



Figure 8.3-155: Conducted band edge emission at 1930 MHz, CDMA, LTE 5 MHz and NR 5 MHz, antenna port B three-carrier operation (RBW = 1% of EBW)



Figure 8.3-157: Conducted band edge emission at 1990 MHz, CDMA, LTE 5 MHz and NR 5 MHz, antenna port B three-carrier operation (RBW = 1% of EBW)



Figure 8.3-156: Conducted band edge emission at 1929 MHz, CDMA, LTE 5 MHz and NR 5 MHz, antenna port B three-carrier operation (RBW = 1 MHz)



Figure 8.3-158: Conducted band edge emission at 1991 MHz, CDMA, LTE 5 MHz and NR 5 MHz, antenna port B three-carrier operation (RBW = 1 MHz)





Figure 8.3-159: Conducted band edge emission at 1930 MHz, CDMA, LTE 10 MHz and NR 10 MHz, antenna port A three-carrier operation (RBW = 1% of EBW)



Figure 8.3-161: Conducted band edge emission at 1990 MHz, CDMA, LTE 10 MHz and NR 10 MHz, antenna port A three-carrier operation (RBW = 1% of EBW)



Figure 8.3-160: Conducted band edge emission at 1929 MHz, CDMA, LTE 10 MHz and NR 10 MHz, antenna port A three-carrier operation (RBW = 1 MHz)



Figure 8.3-162: Conducted band edge emission at 1991 MHz, CDMA, LTE 10 MHz and NR 10 MHz, antenna port A three-carrier operation (RBW = 1 MHz)





Figure 8.3-163: Conducted band edge emission at 1930 MHz, CDMA, LTE 10 MHz and NR 10 MHz, antenna port B three-carrier operation (RBW = 1% of EBW)



Figure 8.3-165: Conducted band edge emission at 1990 MHz, CDMA, LTE 10 MHz and NR 10 MHz, antenna port B three-carrier operation (RBW = 1% of EBW)



Figure 8.3-164: Conducted band edge emission at 1929 MHz, CDMA, LTE 10 MHz and NR 10 MHz, antenna port B three-carrier operation (RBW = 1 MHz)



Figure 8.3-166: Conducted band edge emission at 1991 MHz, CDMA, LTE 10 MHz and NR 10 MHz, antenna port B three-carrier operation (RBW = 1 MHz)





Figure 8.3-167: Conducted band edge emission at 1930 MHz, CDMA, LTE 15 MHz and NR 15 MHz, antenna port A three-carrier operation (RBW = 1% of EBW)



Figure 8.3-169: Conducted band edge emission at 1990 MHz, CDMA, LTE 15 MHz and NR 15 MHz, antenna port A three-carrier operation (RBW = 1% of EBW)



Figure 8.3-168: Conducted band edge emission at 1929 MHz, CDMA, LTE 15 MHz and NR 15 MHz, antenna port A three-carrier operation (RBW = 1 MHz)



Figure 8.3-170: Conducted band edge emission at 1991 MHz, CDMA, LTE 15 MHz and NR 15 MHz, antenna port A three-carrier operation (RBW = 1 MHz)





Figure 8.3-171: Conducted band edge emission at 1930 MHz, CDMA, LTE 15 MHz and NR 15 MHz, antenna port B three-carrier operation (RBW = 1% of EBW)



Figure 8.3-173: Conducted band edge emission at 1990 MHz, CDMA, LTE 15 MHz and NR 15 MHz, antenna port B three-carrier operation (RBW = 1% of EBW)



Figure 8.3-172: Conducted band edge emission at 1929 MHz, CDMA, LTE 15 MHz and NR 15 MHz, antenna port B three-carrier operation (RBW = 1 MHz)



Figure 8.3-174: Conducted band edge emission at 1991 MHz, CDMA, LTE 15 MHz and NR 15 MHz, antenna port B three-carrier operation (RBW = 1 MHz)





Figure 8.3-175: Conducted band edge emission at 1930 MHz, CDMA, LTE 20 MHz and NR 20 MHz, antenna port A three-carrier operation (RBW = 1% of EBW)



Figure 8.3-177: Conducted band edge emission at 1990 MHz, CDMA, LTE 20 MHz and NR 20 MHz, antenna port A three-carrier operation (RBW = 1% of EBW)



Figure 8.3-176: Conducted band edge emission at 1929 MHz, CDMA, LTE 20 MHz and NR 20 MHz, antenna port A three-carrier operation (RBW = 1 MHz)



Figure 8.3-178: Conducted band edge emission at 1991 MHz, CDMA, LTE 20 MHz and NR 20 MHz, antenna port A three-carrier operation (RBW = 1 MHz)





Figure 8.3-179: Conducted band edge emission at 1930 MHz, CDMA, LTE 20 MHz and NR 20 MHz, antenna port B three-carrier operation (RBW = 1% of EBW)



Figure 8.3-181: Conducted band edge emission at 1990 MHz, CDMA, LTE 20 MHz and NR 20 MHz, antenna port B three-carrier operation (RBW = 1% of EBW)



Figure 8.3-180: Conducted band edge emission at 1929 MHz, CDMA, LTE 20 MHz and NR 20 MHz, antenna port B three-carrier operation (RBW = 1 MHz)



Figure 8.3-182: Conducted band edge emission at 1991 MHz, CDMA, LTE 20 MHz and NR 20 MHz, antenna port B three-carrier operation (RBW = 1 MHz)



8.4 Occupied bandwidth

8.4.1 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.

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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.

8.4.2 Test summary

| Test date | March 30, 2021 |
|---------------|-----------------|
| Test engineer | Andrey Adelberg |

8.4.3 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 |

8.4.4 Test data

| Frequency, MHz | 26 dB BW antenna port A, | 26 dB BW antenna port B, | 99% OBW antenna port A, | 99% OBW antenna port B, |
|--------------------|--------------------------|--------------------------|-------------------------|-------------------------|
| | MHz | MHz | MHz | MHz |
| 1931.25 | 1.3520 | 1.3660 | 1.2523 | 1.2528 |
| 1960.00 | 1.3560 | 1.3590 | 1.2520 | 1.2515 |
| 1988.75 | 1.3600 | 1.3580 | 1.2539 | 1.2507 |

Table 8.4-1: Occupied bandwidth results for CDMA

Section 8 Test name Specification Testing data Occupied bandwidth FCC Part 2, RSS-Gen, Issue 5



Test data, continued



Figure 8.4-1: 99% Occupied bandwidth and 26 dB bandwidth sample plot for CDMA



8.5 Receiver conducted spurious emissions

8.5.1 Definitions and limits

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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.

8.5.2 Test summary

| Test date | March 31, 2021 |
|---------------|-----------------|
| Test engineer | Andrey Adelberg |

8.5.3 Observations, settings and special notes

Spectrum analyzer settings:

| pectrum analyzer settings. | | |
|----------------------------|-----------|--|
| Detector mode | RMS | |
| Resolution bandwidth | 1 MHz | |
| Video bandwidth | RBW × 3 | |
| Trace mode | Averaging | |

8.5.4 Test data







Figure 8.5-2: Receiver conducted spurious emissions above 1 GHz at antenna port A

Section 8Testing dataTest nameReceiver conducted spurious emissionsSpecificationRSS-Gen, Issue 5



Test data, continued





Figure 8.5-3: Receiver conducted spurious emissions below 1 GHz at antenna port B

Figure 8.5-4: Receiver conducted spurious emissions above 1 GHz at antenna port B



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



Report reference ID: 425703-1TRFWL-R1



9.3 Conducted emissions set-up

