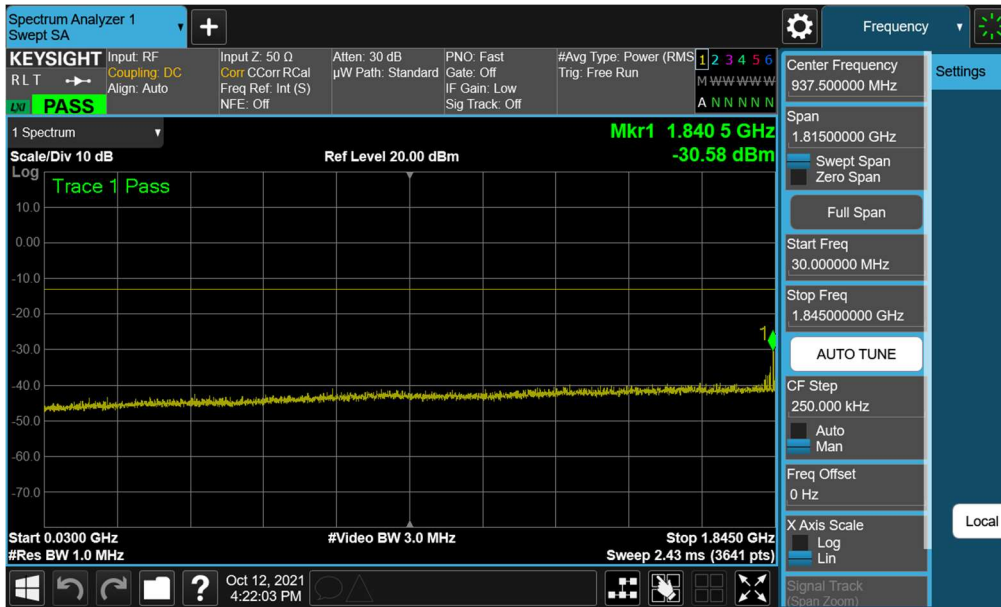
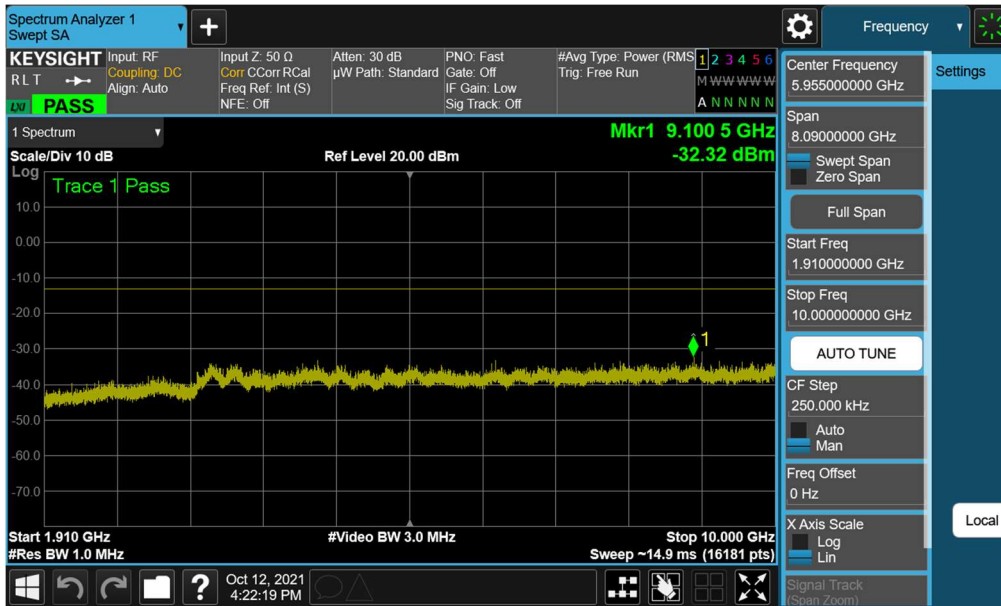


**GSM/GPRS PCS**

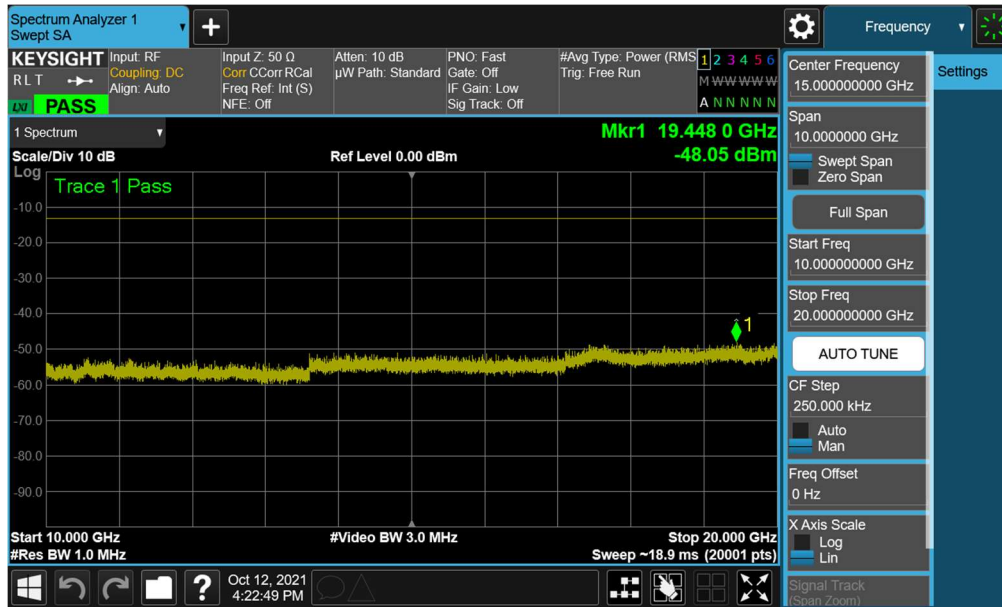


**Plot 7-25. Conducted Spurious Plot (GPRS Ch. 512)**

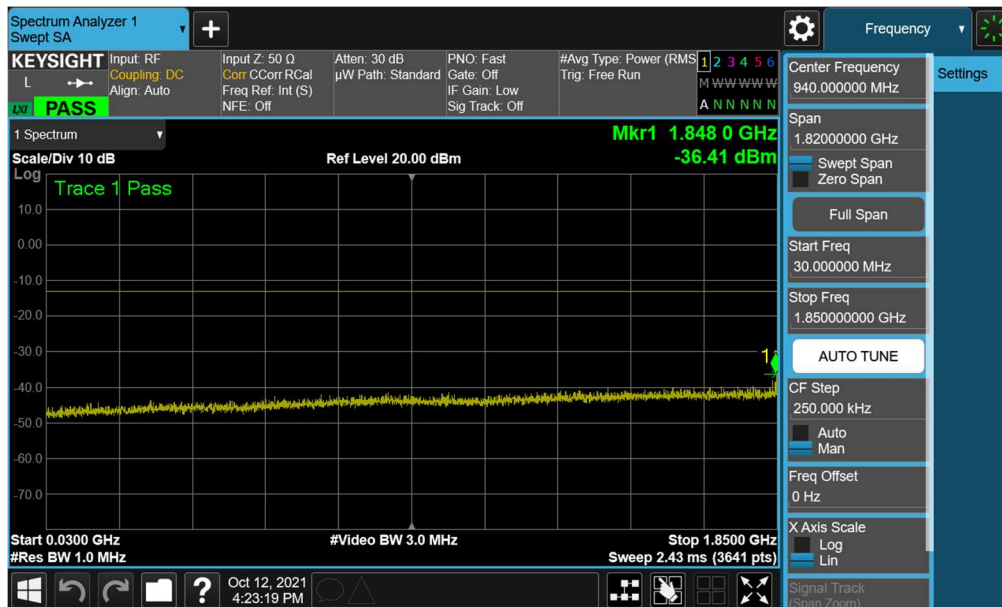


**Plot 7-26. Conducted Spurious Plot (GPRS Ch. 512)**

FCC ID: A3LSMS908E	<b>PCTEST</b> Proud to be part of element	<b>PART 24 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 27 of 84

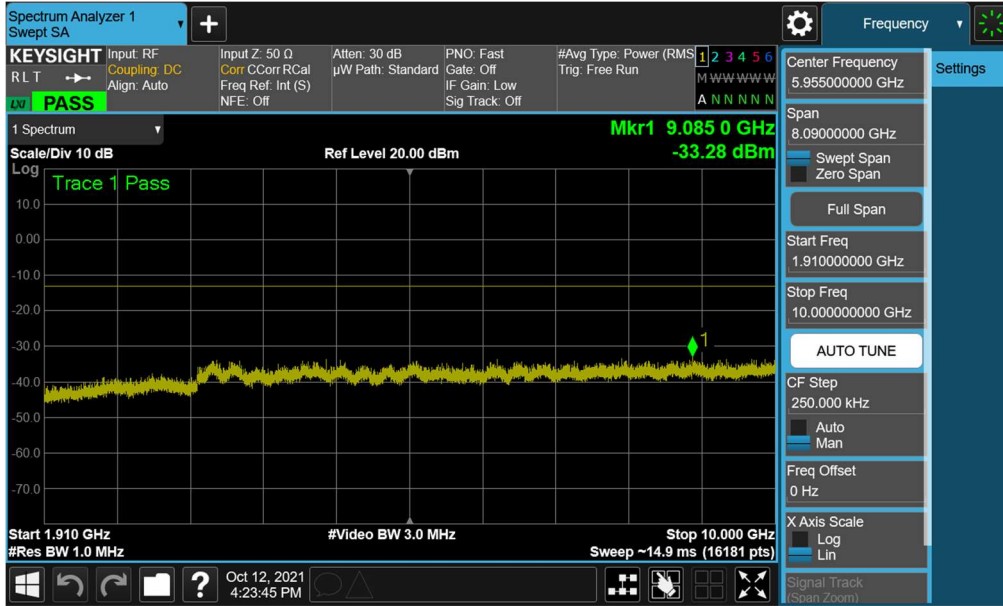


**Plot 7-27. Conducted Spurious Plot (GPRS Ch. 512)**

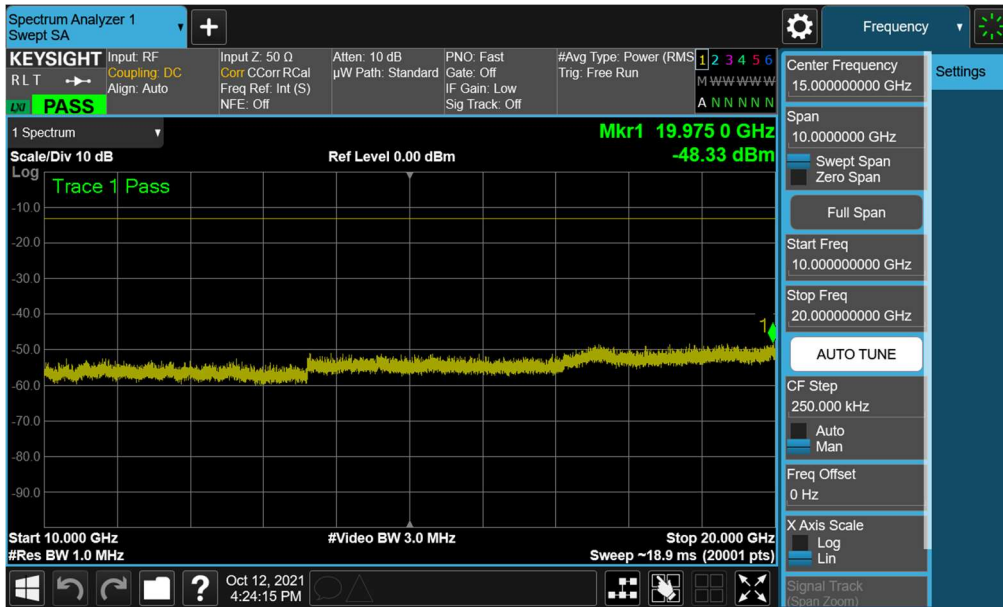


**Plot 7-28. Conducted Spurious Plot (GPRS Ch. 661)**

FCC ID: A3LSMS908E	<b>PCTEST</b> Proud to be part of element	<b>PART 24 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 28 of 84

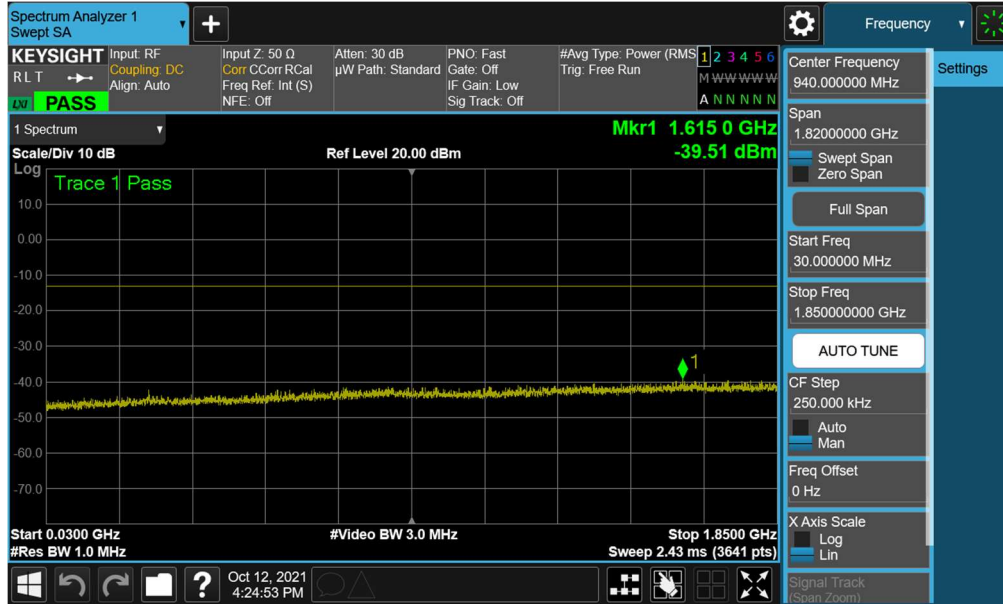


**Plot 7-29. Conducted Spurious Plot (GPRS Ch. 661)**

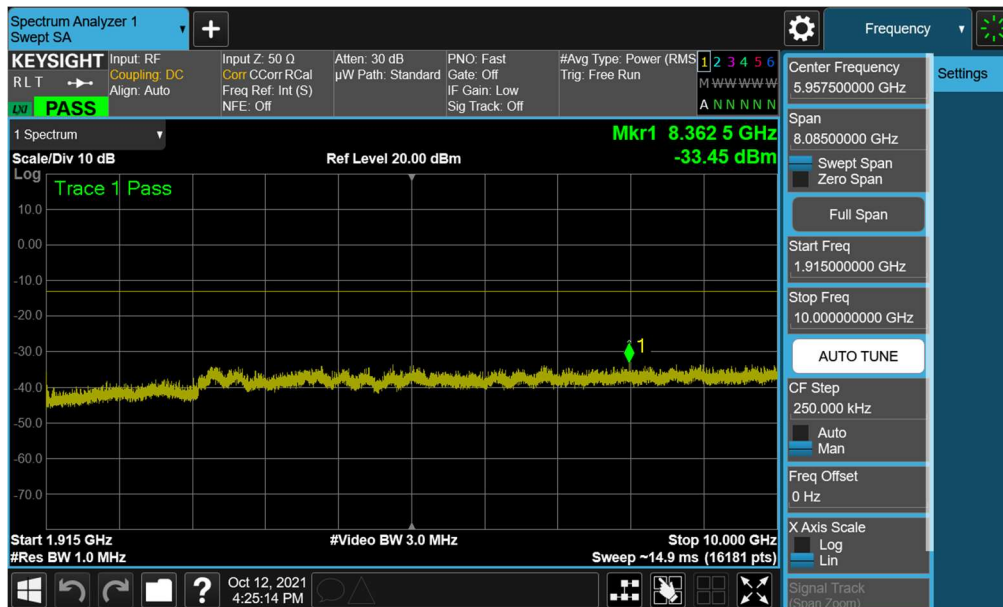


**Plot 7-30. Conducted Spurious Plot (GPRS Ch. 661)**

FCC ID: A3LSMS908E	<b>PCTEST</b> Proud to be part of element	<b>PART 24 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 29 of 84

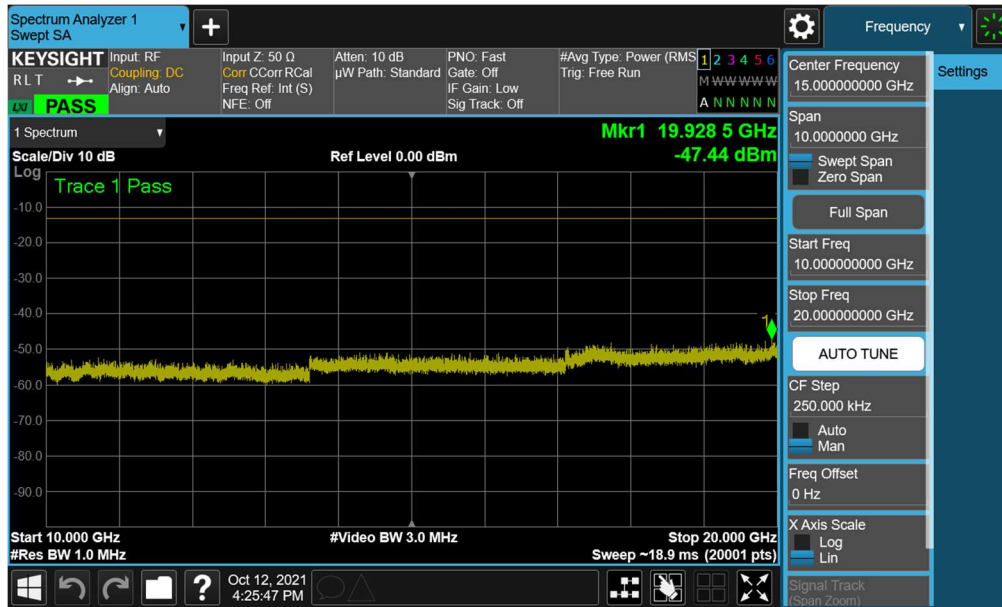


**Plot 7-31. Conducted Spurious Plot (GPRS Ch. 810)**



**Plot 7-32. Conducted Spurious Plot (GPRS Ch. 810)**

FCC ID: A3LSMS908E	<b>PCTEST</b> Proud to be part of element	<b>PART 24 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 30 of 84



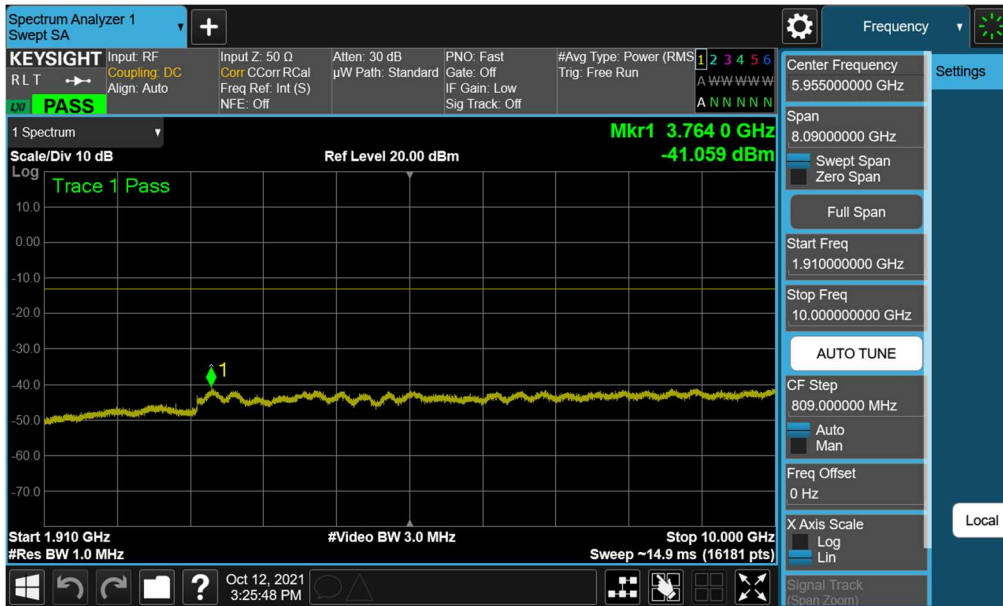
**Plot 7-33. Conducted Spurious Plot (GPRS Ch. 810)**

<b>FCC ID:</b> A3LSMS908E		<b>PART 24 MEASUREMENT REPORT</b>	<b>Approved by:</b> Technical Manager
<b>Test Report S/N:</b> 1M2109220110-03.A3L	<b>Test Dates:</b> 10/8/2021 - 11/10/2021	<b>EUT Type:</b> Portable Handset	Page 31 of 84

**WCDMA PCS**

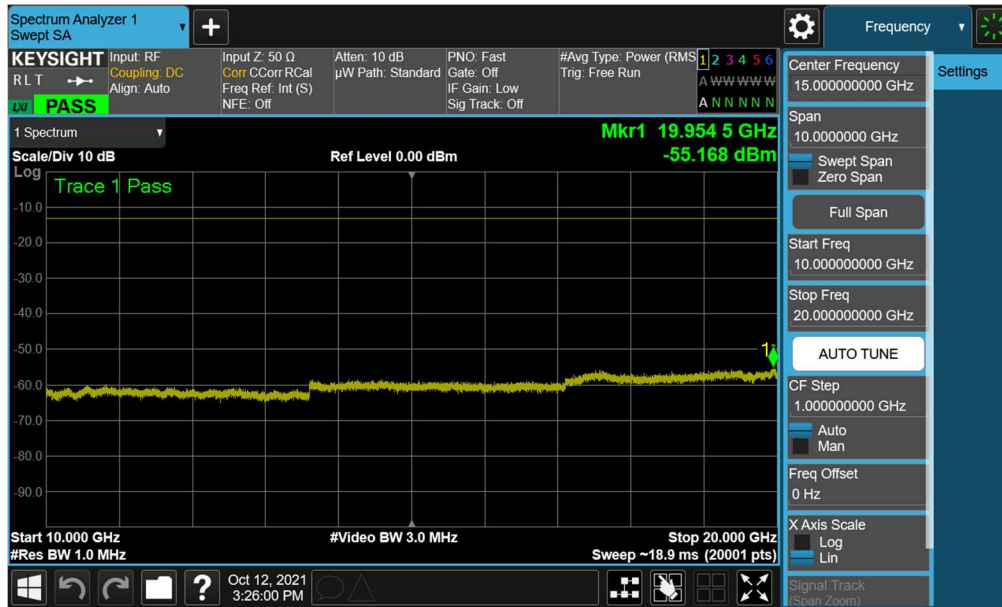


**Plot 7-34. Conducted Spurious Plot (WCDMA Ch. 9262)**



**Plot 7-35. Conducted Spurious Plot (WCDMA Ch. 9262)**

FCC ID: A3LSMS908E	<b>PCTEST</b> Proud to be part of element	<b>PART 24 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 32 of 84

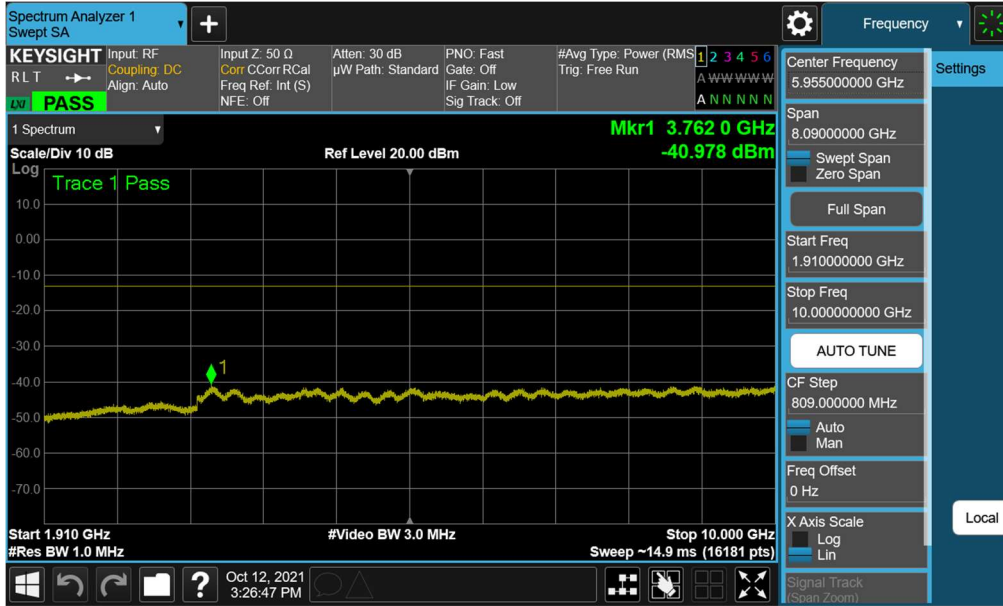


Plot 7-36. Conducted Spurious Plot (WCDMA Ch. 9262)

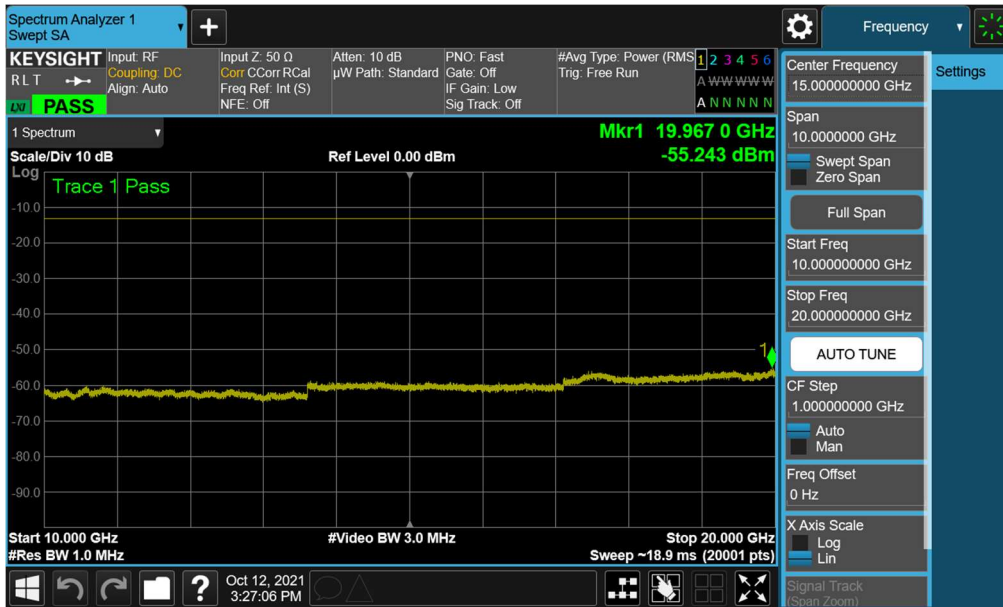


Plot 7-37. Conducted Spurious Plot (WCDMA Ch. 9400)

FCC ID: A3LSMS908E	<b>PCTEST</b> Proud to be part of element	<b>PART 24 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 33 of 84



Plot 7-38. Conducted Spurious Plot (WCDMA Ch. 9400)



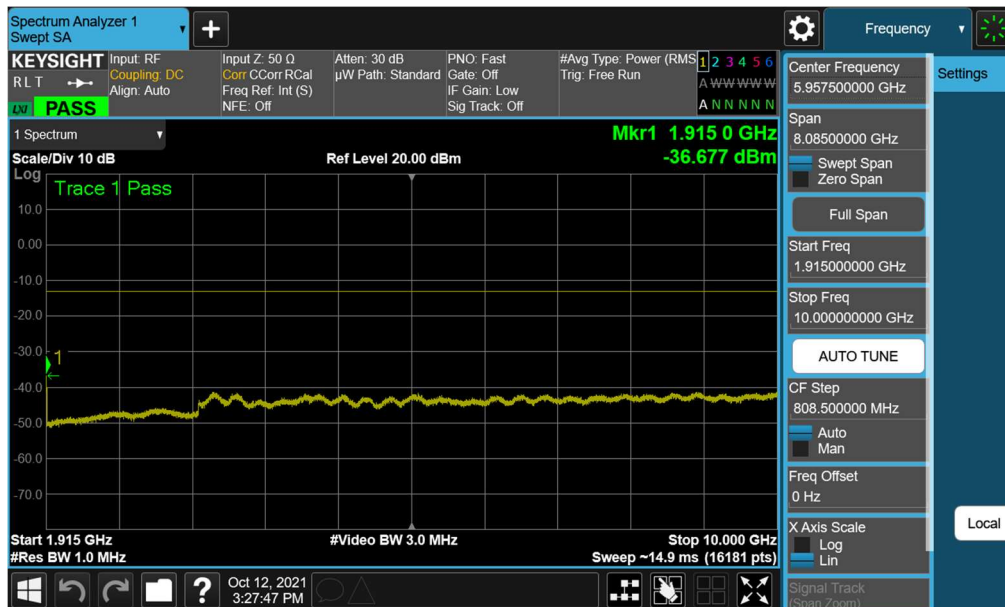
Plot 7-39. Conducted Spurious Plot (WCDMA Ch. 9400)

FCC ID: A3LSMS908E	<b>PCTEST</b> Proud to be part of element	<b>PART 24 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 34 of 84



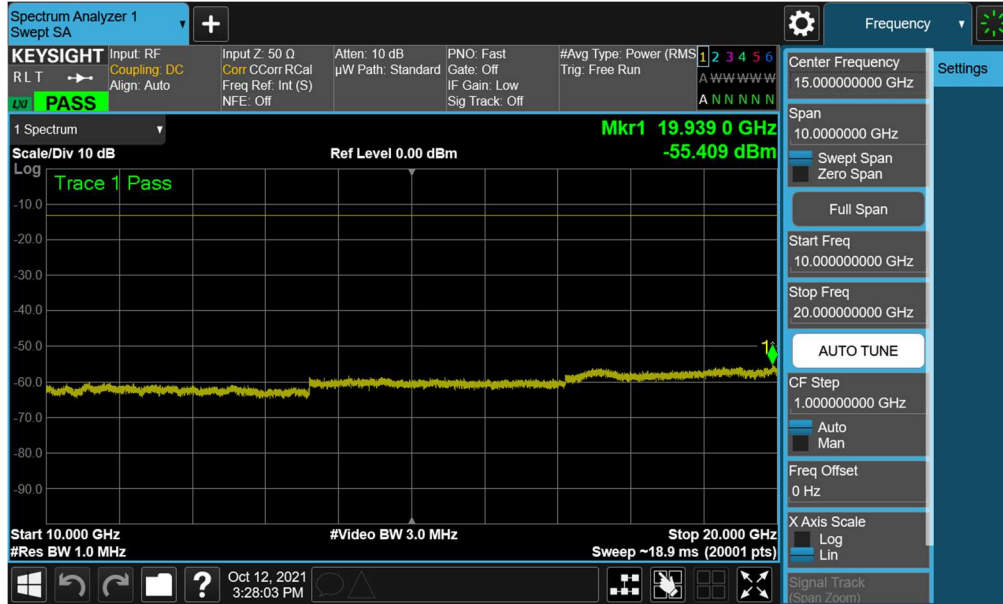


Plot 7-40. Conducted Spurious Plot (WCDMA Ch. 9538)



Plot 7-41. Conducted Spurious Plot (WCDMA Ch. 9538)

FCC ID: A3LSMS908E	<b>PCTEST</b> Proud to be part of element	<b>PART 24 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 35 of 84



Plot 7-42. Conducted Spurious Plot (WCDMA Ch. 9538)

FCC ID: A3LSMS908E	<b>PCTEST</b> Proud to be part of element	<b>PART 24 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 36 of 84

## 7.4 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.

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

### Test Procedure Used

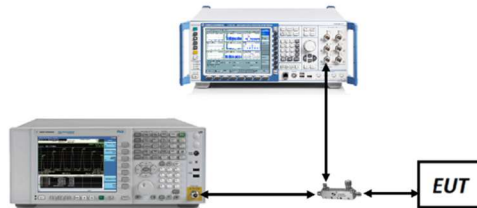
KDB 971168 D01 v03r01 – Section 6.0

### 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 so as 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.



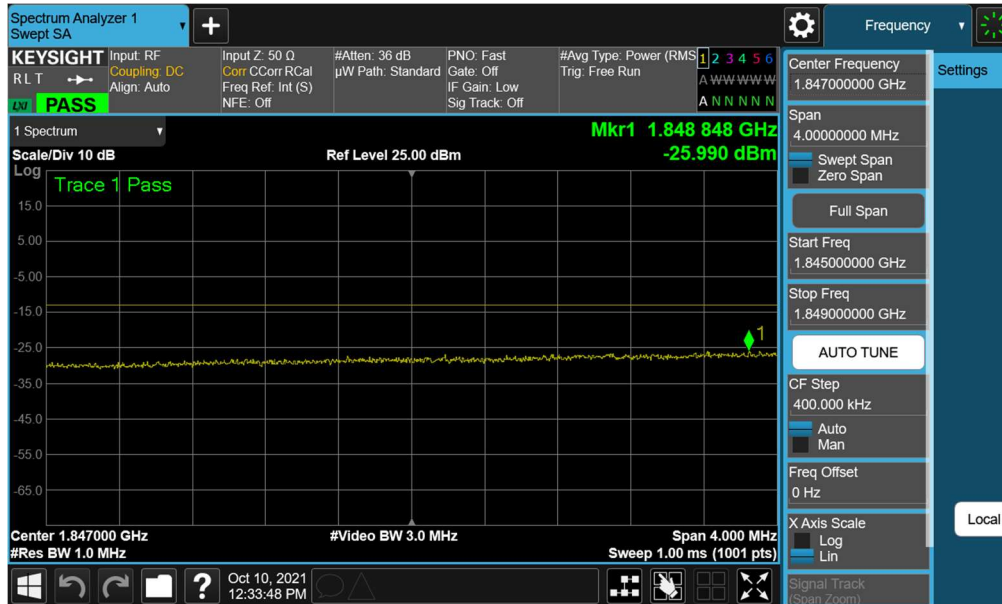
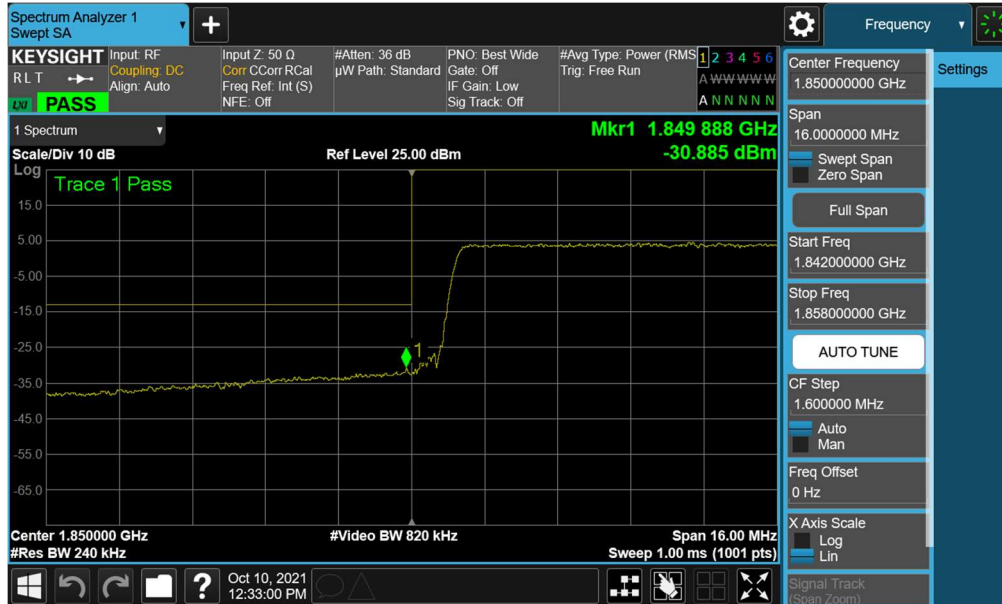
**Figure 7-3. Test Instrument & Measurement Setup**

### Test Notes

Per 24.238(a) and RSS-133(6.5), in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to demonstrate compliance with the out-of-band emissions limit. 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 emission are attenuated at least 26 dB below the transmitter power.

FCC ID: A3LSMS908E	 <b>PART 24 MEASUREMENT REPORT</b>		Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset	Page 37 of 84

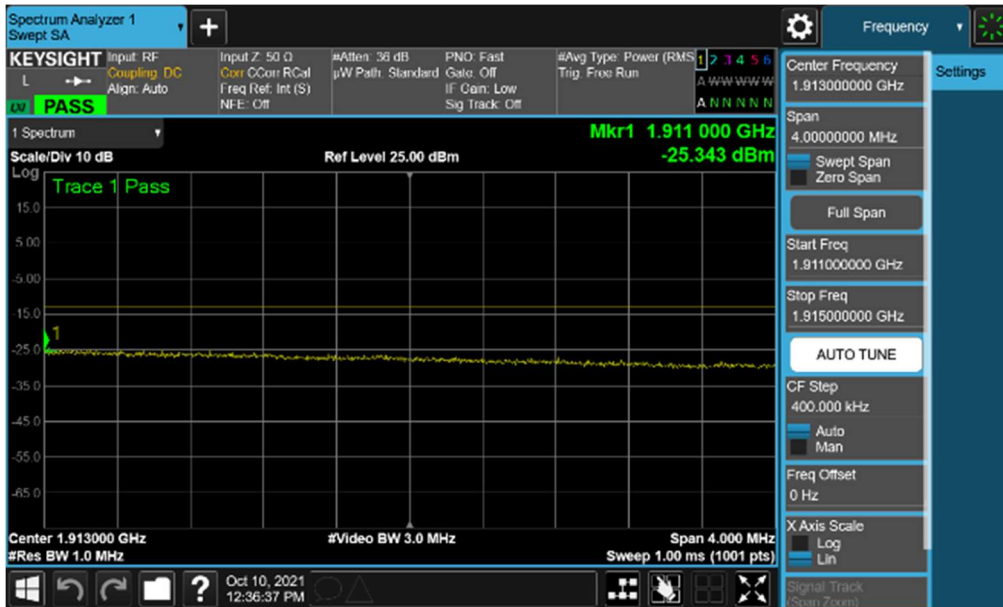
## LTE Band 25/2



FCC ID: A3LSMS908E	<b>PCTEST</b> Proud to be part of element	<b>PART 24 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
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Plot 7-45. Upper Band Edge Plot (LTE Band 2 - 20MHz QPSK – Full RB)

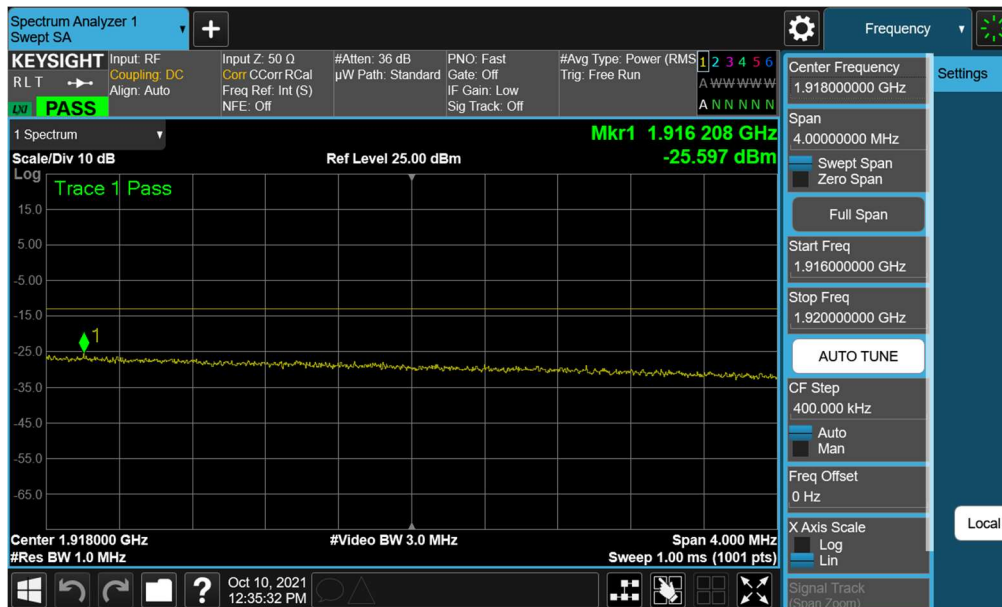


Plot 7-46. Extended Upper Band Edge Plot (LTE Band 2 - 20MHz QPSK – Full RB)

FCC ID: A3LSMS908E	<b>PCTEST</b> Proud to be part of element	<b>PART 24 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 39 of 84

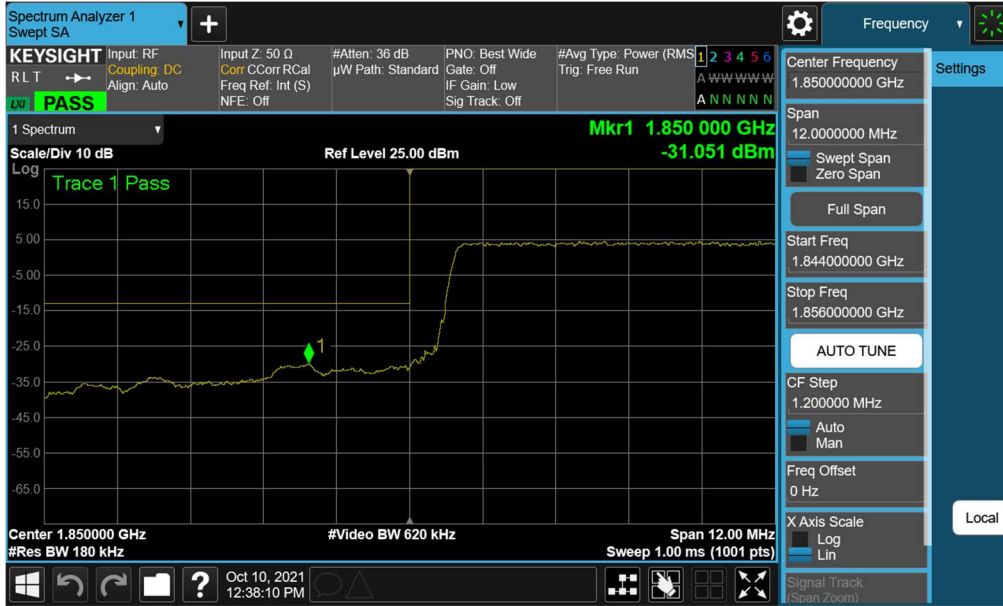


Plot 7-47. Upper Band Edge Plot (LTE Band 25 - 20MHz QPSK – Full RB)

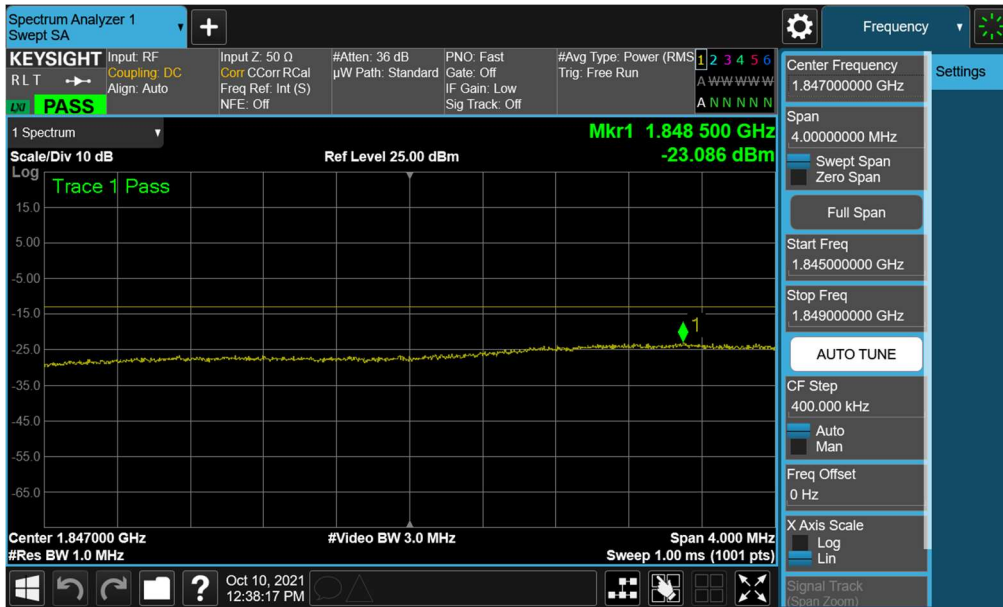


Plot 7-48. Extended Upper Band Edge Plot (LTE Band 25 - 20MHz QPSK – Full RB)

FCC ID: A3LSMS908E	<b>PCTEST</b> Proud to be part of element	<b>PART 24 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 40 of 84



Plot 7-49. Lower Band Edge Plot (LTE Band 25/2 - 15MHz QPSK – Full RB)

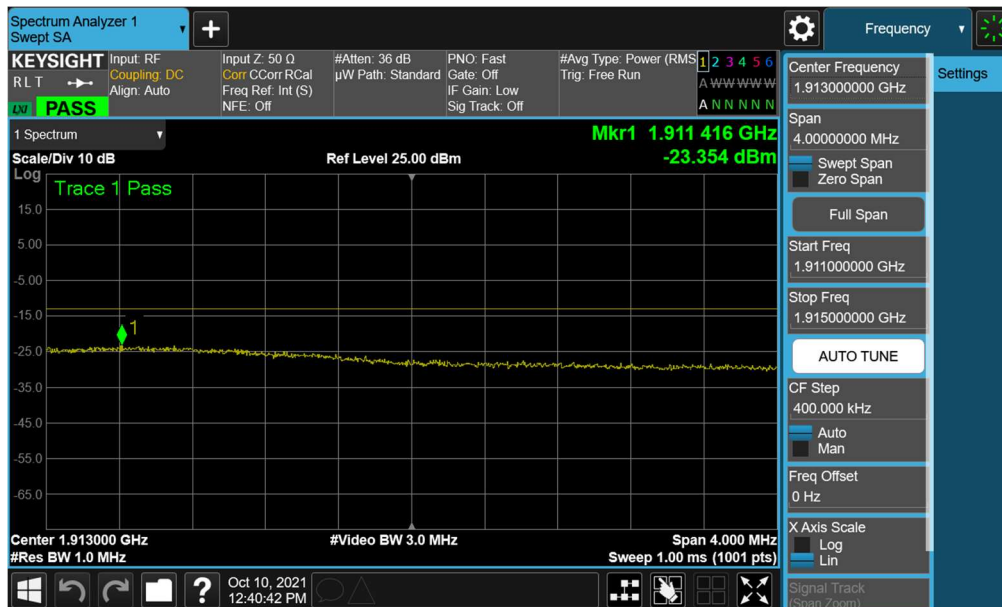


Plot 7-50. Extended Lower Band Edge Plot (LTE Band 25/2 - 15MHz QPSK – Full RB)

FCC ID: A3LSMS908E	<b>PCTEST</b> Proud to be part of element	<b>PART 24 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 41 of 84



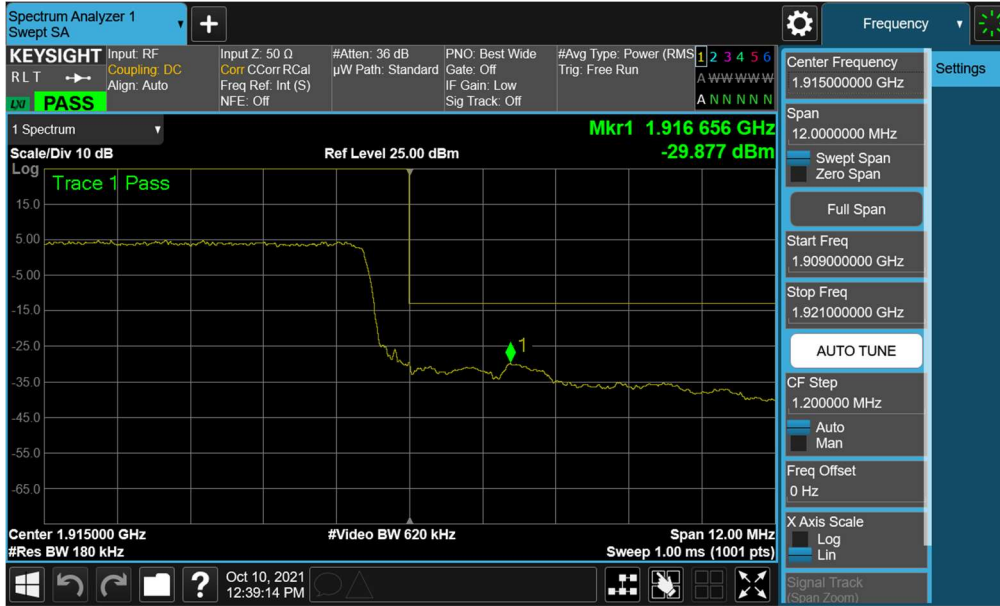
Plot 7-51. Upper Band Edge Plot (LTE Band 2 - 15MHz QPSK – Full RB)



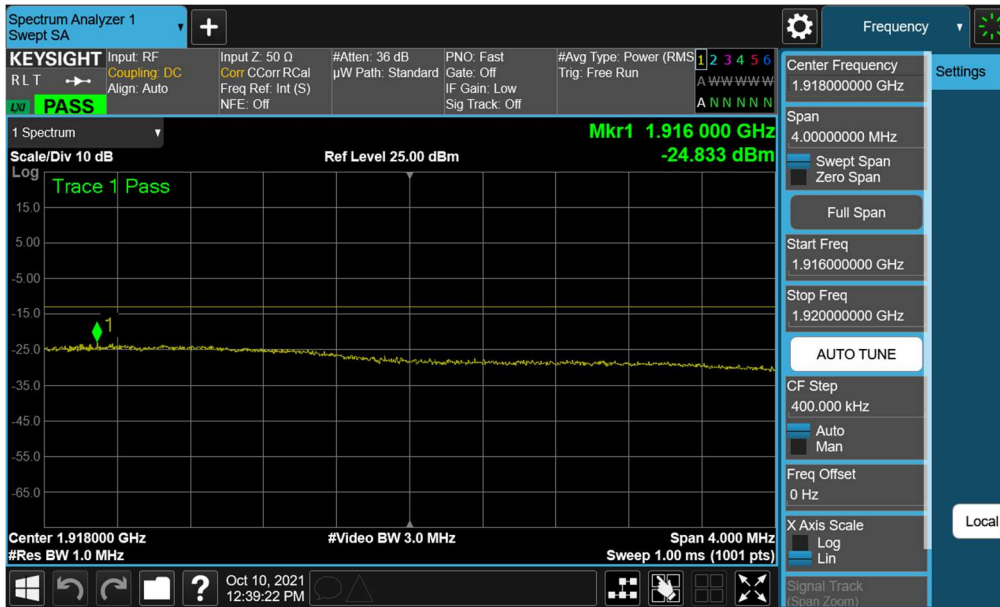
Plot 7-52. Extended Upper Band Edge Plot (LTE Band 2 - 15MHz QPSK – Full RB)

FCC ID: A3LSMS908E	<b>PCTEST</b> Proud to be part of element	<b>PART 24 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 42 of 84



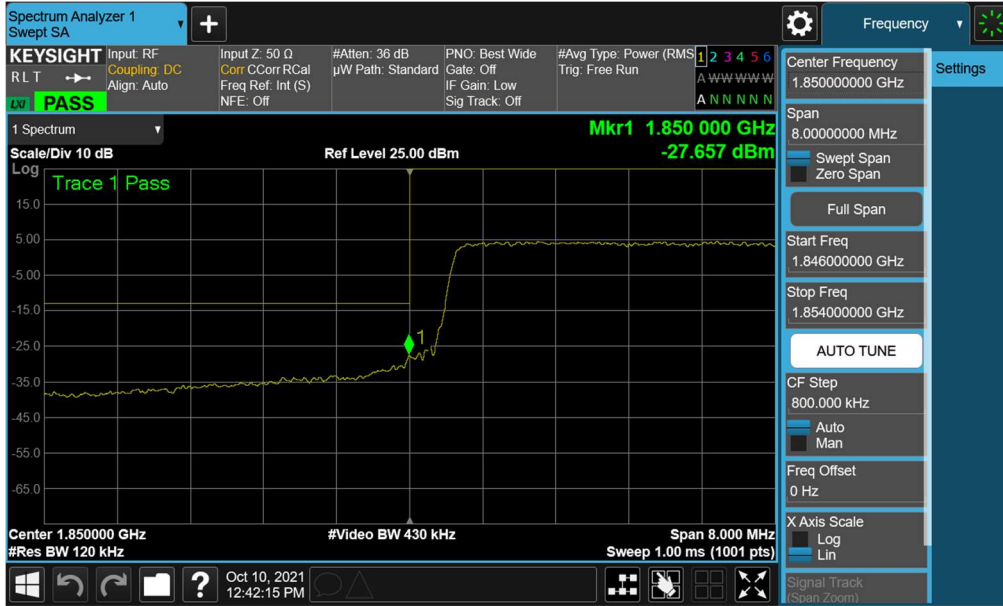


Plot 7-53. Upper Band Edge Plot (LTE Band 25 - 15MHz QPSK – Full RB)

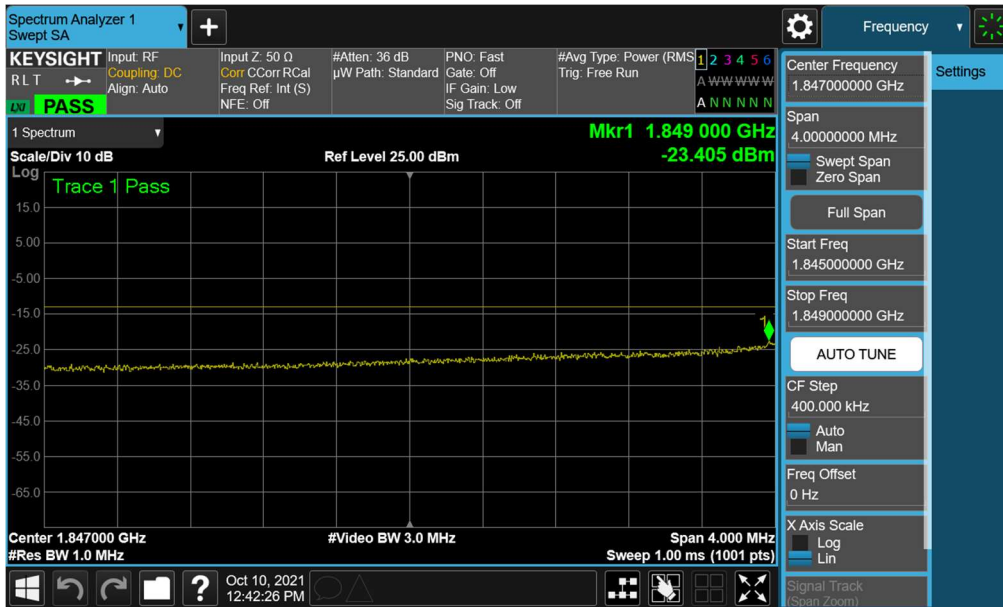


Plot 7-54. Extended Upper Band Edge Plot (LTE Band 25 - 15MHz QPSK – Full RB)

FCC ID: A3LSMS908E	<b>PCTEST</b> Proud to be part of element	<b>PART 24 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 43 of 84



Plot 7-55. Lower Band Edge Plot (LTE Band 25/2 - 10MHz QPSK – Full RB)



Plot 7-56. Extended Lower Band Edge Plot (LTE Band 25/2 - 10MHz QPSK – Full RB)

FCC ID: A3LSMS908E	<b>PCTEST</b> Proud to be part of element	<b>PART 24 MEASUREMENT REPORT</b>	<b>SAMSUNG</b>	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 44 of 84