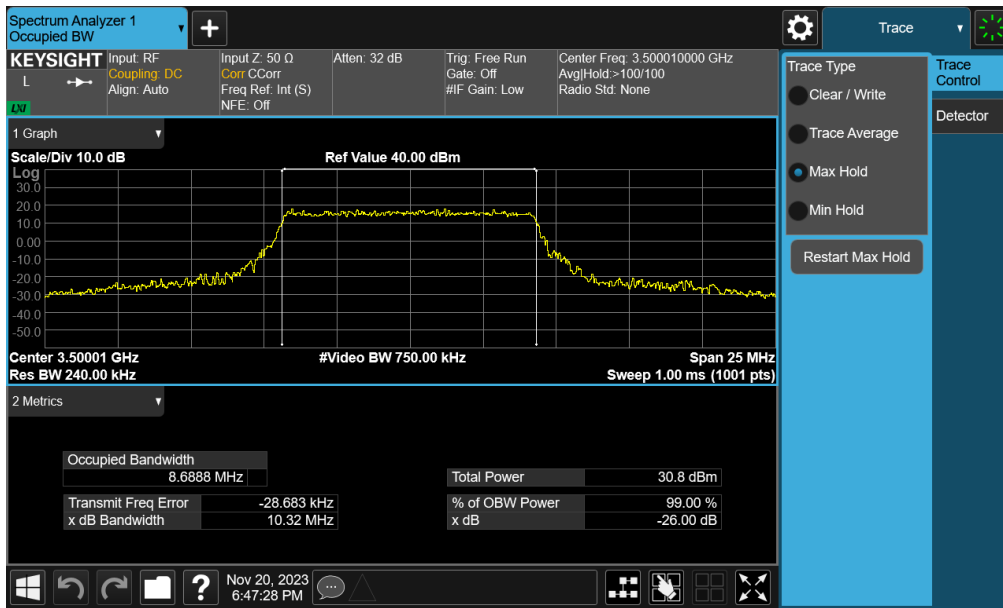
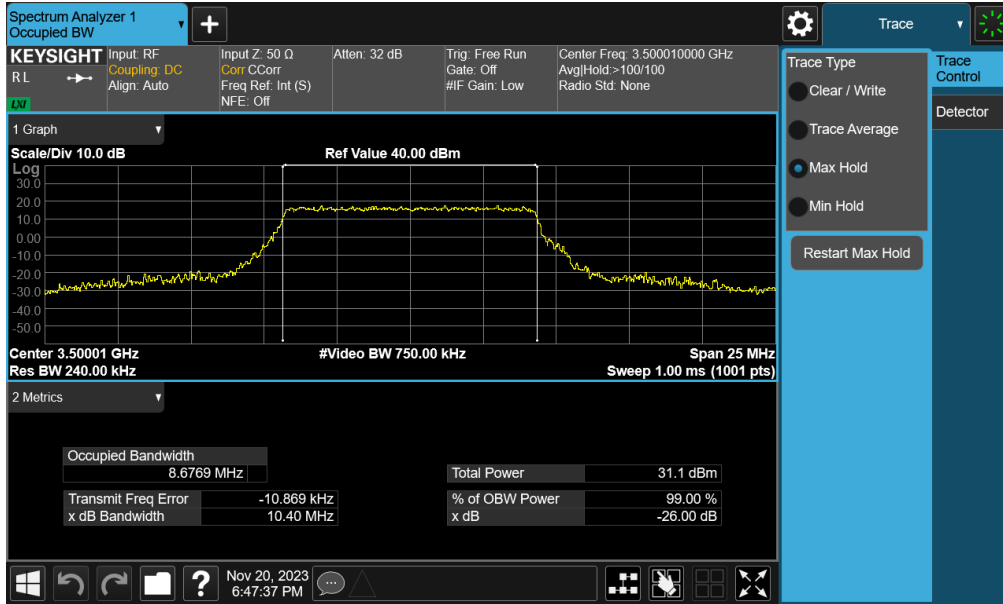


FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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7.4 Spurious and Harmonic Emissions at Antenna Terminal

Test Overview

The level of the carrier and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10th harmonic. All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst-case configuration. All modes of operation were investigated, and the worst-case configuration results are reported in this section.

For operations in the 3700 – 3980MHz band and the 3450 – 3550MHz band, the maximum permissible conducted power level of any spurious emission is -13dBm/MHz.

Test Procedure Used

ANSI C63.26-2015 – Section 5.7.4

Test Settings

1. Start frequency was set to 30MHz and stop frequency was set to the tenth harmonic of the highest transmit frequency (separated into at least two plots per channel)
2. Detector = RMS
3. Trace mode = trace average for continuous emissions, max hold for pulse emissions
4. Sweep time = auto couple
5. The trace was allowed to stabilize.
6. Please see test notes below for RBW and VBW settings

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

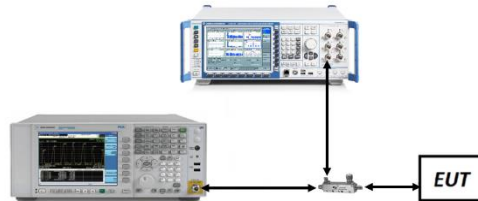


Figure 7-3. Test Instrument & Measurement Setup

Test Notes

1. Per Part 27.53(l) and Part 27.53(n), compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz.
2. For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst-case configuration. All modes of operation were investigated, and the worst-case configuration results are reported in this section.

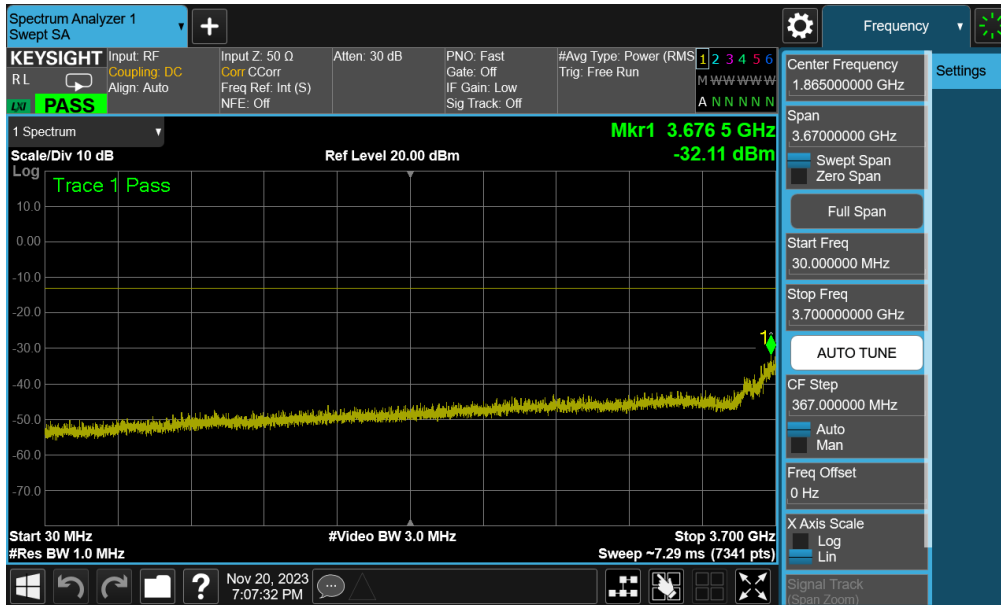
FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 56 of 130

Mode	Bandwidth	Channel	Range [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]
NR-n77/78 PC2 DoD	100MHz	Mid	30.0 - 3450.0	-31.68	-13	-18.68
		Mid	3550.0 - 20000.0	-31.93	-13	-18.93
		Mid	20000.0 - 40000.0	-43.37	-13	-30.37
NR-n77/78 PC2 C-Band	100MHz	Low	30.0 - 3700.0	-32.11	-13	-19.11
		Low	3980.0 - 20000.0	-35.01	-13	-22.01
		Low	20000.0 - 40000.0	-43.15	-13	-30.15
		Mid	30.0 - 3700.0	-37.47	-13	-24.47
		Mid	3980.0 - 20000.0	-37.47	-13	-24.47
		Mid	20000.0 - 40000.0	-42.60	-13	-29.60
		High	30.0 - 3700.0	-39.32	-13	-26.32
		High	3980.0 - 20000.0	-39.32	-13	-26.32
		High	20000.0 - 40000.0	-43.57	-13	-30.57

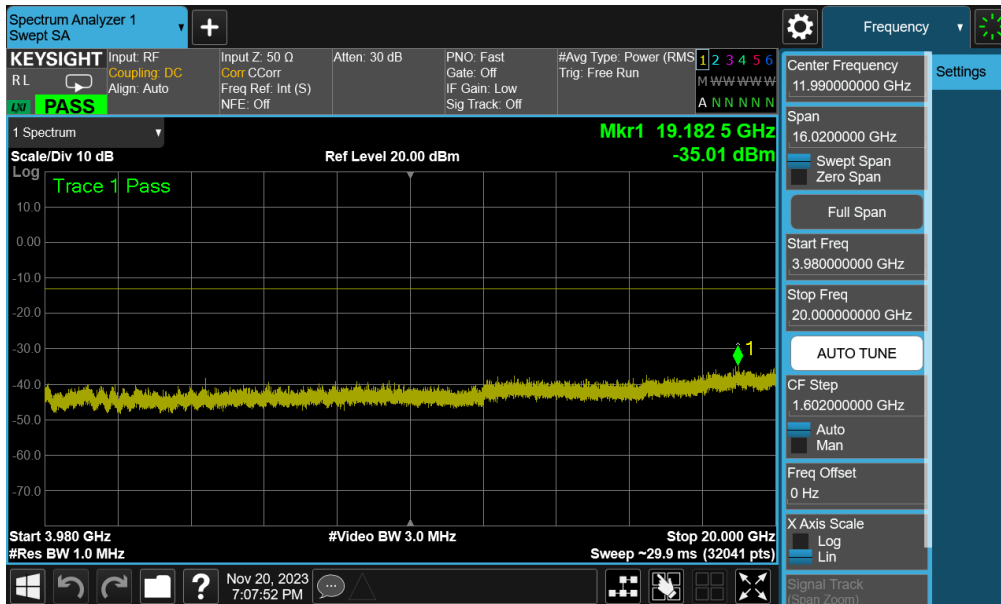
Table 7-12. Conducted Emission Test Results – Ant 1

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 57 of 130

NR Band n77/78 PC2 C-Band – Ant 1

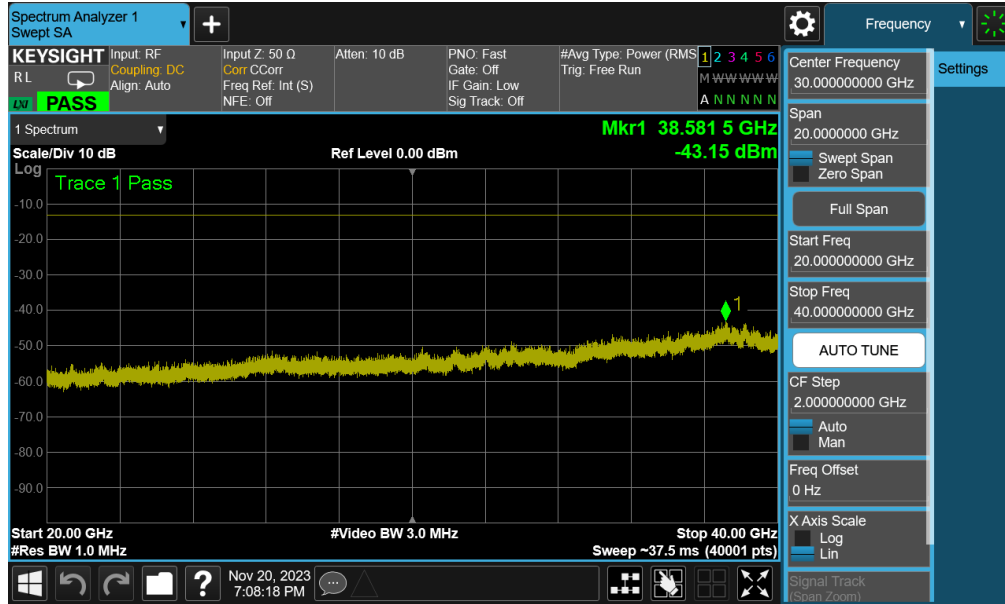


Plot 7-73. Conducted Spurious Plot (NR Band n77/78 - 100MHz QPSK - 1RB - Mid Channel - Ant 1)



Plot 7-74. Conducted Spurious Plot (NR Band n77/78 - 100MHz QPSK - 1RB - Mid Channel - Ant 1)

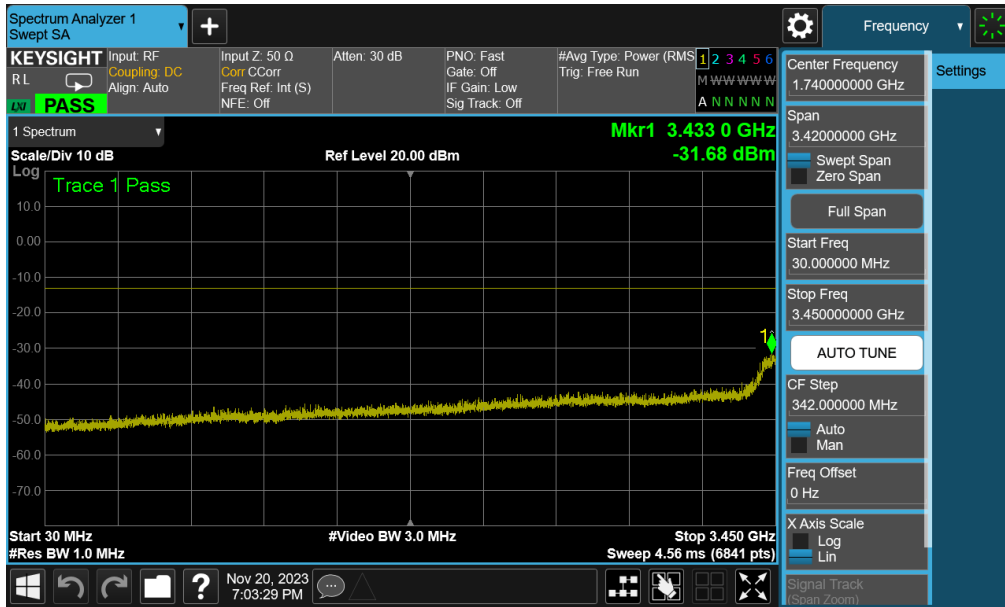
FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 58 of 130



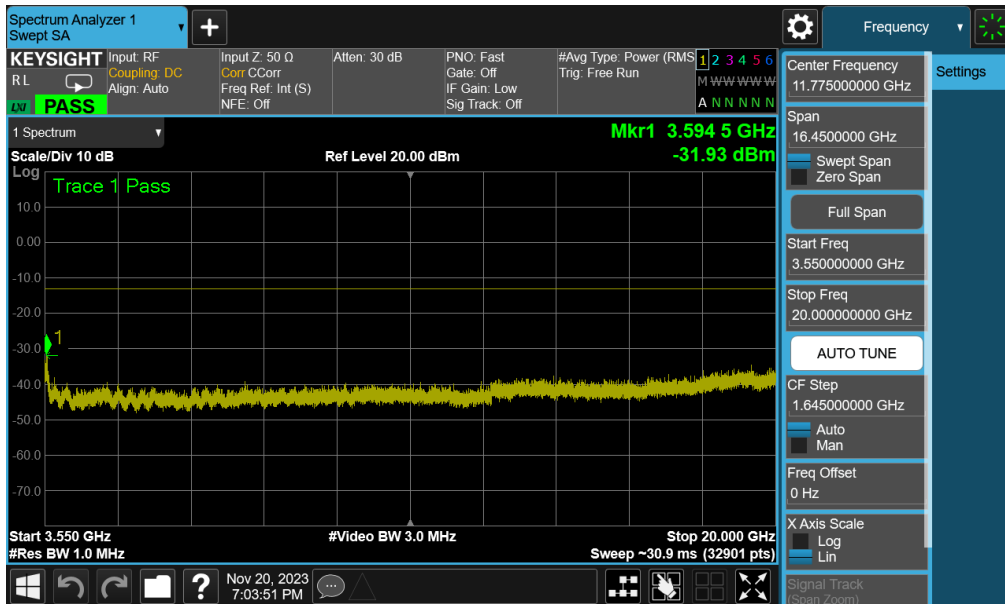
Plot 7-75. Conducted Spurious Plot (NR Band n77/78 - 100MHz QPSK - 1RB - Mid Channel - Ant 1)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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NR Band n77/78 PC2 DoD – Ant 1

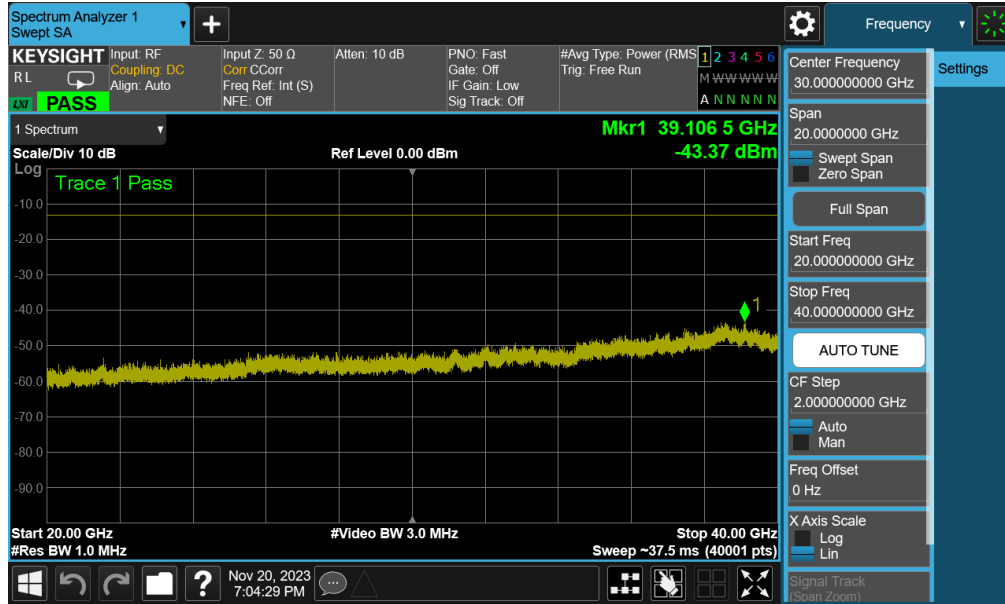


Plot 7-76. Conducted Spurious Plot (NR Band n77/78 DoD - 100MHz QPSK - 1RB - Mid Channel - Ant 1)



Plot 7-77. Conducted Spurious Plot (NR Band n77/78 DoD - 100MHz QPSK - 1RB - Mid Channel - Ant 1)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7-78. Conducted Spurious Plot (NR Band n77/78 DoD - 100MHz QPSK - 1RB - Mid Channel - Ant 1)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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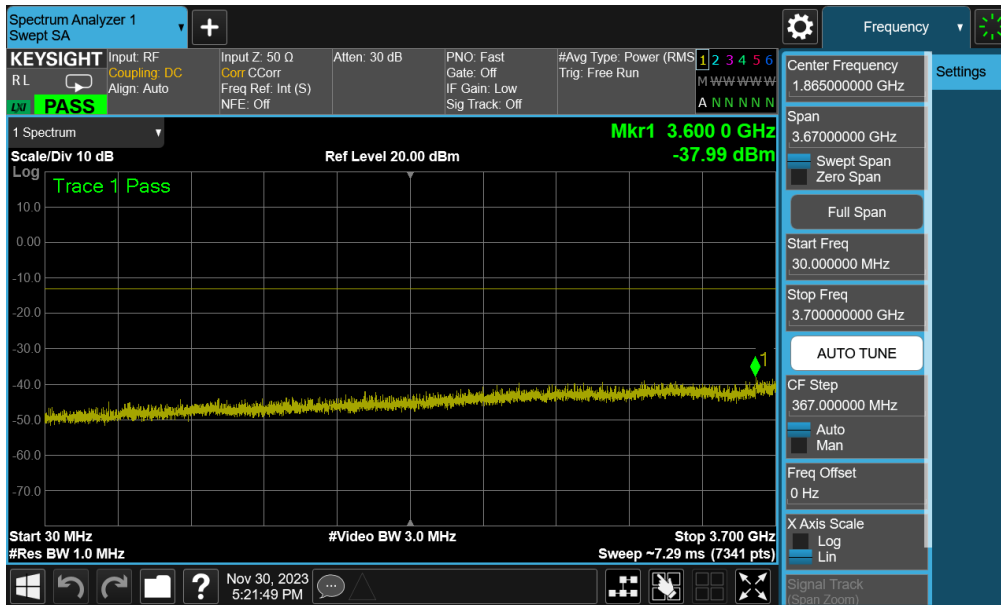


Mode	Bandwidth	Channel	Range [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]
NR-n77/78 PC2 DoD	100MHz	Mid	30.0 - 3450.0	-34.38	-13	-21.38
		Mid	3550.0 - 20000.0	-32.57	-13	-19.57
		Mid	20000.0 - 40000.0	-42.44	-13	-29.44
NR-n77/78 PC2 C-Band	100MHz	Mid	30.0 - 3700.0	-36.69	-13	-23.69
		Mid	3980.0 - 20000.0	-36.69	-13	-23.69
		Mid	20000.0 - 40000.0	-42.75	-13	-29.75

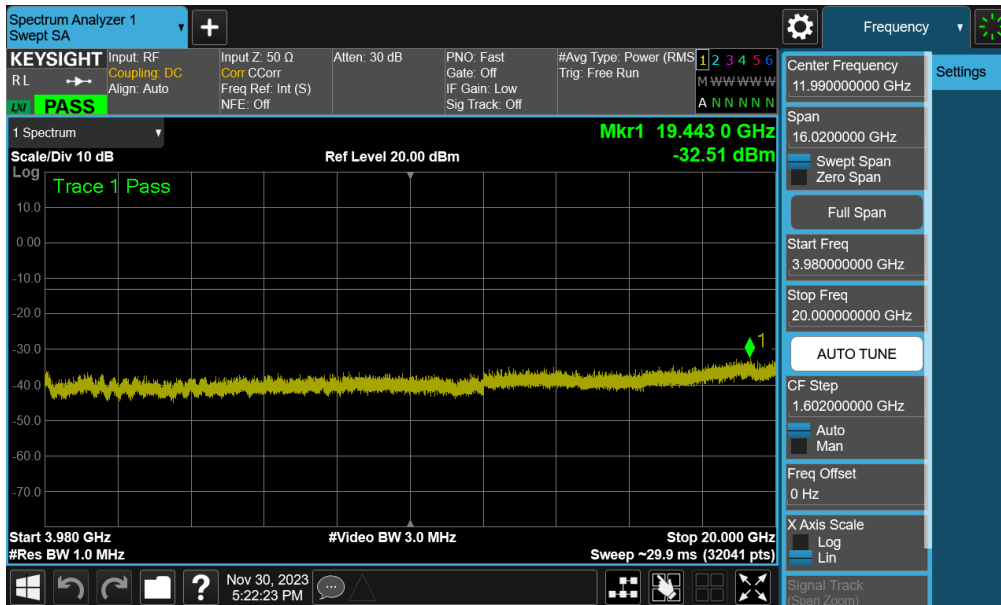
Table 7-13. Conducted Emission Test Results – Ant 2

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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NR Band n77/78 PC2 C-Band – Ant 2

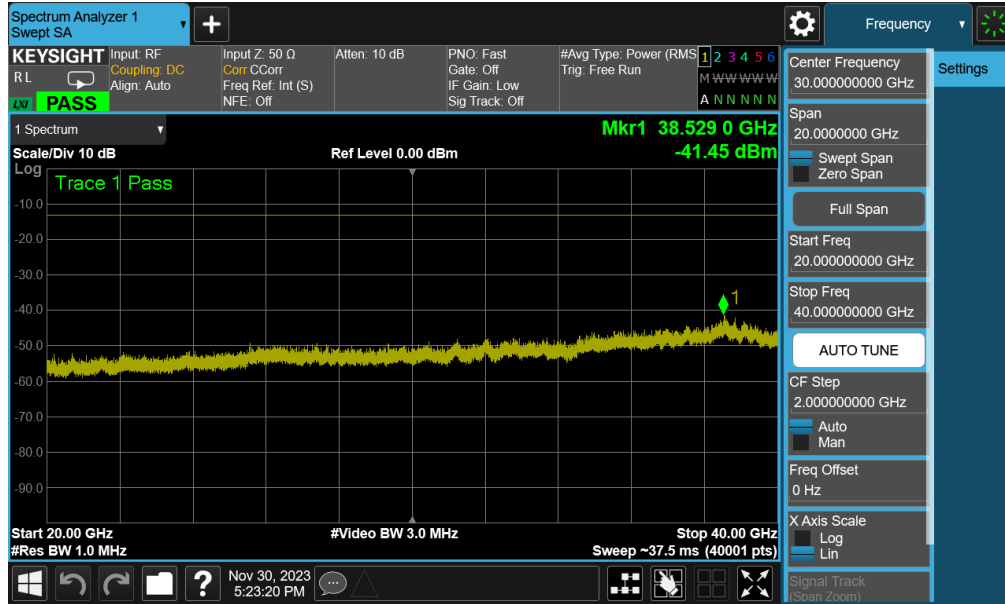


Plot 7-79. Conducted Spurious Plot (NR Band n77/78 - 100MHz QPSK - 1RB - Mid Channel - Ant 2)



Plot 7-80. Conducted Spurious Plot (NR Band n77/78 - 100MHz QPSK - 1RB - Mid Channel - Ant 2)

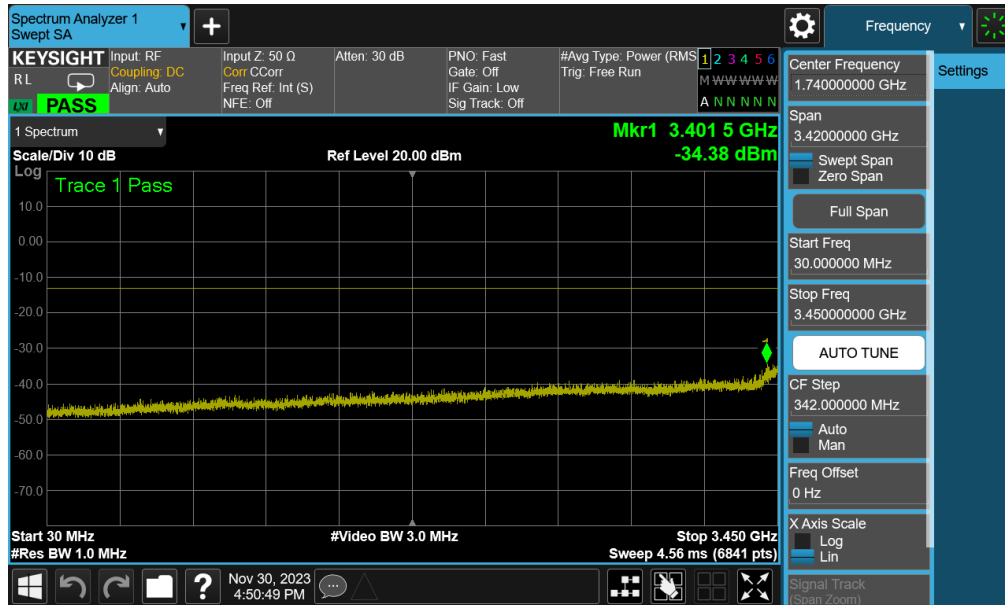
FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 63 of 130



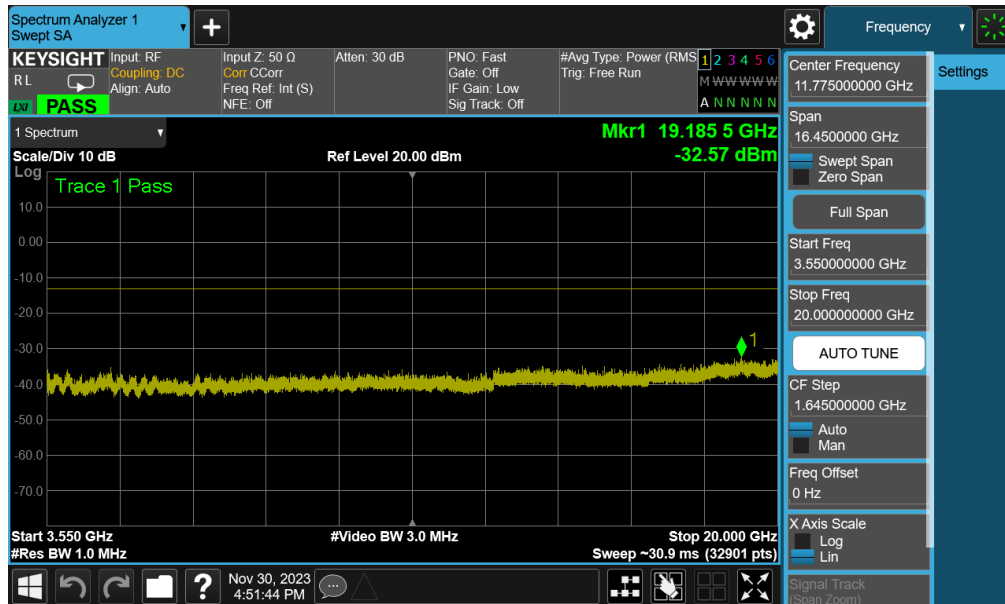
Plot 7-81. Conducted Spurious Plot (NR Band n77/78 - 100MHz QPSK - 1RB - Mid Channel - Ant 2)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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NR Band n77/78 PC2 DoD – Ant 2

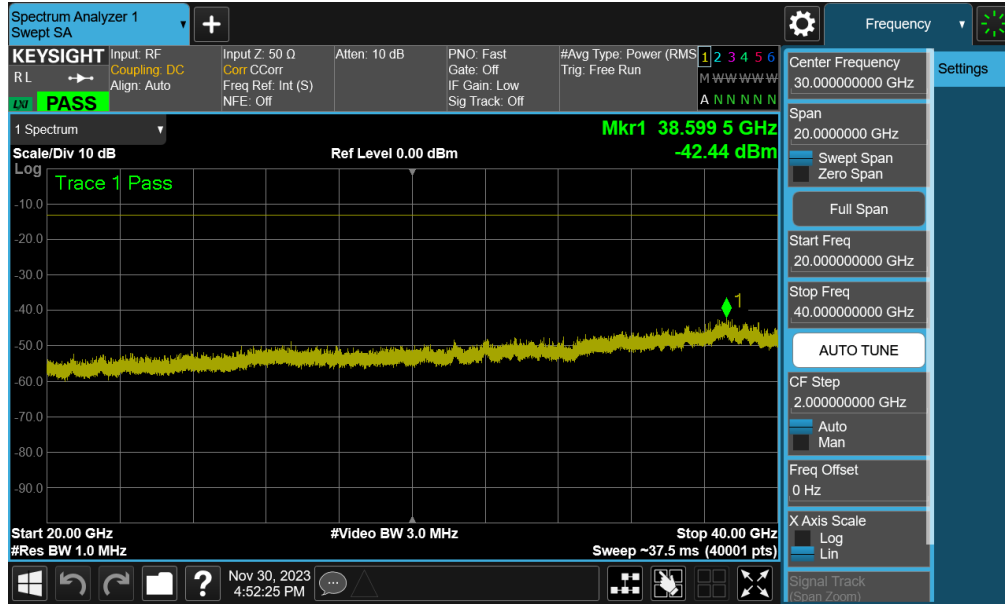


Plot 7-82. Conducted Spurious Plot (NR Band n77/78 DoD - 100MHz QPSK - 1RB - Mid Channel - Ant 2)



Plot 7-83. Conducted Spurious Plot (NR Band n77/78 DoD - 100MHz QPSK - 1RB - Mid Channel - Ant 2)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7-84. Conducted Spurious Plot (NR Band n77/78 DoD - 100MHz QPSK - 1RB - Mid Channel - Ant 2)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 66 of 130

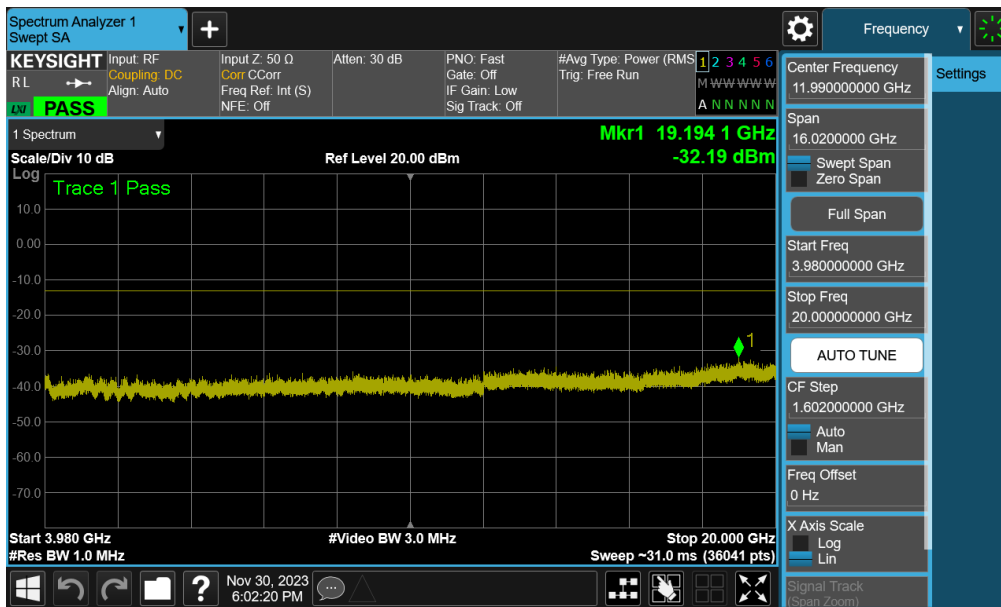
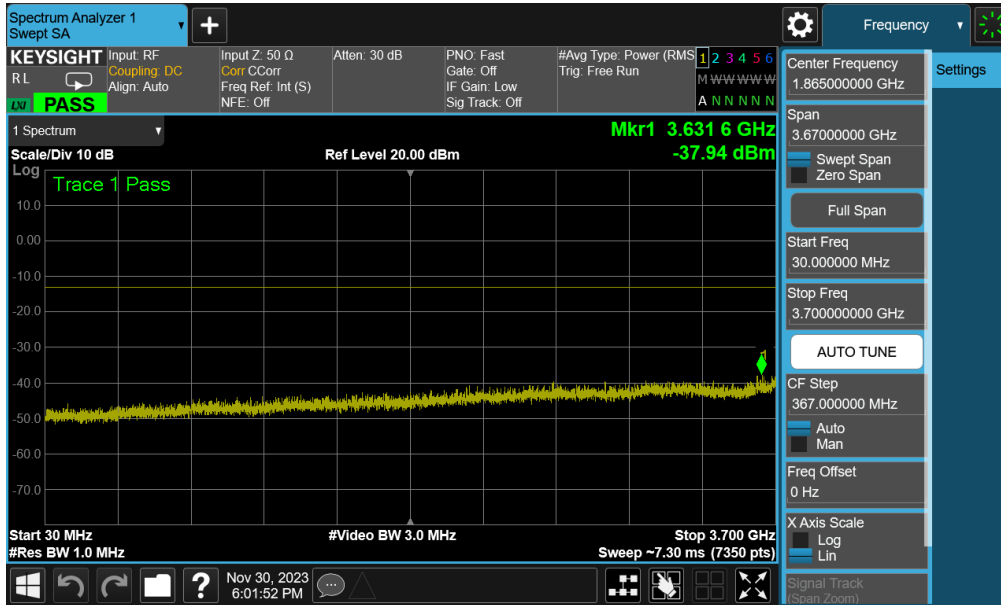


Mode	Bandwidth	Channel	Range [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]
NR-n77/78 PC2 DoD	100MHz	Mid	30.0 - 3450.0	-31.14	-13	-18.14
		Mid	3550.0 - 20000.0	-31.99	-13	-18.99
		Mid	20000.0 - 40000.0	-42.77	-13	-29.77
NR-n77/78 PC2 C-Band	100MHz	Mid	30.0 - 3700.0	-37.94	-13	-24.94
		Mid	3980.0 - 20000.0	-37.94	-13	-24.94
		Mid	20000.0 - 40000.0	-43.18	-13	-30.18

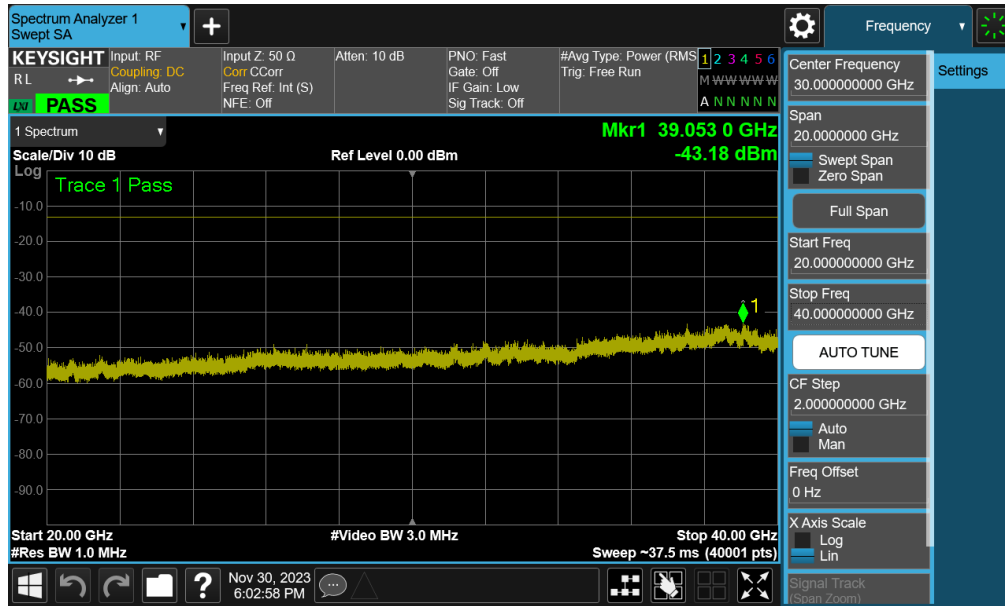
Table 7-14. Conducted Emission Test Results – Ant 3

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 67 of 130

NR Band n77/78 PC2 C-Band – Ant 3



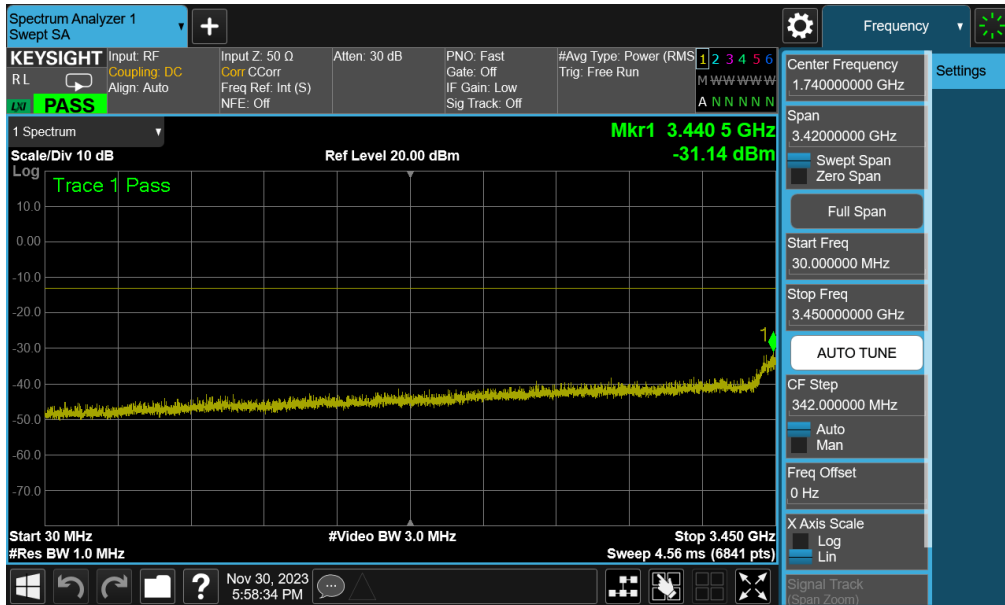
FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 68 of 130



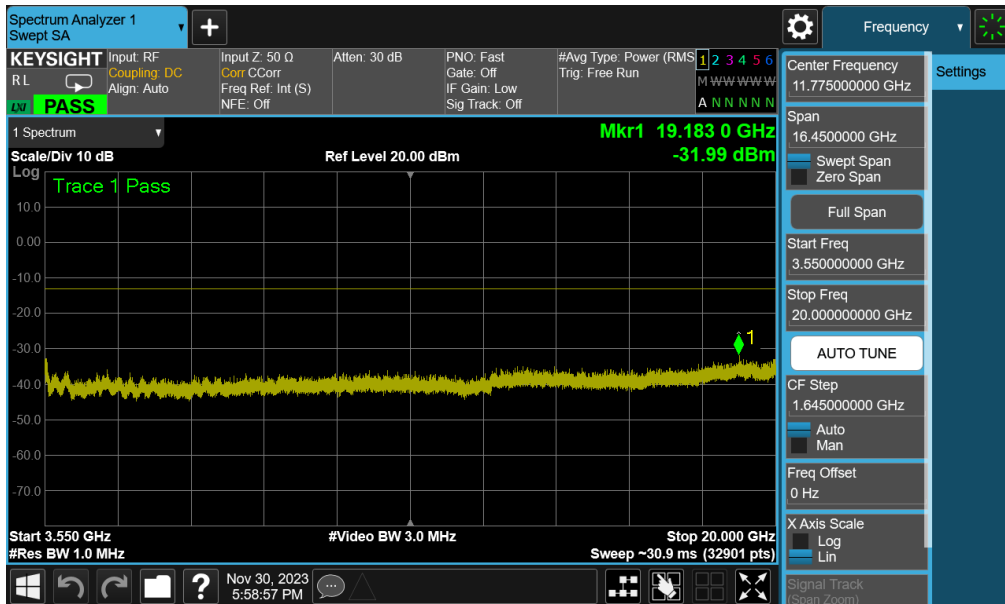
Plot 7-87. Conducted Spurious Plot (NR Band n77/78 - 100MHz QPSK - 1RB - Mid Channel - Ant 3)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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NR Band n77/78 PC2 DoD – Ant 3

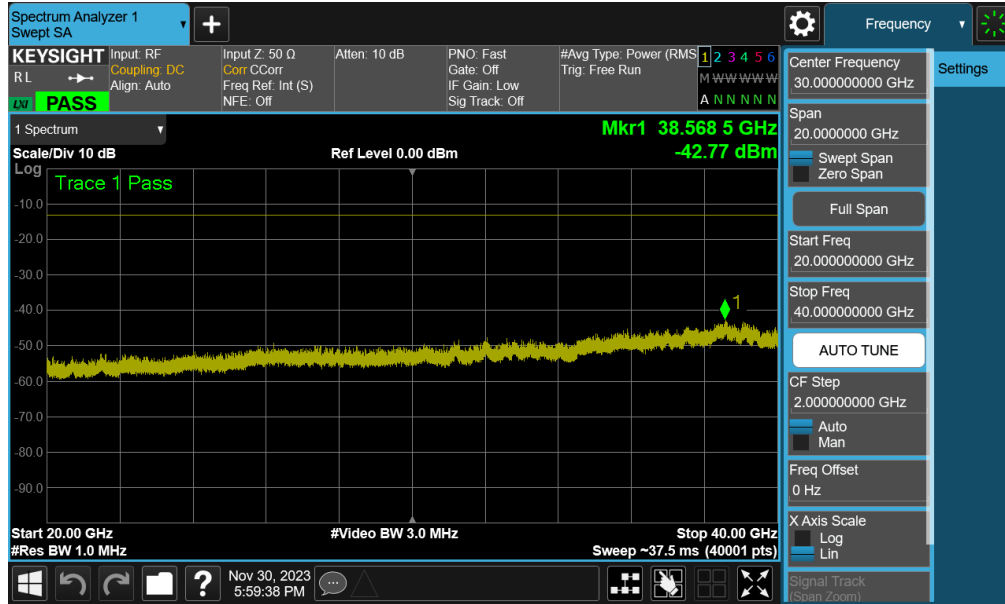


Plot 7-88. Conducted Spurious Plot (NR Band n77/78 DoD - 100MHz QPSK - 1RB - Mid Channel - Ant 3)



Plot 7-89. Conducted Spurious Plot (NR Band n77/78 DoD - 100MHz QPSK - 1RB - Mid Channel - Ant 3)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7-90. Conducted Spurious Plot (NR Band n77/78 DoD - 100MHz QPSK - 1RB - Mid Channel - Ant 3)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 71 of 130

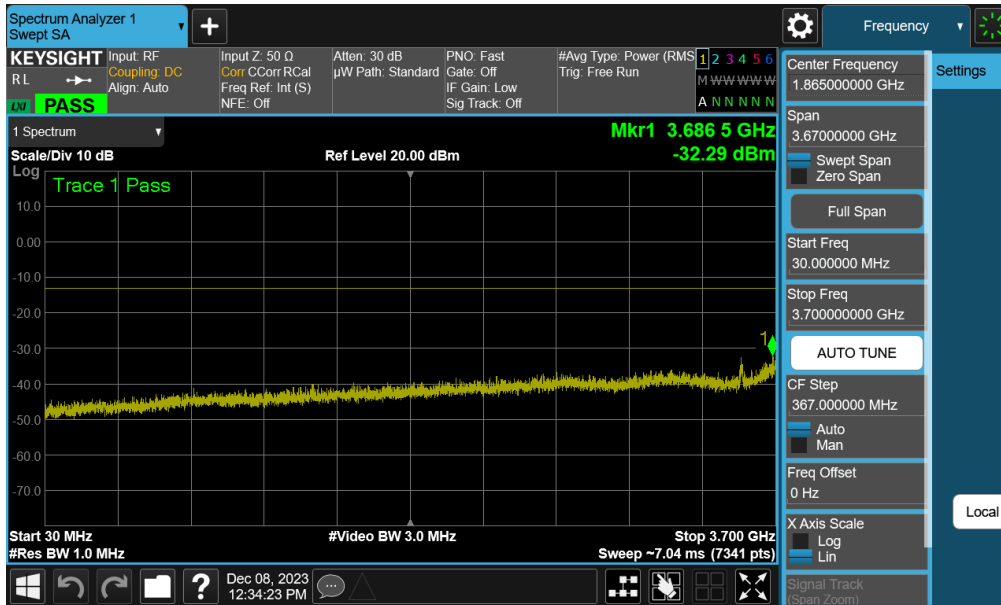


Mode	Bandwidth	Channel	Range [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]
NR-n77/78 PC2 DoD	100MHz	Mid	30.0 - 3450.0	-31.94	-13	-18.94
		Mid	3550.0 - 20000.0	-27.42	-13	-14.42
		Mid	20000.0 - 40000.0	-41.24	-13	-28.24
NR-n77/78 PC2 C-Band	100MHz	Mid	30.0 - 3700.0	-36.20	-13	-23.20
		Mid	3980.0 - 20000.0	-36.20	-13	-23.20
		Mid	20000.0 - 40000.0	-41.40	-13	-28.40

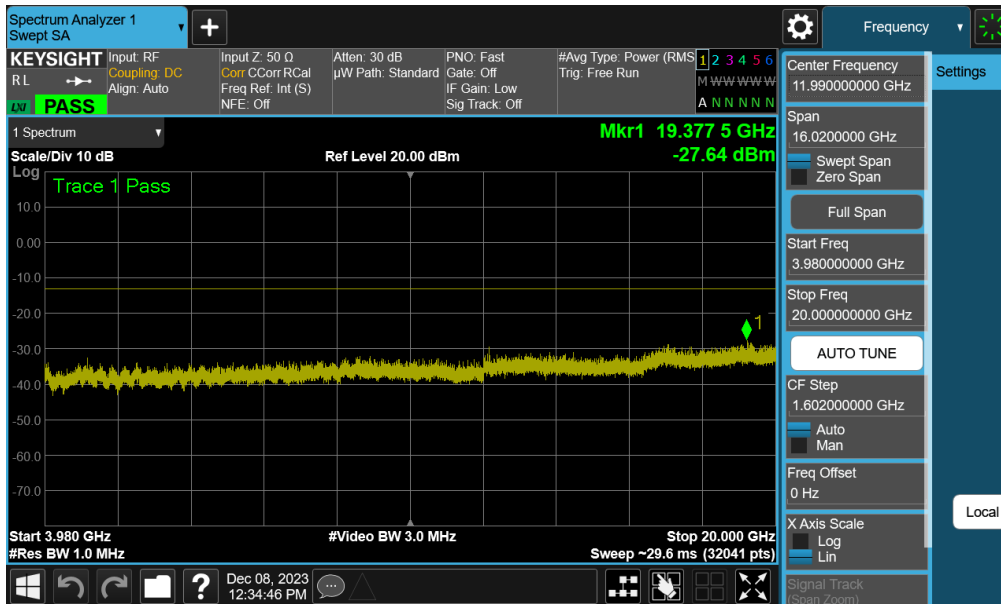
Table 7-15. Conducted Emission Test Results – Ant 4

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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NR Band n77/78 PC2 C-Band – Ant 4

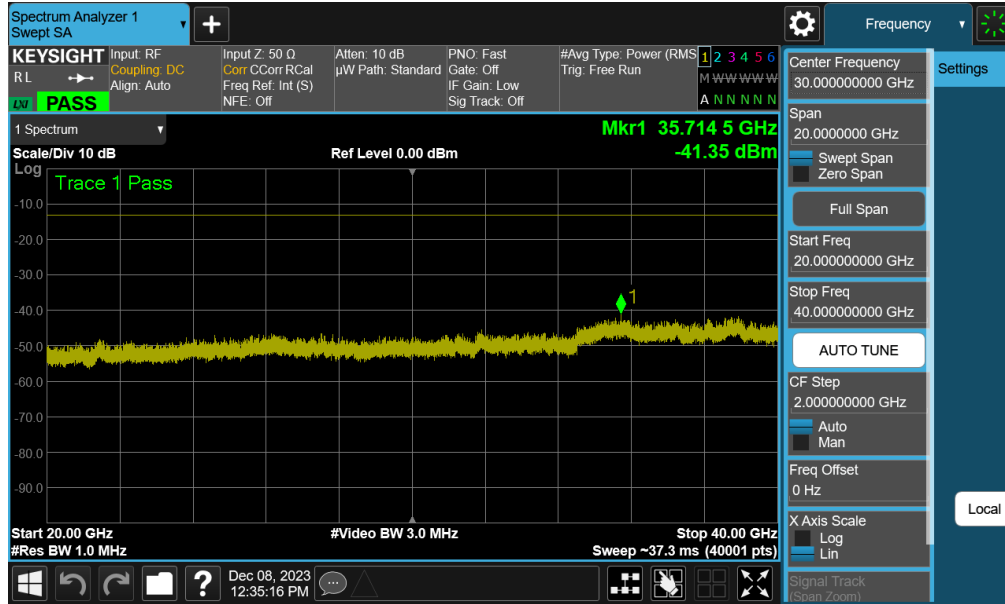


Plot 7-91. Conducted Spurious Plot (NR Band n77/78 - 100MHz QPSK - 1RB - Mid Channel - Ant 4)



Plot 7-92. Conducted Spurious Plot (NR Band n77/78 - 100MHz QPSK - 1RB - Mid Channel - Ant 4)

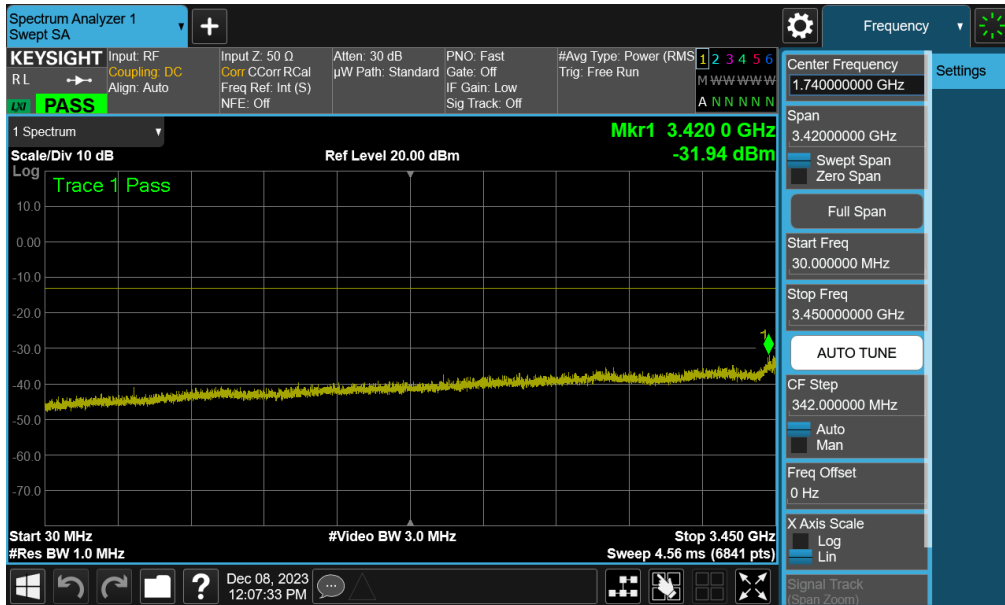
FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 73 of 130



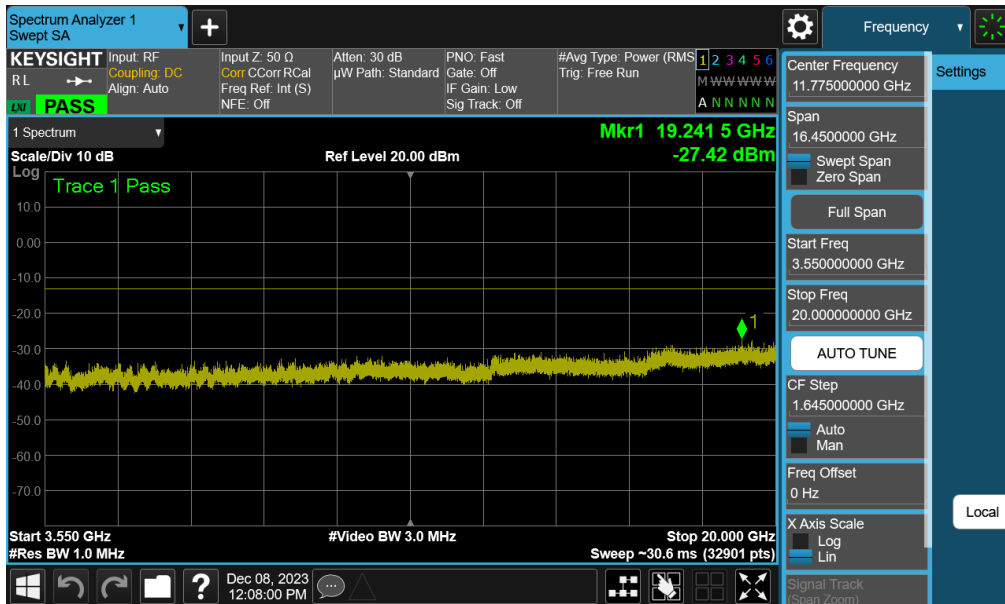
Plot 7-93. Conducted Spurious Plot (NR Band n77/78 - 100MHz QPSK - 1RB - Mid Channel - Ant 4)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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NR Band n77/78 DoD – Ant 4

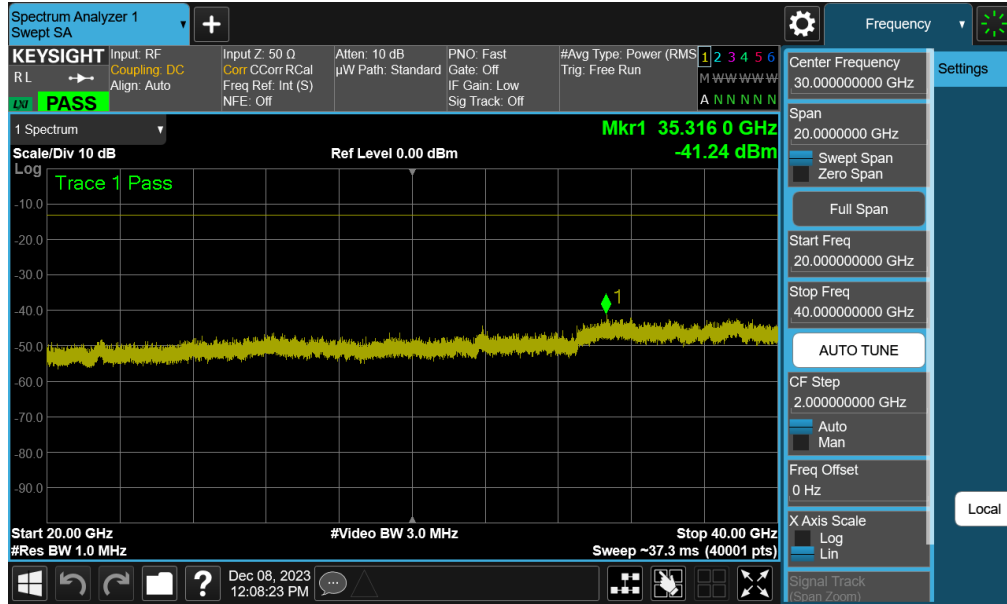


Plot 7-94. Conducted Spurious Plot (NR Band n77/78 DoD - 100MHz QPSK - 1RB - Mid Channel - Ant 4)



Plot 7-95. Conducted Spurious Plot (NR Band n77/78 DoD - 100MHz QPSK - 1RB - Mid Channel - Ant 4)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 75 of 130



Plot 7-96. Conducted Spurious Plot (NR Band n77/78 DoD - 100MHz QPSK - 1RB - Mid Channel - Ant 4)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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7.5 Band Edge Emissions at Antenna Terminal

Test Overview

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst-case configuration. All modes of operation were investigated, and the worst-case configuration results are reported in this section.

For operations in the 3700 – 3980MHz band and the 3450 – 3550MHz band, the maximum permissible conducted power level of any out-of-band emission is -13dBm/MHz.

Test Procedure Used

ANSI C63.26-2015 – Section 5.7.3

Test Settings

1. Start and stop frequency were set such that the band edge would be placed in the center of the plot.
2. Span was set large enough to capture all out of band emissions near the band edge.
3. RBW \geq 1% of the emission bandwidth
4. VBW \geq 3 x RBW
5. Detector = RMS
6. Number of sweep points \geq 2 x Span/RBW
7. Trace mode = trace average for continuous emissions, max hold for pulse emissions
8. Sweep time = auto couple
9. The trace was allowed to stabilize.

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

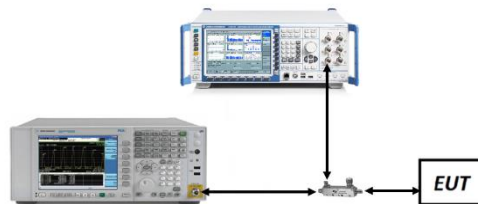


Figure 7-4. Test Instrument & Measurement Setup

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Test Notes

1. Per Part 27.53(l), compliance with the -13dBm/MHz conducted power limit for out-of-band emissions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be either one percent of the emission bandwidth of the fundamental emission of the transmitter or 350 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz.
2. Per Part 27.53(n), compliance with the -13dBm/MHz conducted power limit for out-of-band emissions is based on the use of measurement instrumentation employing a resolution bandwidth of 1 MHz or greater. However, in the 1 MHz bands immediately outside and adjacent to the licensee's frequency block, a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed but limited to a maximum of 200 kHz. In the bands between 1 and 5 MHz removed from the licensee's frequency block, the minimum resolution bandwidth for the measurement shall be 500 kHz.
3. 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.
4. For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst-case configuration. All modes of operation were investigated, and the worst-case configuration results are reported in this section.

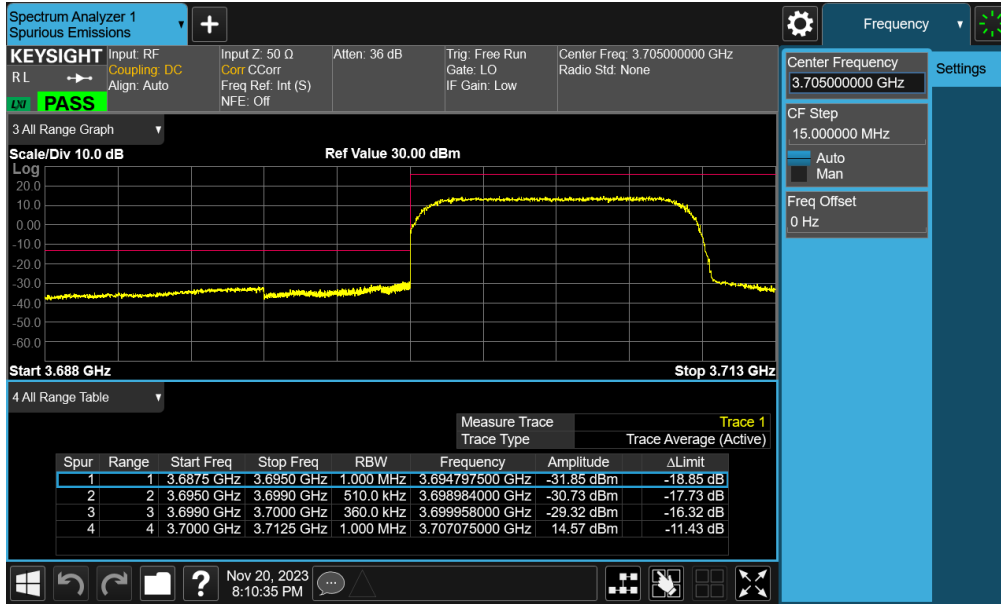
FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Mode	Bandwidth	Channel	Test Case	Level [dBm]	Limit [dBm]	Margin [dB]
NR-n77/78 PC2 C-Band	100MHz	Low	Band Edge	-32.30	-13	-19.30
		High	Band Edge	-36.68	-13	-23.68
	90MHz	Low	Band Edge	-32.57	-13	-19.57
		High	Band Edge	-38.06	-13	-25.06
	80MHz	Low	Band Edge	-31.80	-13	-18.80
		High	Band Edge	-38.27	-13	-25.27
	70MHz	Low	Band Edge	-31.87	-13	-18.87
		High	Band Edge	-35.30	-13	-22.30
	60MHz	Low	Band Edge	-33.04	-13	-20.04
		High	Band Edge	-37.47	-13	-24.47
	50MHz	Low	Band Edge	-31.66	-13	-18.66
		High	Band Edge	-37.17	-13	-24.17
	40MHz	Low	Band Edge	-30.78	-13	-17.78
		High	Band Edge	-33.35	-13	-20.35
	30MHz	Low	Band Edge	-32.01	-13	-19.01
		High	Band Edge	-35.44	-13	-22.44
	25MHz	Low	Band Edge	-31.35	-13	-18.35
		High	Band Edge	-35.08	-13	-22.08
	20MHz	Low	Band Edge	-30.93	-13	-17.93
		High	Band Edge	-34.22	-13	-21.22
	15MHz	Low	Band Edge	-30.59	-13	-17.59
		High	Band Edge	-32.86	-13	-19.86
	10MHz	Low	Band Edge	-29.32	-13	-16.32
		High	Band Edge	-31.53	-13	-18.53

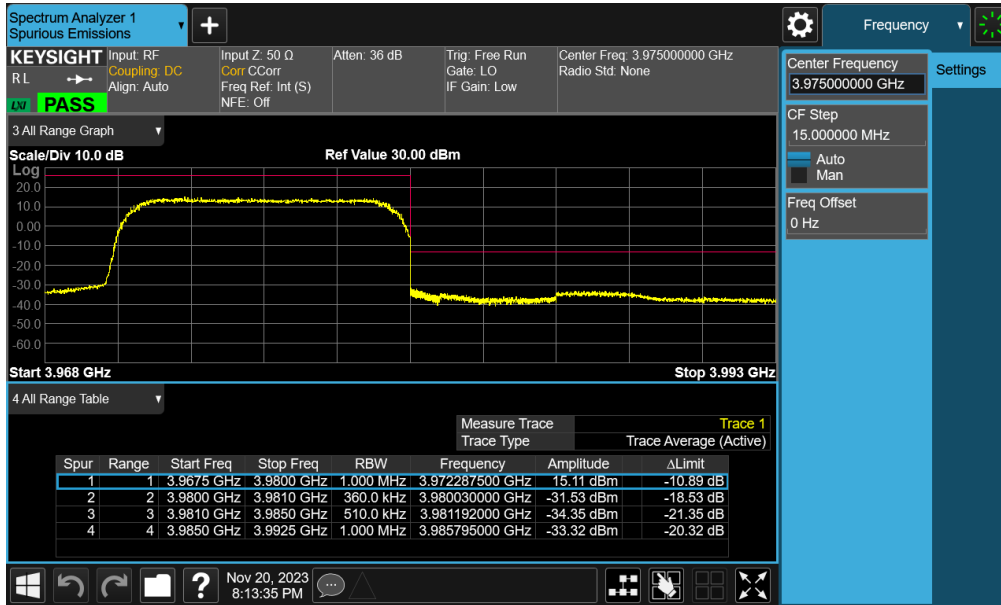
Table 7-16. Conducted Band Edge Test Results – NR n77/78 PC2 C-Band – Ant 1

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 79 of 130

NR Band n77/78 PC2 C-Band – Ant 1



Plot 7-97. Lower ACP Plot (NR Band n77/78 - 10MHz CP-OFDM-QPSK – Full RB - Ant 1)



Plot 7-98. Upper ACP Plot (NR Band n77/78 - 10MHz CP-OFDM-QPSK – Full RB – Ant1)

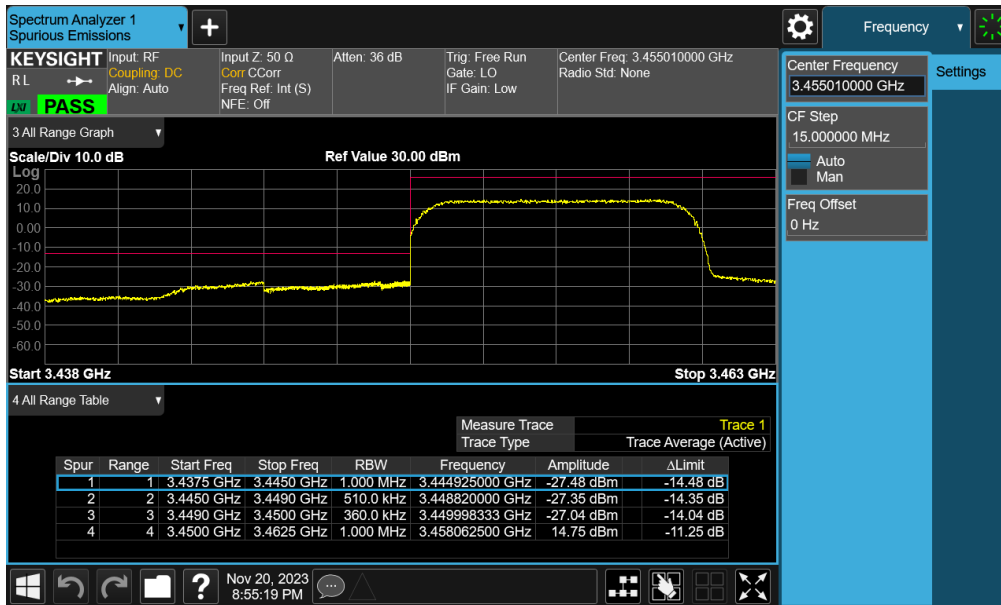
FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 80 of 130

Mode	Bandwidth	Channel	Test Case	Level [dBm]	Limit [dBm]	Margin [dB]
NR-n77/78 PC2 DoD	100MHz	Low	Band Edge	-32.56	-13	-19.56
		High	Band Edge	-37.26	-13	-24.26
	90MHz	Low	Band Edge	-31.78	-13	-18.78
		High	Band Edge	-37.22	-13	-24.22
	80MHz	Low	Band Edge	-31.14	-13	-18.14
		High	Band Edge	-37.40	-13	-24.40
	70MHz	Low	Band Edge	-30.83	-13	-17.83
		High	Band Edge	-36.13	-13	-23.13
	60MHz	Low	Band Edge	-31.79	-13	-18.79
		High	Band Edge	-35.72	-13	-22.72
	50MHz	Low	Band Edge	-29.34	-13	-16.34
		High	Band Edge	-35.49	-13	-22.49
	40MHz	Low	Band Edge	-29.31	-13	-16.31
		High	Band Edge	-33.51	-13	-20.51
	30MHz	Low	Band Edge	-29.73	-13	-16.73
		High	Band Edge	-33.23	-13	-20.23
	25MHz	Low	Band Edge	-28.20	-13	-15.20
		High	Band Edge	-32.84	-13	-19.84
	20MHz	Low	Band Edge	-26.63	-13	-13.63
		High	Band Edge	-31.27	-13	-18.27
	15MHz	Low	Band Edge	-27.03	-13	-14.03
		High	Band Edge	-30.28	-13	-17.28
	10MHz	Low	Band Edge	-27.04	-13	-14.04
		High	Band Edge	-29.78	-13	-16.78

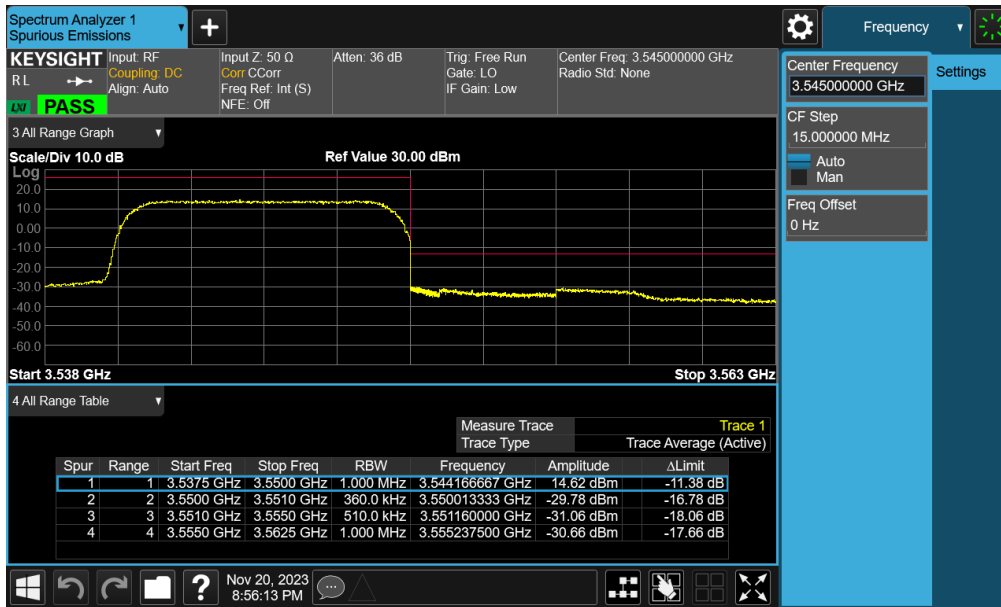
Table 7-17. Conducted Band Edge Test Results – NR n77/78 PC2 DoD – Ant 1

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 81 of 130

NR Band n77/78 PC2 DoD – Ant 1



Plot 7-99. Lower ACP Plot (NR Band n77/78 DoD - 10MHz CP-OFDM-QPSK – Full RB - Ant 1)



Plot 7-100. Upper ACP Plot (NR Band n77/78 DoD - 10MHz CP-OFDM-QPSK – Full RB - Ant 1)

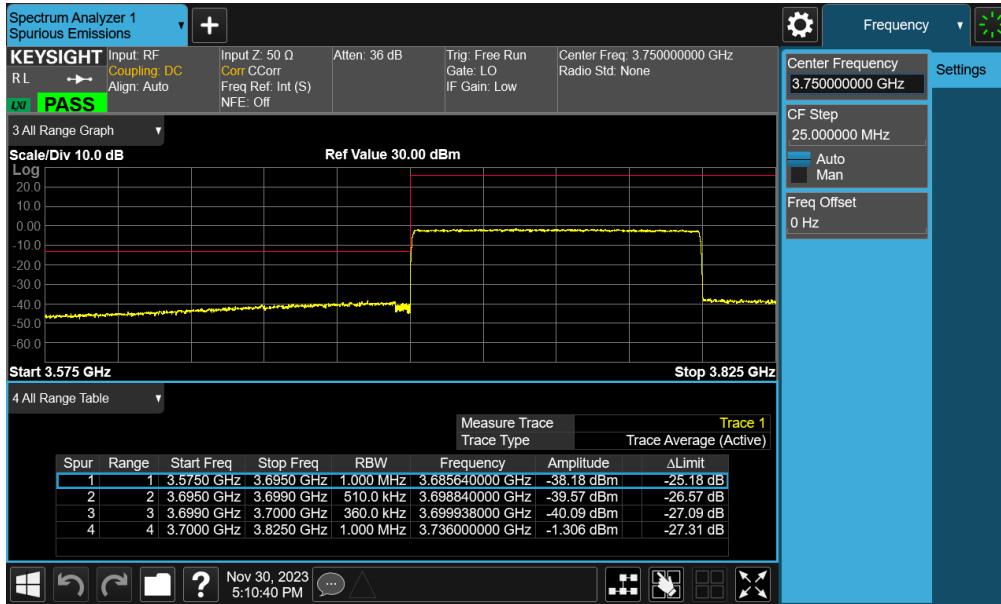
FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 82 of 130

Mode	Bandwidth	Channel	Test Case	Level [dBm]	Limit [dBm]	Margin [dB]
NR-n77/78 PC2 DoD	100MHz	Low	Band Edge	-35.69	-13	-22.69
		High	Band Edge	-41.70	-13	-28.70
NR-n77/78 PC2 C Band	100MHz	Low	Band Edge	-38.18	-13	-25.18
		High	Band Edge	-40.56	-13	-27.56

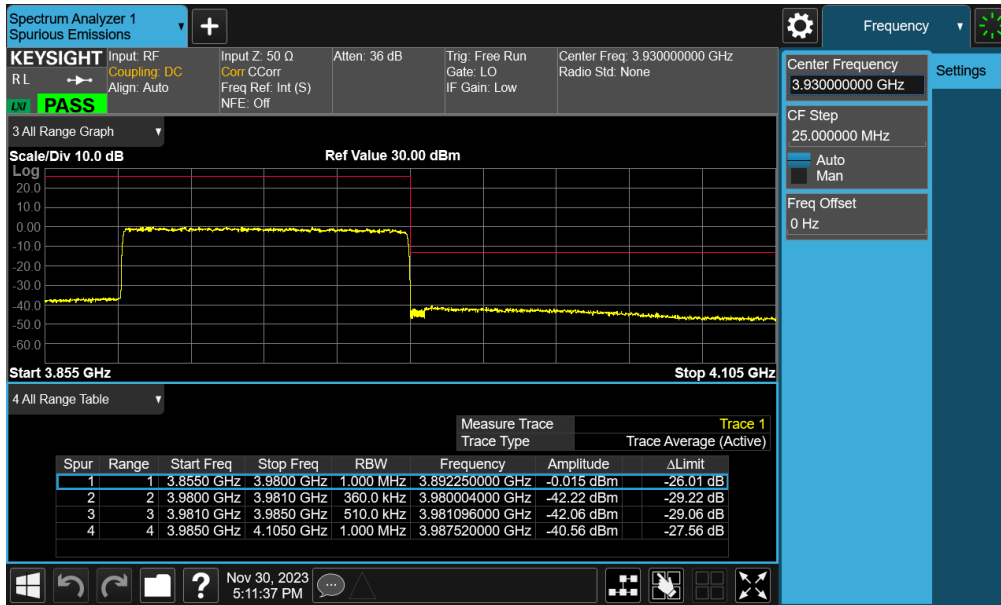
Table 7-18. Conducted Band Edge Test Results – Ant 2

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 83 of 130

NR Band n77/78 PC2 C-Band – Ant 2



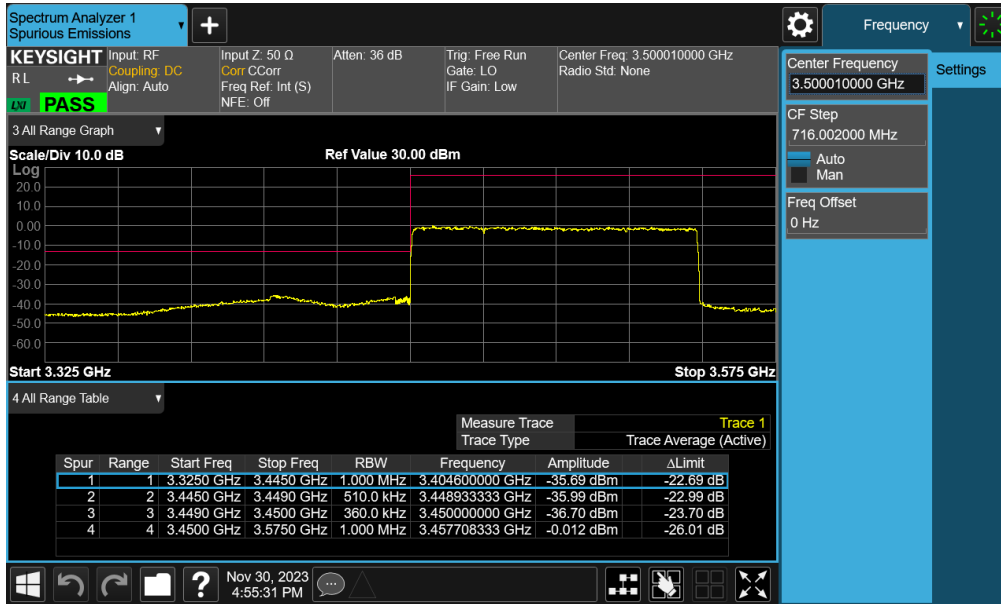
Plot 7-101. Lower ACP Plot (NR Band n77/78 - 100MHz CP-OFDM-QPSK – Full RB - Ant 2)



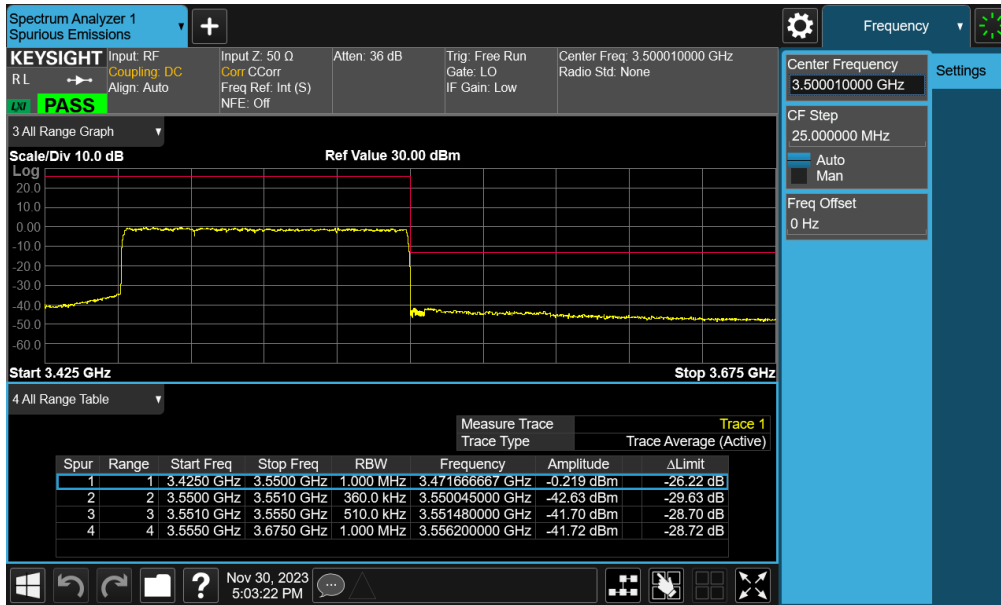
Plot 7-102. Upper ACP Plot (NR Band n77/78 - 100MHz CP-OFDM-QPSK – Full RB - Ant 2)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 84 of 130

NR Band n77/78 PC2 DoD – Ant 2



Plot 7-103. Lower ACP Plot (NR Band n77/78 DoD - 100MHz CP-OFDM-QPSK – Full RB - Ant 2)



Plot 7-104. Upper ACP Plot (NR Band n77/78 DoD - 100MHz CP-OFDM-QPSK – Full RB - Ant 2)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 85 of 130

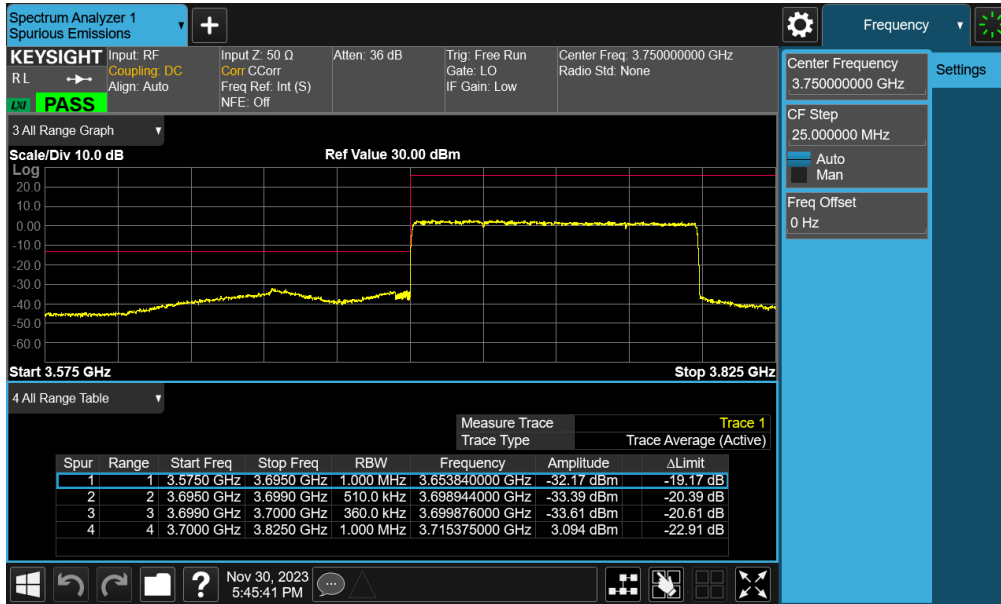


Mode	Bandwidth	Channel	Test Case	Level [dBm]	Limit [dBm]	Margin [dB]
NR-n77/78 PC2 DoD	100MHz	Low	Band Edge	-25.26	-13	-12.26
		High	Band Edge	-25.32	-13	-12.32
NR-n77/78 PC2 C Band	100MHz	Low	Band Edge	-19.17	-13	-6.17
		High	Band Edge	-24.76	-13	-11.76

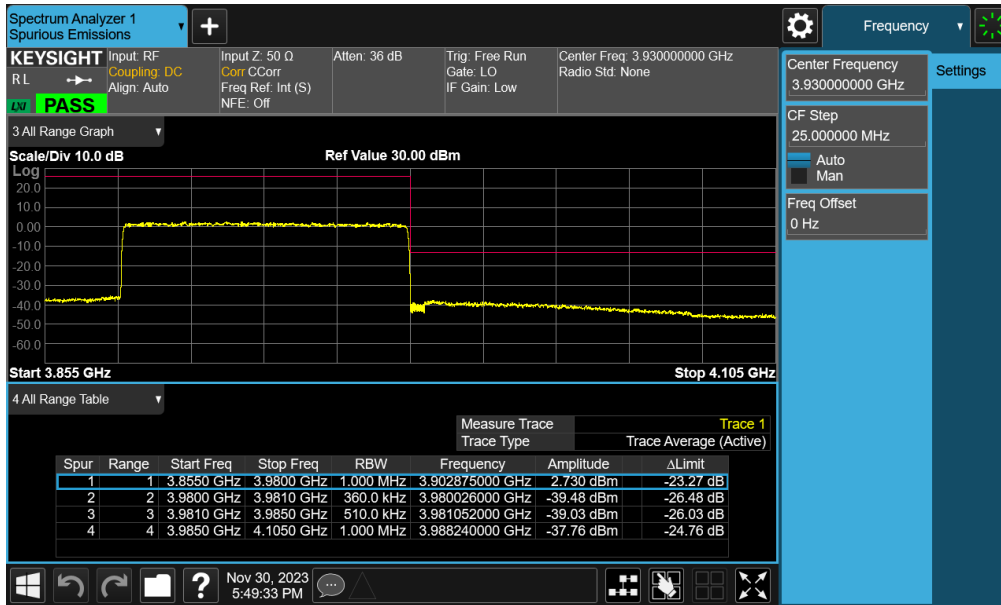
Table 7-19. Conducted Band Edge Test Results – Ant 3

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 86 of 130

NR Band n77/78 PC2 C-Band – Ant 3



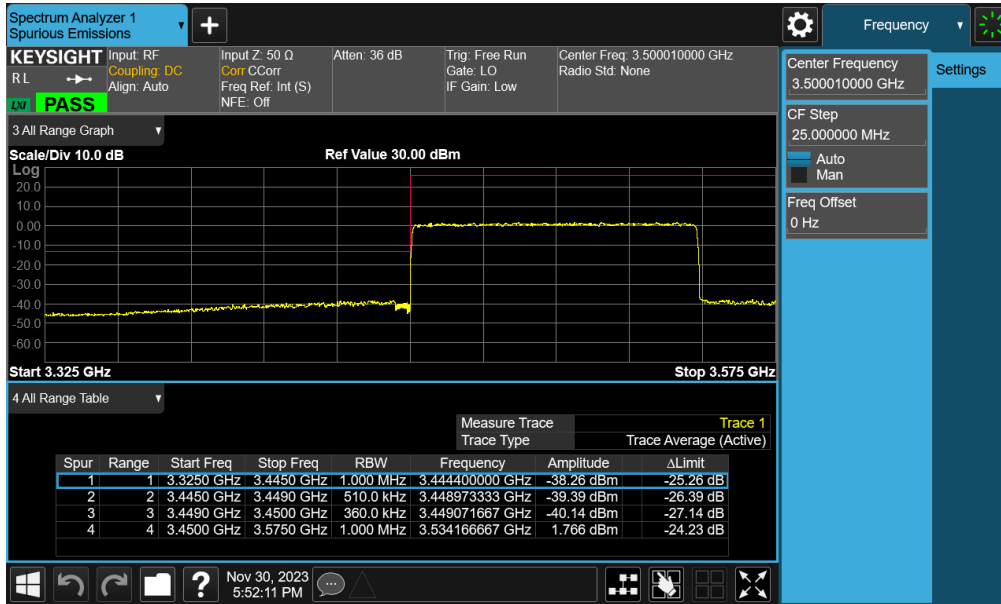
Plot 7-105. Lower ACP Plot (NR Band n77/78 - 100MHz CP-OFDM-QPSK – Full RB – Ant 3)



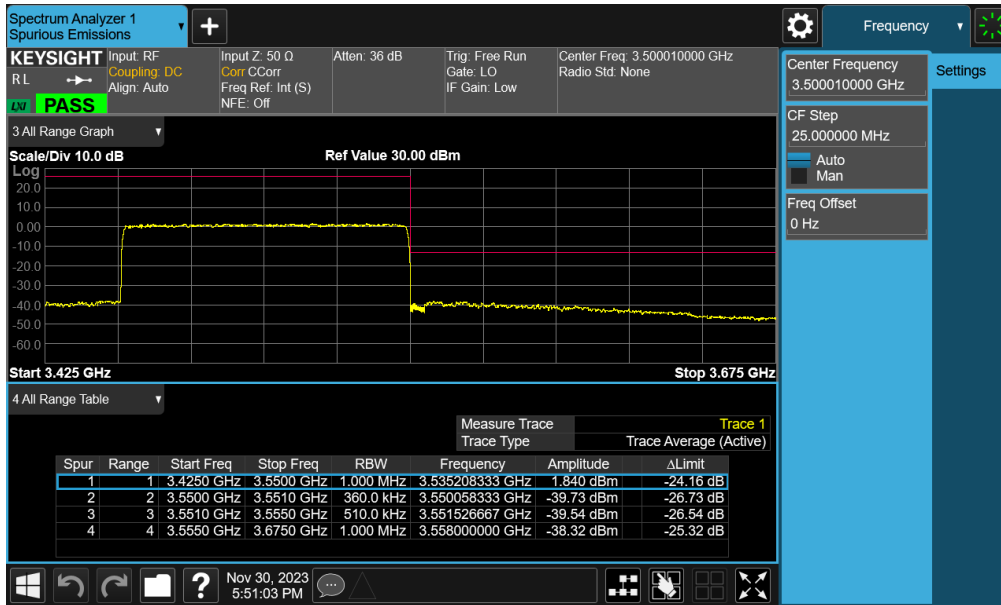
Plot 7-106. Upper ACP Plot (NR Band n77/78 - 100MHz CP-OFDM-QPSK – Full RB - Ant 3)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 87 of 130

NR Band n77/78 PC2 DoD – Ant 3



Plot 7-107. Lower ACP Plot (NR Band n77/78 DoD - 100MHz CP-OFDM-QPSK – Full RB - Ant 3)



Plot 7-108. Upper ACP Plot (NR Band n77/78 DoD - 100MHz CP-OFDM-QPSK – Full RB - Ant 3)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 88 of 130

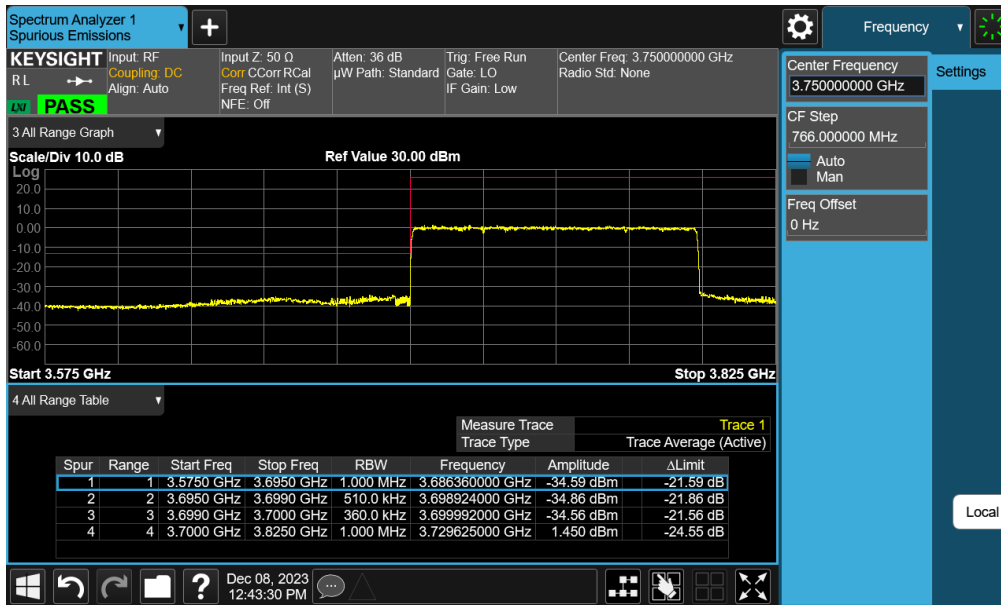


Mode	Bandwidth	Channel	Test Case	Level [dBm]	Limit [dBm]	Margin [dB]
NR-n77/78 PC2 DoD	100MHz	Low	Band Edge	-21.74	-13	-8.74
		High	Band Edge	-20.55	-13	-7.55
NR-n77/78 PC2 C-Band	100MHz	Low	Band Edge	-21.56	-13	-8.56
		High	Band Edge	-24.20	-13	-11.20

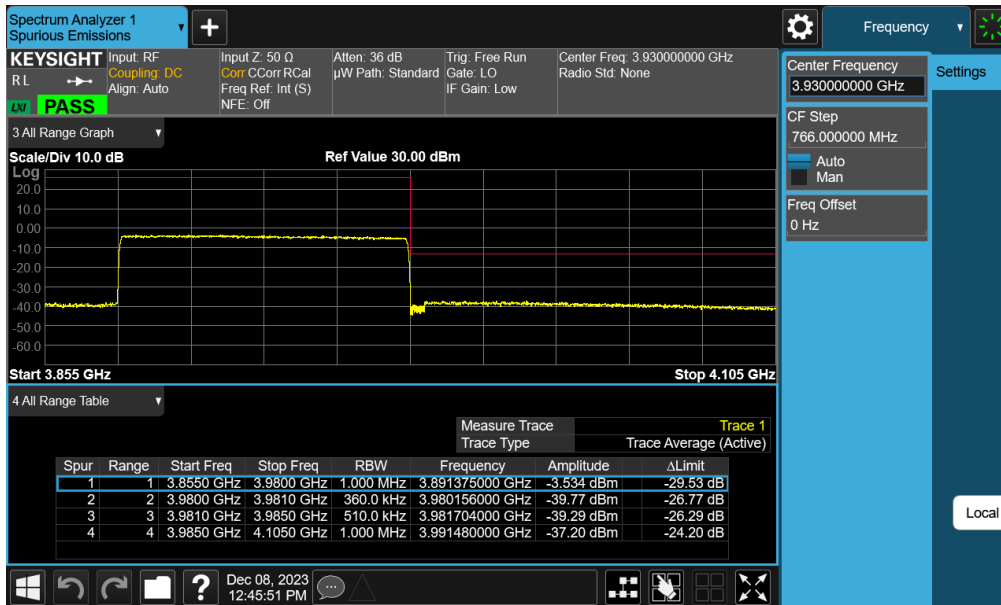
Table 7-20. Conducted Band Edge Test Results – Ant 4

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 89 of 130

NR Band n77/78 PC2 C-Band – Ant 4



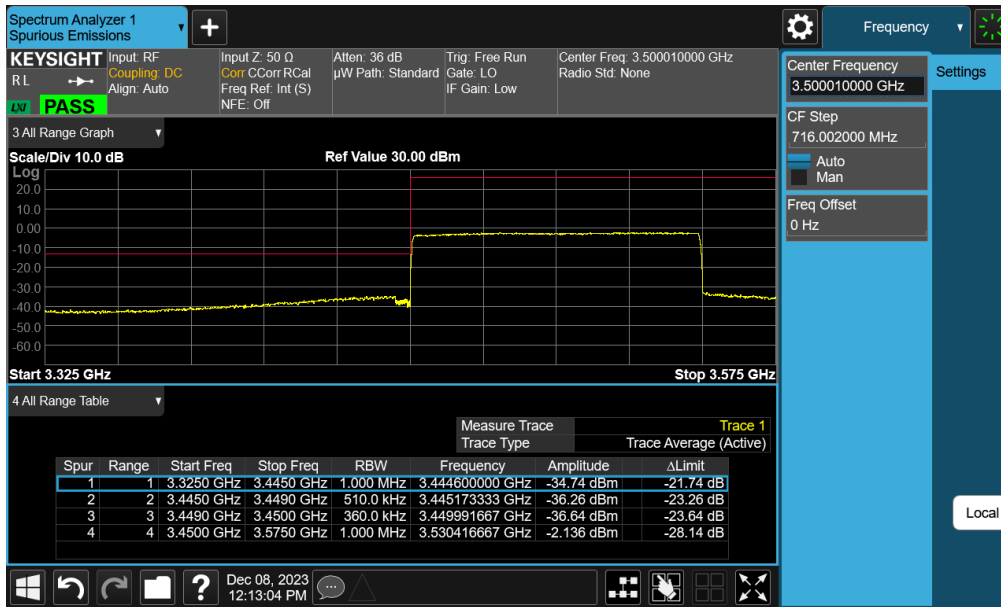
Plot 7-109. Lower ACP Plot (NR Band n77/78 - 100MHz CP-OFDM-QPSK – Full RB - Ant 4)



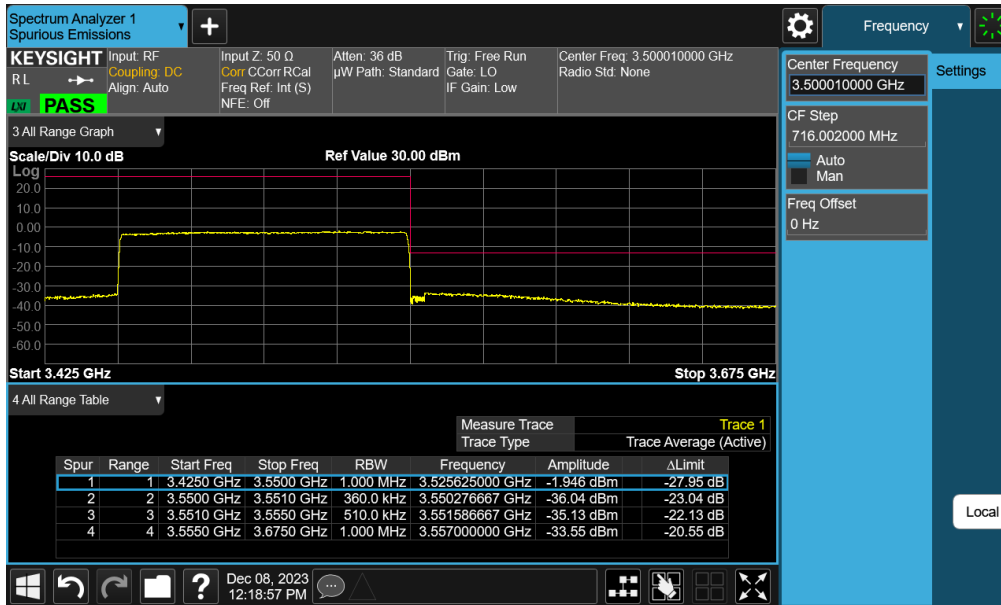
Plot 7-110. Upper ACP Plot (NR Band n77/78 - 100MHz CP-OFDM-QPSK – Full RB - Ant 4)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 90 of 130

NR Band n77/78 PC2 DoD – Ant 4



Plot 7-111. Lower ACP Plot (NR Band n77/78 DoD - 100MHz CP-OFDM-QPSK – Full RB - Ant 4)



Plot 7-112. Upper ACP Plot (NR Band n77/78 DoD - 100MHz CP-OFDM-QPSK – Full RB - Ant 4)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 91 of 130

7.6 Peak-Average Ratio

Test Overview

A peak to average ratio measurement is performed at the conducted port of the EUT. The spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in each bandwidth. The CCDF curve shows how much time the peak waveform spends at, or above, a given average power level. The percentage of time the signal spends at or above the level defines the probability for that power level.

The peak-to-average power ratio (PAPR) of the transmitter output power must not exceed 13 dB.

Test Procedure Used

ANSI C63.26-2015 – Section 5.2.3.4

Test Settings

1. The signal analyzer's CCDF measurement profile is enabled.
2. Frequency = carrier center frequency
3. Measurement BW \geq OBW or specified reference bandwidth
4. The signal analyzer was set to collect one million samples to generate the CCDF curve.
5. The measurement interval was set depending on the type of signal analyzed. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms. For burst transmissions, the spectrum analyzer is set to use an internal "RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the "on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power.

Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

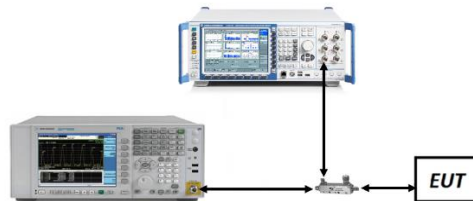


Figure 7-5. Test Instrument & Measurement Setup

Test Notes

For the QAM modulations, 256QAM was found to have the worst-case peak-to-average ratio so it is the only QAM measurement included in this section.

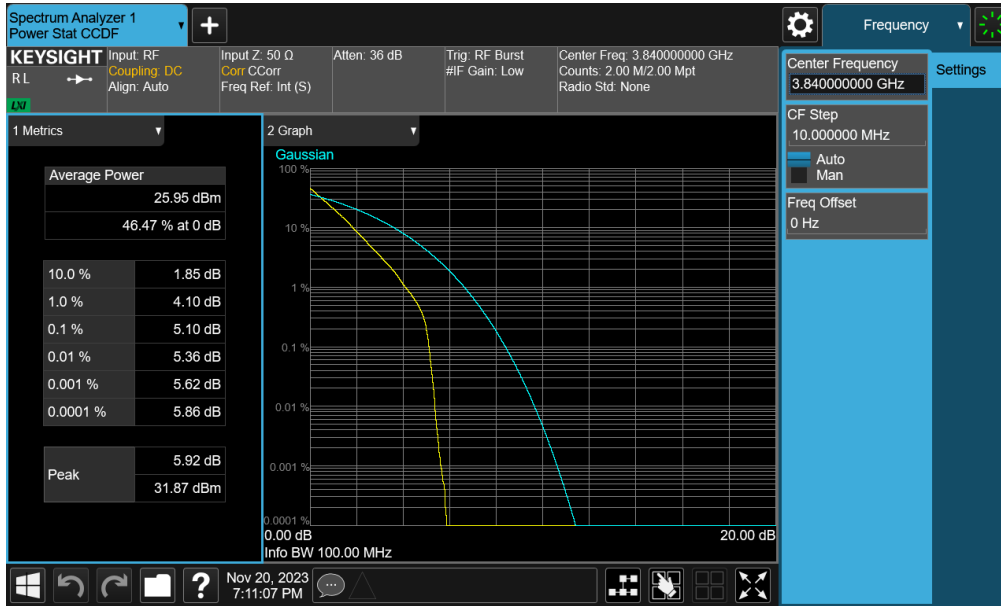
FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 92 of 130

Mode	Bandwidth	Modulation	Average Power [dBm]	PAR at 0.1% [dB]	PAR Limit [dB]	Margin [dB]
NR-n77/78 PC2 C-Band	100MHz	$\pi/2$ BPSK	25.95	5.10	13.0	-7.90
		QPSK	23.39	8.35	13.0	-4.65
		256QAM	19.89	8.47	13.0	-4.53
	90MHz	$\pi/2$ BPSK	25.98	4.42	13.0	-8.58
		QPSK	23.41	8.29	13.0	-4.71
		256QAM	19.90	8.40	13.0	-4.60
	80MHz	$\pi/2$ BPSK	26.00	5.02	13.0	-7.98
		QPSK	23.45	8.32	13.0	-4.68
		256QAM	19.93	8.45	13.0	-4.55
	70MHz	$\pi/2$ BPSK	26.04	4.52	13.0	-8.48
		QPSK	23.45	8.31	13.0	-4.69
		256QAM	19.96	8.45	13.0	-4.55
	60MHz	$\pi/2$ BPSK	26.05	4.42	13.0	-8.58
		QPSK	23.50	8.26	13.0	-4.74
		256QAM	19.99	8.37	13.0	-4.63
	50MHz	$\pi/2$ BPSK	26.06	4.74	13.0	-8.26
		QPSK	23.51	8.29	13.0	-4.71
		256QAM	19.99	8.48	13.0	-4.52
	40MHz	$\pi/2$ BPSK	26.08	4.60	13.0	-8.40
		QPSK	23.50	8.25	13.0	-4.75
		256QAM	19.99	8.39	13.0	-4.61
	30MHz	$\pi/2$ BPSK	26.08	4.59	13.0	-8.41
		QPSK	23.50	8.25	13.0	-4.75
		256QAM	20.00	8.39	13.0	-4.61
	25MHz	$\pi/2$ BPSK	26.00	4.52	13.0	-8.48
		QPSK	23.44	8.31	13.0	-4.69
		256QAM	19.71	8.74	13.0	-4.26
	20MHz	$\pi/2$ BPSK	26.02	4.45	13.0	-8.55
		QPSK	23.33	8.29	13.0	-4.71
		256QAM	19.88	8.66	13.0	-4.34
15MHz	$\pi/2$ BPSK	25.59	4.75	13.0	-8.25	
	QPSK	23.10	8.47	13.0	-4.53	
	256QAM	19.86	8.49	13.0	-4.52	
10MHz	$\pi/2$ BPSK	25.64	4.77	13.0	-8.23	
	QPSK	23.26	8.37	13.0	-4.63	
	256QAM	19.86	8.26	13.0	-4.74	

Table 7-21. Peak-Average Ratio Test Results – NR n77/78 PC2 C-Band – Ant 1

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 93 of 130

NR Band n77/78 PC2 C-Band – Ant 1



Plot 7-113. PAR Plot (NR Band n77/78 - 100MHz DFT-s-OFDM BPSK - Full RB - Ant 1)



Plot 7-114. PAR Plot (NR Band n77/78 - 100MHz CP-OFDM QPSK - Full RB - Ant 1)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 94 of 130



Plot 7-115. PAR Plot (NR Band n77/78 - 100MHz CP-OFDM 256-QAM - Full RB - Ant 1)

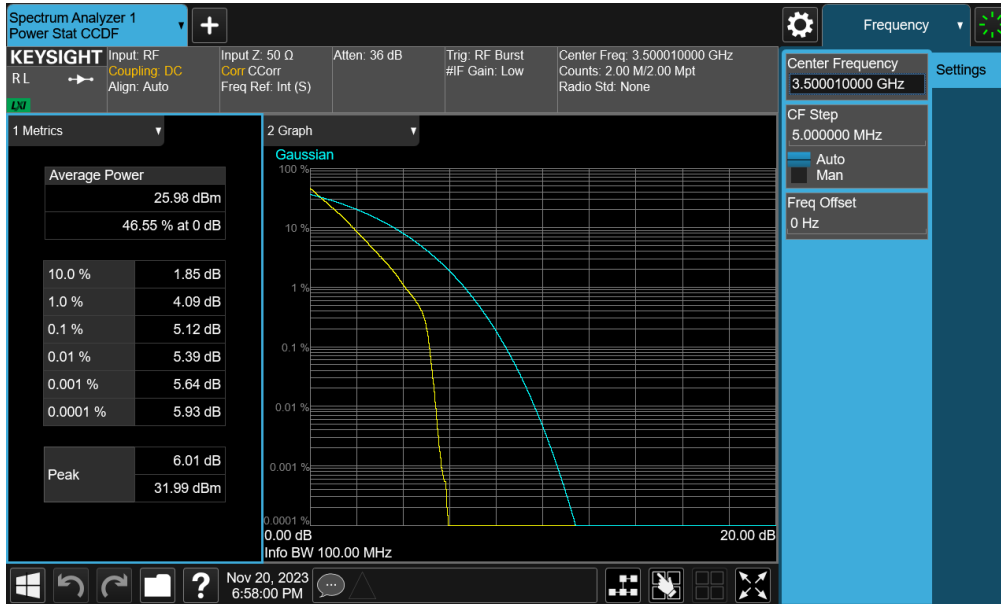
FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 95 of 130

Mode	Bandwidth	Modulation	Average Power [dBm]	PAR at 0.1% [dB]	PAR Limit [dB]	Margin [dB]
NR-n77/78 PC2 DoD	100MHz	$\pi/2$ BPSK	25.98	5.12	13.0	-7.88
		QPSK	23.45	8.33	13.0	-4.67
		256QAM	19.97	8.38	13.0	-4.62
	90MHz	$\pi/2$ BPSK	25.99	4.43	13.0	-8.57
		QPSK	23.47	8.27	13.0	-4.73
		256QAM	19.96	8.35	13.0	-4.66
	80MHz	$\pi/2$ BPSK	26.00	5.03	13.0	-7.97
		QPSK	23.48	8.30	13.0	-4.70
		256QAM	19.97	8.40	13.0	-4.60
	70MHz	$\pi/2$ BPSK	26.02	4.54	13.0	-8.46
		QPSK	23.47	8.27	13.0	-4.73
		256QAM	19.97	8.38	13.0	-4.62
	60MHz	$\pi/2$ BPSK	26.01	4.44	13.0	-8.56
		QPSK	23.50	8.24	13.0	-4.76
		256QAM	19.98	8.29	13.0	-4.71
	50MHz	$\pi/2$ BPSK	26.02	4.72	13.0	-8.28
		QPSK	23.48	8.29	13.0	-4.71
		256QAM	19.97	8.43	13.0	-4.57
	40MHz	$\pi/2$ BPSK	26.02	4.57	13.0	-8.43
		QPSK	23.50	8.23	13.0	-4.77
		256QAM	19.98	8.32	13.0	-4.69
	30MHz	$\pi/2$ BPSK	26.02	4.57	13.0	-8.43
		QPSK	23.48	8.21	13.0	-4.79
		256QAM	19.96	8.32	13.0	-4.68
	25MHz	$\pi/2$ BPSK	25.96	4.52	13.0	-8.48
		QPSK	23.44	8.33	13.0	-4.67
		256QAM	19.92	8.53	13.0	-4.47
	20MHz	$\pi/2$ BPSK	25.91	4.50	13.0	-8.50
		QPSK	23.41	8.22	13.0	-4.78
		256QAM	19.63	8.77	13.0	-4.23
	15MHz	$\pi/2$ BPSK	25.96	4.37	13.0	-8.63
		QPSK	23.37	8.18	13.0	-4.82
		256QAM	19.39	8.82	13.0	-4.18
	10MHz	$\pi/2$ BPSK	25.88	4.52	13.0	-8.48
		QPSK	23.28	8.23	13.0	-4.77
		256QAM	19.60	8.43	13.0	-4.57

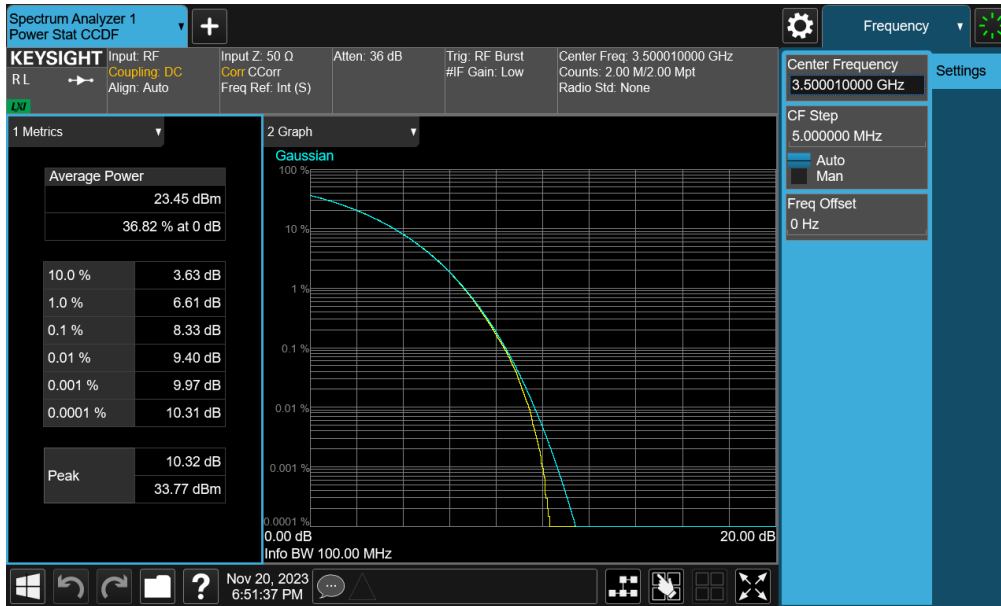
Table 7-22. Peak-Average Ratio Test Results – NR n77/78 PC2 DoD – Ant 1

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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NR Band n77/78 PC2 DoD – Ant 1



Plot 7-116. PAR Plot (NR Band n77/78 DoD - 100MHz DFT-s-OFDM BPSK - Full RB - Ant 1)



Plot 7-117. PAR Plot (NR Band n77/78 DoD - 100MHz CP-OFDM QPSK - Full RB - Ant 1)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2311010111-06.A3L	Test Dates: 10/27/2023 - 12/22/2023	EUT Type: Portable Handset	Page 97 of 130



Plot 7-118. PAR Plot (NR Band n77/78 DoD - 100MHz CP-OFDM 256-QAM - Full RB - Ant 1)

FCC ID: A3LSMA356U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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7.7 Radiated Power (EIRP)

Test Overview

Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI C63.26-2015 with the EUT transmitting into an integral antenna. Measurements are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS average measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

Test Procedures Used

ANSI C63.26-2015 – Section 5.2.4.4

Test Settings

1. Radiated power measurements are performed using the signal analyzer’s “channel power” measurement capability for signals with continuous operation. For signals with burst transmission, the signal analyzer’s “time domain power” measurement capability is used.
2. RBW = 1 – 5% of the expected OBW, not to exceed 1MHz
3. VBW $\geq 3 \times$ RBW
4. Span = 1.5 times the OBW
5. No. of sweep points $\geq 2 \times$ span / RBW
6. Detector = RMS
7. Trigger is set to “free run” for signals with continuous operation with the sweep times set to “auto”. Trigger is set to enable triggering only on full power bursts with the sweep time set less than or equal to the transmission burst duration.
8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation. For signals with burst transmission, the “gating” function was enabled to ensure that measurements are performed during times in which the transmitter is operating at its maximum power.
9. Trace mode = trace averaging (RMS) over 100 sweeps
10. The trace was allowed to stabilize.

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Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

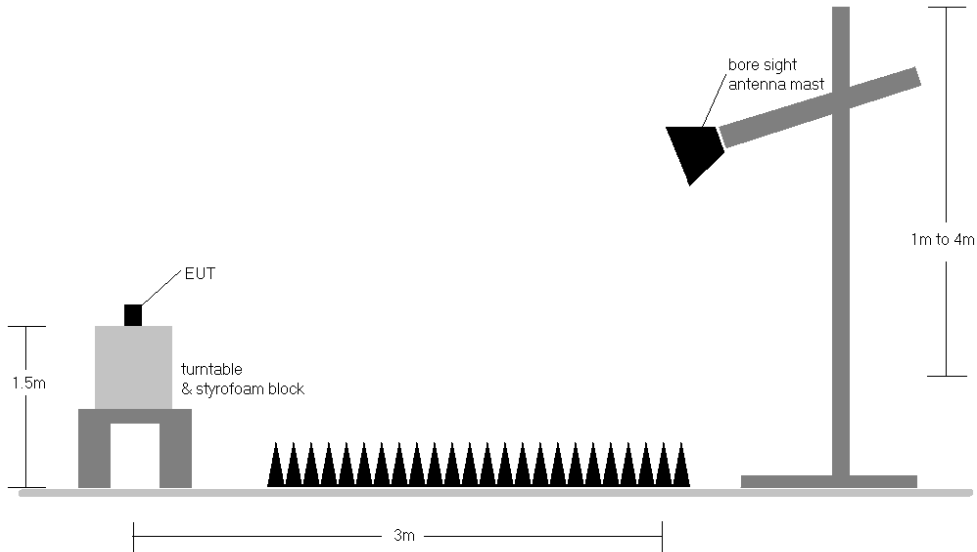


Figure 7-6. Radiated Test Setup >1GHz

Test Notes

- 1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst-case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 2) This unit was tested with its standard battery.
- 3) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst-case configuration. All modes of operation were investigated, and the worst-case configuration results are reported in this section.

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Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [dBi]	Antenna Height [cm]	Turtable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
100 MHz	m/2 BPSK	3750.00	H	119	302	7.01	1 / 136	18.54	25.55	0.359	30.00	-4.45
	m/2 BPSK	3840.00	H	123	302	7.15	1 / 271	19.10	26.25	0.422	30.00	-3.75
	m/2 BPSK	3930.00	H	112	302	7.39	1 / 271	20.07	27.46	0.557	30.00	-2.54
	QPSK	3750.00	H	119	302	7.01	1 / 136	18.49	25.50	0.355	30.00	-4.50
	QPSK	3840.00	H	123	302	7.15	1 / 271	19.09	26.24	0.421	30.00	-3.76
	QPSK	3930.00	H	112	302	7.39	1 / 271	20.14	27.53	0.566	30.00	-2.47
	16-QAM	3750.00	H	119	302	7.01	1 / 136	17.46	24.47	0.280	30.00	-5.53
	16-QAM	3840.00	H	123	302	7.15	1 / 271	18.23	25.38	0.345	30.00	-4.62
	16-QAM	3930.00	H	112	302	7.39	1 / 271	18.99	26.38	0.435	30.00	-3.62
	16-QAM	3745.02	H	119	302	7.00	1 / 243	18.45	25.45	0.351	30.00	-4.55
90 MHz	m/2 BPSK	3840.00	H	123	302	7.15	1 / 122	19.11	26.26	0.423	30.00	-3.74
	m/2 BPSK	3934.98	H	112	302	7.40	1 / 1	19.97	27.37	0.546	30.00	-2.63
	QPSK	3745.02	H	119	302	7.00	1 / 243	18.41	25.41	0.348	30.00	-4.69
	QPSK	3840.00	H	123	302	7.15	1 / 122	19.08	26.23	0.420	30.00	-3.77
	QPSK	3934.98	H	112	302	7.40	1 / 1	19.97	27.37	0.546	30.00	-2.63
	16-QAM	3745.02	H	119	302	7.00	1 / 243	17.60	24.60	0.289	30.00	-5.40
	16-QAM	3840.00	H	123	302	7.15	1 / 122	18.17	25.32	0.341	30.00	-4.68
	16-QAM	3934.98	H	112	302	7.40	1 / 1	19.70	26.10	0.408	30.00	-3.90
	m/2 BPSK	3740.01	H	119	302	6.99	1 / 215	18.48	25.46	0.352	30.00	-4.54
	m/2 BPSK	3840.00	H	123	302	7.15	1 / 108	19.12	26.27	0.424	30.00	-3.73
80 MHz	m/2 BPSK	3939.99	H	112	302	7.41	1 / 1	20.00	27.41	0.559	30.00	-2.59
	QPSK	3740.01	H	119	302	6.99	1 / 215	18.45	25.43	0.350	30.00	-4.57
	QPSK	3840.00	H	123	302	7.15	1 / 108	19.10	26.25	0.422	30.00	-3.75
	QPSK	3939.99	H	112	302	7.41	1 / 1	20.02	27.43	0.554	30.00	-2.57
	16-QAM	3740.01	H	119	302	6.99	1 / 215	17.67	24.65	0.292	30.00	-5.35
	16-QAM	3840.00	H	123	302	7.15	1 / 108	18.22	25.37	0.345	30.00	-4.63
	16-QAM	3939.99	H	112	302	7.41	1 / 1	19.03	26.44	0.441	30.00	-3.56
	m/2 BPSK	3735.00	H	119	302	6.97	1 / 94	18.47	25.44	0.350	30.00	-4.56
	m/2 BPSK	3840.00	H	123	302	7.15	1 / 94	19.21	26.36	0.433	30.00	-3.64
	m/2 BPSK	3945.00	H	112	302	7.42	1 / 1	19.98	27.40	0.550	30.00	-2.60
70 MHz	QPSK	3735.00	H	119	302	6.97	1 / 94	18.45	25.42	0.349	30.00	-4.58
	QPSK	3840.00	H	123	302	7.15	1 / 94	19.17	26.32	0.429	30.00	-3.68
	QPSK	3945.00	H	112	302	7.42	1 / 1	20.05	27.47	0.559	30.00	-2.53
	16-QAM	3735.00	H	119	302	6.97	1 / 94	17.50	24.47	0.280	30.00	-5.53
	16-QAM	3840.00	H	123	302	7.15	1 / 94	18.33	25.48	0.353	30.00	-4.52
	16-QAM	3945.00	H	112	302	7.42	1 / 1	18.68	26.10	0.408	30.00	-3.90
	m/2 BPSK	3730.02	H	119	302	6.96	1 / 81	18.53	25.48	0.354	30.00	-4.52
	m/2 BPSK	3840.00	H	123	302	7.15	1 / 160	19.29	26.44	0.441	30.00	-3.56
	m/2 BPSK	3949.98	H	112	302	7.43	1 / 1	19.88	27.30	0.537	30.00	-2.70
	QPSK	3730.02	H	119	302	6.96	1 / 81	18.58	25.53	0.358	30.00	-4.47
60 MHz	QPSK	3840.00	H	123	302	7.15	1 / 160	19.17	26.32	0.429	30.00	-3.68
	QPSK	3949.98	H	112	302	7.43	1 / 1	19.90	27.32	0.540	30.00	-2.68
	16-QAM	3730.02	H	119	302	6.96	1 / 81	17.99	24.61	0.289	30.00	-5.38
	16-QAM	3840.00	H	123	302	7.15	1 / 160	18.37	25.52	0.357	30.00	-4.48
	16-QAM	3949.98	H	112	302	7.43	1 / 1	18.78	26.20	0.417	30.00	-3.80
	m/2 BPSK	3725.01	H	119	302	6.94	1 / 131	18.45	25.39	0.346	30.00	-4.61
	m/2 BPSK	3840.00	H	123	302	7.15	1 / 131	19.30	26.45	0.442	30.00	-3.55
	m/2 BPSK	3964.99	H	112	302	7.43	1 / 1	19.80	27.23	0.529	30.00	-2.77
	QPSK	3725.01	H	119	302	6.94	1 / 131	18.39	25.33	0.342	30.00	-4.67
	QPSK	3840.00	H	123	302	7.15	1 / 131	19.20	26.35	0.432	30.00	-3.65
50 MHz	QPSK	3964.99	H	112	302	7.43	1 / 1	19.88	27.31	0.538	30.00	-2.69
	16-QAM	3725.01	H	119	302	6.94	1 / 131	17.47	24.41	0.276	30.00	-5.59
	16-QAM	3840.00	H	123	302	7.15	1 / 131	18.45	25.60	0.363	30.00	-4.40
	16-QAM	3964.99	H	112	302	7.43	1 / 1	18.71	26.14	0.411	30.00	-3.86
	m/2 BPSK	3720.00	H	119	302	6.93	1 / 104	18.57	25.49	0.354	30.00	-4.51
	m/2 BPSK	3840.00	H	123	302	7.15	1 / 104	19.31	26.46	0.443	30.00	-3.54
	m/2 BPSK	3960.00	H	112	302	7.44	1 / 1	19.71	27.15	0.519	30.00	-2.85
	QPSK	3720.00	H	119	302	6.93	1 / 104	18.53	25.45	0.351	30.00	-4.55
	QPSK	3840.00	H	123	302	7.15	1 / 104	19.22	26.37	0.434	30.00	-3.63
	QPSK	3960.00	H	112	302	7.44	1 / 1	19.75	27.19	0.524	30.00	-2.81
40 MHz	16-QAM	3720.00	H	119	302	6.93	1 / 104	17.68	24.60	0.289	30.00	-5.40
	16-QAM	3840.00	H	123	302	7.15	1 / 104	18.45	25.60	0.363	30.00	-4.40
	16-QAM	3960.00	H	112	302	7.44	1 / 1	18.44	25.88	0.387	30.00	-4.12
	m/2 BPSK	3715.02	H	119	302	6.91	1 / 39	18.50	25.41	0.348	30.00	-4.59
	m/2 BPSK	3840.00	H	123	302	7.15	1 / 76	19.30	26.45	0.442	30.00	-3.55
	m/2 BPSK	3964.98	H	112	302	7.45	1 / 1	19.66	27.11	0.514	30.00	-2.89
	QPSK	3715.02	H	119	302	6.91	1 / 39	18.46	25.37	0.345	30.00	-4.63
	QPSK	3840.00	H	123	302	7.15	1 / 76	19.22	26.37	0.434	30.00	-3.63
	QPSK	3964.98	H	112	302	7.45	1 / 1	19.71	27.16	0.520	30.00	-2.84
	16-QAM	3715.02	H	119	302	6.91	1 / 39	17.70	24.61	0.289	30.00	-5.39
30 MHz	16-QAM	3840.00	H	123	302	7.15	1 / 76	18.44	25.59	0.363	30.00	-4.41
	16-QAM	3964.98	H	112	302	7.45	1 / 1	18.54	25.99	0.397	30.00	-4.01
	m/2 BPSK	3712.50	H	115	305	6.91	1 / 32	18.55	25.45	0.351	30.00	-4.55
	m/2 BPSK	3840.00	H	115	305	7.15	1 / 63	19.30	26.45	0.442	30.00	-3.55
	m/2 BPSK	3967.50	H	115	305	7.46	1 / 1	19.56	27.01	0.502	30.00	-2.99
	QPSK	3712.50	H	115	305	6.91	1 / 32	18.50	25.40	0.347	30.00	-4.60
	QPSK	3840.00	H	115	305	7.15	1 / 63	19.18	26.33	0.430	30.00	-3.67
	QPSK	3967.50	H	115	305	7.46	1 / 1	19.59	27.03	0.505	30.00	-2.97
	16-QAM	3712.50	H	115	305	6.91	1 / 32	17.54	24.44	0.278	30.00	-5.56
	16-QAM	3840.00	H	115	305	7.15	1 / 63	18.36	25.51	0.356	30.00	-4.49
25 MHz	16-QAM	3967.50	H	115	305	7.46	1 / 1	18.49	25.94	0.393	30.00	-4.06
	m/2 BPSK	3710.01	H	119	302	6.90	1 / 25	18.49	25.39	0.346	30.00	-4.61
	m/2 BPSK	3840.00	H	123	302	7.15	1 / 49	19.30	26.45	0.442	30.00	-3.55
	m/2 BPSK	3969.99	H	112	302	7.46	1 / 1	19.54	27.00	0.501	30.00	-3.00
	QPSK	3710.01	H	119	302	6.90	1 / 25	18.46	25.36	0.344	30.00	-4.64
	QPSK	3840.00	H	123	302	7.15	1 / 49	19.17	26.32	0.429	30.00	-3.68
	QPSK	3969.99	H	112	302	7.46	1 / 1	19.57	27.03	0.505	30.00	-2.97
	16-QAM	3710.01	H	119	302	6.90	1 / 25	17.56	24.46	0.280	30.00	-5.54
	16-QAM	3840.00	H	123	302	7.15	1 / 49	18.24	25.39	0.346	30.00	-4.61
	16-QAM	3969.99	H	112	302	7.46	1 / 1	18.57	26.03	0.461	30.00	-3.97
20 MHz	m/2 BPSK	3707.52	H	119	302	6.89	1 / 19	18.54	25.43	0.350	30.00	-4.57
	m/2 BPSK	3840.00	H	123	302	7.15	1 / 36	19.27	26.42	0.439	30.00	-3.58
	m/2 BPSK	3972.48	H	112	302	7.46	1 / 1	19.51	26.97	0.498	30.00	-3.03
	QPSK	3707.52	H	119	302	6.89	1 / 19	18.47	25.36	0.344	30.00	-4.64
	QPSK	3840.00	H	123	302	7.15	1 / 36	19.17	26.32	0.429	30.00	-3.68
	QPSK	3972.48	H	112	302	7.46	1 / 1	19.59	27.05	0.507	30.00	-2.95
	16-QAM	3707.52	H	119	302	6.89	1 / 19	17.48	24.37	0.274	30.00	-5.63
	16-QAM	3840.00	H	123	302	7.15	1 / 36	18.40	25.55	0.359	30.00	-4.45
	16-QAM	3972.48	H	112	302	7.46	1 / 1	18.26	25.72	0.373	30.00	-4.28
	15 MHz	m/2 BPSK	3705.00	H	119	302	6.89	1 / 12	18.52	25.40	0.347	30.00
m/2 BPSK		3840.00	H	123	302	7.15	1 / 22	19.25	26.40	0.437	30.00	-3.60
m/2 BPSK		3975.00	H	112	302	7.47	1 / 1	19.58	27.05	0.507	30.00	-2.95
QPSK		3705.00	H	119	302	6.89	1 / 12	18.50	25.38	0.346	30.00	-4.62
QPSK		3840.00	H	123	302	7.15	1 / 22	19.13	26.28	0.425	30.00	-3.72
QPSK		3975.00	H	112	302	7.47	1 / 1					

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
100 MHz	$\pi/2$ BPSK	3750.00	H	159	126	7.01	1 / 271	6.66	13.67	0.023	30.00	-16.33
	$\pi/2$ BPSK	3840.00	H	149	129	7.15	1 / 136	7.80	14.95	0.031	30.00	-15.05
	$\pi/2$ BPSK	3930.00	H	159	133	7.39	1 / 1	5.81	13.20	0.021	30.00	-16.80
	QPSK	3750.00	H	159	126	7.01	1 / 271	6.66	13.67	0.023	30.00	-16.33
	QPSK	3840.00	H	149	129	7.15	1 / 136	7.77	14.92	0.031	30.00	-15.08
	QPSK	3930.00	H	159	133	7.39	1 / 1	5.73	13.12	0.021	30.00	-16.88
	16-QAM	3750.00	H	159	126	7.01	1 / 271	6.25	13.26	0.021	30.00	-16.74
	16-QAM	3840.00	H	149	129	7.15	1 / 136	7.28	14.43	0.028	30.00	-15.57
100 MHz	16-QAM	3930.00	H	159	133	7.39	1 / 1	5.33	12.72	0.019	30.00	-17.28
100 MHz	QPSK (CP-OFDM)	3840.0	H	149	129	7.15	1 / 136	7.07	14.22	0.026	30.00	-15.78

Table 7-24. EIRP Data (NR Band n77/78 PC2 C-Band – Ant 2)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
100 MHz	$\pi/2$ BPSK	3750.00	H	122	297	7.01	1 / 136	10.56	17.57	0.057	30.00	-12.43
	$\pi/2$ BPSK	3840.00	H	112	302	7.15	1 / 1	9.27	16.42	0.044	30.00	-13.58
	$\pi/2$ BPSK	3930.00	H	125	306	7.39	1 / 1	4.70	12.09	0.016	30.00	-17.91
	QPSK	3750.00	H	122	297	7.01	1 / 136	10.53	17.54	0.057	30.00	-12.46
	QPSK	3840.00	H	112	302	7.15	1 / 1	9.25	16.40	0.044	30.00	-13.60
	QPSK	3930.00	H	125	306	7.39	1 / 1	4.72	12.11	0.016	30.00	-17.89
	16-QAM	3750.00	H	122	297	7.01	1 / 136	9.50	16.51	0.045	30.00	-13.49
	16-QAM	3840.00	H	112	302	7.15	1 / 1	8.30	15.45	0.035	30.00	-14.55
	16-QAM	3930.00	H	125	306	7.39	1 / 1	4.38	11.77	0.015	30.00	-18.23
100 MHz	QPSK (CP-OFDM)	3840.0	H	122	297	7.01	1 / 136	8.95	15.96	0.039	30.00	-14.04

Table 7-25. EIRP Data (NR Band n77/78 PC2 C-Band – Ant 3)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
100 MHz	$\pi/2$ BPSK	3750.00	V	170	348	9.31	1 / 271	1.71	11.02	0.013	30.00	-18.98
	$\pi/2$ BPSK	3840.00	V	176	358	8.86	1 / 136	-0.57	8.29	0.007	30.00	-21.71
	$\pi/2$ BPSK	3930.00	V	143	2	8.92	1 / 136	-0.58	8.34	0.007	30.00	-21.66
	QPSK	3750.00	V	170	348	9.31	1 / 271	1.36	10.67	0.012	30.00	-19.33
	QPSK	3840.00	V	176	358	8.86	1 / 136	-1.12	7.74	0.006	30.00	-22.26
	QPSK	3930.00	V	143	2	8.92	1 / 136	-1.11	7.81	0.006	30.00	-22.19
	16-QAM	3750.00	V	170	348	9.31	1 / 271	0.43	9.74	0.009	30.00	-20.26
	16-QAM	3840.00	V	176	358	8.86	1 / 136	-1.91	6.95	0.005	30.00	-23.05
	16-QAM	3930.00	V	143	2	8.92	1 / 136	-1.97	6.95	0.005	30.00	-23.05
100 MHz	QPSK (CP-OFDM)	3840.0	V	170	348	9.31	1 / 271	-0.27	9.04	0.008	30.00	-20.96

Table 7-26. EIRP Data (NR Band n77/78 PC2 C-Band – Ant 4)

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Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [HV]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
100 MHz	m/2 BPSK	3500.01	H	115	305	6.46	1 / 136	19.17	25.63	0.366	30.00	-4.37
	QPSK	3500.01	H	115	305	6.46	1 / 136	19.52	25.98	0.397	30.00	-4.02
	16-QAM	3500.01	H	115	305	6.46	1 / 136	18.35	24.81	0.303	30.00	-5.19
90 MHz	m/2 BPSK	3495.00	H	115	305	6.46	1 / 1	19.35	25.80	0.381	30.00	-4.20
	m/2 BPSK	3500.01	H	115	305	6.46	1 / 122	19.15	25.61	0.364	30.00	-4.39
	m/2 BPSK	3504.99	H	115	305	6.47	1 / 122	19.28	25.74	0.375	30.00	-4.26
	QPSK	3495.00	H	115	305	6.46	1 / 1	19.71	26.16	0.413	30.00	-3.84
	QPSK	3500.01	H	115	305	6.46	1 / 122	19.65	26.11	0.409	30.00	-3.89
	QPSK	3504.99	H	115	305	6.47	1 / 122	19.62	26.08	0.406	30.00	-3.92
	16-QAM	3495.00	H	115	305	6.46	1 / 1	18.77	25.22	0.333	30.00	-4.78
80 MHz	16-QAM	3500.01	H	115	305	6.46	1 / 122	18.50	24.96	0.314	30.00	-5.04
	16-QAM	3504.99	H	115	305	6.47	1 / 122	18.57	25.03	0.319	30.00	-4.97
	m/2 BPSK	3490.02	H	115	305	6.45	1 / 108	19.31	25.76	0.377	30.00	-4.24
	m/2 BPSK	3500.01	H	115	305	6.46	1 / 108	19.15	25.61	0.364	30.00	-4.39
	m/2 BPSK	3510.00	H	115	305	6.47	1 / 1	19.13	25.60	0.363	30.00	-4.40
	QPSK	3490.02	H	115	305	6.45	1 / 108	19.69	26.14	0.412	30.00	-3.86
	QPSK	3500.01	H	115	305	6.46	1 / 108	19.65	26.11	0.409	30.00	-3.89
70 MHz	QPSK	3510.00	H	115	305	6.47	1 / 1	19.53	26.00	0.399	30.00	-4.00
	16-QAM	3490.02	H	115	305	6.45	1 / 108	18.69	25.14	0.327	30.00	-4.86
	16-QAM	3500.01	H	115	305	6.46	1 / 108	18.51	24.97	0.314	30.00	-5.03
	16-QAM	3510.00	H	115	305	6.47	1 / 1	18.51	24.98	0.315	30.00	-5.02
	m/2 BPSK	3485.01	H	115	305	6.45	1 / 1	19.33	25.77	0.378	30.00	-4.23
	m/2 BPSK	3500.01	H	115	305	6.46	1 / 94	19.15	25.61	0.364	30.00	-4.39
	m/2 BPSK	3514.98	H	115	305	6.47	1 / 94	19.16	25.63	0.366	30.00	-4.37
60 MHz	QPSK	3485.01	H	115	305	6.45	1 / 1	19.70	26.14	0.412	30.00	-3.86
	QPSK	3500.01	H	115	305	6.46	1 / 94	19.53	25.99	0.398	30.00	-4.01
	QPSK	3514.98	H	115	305	6.47	1 / 94	19.67	26.14	0.412	30.00	-3.86
	16-QAM	3485.01	H	115	305	6.45	1 / 1	18.72	25.16	0.328	30.00	-4.84
	16-QAM	3500.01	H	115	305	6.46	1 / 94	18.63	25.09	0.323	30.00	-4.91
	16-QAM	3514.98	H	115	305	6.47	1 / 94	18.45	24.92	0.311	30.00	-5.08
	m/2 BPSK	3480.00	H	115	305	6.44	1 / 1	19.30	25.74	0.375	30.00	-4.26
50 MHz	m/2 BPSK	3500.01	H	115	305	6.46	1 / 81	19.32	25.78	0.379	30.00	-4.22
	m/2 BPSK	3519.99	H	115	305	6.48	1 / 81	19.18	25.65	0.368	30.00	-4.35
	QPSK	3480.00	H	115	305	6.44	1 / 1	19.68	26.12	0.410	30.00	-3.88
	QPSK	3500.01	H	115	305	6.46	1 / 81	19.62	26.08	0.406	30.00	-3.92
	QPSK	3519.99	H	115	305	6.48	1 / 81	19.51	25.98	0.397	30.00	-4.02
	16-QAM	3480.00	H	115	305	6.44	1 / 1	18.47	24.91	0.310	30.00	-5.09
	16-QAM	3500.01	H	115	305	6.46	1 / 81	18.65	25.11	0.325	30.00	-4.89
40 MHz	16-QAM	3519.99	H	115	305	6.48	1 / 81	18.54	25.01	0.317	30.00	-4.99
	m/2 BPSK	3475.02	H	115	305	6.43	1 / 1	19.34	25.77	0.378	30.00	-4.23
	m/2 BPSK	3500.01	H	115	305	6.46	1 / 66	19.14	25.60	0.363	30.00	-4.40
	m/2 BPSK	3525.00	H	115	305	6.48	1 / 66	19.19	25.66	0.369	30.00	-4.34
	QPSK	3475.02	H	115	305	6.43	1 / 1	19.69	26.12	0.410	30.00	-3.88
	QPSK	3500.01	H	115	305	6.46	1 / 66	19.62	26.08	0.406	30.00	-3.92
	QPSK	3525.00	H	115	305	6.48	1 / 66	19.57	26.04	0.402	30.00	-3.96
30 MHz	16-QAM	3475.02	H	115	305	6.43	1 / 1	18.56	24.99	0.316	30.00	-5.01
	16-QAM	3500.01	H	115	305	6.46	1 / 66	18.66	25.12	0.325	30.00	-4.88
	16-QAM	3525.00	H	115	305	6.48	1 / 66	18.52	24.99	0.316	30.00	-5.01
	m/2 BPSK	3470.01	H	115	305	6.43	1 / 53	19.32	25.74	0.375	30.00	-4.26
	m/2 BPSK	3500.01	H	115	305	6.46	1 / 1	19.17	25.63	0.366	30.00	-4.37
	m/2 BPSK	3529.98	H	115	305	6.48	1 / 53	19.24	25.72	0.374	30.00	-4.28
	QPSK	3470.01	H	115	305	6.43	1 / 53	19.72	26.14	0.412	30.00	-3.86
25 MHz	QPSK	3500.01	H	115	305	6.46	1 / 1	19.58	26.04	0.402	30.00	-3.96
	QPSK	3529.98	H	115	305	6.48	1 / 53	19.56	26.04	0.402	30.00	-3.96
	16-QAM	3470.01	H	115	305	6.43	1 / 53	18.55	24.97	0.314	30.00	-5.03
	16-QAM	3500.01	H	115	305	6.46	1 / 1	18.54	25.00	0.317	30.00	-5.00
	16-QAM	3529.98	H	115	305	6.48	1 / 53	18.68	25.16	0.328	30.00	-4.84
	m/2 BPSK	3465.00	H	115	305	6.42	1 / 1	19.39	25.81	0.381	30.00	-4.19
	m/2 BPSK	3500.01	H	115	305	6.46	1 / 39	19.27	25.73	0.375	30.00	-4.27
20 MHz	m/2 BPSK	3534.99	H	115	305	6.48	1 / 39	19.31	25.79	0.380	30.00	-4.21
	QPSK	3465.00	H	115	305	6.42	1 / 1	19.80	26.22	0.419	30.00	-3.77
	QPSK	3500.01	H	115	305	6.46	1 / 39	19.61	26.07	0.406	30.00	-3.93
	QPSK	3534.99	H	115	305	6.48	1 / 39	19.65	26.13	0.411	30.00	-3.87
	16-QAM	3465.00	H	115	305	6.42	1 / 1	18.68	25.10	0.324	30.00	-4.90
	16-QAM	3500.01	H	115	305	6.46	1 / 39	18.50	24.96	0.314	30.00	-5.04
	16-QAM	3534.99	H	115	305	6.48	1 / 39	18.64	25.12	0.325	30.00	-4.88
15 MHz	m/2 BPSK	3462.51	H	115	305	6.42	1 / 32	19.40	25.81	0.381	30.00	-4.19
	m/2 BPSK	3500.01	H	115	305	6.46	1 / 1	19.20	25.66	0.369	30.00	-4.34
	m/2 BPSK	3537.48	H	115	305	6.48	1 / 32	19.24	25.72	0.374	30.00	-4.28
	QPSK	3462.51	H	115	305	6.42	1 / 32	19.80	26.21	0.418	30.00	-3.79
	QPSK	3500.01	H	115	305	6.46	1 / 1	19.57	26.03	0.401	30.00	-3.97
	QPSK	3537.48	H	115	305	6.48	1 / 32	19.62	26.10	0.408	30.00	-3.90
	16-QAM	3462.51	H	115	305	6.42	1 / 32	18.63	25.04	0.319	30.00	-4.96
10 MHz	16-QAM	3500.01	H	115	305	6.46	1 / 1	18.56	25.02	0.318	30.00	-4.98
	16-QAM	3537.48	H	115	305	6.48	1 / 32	18.62	25.10	0.324	30.00	-4.90
	m/2 BPSK	3460.02	H	115	305	6.42	1 / 1	19.47	25.88	0.388	30.00	-4.12
	m/2 BPSK	3500.01	H	115	305	6.46	1 / 1	19.20	25.66	0.369	30.00	-4.34
	m/2 BPSK	3540.00	H	115	305	6.49	1 / 25	19.26	25.74	0.375	30.00	-4.26
	QPSK	3460.02	H	115	305	6.42	1 / 1	19.78	26.19	0.416	30.00	-3.81
	QPSK	3500.01	H	115	305	6.46	1 / 1	19.59	26.05	0.403	30.00	-3.95
5 MHz	QPSK	3540.00	H	115	305	6.49	1 / 25	19.58	26.06	0.404	30.00	-3.94
	16-QAM	3460.02	H	115	305	6.42	1 / 1	18.81	25.22	0.333	30.00	-4.78
	16-QAM	3500.01	H	115	305	6.46	1 / 1	18.41	24.87	0.307	30.00	-5.13
	16-QAM	3540.00	H	115	305	6.49	1 / 25	18.52	25.00	0.317	30.00	-5.00
	m/2 BPSK	3457.50	H	115	305	6.41	1 / 19	19.46	25.87	0.387	30.00	-4.13
	m/2 BPSK	3500.01	H	115	305	6.46	1 / 19	19.26	25.72	0.374	30.00	-4.28
	m/2 BPSK	3542.49	H	115	305	6.49	1 / 19	19.24	25.72	0.374	30.00	-4.28
2 MHz	QPSK	3457.50	H	115	305	6.41	1 / 19	19.80	26.21	0.418	30.00	-3.79
	QPSK	3500.01	H	115	305	6.46	1 / 19	19.57	26.03	0.401	30.00	-3.97
	QPSK	3542.49	H	115	305	6.49	1 / 19	19.64	26.12	0.410	30.00	-3.88
	16-QAM	3457.50	H	115	305	6.41	1 / 19	18.80	25.21	0.332	30.00	-4.79
	16-QAM	3500.01	H	115	305	6.46	1 / 19	18.45	24.91	0.310	30.00	-5.09
	16-QAM	3542.49	H	115	305	6.49	1 / 19	18.55	25.03	0.319	30.00	-4.97
	m/2 BPSK</											

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
100 MHz	$\pi/2$ BPSK	3500.01	H	108	208	6.46	1 / 271	3.46	9.92	0.010	30.00	-20.08
	QPSK	3500.01	H	108	208	6.46	1 / 271	3.51	9.97	0.010	30.00	-20.03
	16-QAM	3500.01	H	108	208	6.46	1 / 271	2.93	9.39	0.009	30.00	-20.61
100 MHz	QPSK (CP-OFDM)	3500.0	H	108	208	6.46	1 / 271	2.72	9.18	0.008	30.00	-20.82

Table 7-28. EIRP Data (NR Band n77/78 PC2 DoD – Ant 2)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
100 MHz	$\pi/2$ BPSK	3500.01	H	125	297	6.46	1 / 136	10.16	16.62	0.046	30.00	-13.38
	QPSK	3500.01	H	125	297	6.46	1 / 136	10.13	16.59	0.046	30.00	-13.41
	16-QAM	3500.01	H	125	297	6.46	1 / 136	9.13	15.59	0.036	30.00	-14.41
100 MHz	QPSK (CP-OFDM)	3500.0	H	125	297	6.46	1 / 136	8.54	15.00	0.032	30.00	-15.00

Table 7-29. EIRP Data (NR Band n77/78 PC2 DoD – Ant 3)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
100 MHz	$\pi/2$ BPSK	3500.01	H	277	10	9.61	1 / 1	3.57	13.18	0.021	30.00	-16.82
	QPSK	3500.01	H	277	10	9.61	1 / 1	3.15	12.76	0.019	30.00	-17.24
	16-QAM	3500.01	H	277	10	9.61	1 / 1	2.44	12.05	0.016	30.00	-17.95
100 MHz	QPSK (CP-OFDM)	3500.0	H	277	10	9.61	1 / 1	1.74	11.35	0.014	30.00	-18.65

Table 7-30. EIRP Data (NR Band n77/78 PC2 DoD – Ant 4)

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7.8 Radiated Spurious Emissions Measurements

Test Overview

Radiated spurious emissions measurements are performed using the field strength conversion method described in ANSI C63.26-2015 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using hybrid (biconical/log) antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

Test Procedures Used

ANSI C63.26-2015 – Section 5.5.4

Test Settings

1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
2. VBW $\geq 3 \times$ RBW
3. Span = 1.5 times the OBW
4. No. of sweep points $\geq 2 \times$ span / RBW
5. Detector = RMS
6. Trace mode = Average (Max Hold for pulsed emissions)
7. The trace was allowed to stabilize.

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Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

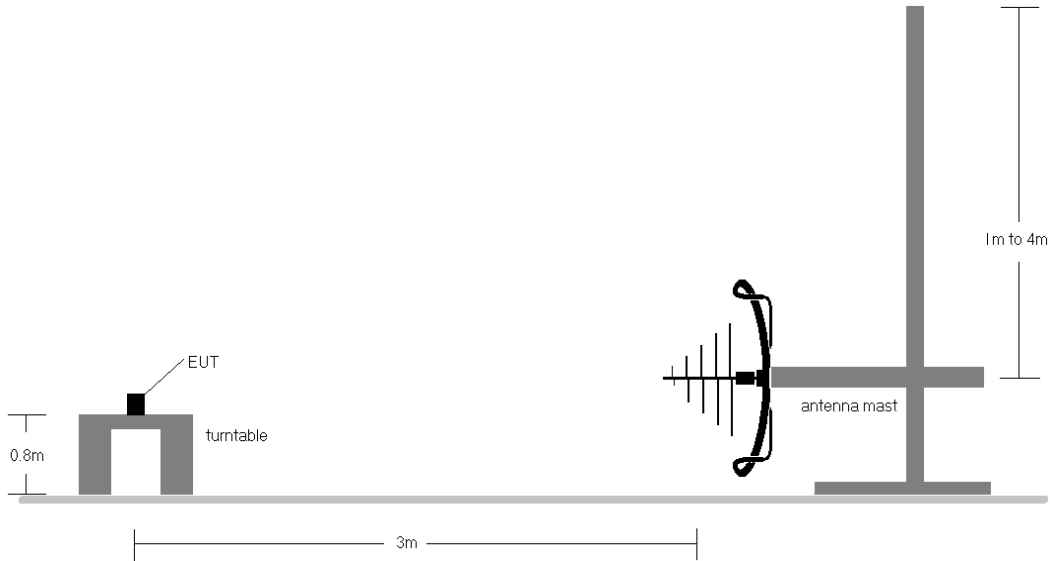


Figure 7-7. Test Instrument & Measurement Setup < 1GHz

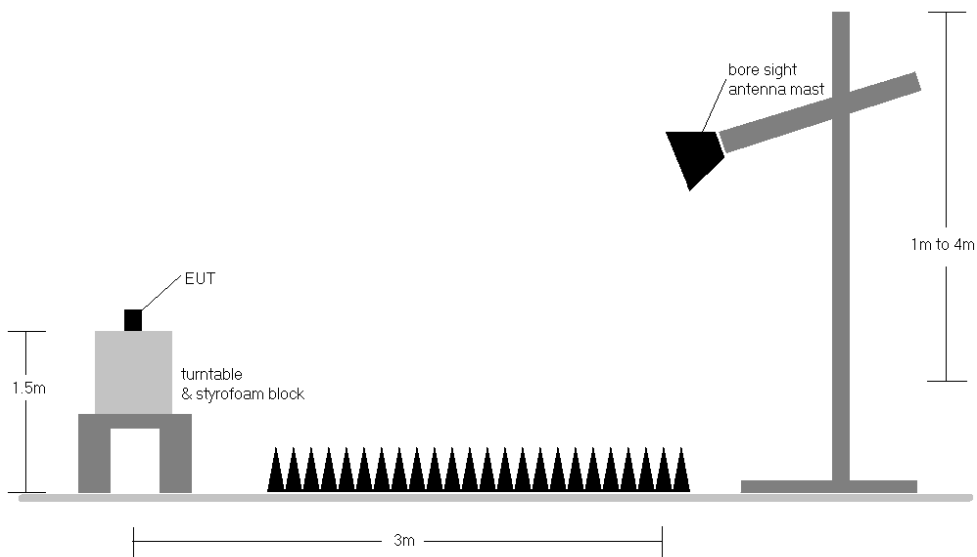


Figure 7-8. Test Instrument & Measurement Setup >1 GHz

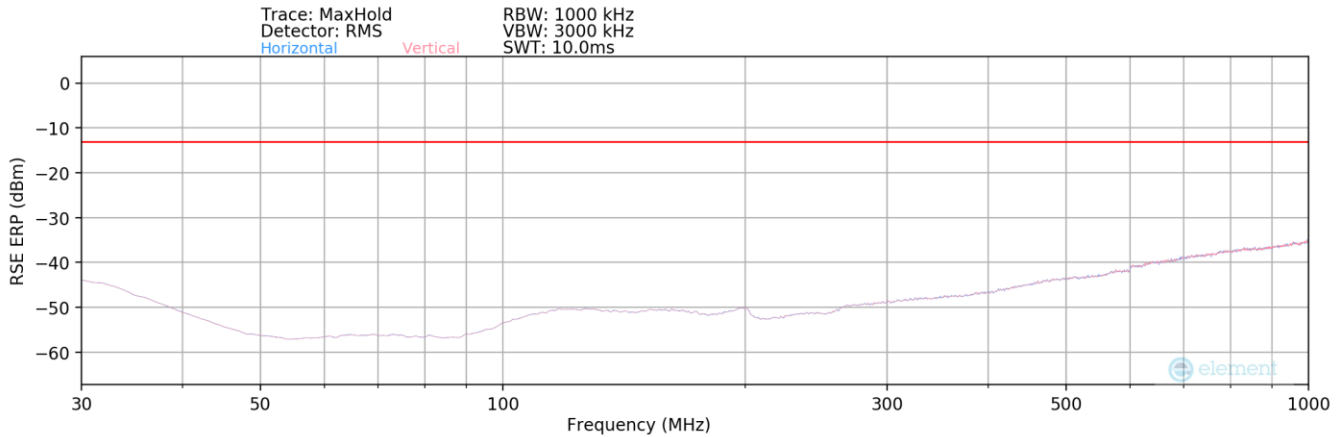
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Test Notes

- 1) Field strengths are calculated using the Measurement quantity conversions in ANSI C63.26-2015 Section 5.2.7:
 - b) $E(\text{dB}\mu\text{V}/\text{m}) = \text{Measured amplitude level (dBm)} + 107 + \text{Cable Loss (dB)} + \text{Antenna Factor (dB/m)}$
 - d) $\text{EIRP (dBm)} = E(\text{dB}\mu\text{V}/\text{m}) + 20\log D - 104.8$; where D is the measurement distance in meters.
- 2) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst-case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 3) This unit was tested with its standard battery.
- 4) The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.
- 5) Emissions below 18GHz were measured at a 3-meter test distance while emissions above 18GHz were measured at a 1-meter test distance with the application of a distance correction factor.
- 6) The "-" shown in the following RSE tables are used to denote a noise floor measurement.
- 7) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and DFT-s-OFDM) were investigated to determine the worst-case configuration. All modes of operation were investigated, and the worst-case configuration results are reported in this section.
- 8) Spurious emission in EN-DC Operating mode with Sub 6GHz NR carrier as well as an LTE carrier (anchor) has been checked and was found to not to be the worst case. Spurious emissions from the NR carrier device are subject to the rules under which the NR carrier operates. Spurious emissions caused by the LTE carrier must meet the requirements of the rules under which the LTE carrier operates.

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NR Band n77/78 PC2 C-Band – Ant 1

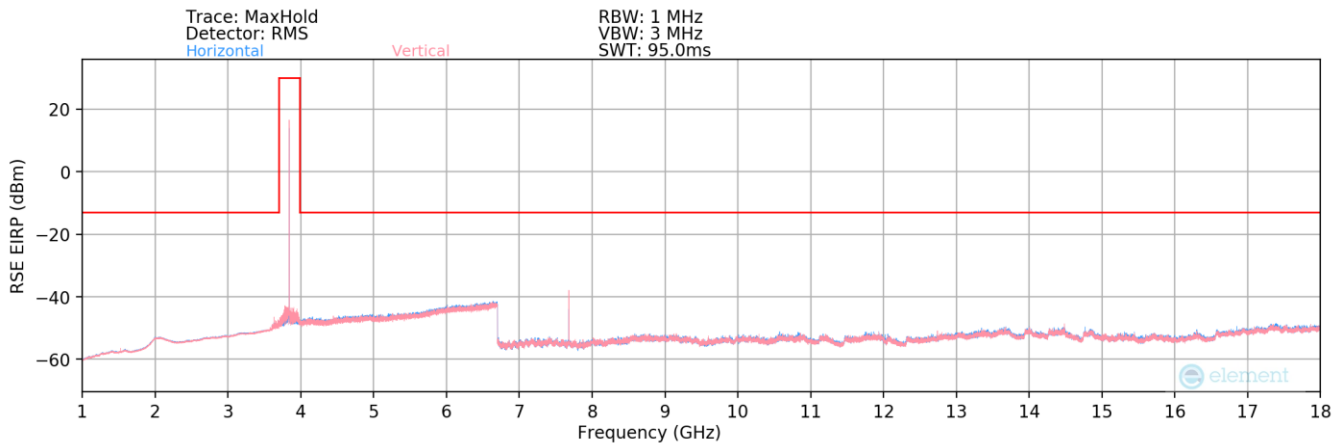


Plot 7-119. Radiated Spurious Plot – Below 1GHz (NR Band n77/78 PC2 C-Band – Ant 1)

Bandwidth (MHz):	100
Frequency (MHz):	3840.00
RB / Offset:	1 / 136

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBμV/m]	ERP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
838.01	V	-	-	-89.55	30.56	48.01	-49.40	-13.00	-36.40

Table 7-31. Radiated Spurious Data Below 1GHz (NR Band n77/78 PC2 C-Band – Mid Channel – Ant 1)



Plot 7-120. Radiated Spurious Plot – 1GHz – 18GHz (NR Band n77/78 PC2 C-Band – Ant 1)

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