

Test data, continued



Figure 8.5-59: 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

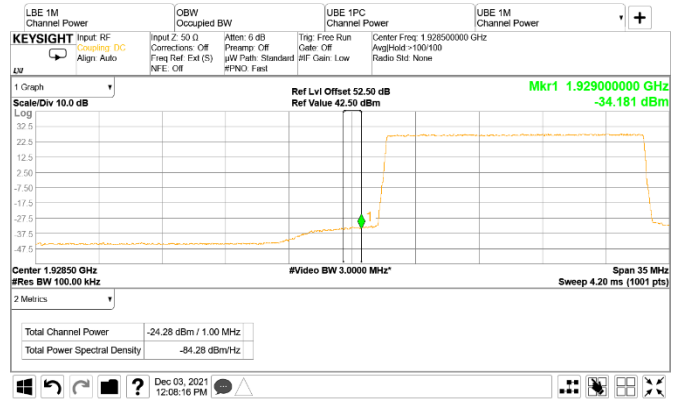


Figure 8.5-60: Conducted emission 1 MHz away from the lower band edge

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



Figure 8.5-61: 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

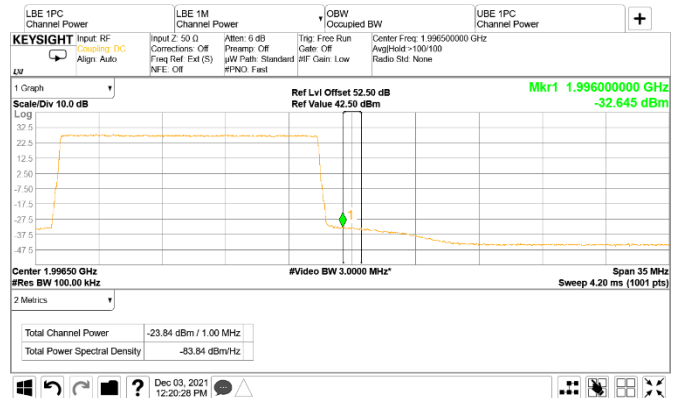
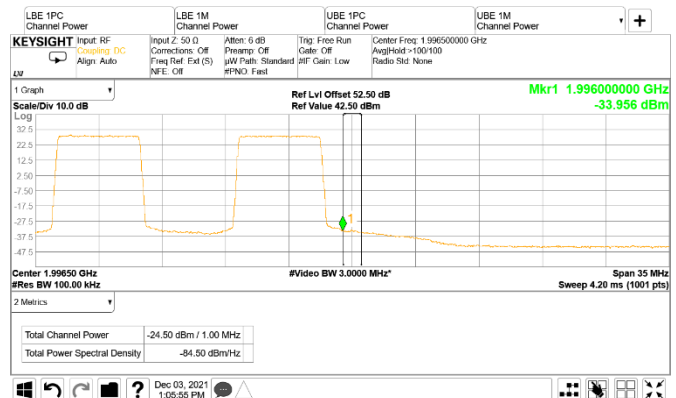
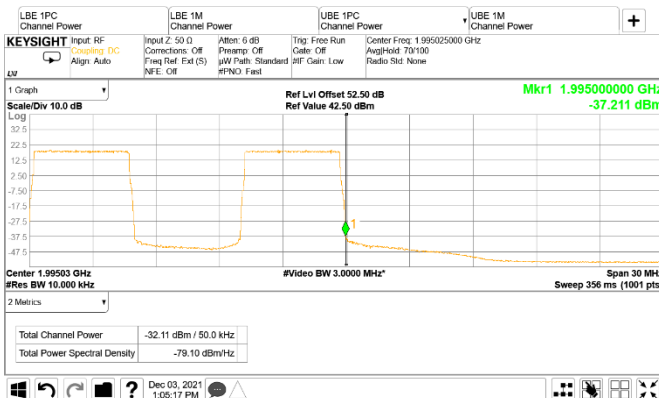
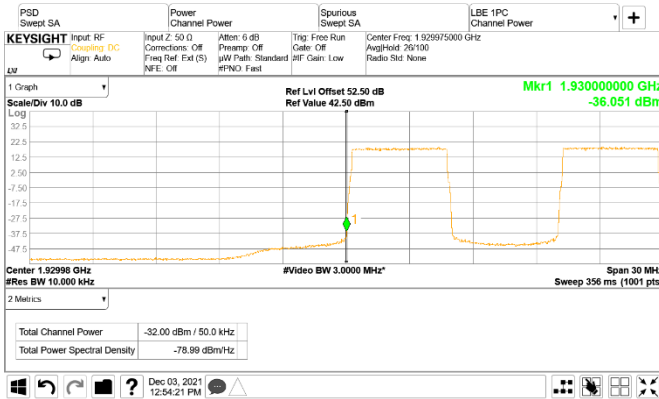


Figure 8.5-62: Conducted emission 1 MHz away from the upper band edge

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

Test data, continued



Test data, continued

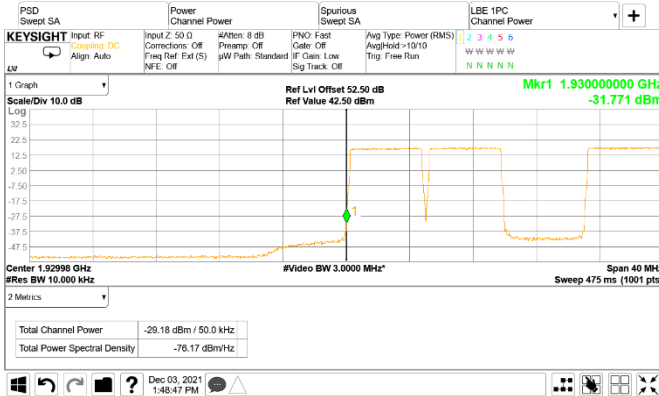


Figure 8.5-67: Conducted emission at the lower band edge

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

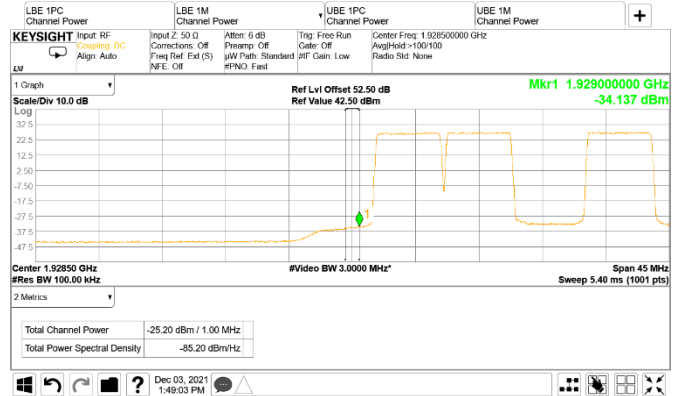


Figure 8.5-68: Conducted emission 1 MHz away from the lower band edge

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

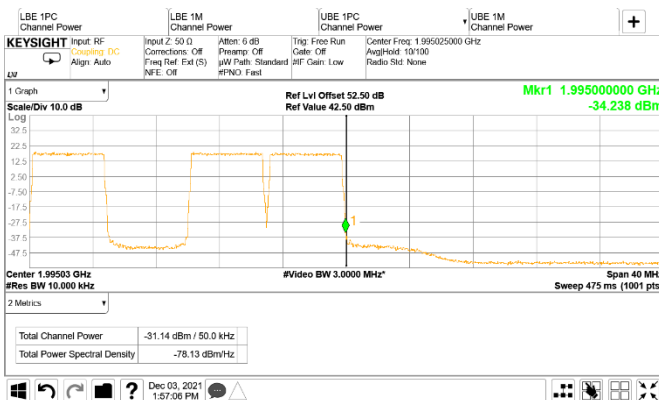


Figure 8.5-69: Conducted emission at the upper band edge

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

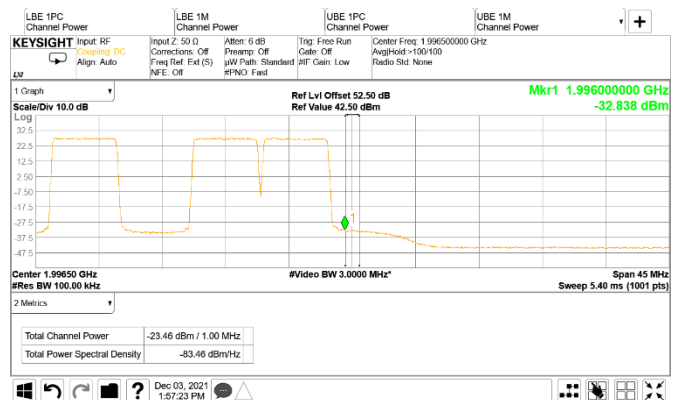


Figure 8.5-70: Conducted emission 1 MHz away from the upper band edge

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

8.6 Occupied bandwidth (Band 66)

8.6.1 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.

8.6.2 Test summary

Test date	December 3, 2021
Test engineer	Andrey Adelberg

8.6.3 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

8.6.4 Test data

Table 8.6-1: Occupied bandwidth results for LTE 5 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
5 MHz, Low channel	2112.5	4.810	4.4821
5 MHz, Mid channel	2155.0	4.802	4.4819
5 MHz, Top channel	2197.5	4.789	4.4791

Table 8.6-2: Occupied bandwidth results for LTE 10 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
10 MHz, Low channel	2115.0	9.527	8.9415
10 MHz, Mid channel	2155.0	9.521	8.9369
10 MHz, Top channel	2195.0	9.531	8.9323

Table 8.6-3: Occupied bandwidth results for LTE 15 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
15 MHz, Low channel	2117.5	14.23	13.403
15 MHz, Mid channel	2155.0	14.25	13.400
15 MHz, Top channel	2192.5	14.24	13.404

Test data, continued

Table 8.6-4: Occupied bandwidth results for NR 5 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
5 MHz, Low channel	2112.5	4.827	4.4828
5 MHz, Mid channel	2155.0	4.824	4.4837
5 MHz, Top channel	2197.5	4.826	4.4834

Table 8.6-5: Occupied bandwidth results for NR 10 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
10 MHz, Low channel	2115.0	9.727	9.2632
10 MHz, Mid channel	2155.0	9.728	9.2619
10 MHz, Top channel	2195.0	9.732	9.2654

Table 8.6-6: Occupied bandwidth results for NR 15 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
15 MHz, Low channel	2117.5	14.56	14.095
15 MHz, Mid channel	2155.0	14.56	14.095
15 MHz, Top channel	2192.5	14.55	14.093

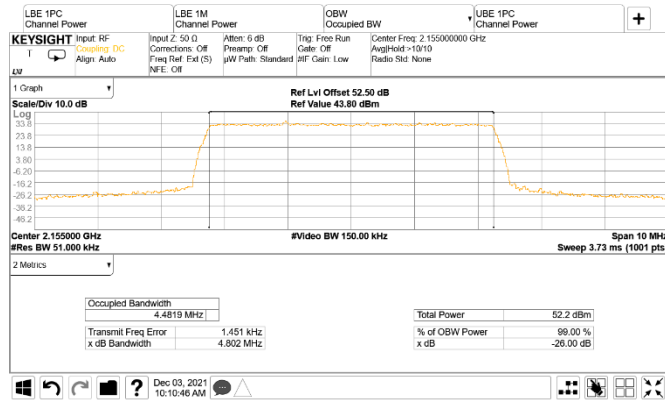


Figure 8.6-1: Occupied bandwidth sample plot for LTE 5 MHz channel

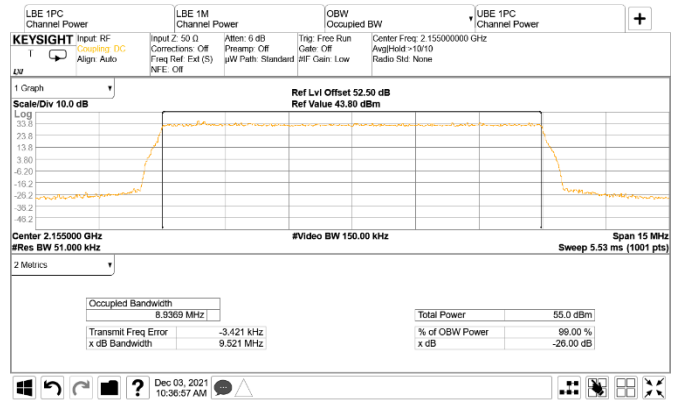


Figure 8.6-2: Occupied bandwidth sample plot for LTE 10 MHz channel

Test data, continued



Figure 8.6-3: Occupied bandwidth sample plot for LTE 15 MHz channel

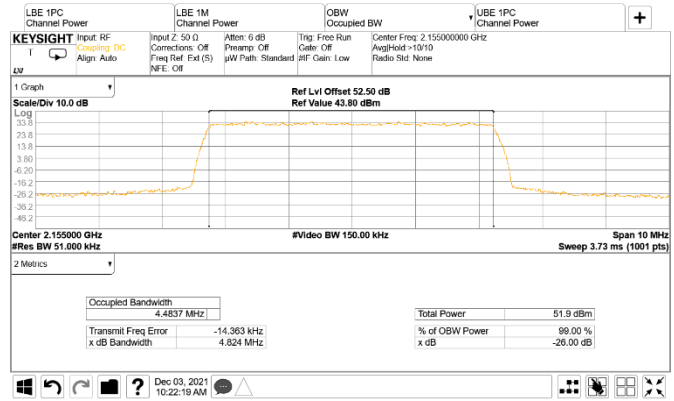


Figure 8.6-4: Occupied bandwidth sample plot for NR 5 MHz channel

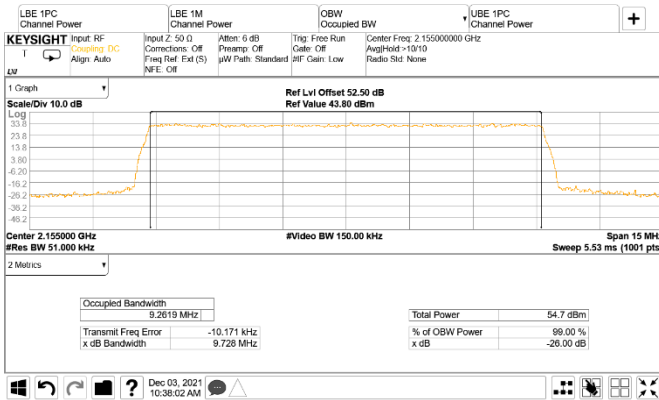


Figure 8.6-5: Occupied bandwidth sample plot for NR 10 MHz channel



Figure 8.6-6: Occupied bandwidth sample plot for NR 15 MHz channel

8.7 Occupied bandwidth (Band 2/25)

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	December 3, 2021
Test engineer	Andrey Adelberg

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 results for LTE 5 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
5 MHz, Low channel	1932.5	4.810	4.4791
5 MHz, Mid channel	1962.5	4.798	4.4812
5 MHz, Top channel	1992.5	4.817	4.4826

Table 8.7-2: Occupied bandwidth results for LTE 10 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
10 MHz, Low channel	1935.0	9.526	8.9334
10 MHz, Mid channel	1962.5	9.519	8.9436
10 MHz, Top channel	1990.0	9.546	8.9361

Table 8.7-3: Occupied bandwidth results for LTE 15 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
15 MHz, Low channel	1937.5	14.23	13.397
15 MHz, Mid channel	1962.5	14.21	13.402
15 MHz, Top channel	1987.5	14.22	13.403

Test data, continued

Table 8.7-4: Occupied bandwidth results for NR 5 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
5 MHz, Low channel	1932.5	4.824	4.4783
5 MHz, Mid channel	1962.5	4.823	4.4815
5 MHz, Top channel	1992.5	4.833	4.4826

Table 8.7-5: Occupied bandwidth results for NR 10 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
10 MHz, Low channel	1935.0	9.729	9.2645
10 MHz, Mid channel	1962.5	9.730	9.2662
10 MHz, Top channel	1990.0	9.735	9.2680

Table 8.7-6: Occupied bandwidth results for NR 15 MHz channel

Remarks	Frequency, MHz	26 dB BW, MHz	99% OBW, MHz
15 MHz, Low channel	1937.5	14.53	14.091
15 MHz, Mid channel	1962.5	14.55	14.094
15 MHz, Top channel	1987.5	14.56	14.096

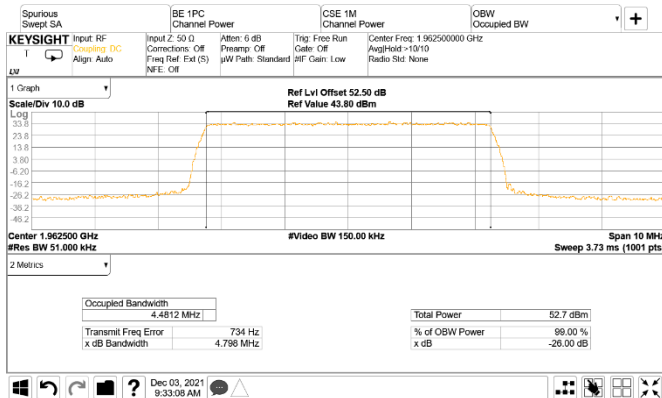


Figure 8.7-1: Occupied bandwidth sample plot for LTE 5 MHz channel

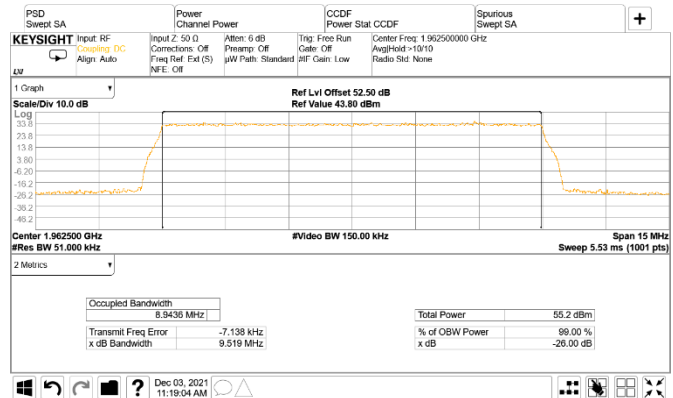


Figure 8.7-2: Occupied bandwidth sample plot for LTE 10 MHz channel

Test data, continued



Figure 8.7-3: Occupied bandwidth sample plot for LTE 15 MHz channel

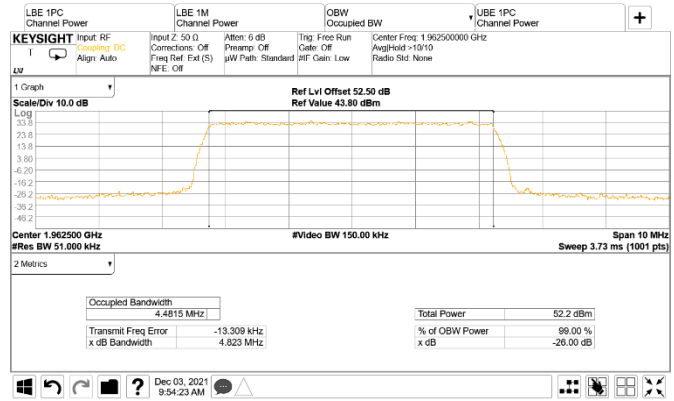


Figure 8.7-4: Occupied bandwidth sample plot for NR 5 MHz channel

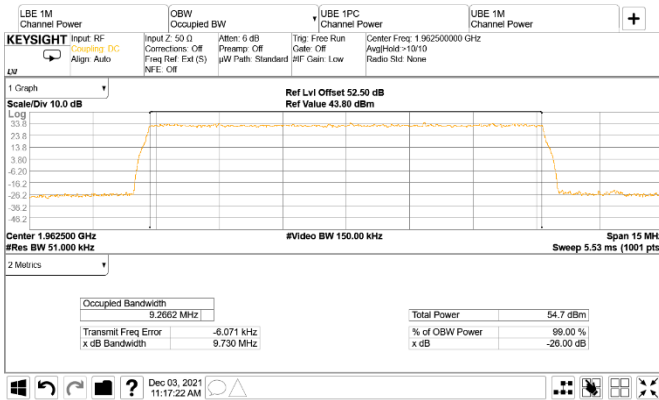


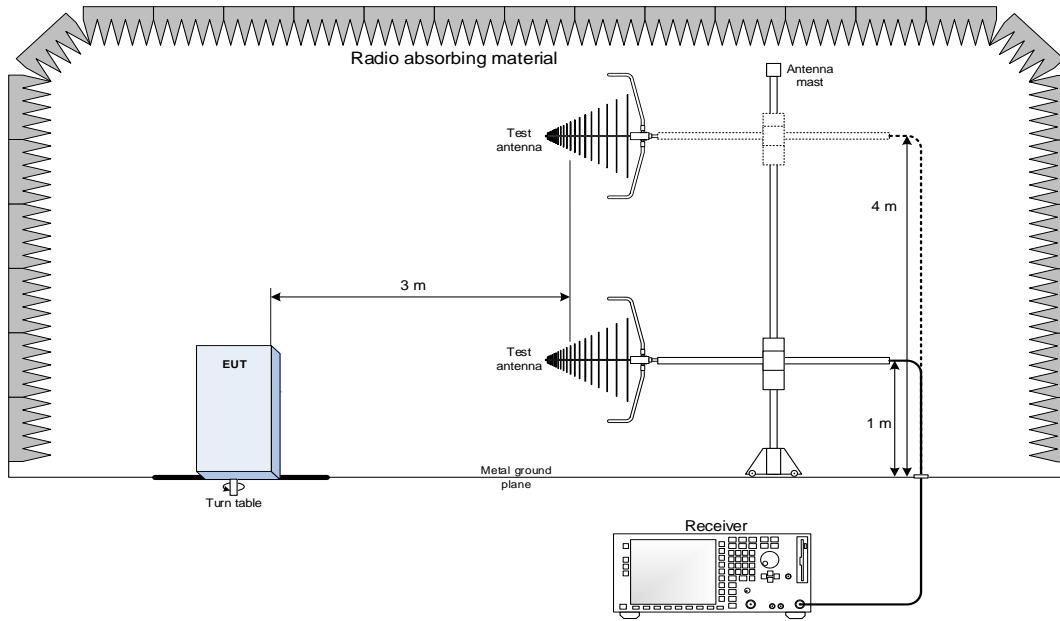
Figure 8.7-5: Occupied bandwidth sample plot for NR 10 MHz channel



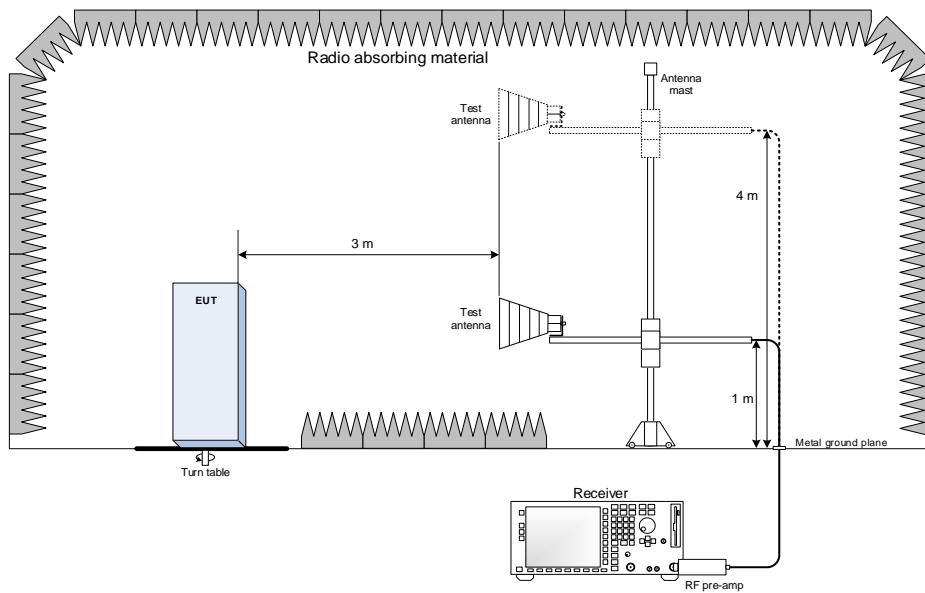
Figure 8.7-6: Occupied bandwidth sample plot for NR 15 MHz channel

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

