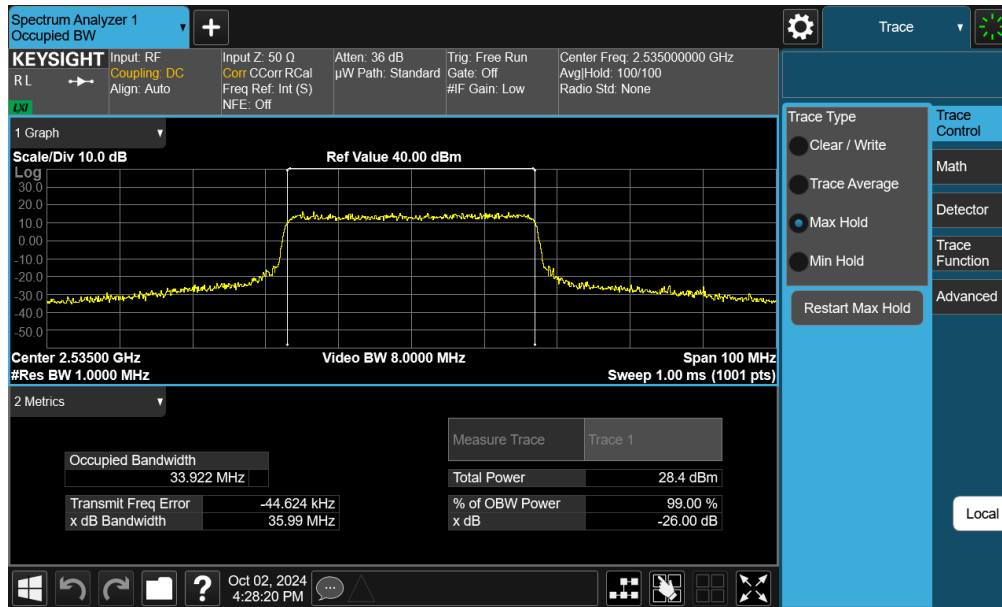
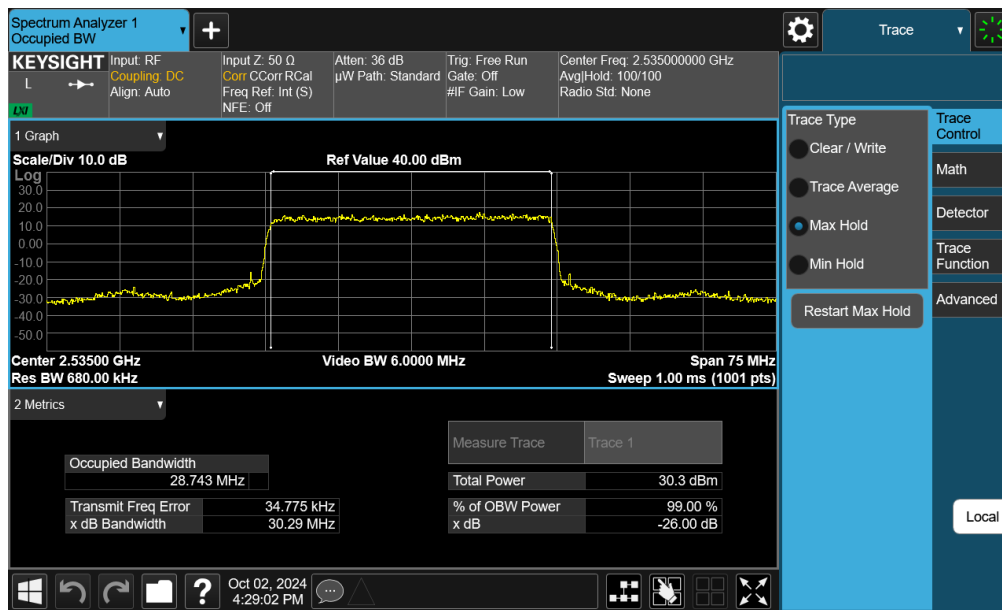


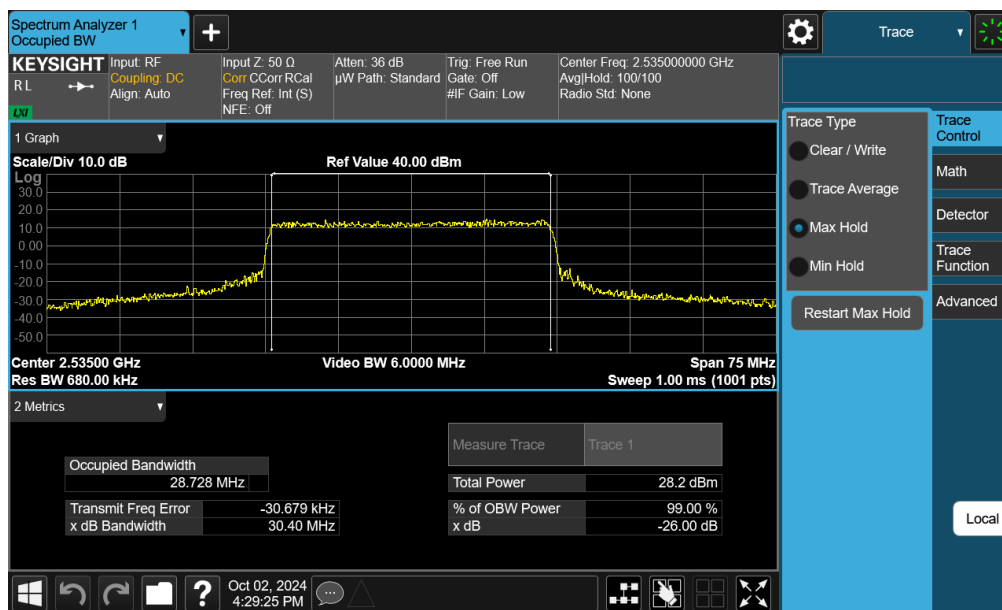
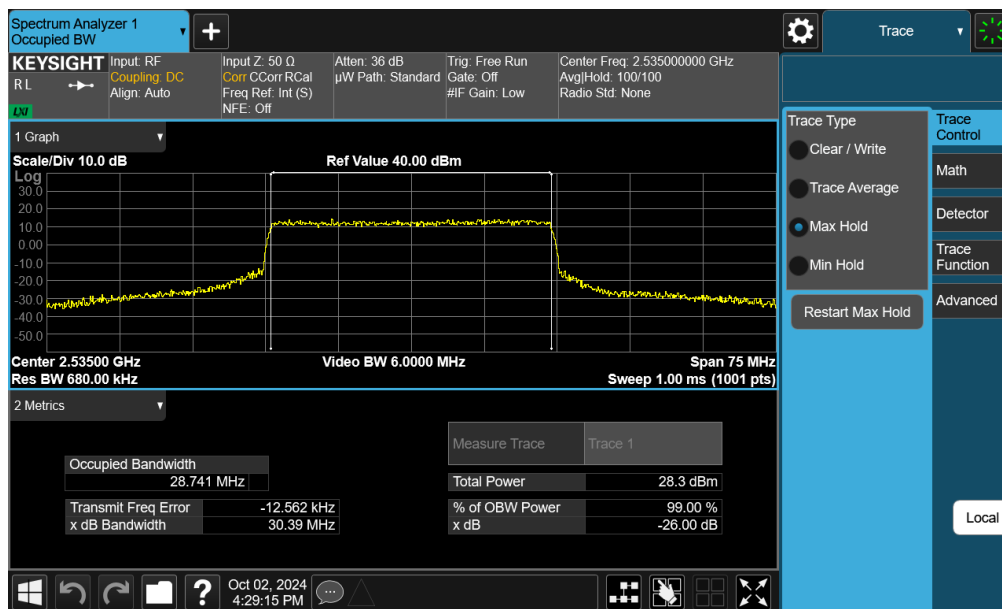


Plot 7-190. Occupied Bandwidth Plot (NR Band n7 - 35MHz 16-QAM - Full RB - Ant B)

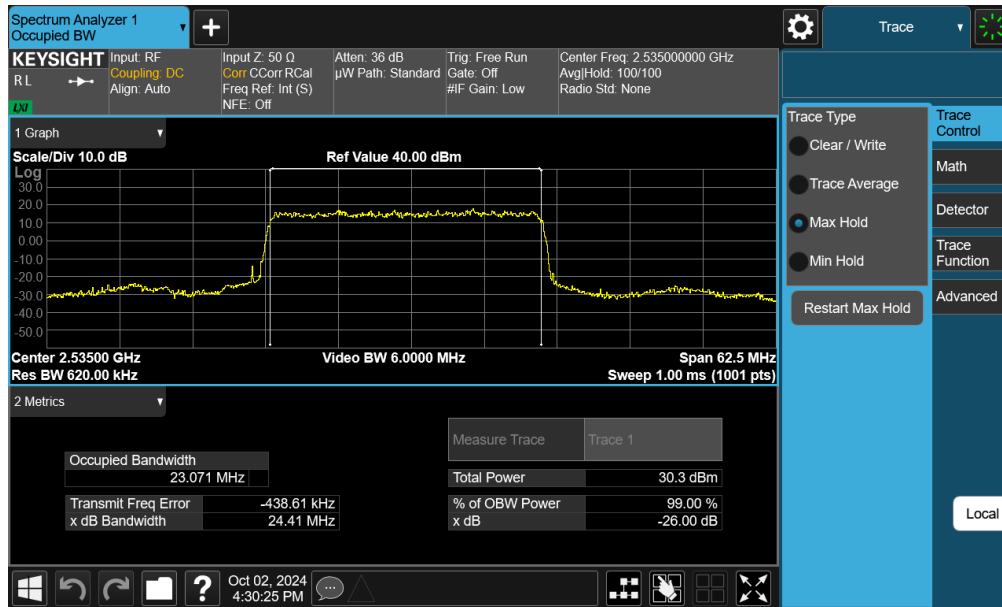


Plot 7-191. Occupied Bandwidth Plot (NR Band n7 - 30MHz $\pi/2$ BPSK - Full RB - Ant B)

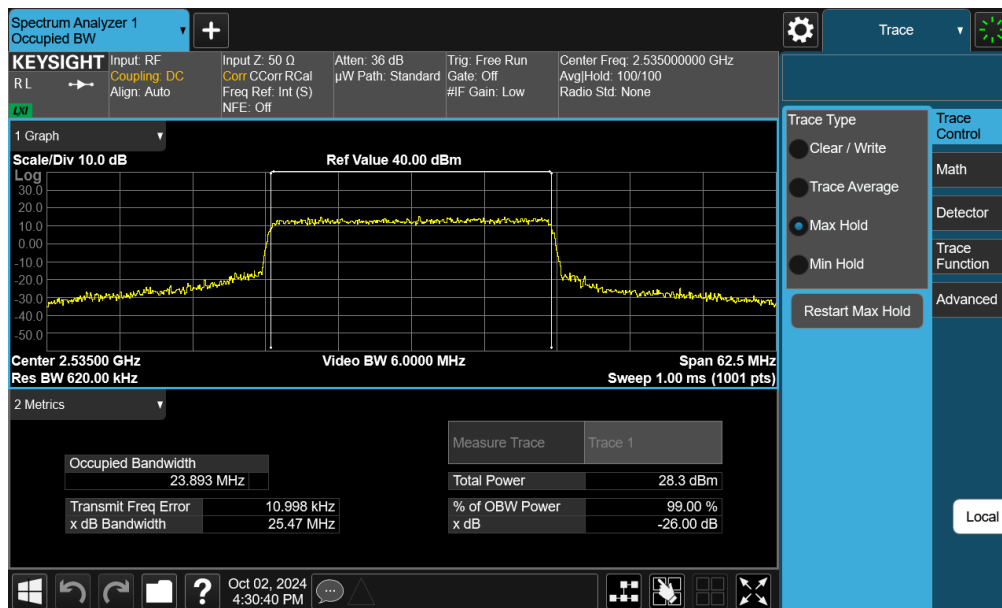
FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260064-04-R2.A3L	Test Dates: 09/03/2024 - 10/22/2024	EUT Type: Portable Handset	Page 119 of 274



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Test Report S/N: 1M2408260064-04-R2.A3L	Test Dates: 09/03/2024 - 10/22/2024	EUT Type: Portable Handset	Page 120 of 274

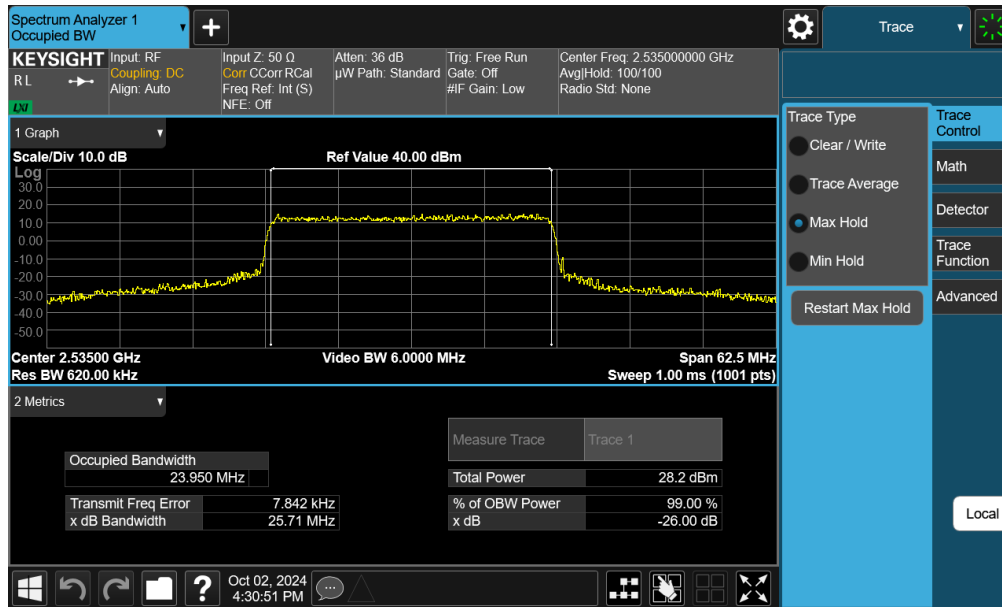


Plot 7-194. Occupied Bandwidth Plot (NR Band n7 - 25MHz $\pi/2$ BPSK - Full RB - Ant B)

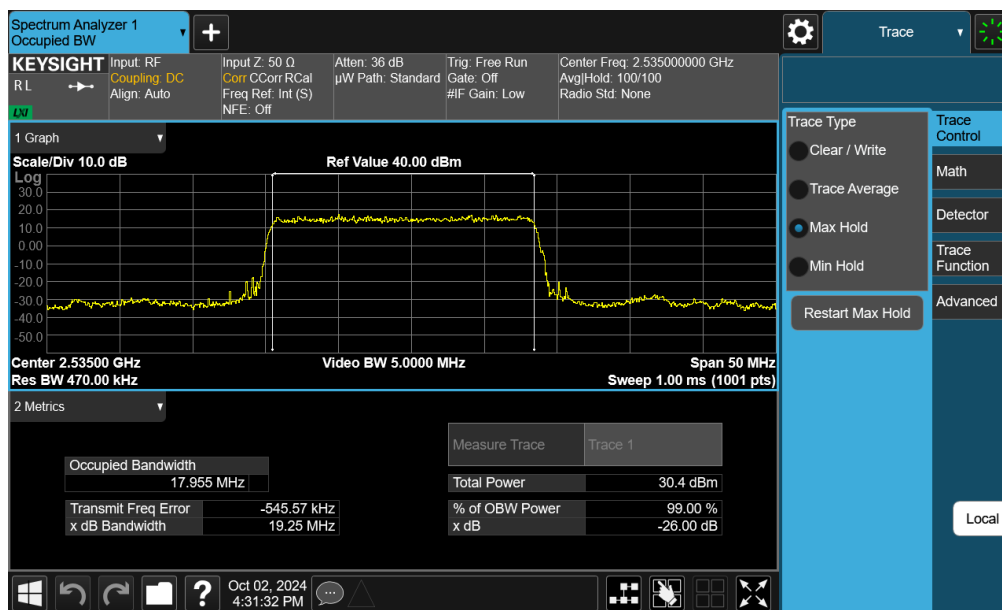


Plot 7-195. Occupied Bandwidth Plot (NR Band n7 - 25MHz QPSK - Full RB - Ant B)

FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260064-04-R2.A3L	Test Dates: 09/03/2024 - 10/22/2024	EUT Type: Portable Handset	Page 121 of 274

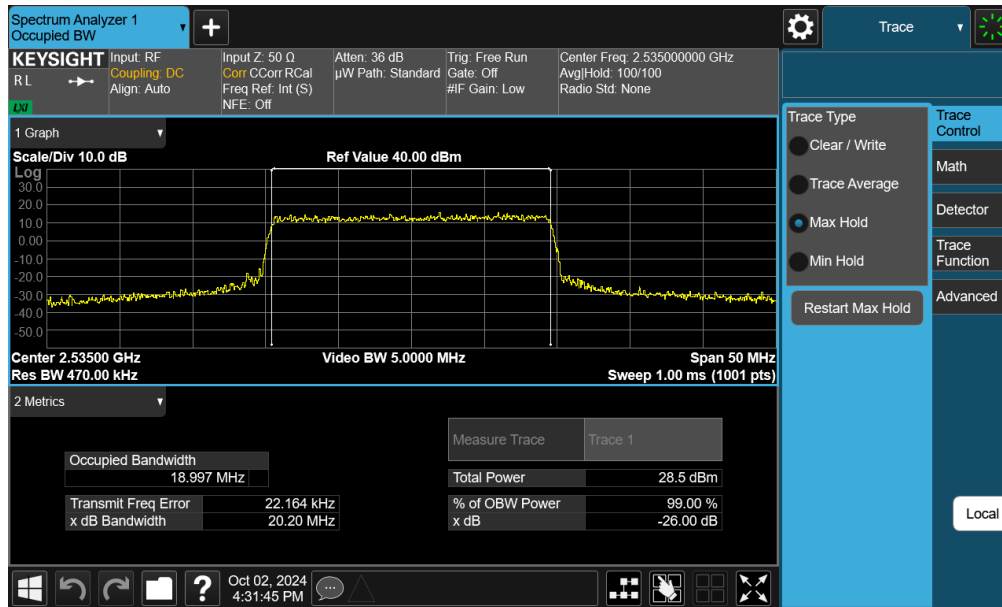


Plot 7-196. Occupied Bandwidth Plot (NR Band n7 - 25MHz 16-QAM - Full RB - Ant B)

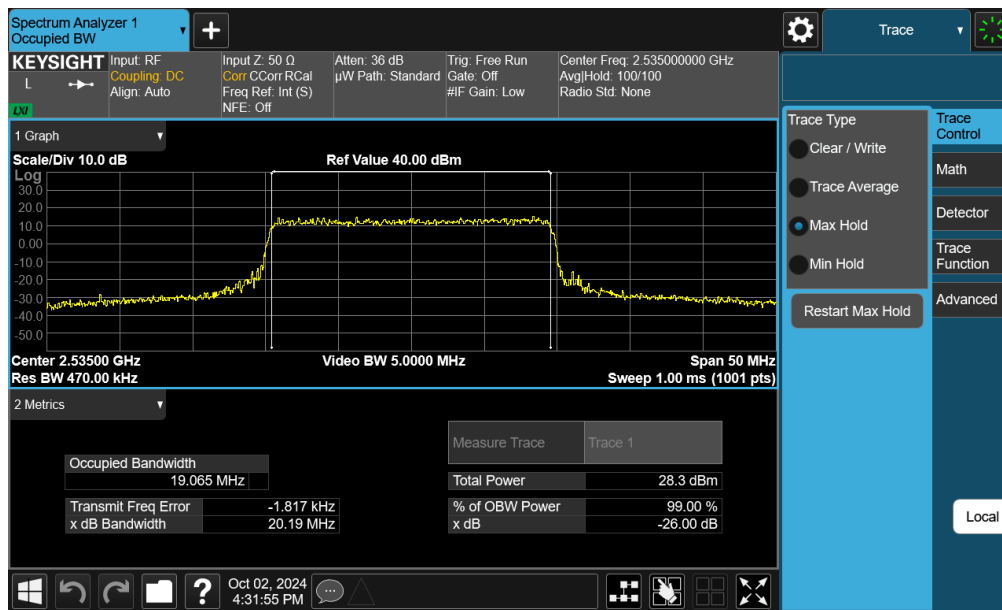


Plot 7-197. Occupied Bandwidth Plot (NR Band n7 - 20MHz $\pi/2$ BPSK - Full RB - Ant B)

FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260064-04-R2.A3L	Test Dates: 09/03/2024 - 10/22/2024	EUT Type: Portable Handset	Page 122 of 274

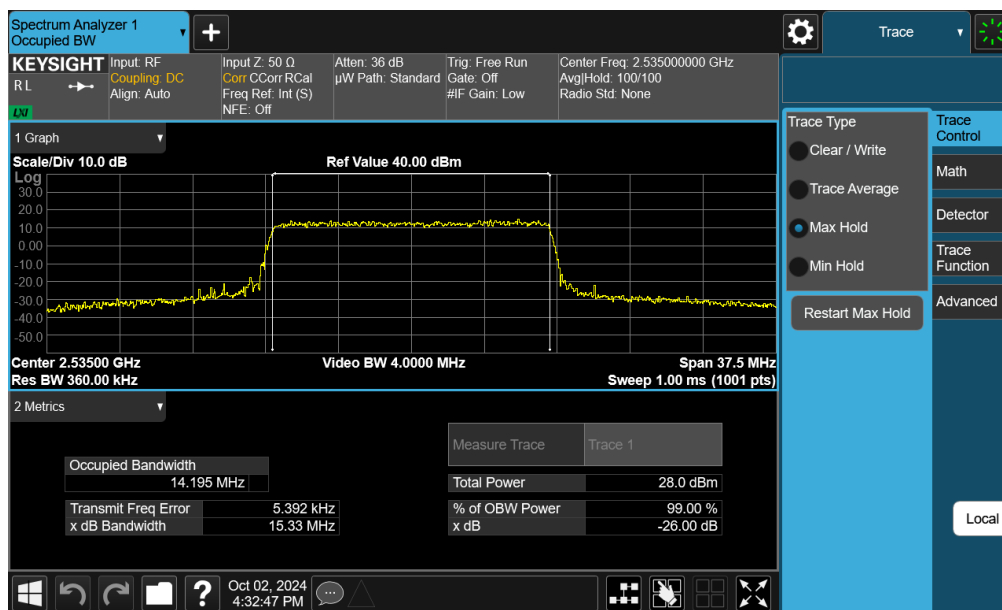
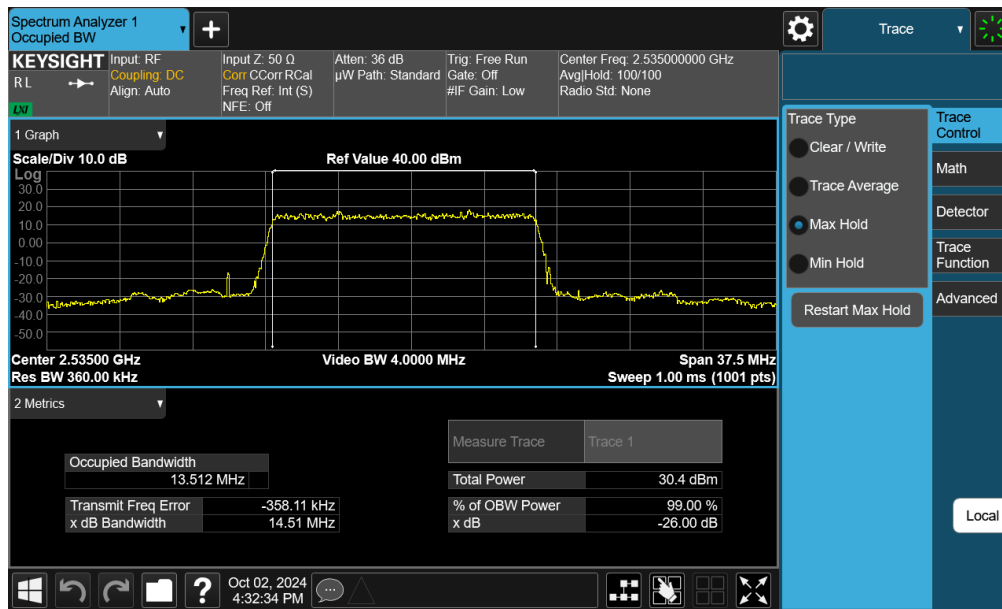


Plot 7-198. Occupied Bandwidth Plot (NR Band n7 - 20MHz QPSK - Full RB - Ant B)

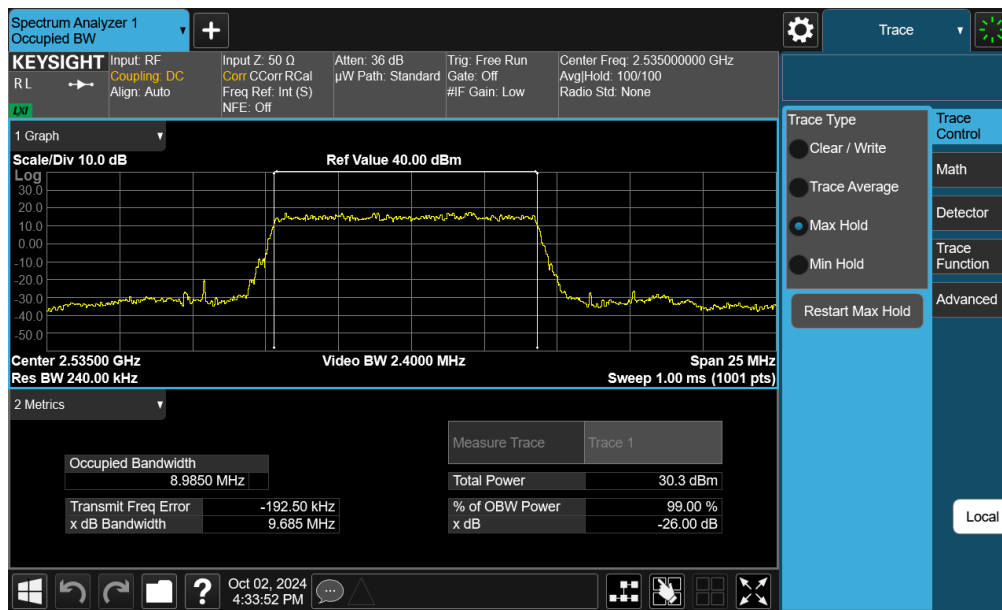
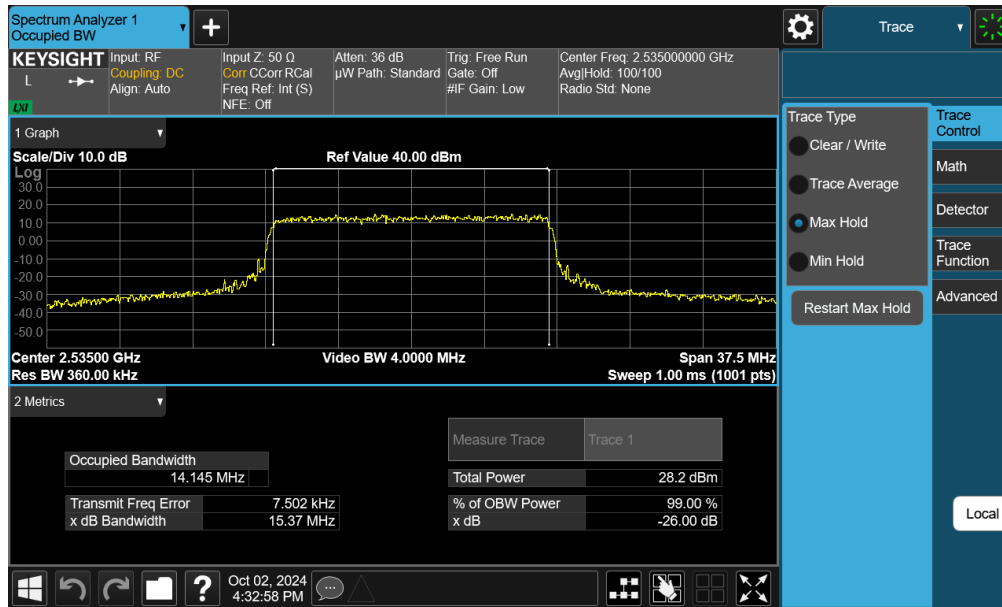


Plot 7-199. Occupied Bandwidth Plot (NR Band n7 - 20MHz 16-QAM - Full RB - Ant B)

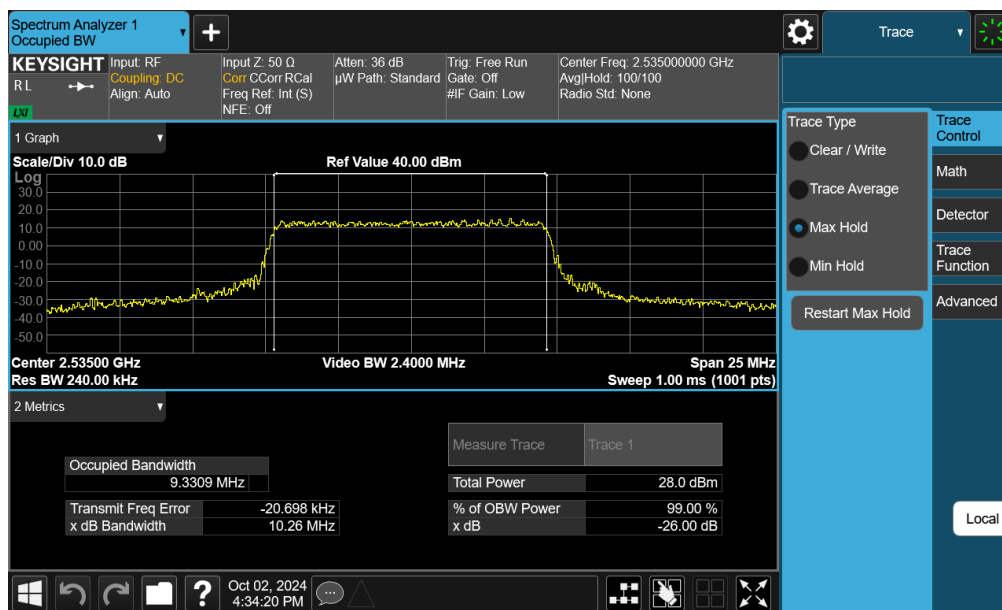
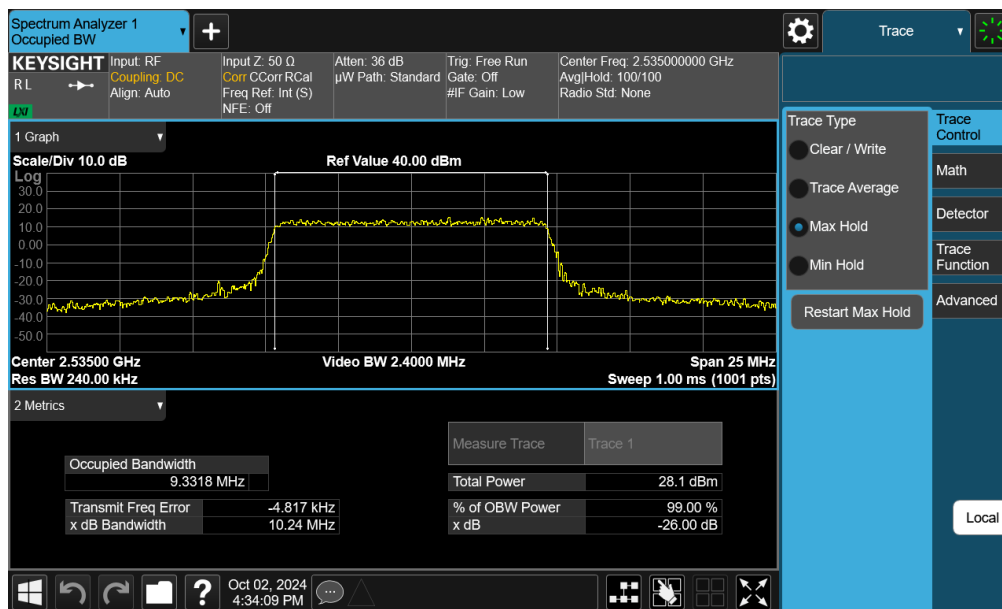
FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260064-04-R2.A3L	Test Dates: 09/03/2024 - 10/22/2024	EUT Type: Portable Handset	Page 123 of 274



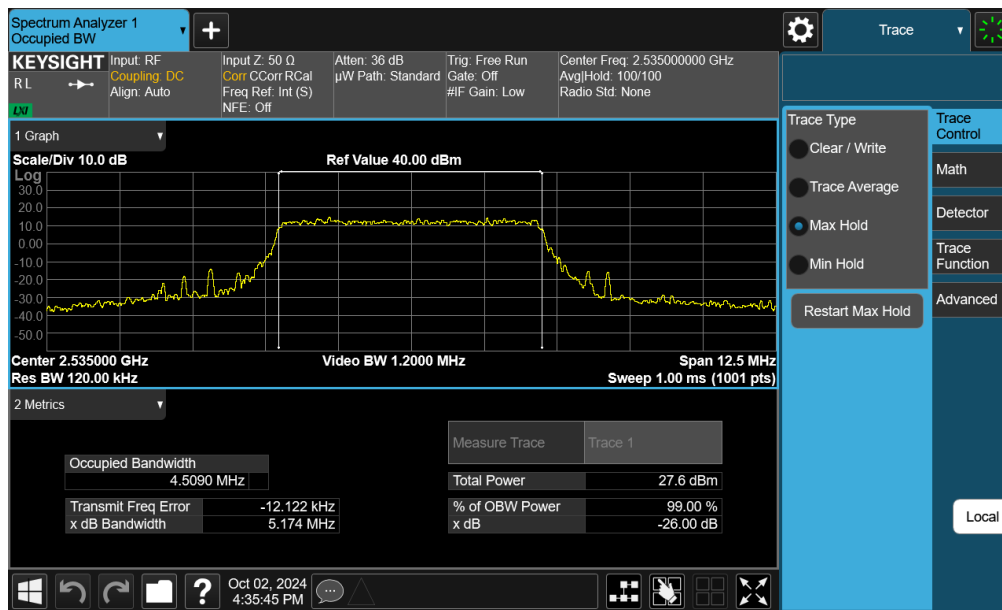
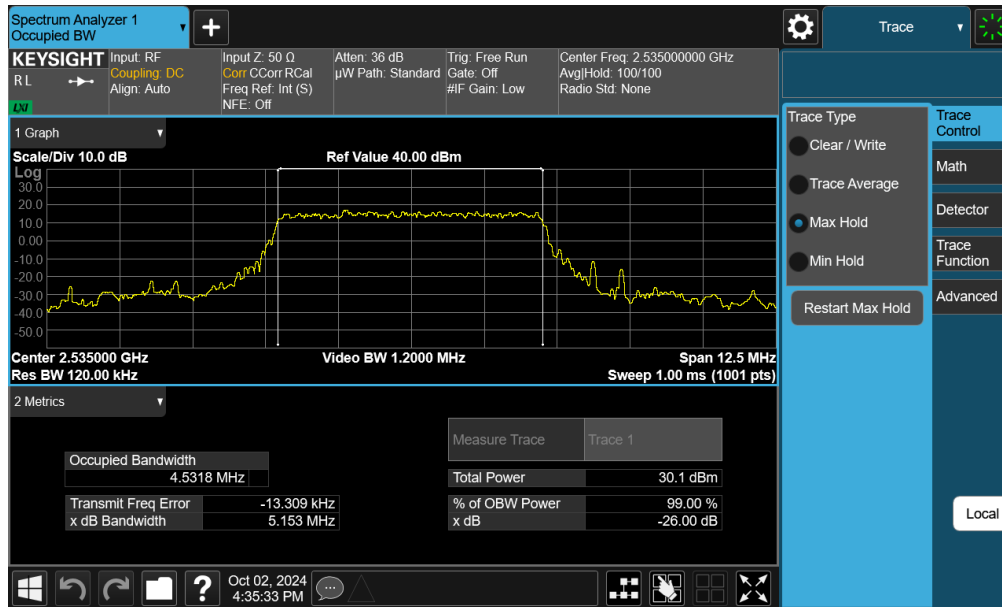
FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260064-04-R2.A3L	Test Dates: 09/03/2024 - 10/22/2024	EUT Type: Portable Handset	Page 124 of 274



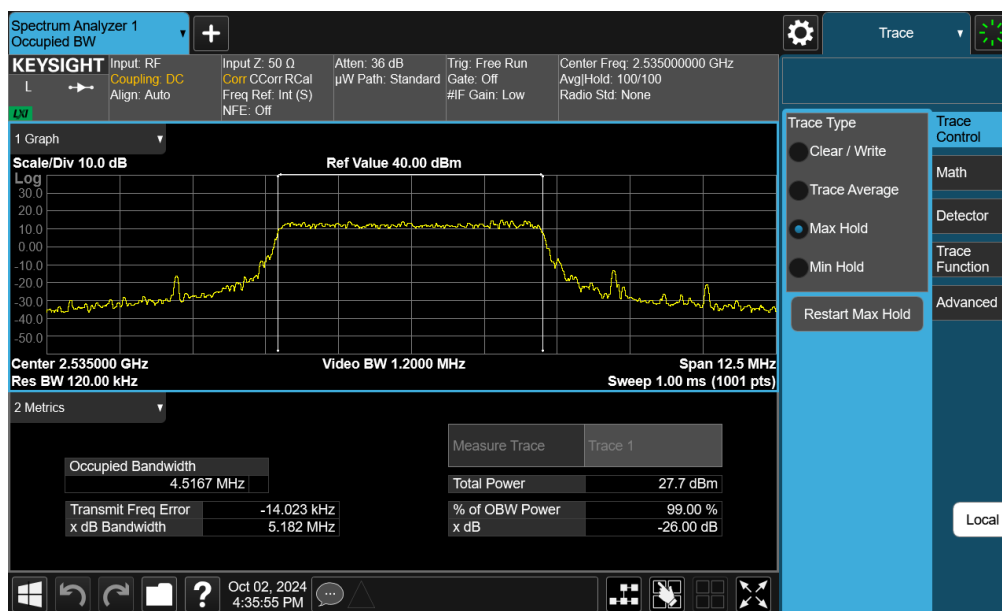
FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260064-04-R2.A3L	Test Dates: 09/03/2024 - 10/22/2024	EUT Type: Portable Handset	Page 125 of 274



FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7-208. Occupied Bandwidth Plot (NR Band n7 - 5MHz 16-QAM - Full RB - Ant B)

FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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NR Band n41(PC2) – Ant B – Default



Plot 7-209. Occupied Bandwidth Plot (NR Band n41 - 100MHz $\pi/2$ BPSK - Full RB - Ant B)



Plot 7-210. Occupied Bandwidth Plot (NR Band n41 - 100MHz QPSK - Full RB - Ant B)

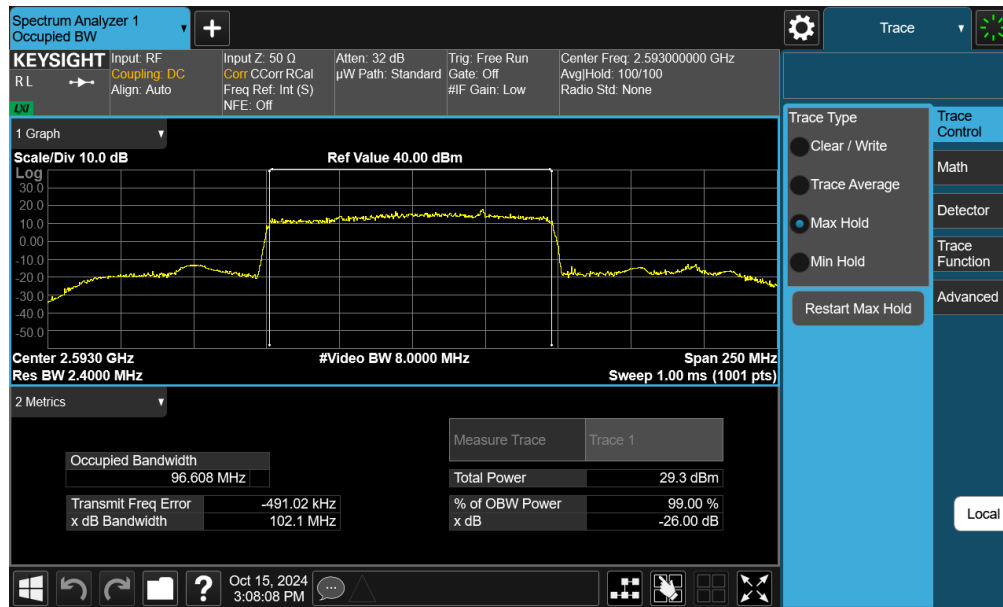
FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260064-04-R2-A3L	Test Dates: 09/03/2024 - 10/22/2024	EUT Type: Portable Handset	Page 129 of 274



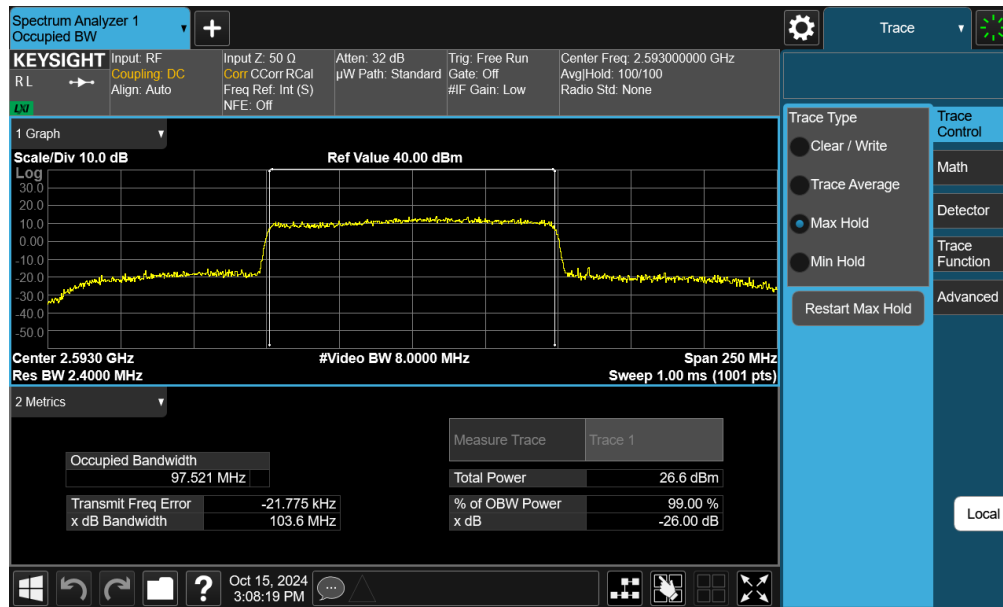
Plot 7-211. Occupied Bandwidth Plot (NR Band n41 - 100MHz 16-QAM - Full RB - Ant B)

FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260064-04-R2.A3L	Test Dates: 09/03/2024 - 10/22/2024	EUT Type: Portable Handset	Page 130 of 274

NR Band n41(PC2) – Ant F – Switching

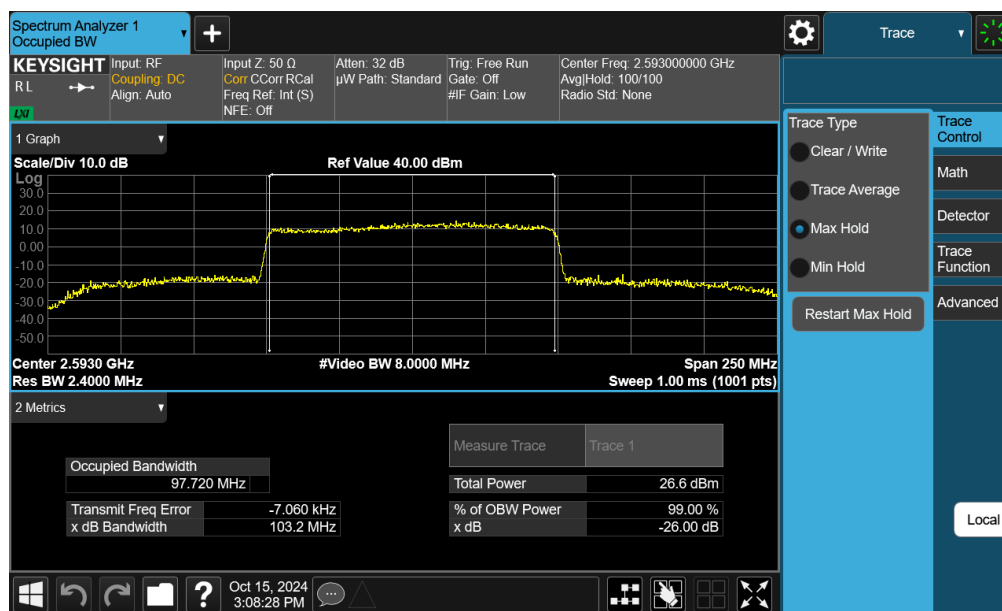


Plot 7-212. Occupied Bandwidth Plot (NR Band n41 - 100MHz $\pi/2$ BPSK - Full RB - Ant F)



Plot 7-213. Occupied Bandwidth Plot (NR Band n41 - 100MHz QPSK - Full RB - Ant F)

FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Plot 7-214. Occupied Bandwidth Plot (NR Band n41 - 100MHz 16-QAM - Full RB - Ant F)

FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260064-04-R2.A3L	Test Dates: 09/03/2024 - 10/22/2024	EUT Type: Portable Handset	Page 132 of 274

Mode	Bandwidth	Modulation	OBW [MHz]
NR-n41PC2	100MHz	$\pi/2$ BPSK	96.56
		QPSK	97.88
		16QAM	97.75

Table 7-12. Occupied Bandwidth Test Results – NR – Ant E – Default

Mode	Bandwidth	Modulation	OBW [MHz]
NR-n41PC2	100MHz	$\pi/2$ BPSK	97.07
		QPSK	98.16
		16QAM	98.18

Table 7-13. Occupied Bandwidth Test Results – NR – Ant D – Switching

Mode	Bandwidth	Modulation	OBW [MHz]
NR-n41PC2	100MHz	$\pi/2$ BPSK	98.40
		QPSK	99.30
		16QAM	99.23

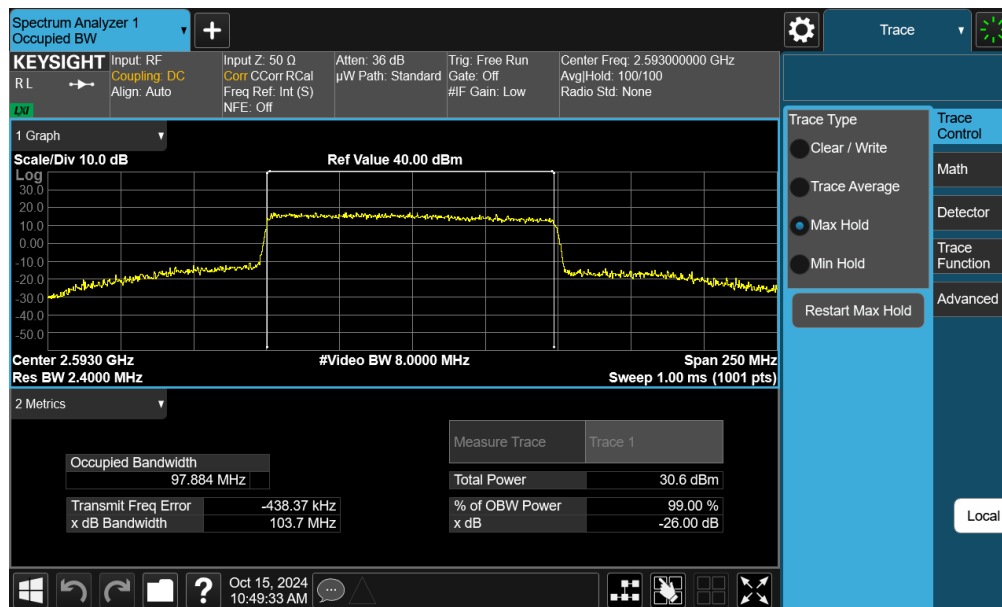
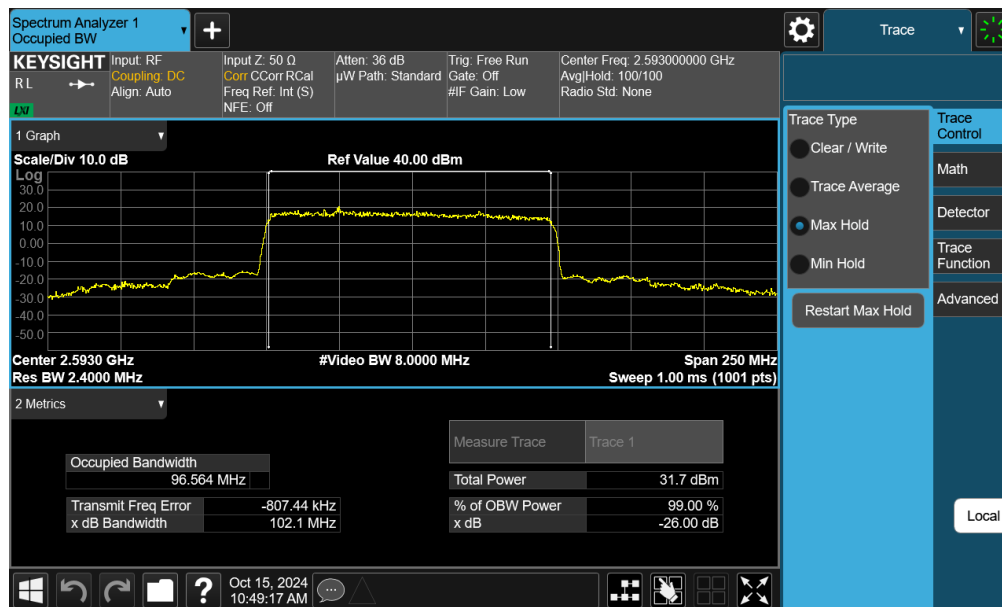
Table 7-14. Occupied Bandwidth Test Results – NR – Ant D – Default

Mode	Bandwidth	Modulation	OBW [MHz]
NR-n41PC2	100MHz	$\pi/2$ BPSK	96.66
		QPSK	97.64
		16QAM	97.62

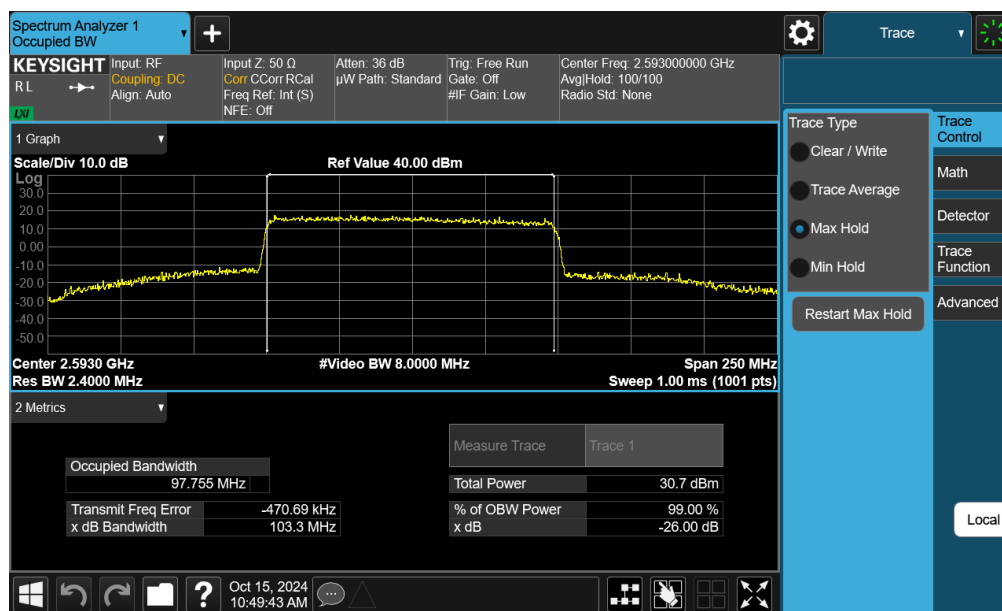
Table 7-15. Occupied Bandwidth Test Results – NR – Ant E – Switching

FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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NR Band n41(PC2) – Ant E – Default



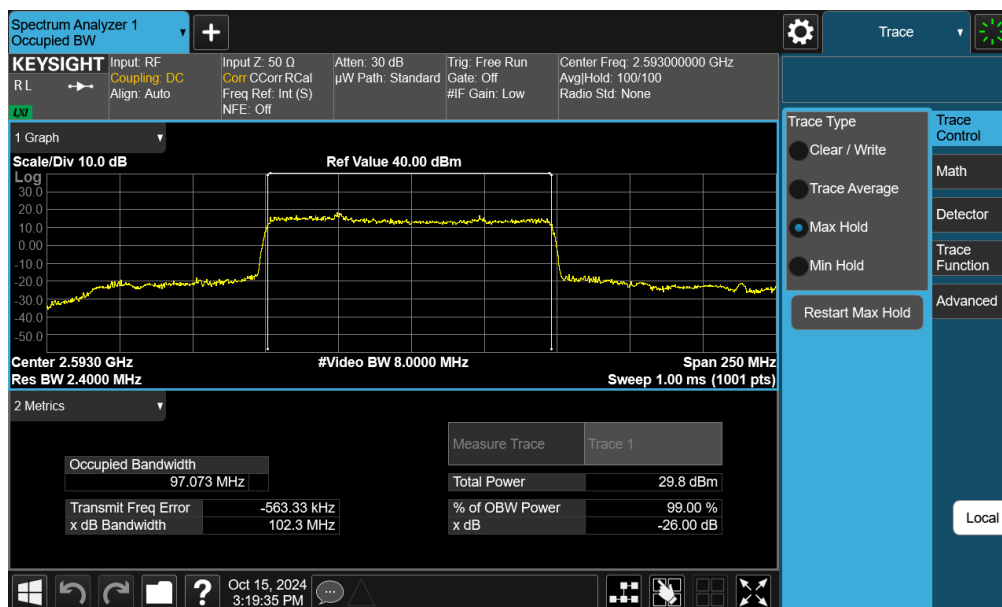
FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260064-04-R2.A3L	Test Dates: 09/03/2024 - 10/22/2024	EUT Type: Portable Handset	Page 134 of 274



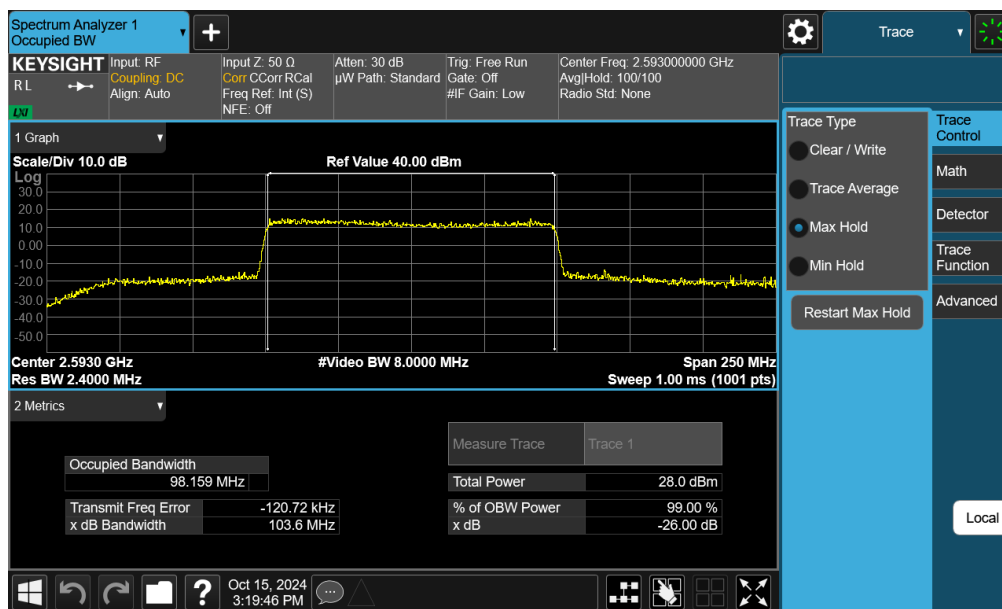
Plot 7-217. Occupied Bandwidth Plot (NR Band n41 - 100MHz 16-QAM - Full RB - Ant E)

FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260064-04-R2.A3L	Test Dates: 09/03/2024 - 10/22/2024	EUT Type: Portable Handset	Page 135 of 274

NR Band n41(PC2) – Ant D – Switching

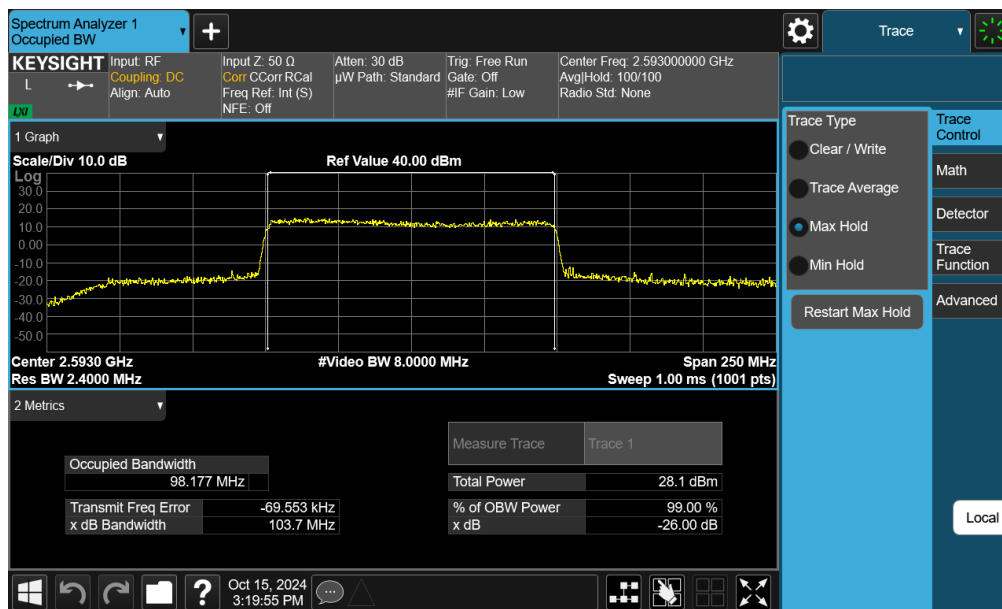


Plot 7-218. Occupied Bandwidth Plot (NR Band n41 - 100MHz $\pi/2$ BPSK - Full RB - Ant D)



Plot 7-219. Occupied Bandwidth Plot (NR Band n41 - 100MHz QPSK - Full RB - Ant D)

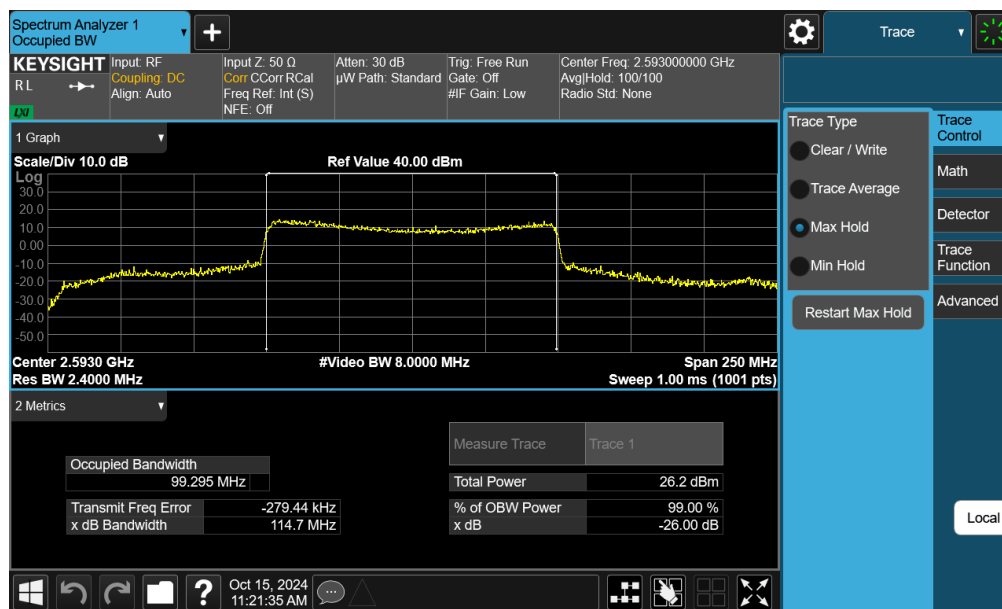
FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260064-04-R2.A3L	Test Dates: 09/03/2024 - 10/22/2024	EUT Type: Portable Handset	Page 136 of 274



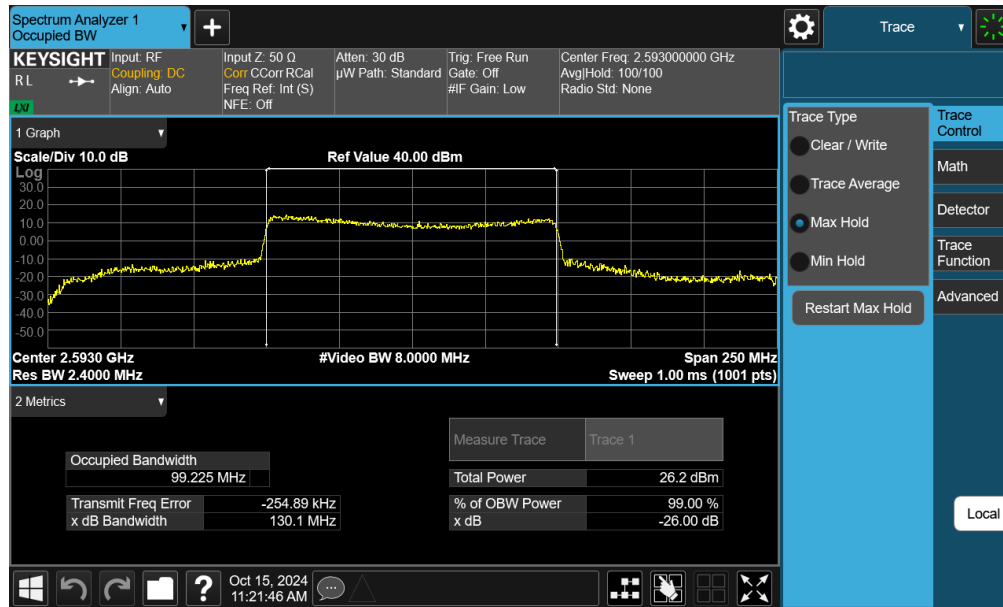
Plot 7-220. Occupied Bandwidth Plot (NR Band n41 - 100MHz 16-QAM - Full RB - Ant D)

FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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NR Band n41(PC2) – Ant D – Default



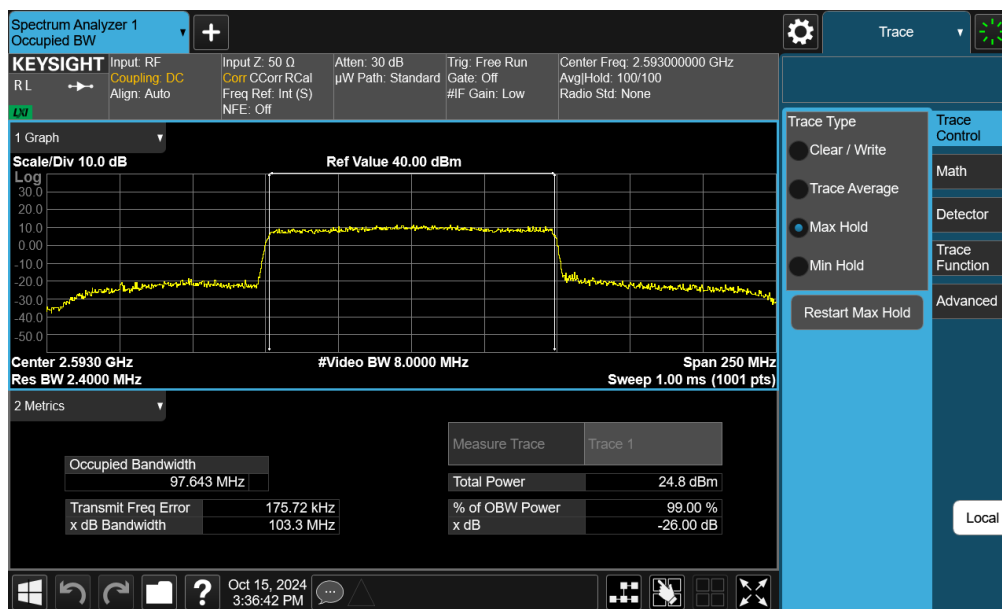
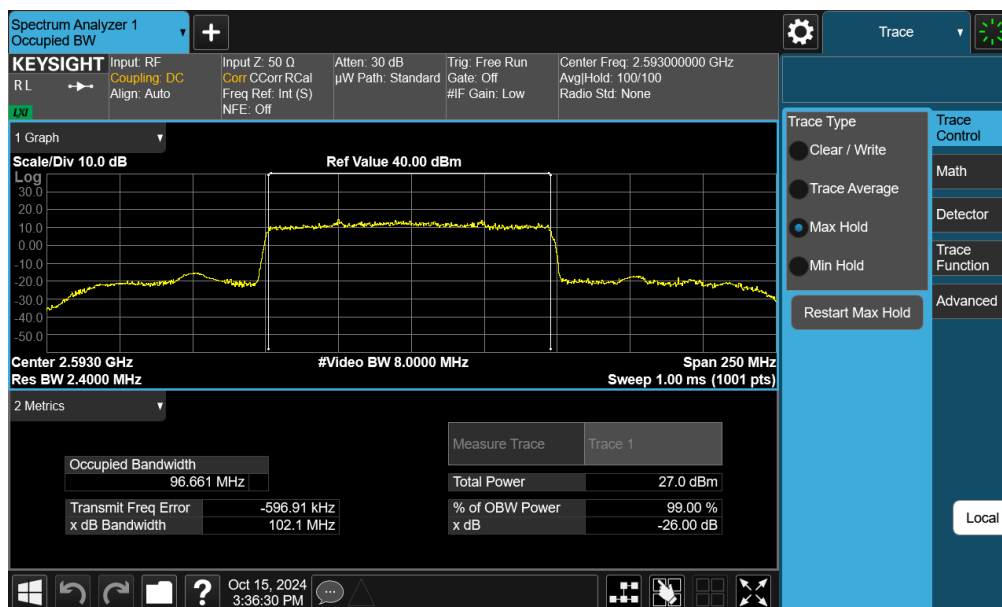
FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260064-04-R2.A3L	Test Dates: 09/03/2024 - 10/22/2024	EUT Type: Portable Handset	Page 138 of 274



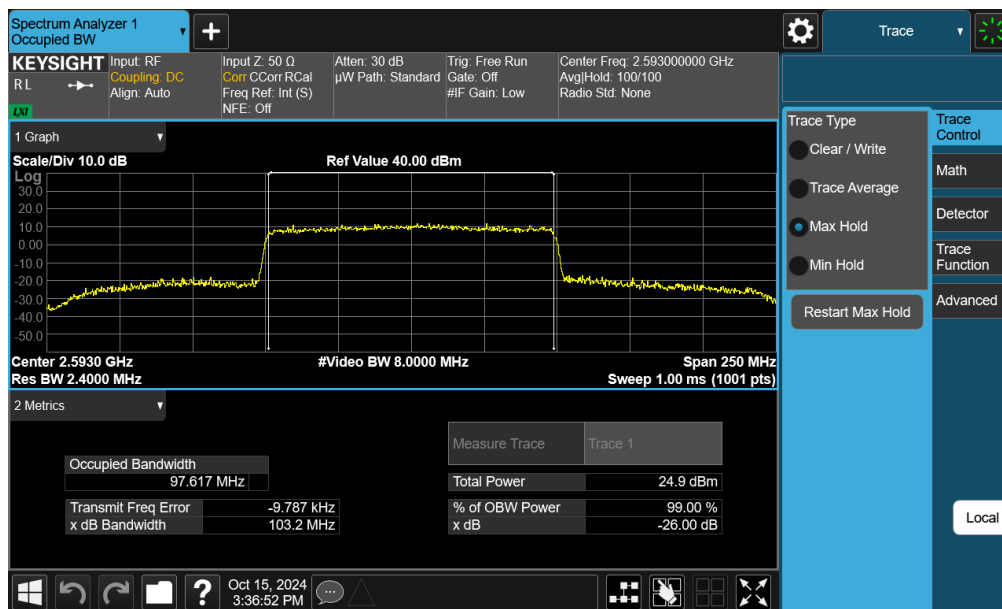
Plot 7-223. Occupied Bandwidth Plot (NR Band n41 - 100MHz 16-QAM - Full RB - Ant D)

FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260064-04-R2.A3L	Test Dates: 09/03/2024 - 10/22/2024	EUT Type: Portable Handset	Page 139 of 274

NR Band n41(PC2) – Ant E – Switching



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Plot 7-226. Occupied Bandwidth Plot (NR Band n41 - 100MHz 16-QAM - Full RB - Ant E)

FCC ID: A3LSMS936U	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.

The minimum permissible attenuation level of any spurious emission is $43 + 10 \log_{10}(P_{[Watts]})$, where P is the transmitter power in Watts.

For Band 30, the minimum permissible attenuation level of any spurious emission <228MHz and >2365MHz is $70 + 10 \log_{10}(P_{[Watts]})$.

For Band 7 and 41, the minimum permissible attenuation level of any spurious emission is $55 + 10 \log_{10}(P_{[Watts]})$.

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 10GHz (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.

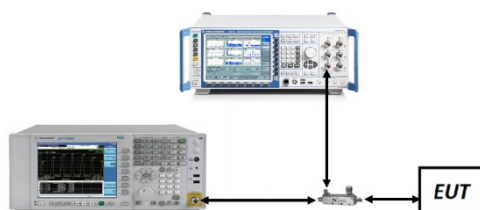


Figure 7-3. Test Instrument & Measurement Setup

Test Notes

1. Per Part 27, RSS-195 and RSS-199, 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.

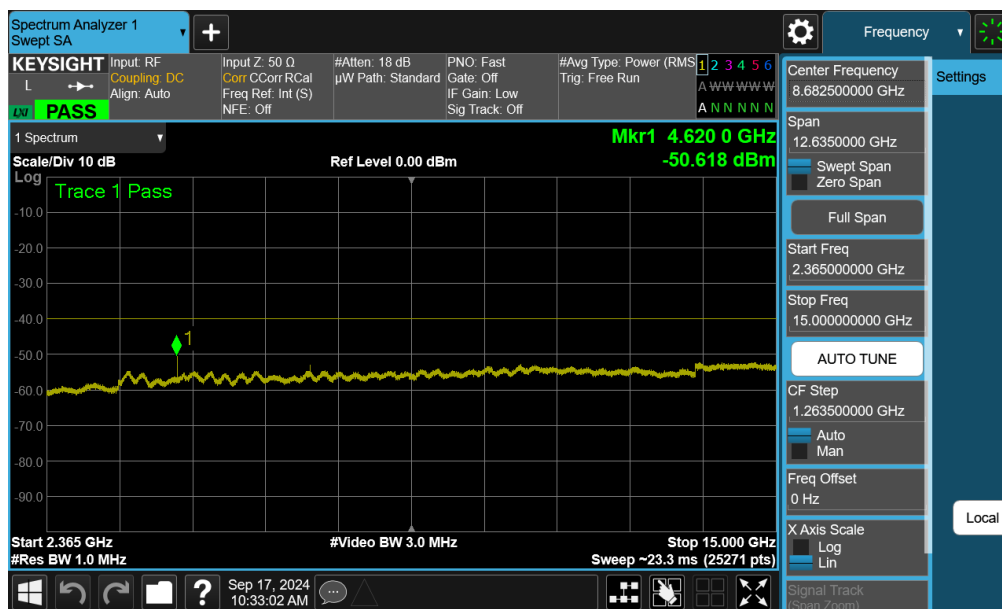
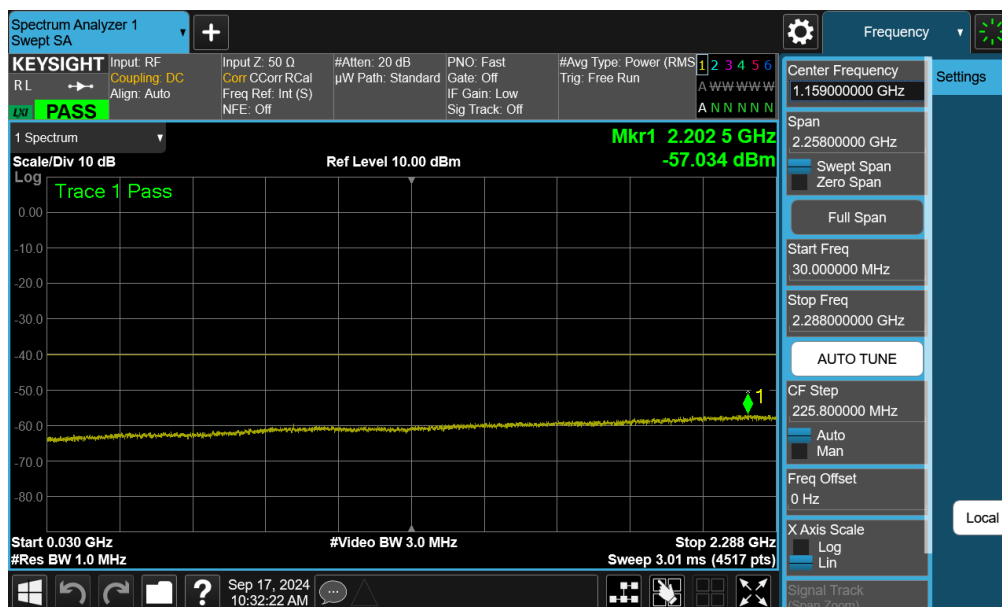
FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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Mode	Bandwidth	Channel	Range [MHz]	Level [dBm]	Limit [dBm]	Margin [dB]
LTE-B30	10MHz	Mid	30.0 - 2288.0	-57.03	-40	-17.03
		Mid	2365.0 - 15000.0	-50.62	-40	-10.62
		Mid	15000.0 - 27000.0	-52.19	-40	-12.19
LTE-B7	20MHz	Low	30.0 - 2475.0	-46.53	-25	-21.29
		Low	2570.0 - 15000.0	-39.49	-25	-14.49
		Low	15000.0 - 27000.0	-52.49	-25	-27.49
		Mid	30.0 - 2500.0	-46.44	-25	-21.44
		Mid	2570.0 - 15000.0	-39.26	-25	-14.26
		Mid	15000.0 - 27000.0	-52.37	-25	-27.37
		High	30.0 - 2500.0	-46.29	-25	-21.29
		High	2570.0 - 15000.0	-39.02	-25	-14.02
		High	15000.0 - 27000.0	-52.76	-25	-27.75
LTE-B41PC3-38	20MHz	Low	30.0 - 2475.0	-37.81	-25	-12.81
		Low	2690.0 - 15000.0	-37.04	-25	-12.04
		Low	15000.0 - 27000.0	-45.31	-25	-20.31
		Mid	30.0 - 2500.0	-38.42	-25	-13.42
		Mid	2690.0 - 15000.0	-37.65	-25	-12.65
		Mid	15000.0 - 27000.0	-45.73	-25	-20.72
		High	30.0 - 2500.0	-38.25	-25	-13.25
		High	2690.0 - 15000.0	-37.56	-25	-12.56
		High	15000.0 - 27000.0	-45.13	-25	-20.13

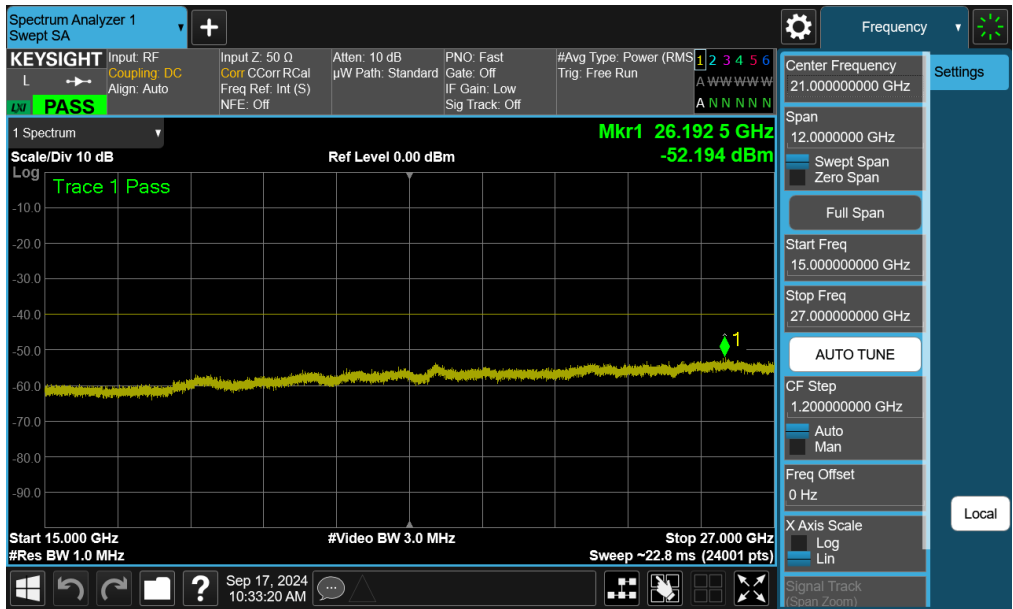
Table 7-16. Conducted Emission Test Results – LTE – Ant F

FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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LTE Band 30 – Ant F



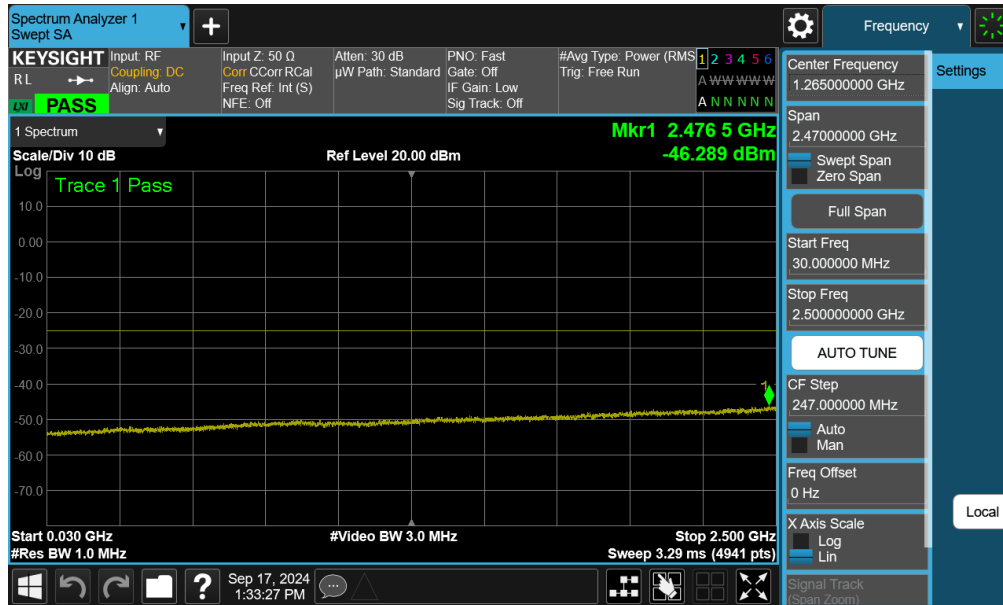
FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
Test Report S/N: 1M2408260064-04-R2-A3L	Test Dates: 09/03/2024 - 10/22/2024	EUT Type: Portable Handset	Page 144 of 274



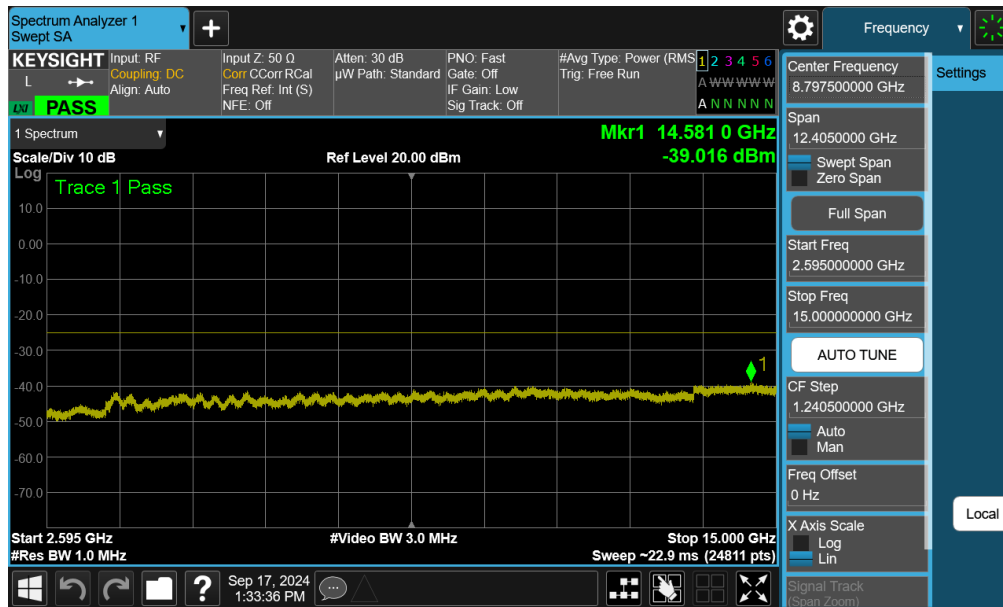
Plot 7-229. Conducted Spurious Plot (LTE Band 30 - 10MHz QPSK - RB Size 1, RB Offset 0 - Ant F)

FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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LTE Band 7 – Ant F

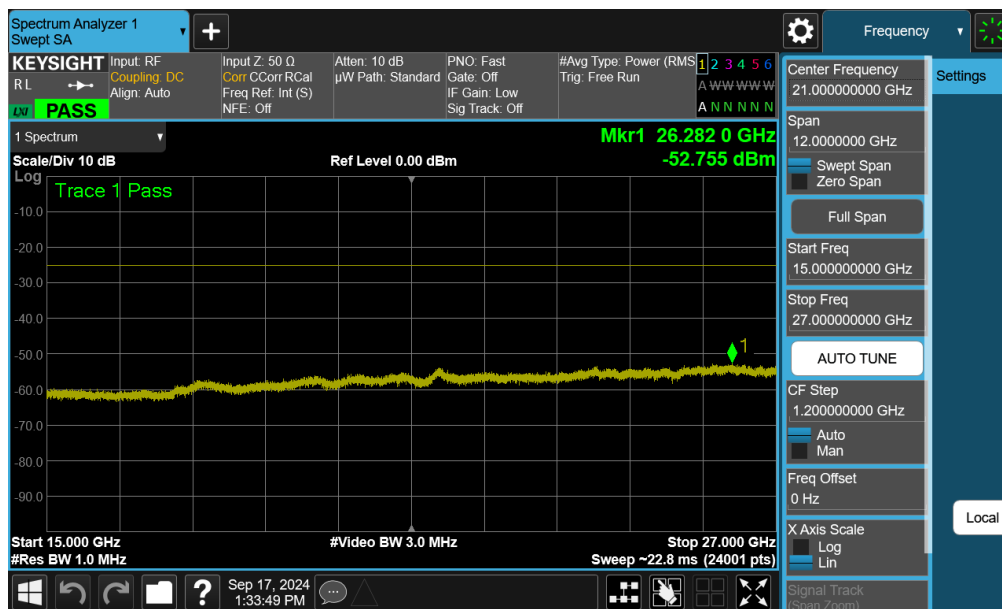


Plot 7-230. Conducted Spurious Plot (LTE Band 7 - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant F)



Plot 7-231. Conducted Spurious Plot (LTE Band 7 - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant F)

FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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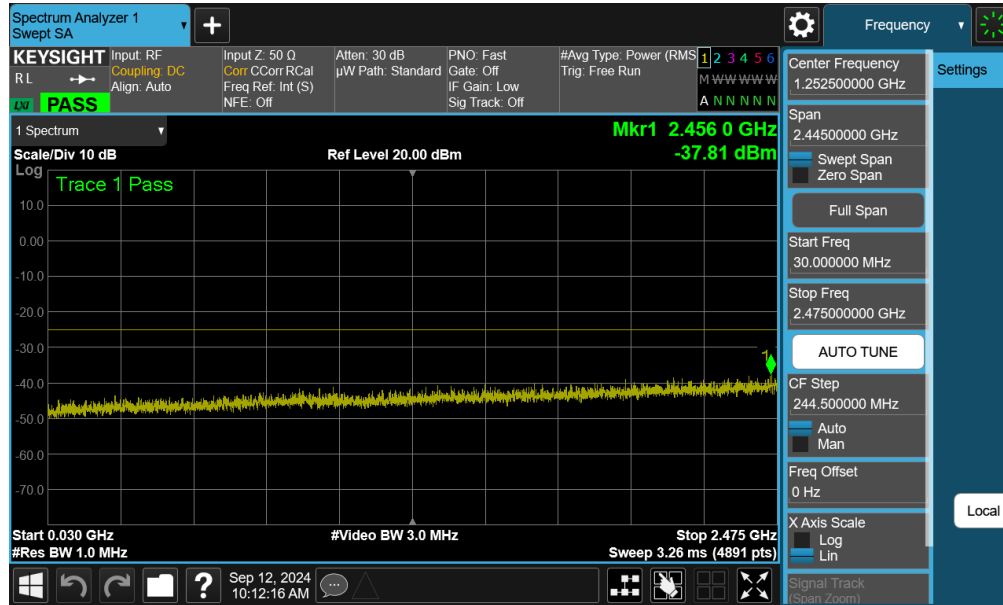


Plot 7-232. Conducted Spurious Plot (LTE Band 7 - 20MHz QPSK - RB Size 1, RB Offset 0 - High Channel - Ant F)

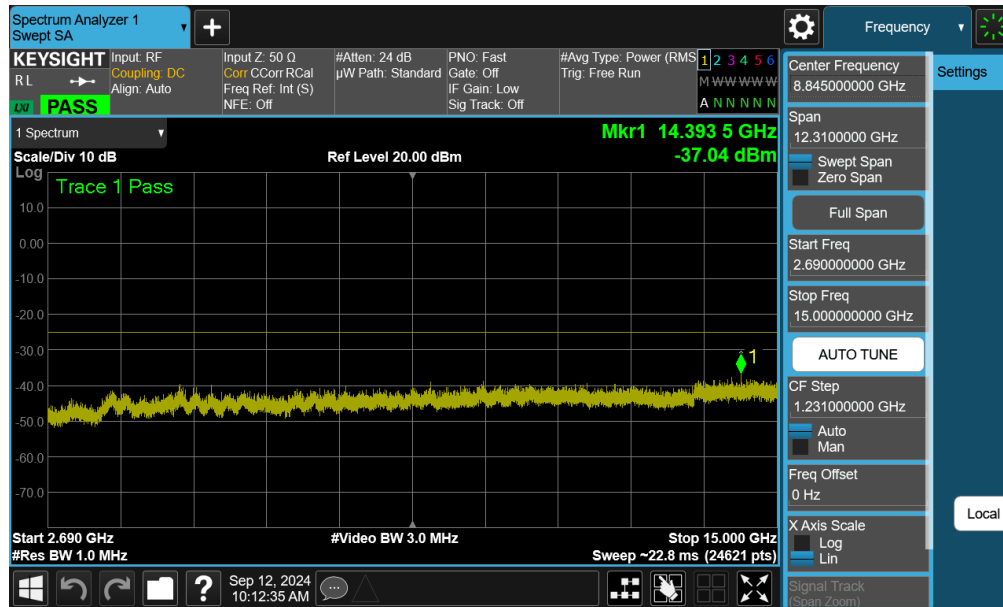
FCC ID: A3LSMS936U	PART 27 MEASUREMENT REPORT		Approved by: Technical Manager
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LTE Band 41(PC3)/38 – Ant F

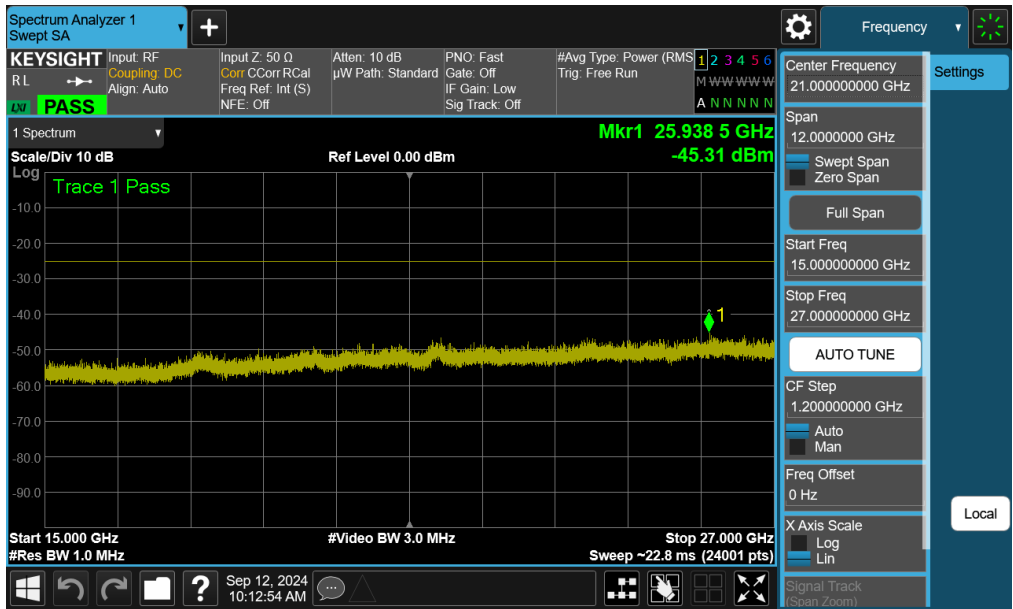


Plot 7-233. Conducted Spurious Plot (LTE Band 41(PC3)/38 - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Ant F)



Plot 7-234. Conducted Spurious Plot (LTE Band 41(PC3)/38 - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Ant F)

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Plot 7-235. Conducted Spurious Plot (LTE Band 41(PC3)/38 - 20MHz QPSK - RB Size 1, RB Offset 0 - Low Channel - Ant F)

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