Test data, continued

On the plots below the measured *Channel Power* value in the "*Total Channel Power*" column must be −19 dBm and lower.

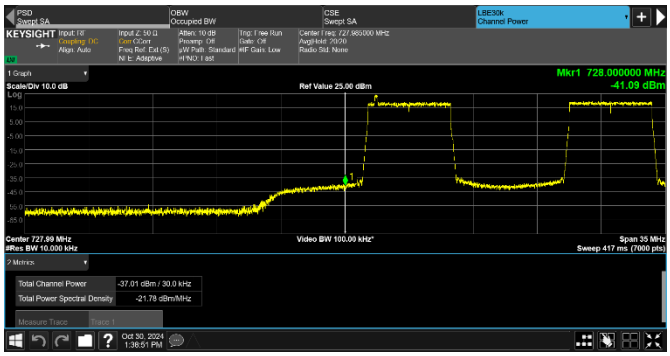


Figure 8.2-159: *Conducted emission at the lower band edge*

Frequency:	*728 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*2×LTE 5 MHz*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Non-contiguous*

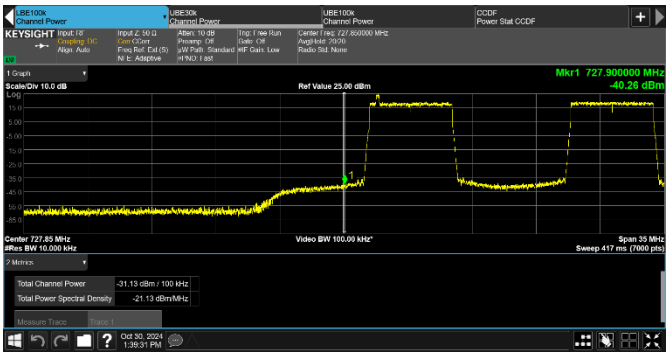


Figure 8.2-160: *Conducted emission 100 kHz away from the lower band edge*

Frequency:	*727.9 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*2×LTE 5 MHz*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Non-contiguous*

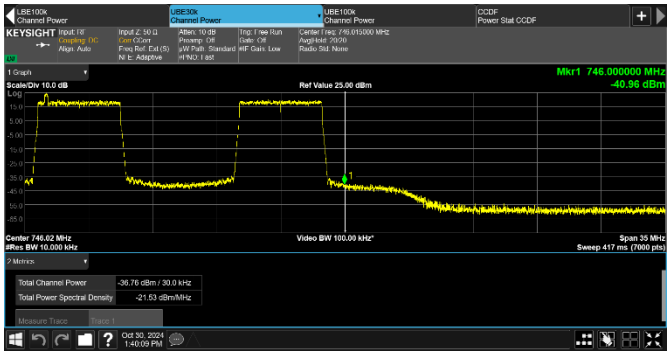


Figure 8.2-161: *Conducted emission at the upper band edge*

Frequency:	*746 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*2×LTE 5 MHz*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Non-contiguous*

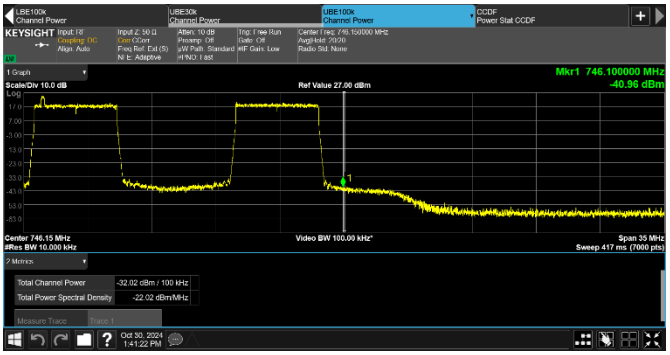


Figure 8.2-162: *Conducted emission 100 kHz away from the upper band edge*

Frequency:	*746.1 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*2×LTE 5 MHz*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Non-contiguous*

Test data, continued

On the plots below the measured *Channel Power* value in the "*Total Channel Power*" column must be −19 dBm and lower.

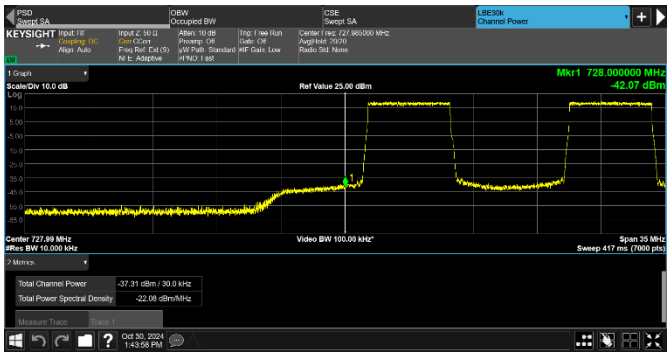


Figure 8.2-163: *Conducted emission at the lower band edge*

Frequency:	*728 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*2×NR 5 MHz*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Non-contiguous*

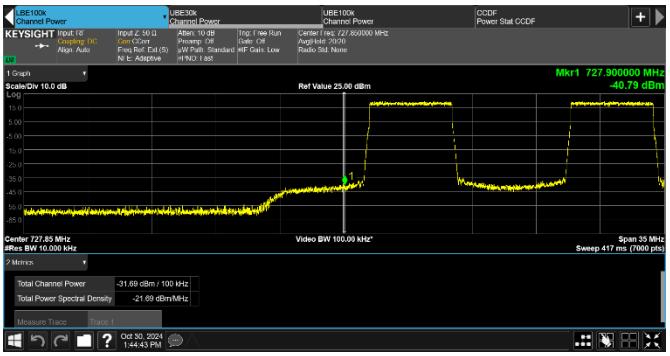


Figure 8.2-164: *Conducted emission 100 kHz away from the lower band edge*

Frequency:	*727.9 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*2×NR 5 MHz*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Non-contiguous*

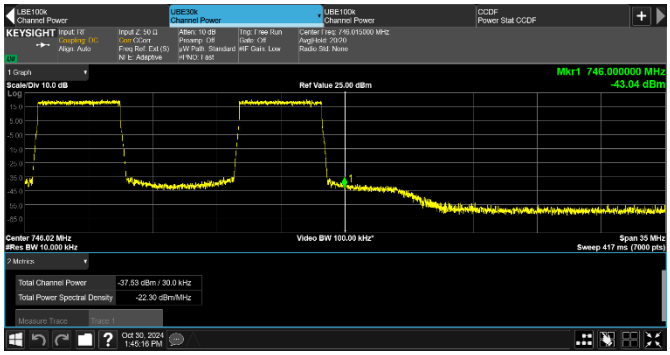


Figure 8.2-165: *Conducted emission at the upper band edge*

Frequency:	*746 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*2×NR 5 MHz*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Non-contiguous*

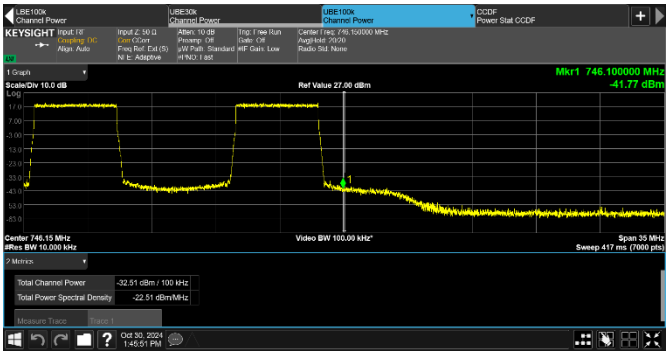


Figure 8.2-166: *Conducted emission 100 kHz away from the upper band edge*

Frequency:	*746.1 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*2×NR 5 MHz*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Non-contiguous*

Test data, continued

On the plots below the measured *Channel Power* value in the "*Total Channel Power*" column must be −19 dBm and lower.

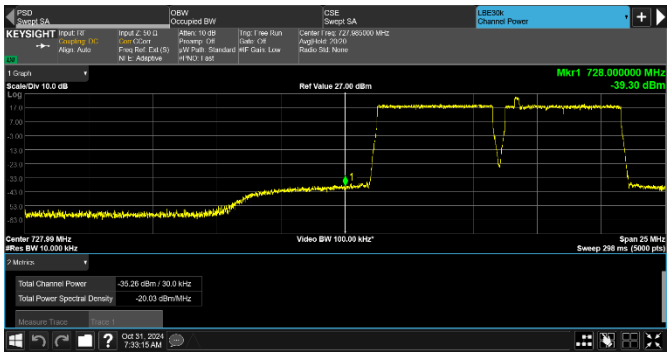


Figure 8.2-167: *Conducted emission at the lower band edge*

Frequency:	*728 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*NR 5 MHz + LTE 5 MHz (with IB)*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Contiguous*

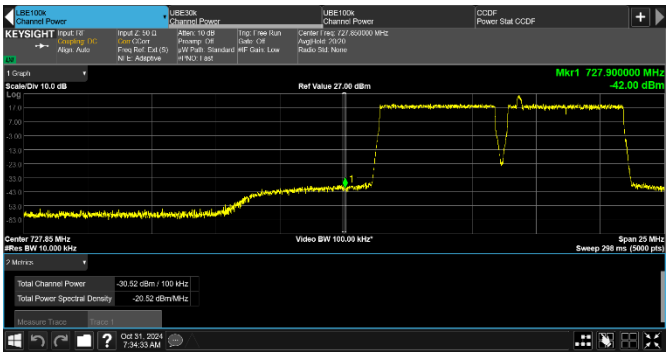


Figure 8.2-168: *Conducted emission 100 kHz away from the lower band edge*

Frequency:	*727.9 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*NR 5 MHz + LTE 5 MHz (with IB)*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Contiguous*

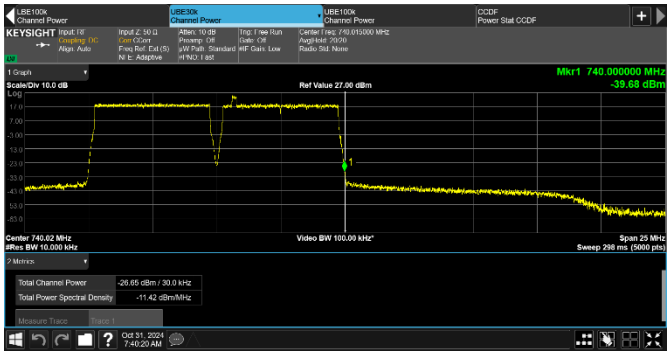


Figure 8.2-169: *Conducted emission at the upper frequency block edge of mid1 channels*

Frequency:	*740 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*NR 5 MHz + LTE 5 MHz (with IB)*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Contiguous*

Figure 8.2-170: *Conducted emission 100 kHz away from the upper frequency block edge of mid1 channels*

Frequency:	*740.1 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*NR 5 MHz + LTE 5 MHz (with IB)*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Contiguous*

Test data, continued

On the plots below the measured *Channel Power* value in the "*Total Channel Power*" column must be −19 dBm and lower.

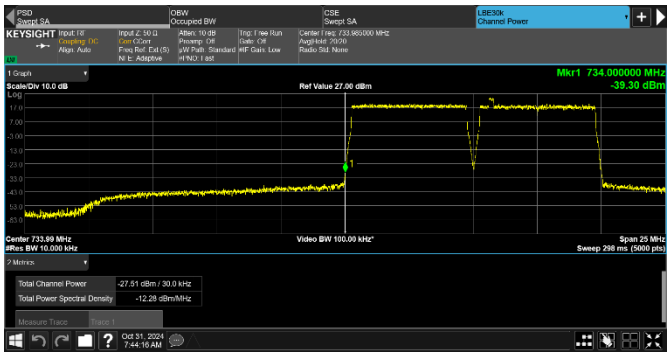


Figure 8.2-171: *Conducted emission at the lower frequency block edge of mid2 channels*

Frequency:	*734 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*NR 5 MHz + LTE 5 MHz (with IB)*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Contiguous*

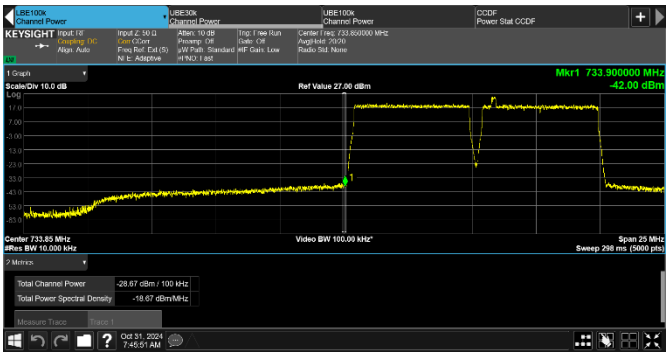


Figure 8.2-172: *Conducted emission 100 kHz away from the lower frequency block edge of mid2 channels*

Frequency:	*733.9 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*NR 5 MHz + LTE 5 MHz (with IB)*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Contiguous*

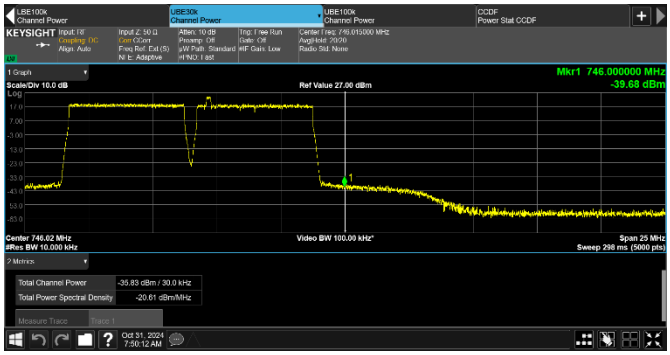


Figure 8.2-173: *Conducted emission at the upper band edge*

Frequency:	*746 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*NR 5 MHz + LTE 5 MHz (with IB)*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Contiguous*

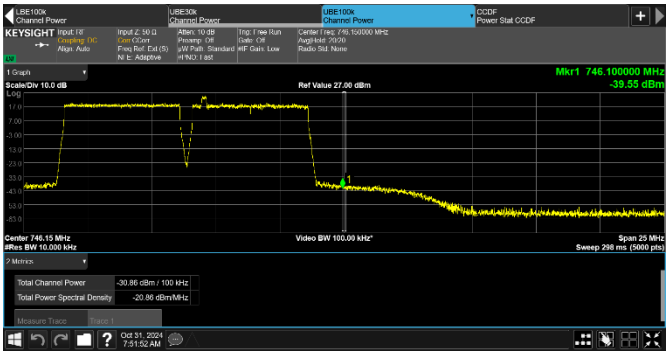


Figure 8.2-174: *Conducted emission 100 kHz away from the band edge*

Frequency:	*746.1 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*NR 5 MHz + LTE 5 MHz (with IB)*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Contiguous*

Test data, continued

On the plots below the measured *Channel Power* value in the "*Total Channel Power*" column must be −19 dBm and lower.

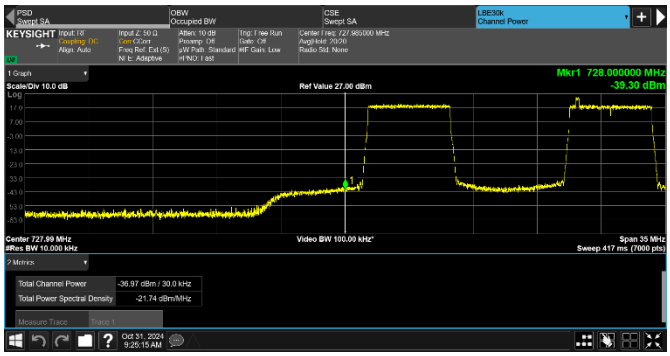


Figure 8.2-175: *Conducted emission at the lower band edge*

Frequency:	*728 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*NR 5 MHz + LTE 5 MHz (with IB)*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Non-contiguous*

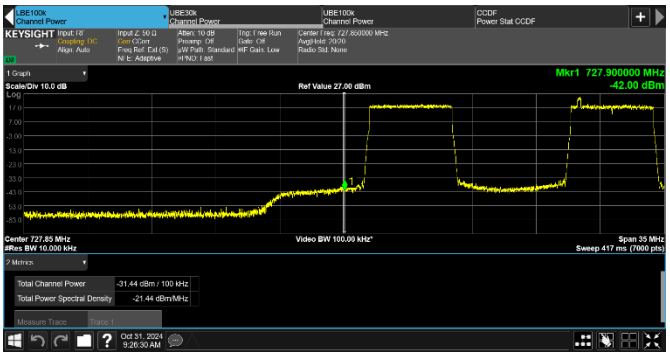


Figure 8.2-176: *Conducted emission 100 kHz away from the lower band edge*

Frequency:	*727.9 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*NR 5 MHz + LTE 5 MHz (with IB)*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Non-contiguous*

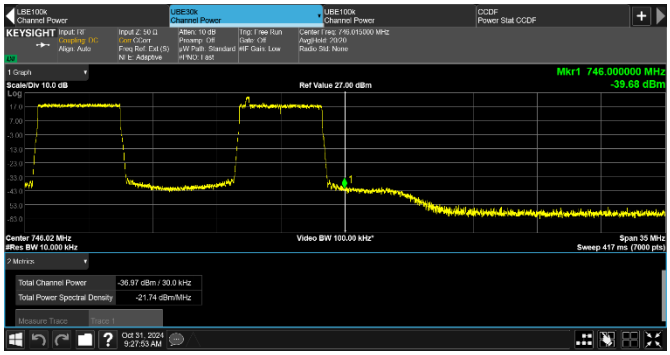


Figure 8.2-177: *Conducted emission at the upper band edge*

Frequency:	*746 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*NR 5 MHz + LTE 5 MHz (with IB)*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Non-contiguous*

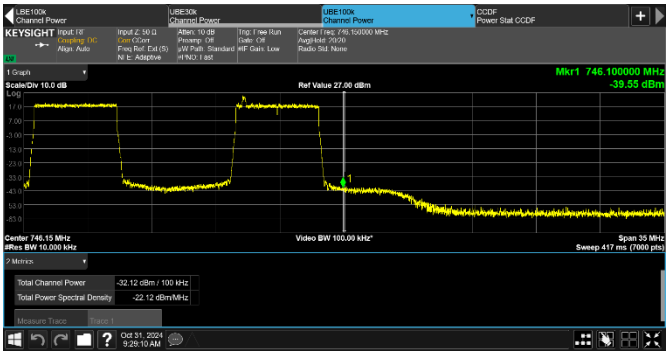


Figure 8.2-178: *Conducted emission 100 kHz away from the upper band edge*

Frequency:	*746.1 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*NR 5 MHz + LTE 5 MHz (with IB)*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Non-contiguous*

Test data, continued

On the plots below the measured *Channel Power* value in the "*Total Channel Power*" column must be −19 dBm and lower.

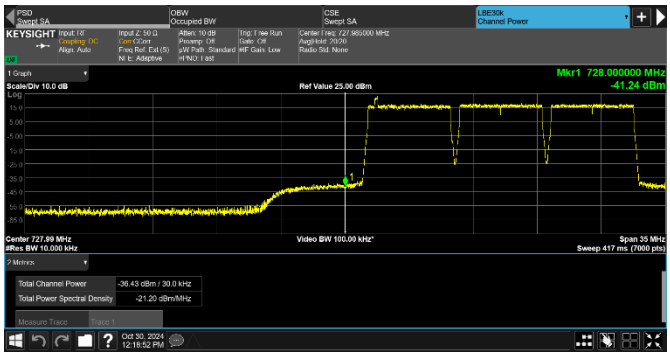


Figure 8.2-179: *Conducted emission at the lower band edge*

Frequency:	*728 MHz*	*Mode:*	*3-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*2×LTE 5 MHz + LTE 5 MHz (with IB)*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Contiguous*

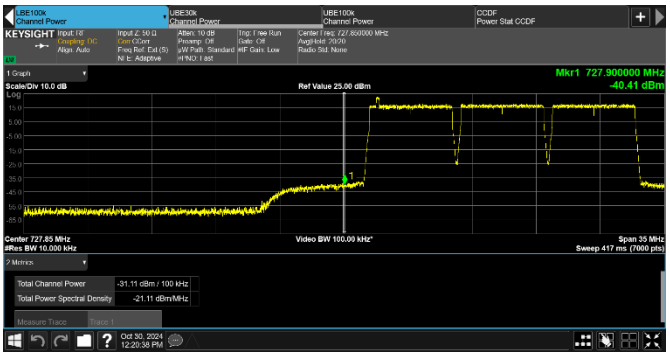


Figure 8.2-180: *Conducted emission 100 kHz away from the lower band edge*

Frequency:	*727.9 MHz*	*Mode:*	*3-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*2×LTE 5 MHz + LTE 5 MHz (with IB)*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Contiguous*

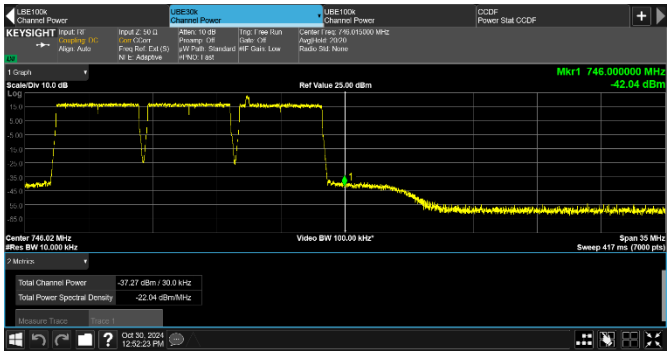


Figure 8.2-181: *Conducted emission at the upper band edge*

Frequency:	*746 MHz*	*Mode:*	*3-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*2×LTE 5 MHz + LTE 5 MHz (with IB)*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Contiguous*

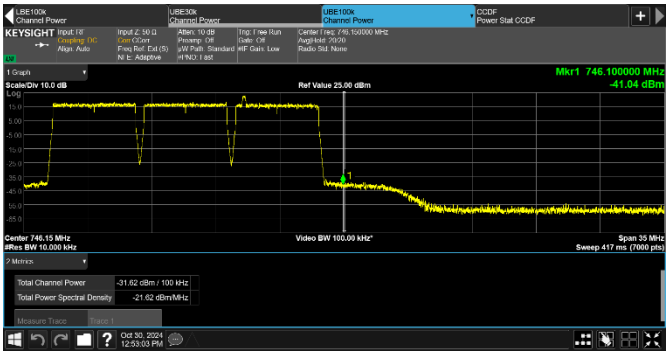


Figure 8.2-182: *Conducted emission 100 kHz away from the upper band edge*

Frequency:	*746.1 MHz*	*Mode:*	*3-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*2×LTE 5 MHz + LTE 5 MHz (with IB)*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Contiguous*

Test data, continued

On the plots below the measured *Channel Power* value in the "*Total Channel Power*" column must be −19 dBm and lower.

Figure 8.2-183: *Conducted emission at the lower band edge*

Frequency:	*728 MHz*	*Mode:*	*3-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*3×NR 5 MHz*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Contiguous*

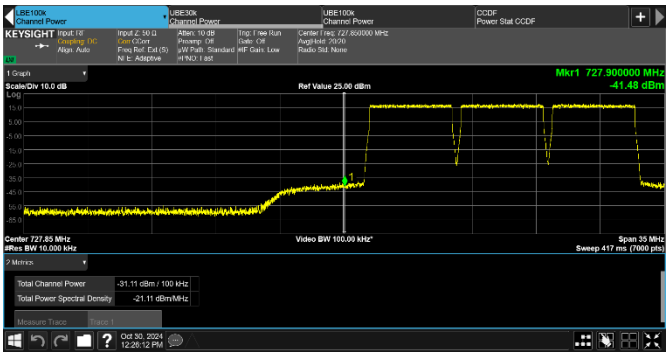


Figure 8.2-184: *Conducted emission 100 kHz away from the lower band edge*

Frequency:	*727.9 MHz*	*Mode:*	*3-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*3×NR 5 MHz*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Contiguous*

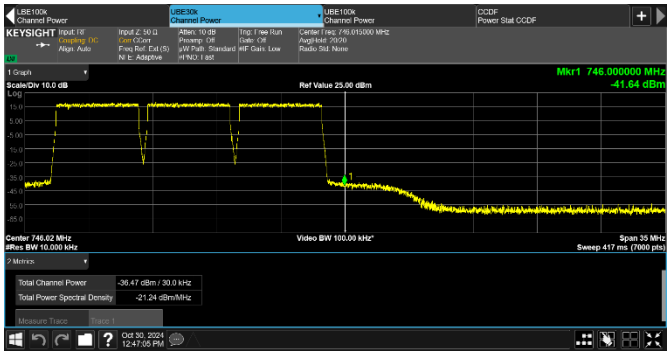


Figure 8.2-185: *Conducted emission at the upper band edge*

Frequency:	*746 MHz*	*Mode:*	*3-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*3×NR 5 MHz*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Contiguous*

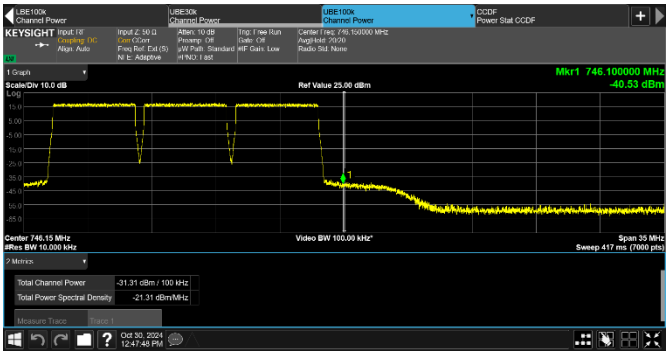


Figure 8.2-186: *Conducted emission 100 kHz away from the upper band edge*

Frequency:	*746.1 MHz*	*Mode:*	*3-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*3×NR 5 MHz*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Contiguous*

Test data, continued

On the plots below the measured *Channel Power* value in the "*Total Channel Power*" column must be −16 dBm and lower.

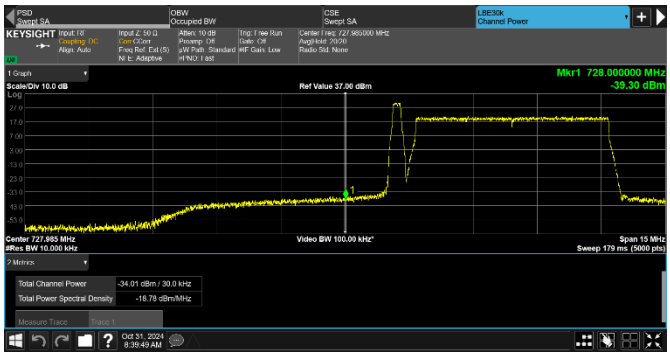


Figure 8.2-187: *Conducted emission at the lower band edge*

Frequency:	*728 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*IoT SA + LTE 5 MHz*
Limit:	*−16 dBm/30 kHz*	*Notes:*	*Contiguous*

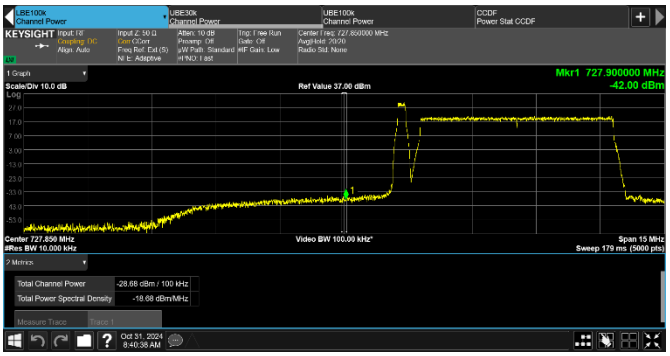


Figure 8.2-188: *Conducted emission 100 kHz away from the lower band edge*

Frequency:	*727.9 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*IoT SA + LTE 5 MHz*
Limit:	*−16 dBm/100 kHz*	*Notes:*	*Contiguous*

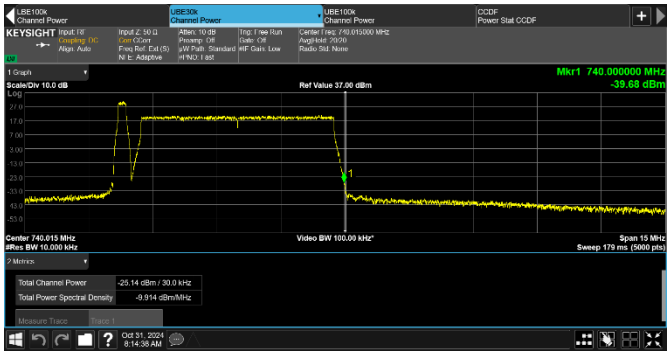


Figure 8.2-189: *Conducted emission at the upper frequency block edge of mid2 channels*

Frequency:	*740 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*IoT SA + LTE 5 MHz*
Limit:	*−16 dBm/30 kHz*	*Notes:*	*Contiguous*

Figure 8.2-190: *Conducted emission 100 kHz away from the upper frequency block edge of mid2 channels*

Frequency:	*740.1 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*IoT SA + LTE 5 MHz*
Limit:	*−16 dBm/100 kHz*	*Notes:*	*Contiguous*

Test data, continued

On the plots below the measured *Channel Power* value in the "*Total Channel Power*" column must be −16 dBm and lower.

Figure 8.2-191: *Conducted emission at the lower frequency block edge of mid1 channels*

Frequency:	*734 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*IoT SA + LTE 5 MHz*
Limit:	*−16 dBm/30 kHz*	*Notes:*	*Contiguous*

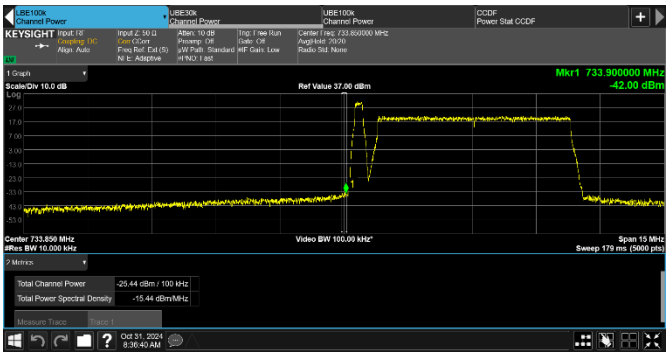


Figure 8.2-192: *Conducted emission 100 kHz away from the lower frequency block edge of mid1 channels*

Frequency:	*733.9 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*IoT SA + LTE 5 MHz*
Limit:	*−16 dBm/100 kHz*	*Notes:*	*Contiguous*

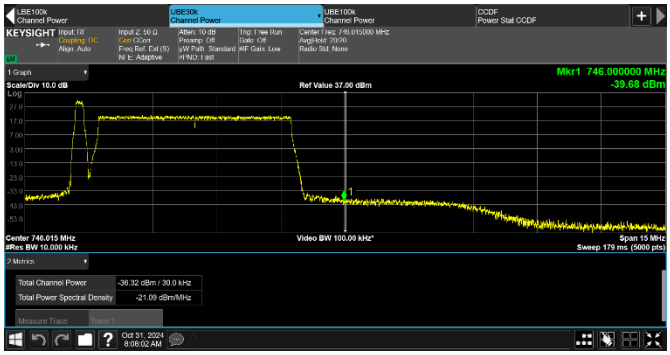


Figure 8.2-193: *Conducted emission at the upper band edge*

Frequency:	*746 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*IoT SA + LTE 5 MHz*
Limit:	*−16 dBm/30 kHz*	*Notes:*	*Contiguous*

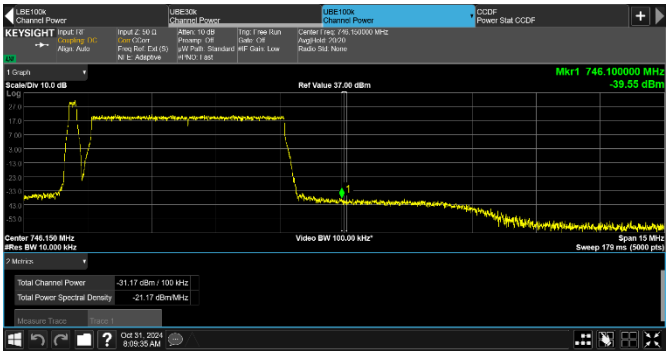


Figure 8.2-194: *Conducted emission 100 kHz away from the band edge*

Frequency:	*746.1 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*IoT SA + LTE 5 MHz*
Limit:	*−16 dBm/100 kHz*	*Notes:*	*Contiguous*

Test data, continued

On the plots below the measured *Channel Power* value in the "*Total Channel Power*" column must be −16 dBm and lower.

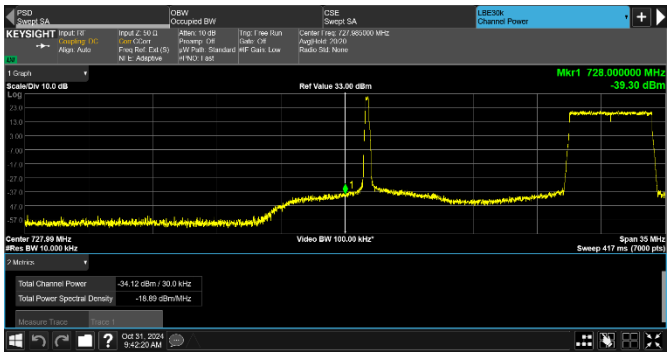


Figure 8.2-195: *Conducted emission at the lower band edge*

Frequency:	*728 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*IoT SA + LTE 5 MHz*
Limit:	*−16 dBm/30 kHz*	*Notes:*	*Non-contiguous*

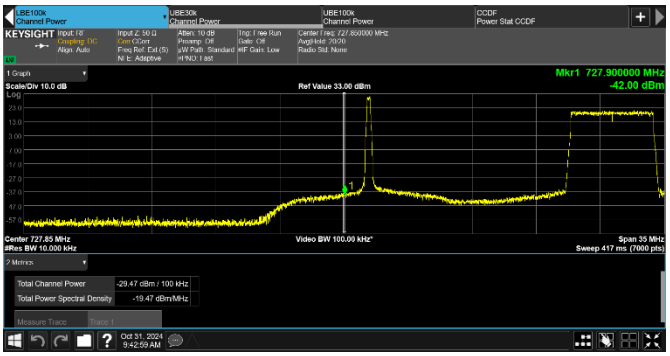


Figure 8.2-196: *Conducted emission 100 kHz away from the lower band edge*

Frequency:	*727.9 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*IoT SA + LTE 5 MHz*
Limit:	*−16 dBm/100 kHz*	*Notes:*	*Non-contiguous*

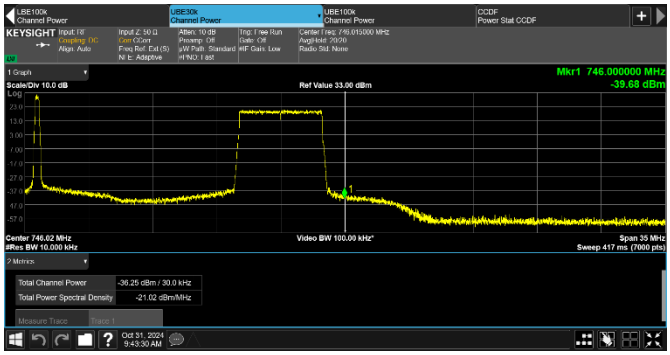


Figure 8.2-197: *Conducted emission at the upper band edge*

Frequency:	*746 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*IoT SA + LTE 5 MHz*
Limit:	*−16 dBm/30 kHz*	*Notes:*	*Non-contiguous*

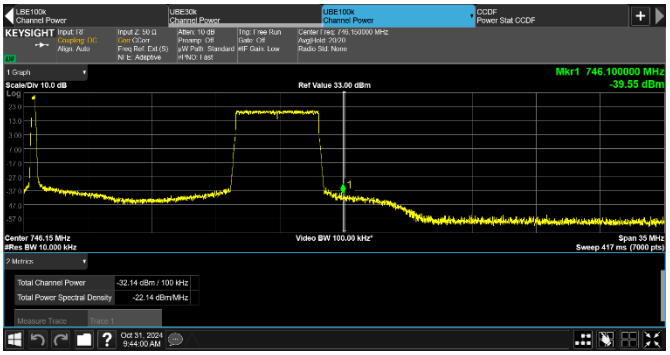


Figure 8.2-198: *Conducted emission 100 kHz away from the upper band edge*

Frequency:	*746.1 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*IoT SA + LTE 5 MHz*
Limit:	*−16 dBm/100 kHz*	*Notes:*	*Non-contiguous*

Test data, continued

On the plots below the measured *Channel Power* value in the "*Total Channel Power*" column must be −16 dBm and lower.

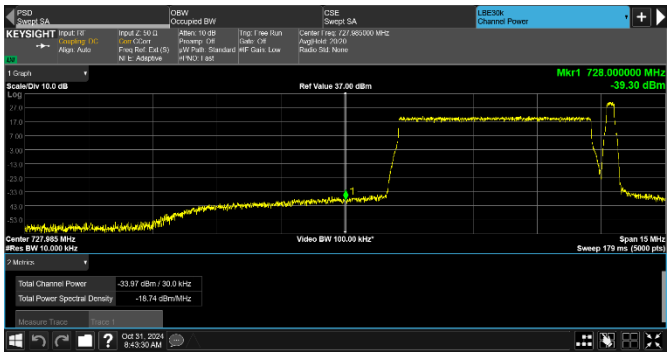


Figure 8.2-199: *Conducted emission at the lower band edge*

Frequency:	*728 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*IoT SA + NR 5 MHz*
Limit:	*−16 dBm/30 kHz*	*Notes:*	*Contiguous*

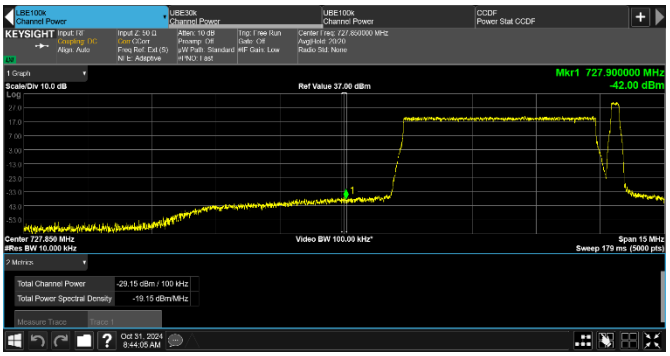


Figure 8.2-200: *Conducted emission 100 kHz away from the lower band edge*

Frequency:	*727.9 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*IoT SA + NR 5 MHz*
Limit:	*−16 dBm/100 kHz*	*Notes:*	*Contiguous*

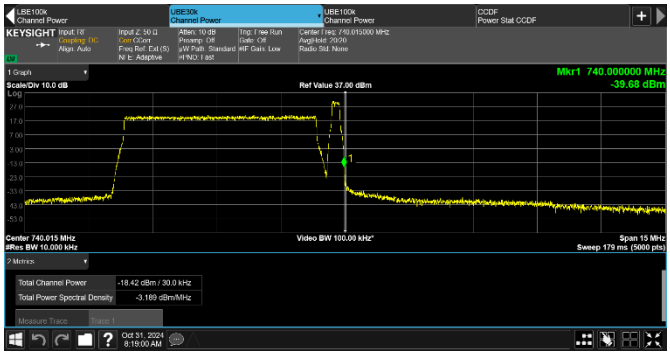


Figure 8.2-201: *Conducted emission at the upper frequency block edge of mid2 channels*

Frequency:	*740 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*IoT SA + NR 5 MHz*
Limit:	*−16 dBm/30 kHz*	*Notes:*	*Contiguous*

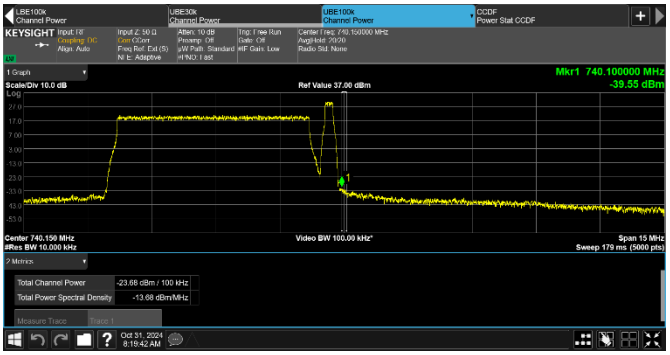


Figure 8.2-202: *Conducted emission 100 kHz away from the upper frequency block edge of mid2 channels*

Frequency:	*740.1 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*IoT SA + NR 5 MHz*
Limit:	*−16 dBm/100 kHz*	*Notes:*	*Contiguous*

Test data, continued

On the plots below the measured *Channel Power* value in the "*Total Channel Power*" column must be −16 dBm and lower.

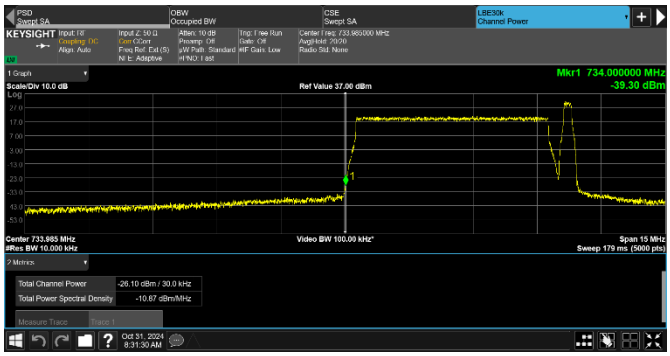


Figure 8.2-203: *Conducted emission at the lower frequency block edge of mid1 channels*

Frequency:	*734 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*IoT SA + NR 5 MHz*
Limit:	*−16 dBm/30 kHz*	*Notes:*	*Contiguous*

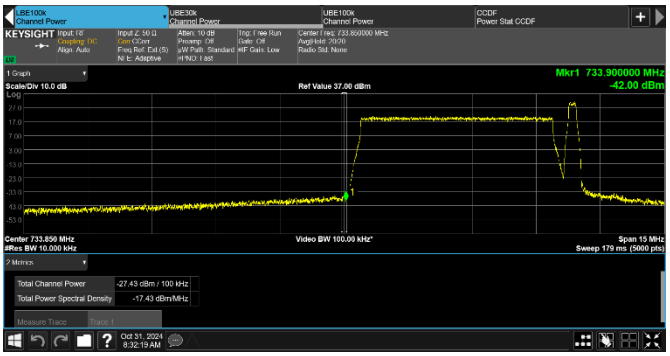


Figure 8.2-204: *Conducted emission 100 kHz away from the lower frequency block edge of mid1 channels*

Frequency:	*733.9 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*IoT SA + NR 5 MHz*
Limit:	*−16 dBm/100 kHz*	*Notes:*	*Contiguous*

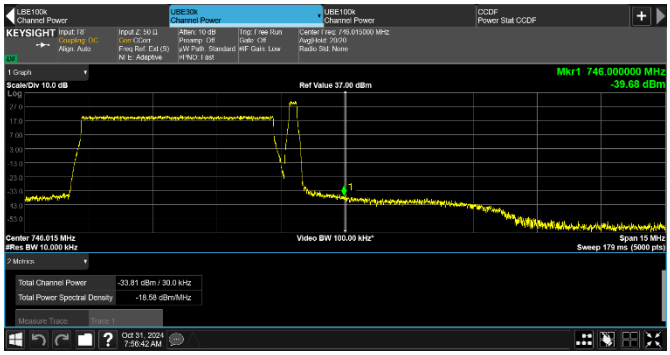


Figure 8.2-205: *Conducted emission at the upper band edge*

Frequency:	*746 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*IoT SA + NR 5 MHz*
Limit:	*−16 dBm/30 kHz*	*Notes:*	*Contiguous*

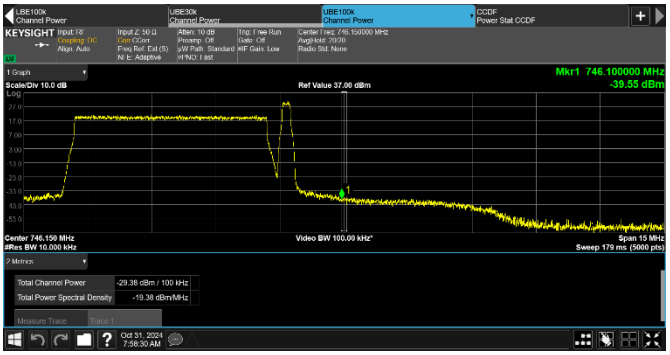


Figure 8.2-206: *Conducted emission 100 kHz away from the band edge*

Frequency:	*746.1 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*IoT SA + NR 5 MHz*
Limit:	*−16 dBm/100 kHz*	*Notes:*	*Contiguous*

Test data, continued

On the plots below the measured *Channel Power* value in the "*Total Channel Power*" column must be −16 dBm and lower.

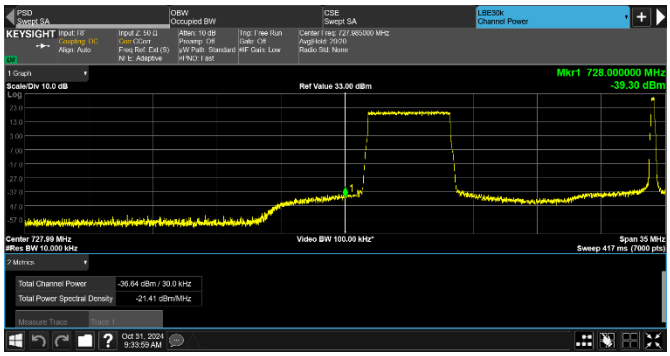


Figure 8.2-207: *Conducted emission at the lower band edge*

Frequency:	*728 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*IoT SA + NR 5 MHz*
Limit:	*−16 dBm/30 kHz*	*Notes:*	*Non-contiguous*

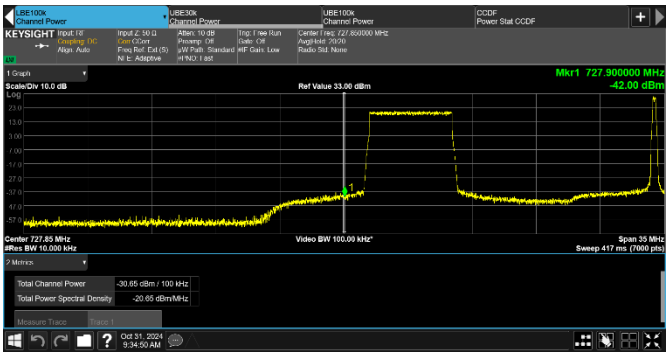


Figure 8.2-208: *Conducted emission 100 kHz away from the lower band edge*

Frequency:	*727.9 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*IoT SA + NR 5 MHz*
Limit:	*−16 dBm/100 kHz*	*Notes:*	*Non-contiguous*

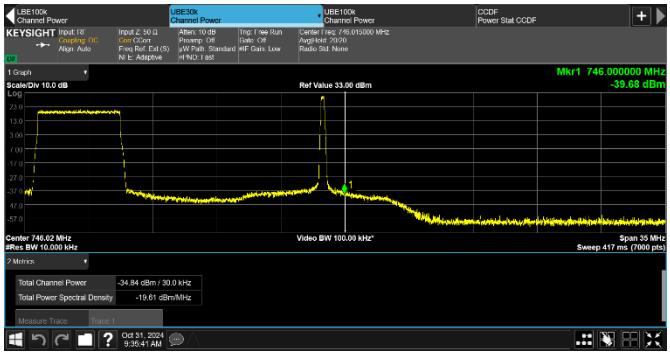


Figure 8.2-209: *Conducted emission at the upper band edge*

Frequency:	*746 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*IoT SA + NR 5 MHz*
Limit:	*−16 dBm/30 kHz*	*Notes:*	*Non-contiguous*

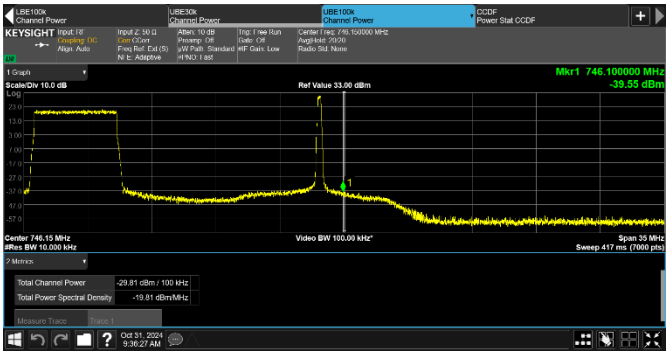


Figure 8.2-210: *Conducted emission 100 kHz away from the upper band edge*

Frequency:	*746.1 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*IoT SA + NR 5 MHz*
Limit:	*−16 dBm/100 kHz*	*Notes:*	*Non-contiguous*

Test data, continued

On the plots below the measured *Channel Power* value in the "*Total Channel Power*" column must be −16 dBm and lower.

Figure 8.2-211: *Conducted emission at the lower band edge*

Frequency:	*728 MHz*	*Mode:*	*3-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*NR 5 MH + IoT SA + LTE 5 MHz*
Limit:	*−16 dBm/30 kHz*	*Notes:*	*Non-contiguous*

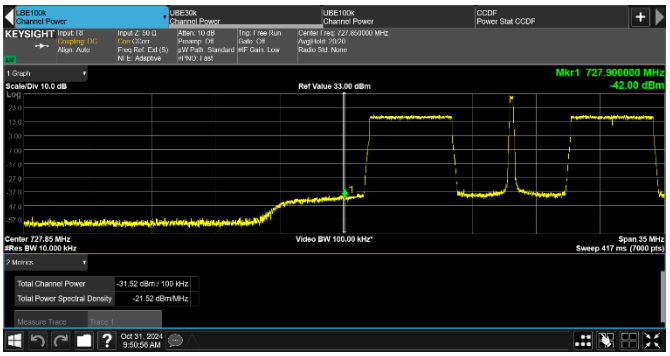


Figure 8.2-212: *Conducted emission 100 kHz away from the lower band edge*

Frequency:	*727.9 MHz*	*Mode:*	*3-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*NR 5 MH + IoT SA + LTE 5 MHz*
Limit:	*−16 dBm/100 kHz*	*Notes:*	*Non-contiguous*

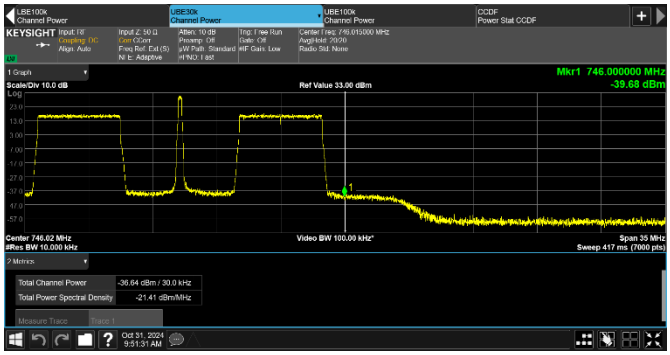


Figure 8.2-213: *Conducted emission at the upper band edge*

Frequency:	*746 MHz*	*Mode:*	*3-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*NR 5 MH + IoT SA + LTE 5 MHz*
Limit:	*−16 dBm/30 kHz*	*Notes:*	*Non-contiguous*

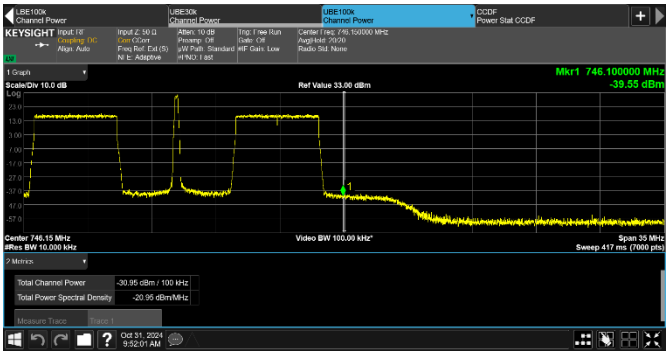


Figure 8.2-214: *Conducted emission 100 kHz away from the upper band edge*

Frequency:	*746.1 MHz*	*Mode:*	*3-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*NR 5 MH + IoT SA + LTE 5 MHz*
Limit:	*−16 dBm/100 kHz*	*Notes:*	*Non-contiguous*

8.3 Radiated spurious emissions

8.3.1 Definitions and limits

FCC §27.53: Emission limits

(g) For operations in the 600 MHz band and the 698-746 MHz band, the power of any emission outside a licensee's frequency band(s) of operation shall be attenuated below the transmitter power (P) within the licensed band(s) of operation, measured in watts, by at least 43 + 10 log (P) dB. Compliance with this provision is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kilohertz or greater. However, in the 100 kilohertz bands immediately outside and adjacent to a licensee's frequency block, a resolution bandwidth of at least 30 kHz may be employed.

RSS-130, Section 4.7.1: Transmitter Unwanted Emissions

The unwanted emissions in any 100 kHz bandwidth on any frequency outside the low frequency edge and the high frequency edge of each frequency block range(s), shall be attenuated below the transmitter power, P (dBW), by at least 43 + 10 $\log_{10}$ p (watts), dB. However, in the 100 kHz band immediately outside of the equipment's frequency block range, a resolution bandwidth of 30 kHz may be employed.

8.3.2 Test summary

Test date	November 7, 2024
Test engineer	David Duchesne

8.3.3 Observations, settings and special notes

The spectrum was analyzed at a distance of 3 meters, ranging from 30 MHz to at least the 10th harmonic, in accordance with ANSI C63.26 Paragraph 5.5.3.2. The resolution bandwidth (RBW) was set to 100 kHz for frequencies between 30–1000 MHz and 1 MHz for frequencies above 1 GHz, with the video bandwidth (VBW) set wider than the RBW.

Testing was conducted with RF ports terminated with a 50 Ohm load. The limit line of -13 dBm/100 kHz was recalculated for field strength measurement at a distance of 3 meters, resulting in a value of 82.23 dBµV/m.

Transmission testing was performed on the channels that yielded the maximum power results in previous sections. No emissions, other than those displayed in the plots, were detected during the spectrum scans.

8.3.4 Test data

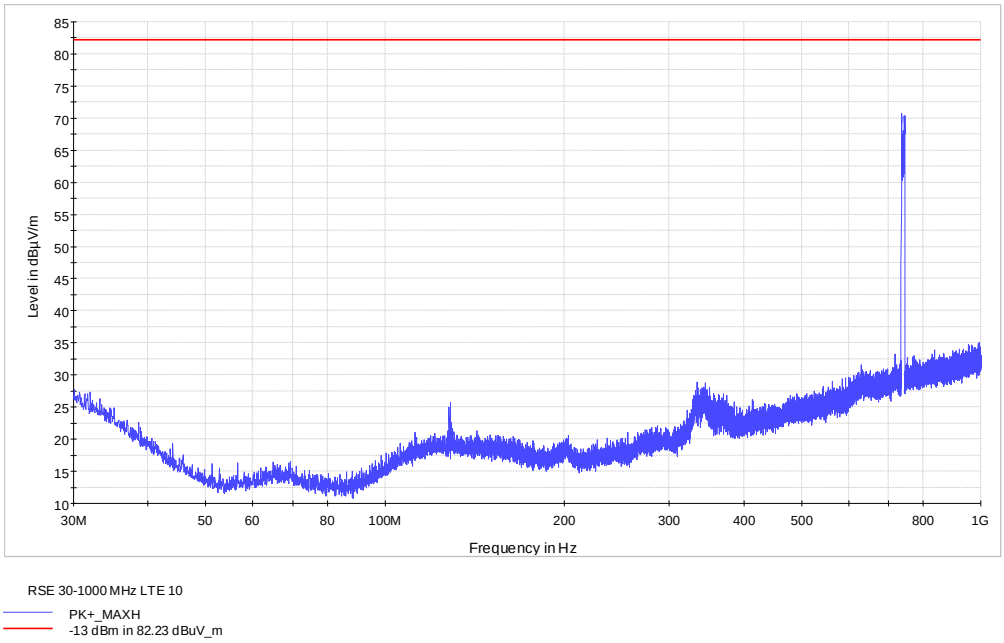


Figure 8.3-1: *Radiated spurious emissions within 30–1000 MHz, LTE 10 MHz*

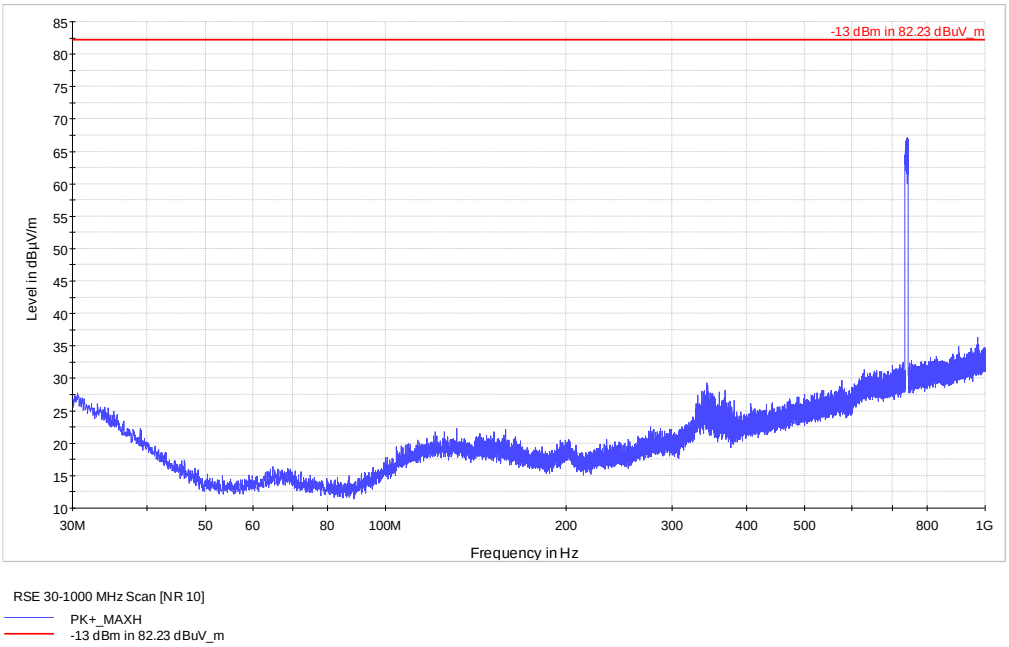


Figure 8.3-2: *Radiated spurious emissions within 30–1000 MHz, NR 10 MHz*

Test data, continued

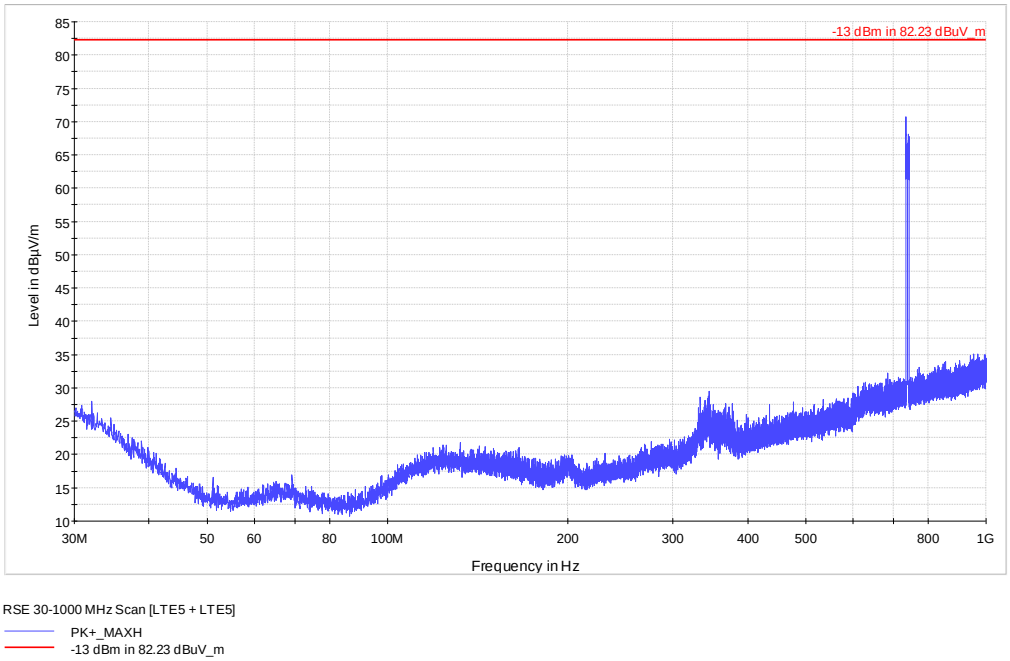


Figure 8.3-3: *Radiated spurious emissions within 30–1000 MHz, LTE 5 MHz 2-carrier*

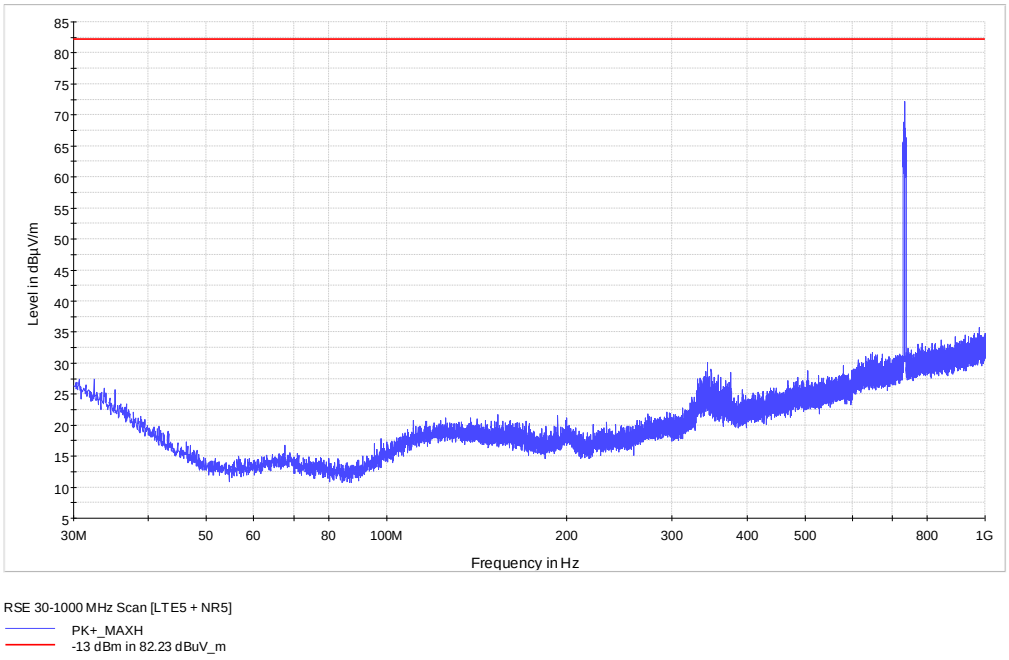


Figure 8.3-4: *Radiated spurious emissions within 30–1000 MHz, LTE 5 MHz and NR 5 MHz 2-carrier*

Test data, continued

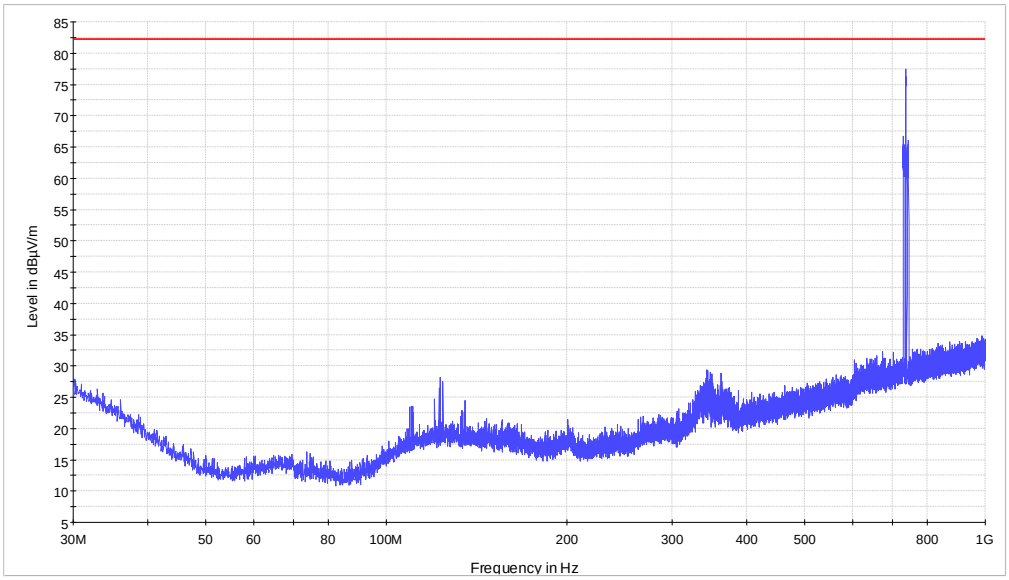


Figure 8.3-5: *Radiated spurious emissions within 30–1000 MHz, LTE 5 MHz, NR 5MHz, IoT SA 3-carrier non contiguous*

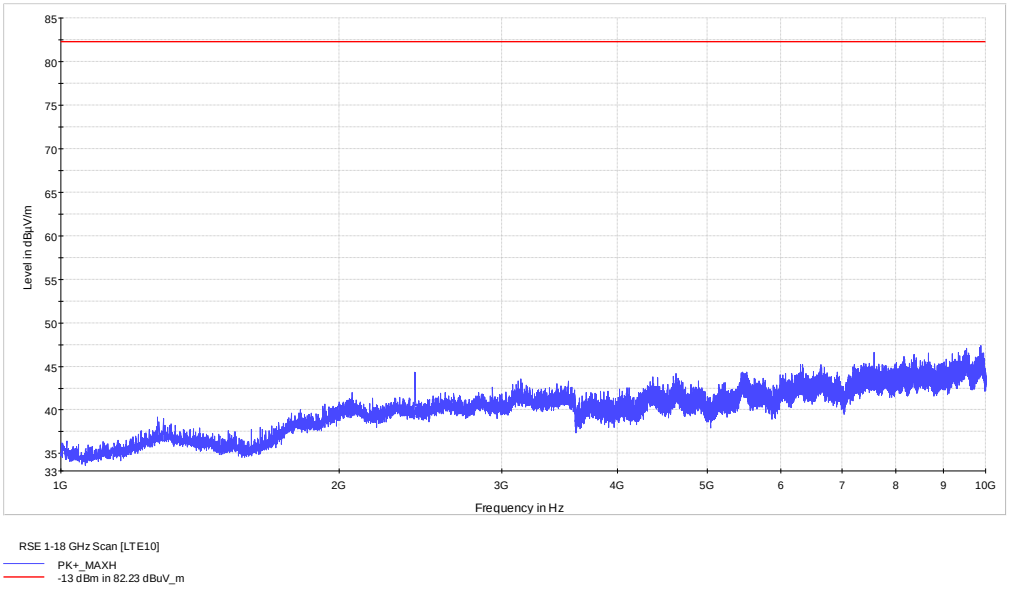


Figure 8.3-6: *Radiated spurious emissions within 1–10 GHz, LTE 10 MHz single carrier*

Test data, continued

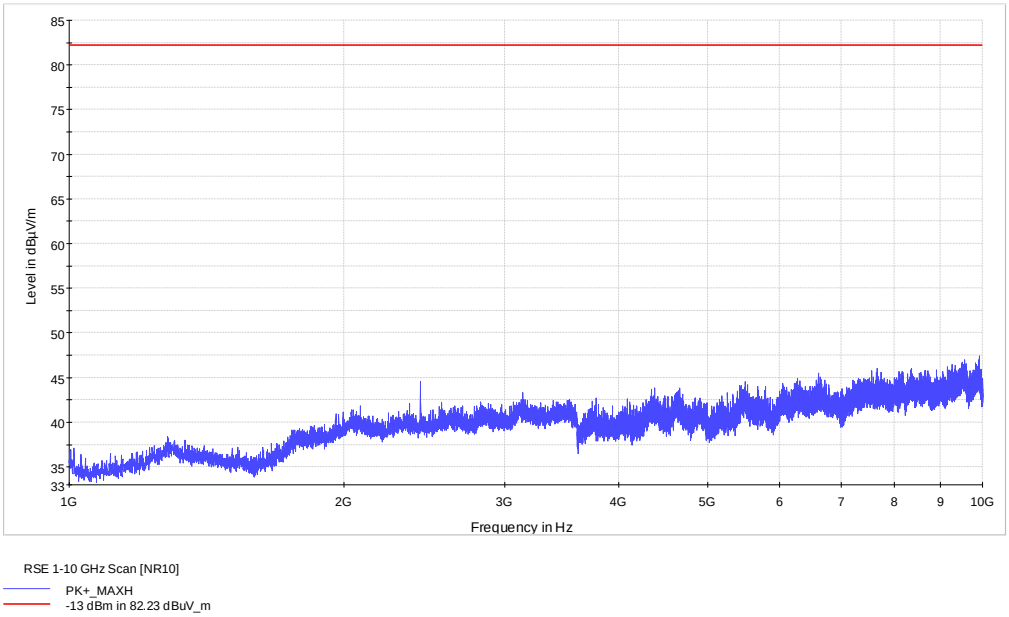


Figure 8.3-7: *Radiated spurious emissions within 1–10 GHz, NR 10 MHz single carrier*

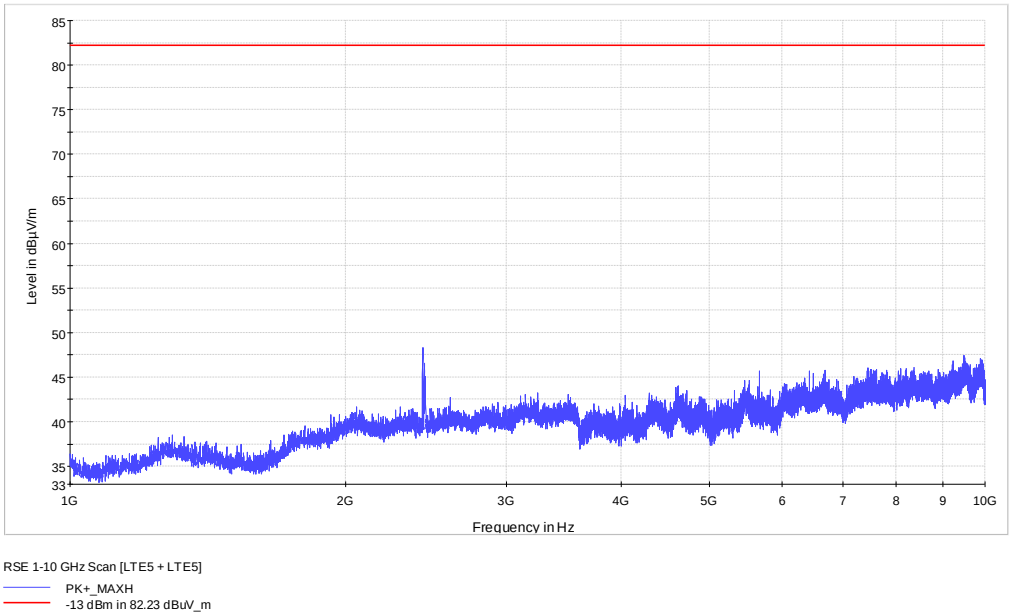


Figure 8.3-8: *Radiated spurious emissions within 1–10 GHz, LTE 5 MHz 2-carrier*

Test data, continued

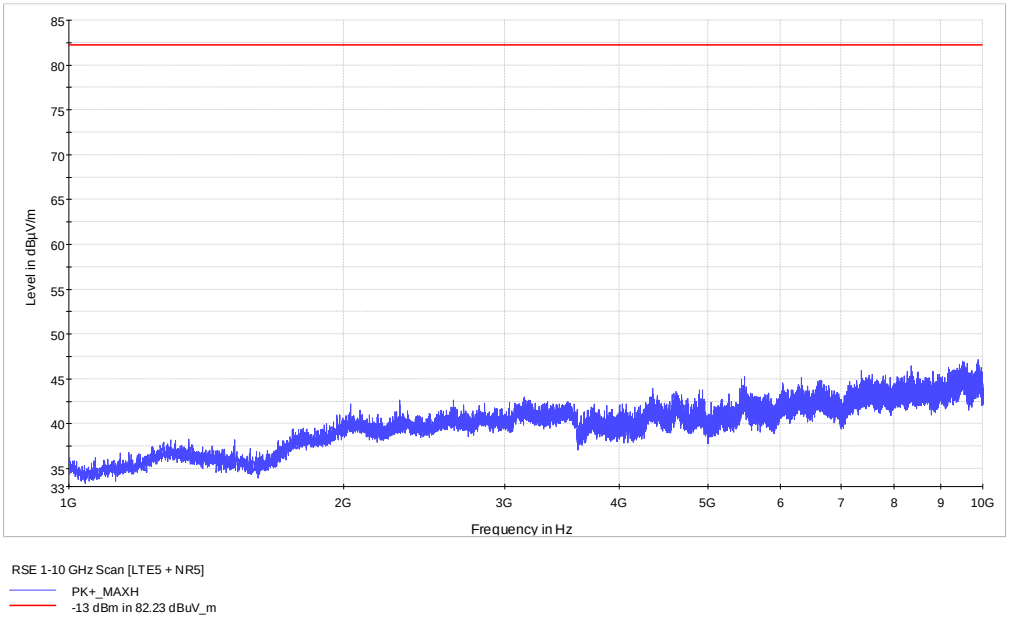


Figure 8.3-9: *Radiated spurious emissions within 1–10 GHz, LTE 5 MHz and NR 5 MHz 2-carrier*

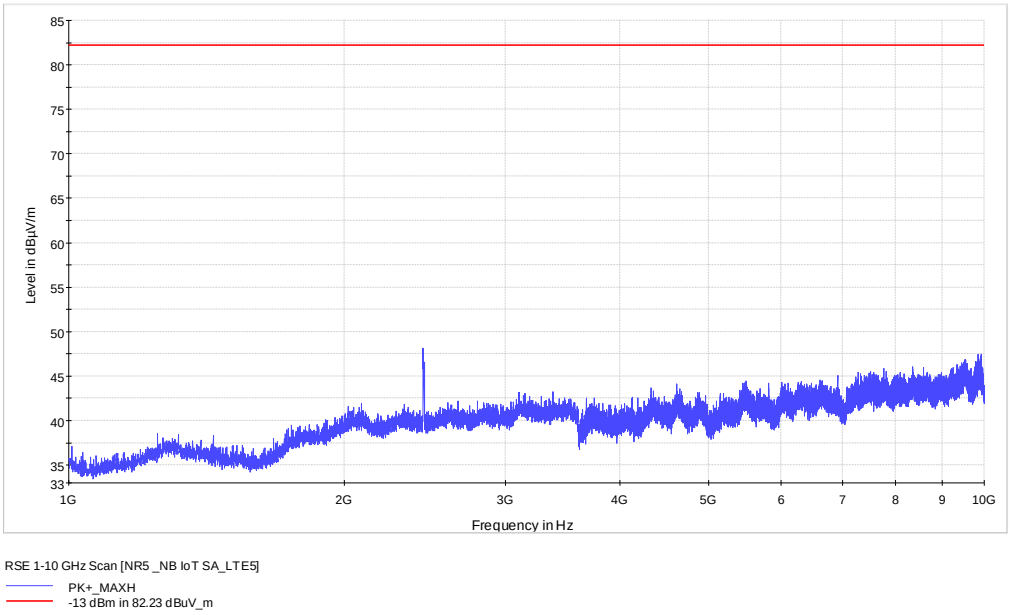


Figure 8.3-10: *Radiated spurious emissions within 1–10 GHz, LTE 5 MHz, NR 5MHz, IoT SA 3-carrier non contiguous*

8.4 Frequency stability

8.4.1 Definitions and limits

FCC 27.54:
The frequency stability shall be sufficient to ensure that the fundamental emissions stay within the authorized bands of operation.

RSS-130, Section 4.5:
For equipment that is capable of transmitting numerous channels simultaneously for different applications (e.g. LTE and narrowband – Internet of Things (IoT)), the occupied bandwidth shall be the bandwidth representing the sum of the occupied bandwidths of these channels.

The frequency stability shall be sufficient to ensure that the occupied bandwidth remains within each frequency block range when tested at the temperature and supply voltage variations specified in RSS-Gen.

8.4.2 Test summary

Test date	October 29, 2024
Test engineer	Andrey Adelberg

8.4.3 Observations, settings and special notes

Testing was performed per ANSI C63.26 Paragraphs 5.6.3, 5.6.4 and 5.6.5 methods.
26 dBc points including frequency tolerance were assessed to remain within assigned band.

8.4.4 Test data

Table 8.4-1: *Frequency error results*

Temperature, °C	Voltage, V_{DC}	Frequency error, Hz
-40	48.00	2.59
-30	48.00	1.79
-20	48.00	-1.85
-10	48.00	1.74
0	48.00	2.08
10	48.00	-1.74
20	48.00	-1.39
20	40.80	2.54
20	55.20	-2.45
30	48.00	1.61
40	48.00	-1.57
50	48.00	2.33
55	48.00	-1.84

Max negative drift: −2.45 Hz, Max positive drift: +2.59 Hz.

8.5 Occupied bandwidth

8.5.1 Definitions and limits

FCC §2.1049:
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.

RSS-Gen, 6.7
The occupied bandwidth or the "99% emission bandwidth" is defined as the frequency range between two points, one above and the other below the carrier frequency, within which 99% of the total transmitted power of the fundamental transmitted emission is contained. The occupied bandwidth shall be reported for all equipment in addition to the specified bandwidth required in the applicable RSSs.

8.5.2 Test summary

Test date	October 29, 2024
Test engineer	Andrey Adelberg

8.5.3 Observations, settings and special notes

Testing was performed per ANSI C63.26 Paragraphs 5.4.3 and 5.4.4 methods.

Spectrum analyzer settings:

Detector mode	Peak
Resolution bandwidth	≥1 % of EBW
Video bandwidth	RBW × 3
Trace mode	Max Hold

8.5.4 Test data

Table 8.5-1: *Occupied bandwidth results for NR*

Channel size	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
5 MHz	731.5	4.776	4.4596
5 MHz	736.5	4.782	4.4667
5 MHz	737.5	4.790	4.4603
5 MHz	742.5	4.809	4.4613
10 MHz	734.0	9.644	9.2629
10 MHz	735.0	9.662	9.2588
10 MHz	739.0	9.650	9.2595
10 MHz	740.0	9.643	9.2692
15 MHz	736.5	14.58	14.085
15 MHz	737.5	14.65	14.079

Table 8.5-2: *Occupied bandwidth results for LTE*

Channel size, notes	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
5 MHz	731.5	4.794	4.4842
5 MHz	736.5	4.759	4.4724
5 MHz	737.5	4.789	4.4768
5 MHz	742.5	4.784	4.4835
10 MHz	734.0	9.512	8.9305
10 MHz	735.0	9.514	8.9335
10 MHz	739.0	9.509	8.9263
10 MHz	740.0	9.499	8.9288
15 MHz	736.5	14.16	13.383
15 MHz	737.5	14.21	13.379
5 MHz, SC with IB	731.5	4.710	4.4707
5 MHz, SC with IB	736.5	4.702	4.4642
5 MHz, SC with IB	737.5	4.704	4.4784
5 MHz, SC with IB	742.5	4.702	4.4662
10 MHz, SC with GB	734.0	9.674	9.3584
10 MHz, SC with GB	735.0	9.691	9.3632
10 MHz, SC with GB	739.0	9.637	9.3590
10 MHz, SC with GB	740.0	9.637	9.3571

Table 8.5-3: *Occupied bandwidth for IoT SA*

Frequency, MHz	26 dB BW, kHz	99% OBW, kHz
729.2	311.2	213.51
733.8	313.0	214.32
734.2	315.7	216.02
739.8	311.7	215.94
740.2	314.6	216.10
744.8	318.5	216.32

Test data, continued

Figure 8.5-1: *Sample plot for LTE 5 MHz channel*

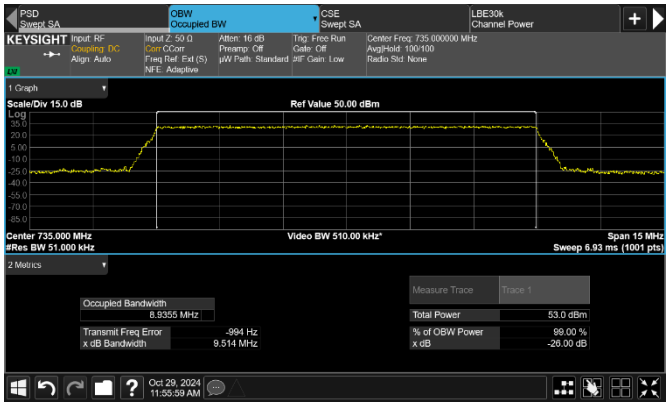


Figure 8.5-2: *Sample plot for LTE 10 MHz channel*

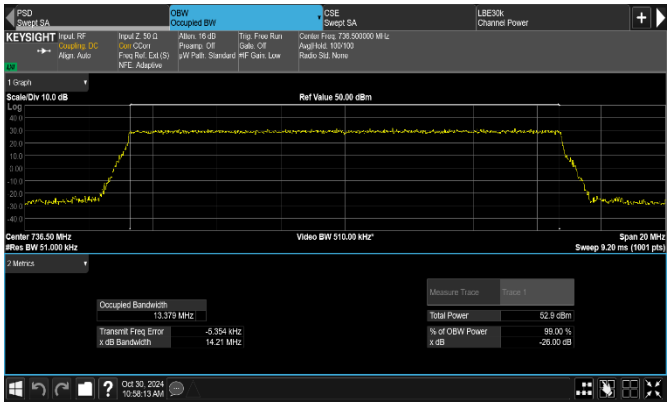


Figure 8.5-3: *Sample plot for LTE 15 MHz channel*

Figure 8.5-4: *Sample plot for LTE 5 MHz + IB channel*

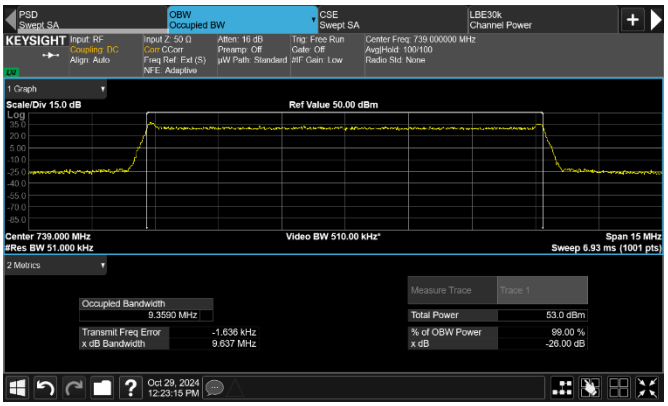


Figure 8.5-5: *Sample plot for LTE 10 MHz + GB channel*

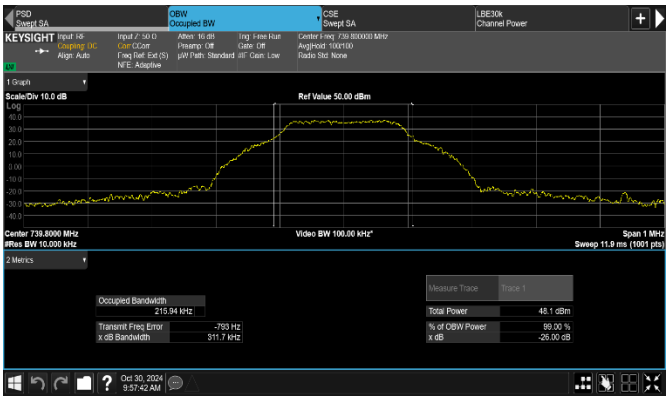


Figure 8.5-6: *Sample plot for IoT SA*

Test data, continued

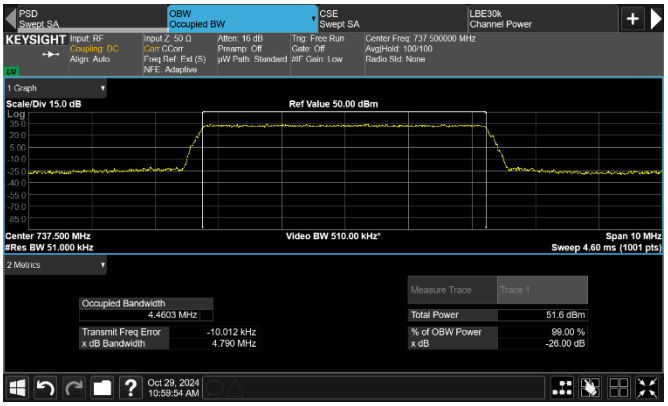


Figure 8.5-7: *Sample plot for NR 5 MHz channel*

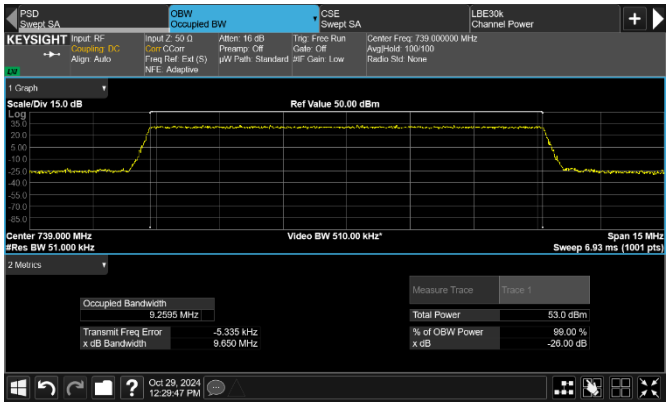
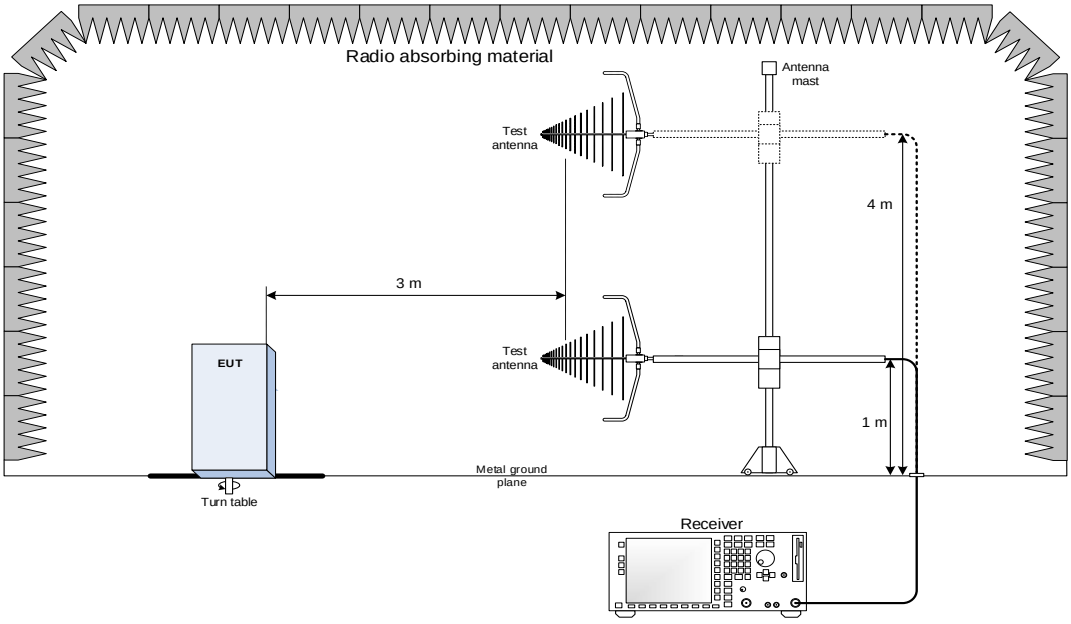


Figure 8.5-8: *Sample plot for NR 10 MHz channel*

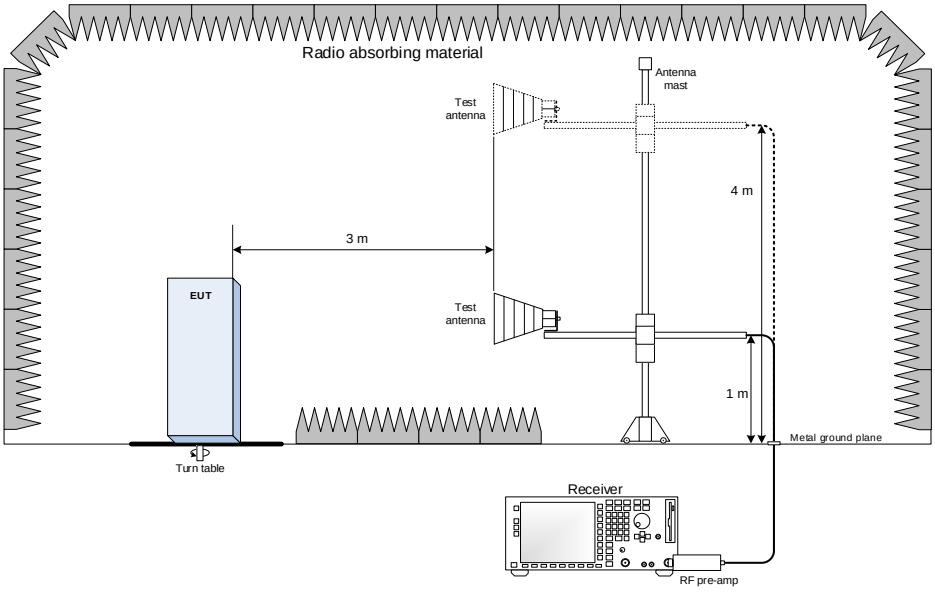
Figure 8.5-9: *Sample plot for NR 15 MHz channel*

Section 9. Block diagrams of test setups

9.1 Radiated emissions set-up for frequencies below 1 GHz



9.2 Radiated emissions set-up for frequencies above 1 GHz



9.3 Conducted emissions set-up