

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: A3LSMS906E	PCTEST* Proud to be part of @ element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 45 of 04
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	Portable Handset		Page 45 of 84





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: A3LSMS906E	PCTEST* Proud to be part of @ element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 46 of 94
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	Portable Handset	Page 46 of 84





Plot 7-61. Lower Band Edge Plot (LTE Band 25/2 - 5MHz QPSK - Full RB)



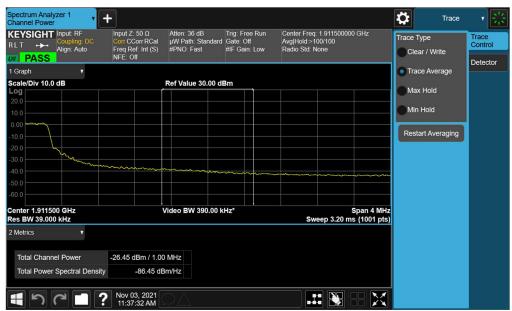
Plot 7-62. Extended Lower Band Edge Plot (LTE Band 25/2 - 5MHz QPSK - Full RB)

FCC ID: A3LSMS906E	PCTEST* Proud to be part of @ element	PART 24 MEASUREMENT REPORT)	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Dags 47 of 04
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	Portable Handset		Page 47 of 84





Plot 7-63. Upper Band Edge Plot (LTE Band 2 - 5MHz QPSK - Full RB)



Plot 7-64. Extended Upper Band Edge Plot (LTE Band 2 - 5MHz QPSK - Full RB)

FCC ID: A3LSMS906E	PCTEST* Proud to be part of @ element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags 40 of 04
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	Portable Handset	Page 48 of 84





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: A3LSMS906E	PCTEST* Proud to be part of @ element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:	D 40 -f 04	
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	Portable Handset	Page 49 of 84	





Plot 7-67. Lower Band Edge Plot (LTE Band 25/2 - 3MHz QPSK - Full RB)



Plot 7-68. Extended Lower Band Edge Plot (LTE Band 25/2 - 3MHz QPSK - Full RB)

FCC ID: A3LSMS906E	PCTEST* Proud to be part of @ element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogg 50 of 04
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	Portable Handset		Page 50 of 84





Plot 7-69. Upper Band Edge Plot (LTE Band 2 - 3MHz QPSK - Full RB)



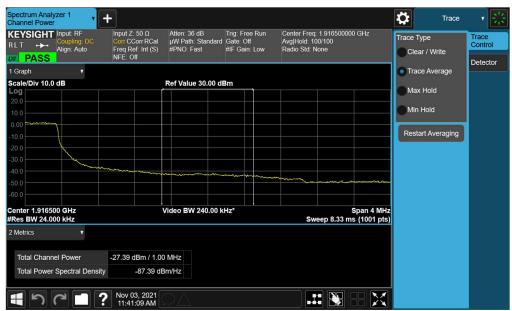
Plot 7-70. Extended Upper Band Edge Plot (LTE Band 2 - 3MHz QPSK - Full RB)

FCC ID: A3LSMS906E	PCTEST* Proud to be part of @ element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dags E4 of 94
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	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: A3LSMS906E	Poud to be part of & element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage F2 of 04
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	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: A3LSMS906E	Proud to be part of @element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		D 50 -f 04	
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	Portable Handset		Page 53 of 84	





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



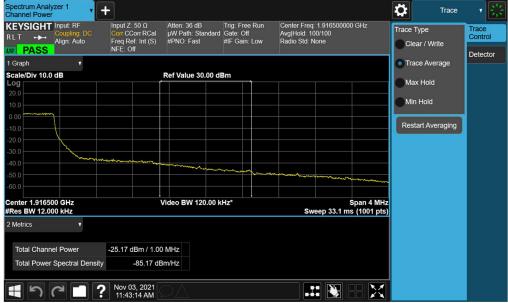
Plot 7-76. Extended Upper Band Edge Plot (LTE Band 2 - 1.4MHz QPSK - Full RB)

FCC ID: A3LSMS906E	PCTEST* Proud to be part of @ element	PART 24 MEASUREMENT REPORT	UNG	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Dags E4 of 04
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	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: A3LSMS906E	PCTEST* Proud to be part of @ element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage FF of 04
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	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: A3LSMS906E	PCTEST* Proud to be part of @ element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 56 of 84
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	Portable Handset		rage 50 01 64

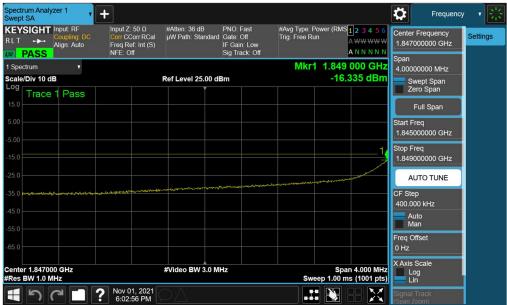
© 2021 PCTEST



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: A3LSMS906E	PCTEST* Proud to be part of @ element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager		
Test Report S/N:	Test Dates:	EUT Type:		Dags 57 of 04		
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	Portable Handset		Page 57 of 84		

© 2021 PCTEST





Plot 7-83. Upper Band Edge Plot (WCDMA PCS - Ch. 9538)



Plot 7-84. Extended Upper Band Edge Plot (WCDMA PCS - Ch. 9538)

FCC ID: A3LSMS906E	Poud to be part of @ element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		Page 58 of 84	
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	Portable Handset			



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 ≥ 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: A3LSMS906E	Proud to be part of Proud for the part of Proud fo	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager		
Test Report S/N:	Test Dates:	EUT Type:		Page 59 of 84		
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	Portable Handset		Fage 59 01 04		

© 2021 PCTEST

V2.0 3/15/2021
All rights reserved. Unless otherwise specified, no part of this report may be reproduced or utilized in any part, form or by any means, electronic or mechanical, including photocopying and



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: A3LSMS906E	PCTEST* Proud to be part of @ element	PART 24 MEASUREMENT REPORT	MSUNG	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		Page 60 of 84	
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	Portable Handset			





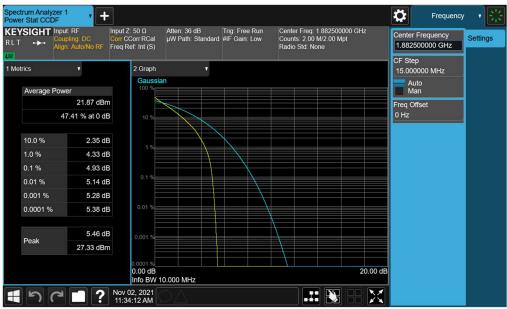
Plot 7-87. PAR Plot (LTE Band 25/2 - 15MHz QPSK - Full RB)



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

FCC ID: A3LSMS906E	PCTEST* Proud to be part of @ element	PART 24 MEASUREMENT REPORT	SAMSUNG	Approved by: Technical Manager	
Test Report S/N:	Test Dates:	EUT Type:		Page 61 of 84	
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	Portable Handset			





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: A3LSMS906E	PCTEST* Proud to be part of @ element	PART 24 MEASUREMENT REPORT	Approved by: Technical Manager
Test Report S/N:	Test Dates:	EUT Type:	Dama 62 of 04
1M2110010116-03.A3L	10/14/2021 - 11/10/2021	Portable Handset	Page 62 of 84