz	3.696820000 GHz	-40.55 dBm	-27.55 dB
3	3	3.6990 GHz	3.7000 GHz	360.0 kHz	3.699955000 GHz	-41.76 dBm	-66.76 dB
4	4	3.7000 GHz	3.8000 GHz	1.000 MHz	3.729833333 GHz	-0.059 dBm	-25.06 dB

Plot 7-297. Lower ACP Plot (NR Band n77 - 50MHz CP-OFDM-QPSK – Full RB)



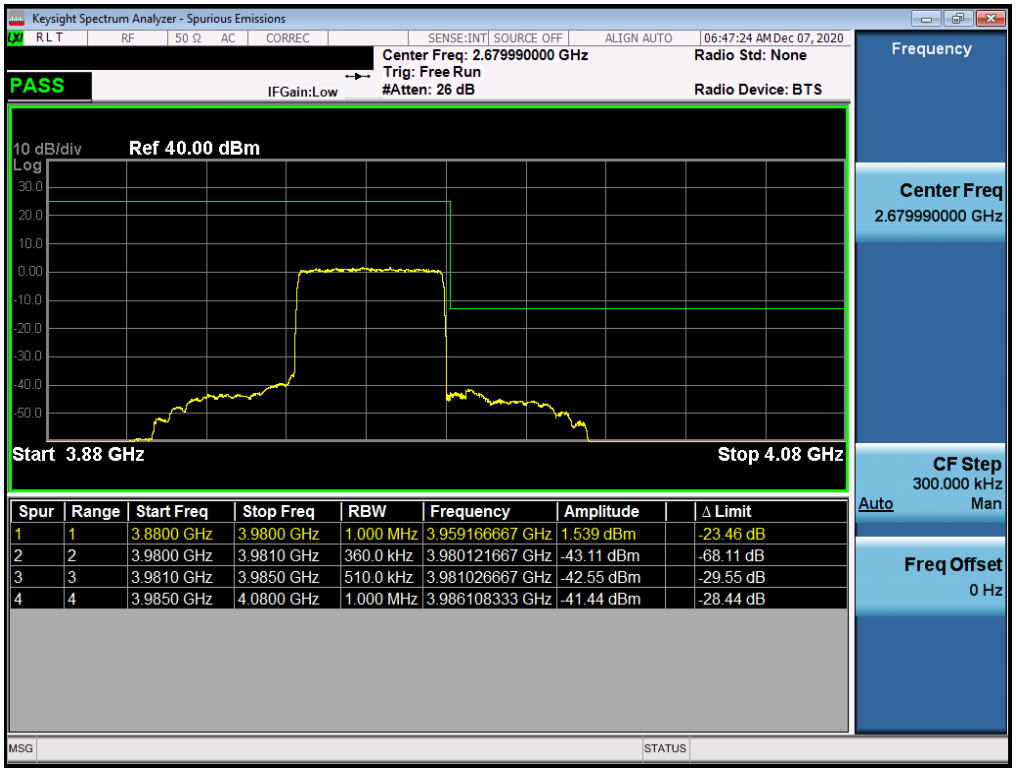
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.8800 GHz	3.9800 GHz	1.000 MHz	3.935333333 GHz	0.613 dBm	-24.39 dB
2	2	3.9800 GHz	3.9810 GHz	360.0 kHz	3.980063333 GHz	-44.39 dBm	-69.39 dB
3	3	3.9810 GHz	3.9850 GHz	510.0 kHz	3.981466667 GHz	-42.62 dBm	-29.62 dB
4	4	3.9850 GHz	4.0800 GHz	1.000 MHz	3.986108333 GHz	-41.70 dBm	-28.70 dB

Plot 7-298. Upper ACP Plot (NR Band n77 - 50MHz CP-OFDM-QPSK – Full RB)



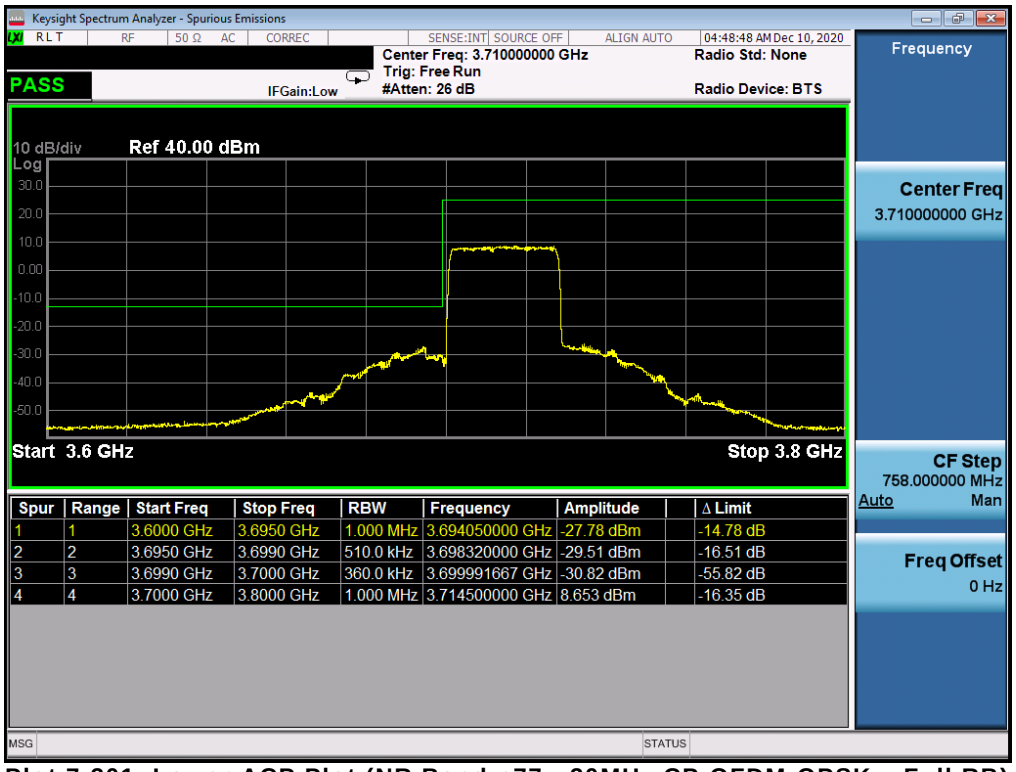
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.6000 GHz	3.6950 GHz	1.000 MHz	3.694366667 GHz	-39.09 dBm	-26.09 dB
2	2	3.6950 GHz	3.6990 GHz	510.0 kHz	3.698626667 GHz	-39.74 dBm	-26.74 dB
3	3	3.6990 GHz	3.7000 GHz	360.0 kHz	3.699125000 GHz	-40.82 dBm	-65.82 dB
4	4	3.7000 GHz	3.8000 GHz	1.000 MHz	3.716666667 GHz	1.529 dBm	-23.47 dB

Plot 7-299. Lower ACP Plot (NR Band n77 - 40MHz CP-OFDM-QPSK – Full RB)



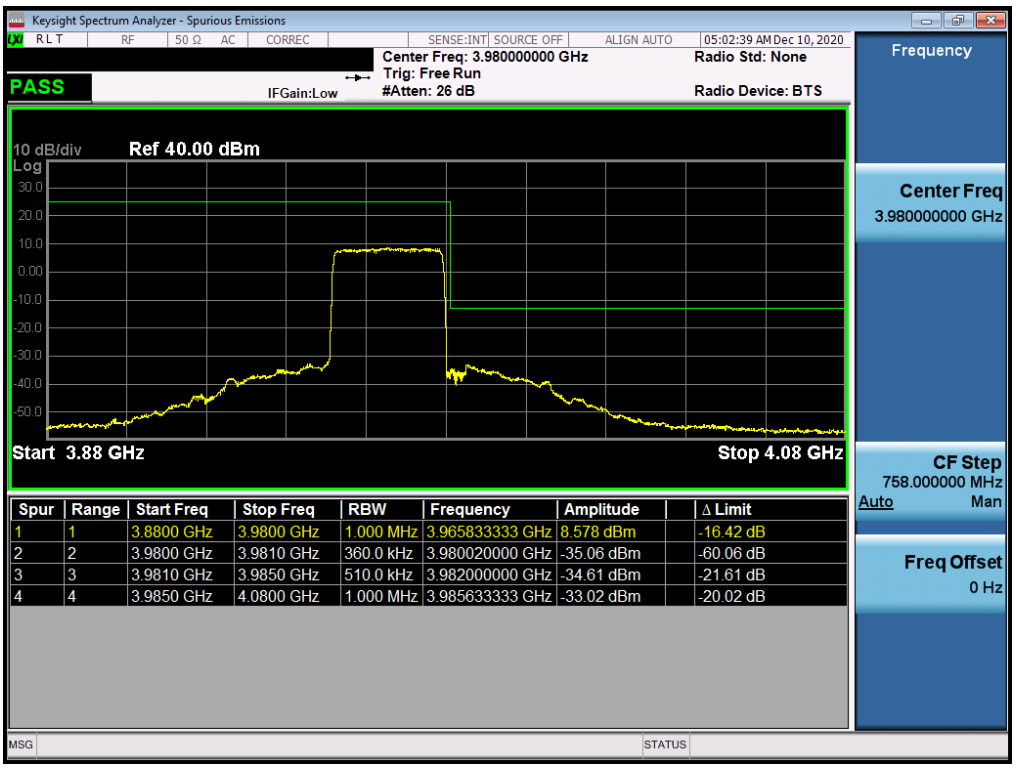
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.8800 GHz	3.9800 GHz	1.000 MHz	3.959166667 GHz	1.539 dBm	-23.46 dB
2	2	3.9800 GHz	3.9810 GHz	360.0 kHz	3.980121667 GHz	-43.11 dBm	-68.11 dB
3	3	3.9810 GHz	3.9850 GHz	510.0 kHz	3.981026667 GHz	-42.55 dBm	-29.55 dB
4	4	3.9850 GHz	4.0800 GHz	1.000 MHz	3.986108333 GHz	-41.44 dBm	-28.44 dB

Plot 7-300. Upper ACP Plot (NR Band n77 - 40MHz CP-OFDM-QPSK – Full RB)



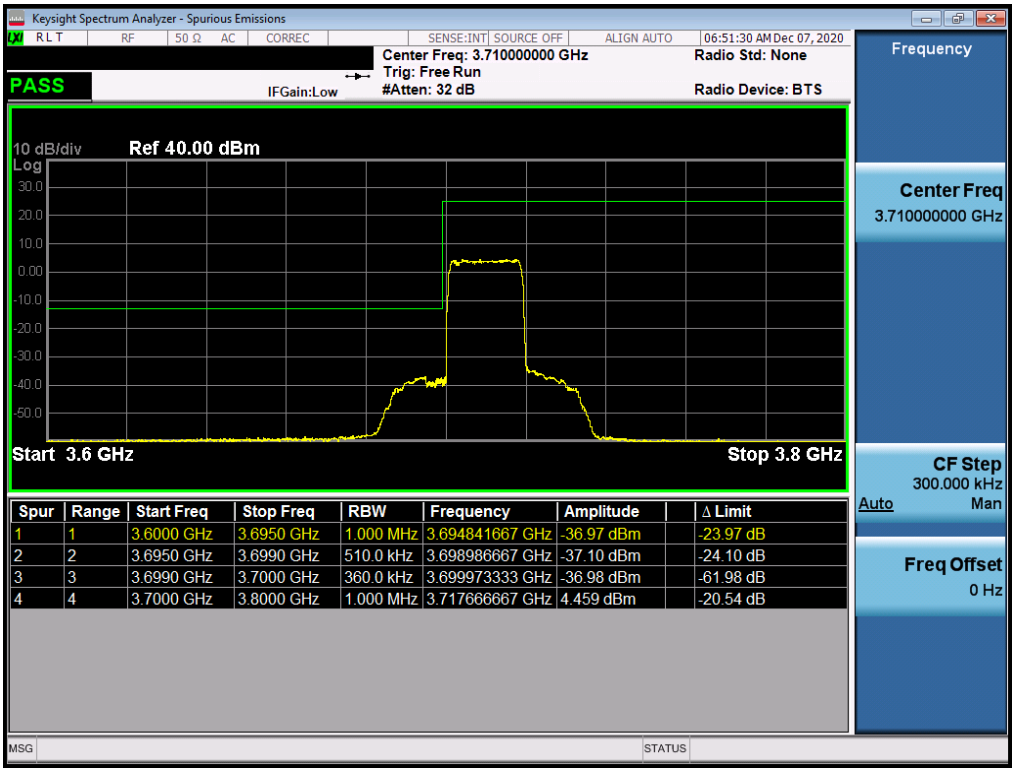
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.6000 GHz	3.6950 GHz	1.000 MHz	3.694050000 GHz	-27.78 dBm	-14.78 dB
2	2	3.6950 GHz	3.6990 GHz	510.0 kHz	3.698320000 GHz	-29.51 dBm	-16.51 dB
3	3	3.6990 GHz	3.7000 GHz	360.0 kHz	3.699991667 GHz	-30.82 dBm	-55.82 dB
4	4	3.7000 GHz	3.8000 GHz	1.000 MHz	3.714500000 GHz	8.653 dBm	-16.35 dB

Plot 7-301. Lower ACP Plot (NR Band n77 - 30MHz CP-OFDM-QPSK – Full RB)



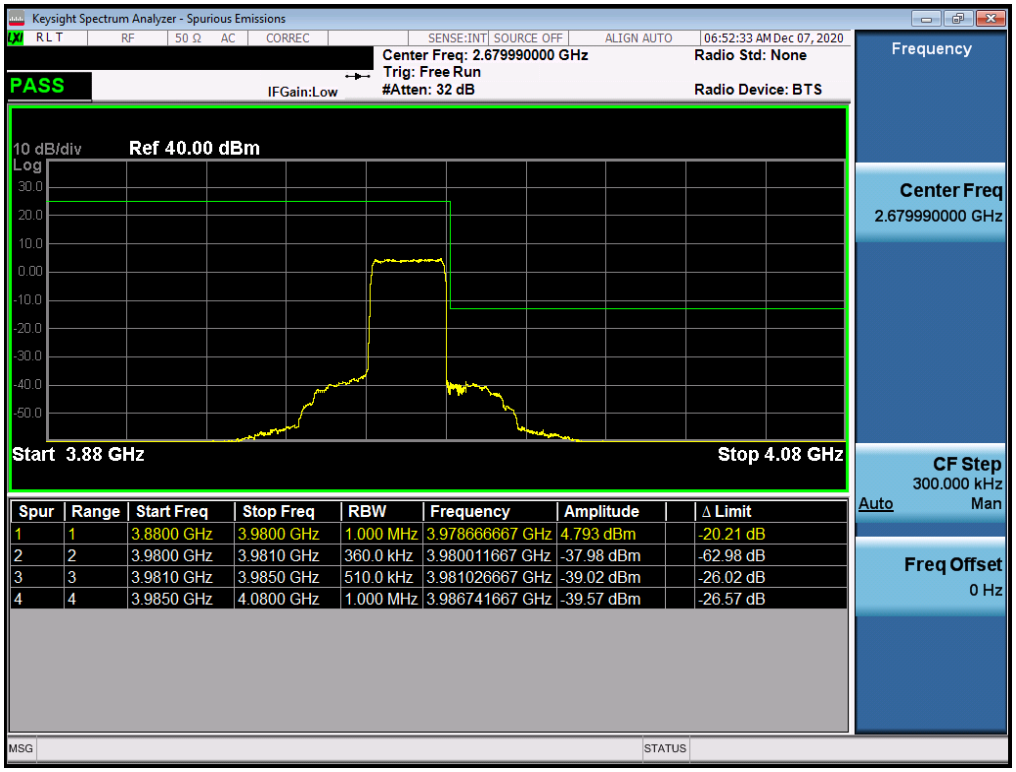
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.8800 GHz	3.9800 GHz	1.000 MHz	3.965833333 GHz	8.578 dBm	-16.42 dB
2	2	3.9800 GHz	3.9810 GHz	360.0 kHz	3.980020000 GHz	-35.06 dBm	-60.06 dB
3	3	3.9810 GHz	3.9850 GHz	510.0 kHz	3.982000000 GHz	-34.61 dBm	-21.61 dB
4	4	3.9850 GHz	4.0800 GHz	1.000 MHz	3.985633333 GHz	-33.02 dBm	-20.02 dB

Plot 7-302. Upper ACP Plot (NR Band n77 - 30MHz CP-OFDM-QPSK – Full RB)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.6000 GHz	3.6950 GHz	1.000 MHz	3.694841667 GHz	-36.97 dBm	-23.97 dB
2	2	3.6950 GHz	3.6990 GHz	510.0 kHz	3.698986667 GHz	-37.10 dBm	-24.10 dB
3	3	3.6990 GHz	3.7000 GHz	360.0 kHz	3.699973333 GHz	-36.98 dBm	-61.98 dB
4	4	3.7000 GHz	3.8000 GHz	1.000 MHz	3.717666667 GHz	4.459 dBm	-20.54 dB

Plot 7-303. Lower ACP Plot (NR Band n77 - 20MHz CP-OFDM-QPSK – Full RB)



Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	Δ Limit
1	1	3.8800 GHz	3.9800 GHz	1.000 MHz	3.978666667 GHz	4.793 dBm	-20.21 dB
2	2	3.9800 GHz	3.9810 GHz	360.0 kHz	3.980011667 GHz	-37.98 dBm	-62.98 dB
3	3	3.9810 GHz	3.9850 GHz	510.0 kHz	3.981026667 GHz	-39.02 dBm	-26.02 dB
4	4	3.9850 GHz	4.0800 GHz	1.000 MHz	3.986741667 GHz	-39.57 dBm	-26.57 dB

Plot 7-304. Upper ACP Plot (NR Band n77 - 20MHz CP-OFDM-QPSK – Full RB)

7.6 Uplink Carrier Aggregation

§27.53(m)

Test Overview

The EUT is set up to transmit two contiguous LTE channels. The power level of both carriers and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at its maximum duty cycle, at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

For Band 41/38 the minimum permissible attenuation level of any spurious emission is 55 + 10 $log_{10}(P_{[Watts]})$.

Test Procedure Used

KDB 971168 D01 v03r01 – Section 6.0

Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to at least 10 * the fundamental frequency (separated into at least two plots per channel)
2. Detector = RMS
3. Trace mode = trace average for continuous emissions, max hold for pulse emissions
4. Sweep time = auto couple
5. The trace was allowed to stabilize
6. Please see test notes below for RBW and VBW settings

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

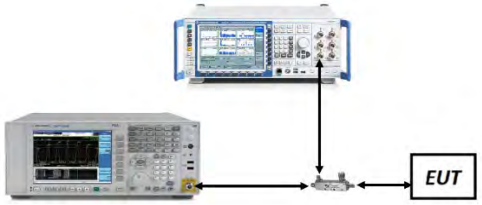


Figure 7-5. Test Instrument & Measurement Setup

Test Notes

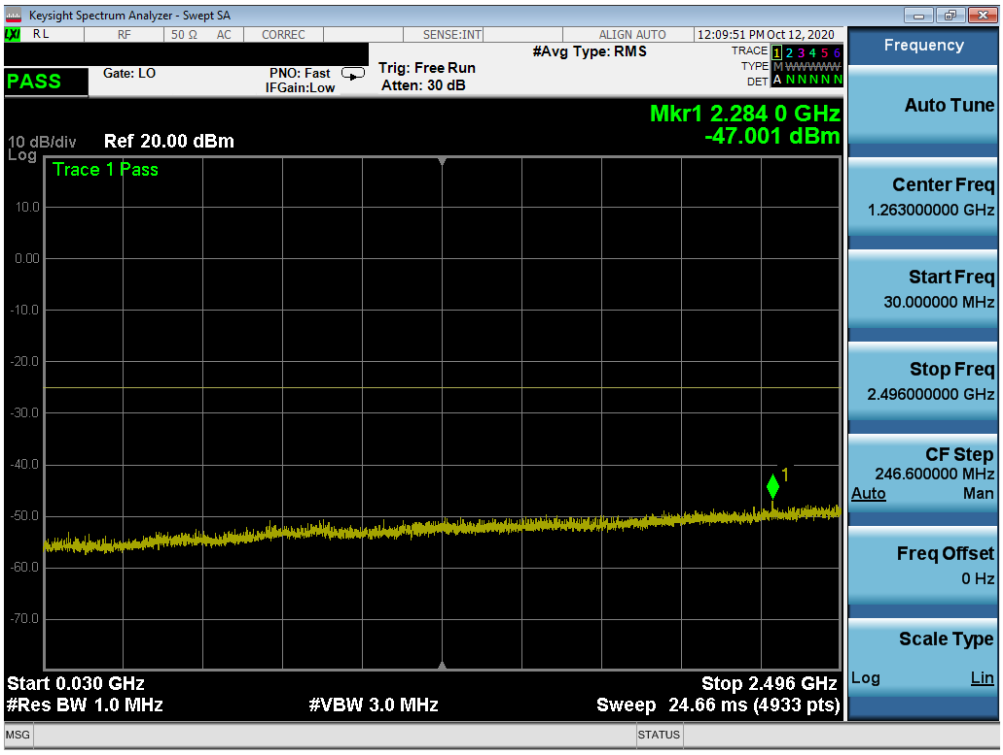
1. Conducted power and spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device. The worst case (highest) powers were found while operating with QPSK modulation with both carriers set to transmit using 1RB.

2. Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and 1 MHz or greater for frequencies greater than 1 GHz. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed.

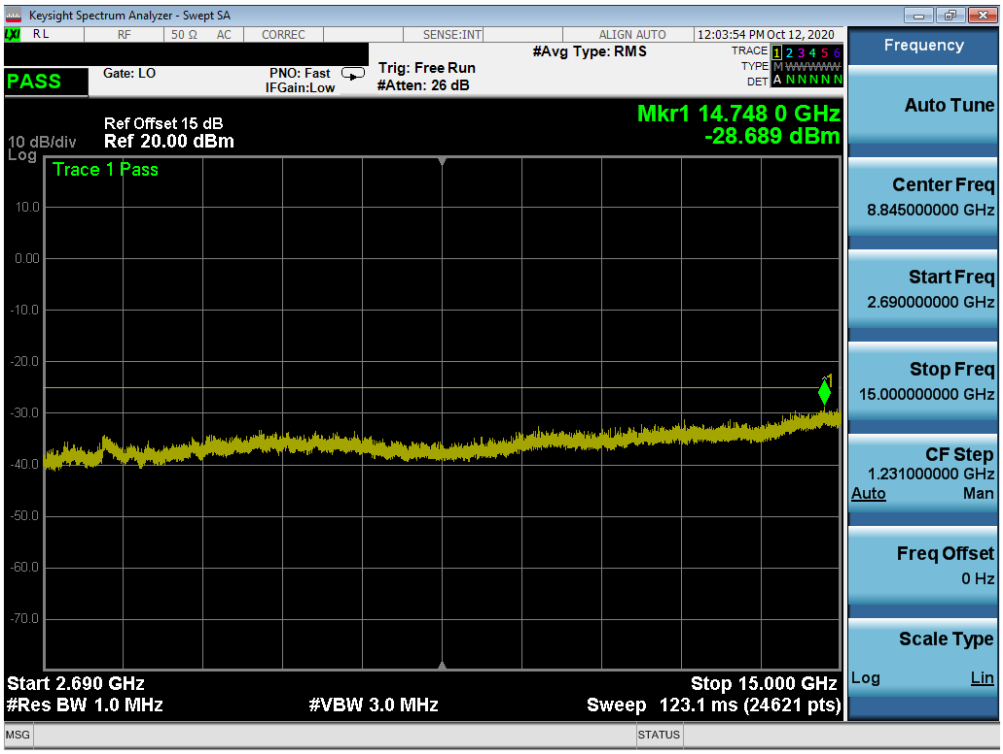
Uplink CA Configuration 41C

Power State	Band	Bandwidth (PCC + SCC)	PCC					SCC					ULCA Tx. Power [dBm]
			Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	
Max	LTE B41 (PC2)	20MHz + 20MHz	QPSK	39750	2506.0	1	99	QPSK	39948	2525.8	1	0	26.06
				40620	2593.0	1	99		40818	2612.8	1	0	26.07
				41490	2680.0	1	0		41292	2660.2	1	99	26.55
			QPSK	40620	2593	100	0	QPSK	40818	2612.8	100	0	25.67
			16-QAM	40620	2593	100	0	16-QAM	40818	2612.8	100	0	24.55
			64-QAM	40620	2593	100	0	64-QAM	40818	2612.8	100	0	23.82
			256-QAM	40620	2593	100	0	256-QAM	40818	2612.8	100	0	22.05

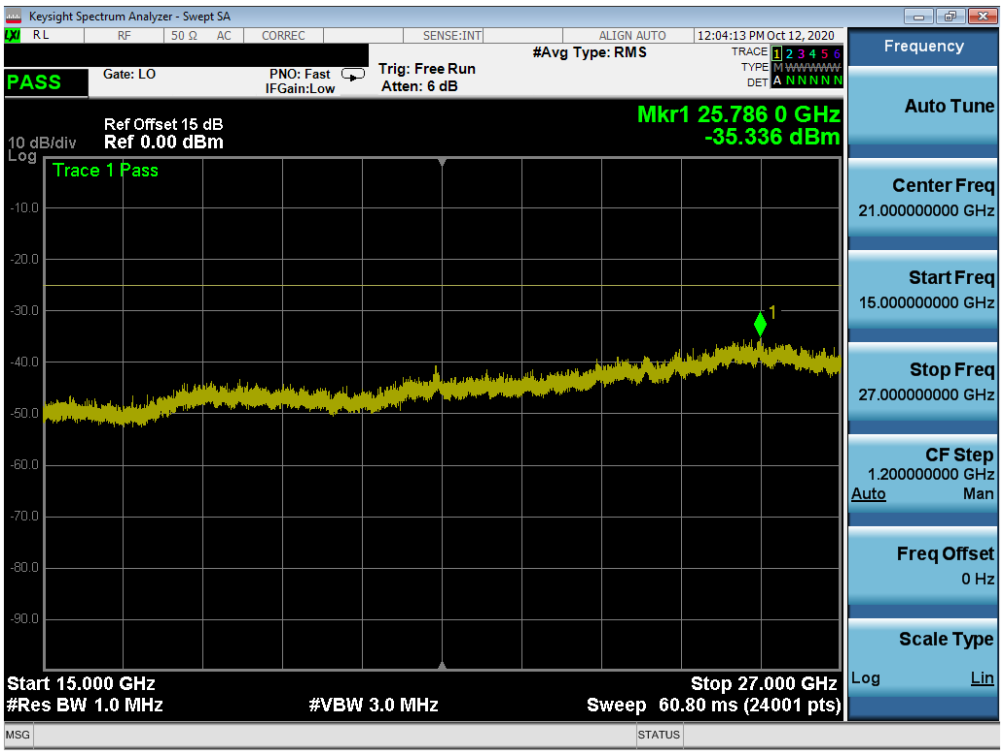
Table 7-5. Conducted Powers (B41 with Various Combinations for 20MHz Channel Bandwidth)



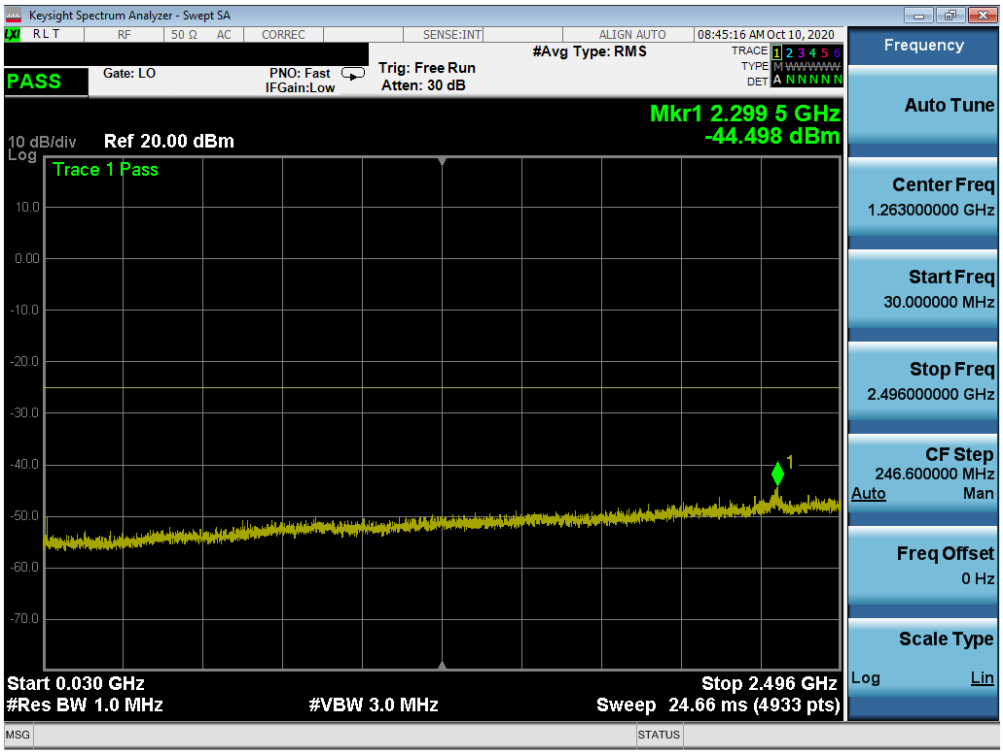
Plot 7-305. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – Low Channel)



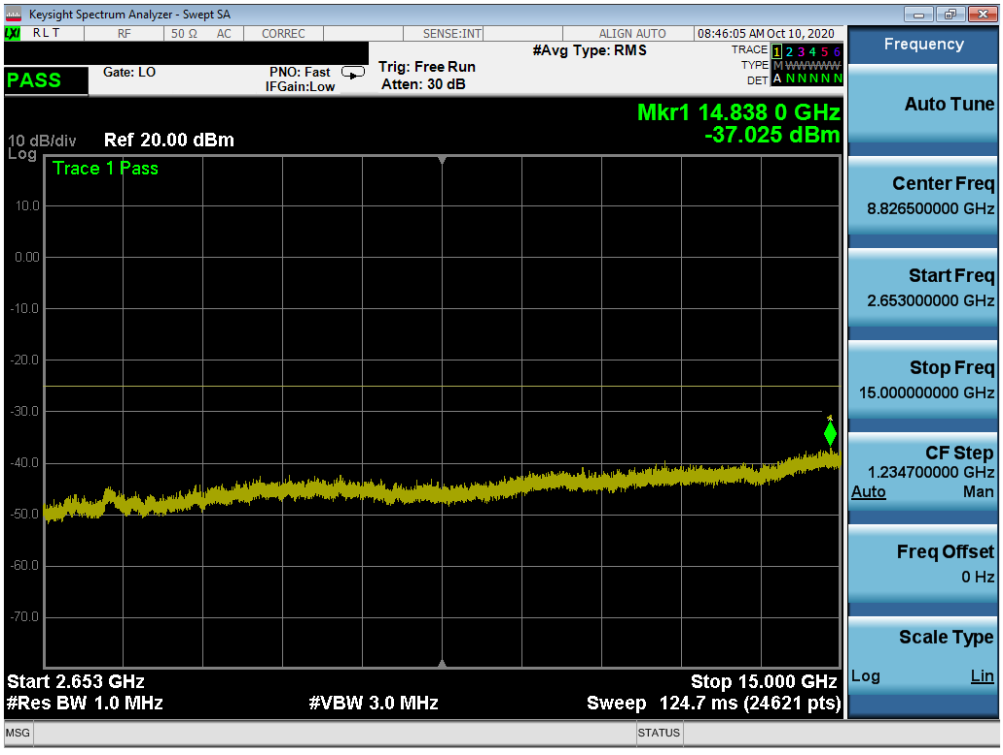
Plot 7-306. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – Low Channel)



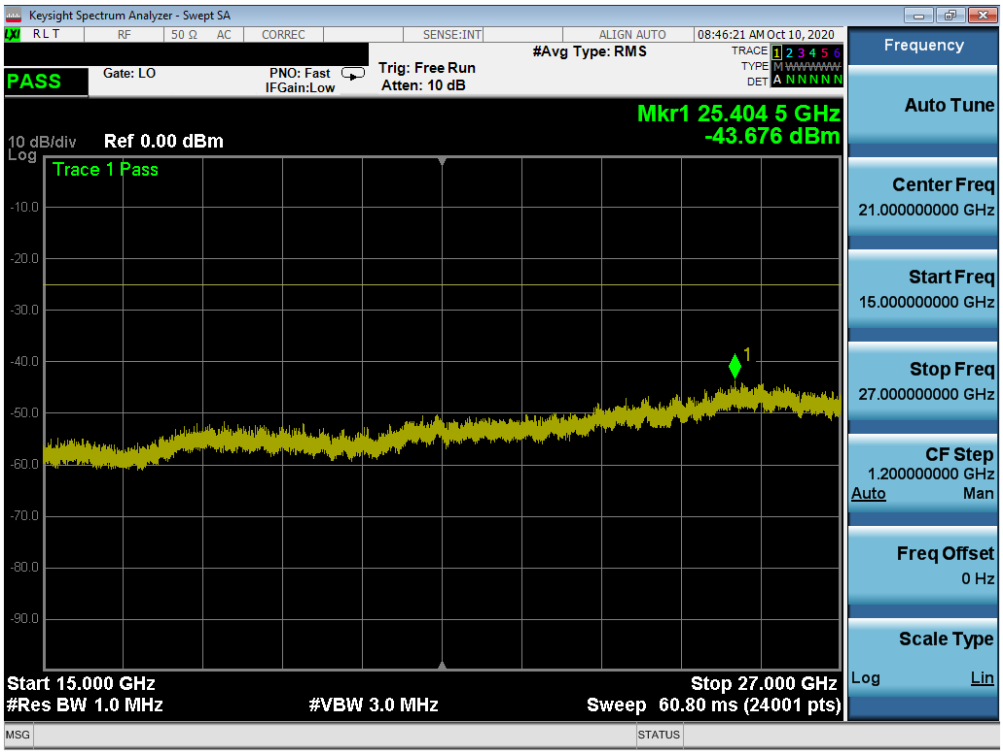
Plot 7-307. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – Low Channel)



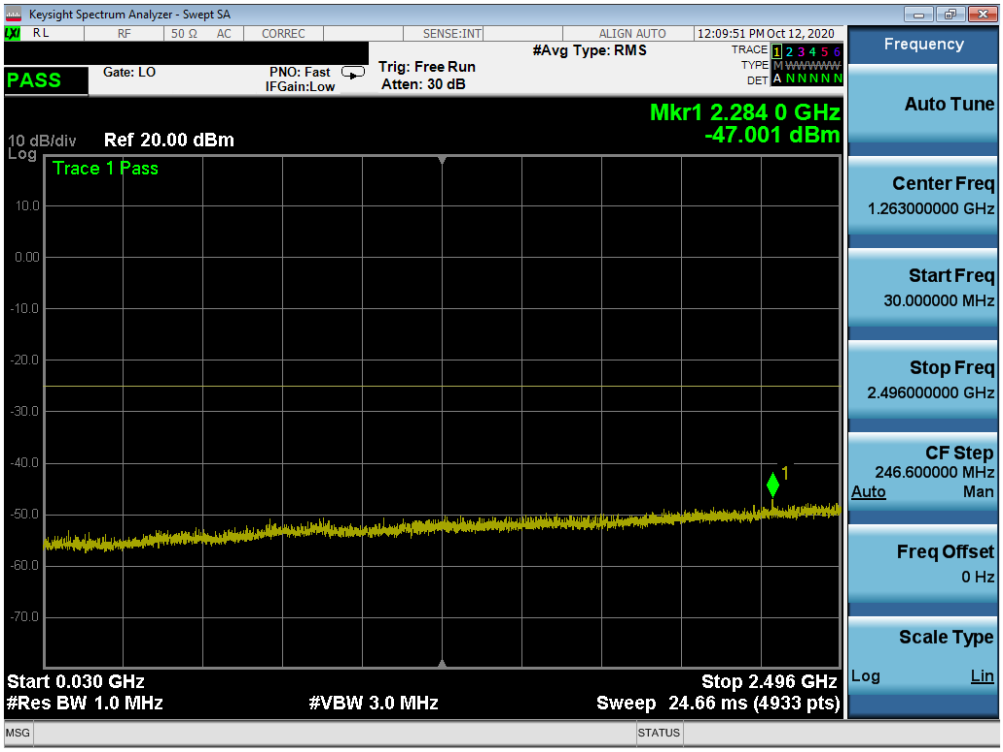
Plot 7-308. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – Mid Channel)



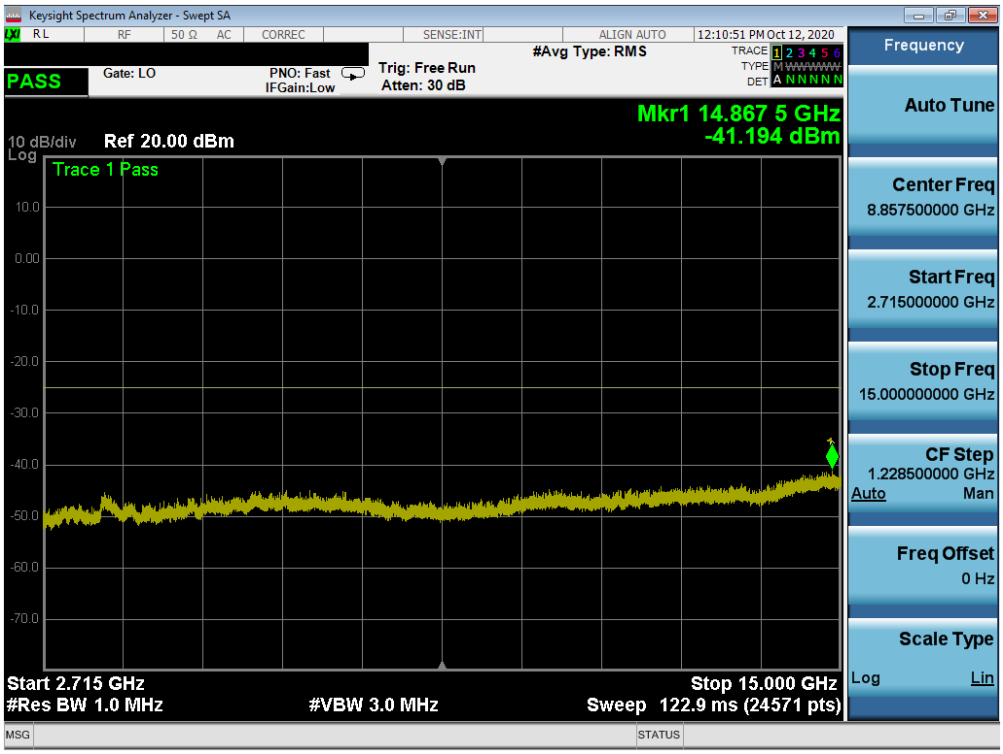
Plot 7-309. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – Mid Channel)



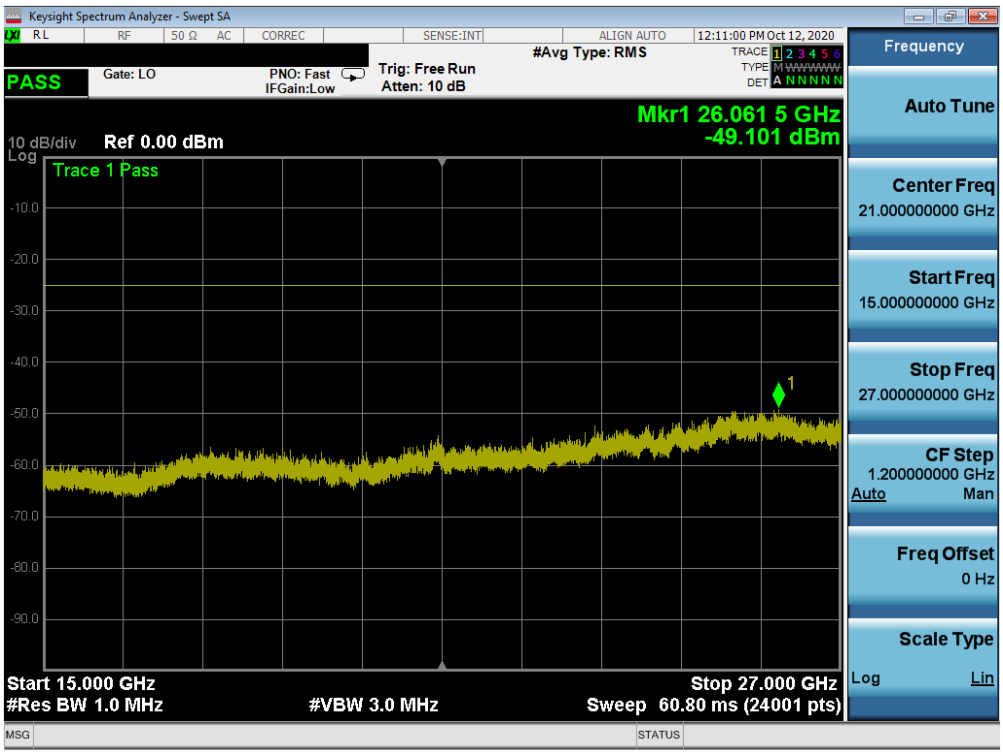
Plot 7-310. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – Mid Channel)



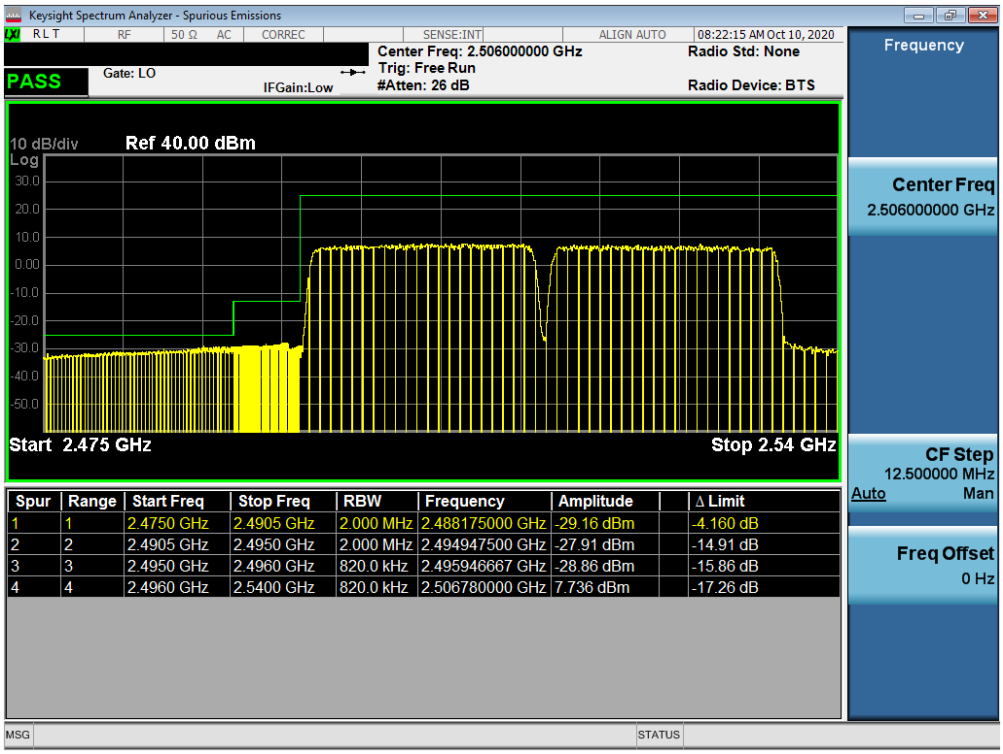
Plot 7-311. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – High Channel)



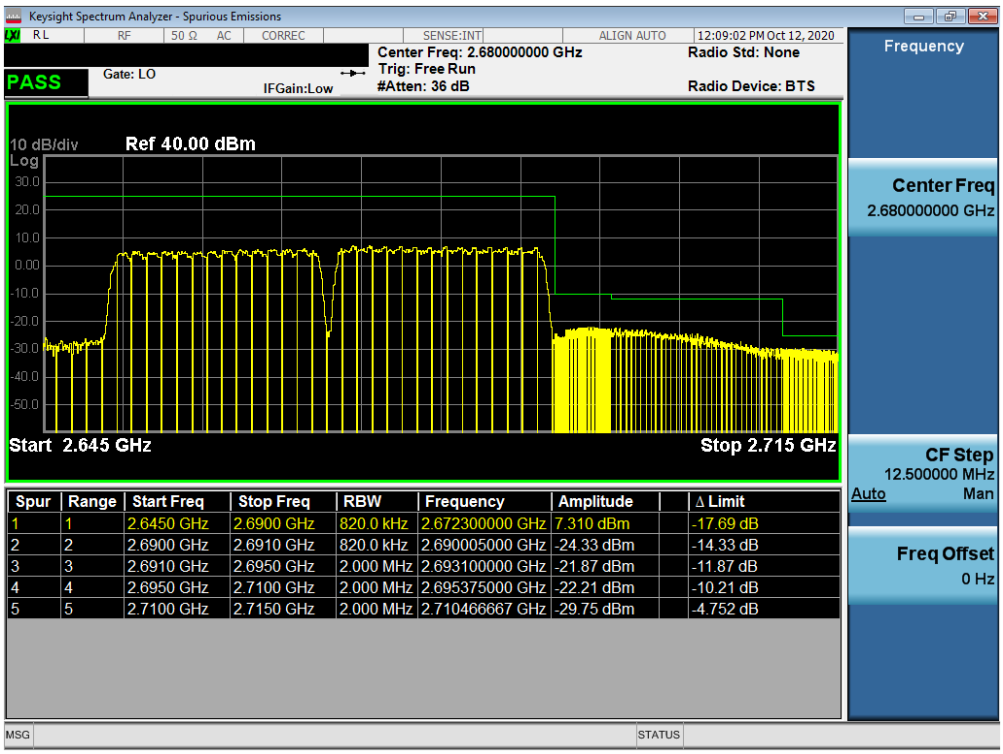
Plot 7-312. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – High Channel)



Plot 7-313. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – High Channel)



Plot 7-314. Lower ACP Plot (Band 41 QPSK – Left Carrier:20 MHz Right Carrier:20 MHz – Full RB)



Plot 7-315. Upper ACP Plot (Band 41 QPSK – Left Carrier:20 MHz Right Carrier:20 MHz – Full RB)

7.7 Radiated Power (EIRP)

Test Overview

Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI/TIA-603-E-2016 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically and horizontally polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS average measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.2.1

ANSI/TIA-603-E-2016 – Section 2.2.17

Test Settings

1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation. For signals with burst transmission, the signal analyzer's "time domain power" measurement capability is used
2. RBW = 1 – 5% of the expected OBW, not to exceed 1MHz
3. VBW ≥ 3 x RBW
4. Span = 1.5 times the OBW
5. No. of sweep points ≥ 2 x span / RBW
6. Detector = RMS
7. Trigger is set to "free run" for signals with continuous operation with the sweep times set to "auto". Trigger is set to enable triggering only on full power bursts with the sweep time set less than or equal to the transmission burst duration
8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation. For signals with burst transmission, the "gating" function was enabled to ensure that measurements are performed during times in which the transmitter is operating at its maximum power
9. Trace mode = trace averaging (RMS) over 100 sweeps
10. The trace was allowed to stabilize

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

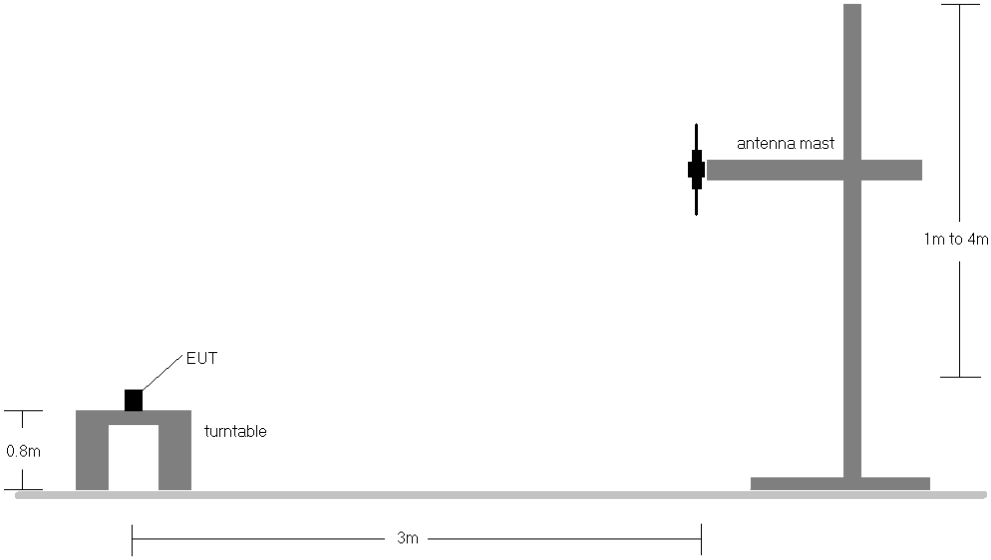


Figure 7-6. Radiated Test Setup <1GHz

Test Notes

1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.

2) This unit was tested with its standard battery.

3) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case setup is reported in the tables below.

4) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Pol.	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
10 MHz	QPSK	2310.0	H	X	107	202	10.34	1 / 25	12.31	**22.65**	0.184	23.98	-1.33
	16-QAM	2310.0	H	X	107	202	10.34	1 / 25	11.81	**22.15**	0.164	23.98	-1.83
	64-QAM	2310.0	H	X	107	202	10.34	1 / 25	10.36	**20.70**	0.117	23.98	-3.28
	256-QAM	2310.0	H	X	107	202	10.34	1 / 25	7.48	**17.82**	0.060	23.98	-6.16
5 MHz	QPSK	2307.5	H	X	107	202	10.33	1 / 12	12.34	22.68	0.185	23.98	-1.30
		2310.0	H	X	107	202	10.34	1 / 12	12.36	**22.70**	0.186	23.98	-1.28
		2312.5	H	X	107	202	10.34	1 / 12	12.23	22.57	0.181	23.98	-1.41
	16-QAM	2310.0	H	X	107	202	10.34	1 / 12	11.85	**22.19**	0.165	23.98	-1.79
	64-QAM	2307.5	H	X	107	202	10.33	1 / 12	10.13	**20.47**	0.111	23.98	-3.51
	256-QAM	2310.0	H	X	107	202	10.34	1 / 12	7.58	**17.92**	0.062	23.98	-6.06
5 MHz	Opposite Pol.	2310.0	V	Y	186	230	10.34	1 / 25	12.03	22.37	0.172	23.98	-1.61
	WCP	2310.0	H	WCP	125	135	10.34	1 / 25	7.83	18.17	0.066	23.98	-5.81

Table 7-6. EIRP Data (LTE Band 30)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Pol.	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
10 MHz	BPSK	2310.0	H	X	107	199	10.34	1 / 0	13.84	**23.88**	0.244	23.98	-0.10
	QPSK	2310.0	H	X	107	199	10.34	1 / 0	13.38	**23.72**	0.236	23.98	-0.26
	16-QAM	2310.0	H	X	107	199	10.34	1 / 0	12.11	**22.45**	0.176	23.98	-1.53
	64-QAM	2310.0	H	X	107	199	10.34	1 / 0	10.63	**20.97**	0.125	23.98	-3.01
	256-QAM	2310.0	H	X	107	199	10.34	1 / 0	9.18	**19.52**	0.089	23.98	-4.46
5 MHz	BPSK	2307.5	H	X	107	199	0.00	1 / 0	23.60	23.60	0.229	23.98	-0.38
		2310.0	H	X	107	199	0.00	1 / 0	23.67	**23.67**	0.233	23.98	-0.31
		2312.5	H	X	107	199	0.00	1 / 0	23.50	23.50	0.224	23.98	-0.48
	QPSK	2307.5	H	X	107	199	10.33	1 / 0	13.42	23.75	0.237	23.98	-0.23
		2310.0	H	X	107	199	10.34	1 / 0	13.43	**23.77**	0.238	23.98	-0.21
		2312.5	H	X	107	199	10.34	1 / 0	13.30	23.64	0.231	23.98	-0.34
	16-QAM	2310.0	H	X	107	199	10.34	1 / 0	12.76	**23.10**	0.204	23.98	-0.88
	64-QAM	2310.0	H	X	107	199	10.34	1 / 0	11.81	**22.15**	0.164	23.98	-1.83
	256-QAM	2310.0	H	X	107	199	10.34	1 / 0	8.51	**18.85**	0.077	23.98	-5.13
10 MHz	Opposite Pol.	2310.0	V	Y	147	315	10.34	1 / 0	13.31	23.65	0.231	23.98	-0.33
	WCP	2310.0	H	WCP	107	10	10.34	1 / 0	13.44	23.78	0.239	23.98	-0.20

Table 7-7. EIRP Data (NR Band n30)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Pol.	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
20 MHz	QPSK	2510.0	H	X	109	219	9.45	1 / 50	11.35	**20.80**	0.120	33.01	-12.21
		2535.0	H	X	102	205	9.42	1 / 50	10.78	20.20	0.105	33.01	-12.81
		2560.0	H	X	109	218	9.45	1 / 99	10.87	20.32	0.108	33.01	-12.69
	16-QAM	2510.0	H	X	109	219	9.45	1 / 99	10.70	**20.15**	0.103	33.01	-12.86
	64-QAM	2510.0	H	X	109	219	9.45	1 / 99	9.13	**18.58**	0.072	33.01	-14.43
	256-QAM	2510.0	H	X	109	219	9.45	1 / 99	6.41	**15.86**	0.039	33.01	-17.15
15 MHz	QPSK	2507.5	H	X	109	219	9.45	1 / 36	11.29	**20.74**	0.119	33.01	-12.27
		2535.0	H	X	102	205	9.42	1 / 36	10.81	20.23	0.106	33.01	-12.78
		2562.5	H	X	109	218	9.46	1 / 0	10.74	20.20	0.105	33.01	-12.81
	16-QAM	2507.5	H	X	109	219	9.45	1 / 36	10.86	**20.31**	0.107	33.01	-12.70
	64-QAM	2562.5	H	X	109	218	9.46	1 / 36	9.32	**18.78**	0.076	33.01	-14.23
	256-QAM	2507.5	H	X	109	219	9.45	1 / 36	6.42	**15.87**	0.039	33.01	-17.14
10 MHz	QPSK	2505.0	H	X	109	219	9.45	1 / 0	11.29	**20.74**	0.119	33.01	-12.27
		2535.0	H	X	102	205	9.42	1 / 49	10.98	20.40	0.110	33.01	-12.61
		2565.0	H	X	109	218	9.47	1 / 0	10.66	20.13	0.103	33.01	-12.88
	16-QAM	2505.0	H	X	109	219	9.45	1 / 0	10.83	**20.28**	0.107	33.01	-12.73
	64-QAM	2565.0	H	X	109	218	9.47	1 / 0	9.30	**18.77**	0.075	33.01	-14.24
	256-QAM	2505.0	H	X	109	219	9.45	1 / 0	6.42	**15.87**	0.039	33.01	-17.14
5 MHz	QPSK	2502.5	H	X	109	219	9.46	1 / 24	11.32	**20.78**	0.120	33.01	-12.23
		2535.0	H	X	102	205	9.42	1 / 24	11.11	20.53	0.113	33.01	-12.48
		2567.5	H	X	109	218	9.48	1 / 12	10.63	20.11	0.103	33.01	-12.90
	16-QAM	2502.5	H	X	109	219	9.46	1 / 24	10.89	**20.35**	0.108	33.01	-12.66
	64-QAM	2567.5	H	X	109	218	9.48	1 / 24	8.96	**18.44**	0.070	33.01	-14.57
	256-QAM	2502.5	H	X	109	219	9.46	1 / 24	6.54	**16.00**	0.040	33.01	-17.01
20 MHz	Opposite Pol.	2510.0	V	Y	109	129	9.45	1 / 99	9.46	18.91	0.078	33.01	-14.10
	WCP	2510.0	H	WCP	249	117	9.45	1 / 99	6.59	16.04	0.040	33.01	-16.97

Table 7-8. EIRP Data (LTE Band 7)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Pol.	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
20 MHz	QPSK	2506.0	H	X	127	208	9.45	1 / 0	15.54	24.99	0.316	33.01	-8.02
		2593.0	H	X	101	217	9.58	1 / 0	14.67	24.25	0.266	33.01	-8.76
		2680.0	H	X	101	211	9.86	1 / 0	15.32	**25.18**	0.330	33.01	-7.83
	16-QAM	2680.0	H	X	101	211	9.86	1 / 99	13.77	**23.63**	0.231	33.01	-9.38
	64-QAM	2680.0	H	X	101	211	9.86	1 / 99	12.51	**22.37**	0.173	33.01	-10.64
	256-QAM	2680.0	H	X	101	211	9.86	1 / 99	9.24	**19.10**	0.081	33.01	-13.91
15 MHz	QPSK	2503.5	H	X	127	208	9.45	1 / 0	15.61	25.06	0.321	33.01	-7.95
		2593.0	H	X	101	217	9.58	1 / 36	14.96	24.54	0.285	33.01	-8.47
		2682.5	H	X	101	211	9.86	1 / 74	15.94	**25.79**	0.380	33.01	-7.22
	16-QAM	2503.5	H	X	127	208	9.45	1 / 0	14.29	**23.74**	0.237	33.01	-9.27
	64-QAM	2682.5	H	X	101	211	9.86	1 / 74	12.91	**22.76**	0.189	33.01	-10.25
	256-QAM	2682.5	H	X	101	211	9.86	1 / 74	9.32	**19.17**	0.083	33.01	-13.84
10 MHz	QPSK	2501.0	H	X	127	208	9.46	1 / 0	15.40	24.85	0.306	33.01	-8.16
		2593.0	H	X	101	217	9.58	1 / 25	14.76	24.34	0.272	33.01	-8.67
		2685.0	H	X	101	211	9.85	1 / 49	15.65	**25.50**	0.355	33.01	-7.51
	16-QAM	2593.0	H	X	101	217	9.58	1 / 25	14.08	**23.66**	0.232	33.01	-9.35
	64-QAM	2685.0	H	X	101	211	9.85	1 / 49	12.82	**22.67**	0.185	33.01	-10.34
	256-QAM	2685.0	H	X	101	211	9.85	1 / 49	9.43	**19.28**	0.085	33.01	-13.73
5 MHz	QPSK	2498.5	H	X	127	208	9.46	1 / 0	15.48	24.94	0.312	33.01	-8.07
		2593.0	H	X	101	217	9.58	1 / 12	14.91	24.49	0.281	33.01	-8.52
		2687.5	H	X	101	211	9.85	1 / 24	16.21	**26.05**	0.403	33.01	-6.96
	16-QAM	2593.0	H	X	101	217	9.58	1 / 12	14.02	**23.60**	0.229	33.01	-9.41
	64-QAM	2687.5	H	X	101	211	9.85	1 / 24	13.01	**22.85**	0.193	33.01	-10.16
	256-QAM	2687.5	H	X	101	211	9.85	1 / 24	9.39	**19.23**	0.084	33.01	-13.78

Table 7-9. EIRP Data (LTE Band 41(PC2))

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
100 MHz	π/2 BPSK	2546.0	H	107	278	9.41	1 / 273	15.86	**25.27**	0.337	33.01	-7.74
		2593.0	H	155	229	9.58	1 / 0	14.01	23.59	0.229	33.01	-9.42
		2640.0	H	174	221	9.87	1 / 137	12.51	22.38	0.173	33.01	-10.63
	QPSK	2546.0	H	107	278	9.41	1 / 273	13.36	**22.77**	0.189	33.01	-10.24
		2593.0	H	155	229	9.58	1 / 0	11.40	20.98	0.125	33.01	-12.03
		2640.0	H	174	221	9.87	1 / 0	9.29	19.16	0.082	33.01	-13.85
	16-QAM	2546.0	H	107	278	9.41	1 / 273	12.56	**21.97**	0.158	33.01	-11.04
	64-QAM	2546.0	H	107	278	9.41	1 / 273	11.44	**20.85**	0.122	33.01	-12.16
	256-QAM	2546.0	H	107	278	9.41	1 / 273	10.39	**19.80**	0.096	33.01	-13.21
90 MHz	π/2 BPSK	2541.0	H	107	278	9.42	1 / 122	15.85	**25.27**	0.337	33.01	-7.74
		2593.0	H	155	229	9.58	1 / 61	15.38	24.96	0.313	33.01	-8.05
		2645.0	H	174	221	9.90	1 / 61	14.65	24.55	0.285	33.01	-8.46
	QPSK	2541.0	H	107	278	9.42	1 / 122	15.35	**24.77**	0.300	33.01	-8.24
		2593.0	H	155	229	9.58	1 / 61	14.97	24.55	0.285	33.01	-8.46
		2645.0	H	174	221	9.90	1 / 61	13.89	23.79	0.239	33.01	-9.22
	16-QAM	2593.0	H	155	229	9.58	1 / 61	14.04	**23.62**	0.230	33.01	-9.39
	64-QAM	2593.0	H	155	229	9.58	1 / 61	13.73	**23.31**	0.214	33.01	-9.70
	256-QAM	2593.0	H	155	229	9.58	1 / 61	9.13	**18.71**	0.074	33.01	-14.30
80 MHz	π/2 BPSK	2536.0	H	107	278	9.42	1 / 108	15.68	**25.10**	0.324	33.01	-7.91
		2593.0	H	155	229	9.58	1 / 54	15.21	24.79	0.301	33.01	-8.22
		2650.0	H	174	221	9.93	1 / 54	14.46	24.39	0.275	33.01	-8.62
	QPSK	2536.0	H	107	278	9.42	1 / 108	15.07	**24.49**	0.281	33.01	-8.52
		2593.0	H	155	229	9.58	1 / 54	14.69	24.27	0.267	33.01	-8.74
		2650.0	H	174	221	9.93	1 / 54	13.59	23.52	0.225	33.01	-9.49
	16-QAM	2593.0	H	155	229	9.58	1 / 54	13.68	**23.26**	0.212	33.01	-9.75
	64-QAM	2593.0	H	155	229	9.58	1 / 54	13.31	**22.89**	0.195	33.01	-10.12
	256-QAM	2593.0	H	155	229	9.58	1 / 54	8.80	**18.38**	0.069	33.01	-14.63
60 MHz	π/2 BPSK	2526.0	H	107	278	9.43	1 / 121	15.35	**24.78**	0.301	33.01	-8.23
		2593.0	H	155	229	9.58	1 / 40	14.89	24.47	0.280	33.01	-8.54
		2660.0	H	174	221	9.91	1 / 40	14.15	24.06	0.255	33.01	-8.95
	QPSK	2526.0	H	107	278	9.43	1 / 121	14.98	**24.41**	0.276	33.01	-8.60
		2593.0	H	155	229	9.58	1 / 40	14.61	24.19	0.262	33.01	-8.82
		2660.0	H	174	221	9.91	1 / 40	13.53	23.44	0.221	33.01	-9.57
	16-QAM	2593.0	H	155	229	9.58	1 / 40	13.57	**23.15**	0.207	33.01	-9.86
	64-QAM	2593.0	H	155	229	9.58	1 / 40	13.34	**22.92**	0.196	33.01	-10.09
	256-QAM	2593.0	H	155	229	9.58	1 / 40	8.87	**18.45**	0.070	33.01	-14.56
50 MHz	π/2 BPSK	2521.0	H	107	278	9.44	1 / 99	15.60	**25.04**	0.319	33.01	-7.97
		2593.0	H	155	229	9.58	1 / 33	15.15	24.73	0.297	33.01	-8.28
		2665.0	H	174	221	9.90	1 / 33	14.42	24.32	0.270	33.01	-8.69
	QPSK	2521.0	H	107	278	9.44	1 / 99	15.02	**24.46**	0.279	33.01	-8.55
		2593.0	H	155	229	9.58	1 / 33	14.65	24.23	0.265	33.01	-8.78
		2665.0	H	174	221	9.90	1 / 33	13.58	23.48	0.223	33.01	-9.53
	16-QAM	2593.0	H	155	229	9.58	1 / 33	13.77	**23.35**	0.216	33.01	-9.66
	64-QAM	2593.0	H	155	229	9.58	1 / 33	13.48	**23.06**	0.202	33.01	-9.95
	256-QAM	2593.0	H	155	229	9.58	1 / 33	8.94	18.52	0.071	33.01	-14.49
40 MHz	π/2 BPSK	2516.0	H	107	278	9.44	1 / 54	14.88	**24.32**	0.270	33.01	-8.69
		2593.0	H	155	229	9.58	1 / 26	14.43	24.01	0.252	33.01	-9.00
		2670.0	H	174	221	9.89	1 / 26	13.72	23.61	0.230	33.01	-9.40
	QPSK	2516.0	H	107	278	9.44	1 / 54	14.39	**23.83**	0.242	33.01	-9.18
		2593.0	H	155	229	9.58	1 / 26	14.02	23.60	0.229	33.01	-9.41
		2670.0	H	174	221	9.89	1 / 26	12.96	22.85	0.193	33.01	-10.16
	16-QAM	2593.0	H	155	229	9.58	1 / 26	13.09	**22.67**	0.185	33.01	-10.34
	64-QAM	2593.0	H	155	229	9.58	1 / 26	12.82	**22.40**	0.174	33.01	-10.61
	256-QAM	2593.0	H	155	229	9.58	1 / 26	8.59	**18.17**	0.066	33.01	-14.84
30 MHz	π/2 BPSK	2506.0	H	155	229	9.45	1 / 39	15.17	**24.62**	0.290	33.01	-8.39
		2593.0	H	174	221	9.58	1 / 19	14.73	24.31	0.270	33.01	-8.70
		2680.0	H	107	278	9.86	1 / 19	14.05	23.91	0.246	33.01	-9.10
	QPSK	2506.0	H	155	229	9.45	1 / 39	14.67	**24.12**	0.258	33.01	-8.89
		2593.0	H	174	221	9.58	1 / 19	14.32	23.90	0.245	33.01	-9.11
		2680.0	H	107	278	9.86	1 / 19	13.29	23.15	0.207	33.01	-9.86
	16-QAM	2593.0	H	174	221	9.58	1 / 19	13.27	**22.85**	0.193	33.01	-10.16
	64-QAM	2593.0	H	174	221	9.58	1 / 19	13.10	**22.68**	0.185	33.01	-10.33
		2593.0	H	174	221	9.58	1 / 19	8.82	**18.40**	0.069	33.01	-14.61
20 MHz	π/2 BPSK	2506.0	H	107	278	9.45	1 / 53	14.98	**24.43**	0.277	33.01	-8.58
		2593.0	H	155	229	9.58	1 / 13	14.54	24.12	0.258	33.01	-8.89
		2680.0	H	174	221	9.86	1 / 53	13.86	23.72	0.236	33.01	-9.29
	QPSK	2506.0	H	107	278	9.45	1 / 53	14.65	**24.10**	0.257	33.01	-8.91
		2593.0	H	155	229	9.58	1 / 13	14.29	23.87	0.244	33.01	-9.14
		2680.0	H	174	221	9.86	1 / 53	13.26	23.12	0.205	33.01	-9.89
	16-QAM	2593.0	H	155	229	9.58	1 / 53	13.40	**22.98**	0.199	33.01	-10.03
	64-QAM	2593.0	H	155	229	9.58	1 / 53	13.03	**22.61**	0.182	33.01	-10.40
	256-QAM	2593.0	H	155	229	9.58	1 / 53	8.75	**18.33**	0.068	33.01	-14.68
100 MHz	QPSK (CP-OFDM)	2546.0	H	107.0	278.0	9.58	1 / 273	13.84	23.42	0.220	33.01	-9.59
	QPSK (Opposite Pol.)	2546.0	V	211.0	22.0	9.58	1 / 273	14.74	24.32	0.270	33.01	-8.69
	QPSK (WCP)	2546.0	H	116.0	21.0	9.58	1 / 273	14.09	23.67	0.233	33.01	-9.34

Table 7-10. EIRP Data (NR Band n41) ANT E

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Pol.	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
100 MHz	π/2 BPSK	2546.0	H	Y	109	349	9.41	1 / 137	15.44	**24.85**	0.306	33.01	-8.16
		2593.0	H	Y	101	338	9.58	1 / 137	14.91	24.49	0.281	33.01	-8.52
		2640.0	H	Y	101	338	9.87	1 / 137	14.78	24.65	0.292	33.01	-8.36
	QPSK	2546.0	H	Y	109	349	9.41	1 / 137	15.30	**24.71**	0.296	33.01	-8.30
		2593.0	H	Y	101	338	9.58	1 / 137	15.06	24.64	0.291	33.01	-8.37
		2640.0	H	Y	101	338	9.87	1 / 137	14.70	24.57	0.286	33.01	-8.44
	16-QAM	2546.0	H	Y	109	349	9.41	1 / 137	14.54	**23.95**	0.249	33.01	-9.06
	64-QAM	2546.0	H	Y	109	349	9.41	1 / 137	13.06	**22.47**	0.177	33.01	-10.54
	256-QAM	2546.0	H	Y	109	349	9.41	1 / 137	12.29	**21.70**	0.148	33.01	-11.31
90 MHz	π/2 BPSK	2541.0	H	Y	109	349	9.42	1 / 61	15.35	**24.77**	0.300	33.01	-8.24
		2593.0	H	Y	101	338	9.58	1 / 61	14.82	24.41	0.276	33.01	-8.60
		2645.0	H	Y	101	338	9.90	1 / 61	14.66	24.56	0.286	33.01	-8.45
	QPSK	2541.0	H	Y	109	349	9.42	1 / 61	15.34	**24.76**	0.299	33.01	-8.25
		2593.0	H	Y	101	338	9.58	1 / 61	15.11	24.69	0.294	33.01	-8.32
		2645.0	H	Y	101	338	9.90	1 / 61	14.72	24.62	0.290	33.01	-8.39
	16-QAM	2541.0	H	Y	109	349	9.42	1 / 61	14.46	**23.88**	0.244	33.01	-9.13
	64-QAM	2541.0	H	Y	109	349	9.42	1 / 61	13.00	**22.41**	0.174	33.01	-10.60
	256-QAM	2541.0	H	Y	109	349	9.42	1 / 61	12.29	**21.71**	0.148	33.01	-11.30
80 MHz	π/2 BPSK	2536.0	H	Y	109	349	9.42	1 / 162	15.43	**24.85**	0.306	33.01	-8.16
		2593.0	H	Y	101	338	9.58	1 / 162	14.91	24.49	0.281	33.01	-8.52
		2650.0	H	Y	101	338	9.93	1 / 162	14.71	24.65	0.292	33.01	-8.36
	QPSK	2536.0	H	Y	109	349	9.42	1 / 162	15.28	**24.70**	0.295	33.01	-8.31
		2593.0	H	Y	101	338	9.58	1 / 162	15.05	24.63	0.290	33.01	-8.38
		2650.0	H	Y	101	338	9.93	1 / 162	14.62	24.56	0.286	33.01	-8.45
	16-QAM	2536.0	H	Y	109	349	9.42	1 / 162	14.49	**23.92**	0.246	33.01	-9.09
	64-QAM	2536.0	H	Y	109	349	9.42	1 / 162	13.00	**22.43**	0.175	33.01	-10.58
	256-QAM	2536.0	H	Y	109	349	9.42	1 / 162	12.24	**21.66**	0.147	33.01	-11.35
60 MHz	π/2 BPSK	2526.0	H	Y	109	349	9.43	1 / 121	15.36	**24.80**	0.302	33.01	-8.21
		2593.0	H	Y	101	338	9.58	1 / 121	14.85	24.44	0.278	33.01	-8.58
		2660.0	H	Y	101	338	9.91	1 / 121	14.68	24.59	0.288	33.01	-8.42
	QPSK	2526.0	H	Y	109	349	9.43	1 / 121	15.27	**24.70**	0.295	33.01	-8.31
		2593.0	H	Y	101	338	9.58	1 / 121	15.05	24.63	0.290	33.01	-8.38
		2660.0	H	Y	101	338	9.91	1 / 121	14.65	24.56	0.286	33.01	-8.45
	16-QAM	2526.0	H	Y	109	349	9.43	1 / 121	14.44	**23.87**	0.244	33.01	-9.14
	64-QAM	2526.0	H	Y	109	349	9.43	1 / 121	13.00	**22.43**	0.175	33.01	-10.58
	256-QAM	2526.0	H	Y	109	349	9.43	1 / 121	12.24	**21.67**	0.147	33.01	-11.34
50 MHz	π/2 BPSK	2521.0	H	Y	109	349	9.44	1 / 99	15.40	**24.84**	0.305	33.01	-8.17
		2593.0	H	Y	101	338	9.58	1 / 99	15.01	24.59	0.288	33.01	-8.42
		2665.0	H	Y	101	338	9.90	1 / 99	14.85	24.75	0.298	33.01	-8.26
	QPSK	2521.0	H	Y	109	349	9.44	1 / 99	15.31	**24.75**	0.299	33.01	-8.26
		2593.0	H	Y	101	338	9.58	1 / 99	15.10	24.68	0.294	33.01	-8.33
		2665.0	H	Y	101	338	9.90	1 / 99	14.71	24.61	0.289	33.01	-8.40
	16-QAM	2521.0	H	Y	109	349	9.44	1 / 99	14.54	**23.98**	0.250	33.01	-9.03
	64-QAM	2521.0	H	Y	109	349	9.44	1 / 99	13.05	**22.48**	0.177	33.01	-10.53
	256-QAM	2521.0	H	Y	109	349	9.44	1 / 99	12.36	**21.80**	0.151	33.01	-11.21
40 MHz	π/2 BPSK	2516.0	H	Y	109	349	9.44	1 / 26	15.40	**24.84**	0.305	33.01	-8.17
		2593.0	H	Y	101	338	9.58	1 / 26	15.16	24.74	0.298	33.01	-8.27
		2670.0	H	Y	101	338	9.89	1 / 26	13.89	23.78	0.239	33.01	-9.23
	QPSK	2516.0	H	Y	109	349	9.44	1 / 26	15.37	24.81	0.303	33.01	-8.20
		2593.0	H	Y	101	338	9.58	1 / 26	15.27	**24.85**	0.306	33.01	-8.16
		2670.0	H	Y	101	338	9.89	1 / 26	14.92	24.81	0.303	33.01	-8.20
	16-QAM	2516.0	H	Y	109	349	9.44	1 / 26	14.52	**23.96**	0.249	33.01	-9.05
	64-QAM	2516.0	H	Y	109	349	9.44	1 / 26	13.27	**22.72**	0.187	33.01	-10.29
	256-QAM	2516.0	H	Y	109	349	9.44	1 / 26	12.52	**21.96**	0.157	33.01	-11.05
30 MHz	π/2 BPSK	2506.0	H	Y	109	349	9.45	1 / 19	15.29	**24.74**	0.298	33.01	-8.27
		2593.0	H	Y	101	338	9.58	1 / 19	14.80	24.38	0.274	33.01	-8.63
		2680.0	H	Y	101	338	9.86	1 / 19	14.68	24.54	0.284	33.01	-8.47
	QPSK	2506.0	H	Y	109	349	9.45	1 / 19	15.07	**24.52**	0.283	33.01	-8.49
		2593.0	H	Y	101	338	9.58	1 / 19	14.87	24.45	0.278	33.01	-8.56
		2680.0	H	Y	101	338	9.86	1 / 19	14.51	24.38	0.274	33.01	-8.64
	16-QAM	2506.0	H	Y	109	349	9.45	1 / 19	14.86	**24.31**	0.270	33.01	-8.70
	64-QAM	2506.0	H	Y	109	349	9.45	1 / 19	13.17	**22.63**	0.183	33.01	-10.38
	256-QAM	2506.0	H	Y	109	349	9.45	1 / 19	12.64	**22.09**	0.162	33.01	-10.92
20 MHz	π/2 BPSK	2506.0	H	Y	109	349	9.45	1 / 37	15.61	**25.06**	0.321	33.01	-7.95
		2593.0	H	Y	101	338	9.58	1 / 37	15.12	24.70	0.295	33.01	-8.31
		2680.0	H	Y	101	338	9.86	1 / 37	14.99	24.86	0.306	33.01	-8.15
	QPSK	2506.0	H	Y	109	349	9.45	1 / 37	15.36	**24.81**	0.303	33.01	-8.20
		2593.0	H	Y	101	338	9.58	1 / 37	15.16	24.74	0.298	33.01	-8.27
		2680.0	H	Y	101	338	9.86	1 / 37	14.81	24.67	0.293	33.01	-8.34
	16-QAM	2506.0	H	Y	109	349	9.45	1 / 37	14.54	**24.00**	0.251	33.01	-9.01
	64-QAM	2506.0	H	Y	109	349	9.45	1 / 37	13.09	**22.54**	0.180	33.01	-10.47
	256-QAM	2506.0	H	Y	109	349	9.45	1 / 37	6.98	**16.43**	0.044	33.01	-16.58

Table 7-11. EIRP Data (NR Band n41) ANT B

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
100 MHz	π/2 BPSK	3750.0	H	120.0	224.0	6.82	1 / 50	15.02	21.84	0.153	30.00	-8.16
		3840.0	H	102.0	211.0	6.76	1 / 50	17.20	**23.96**	0.249	30.00	-6.04
		3930.0	H	115.0	218.0	6.65	1 / 50	16.07	22.72	0.187	30.00	-7.28
	QPSK	3750.0	H	120.0	224.0	6.82	1 / 50	15.40	22.22	0.167	30.00	-7.78
		3840.0	H	102.0	211.0	6.76	1 / 50	16.55	**23.31**	0.214	30.00	-6.69
		3930.0	H	115.0	218.0	6.65	1 / 50	16.57	23.22	0.210	30.00	-6.78
	16-QAM	3930.0	H	115.0	218.0	6.65	1 / 50	15.32	**21.97**	0.157	30.00	-8.03
	64-QAM	3930.0	H	115.0	218.0	6.65	1 / 50	14.14	**20.79**	0.120	30.00	-9.21
	256-QAM	3930.0	H	115.0	218.0	6.65	1 / 50	12.50	**19.15**	0.082	30.00	-10.85
90 MHz	π/2 BPSK	3745.0	H	120.0	224.0	5.96	1/61	15.87	21.83	0.153	30.00	-8.17
		3840.0	H	102.0	211.0	5.81	1/122	18.04	**23.85**	0.243	30.00	-6.15
		3935.0	H	115.0	218.0	6.26	1/122	16.44	22.70	0.186	30.00	-7.30
	QPSK	3745.0	H	120.0	224.0	5.96	1/61	16.24	22.20	0.166	30.00	-7.80
		3840.0	H	102.0	211.0	5.81	1/122	17.52	**23.33**	0.215	30.00	-6.67
		3935.0	H	115.0	218.0	6.26	1/122	16.92	23.18	0.208	30.00	-6.82
	16-QAM	3935.0	H	115.0	218.0	6.26	1/122	15.73	**21.99**	0.158	30.00	-8.01
	64-QAM	3935.0	H	115.0	218.0	6.26	1/122	14.38	**20.64**	0.116	30.00	-9.36
	256-QAM	3935.0	H	115.0	218.0	6.26	1/122	12.91	**19.17**	0.083	30.00	-10.83
80 MHz	π/2 BPSK	3740.0	H	120.0	224.0	5.99	1/54	15.80	21.79	0.151	30.00	-8.21
		3840.0	H	102.0	211.0	5.81	1/108	18.16	**23.97**	0.249	30.00	-6.03
		3940.0	H	115.0	218.0	6.31	1/162	16.33	22.64	0.183	30.00	-7.36
	QPSK	3740.0	H	120.0	224.0	5.99	1/54	16.12	22.11	0.163	30.00	-7.89
		3840.0	H	102.0	211.0	5.81	1/108	17.55	**23.36**	0.217	30.00	-6.64
		3940.0	H	115.0	218.0	6.31	1/162	16.72	23.03	0.201	30.00	-6.97
	16-QAM	3940.0	H	115.0	218.0	6.31	1/162	15.89	**22.20**	0.166	30.00	-7.80
	64-QAM	3940.0	H	115.0	218.0	6.31	1/162	14.17	**20.48**	0.112	30.00	-9.52
	256-QAM	3940.0	H	115.0	218.0	6.31	1/162	12.91	**19.22**	0.083	30.00	-10.78
70 MHz	QPSK	3735.0	H	120.0	224.0	6.01	1/141	15.34	21.35	0.137	30.00	-8.65
		3840.0	H	102.0	211.0	5.81	1/94	16.60	**22.41**	0.174	30.00	-7.59
		3945.0	H	115.0	218.0	6.36	1/94	15.75	22.11	0.162	30.00	-7.89
	16-QAM	3840.0	H	102.0	211.0	5.81	1/94	15.63	**21.44**	0.139	30.00	-8.56
	64-QAM	3945.0	H	115.0	218.0	6.36	1/94	13.14	**19.50**	0.089	30.00	-10.50
	256-QAM	3945.0	H	115.0	218.0	6.36	1/94	11.56	**17.92**	0.062	30.00	-12.08
60 MHz	π/2 BPSK	3730.0	H	120.0	224.0	6.03	1/40	15.68	21.71	0.148	30.00	-8.29
		3840.0	H	102.0	211.0	5.81	1/40	18.14	**23.95**	0.248	30.00	-6.05
		3950.0	H	115.0	218.0	6.41	1/40	16.26	22.67	0.185	30.00	-7.33
	QPSK	3730.0	H	120.0	224.0	6.03	1/40	15.98	22.01	0.159	30.00	-7.99
		3840.0	H	102.0	211.0	5.81	1/40	17.54	**23.35**	0.216	30.00	-6.65
		3950.0	H	115.0	218.0	6.41	1/40	16.78	23.19	0.208	30.00	-6.81
	16-QAM	3840.0	H	102.0	211.0	5.81	1/40	16.55	**22.36**	0.172	30.00	-7.64
	64-QAM	3950.0	H	115.0	218.0	6.41	1/40	13.13	**19.54**	0.090	30.00	-10.46
	256-QAM	3950.0	H	115.0	218.0	6.41	1/40	13.03	**19.44**	0.088	30.00	-10.56
50 MHz	π/2 BPSK	3725.0	H	120.0	224.0	6.06	1/33	15.71	21.77	0.150	30.00	-8.23
		3840.0	H	102.0	211.0	5.81	1/66	18.19	**24.00**	0.251	30.00	-6.00
		3955.0	H	115.0	218.0	6.48	1/33	16.18	22.66	0.184	30.00	-7.34
	QPSK	3725.0	H	120.0	224.0	6.06	1/33	16.15	22.21	0.166	30.00	-7.79
		3840.0	H	102.0	211.0	5.81	1/66	17.61	**23.42**	0.220	30.00	-6.58
		3955.0	H	115.0	218.0	6.48	1/33	16.66	23.14	0.206	30.00	-6.86
	16-QAM	3840.0	H	102.0	211.0	6.48	1/66	15.57	**22.05**	0.160	30.00	-7.95
	64-QAM	3955.0	H	115.0	218.0	6.48	1/33	13.83	**20.31**	0.107	30.00	-9.69
	256-QAM	3955.0	H	115.0	218.0	6.48	1/33	12.86	**19.34**	0.086	30.00	-10.66
40 MHz	π/2 BPSK	3720.0	H	120.0	224.0	6.08	1/26	15.72	21.80	0.151	30.00	-8.20
		3840.0	H	102.0	211.0	5.81	1/26	18.15	**23.96**	0.249	30.00	-6.04
		3960.0	H	115.0	218.0	6.08	1/26	16.63	22.71	0.186	30.00	-7.29
	QPSK	3720.0	H	120.0	224.0	6.08	1/26	16.06	22.14	0.164	30.00	-7.86
		3840.0	H	102.0	211.0	5.81	1/26	17.50	**23.31**	0.214	30.00	-6.69
		3960.0	H	115.0	218.0	6.08	1/26	17.20	23.28	0.213	30.00	-6.72
	16-QAM	3960.0	H	115.0	218.0	6.08	1/26	15.66	**21.74**	0.149	30.00	-8.26
	64-QAM	3960.0	H	115.0	218.0	6.08	1/26	14.38	**20.46**	0.111	30.00	-9.54
	256-QAM	3960.0	H	115.0	218.0	6.08	1/26	13.41	**19.49**	0.089	30.00	-10.51
30 MHz	π/2 BPSK	3715.0	H	120.0	224.0	6.10	1/19	15.72	21.82	0.152	30.00	-8.18
		3840.0	H	102.0	211.0	5.81	1/39	18.17	**23.98**	0.250	30.00	-6.02
		3965.0	H	115.0	218.0	6.63	1/39	16.07	22.70	0.186	30.00	-7.30
	QPSK	3715.0	H	120.0	224.0	6.10	1/19	15.97	22.07	0.161	30.00	-7.93
		3840.0	H	102.0	211.0	5.81	1/39	17.48	**23.29**	0.213	30.00	-6.71
		3965.0	H	115.0	218.0	6.63	1/39	16.57	23.20	0.209	30.00	-6.80
	16-QAM	3965.0	H	115.0	218.0	6.63	1/39	15.20	**21.83**	0.152	30.00	-8.17
	64-QAM	3965.0	H	115.0	218.0	6.63	1/39	14.04	**20.67**	0.117	30.00	-9.33
	256-QAM	3965.0	H	115.0	218.0	6.63	1/39	12.86	**19.49**	0.089	30.00	-10.51
20 MHz	π/2 BPSK	3710.0	H	120.0	224.0	6.13	1/25	15.60	21.73	0.149	30.00	-8.27
		3840.0	H	102.0	211.0	5.81	1/37	18.15	**23.96**	0.249	30.00	-6.04
		3970.0	H	115.0	218.0	6.70	1/13	15.96	22.66	0.184	30.00	-7.34
	QPSK	3710.0	H	120.0	224.0	6.70	1/25	15.40	22.10	0.162	30.00	-7.90
		3840.0	H	102.0	211.0	6.70	1/37	16.69	**23.39**	0.218	30.00	-6.61
		3970.0	H	115.0	218.0	6.70	1/13	16.31	23.01	0.200	30.00	-6.99
	16-QAM	3840.0	H	102.0	211.0	6.70	1/37	15.14	**21.84**	0.153	30.00	-8.16
	64-QAM	3970.0	H	115.0	218.0	6.70	1/13	13.00	**19.70**	0.093	30.00	-10.30
	256-QAM	3970.0	H	115.0	218.0	6.70	1/13	12.60	**19.30**	0.085	30.00	-10.70
	Opposite Pol.	3840.0	V	100.0	212.0	6.21	1 / 137	12.79	19.00	0.079	30.00	-11.00
	WCP	3840.0	H	248.0	143.0	6.21	1 8 137	11.09	17.30	0.090	30.00	-12.70

Table 7-12. EIRP Data (NR Band n77)

7.8 Radiated Spurious Emissions Measurements

Test Overview

Radiated spurious emissions measurements are performed using the field strength conversion method described in KDB 971168 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using horizontally and vertically polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as peak measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

Test Procedures Used

KDB 971168 D01 v03r01 – Section 5.8

Test Settings

1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
2. VBW ≥ 3 x RBW
3. Span = 1.5 times the OBW
4. No. of sweep points ≥ 2 x span / RBW
5. Detector = RMS
6. Trace mode = Average (Max Hold for pulsed emissions)
7. The trace was allowed to stabilize

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

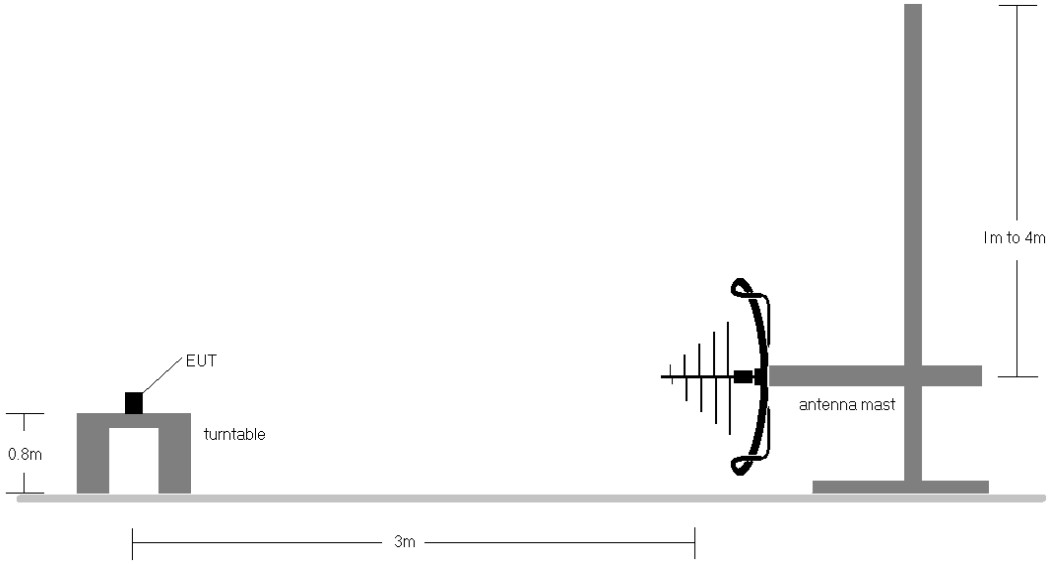


Figure 7-7. Test Instrument & Measurement Setup < 1GHz

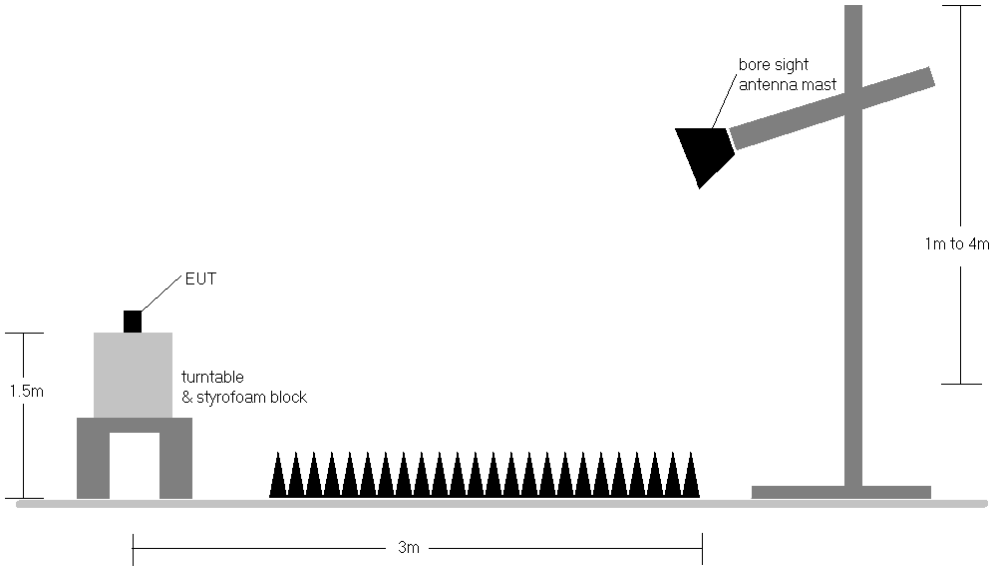


Figure 7-8. Test Instrument & Measurement Setup >1 GHz

Test Notes

1) Field strengths are calculated using the Measurement quantity conversions in KDB 971168 Section 5.8.4.
   b) E(dBµV/m) = Measured amplitude level (dBm) + 107 + Cable Loss (dB) + Antenna Factor (dB/m)
   d) EIRP (dBm) = E(dBµV/m) + 20logD – 104.8; where D is the measurement distance in meters.

2) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.

3) This unit was tested with its standard battery.

4) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case setup is reported in the tables below.

5) The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.

6) Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.

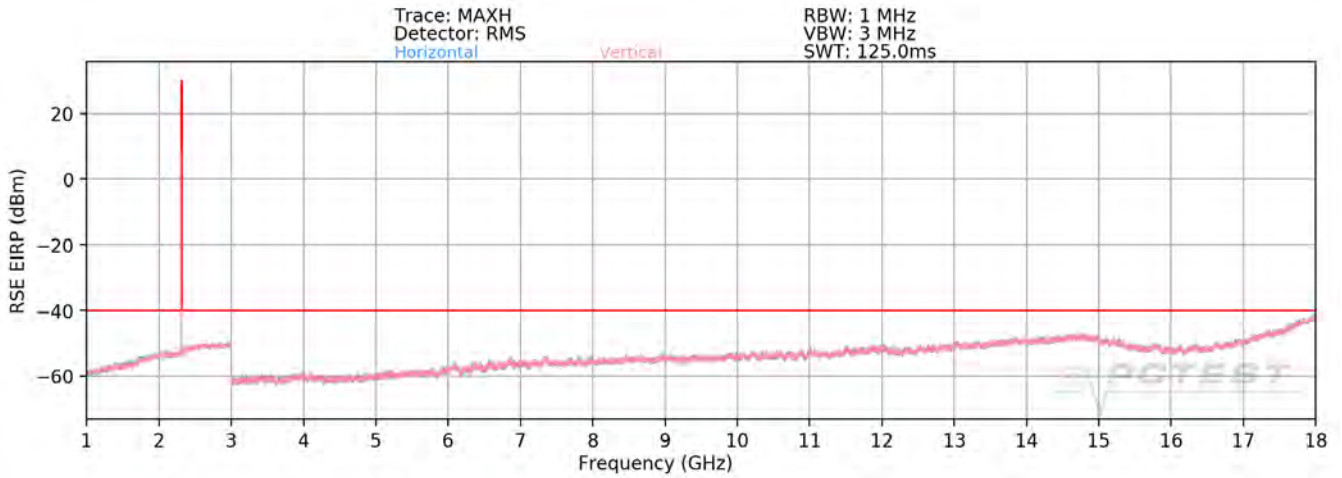
7) The "-" shown in the following RSE tables are used to denote a noise floor measurement.

8) ULCA spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device.

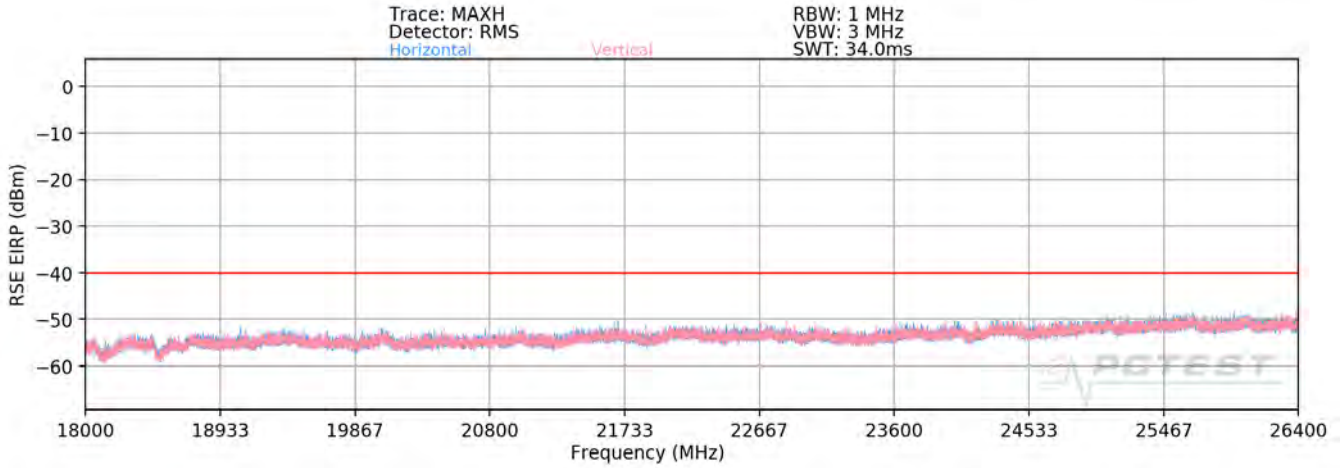
9) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

10) Spurious emissions shown in this section are measured while operating in EN-DC mode with Sub 6GHz NR carrier as well as an LTE carrier (anchor). Spurious emissions from the NR carrier device, is subject to the rules under which the NR carrier operates. Spurious emission caused by the LTE carrier must meet the requirements of the rules under which the LTE carrier operates.

LTE Band 30



Plot 7-316. Radiated Spurious Plot (LTE Band 30)



Plot 7-317. Radiated Spurious Plot (LTE Band 30)

Bandwidth (MHz):	10
Frequency (MHz):	2310.0
RB / Offset:	1 / 25

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
4620.0	H	104	122	-73.10	6.81	40.71	-64.09	-40.00	-24.09
6930.0	H	241	304	-61.55	11.34	56.79	-48.01	-40.00	-8.01
9240.0	H	-	-	-76.35	13.48	44.13	-60.67	-40.00	-20.67
11550.0	H	-	-	-77.75	16.55	45.80	-59.00	-40.00	-19.00

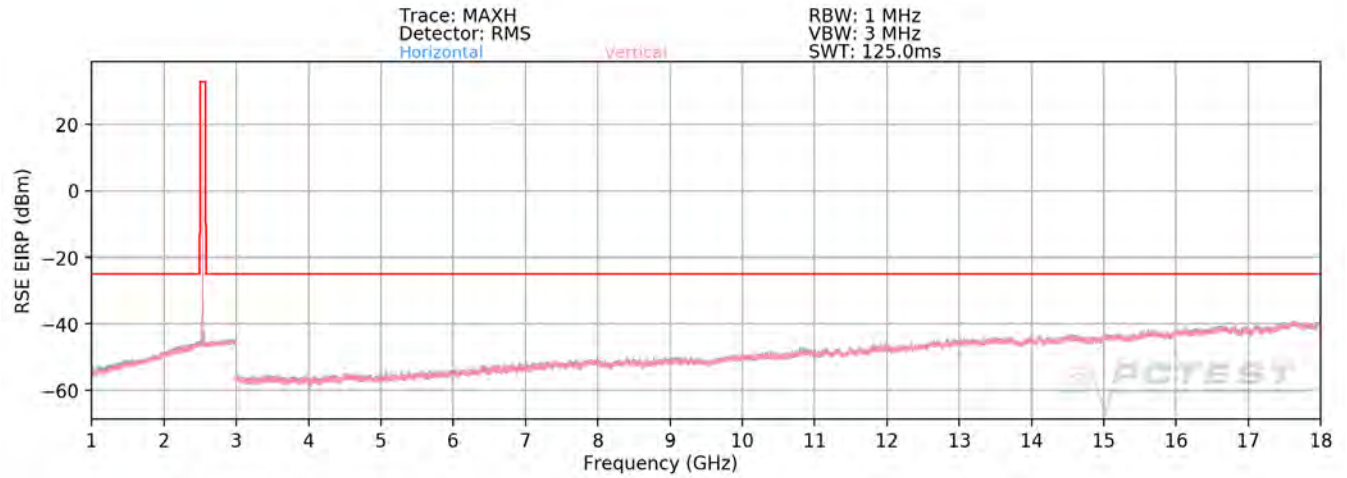
Table 7-13. Radiated Spurious Data (LTE Band 30)

Bandwidth (MHz):	10
Frequency (MHz):	2310.0
RB / Offset:	1 / 25
Detector / Trace Mode:	RMS / Average
RBW / VBW:	1MHz / 3MHz

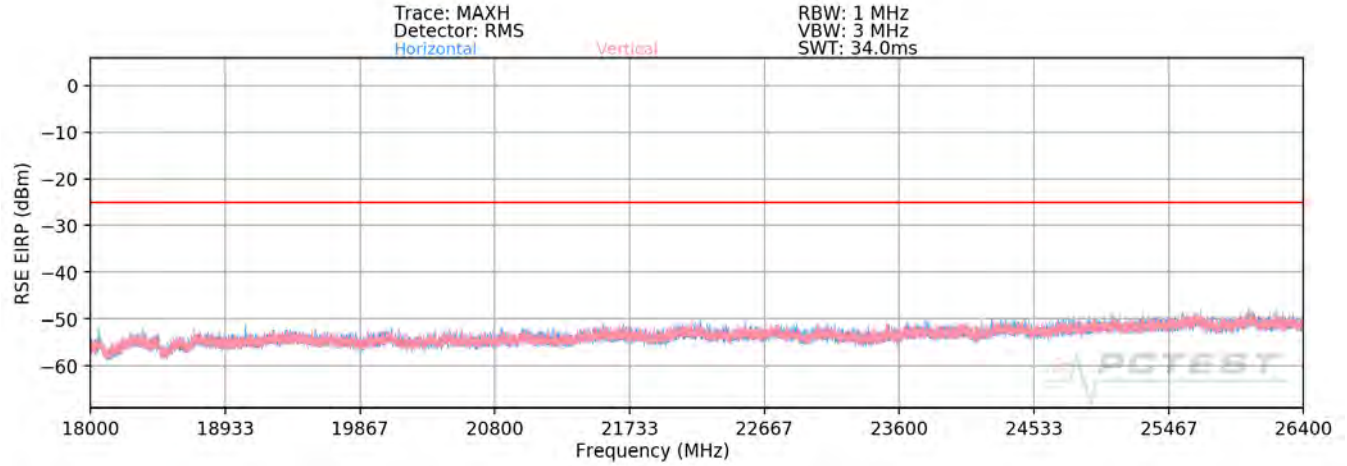
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
4620.00	H	116	216	-70.46	6.81	43.35	-61.45	-40.00	-21.45
6930.00	H	-	-	-71.67	11.34	46.67	-58.13	-40.00	-18.13
9240.00	H	-	-	-72.41	13.48	48.07	-56.73	-40.00	-16.73

Table 7-14. Radiated Spurious Data (LTE Band 30) with WCP

LTE Band 7



Plot 7-318. Radiated Spurious Plot (LTE Band 7)



Plot 7-319. Radiated Spurious Plot (LTE Band 7)

Bandwidth (MHz):	20
Frequency (MHz):	2510.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5020.0	V	317	351	-70.35	7.88	44.53	-60.27	-25.00	-35.27
7530.0	V	322	355	-68.84	12.13	50.29	-54.51	-25.00	-29.51
10040.0	V	-	-	-76.39	14.91	45.52	-59.28	-25.00	-34.28
12550.0	V	-	-	-76.29	18.23	48.94	-55.86	-25.00	-30.86

Table 7-15. Radiated Spurious Data (LTE Band 7 – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	2535.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5070.0	V	112	340	-72.94	7.75	41.81	-62.99	-25.00	-37.99
7605.0	V	312	337	-68.95	12.73	50.78	-54.02	-25.00	-29.02
10140.0	V	-	-	-75.75	15.03	46.28	-58.52	-25.00	-33.52
12675.0	V	-	-	-76.11	19.24	50.13	-54.67	-25.00	-29.67

Table 7-16. Radiated Spurious Data (LTE Band 7 – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	2560.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5120.00	V	115	7	-71.29	7.97	43.68	-61.12	-25.00	-36.12
7680.00	V	339	360	-68.11	11.81	50.70	-54.10	-25.00	-29.10
10240.00	V	-	-	-75.42	15.30	46.88	-57.92	-25.00	-32.92
12800.00	V	-	-	-76.21	19.37	50.16	-54.64	-25.00	-29.64

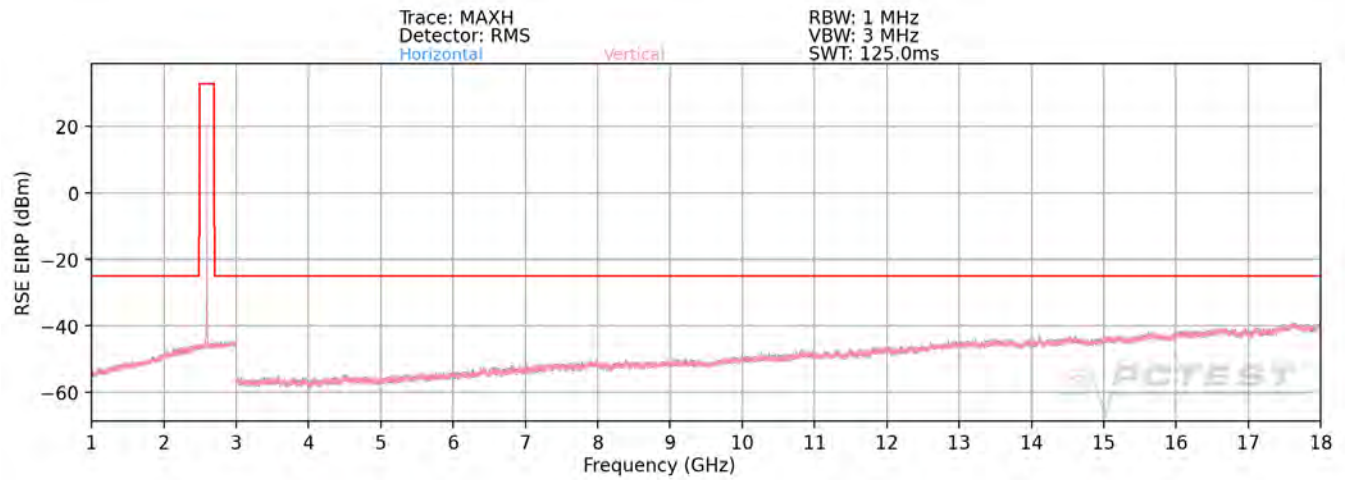
Table 7-17. Radiated Spurious Data (LTE Band 7 – High Channel)

Bandwidth (MHz):	20
Frequency (MHz):	2535.0
RB / Offset:	1 / 50
Detector / Trace Mode:	RMS / Average
RBW / VBW:	1MHz / 3MHz

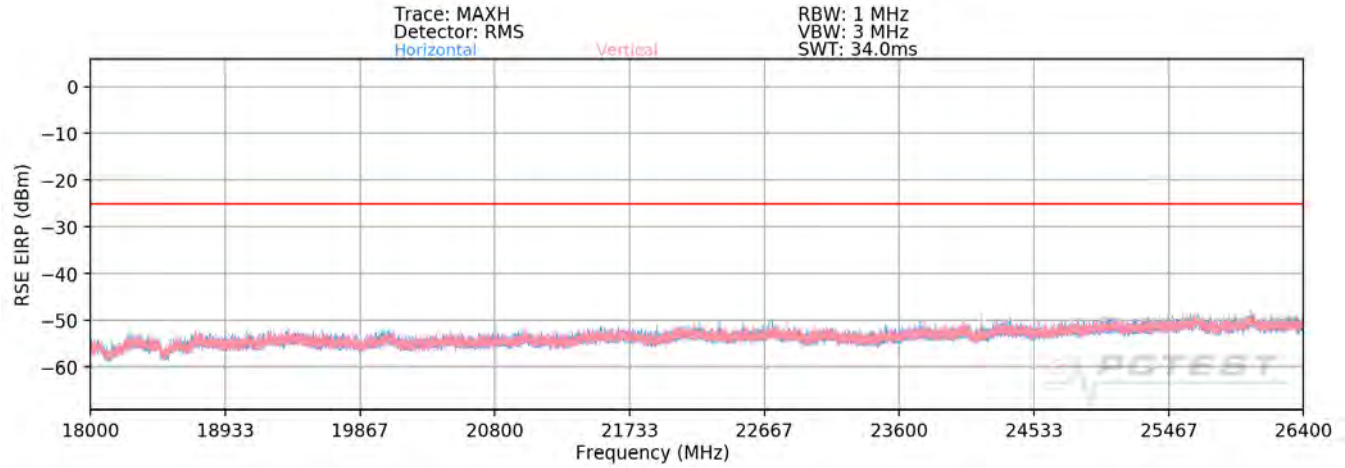
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5070.0	V	201	44	-72.35	7.75	42.40	-62.40	-25.00	-37.40
7605.0	V	278	354	-68.99	12.73	50.74	-54.06	-25.00	-29.06
10140.0	V	-	-	-75.68	15.03	46.35	-58.45	-25.00	-33.45
12675.0	V	-	-	-76.70	19.24	49.54	-55.26	-25.00	-30.26

Table 7-18. Radiated Spurious Data (LTE Band 7 – Mid Channel) with WCP

LTE Band 41(PC2)



Plot 7-320. Radiated Spurious Plot (LTE Band 41(PC2))



Plot 7-321. Radiated Spurious Plot (LTE Band 41(PC2))

Bandwidth (MHz):	20
Frequency (MHz):	2506.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5012.0	H	103	37	-71.39	7.85	43.46	-61.34	-25.00	-36.34
7518.0	H	100	31	-69.63	12.24	49.61	-55.19	-25.00	-30.19
10024.0	H	115	313	-74.11	14.55	47.44	-57.36	-25.00	-32.36
12530.0	H	-	-	-77.57	18.30	47.73	-57.07	-25.00	-32.07
15036.0	H	-	-	-77.95	21.55	50.60	-54.20	-25.00	-29.20

Table 7-19. Radiated Spurious Data (LTE Band 41(PC2) – Low Channel)

Bandwidth (MHz):	20
Frequency (MHz):	2593.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5186.0	H	115	39	-73.19	7.70	41.51	-63.29	-25.00	-38.29
7779.0	H	243	81	-71.48	12.24	47.76	-57.04	-25.00	-32.04
10372.0	H	117	43	-74.99	15.39	47.40	-57.40	-25.00	-32.40
12965.0	H	-	-	-77.21	19.30	49.09	-55.71	-25.00	-30.71
15558.0	H	-	-	-77.79	21.97	51.18	-53.62	-25.00	-28.62

Table 7-20. Radiated Spurious Data (LTE Band 41(PC2) – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	2680.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5360.0	H	104	35	-71.08	8.53	44.45	-60.35	-25.00	-35.35
8040.0	H	111	33	-70.21	12.15	48.94	-55.86	-25.00	-30.86
10720.0	H	174	354	-74.35	16.39	49.04	-55.76	-25.00	-30.76
13400.0	H	-	-	-77.69	19.96	49.27	-55.53	-25.00	-30.53
16080.0	H	-	-	-78.01	22.94	51.93	-52.87	-25.00	-27.87

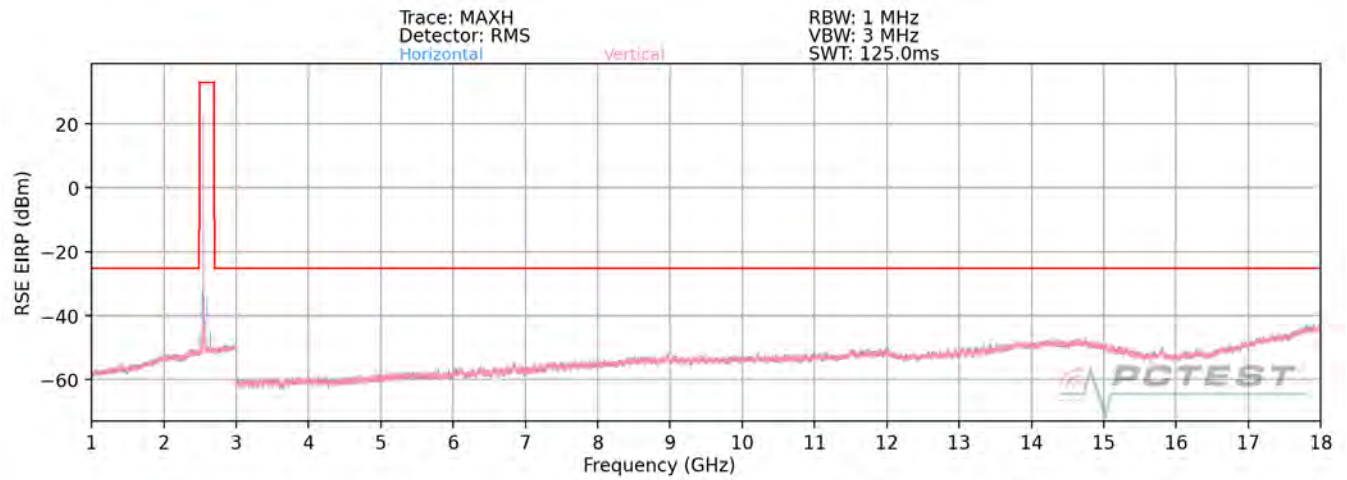
Table 7-21. Radiated Spurious Data (LTE Band 41(PC2) – High Channel)

Bandwidth (MHz):	20
Frequency (MHz):	2680.0
RB / Offset:	1 / 50
Detector / Trace Mode:	RMS / Average
RBW / VBW:	1MHz / 3MHz

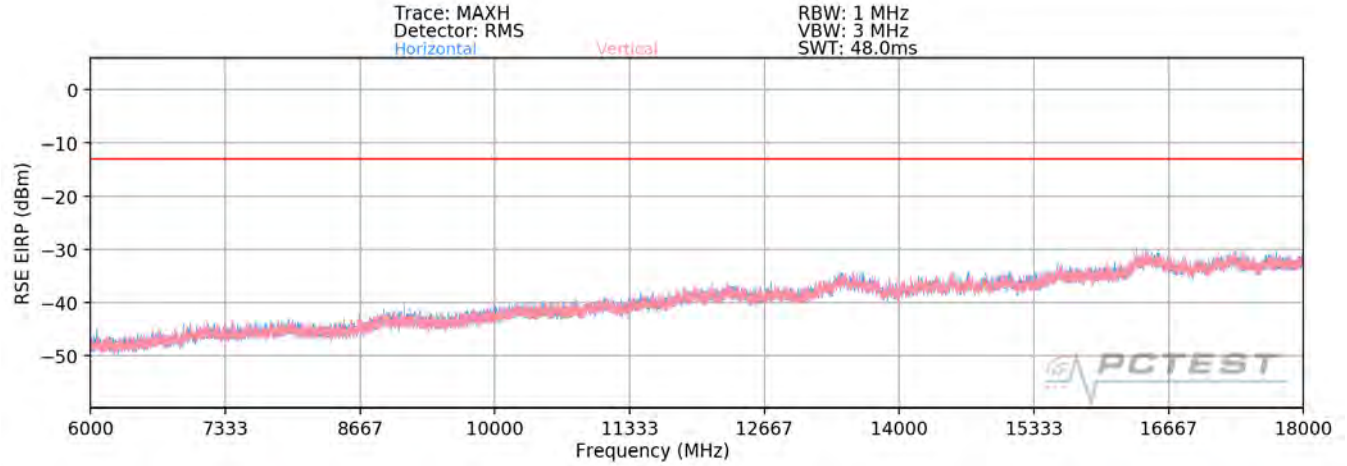
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5360.0	H	124	6	-71.19	8.53	44.34	-60.46	-25.00	-35.46
8040.0	H	123	51	-71.24	12.15	47.91	-56.89	-25.00	-31.89
10720.0	H	-	-	-74.64	16.39	48.75	-56.05	-25.00	-31.05
13400.0	H	-	-	-77.21	19.96	49.75	-55.05	-25.00	-30.05
16080.0	H	-	-	-77.00	22.94	52.94	-51.86	-25.00	-26.86

Table 7-22. Radiated Spurious Data (LTE Band 41(PC2) – High Channel) with WCP

NR Band n41



Plot 7-322. Radiated Spurious Plot (NR Band n41)



Plot 7-323. Radiated Spurious Plot (NR Band n41)

Bandwidth (MHz):	100
Frequency (MHz):	2546.0
RB / Offset:	1 / 138

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5092.0	V	114	331	-73.91	3.97	37.06	-67.74	-25.00	-42.74
7638.0	V	117	128	-75.83	9.22	40.39	-64.41	-25.00	-39.41
10184.0	V	-	-	-78.75	11.89	40.14	-64.66	-25.00	-39.66
12730.0	V	-	-	-78.88	14.24	42.36	-62.44	-25.00	-37.44

Table 7-23. Radiated Spurious Data (NR Band n41 – Low Channel)

Bandwidth (MHz):	100
Frequency (MHz):	2593.0
RB / Offset:	1 / 138

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5186.0	V	111	198	-69.52	4.45	41.93	-62.87	-25.00	-37.87
7779.0	V	111	168	-77.67	8.94	38.27	-66.53	-25.00	-41.53
10372.0	V	-	-	-78.85	11.88	40.03	-64.77	-25.00	-39.77
12965.0	V	-	-	-78.90	15.05	43.15	-61.65	-25.00	-36.65

Table 7-24. Radiated Spurious Data (NR Band n41 – Mid Channel)

Bandwidth (MHz):	100
Frequency (MHz):	2640.0
RB / Offset:	1 / 138

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5280.0	V	114	322	-72.54	3.87	38.33	-66.47	-25.00	-41.47
7920.0	V	117	127	-74.49	9.50	42.01	-62.79	-25.00	-37.79
10560.0	V	-	-	-78.93	11.90	39.97	-64.83	-25.00	-39.83
13200.0	V	-	-	-78.88	15.49	43.61	-61.19	-25.00	-36.19

Table 7-25. Radiated Spurious Data (NR Band n41 – High Channel)