Test data, continued

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

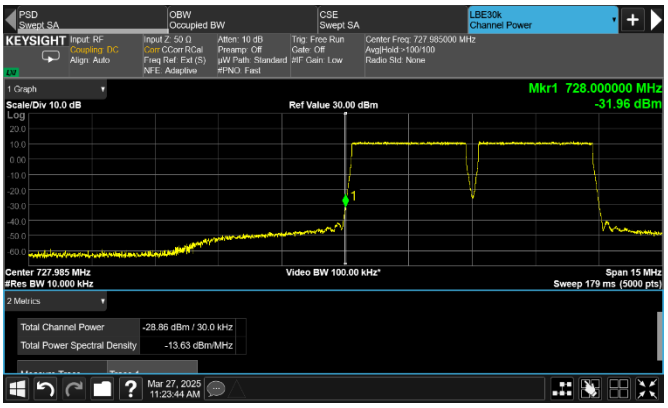


Figure 8.4-127: *Conducted emission at the lower band edge*

Frequency: *728 MHz* *Mode:* *2-carrier operation*
Meas. BW: *30 kHz* *Tech.:* *2×NR 3 MHz*
Limit: *−19 dBm/30 kHz* *Notes:* *Contiguous*

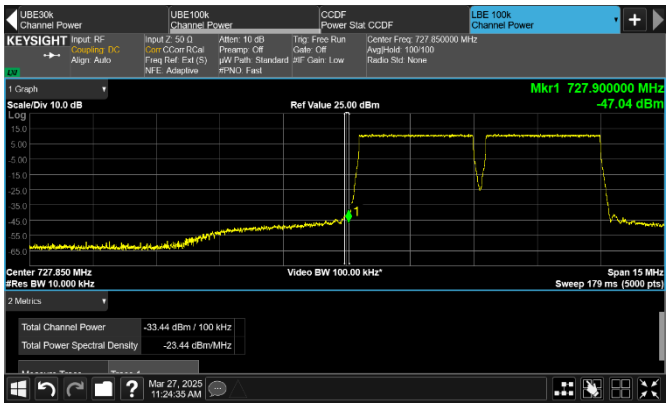


Figure 8.4-128: *Conducted emission 100 kHz away from the lower band edge*

Frequency: *727.9 MHz* *Mode:* *2-carrier operation*
Meas. BW: *100 kHz* *Tech.:* *2×NR 3 MHz*
Limit: *−19 dBm/100 kHz* *Notes:* *Contiguous*

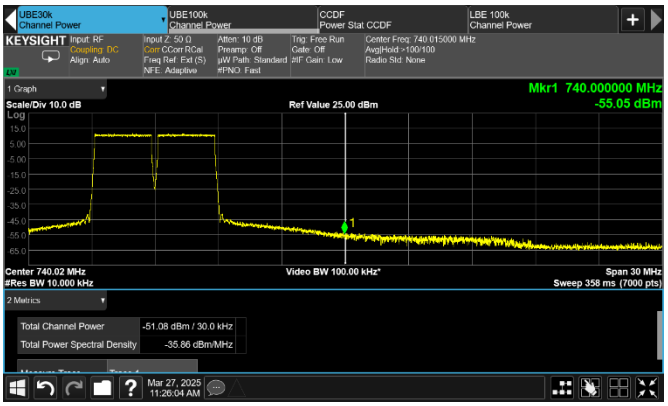


Figure 8.4-129: *Conducted emission at the upper frequency block edge of low channel*

Frequency: *740 MHz* *Mode:* *2-carrier operation*
Meas. BW: *30 kHz* *Tech.:* *2×NR 3 MHz*
Limit: *−19 dBm/30 kHz* *Notes:* *Contiguous*

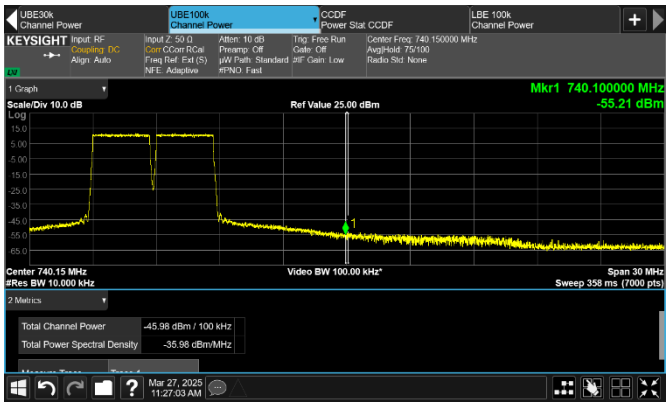


Figure 8.4-130: *Conducted emission 100 kHz away from the upper frequency block edge of low channel*

Frequency: *740.1 MHz* *Mode:* *2-carrier operation*
Meas. BW: *100 kHz* *Tech.:* *2×NR 3 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 −19 dBm and lower.

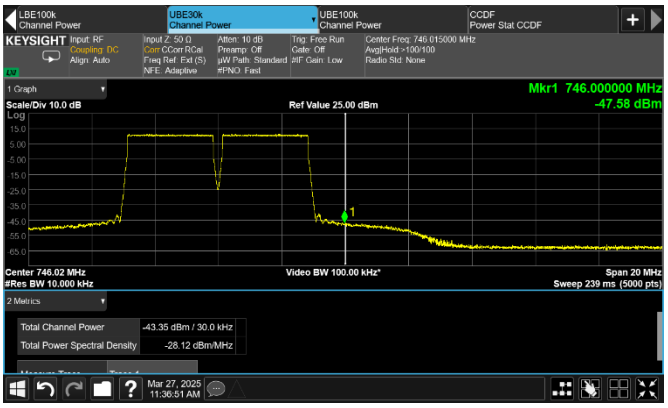


Figure 8.4-131: *Conducted emission at the upper band edge*

Frequency:	*746 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*2×NR 3 MHz*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Contiguous*

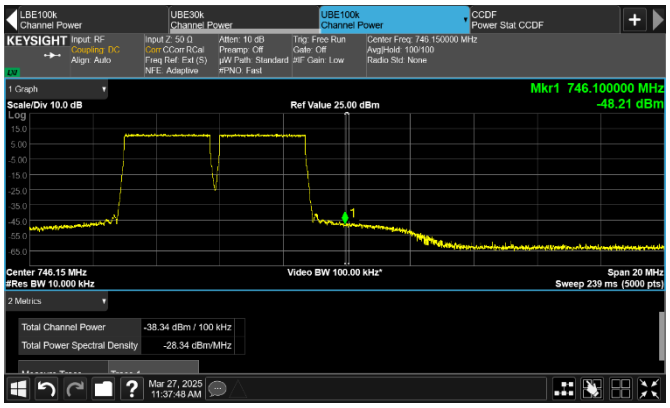


Figure 8.4-132: *Conducted emission 100 kHz away from the band edge*

Frequency:	*746.1 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*2×NR 3 MHz*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Contiguous*

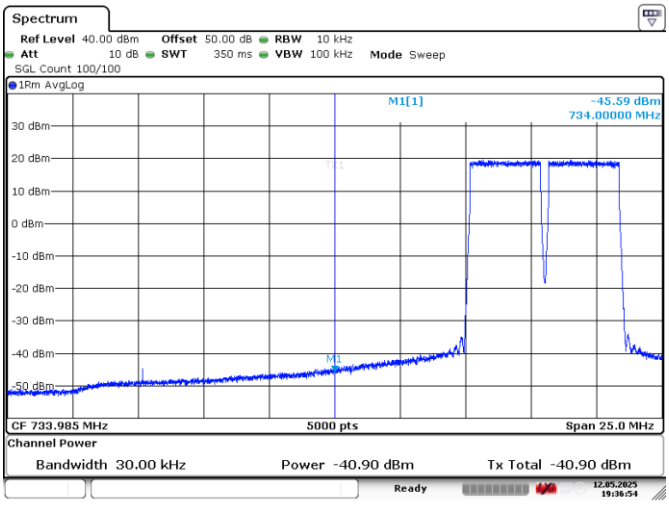


Figure 8.4-133: *Conducted emission at the lower frequency block edge of top channel*

Frequency:	*734 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*2×NR 3 MHz*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Contiguous*

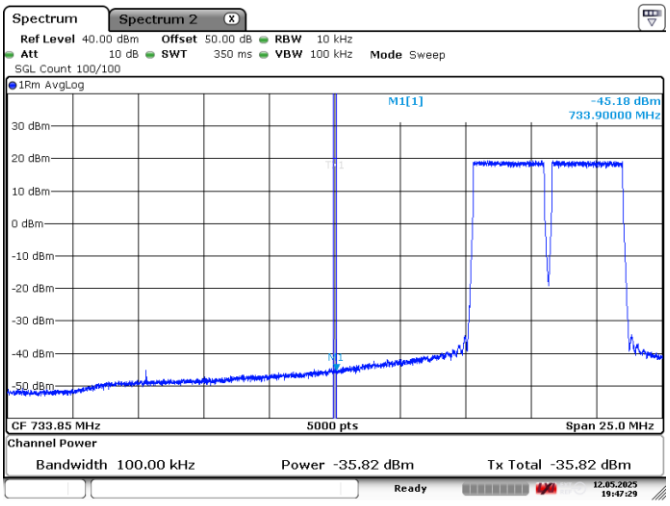


Figure 8.4-134: *Conducted emission 100 kHz away from the lower frequency block edge of top channel*

Frequency:	*733.9 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*2×NR 3 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 −19 dBm and lower.

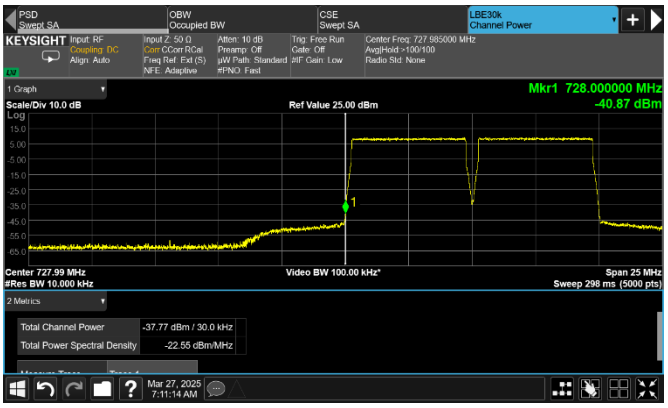


Figure 8.4-135: *Conducted emission at the lower band edge*

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

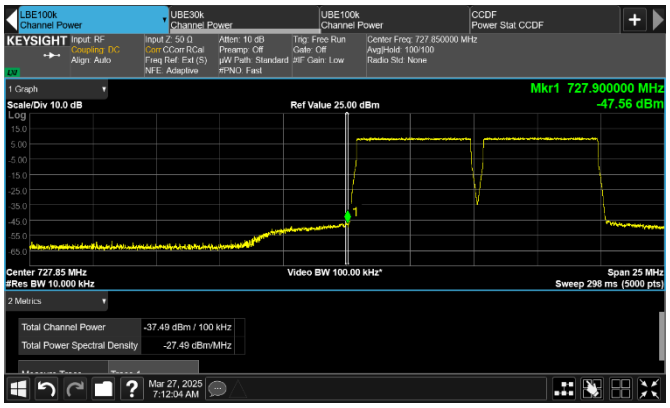


Figure 8.4-136: *Conducted emission 100 kHz away from the lower band edge*

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

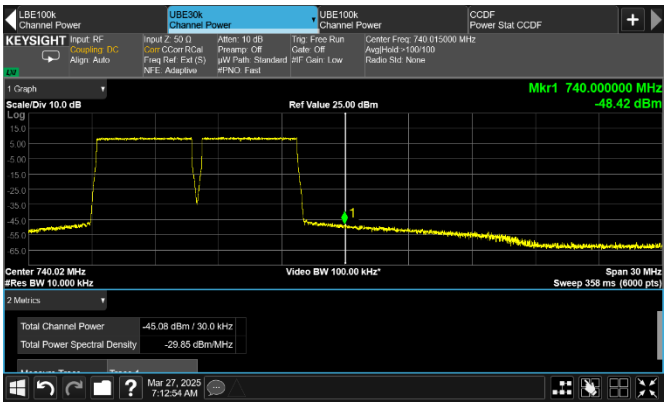


Figure 8.4-137: *Conducted emission at the upper frequency block edge of low channel*

Frequency:	*740 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*2×NR 5 MHz*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Contiguous*

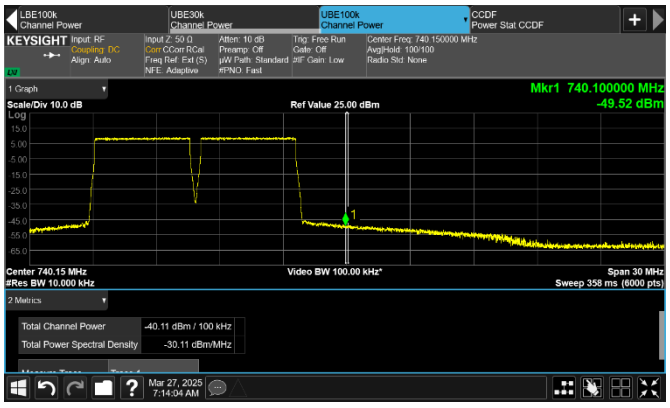


Figure 8.4-138: *Conducted emission 100 kHz away from the upper frequency block edge of low channel*

Frequency:	*740.1 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*2×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 −19 dBm and lower.

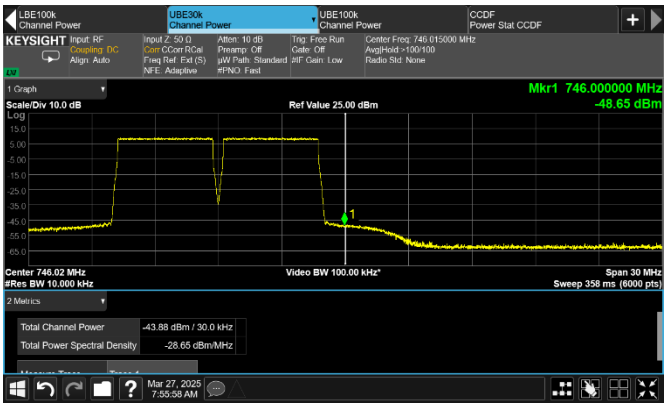


Figure 8.4-139: *Conducted emission at the upper band edge*

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

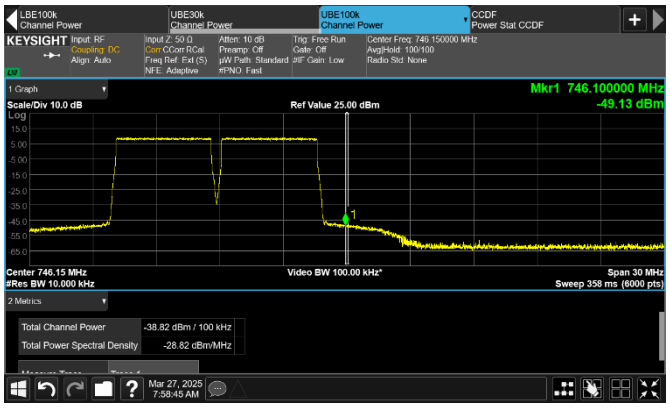


Figure 8.4-140: *Conducted emission 100 kHz away from the band edge*

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

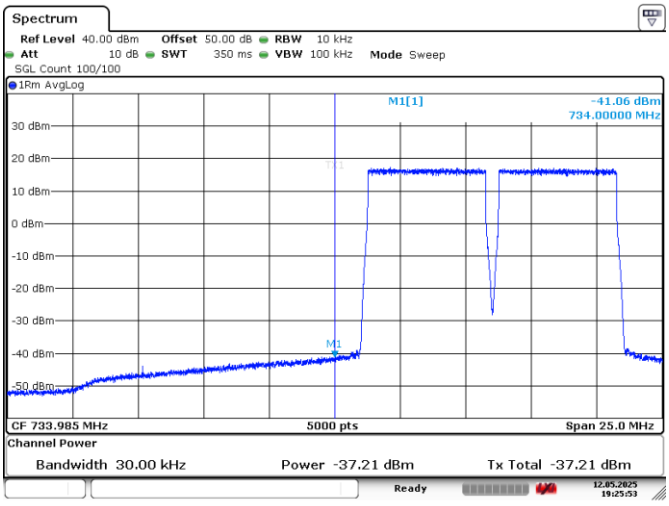


Figure 8.4-141: *Conducted emission at the lower frequency block edge of top channel*

Frequency:	*734 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*2×NR 5 MHz*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Contiguous*

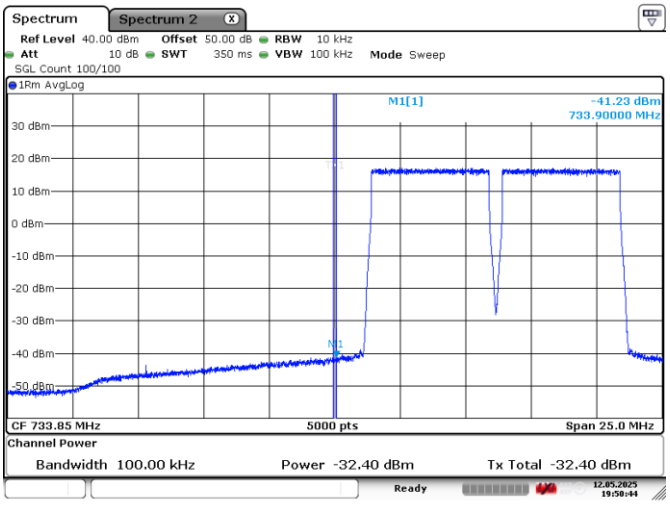


Figure 8.4-142: *Conducted emission 100 kHz away from the lower frequency block edge of top channel*

Frequency:	*733.9 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*2×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 −19 dBm and lower.

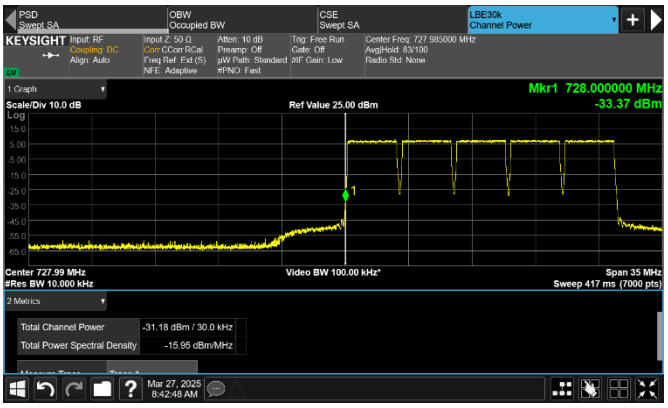


Figure 8.4-143: *Conducted emission at the lower band edge*

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

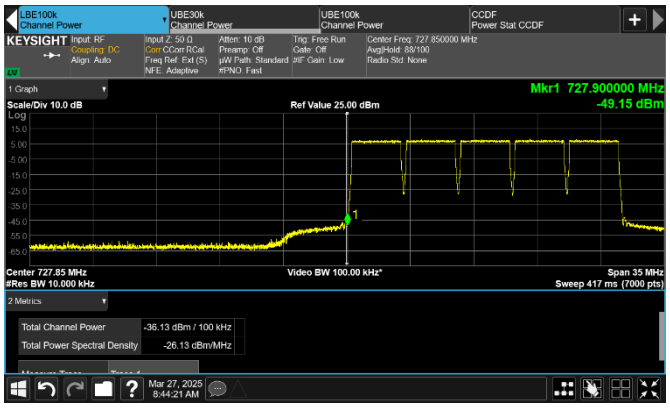


Figure 8.4-144: *Conducted emission 100 kHz away from the lower band edge*

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

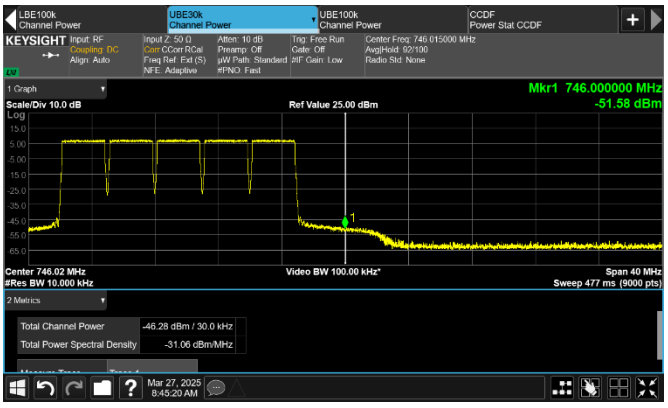


Figure 8.4-145: *Conducted emission at the upper frequency block edge of low channel*

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

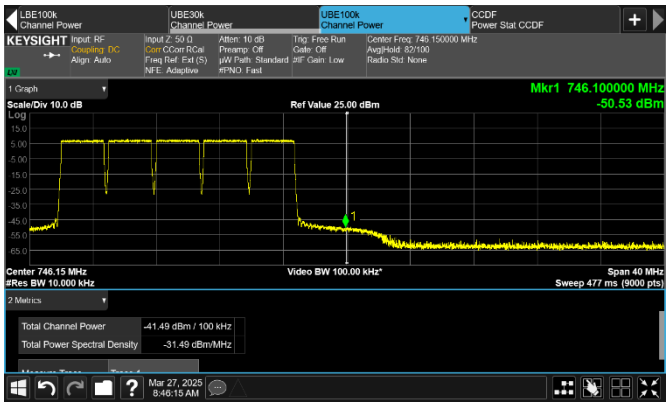


Figure 8.4-146: *Conducted emission 100 kHz away from the upper frequency block edge of low channel*

Frequency:	*746.1 MHz*	*Mode:*	*5-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*5×NR 3 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 −19 dBm and lower.

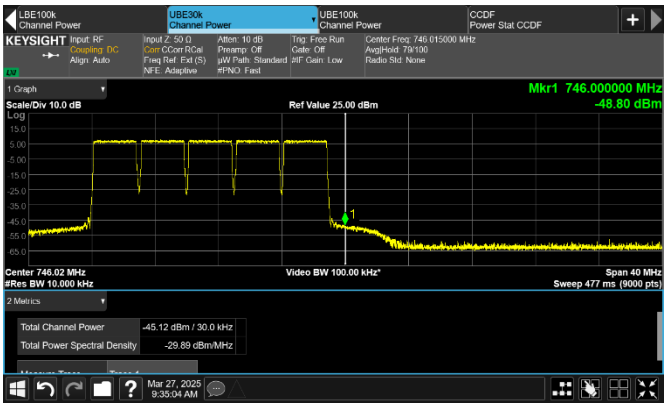


Figure 8.4-147: *Conducted emission at the upper band edge*

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

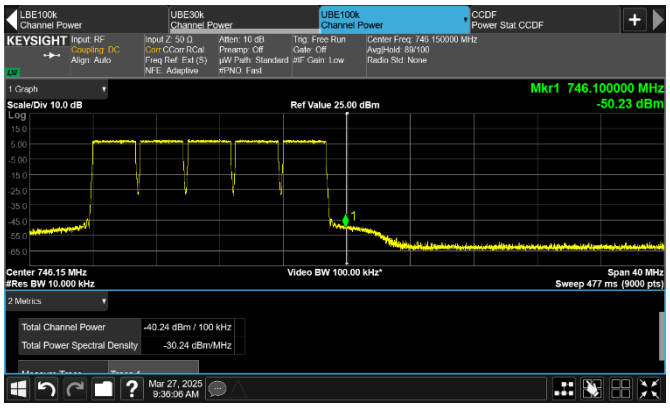


Figure 8.4-148: *Conducted emission 100 kHz away from the band edge*

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

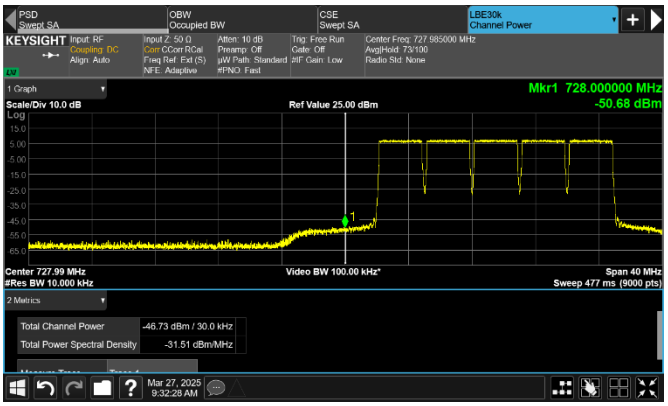


Figure 8.4-149: *Conducted emission at the lower frequency block edge of top channel*

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

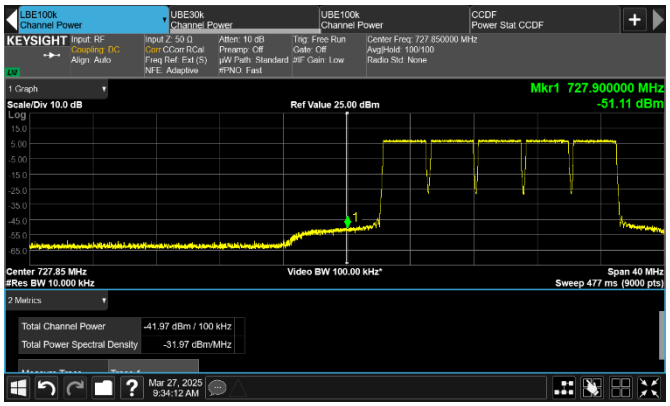


Figure 8.4-150: *Conducted emission 100 kHz away from the lower frequency block edge of top channel*

Frequency:	*727.9 MHz*	*Mode:*	*5-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*5×NR 3 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 −19 dBm and lower.

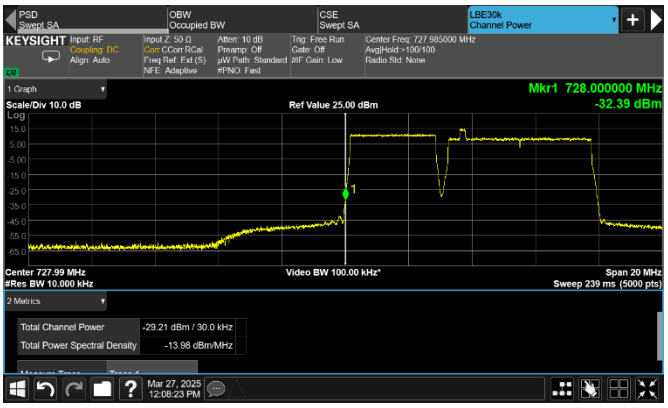


Figure 8.4-151: *Conducted emission at the lower band edge*

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

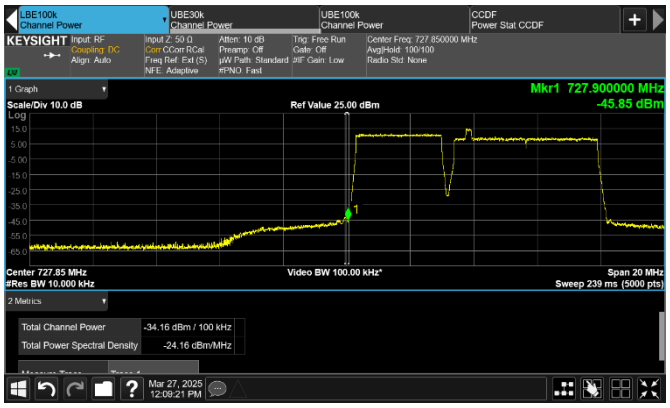


Figure 8.4-152: *Conducted emission 100 kHz away from the lower band edge*

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

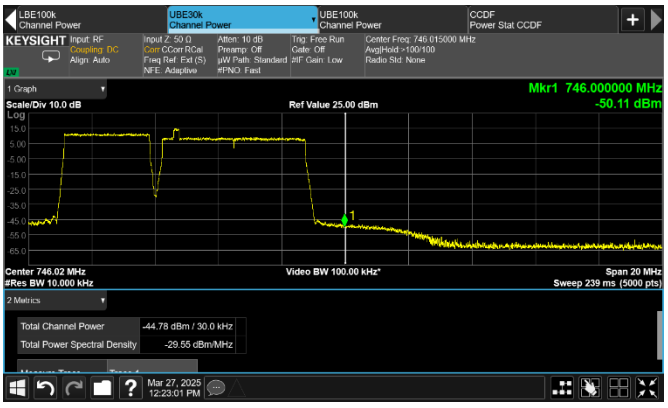


Figure 8.4-153: *Conducted emission at the upper band edge*

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

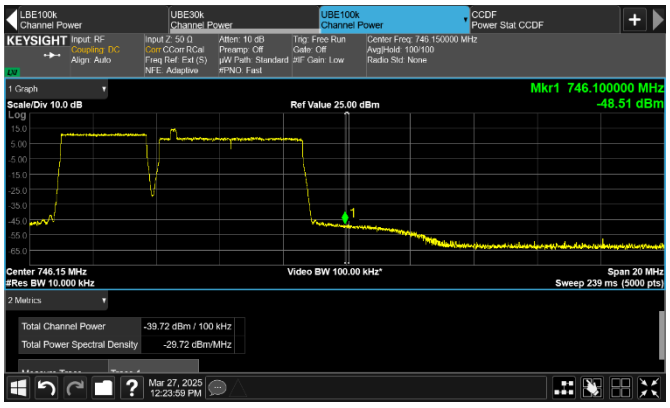


Figure 8.4-154: *Conducted emission 100 kHz away from the band edge*

Frequency:	*746.1 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*NR 3 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.

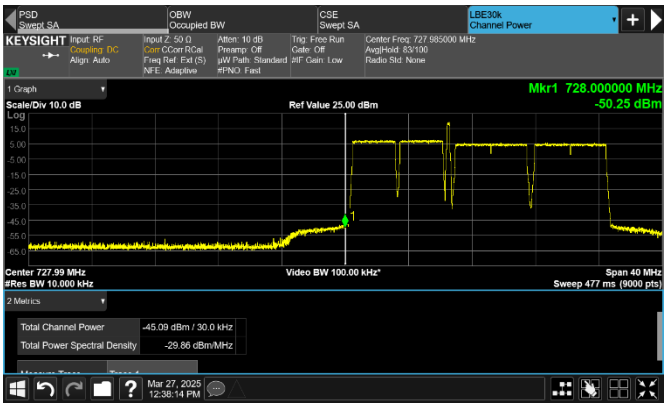


Figure 8.4-155: *Conducted emission at the lower band edge*

Frequency:	*728 MHz*	*Mode:*	*5-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*2xNR 3 MHz + IoT SA + 2xLTE 5 MHz*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Contiguous*

Figure 8.4-156: *Conducted emission 100 kHz away from the lower band edge*

Frequency:	*727.9 MHz*	*Mode:*	*5-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*2xNR 3 MHz + IoT SA + 2xLTE 5 MHz*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Contiguous*

Figure 8.4-157: *Conducted emission at the upper band edge*

Frequency:	*746 MHz*	*Mode:*	*5-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*2xNR 3 MHz + IoT SA + 2xLTE 5 MHz*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Contiguous*

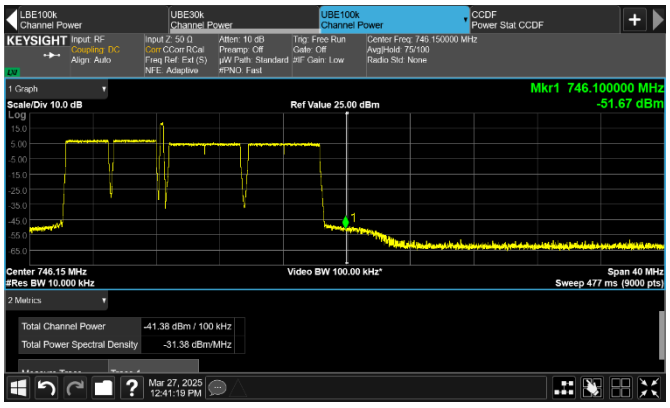


Figure 8.4-158: *Conducted emission 100 kHz away from the upper band edge*

Frequency:	*746.1 MHz*	*Mode:*	*5-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*2xNR 3 MHz + IoT SA + 2xLTE 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 −19 dBm and lower.

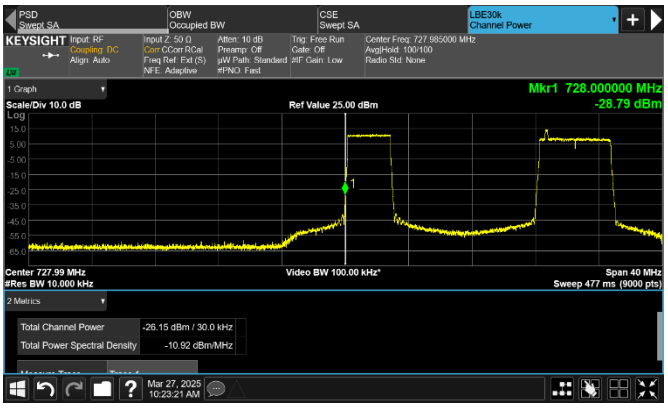


Figure 8.4-159: *Conducted emission at the lower band edge*

Frequency:	*728 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*NR 3 MHz + LTE 5 MHz*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Non-contiguous*

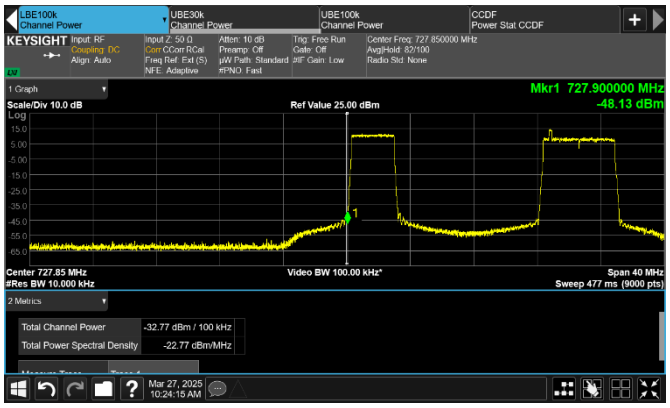


Figure 8.4-160: *Conducted emission 100 kHz away from the lower band edge*

Frequency:	*727.9 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*NR 3 MHz + LTE 5 MHz*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Non-contiguous*

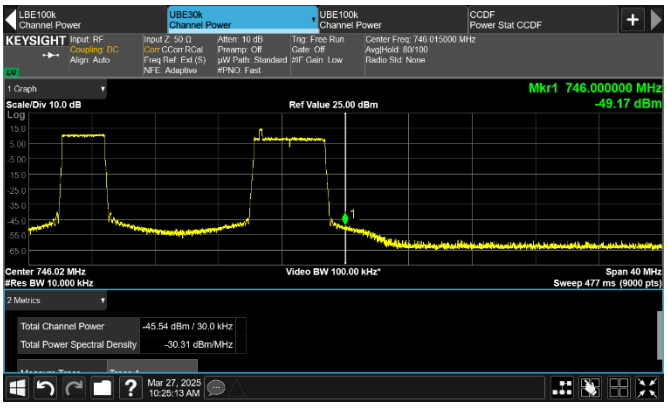


Figure 8.4-161: *Conducted emission at the upper band edge*

Frequency:	*746 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*NR 3 MHz + LTE 5 MHz*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Non-contiguous*

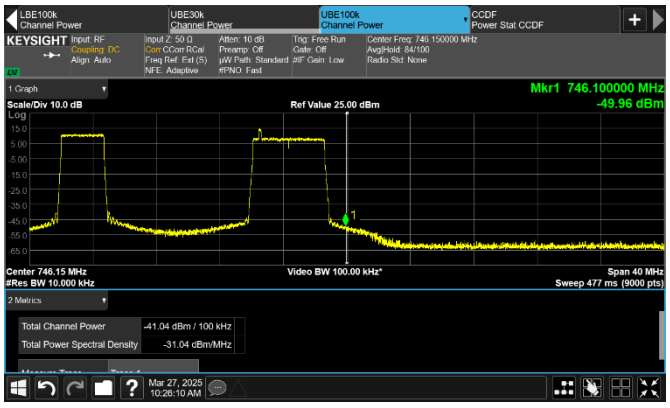


Figure 8.4-162: *Conducted emission 100 kHz away from the upper band edge*

Frequency:	*746.1 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*NR 3 MHz + 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 −16 dBm and lower.

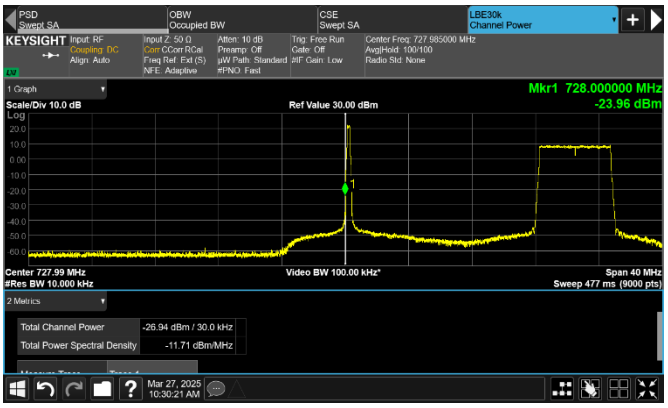


Figure 8.4-163: *Conducted emission at the lower band edge*

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*

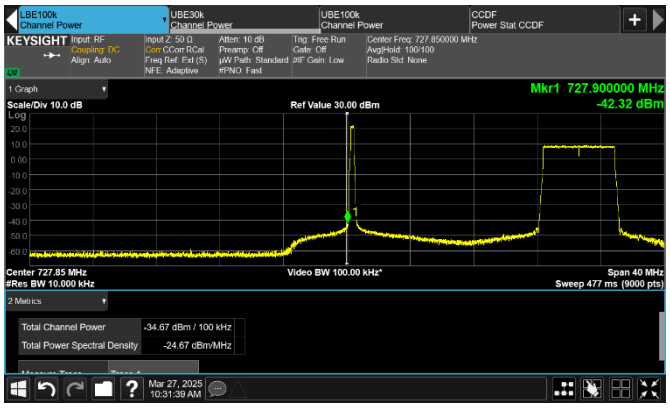


Figure 8.4-164: *Conducted emission 100 kHz away from the lower band edge*

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*

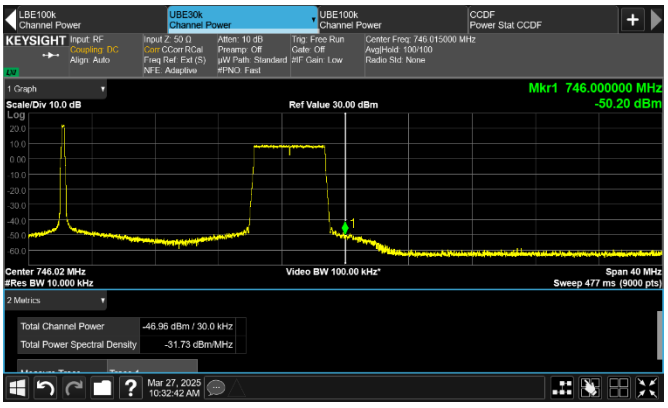


Figure 8.4-165: *Conducted emission at the upper band edge*

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*

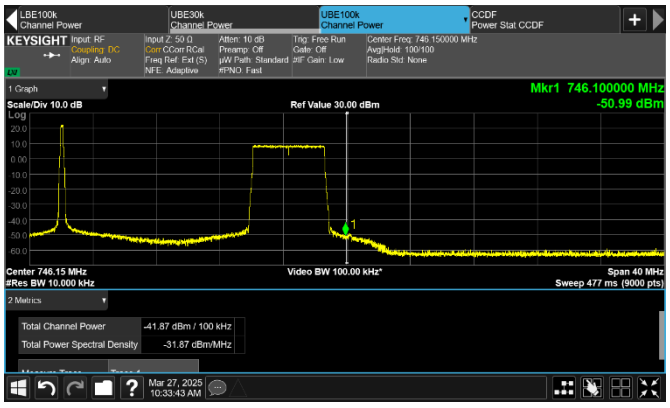


Figure 8.4-166: *Conducted emission 100 kHz away from the upper band edge*

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.

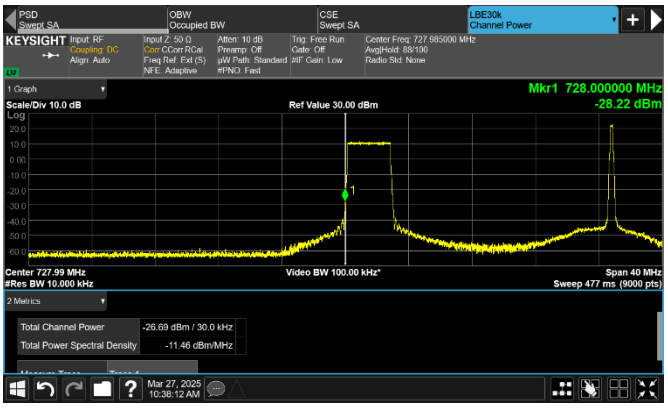


Figure 8.4-167: *Conducted emission at the lower band edge*

Frequency:	*728 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*NR 3 MHz + IoT SA*
Limit:	*−16 dBm/30 kHz*	*Notes:*	*Non-contiguous*

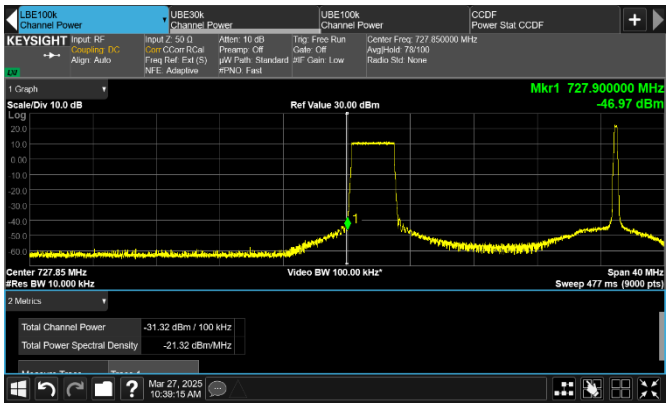


Figure 8.4-168: *Conducted emission 100 kHz away from the lower band edge*

Frequency:	*727.9 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*NR 3 MHz + IoT SA*
Limit:	*−16 dBm/100 kHz*	*Notes:*	*Non-contiguous*

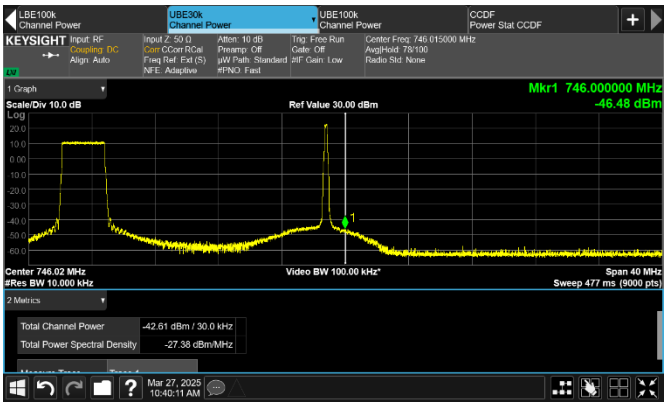


Figure 8.4-169: *Conducted emission at the upper band edge*

Frequency:	*746 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*NR 3 MHz + IoT SA*
Limit:	*−16 dBm/30 kHz*	*Notes:*	*Non-contiguous*

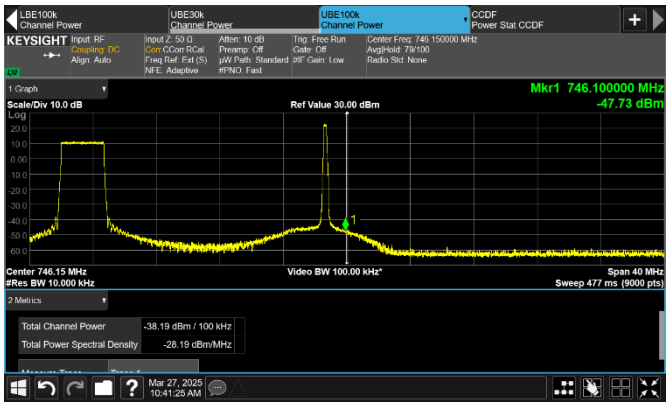


Figure 8.4-170: *Conducted emission 100 kHz away from the upper band edge*

Frequency:	*746.1 MHz*	*Mode:*	*2-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*NR 3 MHz + IoT SA*
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 −19 dBm and lower.

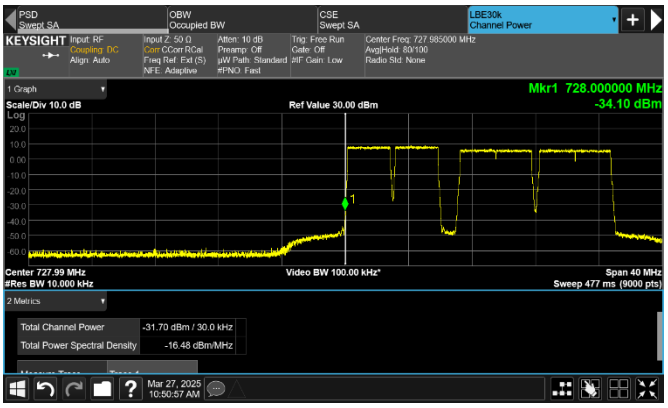


Figure 8.4-171: *Conducted emission at the lower band edge*

Frequency:	*728 MHz*	*Mode:*	*4-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*2xNR 3 MHz + 2xLTE 5 MHz*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Non-contiguous*

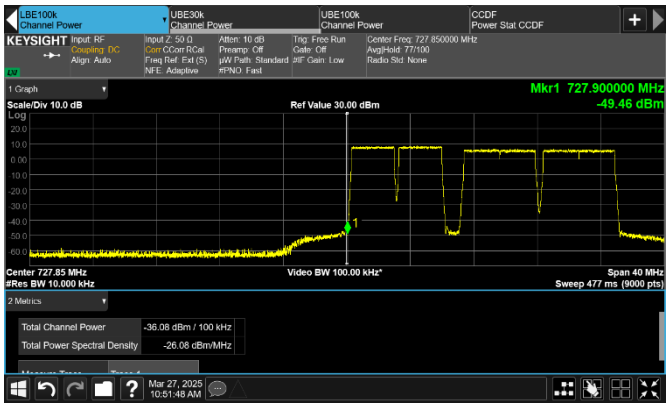


Figure 8.4-172: *Conducted emission 100 kHz away from the lower band edge*

Frequency:	*727.9 MHz*	*Mode:*	*4-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*2xNR 3 MHz + 2xLTE 5 MHz*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Non-contiguous*

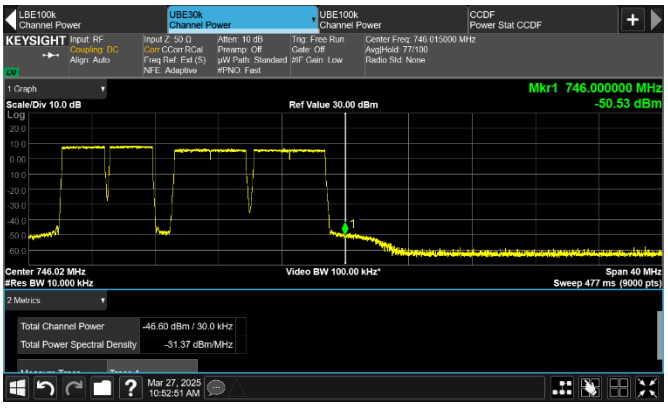


Figure 8.4-173: *Conducted emission at the upper band edge*

Frequency:	*746 MHz*	*Mode:*	*4-carrier operation*
Meas. BW:	*30 kHz*	*Tech.:*	*2xNR 3 MHz + 2xLTE 5 MHz*
Limit:	*−19 dBm/30 kHz*	*Notes:*	*Non-contiguous*

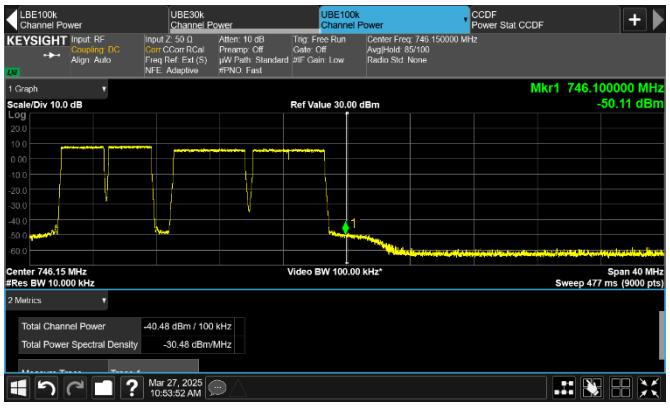


Figure 8.4-174: *Conducted emission 100 kHz away from the upper band edge*

Frequency:	*746.1 MHz*	*Mode:*	*4-carrier operation*
Meas. BW:	*100 kHz*	*Tech.:*	*2xNR 3 MHz + 2xLTE 5 MHz*
Limit:	*−19 dBm/100 kHz*	*Notes:*	*Non-contiguous*

8.5 Radiated spurious emissions

8.5.1 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.

8.5.2 Test summary

Test date	March 25, 2025 March 25, 2025 to March 27, 2025
Test engineer	Dhara Patel

8.5.3 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.

Four radiated spurious emission (RSE) configurations were selected (RSE 1, RSE 2, RSE 3, RSE 4). See Section 3.3 or page 12 for full details.

8.5.4 Test data

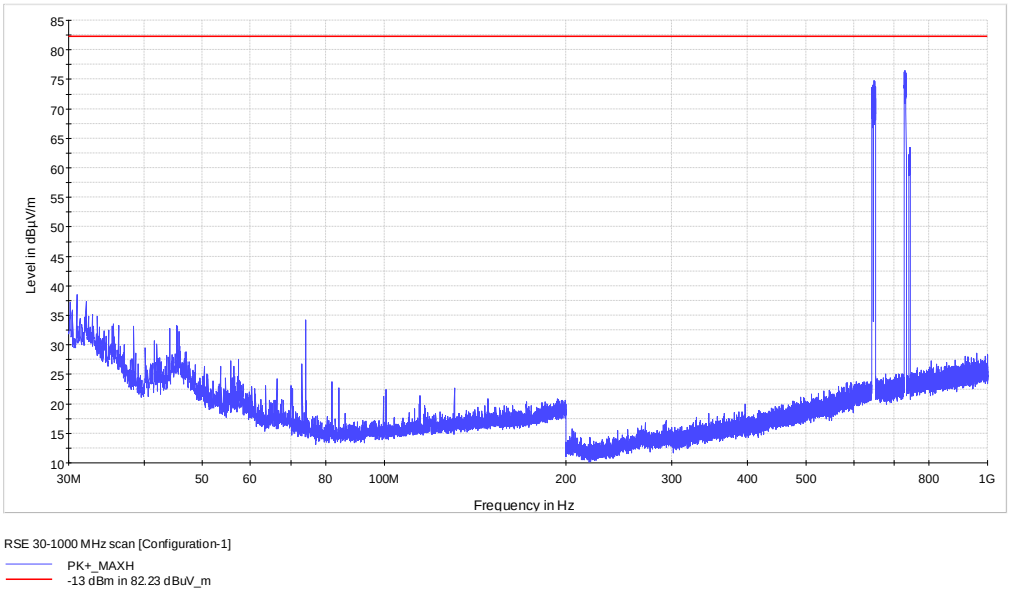


Figure 8.5-1: *Radiated spurious emissions within 30–1000 MHz, [Configuration 1]*

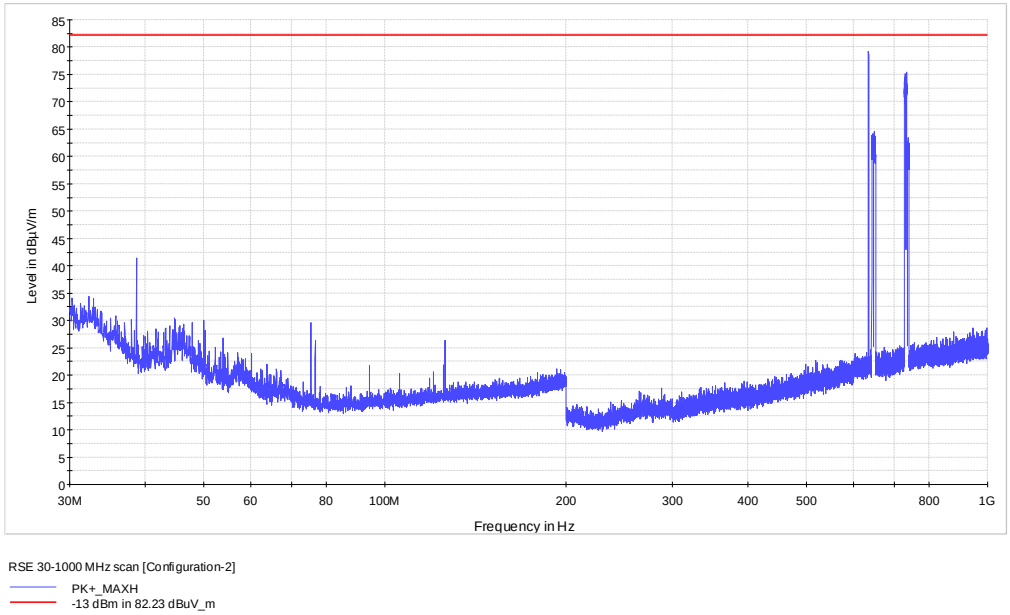


Figure 8.5-2: *Radiated spurious emissions within 30–1000 MHz, [Configuration 2]*

Test data, continued

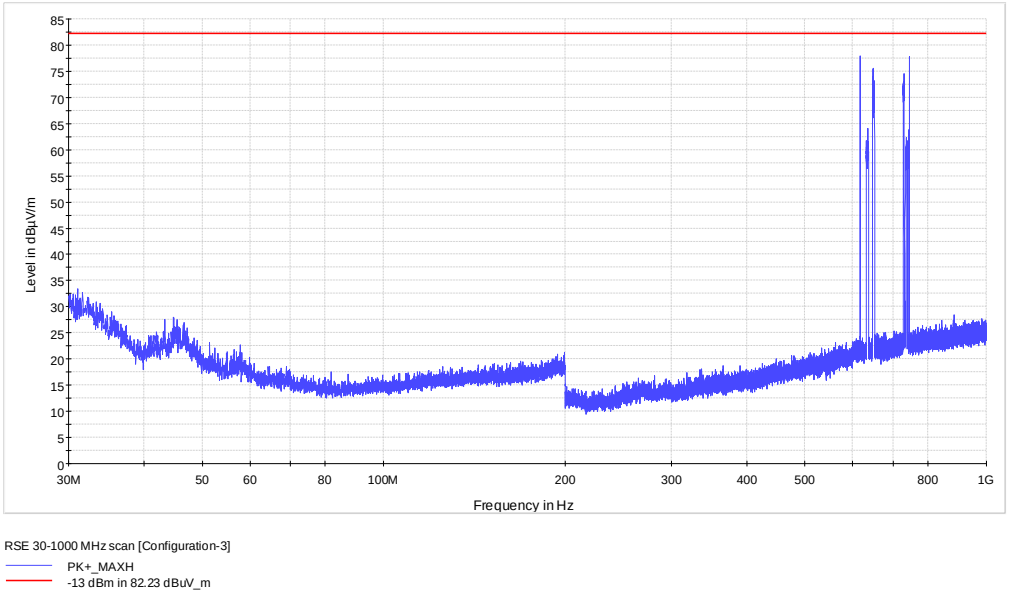


Figure 8.5-3: *Radiated spurious emissions within 30–1000 MHz, [Configuration 3]*

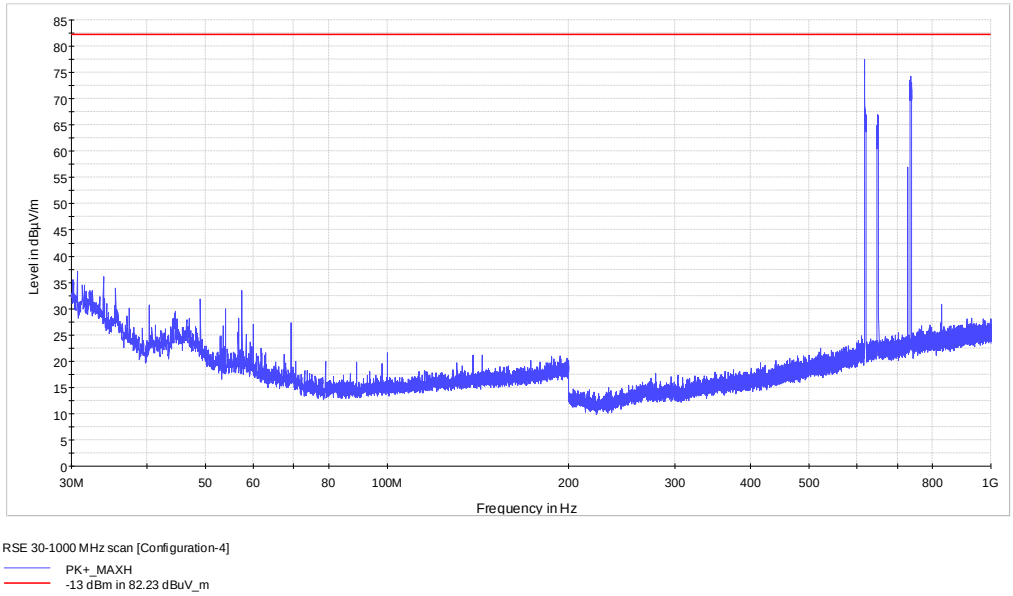


Figure 8.5-4: *Radiated spurious emissions within 30–1000 MHz, [Configuration 4]*

Test data, continued

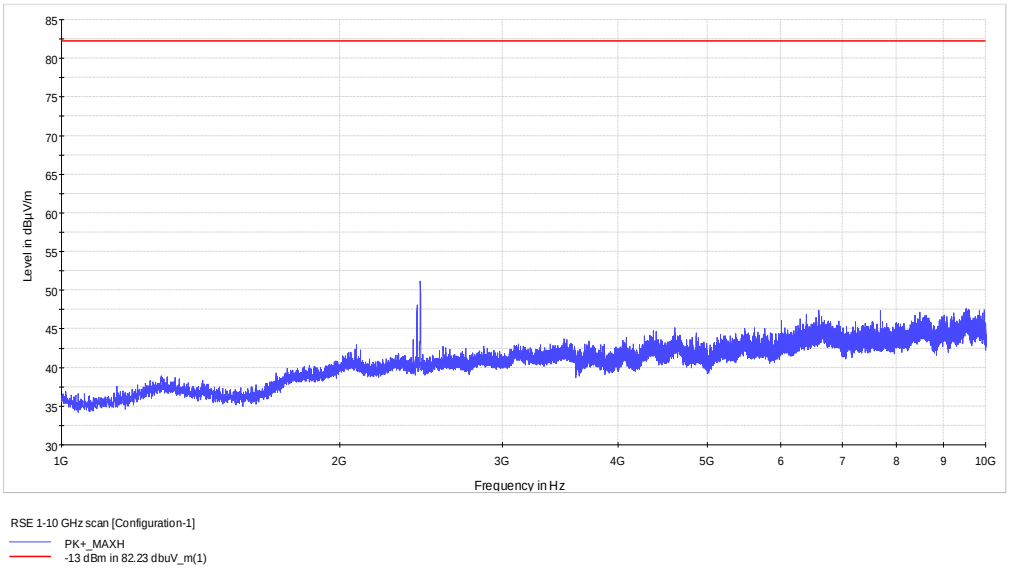


Figure 8.5-5: *Radiated spurious emissions within 1–10 GHz, [Configuration 1]*

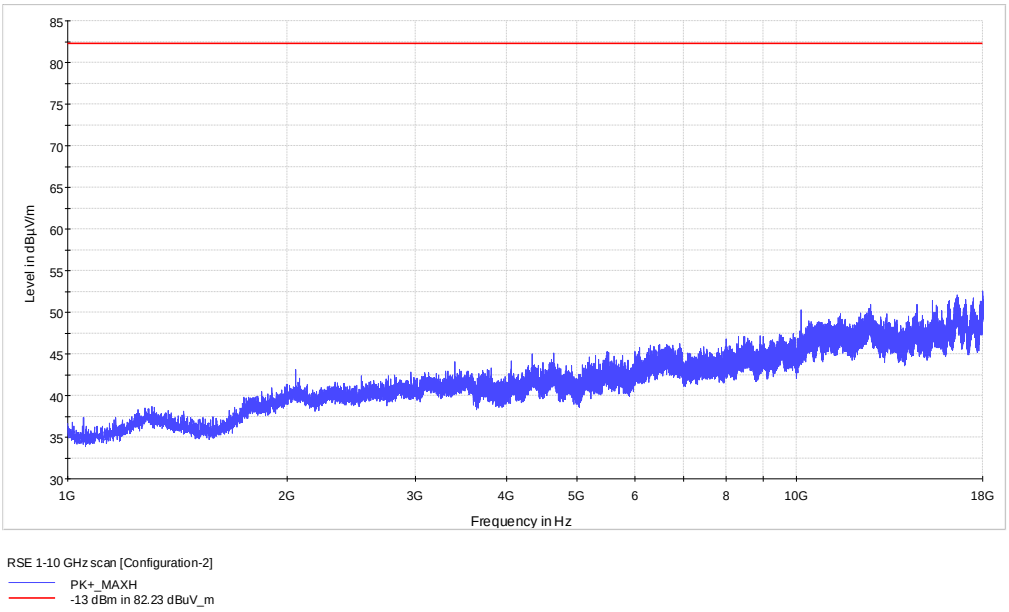


Figure 8.5-6: *Radiated spurious emissions within 1–10 GHz, [Configuration 2]*

Test data, continued

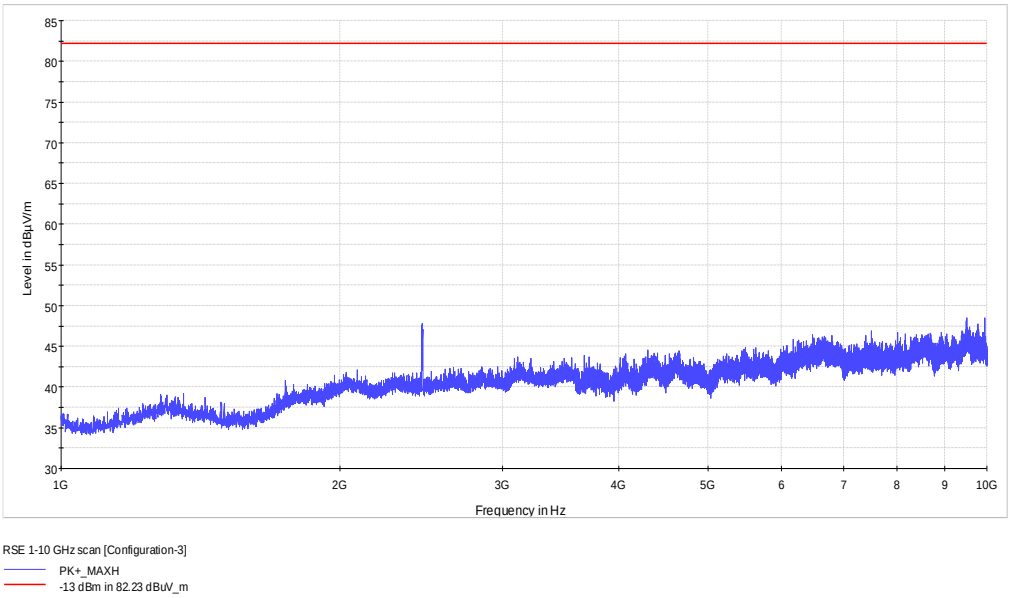


Figure 8.5-7: *Radiated spurious emissions within 1–10 GHz, [Configuration 3]*

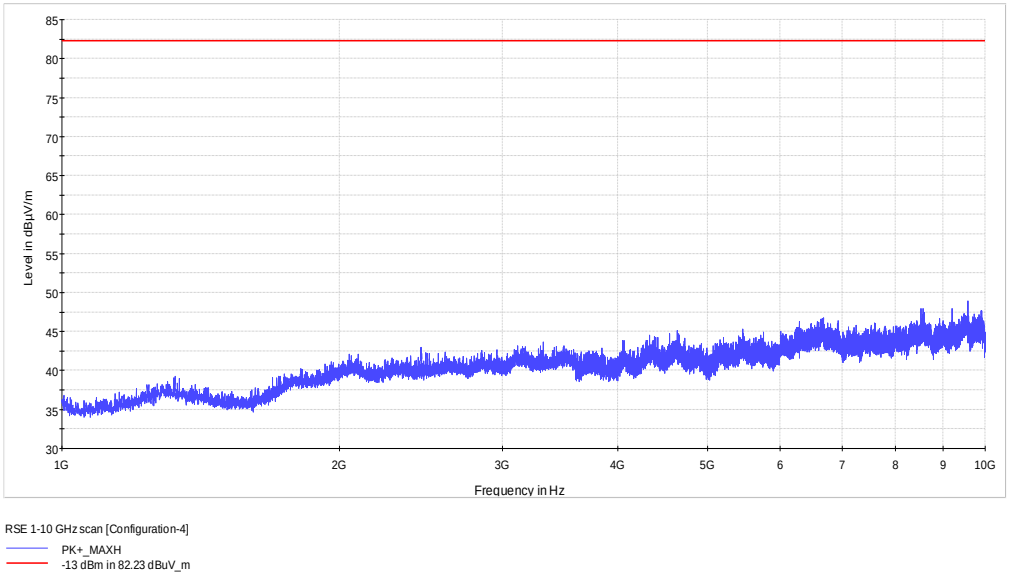


Figure 8.5-8: *Radiated spurious emissions within 1–10 GHz, [Configuration 4]*

8.6 Frequency stability

8.6.1 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.

8.6.2 Test summary

Test date	April 15, 2025
Test engineer	Dhara Patel

8.6.3 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.

8.6.4 Test data

Table 8.6-1: *Frequency error results (B71)*

Temperature, °C	Voltage, V_{DC}	Frequency error, Hz
-40	48.00	-0.239
-30	48.00	-0.323
-20	48.00	0.485
-10	48.00	-0.328
0	48.00	0.165
10	48.00	-0.321
20	48.00	-0.279
20	40.80	0.272
20	55.20	0.336
30	48.00	0.192
40	48.00	-0.318
50	48.00	-0.298
55	48.00	-0.287

Max negative drift: −0.239 Hz, Max positive drift: +0.485 Hz. Given their minimal magnitude, these drifts do not cause any significant shift in occupied bandwidth beyond the allocated frequency block.

Test data, continued

Table 8.6-2: *Frequency error results (B85A)*

Temperature, °C	Voltage, V_{DC}	Frequency error, Hz
-40	48.00	0.463
-30	48.00	0.574
-20	48.00	0.342
-10	48.00	-0.384
0	48.00	0.281
10	48.00	-0.301
20	48.00	-0.403
20	40.80	-0.408
20	55.20	-0.293
30	48.00	-0.323
40	48.00	0.453
50	48.00	0.269
55	48.00	0.399

Max negative drift: −0.293 Hz, Max positive drift: +0.574 Hz. Given their minimal magnitude, these drifts do not cause any significant shift in occupied bandwidth beyond the allocated frequency block.

8.7 Occupied bandwidth (B71)

8.7.1 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.

8.7.2 Test summary

Test date	March 25, 2025 to March 27, 2025
Test engineer	Dhara Patel

8.7.3 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

8.7.4 Test data

Table 8.7-1: *Occupied bandwidth for IoT SA*

Frequency, MHz	26 dB BW, kHz	99% OBW, kHz
617.2	364.3	275.11
634.5	320.0	216.09
651.8	321.0	214.33

Table 8.7-2: *Occupied bandwidth results for LTE*

Channel size, notes	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
5 MHz, SC with IB	619.5	4.72	4.468
5 MHz, SC with IB	634.5	4.70	4.466
5 MHz, SC with IB	649.5	4.71	4.471
10 MHz, SC with GB	622.0	9.67	9.360
10 MHz, SC with GB	634.5	9.65	9.361
10 MHz, SC with GB	647.0	9.64	9.362
15 MHz, SC with GB	624.5	14.38	13.929
15 MHz, SC with GB	634.5	14.42	13.937
15 MHz, SC with GB	644.5	14.40	13.932
20 MHz, SC with GB	627.0	18.99	18.329
20 MHz, SC with GB	634.5	18.90	18.342
20 MHz, SC with GB	642.0	18.97	18.335

Table 8.7-3: *Occupied bandwidth results for NR*

Channel size	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
5 MHz	619.5	4.80	4.472
5 MHz	634.5	4.80	4.474
5 MHz	649.5	4.78	4.459
10 MHz	622.0	9.67	9.274
10 MHz	634.5	9.65	9.279
10 MHz	647.0	9.63	9.261
15 MHz	624.5	14.63	14.083
15 MHz	634.5	14.63	14.090
15 MHz	644.5	14.62	14.084
20 MHz	627.0	19.56	18.912
20 MHz	634.5	19.52	18.902
20 MHz	642.0	19.57	18.901
25 MHz	629.5	24.36	23.683
25 MHz	634.5	24.38	23.697
25 MHz	639.5	24.32	23.693
30 MHz	632.0	29.31	28.522
30 MHz	634.5	29.35	28.519
30 MHz	637.0	29.31	28.519
35 MHz	634.5	34.15	33.493

Test data, continued

Figure 8.7-1: *Sample plot for IoT SA*

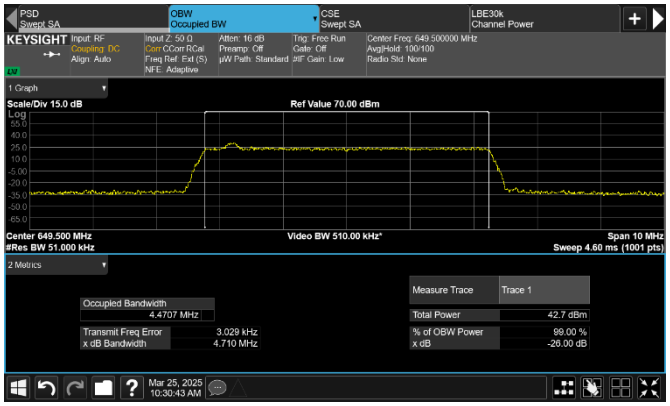


Figure 8.7-2: *Sample plot for LTE 5 MHz + IB channel*

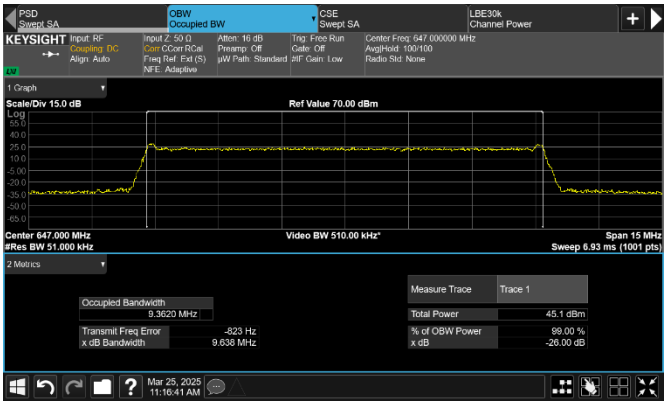


Figure 8.7-3: *Sample plot for LTE 10 MHz channel + GB channel*

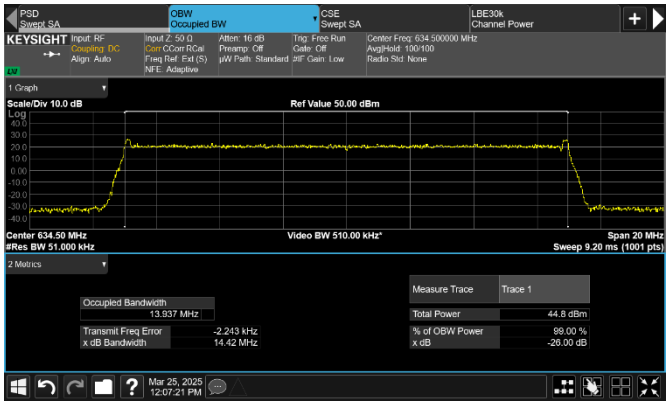


Figure 8.7-4: *Sample plot for LTE 15 MHz channel + GB channel*

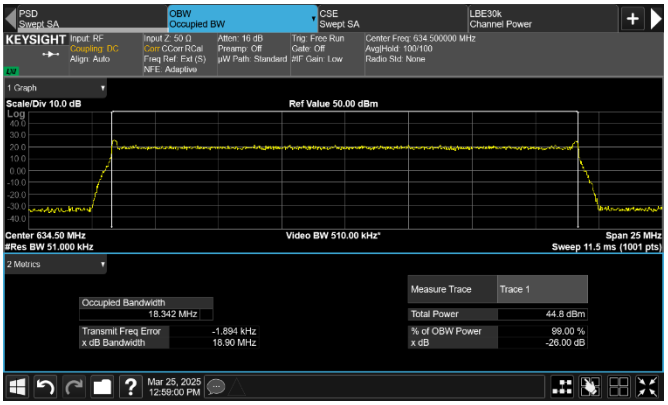


Figure 8.7-5: *Sample plot for LTE 20 MHz + GB channel*

Figure 8.7-6: *Sample plot for NR 5 MHz channel*

Test data, continued

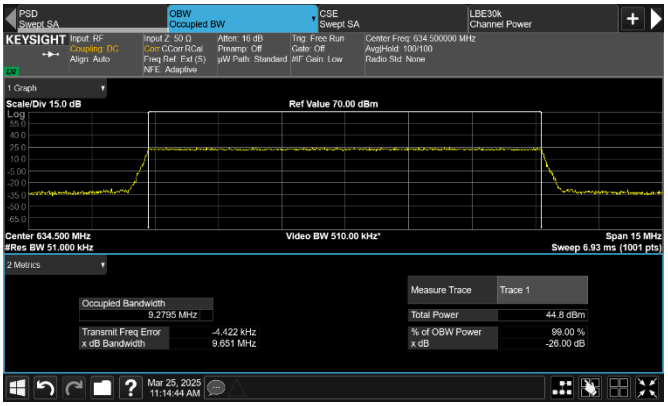


Figure 8.7-7: *Sample plot for NR 10 MHz channel*

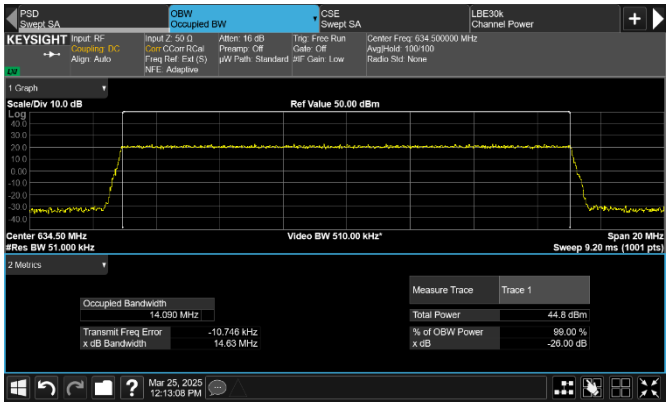


Figure 8.7-8: *Sample plot for NR 15 MHz channel*

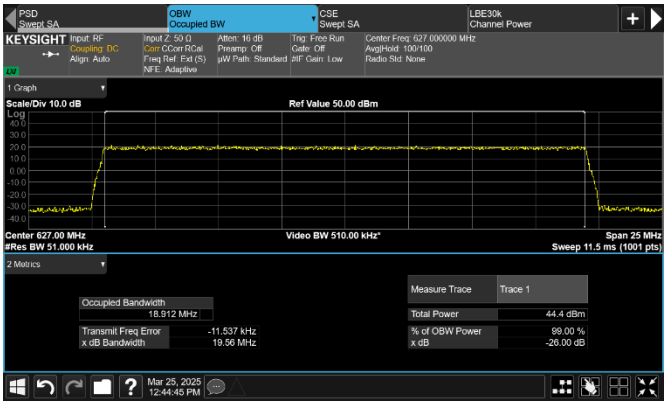


Figure 8.7-9: *Sample plot for NR 20 MHz channel*

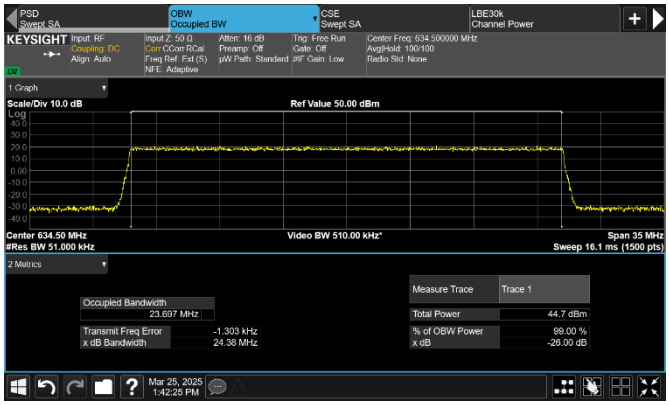


Figure 8.7-10: *Sample plot for NR 25 MHz channel*

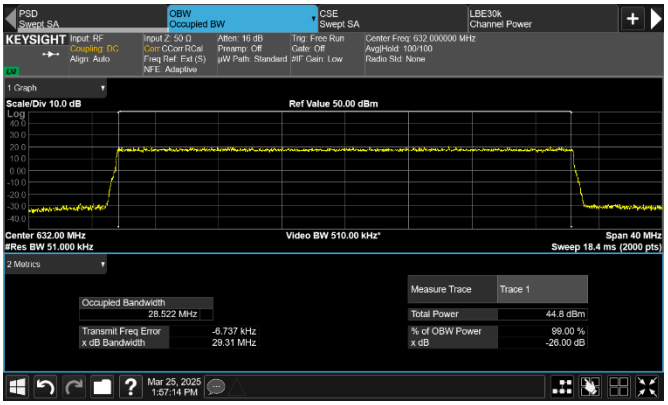


Figure 8.7-11: *Sample plot for NR 30 MHz channel*

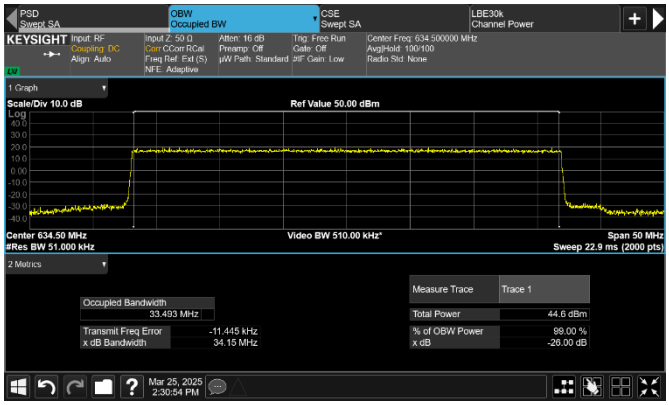


Figure 8.7-12: *Sample plot for NR 35 MHz channel*

8.8 Occupied bandwidth (B85A)

8.8.1 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.

8.8.2 Test summary

Test date	March 25, 2025 to March 27, 2025
Test engineer	Dhara Patel

8.8.3 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

8.8.4 Test data

Table 8.8-1: *Occupied bandwidth for IoT SA*

Frequency, MHz	26 dB BW, kHz	99% OBW, kHz
728.2	322.2	214.03
736.5	309.2	214.39
744.8	312.8	216.36

Table 8.8-2: *Occupied bandwidth results for LTE*

Channel size, notes	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
5 MHz, SC with IB	730.5	4.69	4.472
5 MHz, SC with IB	736.5	4.72	4.465
5 MHz, SC with IB	742.5	4.70	4.470
10 MHz, SC with GB	733.0	9.66	9.354
10 MHz, SC with GB	736.5	9.63	9.357
10 MHz, SC with GB	740.0	9.65	9.365
15 MHz, SC with GB	735.5	14.43	13.941
15 MHz, SC with GB	736.5	14.40	13.934
15 MHz, SC with GB	737.5	14.38	13.931

Table 8.8-3: *Occupied bandwidth results for NR*

Channel size	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
3 MHz	729.5	2.90	2.688
3 MHz	736.5	2.89	2.701
3 MHz	743.5	2.89	2.688
5 MHz	730.5	4.81	4.468
5 MHz	736.5	4.79	4.472
5 MHz	742.5	4.79	4.463
10 MHz	733.0	9.64	9.253
10 MHz	736.5	9.61	9.268
10 MHz	740.0	9.64	9.262
15 MHz	735.5	14.64	14.081
15 MHz	736.5	14.68	14.078
15 MHz	737.5	14.65	14.077

Test data, continued

Figure 8.8-1: *Sample plot for IoT SA*

Figure 8.8-2: *Sample plot for LTE 5 MHz + IB channel*

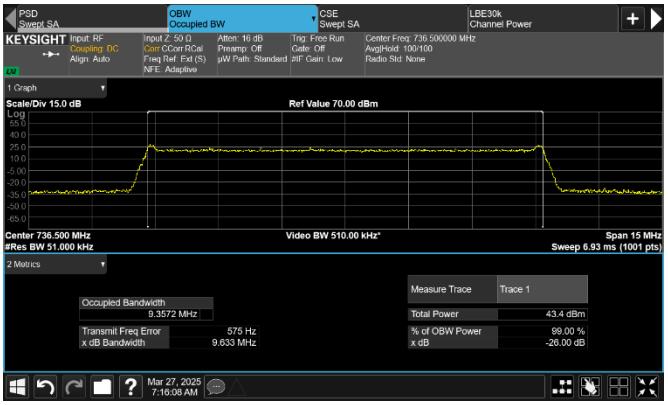


Figure 8.8-3: *Sample plot for LTE 10 MHz channel + GB channel*

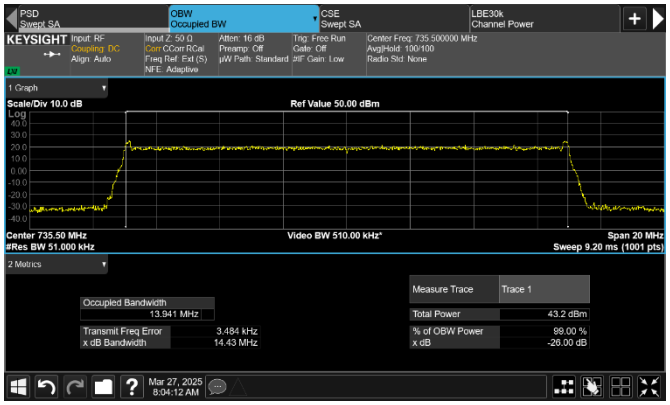


Figure 8.8-4: *Sample plot for LTE 15 MHz channel + GB channel*

Figure 8.8-5: *Sample plot for NR 3 MHz channel*

Figure 8.8-6: *Sample plot for NR 5 MHz channel*

Test data, continued

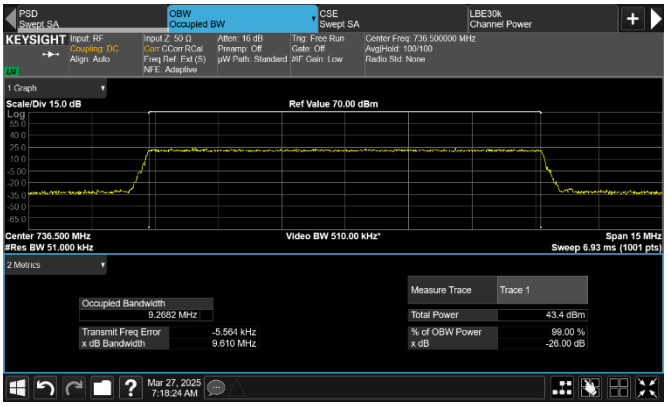


Figure 8.8-7: *Sample plot for NR 10 MHz channel*

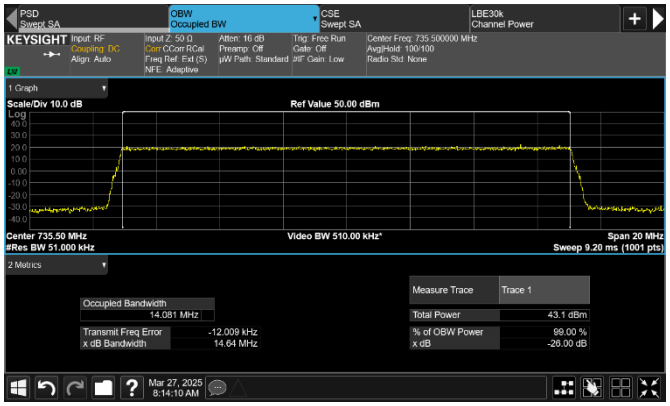
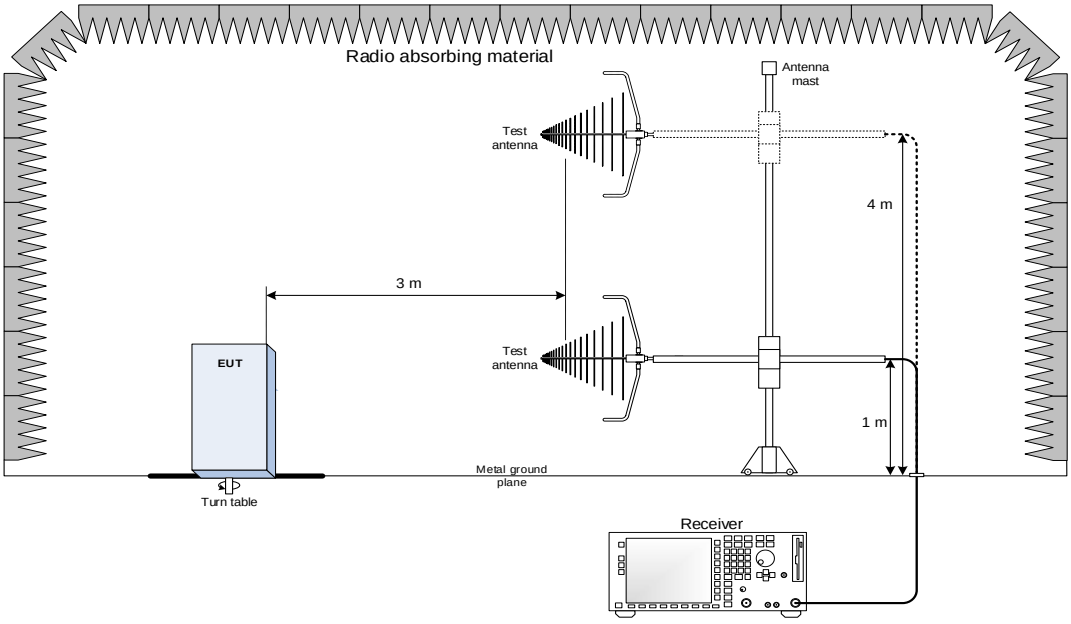


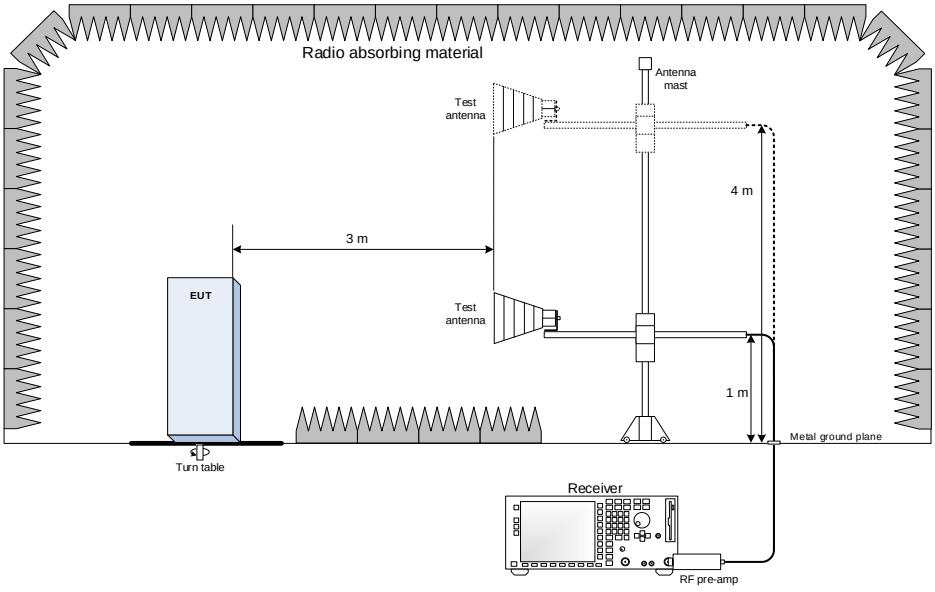
Figure 8.8-8: *Sample plot for NR 15 MHz channel*

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