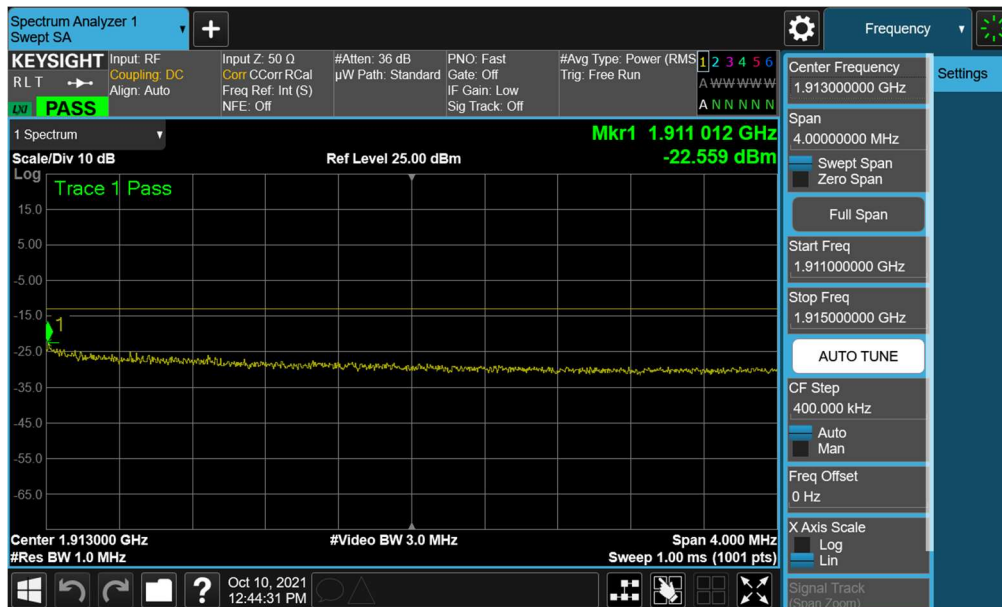




Plot 7-57. Upper Band Edge Plot (LTE Band 2 - 10MHz QPSK – Full RB)

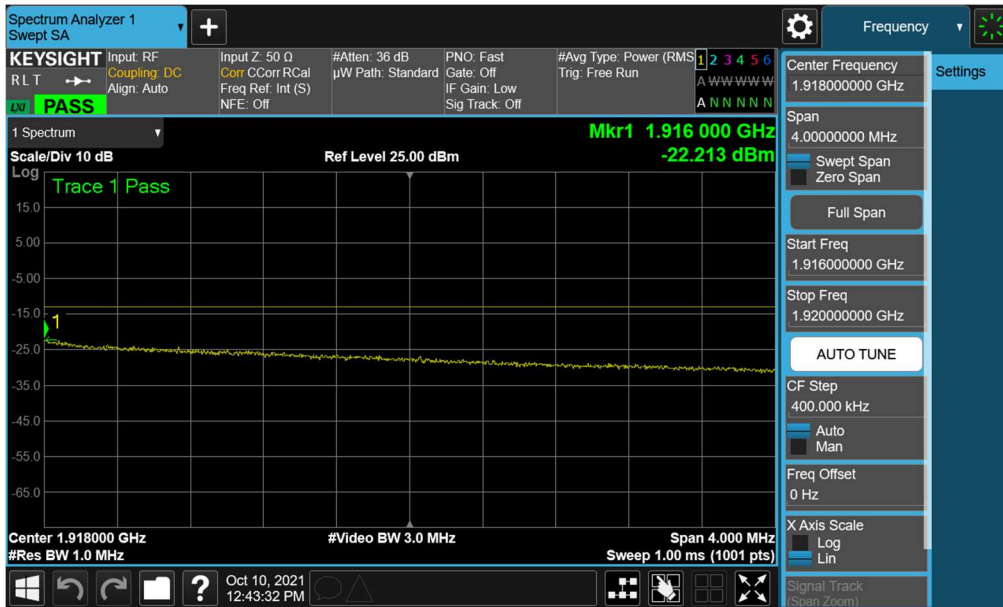


Plot 7-58. Extended Upper Band Edge Plot (LTE Band 2 - 10MHz QPSK – Full RB)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
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Plot 7-59. Upper Band Edge Plot (LTE Band 25 - 10MHz QPSK – Full RB)

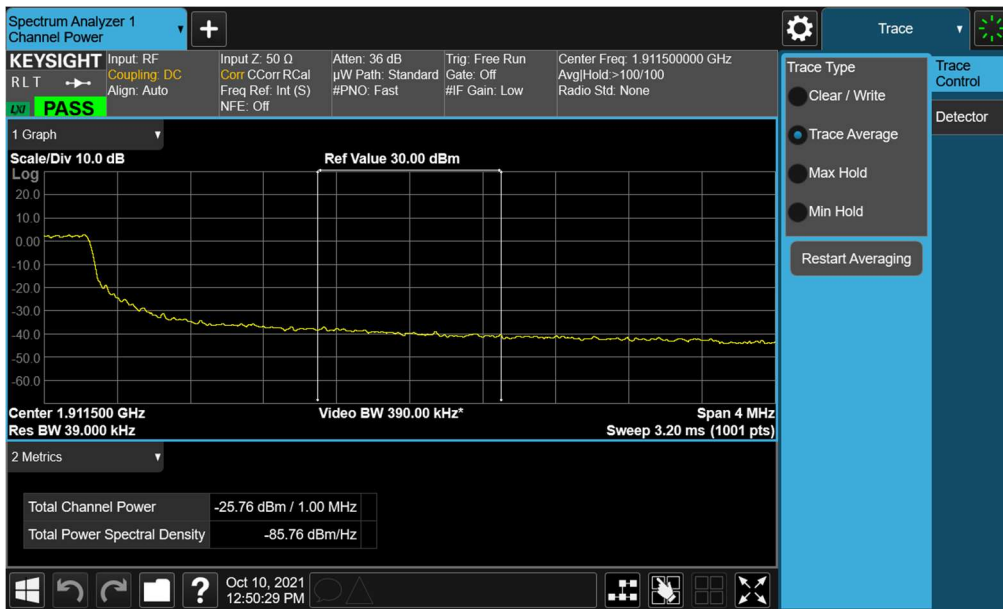


Plot 7-60. Extended Upper Band Edge Plot (LTE Band 25 - 10MHz QPSK – Full RB)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 46 of 84



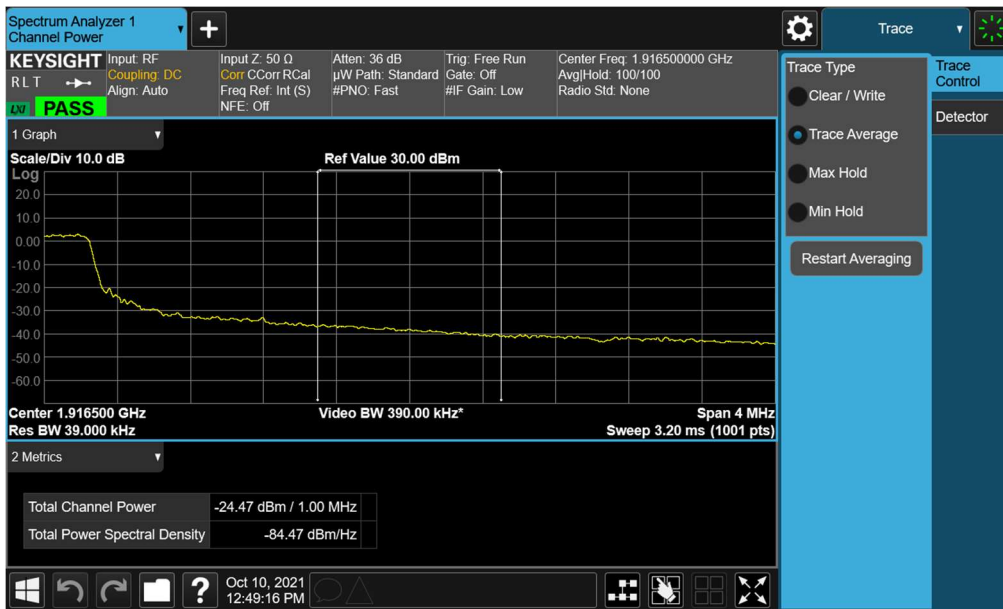
FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 47 of 84



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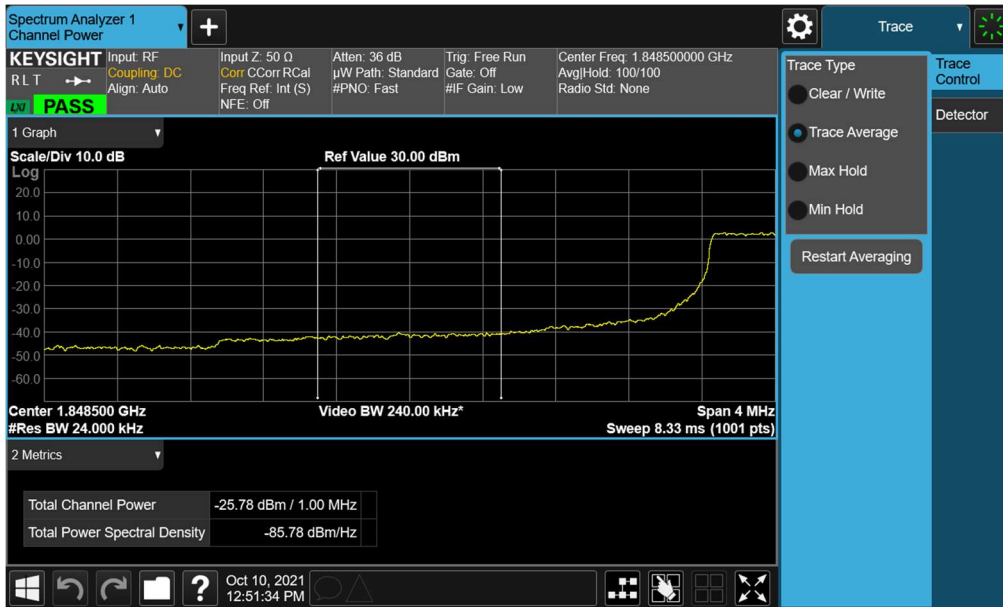


Plot 7-65. Upper Band Edge Plot (LTE Band 25 - 5MHz QPSK – Full RB)

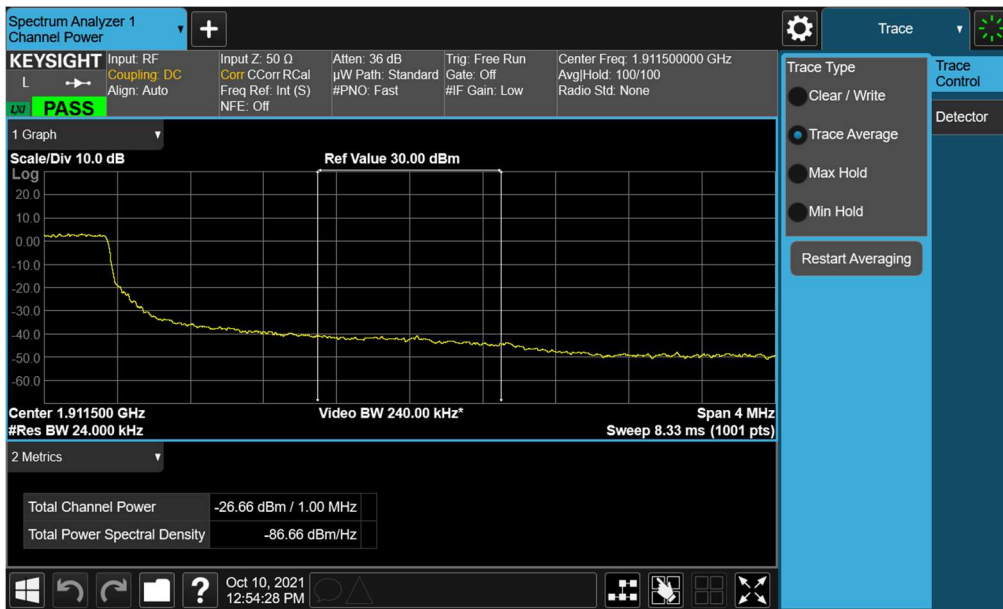


Plot 7-66. Extended Upper Band Edge Plot (LTE Band 25 - 5MHz QPSK – Full RB)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 49 of 84



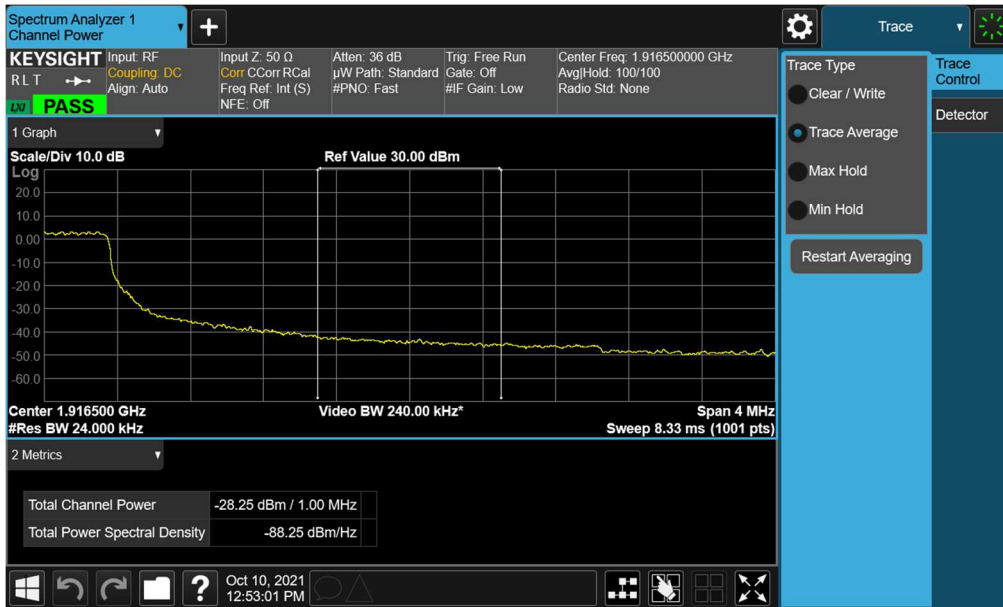
FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 50 of 84



FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 51 of 84

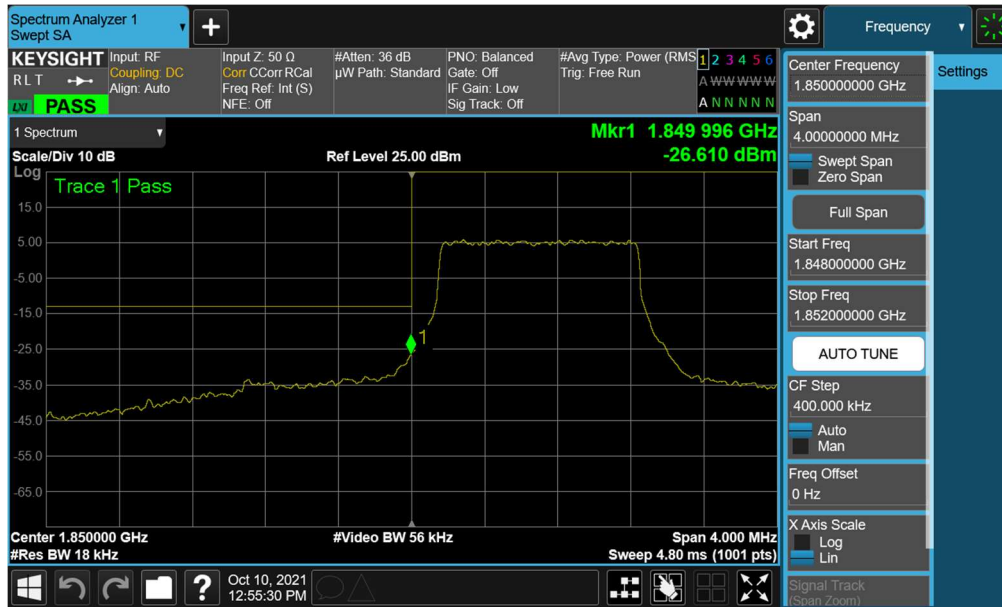


Plot 7-71. Upper Band Edge Plot (LTE Band 25 - 3MHz QPSK – Full RB)

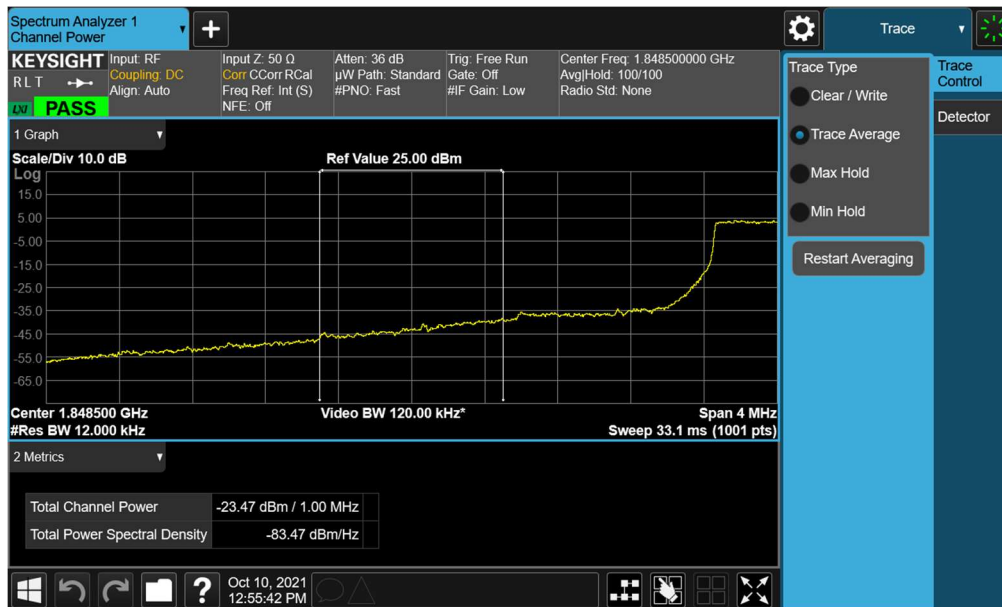


Plot 7-72. Extended Upper Band Edge Plot (LTE Band 25 - 3MHz QPSK – Full RB)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 52 of 84

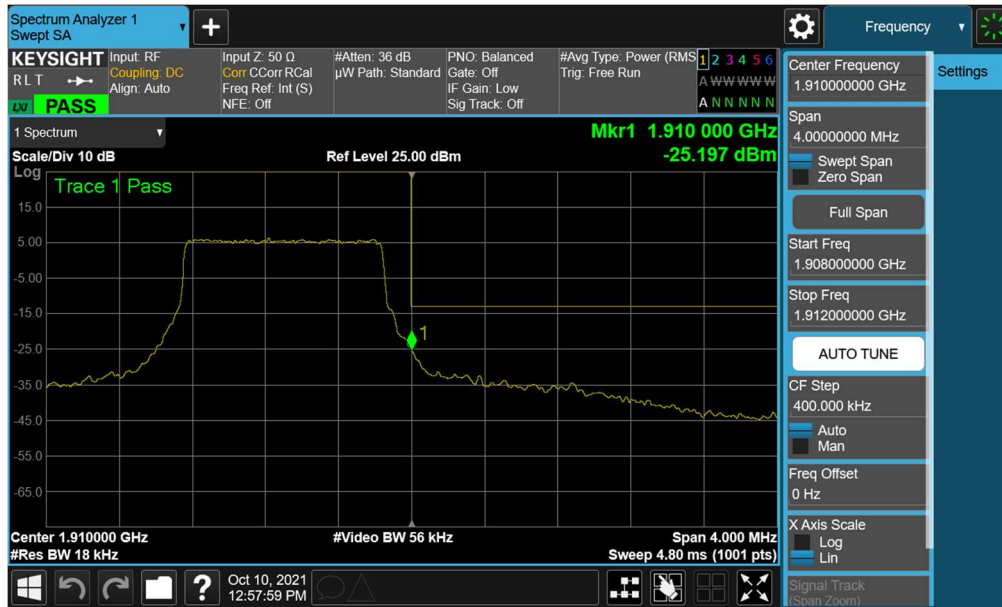


Plot 7-73. Lower Band Edge Plot (LTE Band 25/2 – 1.4MHz QPSK – Full RB)



Plot 7-74. Extended Lower Band Edge Plot (LTE Band 25/2 – 1.4MHz QPSK – Full RB)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 53 of 84



Plot 7-75. Upper Band Edge Plot (LTE Band 2 – 1.4MHz QPSK – Full RB)



Plot 7-76. Extended Upper Band Edge Plot (LTE Band 2 – 1.4MHz QPSK – Full RB)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 54 of 84



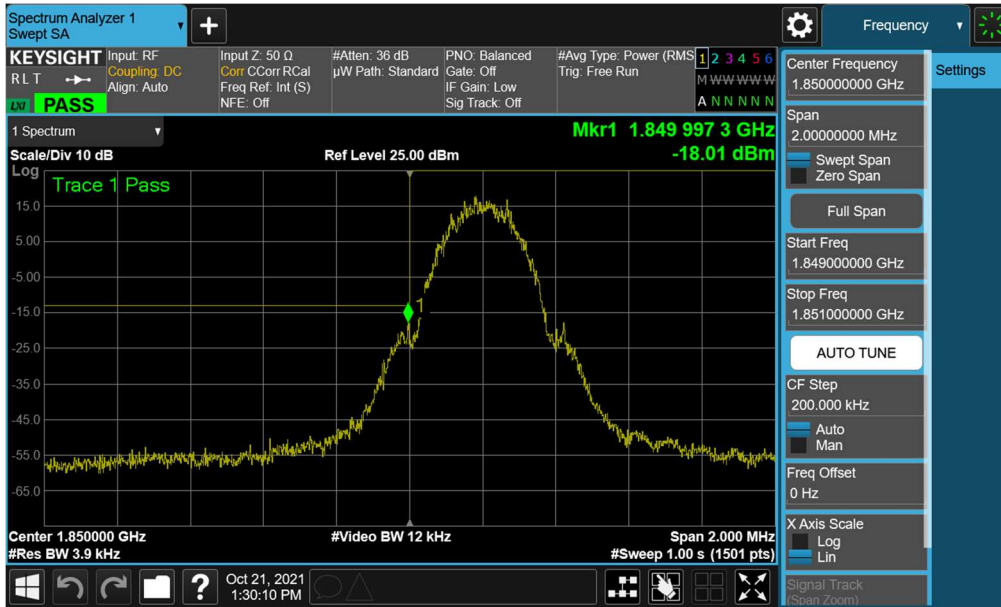
Plot 7-77. Upper Band Edge Plot (LTE Band 25 – 1.4MHz QPSK – Full RB)



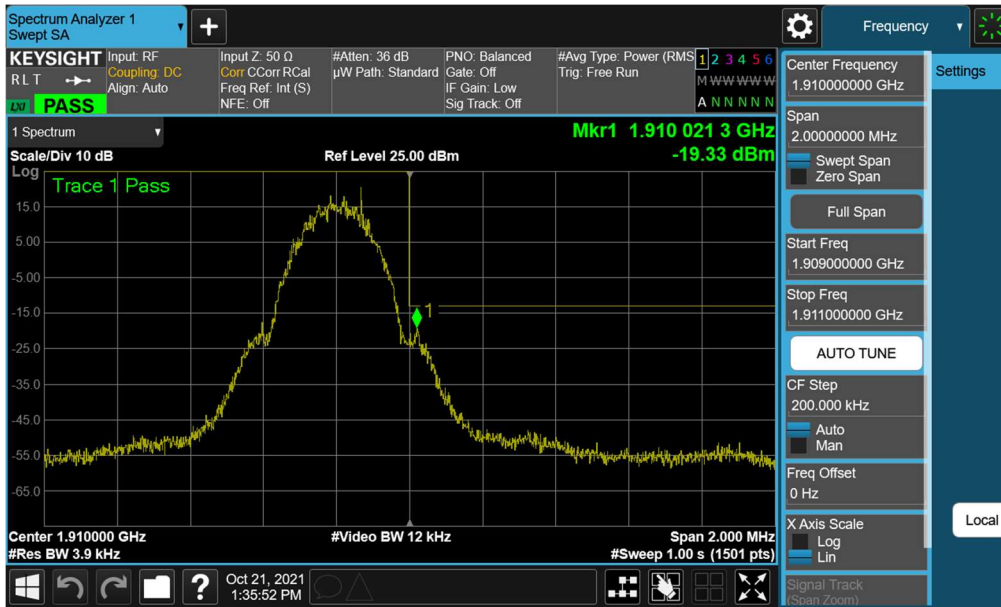
Plot 7-78. Extended Upper Band Edge Plot (LTE Band 25 – 1.4MHz QPSK – Full RB)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 55 of 84

GSM/GPRS PCS



Plot 7-79. Lower Band Edge Plot (GPRS PCS – Ch. 512)



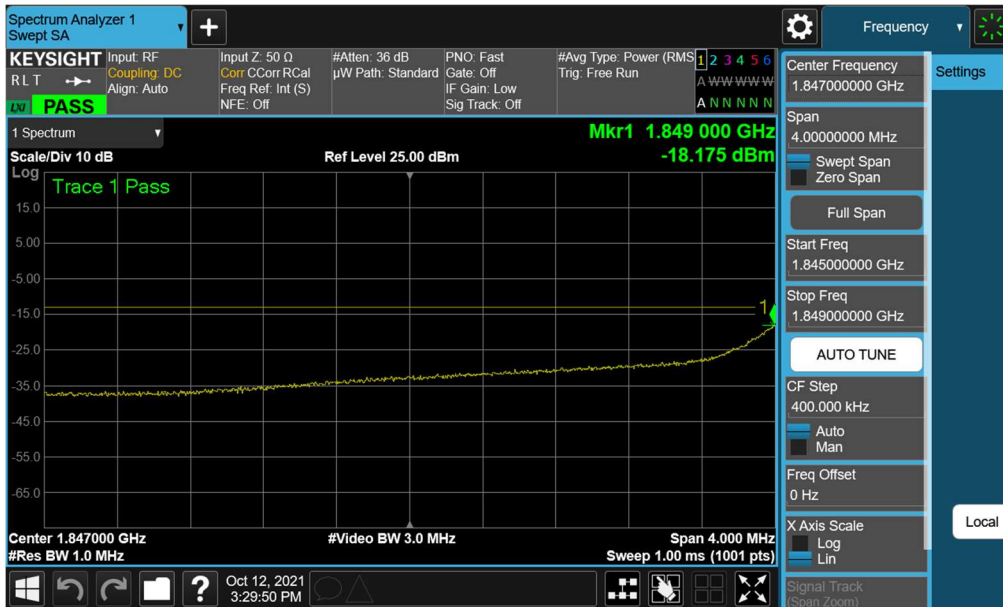
Plot 7-80. Upper Band Edge Plot (GPRS PCS – Ch. 810)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 56 of 84

WCDMA PCS

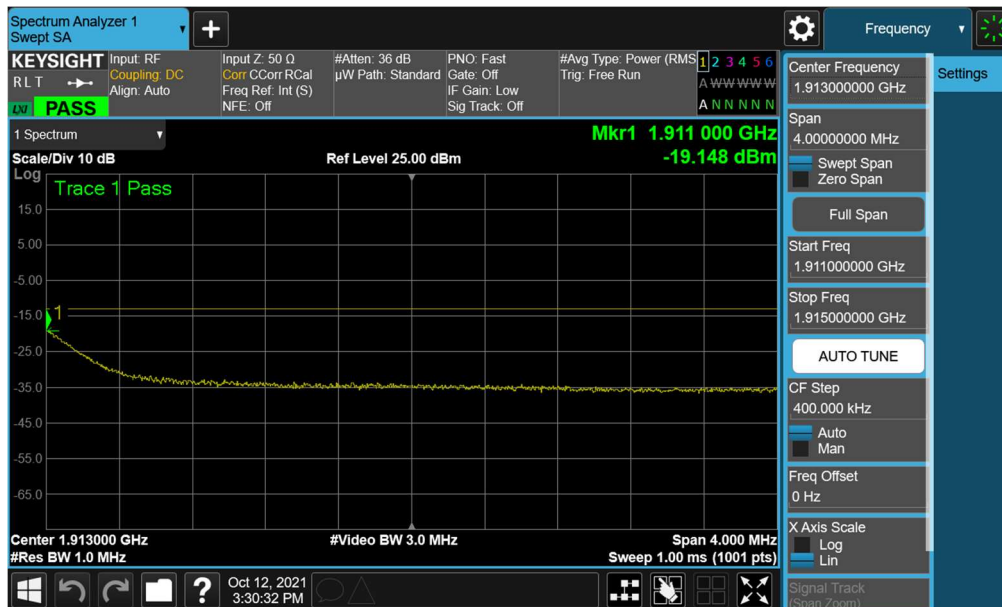


Plot 7-81. Lower Band Edge Plot (WCDMA PCS – Ch. 9262)



Plot 7-82. Extended Lower Band Edge Plot (WCDMA PCS – Ch. 9262)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
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FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 58 of 84

7.5 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 a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level.

Test Procedure Used

KDB 971168 D01 v03r01 – Section 5.7.1

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.



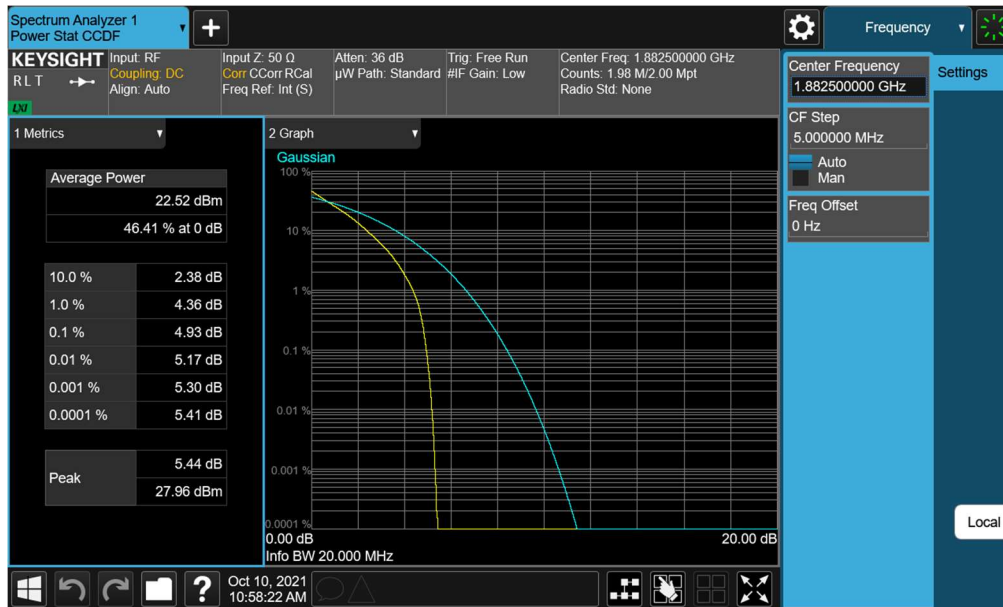
Figure 7-4. Test Instrument & Measurement Setup

Test Notes

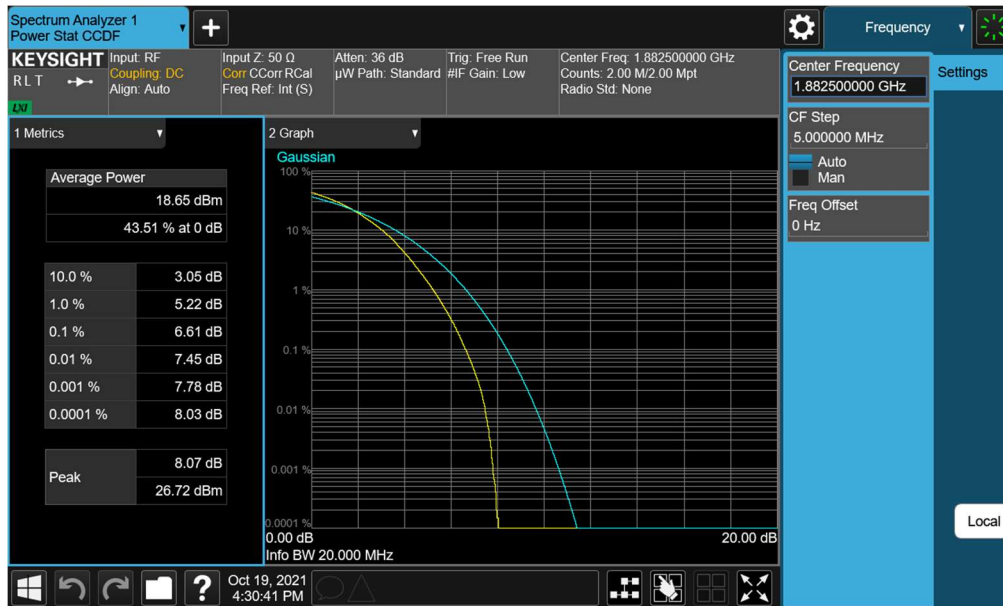
None.

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 59 of 84

LTE Band 25/2

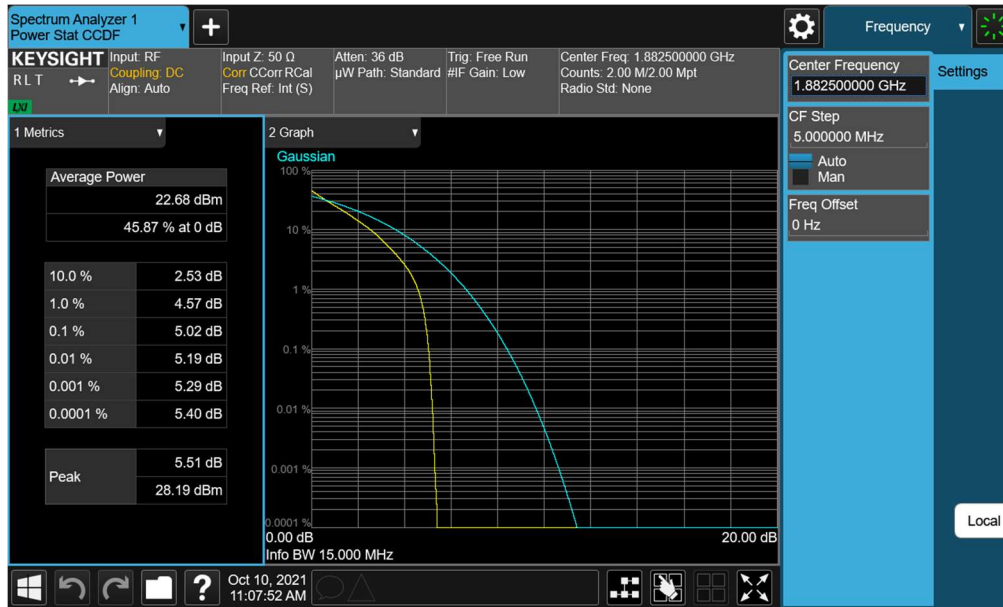


Plot 7-85. PAR Plot (LTE Band 25/2 - 20MHz QPSK - Full RB)

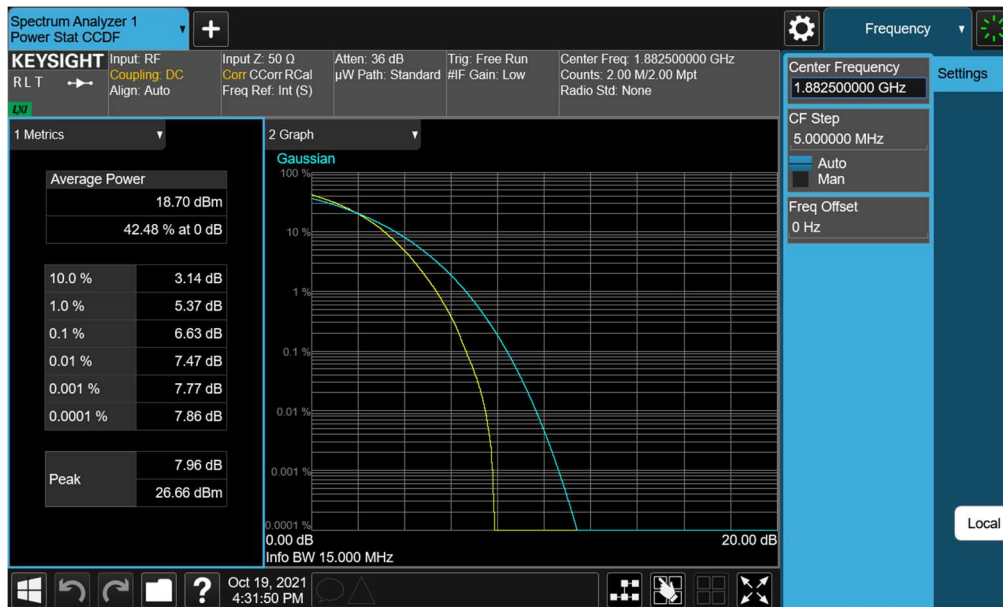


Plot 7-86. PAR Plot (LTE Band 25/2 - 20MHz 256-QAM - Full RB)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 60 of 84

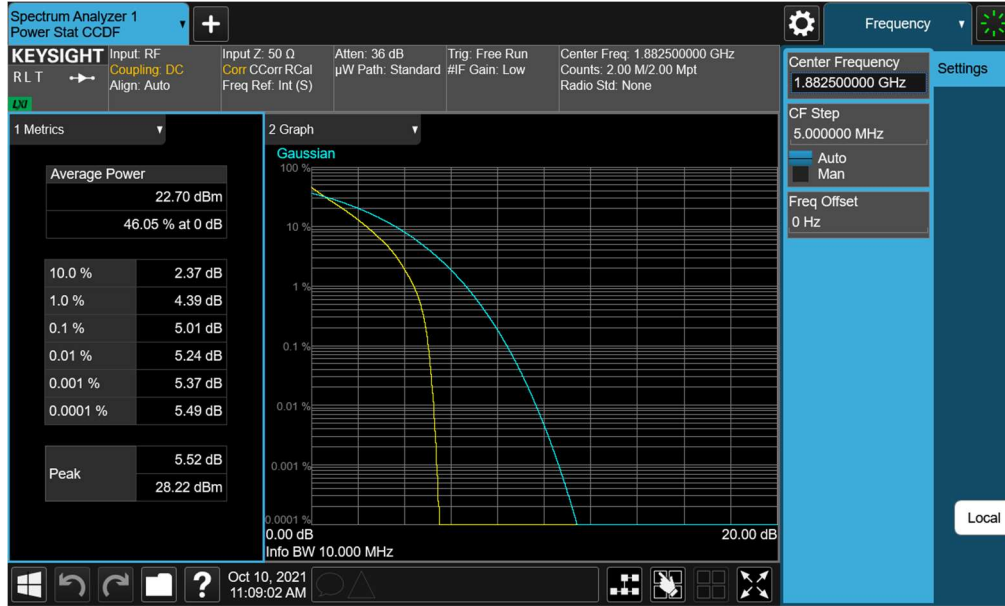


Plot 7-87. PAR Plot (LTE Band 25/2 - 15MHz QPSK - Full RB)

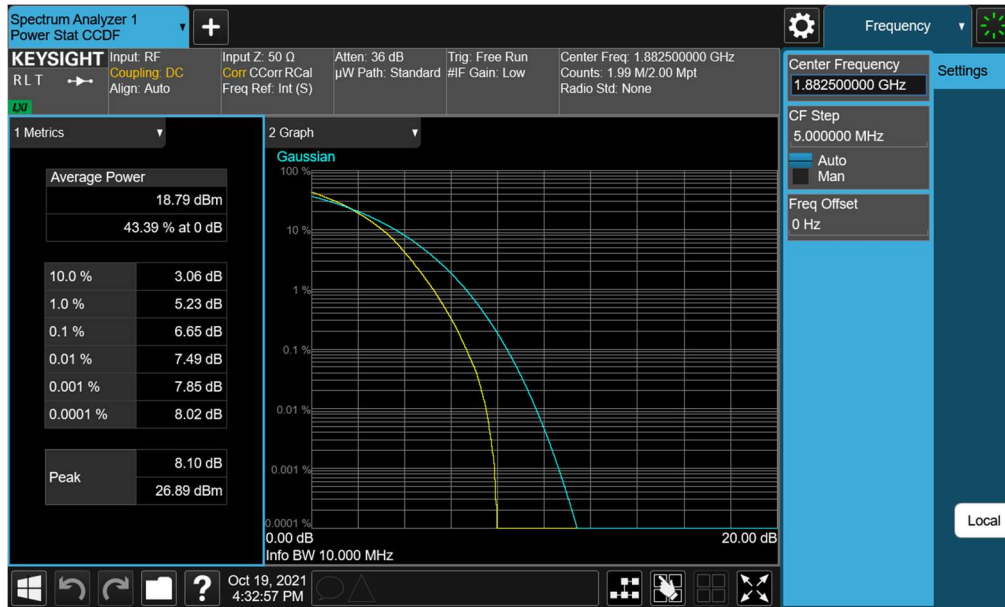


Plot 7-88. PAR Plot (LTE Band 25/2 - 15MHz 256-QAM - Full RB)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
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Plot 7-89. PAR Plot (LTE Band 25/2 - 10MHz QPSK - Full RB)



Plot 7-90. PAR Plot (LTE Band 25/2 - 10MHz 256-QAM - Full RB)

FCC ID: A3LSMS908E	PCTEST Proud to be part of element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N: 1M2109220110-03.A3L	Test Dates: 10/8/2021 - 11/10/2021	EUT Type: Portable Handset		Page 62 of 84