

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 8.5-131: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Multi-carrier operation
 Meas. BW: 1% of EBW Tech.: $3 \times$ LTE 5 MHz with IB (IoT1)
 Limit: -19 dBm/50 kHz Notes: None



Figure 8.5-132: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Multi-carrier operation
 Meas. BW: 1 MHz Tech.: $3 \times$ LTE 5 MHz with IB (IoT1)
 Limit: -19 dBm/MHz Notes: None

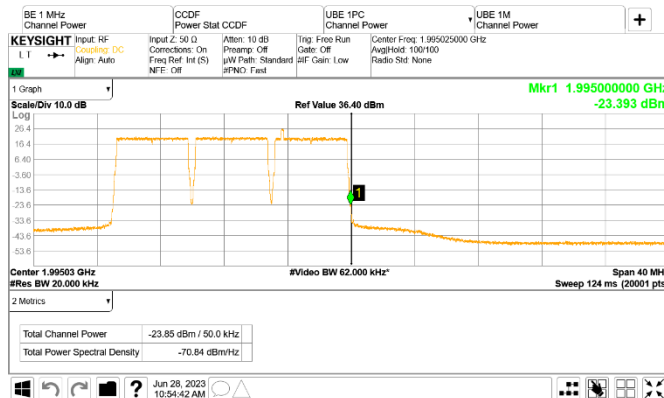


Figure 8.5-133: Conducted emission at the upper band edge

Frequency: 1995 MHz Mode: Multi-carrier operation
 Meas. BW: 1% of EBW Tech.: $3 \times$ LTE 5 MHz with IB (IoT1)
 Limit: -19 dBm/50 kHz Notes: None

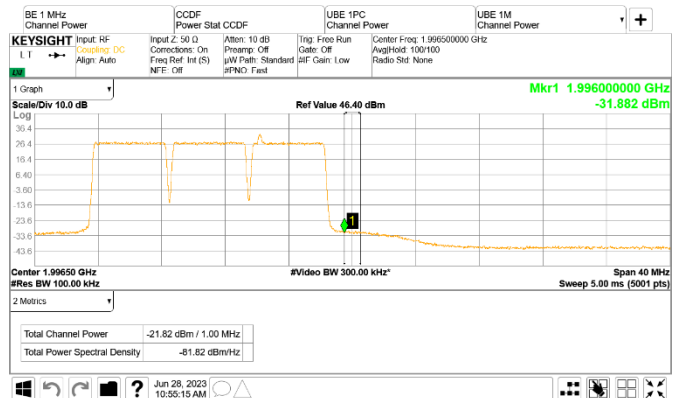


Figure 8.5-134: Conducted emission 1 MHz away from the upper band edge

Frequency: 1996 MHz Mode: Multi-carrier operation
 Meas. BW: 1 MHz Tech.: $3 \times$ LTE 5 MHz with IB (IoT1)
 Limit: -19 dBm/MHz Notes: None

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 8.5-135: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Multi-carrier operation
 Meas. BW: 1% of EBW Tech.: $6 \times$ LTE 5 MHz with IB (IoT1)
 Limit: -19 dBm/50 kHz Notes: None

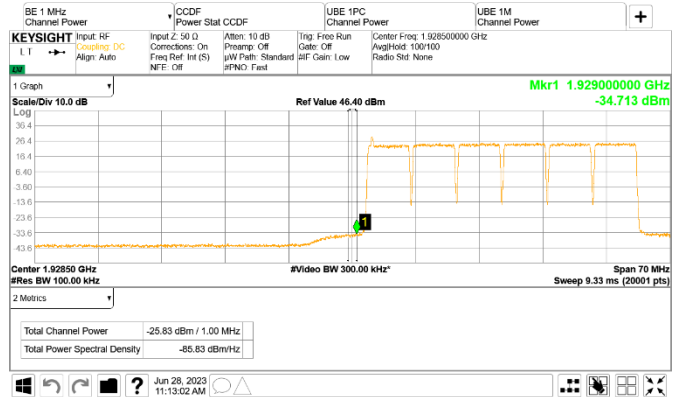


Figure 8.5-136: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Multi-carrier operation
 Meas. BW: 1 MHz Tech.: $6 \times$ LTE 5 MHz with IB (IoT1)
 Limit: -19 dBm/MHz Notes: None

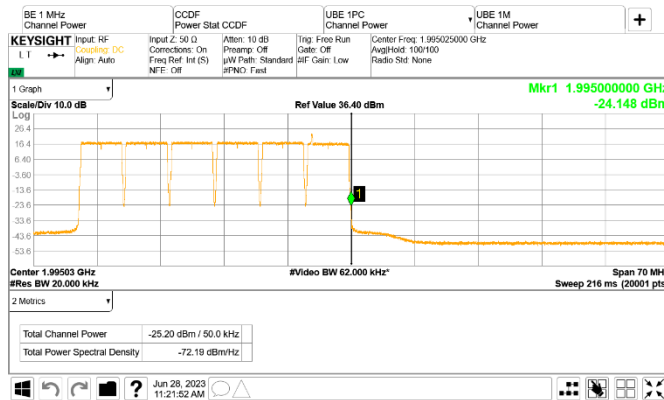


Figure 8.5-137: Conducted emission at the upper band edge

Frequency: 1995 MHz Mode: Multi-carrier operation
 Meas. BW: 1% of EBW Tech.: $6 \times$ LTE 5 MHz with IB (IoT1)
 Limit: -19 dBm/50 kHz Notes: None

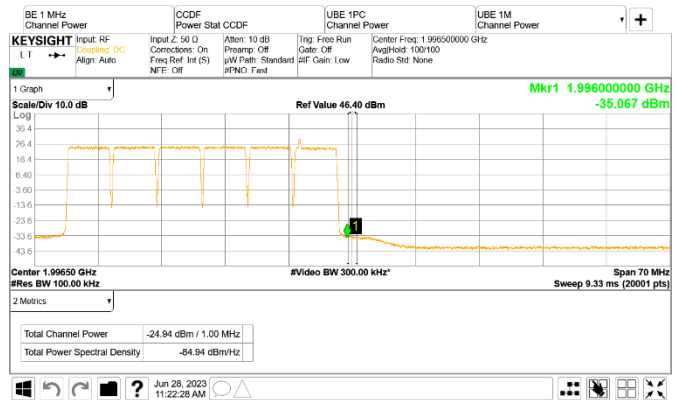


Figure 8.5-138: Conducted emission 1 MHz away from the upper band edge

Frequency: 1996 MHz Mode: Multi-carrier operation
 Meas. BW: 1 MHz Tech.: $6 \times$ LTE 5 MHz with IB (IoT1)
 Limit: -19 dBm/MHz Notes: None

Test data, continued

On the plots below the measured *Channel Power* value in the “*Total Channel Power*” column must be -19 dBm and lower.

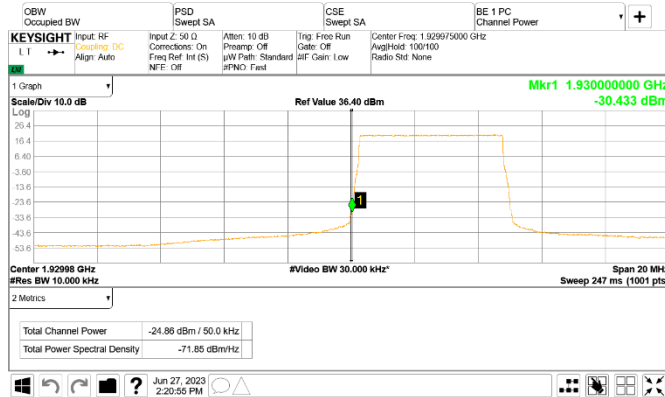


Figure 8.5-139: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Single carrier operation
 Meas. BW: 1% of EBW Tech.: NR 5 MHz
 Limit: -19 dBm/50 kHz Notes: None



Figure 8.5-140: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Single carrier operation
 Meas. BW: 1 MHz Tech.: NR 5 MHz
 Limit: -19 dBm/MHz Notes: None

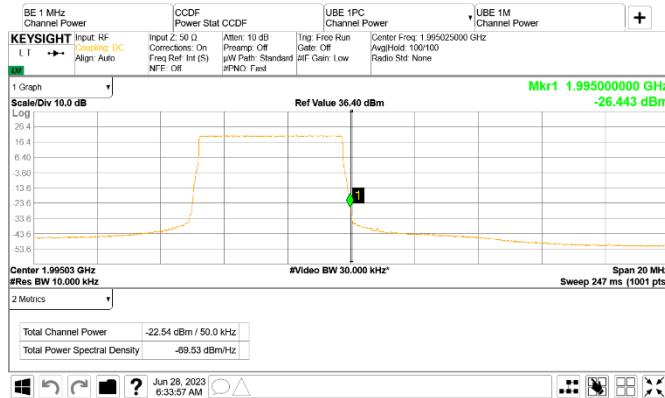


Figure 8.5-141: Conducted emission at the upper band edge

Frequency: 1995 MHz Mode: Single carrier operation
 Meas. BW: 1% of EBW Tech.: NR 5 MHz
 Limit: -19 dBm/50 kHz Notes: None

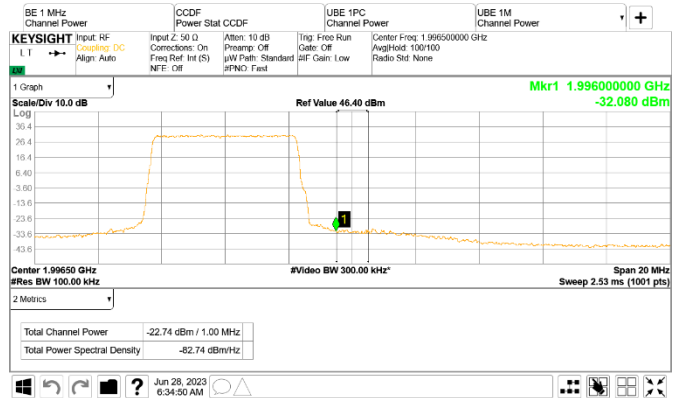


Figure 8.5-142: Conducted emission 1 MHz away from the upper band edge

Frequency: 1996 MHz Mode: Single carrier operation
 Meas. BW: 1 MHz Tech.: NR 5 MHz
 Limit: -19 dBm/MHz Notes: None

Test data, continued

On the plots below the measured *Channel Power* value in the “*Total Channel Power*” column must be -19 dBm and lower.

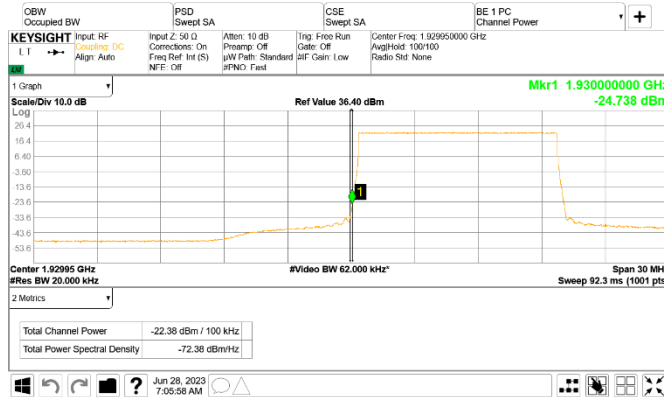


Figure 8.5-143: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Single carrier operation
 Meas. BW: 1% of EBW Tech.: NR 10 MHz
 Limit: -19 dBm/100 kHz Notes: None



Figure 8.5-144: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Single carrier operation
 Meas. BW: 1 MHz Tech.: NR 10 MHz
 Limit: -19 dBm/MHz Notes: None

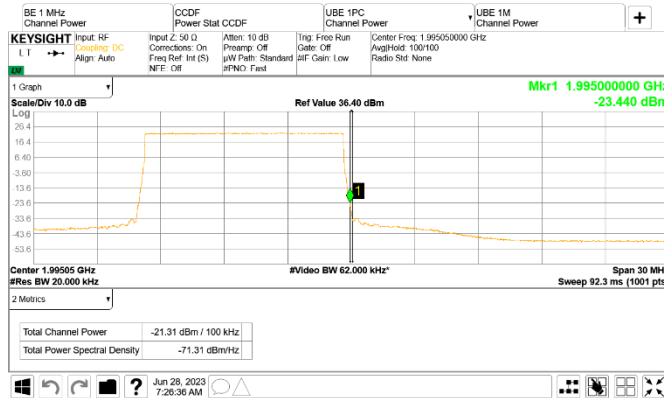


Figure 8.5-145: Conducted emission at the upper band edge

Frequency: 1995 MHz Mode: Single carrier operation
 Meas. BW: 1% of EBW Tech.: NR 10 MHz
 Limit: -19 dBm/100 kHz Notes: None



Figure 8.5-146: Conducted emission 1 MHz away from the upper band edge

Frequency: 1996 MHz Mode: Single carrier operation
 Meas. BW: 1 MHz Tech.: NR 10 MHz
 Limit: -19 dBm/MHz Notes: None

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 8.5-147: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Single carrier operation
 Meas. BW: 1% of EBW Tech.: NR 15 MHz
 Limit: -19 dBm/150 kHz Notes: None

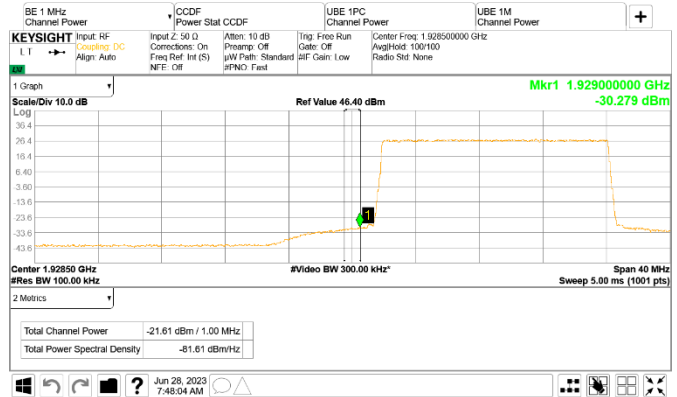


Figure 8.5-148: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Single carrier operation
 Meas. BW: 1 MHz Tech.: NR 15 MHz
 Limit: -19 dBm/MHz Notes: None

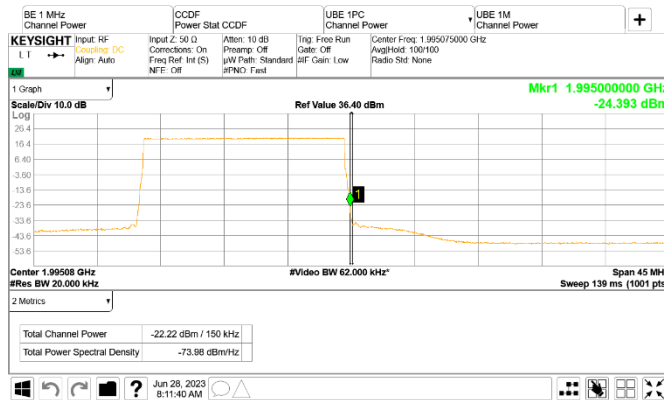


Figure 8.5-149: Conducted emission at the upper band edge

Frequency: 1995 MHz Mode: Single carrier operation
 Meas. BW: 1% of EBW Tech.: NR 15 MHz
 Limit: -19 dBm/150 kHz Notes: None

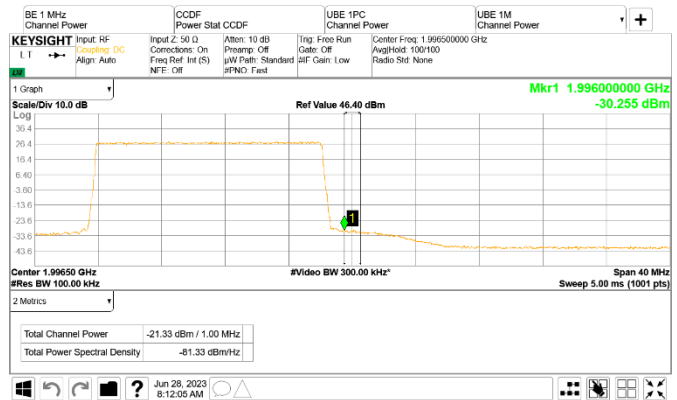


Figure 8.5-150: Conducted emission 1 MHz away from the upper band edge

Frequency: 1996 MHz Mode: Single carrier operation
 Meas. BW: 1 MHz Tech.: NR 15 MHz
 Limit: -19 dBm/MHz Notes: None

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 8.5-151: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Single carrier operation
 Meas. BW: 1% of EBW Tech.: NR 20 MHz
 Limit: -19 dBm/200 kHz Notes: None

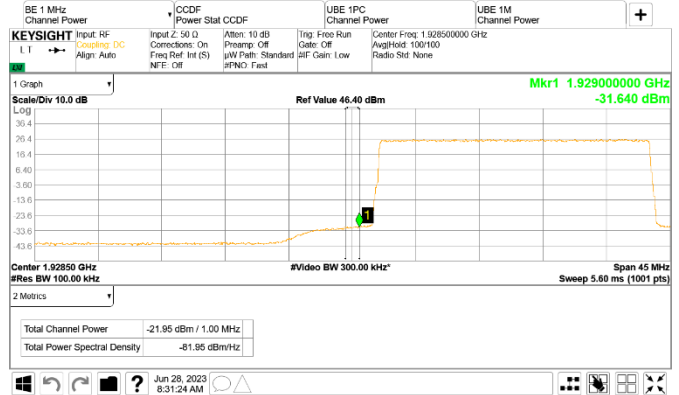


Figure 8.5-152: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Single carrier operation
 Meas. BW: 1 MHz Tech.: NR 20 MHz
 Limit: -19 dBm/MHz Notes: None



Figure 8.5-153: Conducted emission at the upper band edge

Frequency: 1995 MHz Mode: Single carrier operation
 Meas. BW: 1% of EBW Tech.: NR 20 MHz
 Limit: -19 dBm/200 kHz Notes: None



Figure 8.5-154: Conducted emission 1 MHz away from the upper band edge

Frequency: 1996 MHz Mode: Single carrier operation
 Meas. BW: 1 MHz Tech.: NR 20 MHz
 Limit: -19 dBm/MHz Notes: None

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 8.5-155: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Single carrier operation
 Meas. BW: 1% of EBW Tech.: NR 25 MHz
 Limit: -19 dBm/250 kHz Notes: None



Figure 8.5-156: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Single carrier operation
 Meas. BW: 1 MHz Tech.: NR 25 MHz
 Limit: -19 dBm/MHz Notes: None

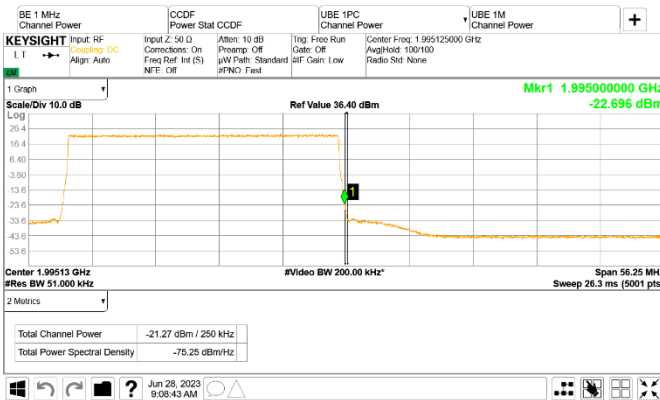


Figure 8.5-157: Conducted emission at the upper band edge

Frequency: 1995 MHz Mode: Single carrier operation
 Meas. BW: 1% of EBW Tech.: NR 25 MHz
 Limit: -19 dBm/250 kHz Notes: None

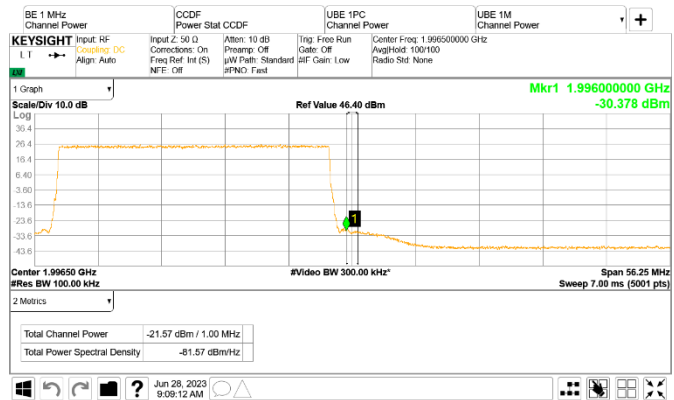


Figure 8.5-158: Conducted emission 1 MHz away from the upper band edge

Frequency: 1996 MHz Mode: Single carrier operation
 Meas. BW: 1 MHz Tech.: NR 25 MHz
 Limit: -19 dBm/MHz Notes: None

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 8.5-159: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Single carrier operation
 Meas. BW: 1% of EBW Tech.: NR 30 MHz
 Limit: -19 dBm/300 kHz Notes: None

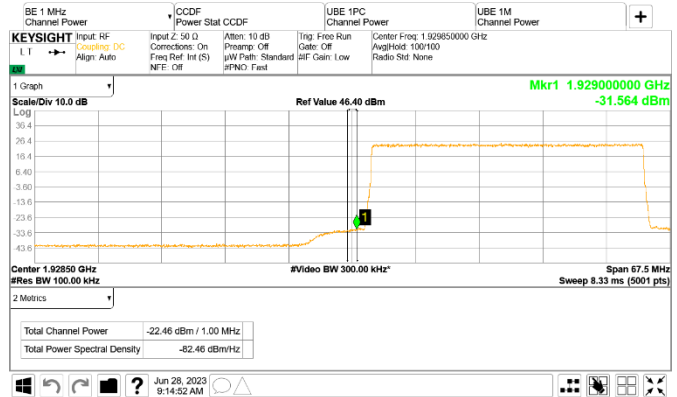


Figure 8.5-160: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Single carrier operation
 Meas. BW: 1 MHz Tech.: NR 30 MHz
 Limit: -19 dBm/MHz Notes: None

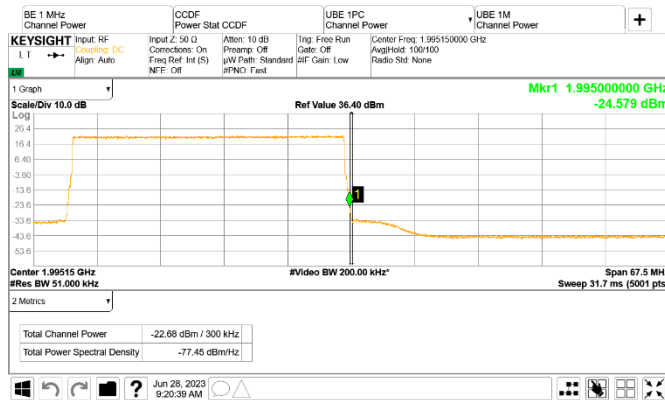


Figure 8.5-161: Conducted emission at the upper band edge

Frequency: 1995 MHz Mode: Single carrier operation
 Meas. BW: 1% of EBW Tech.: NR 30 MHz
 Limit: -19 dBm/300 kHz Notes: None



Figure 8.5-162: Conducted emission 1 MHz away from the upper band edge

Frequency: 1996 MHz Mode: Single carrier operation
 Meas. BW: 1 MHz Tech.: NR 30 MHz
 Limit: -19 dBm/MHz Notes: None

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 8.5-163: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Single carrier operation
 Meas. BW: 1% of EBW Tech.: NR 40 MHz
 Limit: -19 dBm/400 kHz Notes: None



Figure 8.5-164: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Single carrier operation
 Meas. BW: 1 MHz Tech.: NR 40 MHz
 Limit: -19 dBm/MHz Notes: None

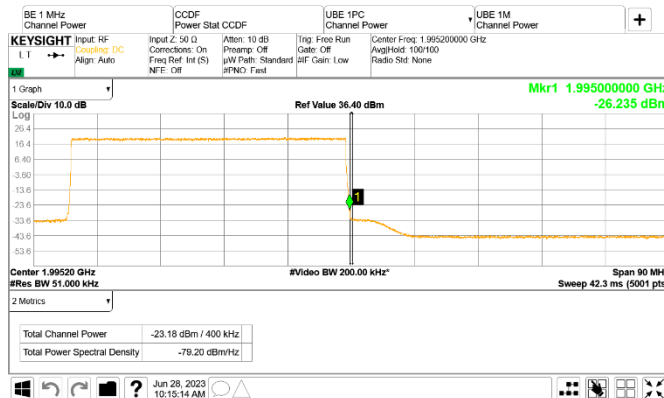


Figure 8.5-165: Conducted emission at the upper band edge

Frequency: 1995 MHz Mode: Single carrier operation
 Meas. BW: 1% of EBW Tech.: NR 40 MHz
 Limit: -19 dBm/400 kHz Notes: None

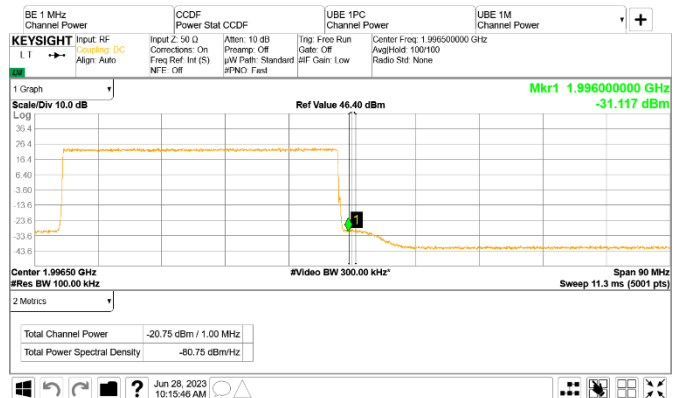


Figure 8.5-166: Conducted emission 1 MHz away from the upper band edge

Frequency: 1996 MHz Mode: Single carrier operation
 Meas. BW: 1 MHz Tech.: NR 40 MHz
 Limit: -19 dBm/MHz Notes: None

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 8.5-167: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Multi-carrier operation
Meas. BW: 1% of EBW Tech.: 2x NR 5 MHz
Limit: -19 dBm/50 kHz Notes: None

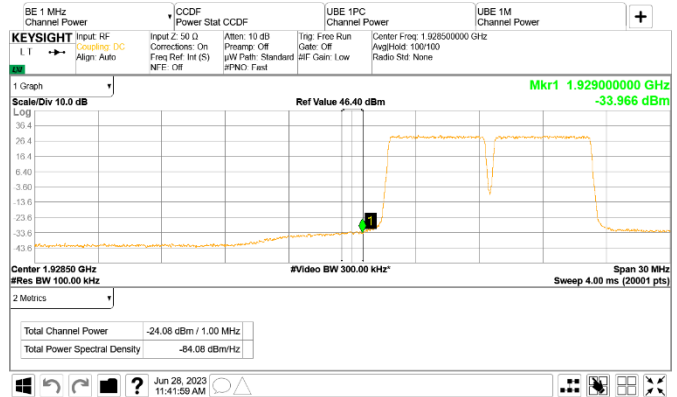


Figure 8.5-168: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Multi-carrier operation
Meas. BW: 1 MHz Tech.: 2x NR 5 MHz
Limit: -19 dBm/MHz Notes: None

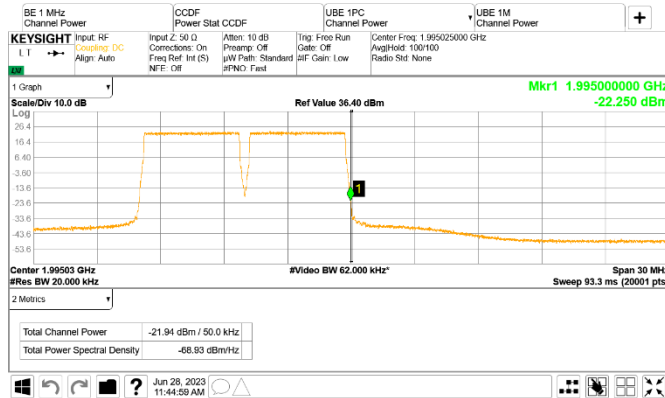


Figure 8.5-169: Conducted emission at the upper band edge

Frequency: 1995 MHz Mode: Multi-carrier operation
Meas. BW: 1% of EBW Tech.: 2x NR 5 MHz
Limit: -19 dBm/50 kHz Notes: None

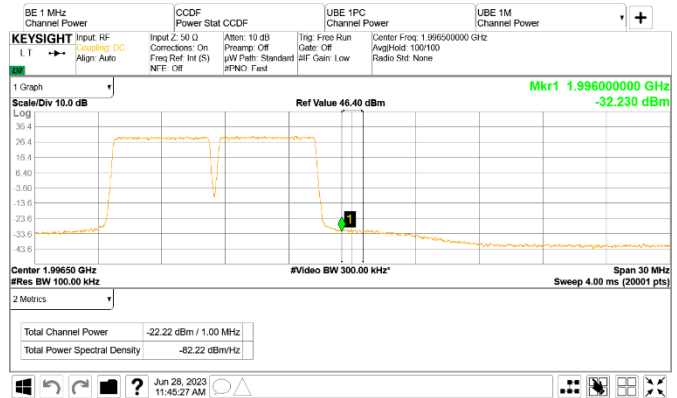


Figure 8.5-170: Conducted emission 1 MHz away from the upper band edge

Frequency: 1996 MHz Mode: Multi-carrier operation
Meas. BW: 1 MHz Tech.: 2x NR 5 MHz
Limit: -19 dBm/MHz Notes: None

Test data, continued

On the plots below the measured *Channel Power* value in the “*Total Channel Power*” column must be -19 dBm and lower.

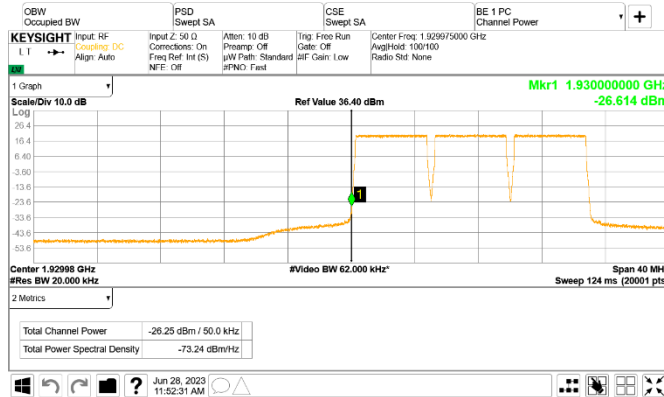


Figure 8.5-171: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Multi-carrier operation
 Meas. BW: 1% of EBW Tech.: $3 \times NR$ 5 MHz
 Limit: -19 dBm/50 kHz Notes: None

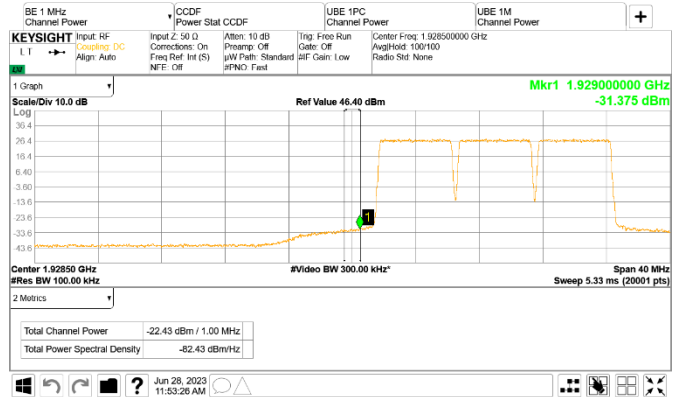


Figure 8.5-172: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Multi-carrier operation
 Meas. BW: 1 MHz Tech.: $3 \times NR$ 5 MHz
 Limit: -19 dBm/MHz Notes: None

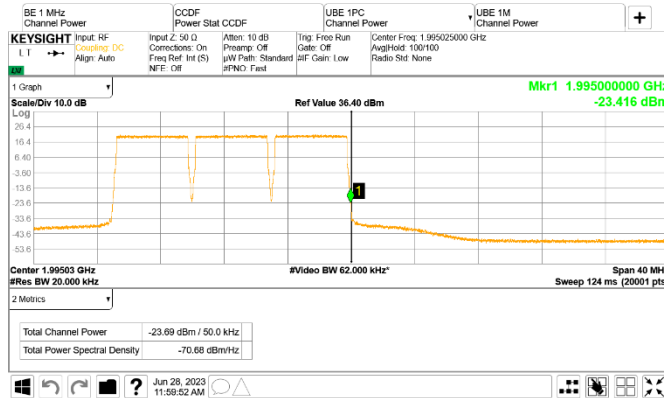


Figure 8.5-173: Conducted emission at the upper band edge

Frequency: 1995 MHz Mode: Multi-carrier operation
 Meas. BW: 1% of EBW Tech.: $3 \times NR$ 5 MHz
 Limit: -19 dBm/50 kHz Notes: None

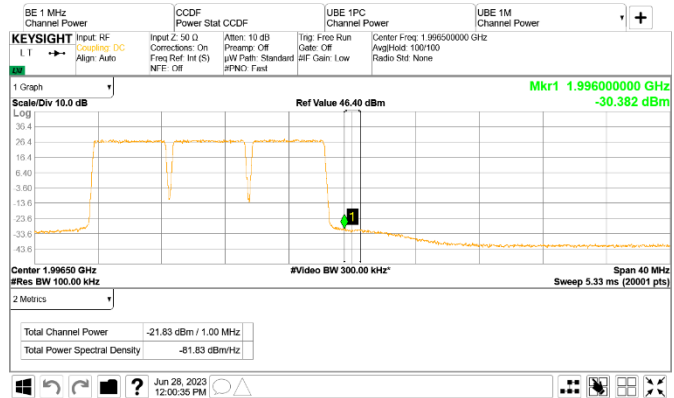


Figure 8.5-174: Conducted emission 1 MHz away from the upper band edge

Frequency: 1996 MHz Mode: Multi-carrier operation
 Meas. BW: 1 MHz Tech.: $3 \times NR$ 5 MHz
 Limit: -19 dBm/MHz Notes: None

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 8.5-175: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Multi-carrier operation
 Meas. BW: 1% of EBW Tech.: $6 \times NR$ 5 MHz
 Limit: -19 dBm/50 kHz Notes: None

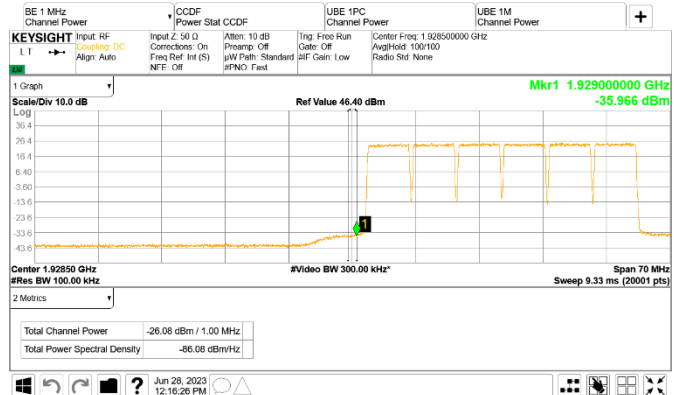


Figure 8.5-176: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Multi-carrier operation
 Meas. BW: 1 MHz Tech.: $6 \times NR$ 5 MHz
 Limit: -19 dBm/MHz Notes: None

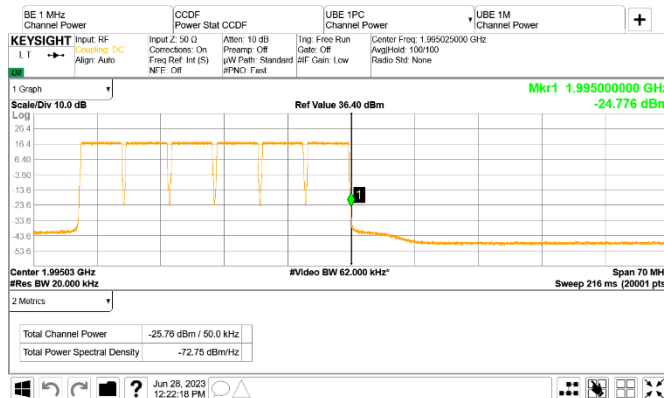


Figure 8.5-177: Conducted emission at the upper band edge

Frequency: 1995 MHz Mode: Multi-carrier operation
 Meas. BW: 1% of EBW Tech.: $6 \times NR$ 5 MHz
 Limit: -19 dBm/50 kHz Notes: None

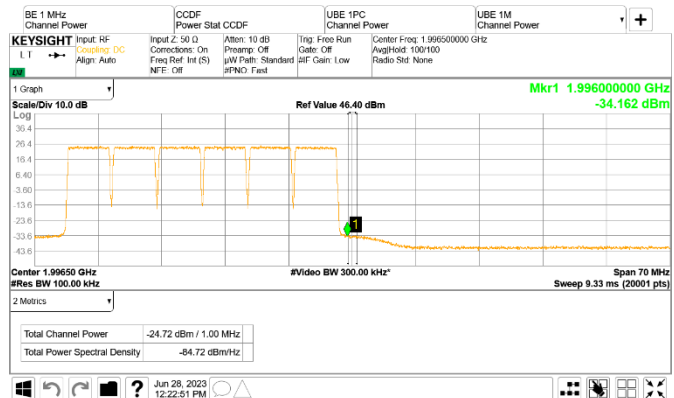


Figure 8.5-178: Conducted emission 1 MHz away from the upper band edge

Frequency: 1996 MHz Mode: Multi-carrier operation
 Meas. BW: 1 MHz Tech.: $6 \times NR$ 5 MHz
 Limit: -19 dBm/MHz Notes: None

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 8.5-179: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Multi-RAT operation
 Meas. BW: 1% of EBW Tech.: NR 5 MHz and LTE with IoT1 5 MHz
 Limit: -19 dBm/50 kHz Notes: None



Figure 8.5-180: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Multi-RAT operation
 Meas. BW: 1 MHz Tech.: NR 5 MHz and LTE with IoT1 5 MHz
 Limit: -13 dBm/MHz Notes: None

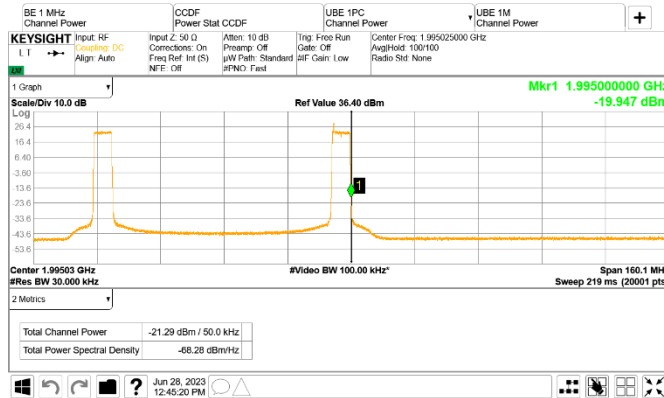


Figure 8.5-181: Conducted emission at the upper band edge

Frequency: 1930 MHz Mode: Multi-RAT operation
 Meas. BW: 1% of EBW Tech.: NR 5 MHz and LTE with IoT1 5 MHz
 Limit: -19 dBm/50 kHz Notes: None

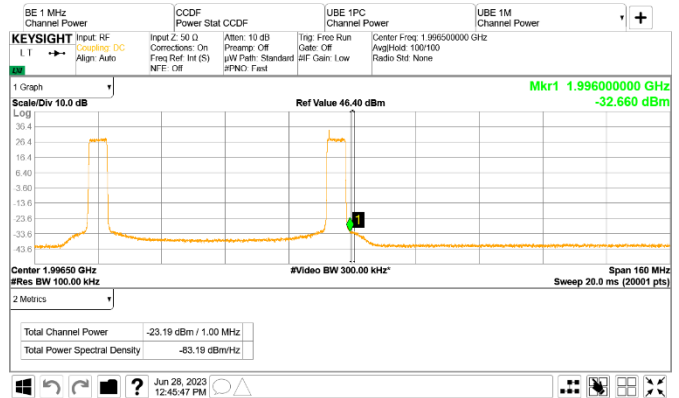


Figure 8.5-182: Conducted emission 1 MHz away from the upper band edge

Frequency: 1929 MHz Mode: Multi-RAT operation
 Meas. BW: 1 MHz Tech.: NR 5 MHz and LTE with IoT1 5 MHz
 Limit: -19 dBm/MHz Notes: None

Note: “and”: non-contiguous channels; “+”: contiguous channels

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 8.5-183: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Multi-RAT operation
 Meas. BW: 1% of EBW Tech.: 3 × NR 5 MHz and 3 × LTE with IoT1 5 MHz
 Limit: -19 dBm/50 kHz Notes: None

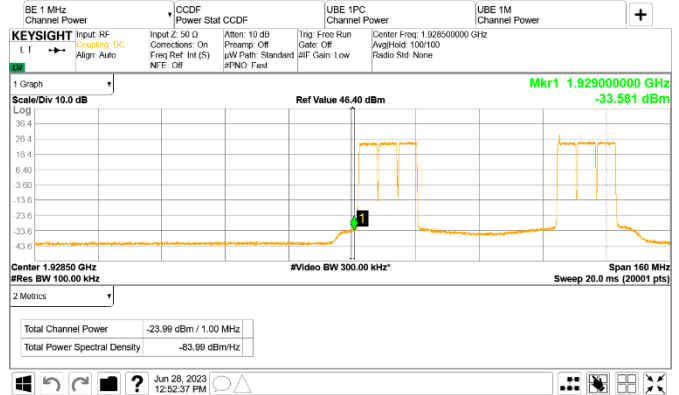


Figure 8.5-184: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Multi-RAT operation
 Meas. BW: 1 MHz Tech.: 3 × NR 5 MHz and 3 × LTE with IoT1 5 MHz
 Limit: -13 dBm/MHz Notes: None

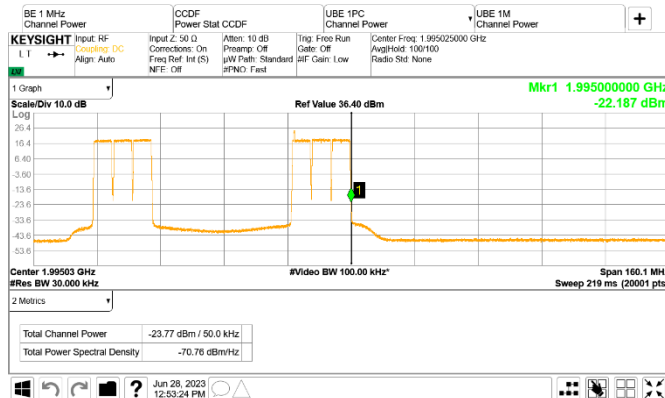


Figure 8.5-185: Conducted emission at the upper band edge

Frequency: 1930 MHz Mode: Multi-RAT operation
 Meas. BW: 1% of EBW Tech.: 3 × NR 5 MHz and 3 × LTE with IoT1 5 MHz
 Limit: -19 dBm/50 kHz Notes: None

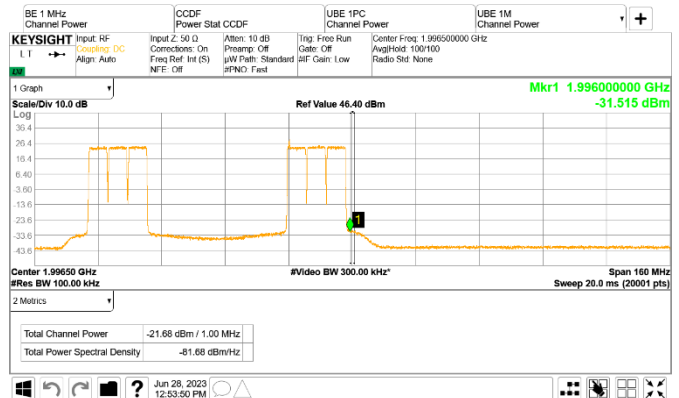


Figure 8.5-186: Conducted emission 1 MHz away from the upper band edge

Frequency: 1929 MHz Mode: Multi-RAT operation
 Meas. BW: 1 MHz Tech.: 3 × NR 5 MHz and 3 × LTE with IoT1 5 MHz
 Limit: -19 dBm/MHz Notes: None

Note: “and”: non-contiguous channels; “+”: contiguous channels

Test data, continued

On the plots below the measured *Channel Power* value in the “*Total Channel Power*” column must be **-19 dBm** and lower.

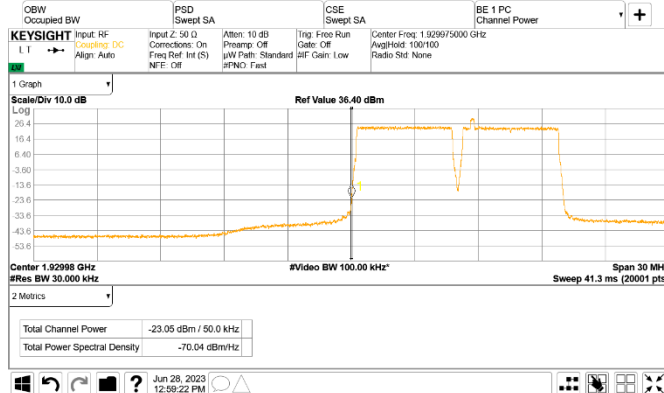


Figure 8.5-187: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Multi-RAT operation
 Meas. BW: 1% of EBW Tech.: NR 5 MHz + LTE with IoT1 5 MHz
 Limit: -19 dBm/50 kHz Notes: None

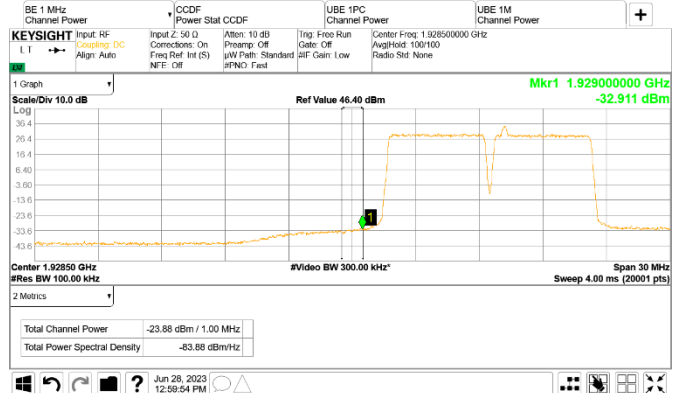


Figure 8.5-188: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Multi-RAT operation
 Meas. BW: 1 MHz Tech.: NR 5 MHz + LTE with IoT1 5 MHz
 Limit: -13 dBm/MHz Notes: None

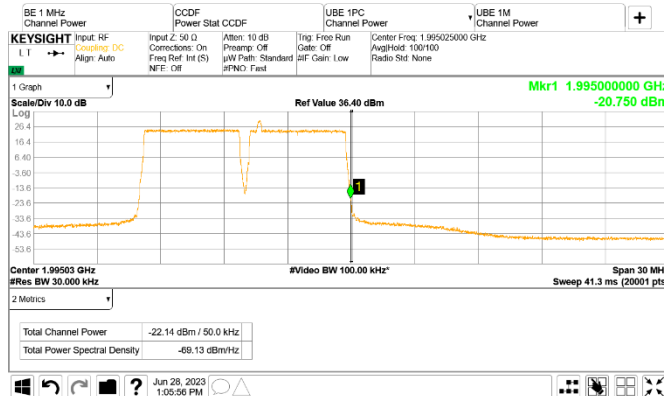


Figure 8.5-189: Conducted emission at the upper band edge

Frequency: 1930 MHz Mode: Multi-RAT operation
 Meas. BW: 1% of EBW Tech.: NR 5 MHz + LTE with IoT1 5 MHz
 Limit: -19 dBm/50 kHz Notes: None



Figure 8.5-190: Conducted emission 1 MHz away from the upper band edge

Frequency: 1929 MHz Mode: Multi-RAT operation
 Meas. BW: 1 MHz Tech.: NR 5 MHz + LTE with IoT1 5 MHz
 Limit: -19 dBm/MHz Notes: None

Note: “and”: non-contiguous channels; “+”: contiguous channels

Test data, continued

On the plots below the measured *Channel Power* value in the “*Total Channel Power*” column must be **-19 dBm** and lower.

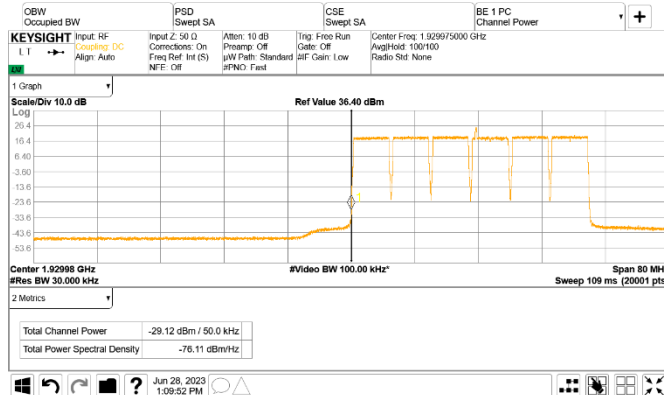


Figure 8.5-191: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Multi-RAT operation
 Meas. BW: 1% of EBW Tech.: 3 × NR 5 MHz + 3 × LTE with IoT1 5 MHz
 Limit: -19 dBm/50 kHz Notes: None

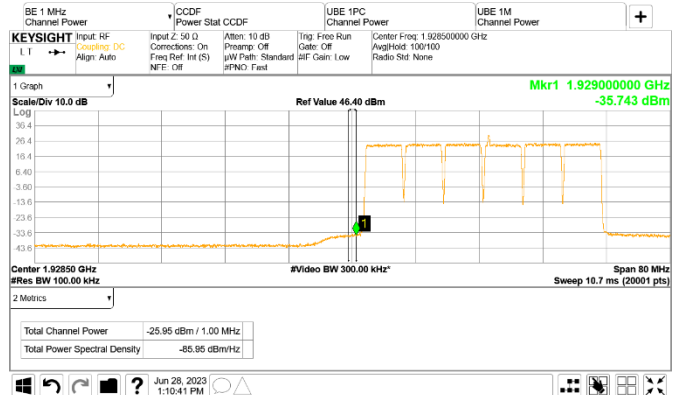


Figure 8.5-192: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Multi-RAT operation
 Meas. BW: 1 MHz Tech.: 3 × NR 5 MHz + 3 × LTE with IoT1 5 MHz
 Limit: -13 dBm/MHz Notes: None

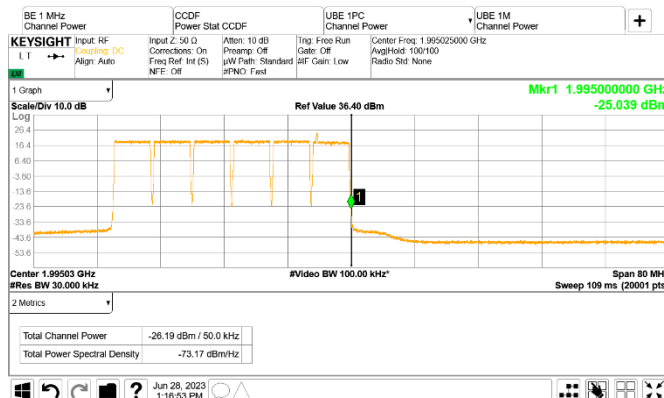


Figure 8.5-193: Conducted emission at the upper band edge

Frequency: 1930 MHz Mode: Multi-RAT operation
 Meas. BW: 1% of EBW Tech.: 3 × NR 5 MHz + 3 × LTE with IoT1 5 MHz
 Limit: -19 dBm/50 kHz Notes: None

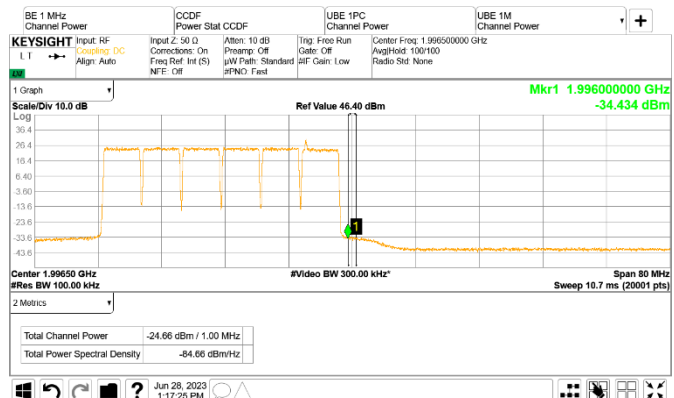


Figure 8.5-194: Conducted emission 1 MHz away from the upper band edge

Frequency: 1929 MHz Mode: Multi-RAT operation
 Meas. BW: 1 MHz Tech.: 3 × NR 5 MHz + 3 × LTE with IoT1 5 MHz
 Limit: -19 dBm/MHz Notes: None

Note: “and”: non-contiguous channels; “+”: contiguous channels

Test data, continued

On the plots below the measured *Channel Power* value in the “*Total Channel Power*” column must be **-19 dBm** and lower.

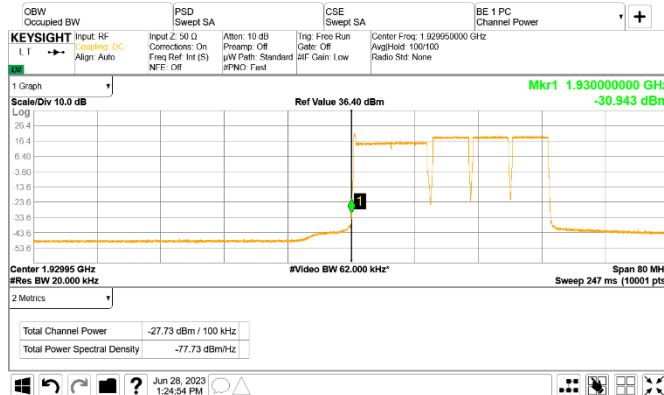


Figure 8.5-195: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Multi-RAT operation
 Meas. BW: 1% of EBW Tech.: LTE with GB 10 MHz + 3 × NR 5 MHz
 Limit: -13 dBm/100 kHz Notes: None

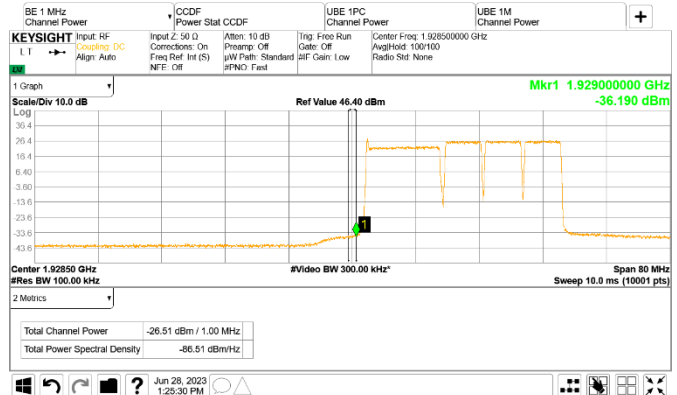


Figure 8.5-196: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Multi-RAT operation
 Meas. BW: 1 MHz Tech.: LTE with GB 10 MHz + 3 × NR 5 MHz
 Limit: -13 dBm/MHz Notes: None

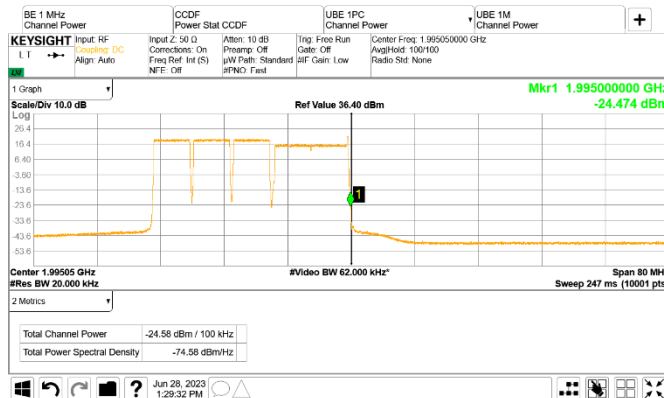


Figure 8.5-197: Conducted emission at the upper band edge

Frequency: 1995 MHz Mode: Multi-RAT operation
 Meas. BW: 1% of EBW Tech.: LTE with GB 10 MHz + 3 × NR 5 MHz
 Limit: -13 dBm/100 kHz Notes: None

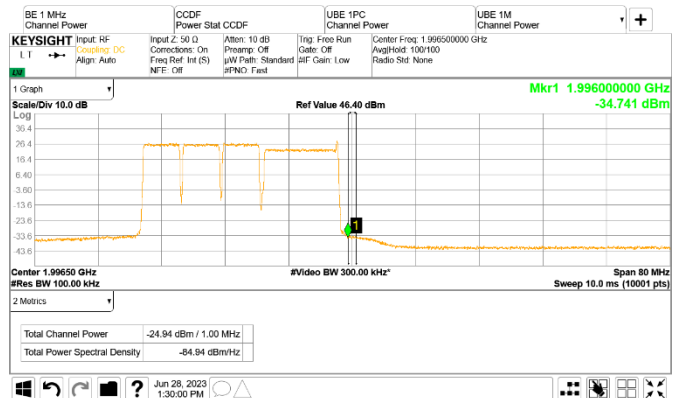


Figure 8.5-198: Conducted emission 1 MHz away from the upper band edge

Frequency: 1996 MHz Mode: Multi-RAT operation
 Meas. BW: 1 MHz Tech.: LTE with GB 10 MHz + 3 × NR 5 MHz
 Limit: -13 dBm/MHz Notes: None

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 8.5-199: Conducted emission at the lower band edge

Frequency: 1930 MHz Mode: Multi-RAT operation
 Meas. BW: 1% of EBW Tech.: NR 40 MHz + 3 × LTE 5 MHz + NR 10 MHz
 Limit: -13 dBm/400 kHz Notes: None

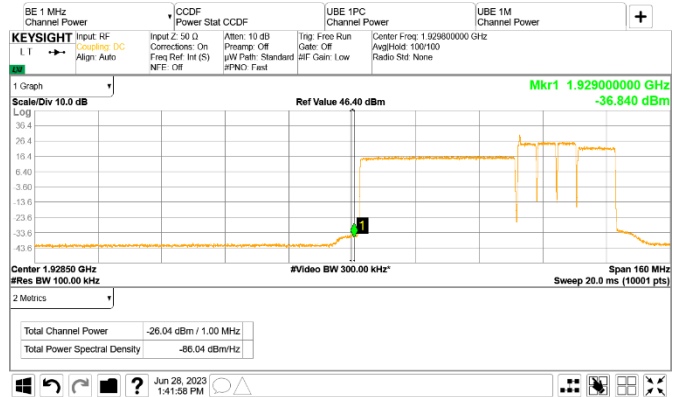


Figure 8.5-200: Conducted emission 1 MHz away from the lower band edge

Frequency: 1929 MHz Mode: Multi-RAT operation
 Meas. BW: 1 MHz Tech.: NR 40 MHz + 3 × LTE 5 MHz + NR 10 MHz
 Limit: -13 dBm/MHz Notes: None

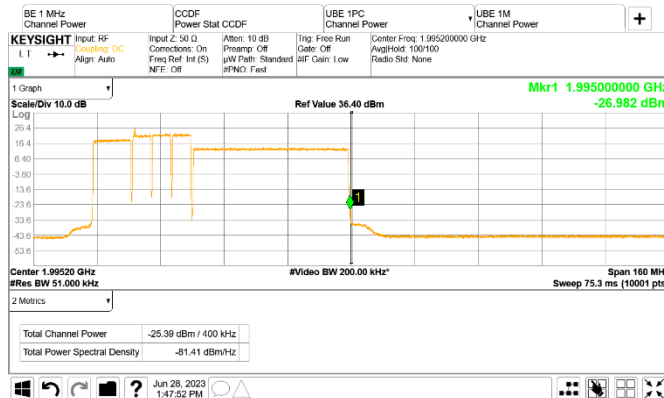


Figure 8.5-201: Conducted emission at the upper band edge

Frequency: 1995 MHz Mode: Multi-RAT operation
 Meas. BW: 1% of EBW Tech.: NR 40 MHz + 3 × LTE 5 MHz + NR 10 MHz
 Limit: -13 dBm/400 kHz Notes: NR 40 MHz on upper channel

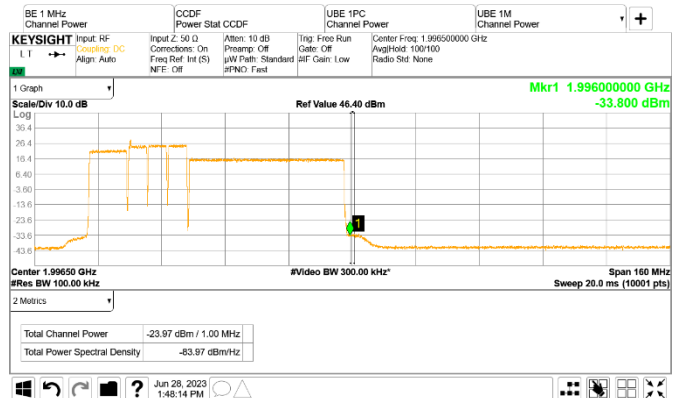


Figure 8.5-202: Conducted emission 1 MHz away from the upper band edge

Frequency: 1996 MHz Mode: Multi-RAT operation
 Meas. BW: 1 MHz Tech.: NR 40 MHz + 3 × LTE 5 MHz + NR 10 MHz
 Limit: -13 dBm/MHz Notes: NR 40 MHz on upper channel

8.6 Receiver conducted spurious emissions (Band 66 & 2/25)

8.6.1 Definitions and limits

RSS-Gen, 7.4

If the receiver has a detachable antenna of known impedance, an antenna-conducted spurious emissions measurement is permitted as an alternative to radiated measurement. However, the radiated method of section 7.3 is preferred.

The antenna-conducted test shall be performed with the antenna disconnected and with the receiver antenna port connected to a measuring instrument having equal input impedance to that specified for the antenna. The RF cable connecting the receiver under test to the measuring instrument shall also have the same impedance to that specified for the receiver's antenna.

The spurious emissions from the receiver at any discrete frequency, measured at the antenna port by the antenna-conducted method, shall not exceed 2 nW in the frequency range 30–1000 MHz and 5 nW above 1 GHz.

8.6.2 Test summary

Test date	June 29, 2023
Test engineer	Nimish Kapoor

8.6.3 Observations, settings and special notes

The actual limit lines are 2 nW (-56.98 dBm) for 30-1000 MHz range and 5 nW (-53.01 dBm) for above 1 GHz range. The 6 dB compensation to compensate for 4 ports will make the limits lines -63.98 dBm for 30-1000 MHz and -59.01 dBm for above 1 GHz and the scan is below these limits as well.

Spectrum analyzer settings:

Detector mode	RMS
Resolution bandwidth	1 MHz
Video bandwidth	RBW × 3
Trace mode	Averaging

8.6.4 Test data

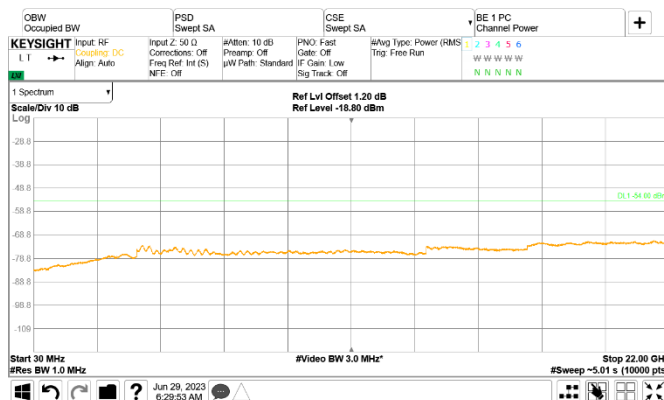


Figure 8.6-1: Receiver conducted spurious emissions for Band 25

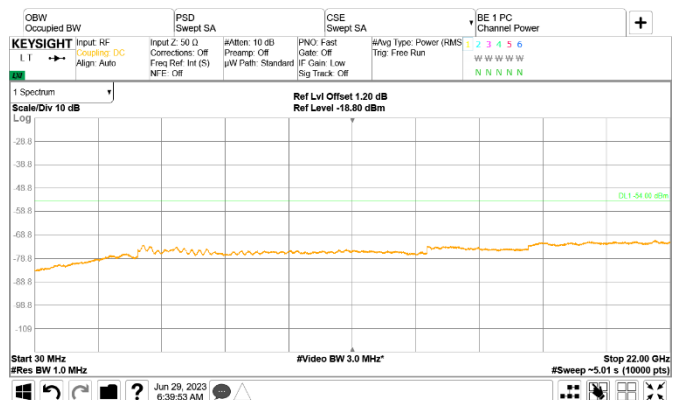


Figure 8.6-2: Receiver conducted spurious emissions for Band 66

8.7 Frequency stability (Band 66)

8.7.1 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-139, Section 5.4:

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

8.7.2 Test summary

Test date	June 29, 2023
Test engineer	Nimish Kapoor

8.7.3 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.

8.7.4 Test data

Table 8.7-1: Frequency error results

Temperature, °C	Voltage, V _{DC}	Frequency error, Hz
-40	48.0	-8.864
-30	48.0	7.411
-20	48.0	-7.073
-10	48.0	-7.874
0	48.0	-7.035
+10	48.0	-9.086
+20	40.8	7.361
+20	48.0	-7.565
+20	55.2	-7.868
+30	48.0	7.604
+40	48.0	-9.472
+50	48.0	9.757
+55	48.0	6.463

Max negative drift: -9.472 Hz, Max positive drift: +9.757 Hz.

8.8 Frequency stability (Band 2/25)

8.8.1 Definitions and limits

FCC 24.235:

The frequency stability shall be sufficient to ensure that the fundamental emission stays within the authorized frequency block.

RSS-133, Section 6.3:

The carrier frequency shall not depart from the reference frequency, in excess of ± 2.5 ppm for mobile stations and ± 1.0 ppm for base stations.

In lieu of meeting the above stability values, the test report may show that the frequency stability is sufficient to ensure that the emission bandwidth stays within the operating frequency block when tested to the temperature and supply voltage variations specified in RSS-Gen.

8.8.2 Test summary

Test date	June 29, 2023
Test engineer	Nimish Kapoor

8.8.3 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. The maximum allowed drift (± 1.0 ppm) is ± 1935 Hz

8.8.4 Test data

Table 8.8-1: Frequency error results

Temperature, °C	Voltage, V _{DC}	Frequency error, Hz
-40	48.0	-8.485
-30	48.0	10.364
-20	48.0	-7.470
-10	48.0	7.304
0	48.0	6.986
+10	48.0	-7.176
+20	40.8	7.725
+20	48.0	-7.628
+20	55.2	7.162
+30	48.0	-9.177
+40	48.0	11.728
+50	48.0	-7.192
+55	48.0	-6.318

Max negative drift: - 9.177 Hz, Max positive drift: +11.728 Hz.

8.9 Occupied bandwidth (Band 66)

8.9.1 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.

8.9.2 Test summary

Test date	June 26, 2023
Test engineer	Nimish Kapoor

8.9.3 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

8.9.4 Test data

Table 8.9-1: Occupied bandwidth results for LTE 5 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
5 MHz, Low channel	2112.5	4.863	4.493
5 MHz, Mid channel	2155.0	4.870	4.491
5 MHz, Top channel	2197.5	4.870	4.491
5 MHz with IoT1, Low channel	2112.5	4.799	4.488
5 MHz with IoT1, Mid channel	2155.0	4.803	4.490
5 MHz with IoT1, Top channel	2197.5	4.781	4.489
5 MHz with IoT2, Low channel	2112.5	4.821	4.490
5 MHz with IoT2, Mid channel	2155.0	4.820	4.495
5 MHz with IoT2, Top channel	2197.5	4.816	4.494

Table 8.9-2: Occupied bandwidth results for LTE 10 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
10 MHz, Low channel	2115.0	9.706	8.996
10 MHz, Mid channel	2155.0	9.727	8.991
10 MHz, Top channel	2195.0	9.728	8.999
10 MHz with IoT, Low channel	2115.0	9.841	9.228
10 MHz with IoT, Mid channel	2155.0	9.823	9.217
10 MHz with IoT, Top channel	2195.0	9.841	9.241

Test data, continued

Table 8.9-3: Occupied bandwidth results for LTE 15 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
15 MHz, Low channel	2117.5	14.550	13.482
15 MHz, Mid channel	2155.0	14.520	13.487
15 MHz, Top channel	2192.5	14.530	13.489
15 MHz with IoT, Low channel	2117.5	14.720	13.786
15 MHz with IoT, Mid channel	2155.0	14.760	13.792
15 MHz with IoT, Top channel	2192.5	14.730	13.790

Table 8.9-4: Occupied bandwidth results for LTE 20 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
20 MHz, Low channel	2120.0	19.250	17.934
20 MHz, Mid channel	2155.0	19.310	17.910
20 MHz, Top channel	2190.0	19.250	17.914
20 MHz with IoT, Low channel	2120.0	19.390	18.185
20 MHz with IoT, Mid channel	2155.0	19.270	18.208
20 MHz with IoT, Top channel	2190.0	19.420	18.216

Table 8.9-5: Occupied bandwidth results for NR 5 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
5 MHz, Low channel	2112.5	4.894	4.510
5 MHz, Mid channel	2155.0	4.877	4.481
5 MHz, Top channel	2197.5	4.880	4.506

Table 8.9-6: Occupied bandwidth results for NR 10 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
10 MHz, Low channel	2115.0	9.840	9.301
10 MHz, Mid channel	2155.0	9.846	9.308
10 MHz, Top channel	2195.0	9.878	9.296

Table 8.9-7: Occupied bandwidth results for NR 15 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
15 MHz, Low channel	2117.5	14.980	14.141
15 MHz, Mid channel	2155.0	14.990	14.158
15 MHz, Top channel	2192.5	14.940	14.138

Table 8.9-8: Occupied bandwidth results for NR 20 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
20 MHz, Low channel	2120.0	19.850	18.911
20 MHz, Mid channel	2155.0	19.910	18.928
20 MHz, Top channel	2190.0	19.920	18.898

Test data, continued

Table 8.9-9: Occupied bandwidth results for NR 25 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
25 MHz, Low channel	2122.5	24.930	23.762
25 MHz, Mid channel	2155.0	24.980	23.762
25 MHz, Top channel	2187.5	24.950	23.755

Table 8.9-10: Occupied bandwidth results for NR 30 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
30 MHz, Low channel	2125.0	29.900	28.565
30 MHz, Mid channel	2155.0	29.960	28.554
30 MHz, Top channel	2185.0	29.910	28.505

Table 8.9-11: Occupied bandwidth results for NR 40 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
40 MHz, Low channel	2130.0	39.990	38.576
40 MHz, Mid channel	2155.0	39.990	38.559
40 MHz, Top channel	2180.0	39.990	38.532