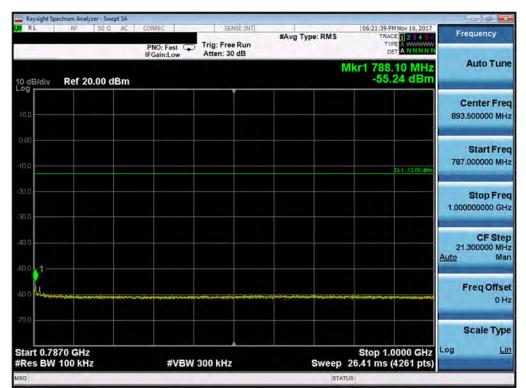


Keysight Spectrum Analyzer - Swept SA           RL         RF         50 \Omega         AC	CORREC	SENSE:INT	and the second	06:21:32 PM Nov 16, 2017	
	PNO: Fast 😱 IFGain:Low	Trig: Free Run Atten: 30 dB	#Avg Type: RMS	TRACE 2 3 4 5 0 TYPE A WWWW DET A NNNNN	Frequency
0 dB/div Ref 20.00 dBm			N	kr1 776.90 MHz -27.86 dBm	Auto Tun
10.0					Center Fre 403.450000 MH
0.0				0L1 -13.00 dBm	Start Fre 30.000000 MH
D.C.				1	Stop Fre 776.900000 MH
12.0 					CF Ste 74.690000 MH Auto Ma
50.0		ayayahan yang mangan ang ata ang ata ang	an provinsi antis di travapat d <sub>an</sub>		Freq Offs 0 F
70.0					Scale Typ
Start 30.0 MHz Res BW 100 kHz	#VBW	300 kHz	Sweep 9	Stop 776.9 MHz 2.62 ms (14939 pts)	Log <u>Li</u>
SG			STATU	15	

Plot 7-148. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-149. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 05 of 240
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Keysight Spectrum Analyzer - Swept SA					
X RL RF 50Ω AC	PNO: Fast	ig: Free Run Atten: 32 dB	#Avg Type: RMS	06:22:11 PM Nov 16, 2017 TRACE 2 3 4 5 0 TYPE A WWWW DET A NNNNN	Frequency
10 dB/div Ref 22.00 dBm	1		M	kr1 9.440 5 GHz -41.41 dBm	Auto Tun
12.0					<b>Center Fre</b> 5,500000000 GH
5.00				0L1 -13 00 dBm	Start Fre 1.000000000 GP
18 0					Stop Fre 10.000000000 Gi
88.0		-		<sup>1</sup>	CF Ste 900.000000 Mi <u>Auto</u> Mi
59.0					Freq Offs 01
© 0 Start 1.000 GHz #Res BW 1.0 MHz	#VBW 3.0	) MHz	Sweep 1	Stop 10.000 GHz 5.60 ms (18001 pts)	Scale Typ
ISG			STATU		

Plot 7-150. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-151. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dago 06 of 240	
1M1711010281-03-R3.A3L	11/1/2017-1/12/2018	Portable Handset		Page 96 of 349	
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Keysight Spectrum Analyzer - Swept SA           RL         RF         50 Ω         AC	CORREC SENS	SE:INT	06:20:19 PM Nov 16, 2017	
	PNO: Fast C Trig: Free IFGain:Low Atten: 30 of	#Avg Type: RMS Run	TRACE 1 2 3 4 5 0 TYPE A WWWW DET A NNNNN	Frequency
0 dB/div Ref 20.00 dBm		N	Akr1 788.45 MHz -55.52 dBm	Auto Tun
10 D				Center Fre 893,500000 MH
0.00			CL1 -13.00 dBm	Start Fre 787.000000 MH
20 C				Stop Fre 1.000000000 GH
100 x 1				CF Ste 21.300000 MH Auto Ma
so. a Munananan an	an marka af a sa an	ere at an tank of polyne water in the second state of the second state of the second state of the second state	na fysion da anton ann a malaine da a na agus anga	Freq Offs 0 H
tart 0.7870 GHz Res BW 100 kHz	#VBW 300 kHz	Sweep	Stop 1.0000 GHz 26.41 ms (4261 pts)	Scale Typ Log <u>L</u>

Plot 7-152. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



Plot 7-153. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dame 07 of 240
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Keysight Spectrum Analyzer - Swept S RL RF 50 Ω		I course taut	1		
KL RF 50Ω.	PNO: Fast	SENSE:INT Trig: Free Run Atten: 30 dB	#Avg Type: RMS	07:24:35 PM Nov 16, 2017 TRACE 2 3 4 5 0 TYPE A WWWW DET A N N N N	Frequency
10 dB/div Ref 20.00 dB	m		M	cr1 776.95 MHz -59.01 dBm	Auto Tun
10.0					Center Free 403,500000 MH
-10.0				0L1 -13.00 dBm	Start Fre 30.000000 MH
-20.0					Stop Fre 777.000000 MH
40.0 50.0					CF Ste 74.700000 MH Auto Ma
-60.0	nt Andre and a start spin of symposium		and the second	1	Freq Offs 0 F
70.0 Start 30.0 MHz #Res BW 100 kHz	#VBW	300 kHz	Sweep 92	Stop 777.0 MHz .63 ms (14941 pts)	Scale Typ
ISG			STATUS		L

Plot 7-154. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-155. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 08 of 240
1M1711010281-03-R3.A3L	11/1/2017-1/12/2018	Portable Handset	Page 98 of 349	
© 2018 PCTEST Engineering Labor	V 7.1 10/25/2017			



Frequency	07:25:14 PM Nov 16, 2017 TRACE 1 2 3 4 5 0	#Avg Type: RMS	SENSE:INT	RF 50 Ω AC CORREC	RL
	TYPE A WWWWW DET A NNNNN	#Avg Type: RMS	Trig: Free Run #Atten: 32 dB	PNO: Fast G	
Auto Tun	r1 9.474 0 GHz -41.40 dBm	M		Ref 22.00 dBm	0 dB/div
Center Fre 5.500000000 GH					12.0
Start Fre 1.000000000 GH	0L1 -13 00 dBm				8.00
Stop Fre 10.00000000 GF					180
CF Ste 900.000000 MH Auto Ma	1				35.0
Freq Offs 0 F					49. 0. 59. 0
Scale Typ	Stop 10.000 GHz 5.60 ms (18001 pts)		3.0 MHz		Start 1.000

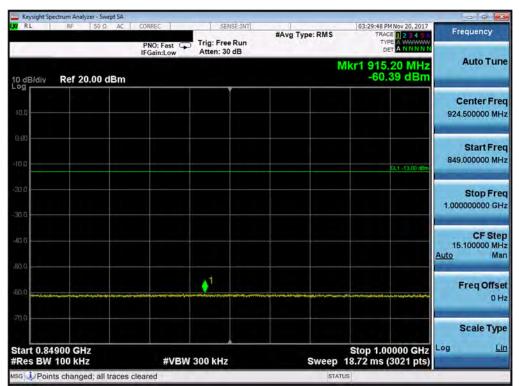
Plot 7-156. Conducted Spurious Plot (Band 13 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dega 00 of 240	
1M1711010281-03-R3.A3L	11/1/2017-1/12/2018	Portable Handset		Page 99 of 349	
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Keysight Spectrum Analyzer - Swept SA RL RF 50 Ω AC		SENSE:INT		03:29:21 PM Nov 20, 2017	Frequency
	PNO: Fast	Trig: Free Run Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 0 TYPE A TYPE A TYPE A	
0 dB/div Ref 20.00 dBm	1		M	kr1 821.75 MHz -31.40 dBm	Auto Tun
10.0					Center Free 426.500000 MH
10.0				(DL1 -19.00 dBm	Start Fre 30.000000 MH
20.0				1	Stop Fre 823.000000 MH
40.0					CF Ste 79.300000 MH Auto Ma
50.0	and the second secon		and the second		Freq Offso 0 H
70.0					Scale Typ
Start 30.0 MHz Res BW 100 kHz	#VBW	300 kHz	Sweep 98	Stop 823.0 MHz .33 ms (15861 pts)	Log <u>Li</u>
SG			STATUS		

Plot 7-157. Conducted Spurious Plot (Band 5/26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-158. Conducted Spurious Plot (Band 5/26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 100 of 240
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Keysight Spectrum Analyzer - Swept SA			
RL RF 50Ω AC	PNO: Fast IFGain:Low Atten: 20 dB	03:30:07 PM Nov 20, 2017 #Avg Type: RMS TRACE 72 4 F TYPE TANKING	
IO dB/div Ref 10.00 dBm		Mkr1 1.648 5 GHz -36.98 dBm	Auto Tun
0,02			Center Fre 5.500000000 GH
0.0		CL1-13.00 dBn	Start Fre 1.000000000 GH
30 0 40.0			Stop Fre 10.000000000 GH
50.0			CF Ste 900.000000 Mi Auto Mi
70.0			Freq Offs 0 F
Start 1.000 GHz #Res BW 1.0 MHz	#VBW 3.0 MHz	Stop 10.000 GHz Sweep 15.60 ms (18001 pts)	Scale Typ Log L
ISG		STATUS	

Plot 7-159. Conducted Spurious Plot (Band 5/26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



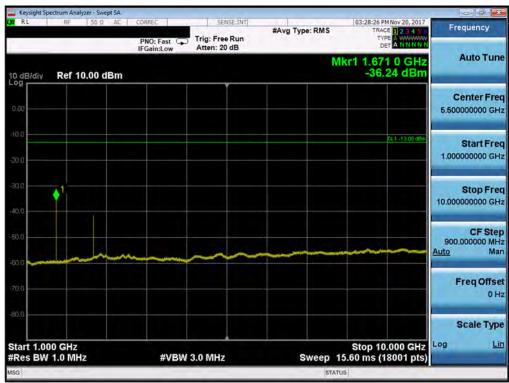
Plot 7-160. Conducted Spurious Plot (Band 5/26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 101 of 240
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RL RF 50 Ω AC	CORREC	SENSE:INT		03:27:28 PM Nov 20, 2017	Frequency
	PNO: Fast 😱 IFGain:Low	Trig: Free Run Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 0 TYPE A WWWWWW DET A NNNNN	
D dB/div Ref 20.00 dBm			M	kr1 851.70 MHz -60.40 dBm	Auto Tun
0.0					Center Fre 924.500000 MH
0.00				0L1 -13.00 dBm	Start Fre 849.000000 M
0.0					<b>Stop Fr</b> 1.000000000 G
00 00					CF St 15.100000 M Auto M
0.0	and a start of the second start of the		tanen matrimen gertreikt vergestatischer vergestatische	Americal South States of the S	Freq Offs 0
tart 0.84900 GHz Res BW 100 kHz		300 kHz		Stop 1.00000 GHz 8.72 ms (3021 pts)	Scale Ty Log <u>l</u>

Plot 7-161. Conducted Spurious Plot (Band 5/26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



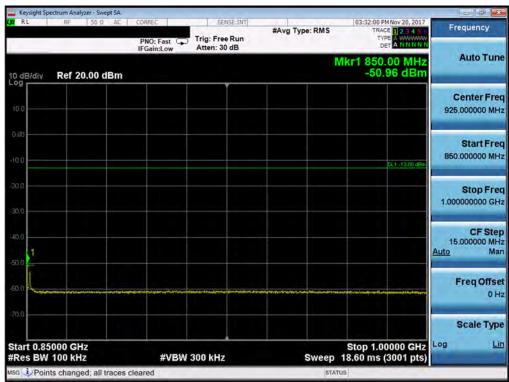
Plot 7-162. Conducted Spurious Plot (Band 5/26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 102 of 240
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Keysight Spectrum Analyzer - Swep		I course tore		100 Dr. 15 Dillio DA 2012	
KL 10- 150 S2	PNO: Fast	SENSE:INT Trig: Free Run Atten: 30 dB	#Avg Type: RMS	03:31:45 PM Nov 20, 2017 TRACE 1 2 3 4 5 0 TYPE A WWWW DET A NNNNN	Frequency
10 dB/div Ref 20.00 dE	3m		M	kr1 815.85 MHz -59.03 dBm	Auto Tun
ήσ.D					Center Free 427.000000 MH
0.00				0L1 -13.00 dBm	Start Fre 30.000000 MH
20 0					Stop Fre 824.000000 MH
40.0					CF Ste 79.400000 Mi Auto Ma
60.0 <mark>(miger rains years and</mark>	namen and a little of a second se		na androfostar palarity participation	2	Freq Offs 0 F
70.0 Start 30.0 MHz #Res BW 100 kHz	#VBW	300 kHz	Sweep 98	Stop 824.0 MHz .46 ms (15881 pts)	Scale Typ Log <u>L</u>
ISG			STATUS		

Plot 7-163. Conducted Spurious Plot (Band 5/26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-164. Conducted Spurious Plot (Band 5/26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 102 of 240
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CORREC	SENSE:INT		03:32:23 PM Nov 20, 2017	- 8 -
PNO: Fast	Trig: Free Run Atten: 20 dB	#Avg Type: RMS	TRACE 2 3 4 5 0 TYPE A WWWWW DET A NNNNN	Frequency
			Mkr1 1.692 5 GHz -35.15 dBm	Auto Tun
				Center Fre 5,500000000 GH
			OL1 -13.00 (18m)	Start Fre 1.000000000 GH
				Stop Fre 10.00000000 GF
Annon 10,000000				CF Ste 900.000000 Mi Auto Ma
				Freq Offs 0 H
#\/D\//			Stop 10.000 GHz	Scale Typ
	IFGain:Low	PNO: Fast Trig: Free Run IFGain:Low Atten: 20 dB	PNO: Fast C Trig: Free Run Atten: 20 dB	PNO: Fast Trig: Free Run Atten: 20 dB PRO: Fast Trig: Fast Trig: Free Run Atten: 20 dB PRO: Fast Trig: Fast Tr

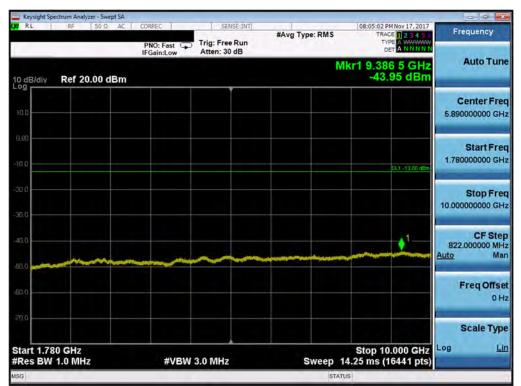
Plot 7-165. Conducted Spurious Plot (Band 5/26 - 3.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 104 of 240
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RL         RF         50 Ω         AC		#Avg Type: RMS TRACE	Frequency
	PNO: Fast Trig: Free Run IFGain:Low Atten: 30 dB	TYPE A WAY	
dB/div Ref 20.00 dBm		Mkr1 1.708 0 GI -37.94 dB	Hz Auto Tur m
0.0			Center Fre 869.000000 Mi
0.0		CL1-19.00	Start Fre
σ.α			Stop Fr 1.708000000 G
20			CF Sto 167.800000 M Auto M
0.0			Freq Offs 0
tart 0.0300 GHz		Stop 1.7080 G	Scale Ty
Res BW 1.0 MHz	#VBW 3.0 MHz	Sweep 2.237 ms (3357 p	ts)

Plot 7-166. Conducted Spurious Plot (Band 4/66 - 1.4MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



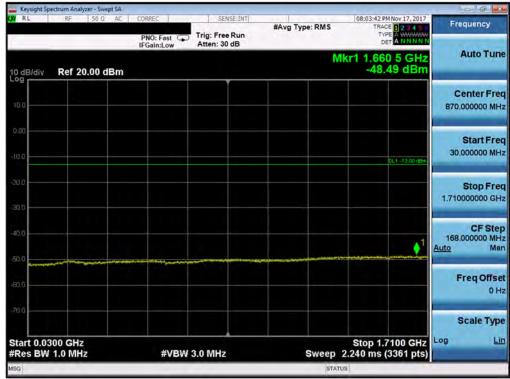
Plot 7-167. Conducted Spurious Plot (Band 4/66 - 1.4MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 105 of 240
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Keysight Spectrum Analyzer - Swept SA				tor Columnia Stands	
X RL RF 50 Q AC	PNO: Fast	Trig: Free Run Atten: 10 dB	#Avg Type: RMS	08:05:18 PM Nov 17, 2017 TRACE 2 3 4 5 0 TYPE A WWWWW DET A NNNNN	Frequency
10 dB/div Ref 0.00 dBm			Mkr	1 16.977 5 GHz -57.91 dBm	Auto Tun
-10.0				CL1 -13 00 dBm	Center Fre 15,000000000 GH
30.0					Start Fre 10.000000000 GH
40.0 50.0					Stop Fre 20.000000000 GF
50.0					CF Ste 1.00000000 GH Auto Mi
80.0					Freq Offs 0 F
©00 Start 10.000 GHz #Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep 25	Stop 20.000 GHz 5.33 ms (20001 pts)	Scale Typ
ISG			STATU		

Plot 7-168. Conducted Spurious Plot (Band 4/66 - 1.4MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-169. Conducted Spurious Plot (Band 4/66 - 1.4MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 106 of 240
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PNO: Fast IFGain:Low         Trig: Free Run Atten: 30 dB         Mikr1 9.412 5 GHz -44.05 dBm           10 dB/div         Ref 20.00 dBm         -44.05 dBm         5.85           0.00	requency
10 dB/div       Ref 20.00 dBm       -44.05 dBm         10 dB/div       Ref 20.00 dBm       5.85         10 dD       Ct1-13.00 dem       1.76         -00 dD       Ct1-13.00 dem       10.00	
	Auto Tun
-10 0	Center Fre
30.0 10.00 1	Start Fre
Auto	Stop Fre
	CF Ste 2.000000 MH Ma
60.0	Freq Offs
700 Start 1.780 GHz Stop 10.000 GHz	Scale Typ
#Res BW 1.0 MHz #VBW 3.0 MHz Sweep 14.25 ms (16441 pts)	

Plot 7-170. Conducted Spurious Plot (Band 4/66 - 1.4MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



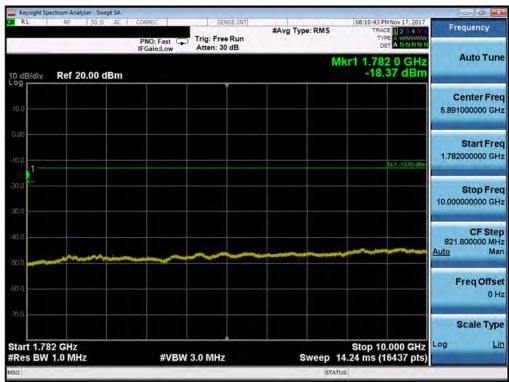
Plot 7-171. Conducted Spurious Plot (Band 4/66 - 1.4MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 107 of 240
1M1711010281-03-R3.A3L	11/1/2017-1/12/2018	Portable Handset		Page 107 of 349
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	- to see a due to be a be				ght Spectrum Analyzer - Swep
Frequency	08:09:54 PM Nov 17, 2017 TRACE 1 2 3 4 5 0 TYPE A WWWW DET A NNNNN	#Avg Type: RMS	SENSE:INT Trig: Free Run Atten: 30 dB	50 Ω AC CORREC PNO: Fast IFGain:Low	RF 50 Ω.
Auto Tun	kr1 1.616 0 GHz -48.40 dBm	M		00 dBm	div Ref 20.00 dl
Center Fre 870.000000 MH					
Start Fre 30.000000 MH	CL1 -13.00 dBm				
Stop Fre 1.710000000 GF					
CF Ste 168.000000 MH Auto Ma	↓ <sup>1</sup>	and the second			
Freq Offs 0 F					
Scale Typ	Stop 1.7100 GHz 2.240 ms (3361 pts)	Sweep 2	3.0 MHz	#VBW	0.0300 GHz BW 1.0 MHz
		STATU			

Plot 7-172. Conducted Spurious Plot (Band 4/66 - 1.4MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-173. Conducted Spurious Plot (Band 4/66 - 1.4MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 109 of 240	
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Keysight Spectrum Analyzer - Swept SA           RL         RF         50 Ω         AC	CORREC	SENSE:INT	-	08:11:02 PM Nov 17, 2017	- 8
AL Nº 3032 AC	PNO: Fast	Trig: Free Run Atten: 10 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 0 TYPE A WWWWW DET A N N N N N	Frequency
0 dB/div Ref 0.00 dBm	IFGain:Low	Atten: 10 dB	Mki	1 16.940 5 GHz -57.92 dBm	Auto Tun
0.0				OL1 -13.00 dBm	Center Fre 15.000000000 GH
30 0					Start Fre
10 0 30 0					Stop Fre 20.000000000 Gi
90 0 					CF Ste 1.000000000 G Auto M
90.0					Freq Offs 0
itart 10.000 GHz Res BW 1.0 MHz	#\/B\M	3.0 MHz	Sween 2	Stop 20.000 GHz 5.33 ms (20001 pts)	Scale Tyj Log <u>L</u>

Plot 7-174. Conducted Spurious Plot (Band 4/66 - 1.4MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dega 100 of 240	
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Keysight Spectrum Analyzer - Swept SA RL RF 50 Ω DC	CORREC	SENSE:INT		01:33:27 PM Nov 09, 2017	
NFE	PNO: Fast	Trig: Free Run Atten: 30 dB	#Avg Type: RMS	TRACE 2 3 4 5 6 TYPE A WANNEY DET A NNNNN	Frequency
0 dB/div Ref 20.00 dBm			M	kr1 1.842 0 GHz -29.67 dBm	Auto Tun
10.0					Center Fre 939.250000 MH
0.00				0L1 -13.00 dBm	Start Fre 30.000000 Mi
ο.α				1	Stop Fr 1.848500000 G
ος					CF Sto 181.850000 M Auto M
30.0		244-447-497-597-597-597-597-597-597-597-597-597-5		ningel-syngen ander ander an a	Freq Offs 0
700 start 0.0300 GHz				Stop 1.8485 GHz	Scale Typ
Res BW 1.0 MHz	#VBW :	3.0 MHz	Sweep 2	2.425 ms (3639 pts)	
SG			STATU		

Plot 7-175. Conducted Spurious Plot (Band 2/25 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-176. Conducted Spurious Plot (Band 2/25 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 110 of 210	
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Keysight Spectrum Analyzer -	Swept SA	CORREC	SENSE:INT		01:30:52 PM Nov 09, 2017	
RE 1 19 130	NFE	PNO: Fast	Trig: Free Run Atten: 10 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 0 TYPE A WWWW DET A N N N N	Frequency
10 dB/div Ref 0.00	dBm			N	lkr1 18.976 0 GHz -52.11 dBm	Auto Tun
-10.0					CL1 -13 00 dBm	Center Fre 15.000000000 GH
20.0 30.0						Start Fre 10.000000000 GH
40.0					1	Stop Fre 20.000000000 GH
50.0			No. of the second second second			CF Ste 1.00000000 GF Auto Mi
80.0						Freq Offs 01
∞.a Start 10.000 GHz #Res BW 1.0 MHz		#VBW	3.0 MHz	Sweep	Stop 20.000 GHz 17.33 ms (20001 pts)	Scale Typ
ISG					ATUS	No.

Plot 7-177. Conducted Spurious Plot (Band 2/25 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



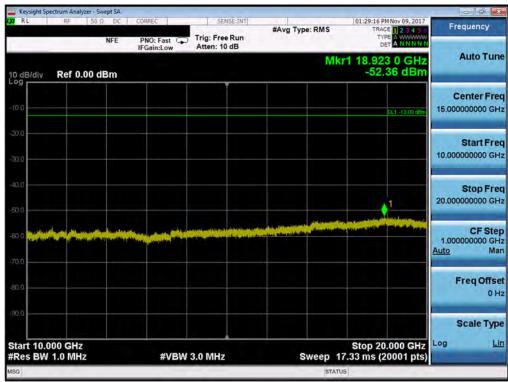
Plot 7-178. Conducted Spurious Plot (Band 2/25 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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Keysight Spectrum Analy RL RF		ORREC	SENSE:INT		01:29:06 PM Nov 09, 2017	
	NFE	PNO: Fast 😱 FGain:Low	Trig: Free Run Atten: 30 dB	#Avg Type: RMS	TYPE A WWWWW DET A NNNNN	Frequency
0 dB/div Ref 20	0.00 dBm			М	kr1 9.999 0 GHz -38.28 dBm	Auto Tun
10.0						Center Fre 5.957500000 GH
0.00					CL1 -13.00 dBm	Start Fre 1.915000000 GH
20.0						Stop Fre 10.000000000 GH
40.0	~~~~	-			And a set of the set o	CF Ste 808.500000 MH Auto Ma
60.0						Freq Offs 0 F
Start 1.915 GHz Res BW 1.0 MHz	, _	#VBW	3.0 MHz	Sweep 1	Stop 10.000 GHz 4.01 ms (16171 pts)	Scale Typ
SG				STATU		

Plot 7-179. Conducted Spurious Plot (Band 2/25 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



Plot 7-180. Conducted Spurious Plot (Band 2/25 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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RL RF 50 Ω	DC CORREC	T T CE	NSE:INT		01:31:40 PM Nov 09, 2017	
		ast 😱 Trig: Fre	e Run	#Avg Type: RMS	TRACE 1 2 3 4 5 0 TYPE A WWWW DET A N N N N	Frequency
0 dB/div Ref 20.00 c	1Bm			М	kr1 1.841 5 GHz -50.28 dBm	Auto Tun
10.0						Center Fre 940.000000 MH
0.00 10 0					DC1 -13.00 dBm	Start Fre 30.000000 MF
20 d 30.0						Stop Fre 1.850000000 GF
40.0				ويتوجاوها والمراجع والمراجع والمراجع والمراجع والمراجع والم		CF Ste 182.000000 Mi Auto Ma
50.0	an succession from the prove	an a	in a subsection of the subsect			Freq Offs 0
Rtart 0.0300 GHz		#VBW 3.0 MHz		Sweep	Stop 1.8500 GHz 2.427 ms (3641 pts)	Scale Typ Log <u>L</u>

Plot 7-181. Conducted Spurious Plot (Band 2/25 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-182. Conducted Spurious Plot (Band 2/25 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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RREC SENSE: PNO: Fast Strig: Free Ru Atten: 10 dB	#Avg Typ	pe: RMS	113156 PM Nov 09, 2017 TRACE 2 34 50 TYPE 2 34 50 TRACE 2 34 50	Frequency Auto Tune Center Free 15.000000000 GH Start Free 10.000000000 GH
		Mkr1 1	-52.18 dBm	Center Free 15.00000000 GH Start Free
			CL 1 - 13.00 dBm	15,000000000 GH Start Free
				the second s
			1	Stop Fre 20.000000000 GH
				CF Ste 1.000000000 GH Auto Ma
				Freq Offse 0 H
#VBW 3.0 MHz		S Sweep 17.33	top 20.000 GHz 3 ms (20001 pts)	Scale Typ
	#VBW 3.0 MHz		S	Stop 20.000 GHz #VBW 3.0 MHz Sweep 17.33 ms (20001 pts)

Plot 7-183. Conducted Spurious Plot (Band 2/25 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dega 114 of 240	
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Keysight Spectrum Analyzer - Swept SA RL RF 50 Ω AC	CORREC	SENSE:INT		11:41:30 AM Nov 04, 2017	- 6 -
	PNO: Fast	Trig: Free Run #Atten: 16 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A NNNNN	Frequency
IO dB/div Ref 6.00 dBm			M	cr1 2.288 0 GHz -56.17 dBm	Auto Tun
4.00					Center Fre 1.159000000 GH
24.0					Start Fre 30.000000 M⊦
44.0				Di, 1 -40 00 cBm	Stop Fre 2.288000000 GH
54.0			to the second	1	CF Ste 225.800000 MH <u>Auto</u> Ma
74.0	an a	ala ana ana ana ana ana ana ana ana ana			Freq Offs 0 F
840 Start 0.030 GHz #Res BW 1.0 MHz	#\/B\\\	3.0 MHz	Sween	Stop 2.288 GHz 3.011 ms (4517 pts)	Scale Typ Log <u>L</u>
sg			STATU		

Plot 7-184. Conducted Spurious Plot (Band 30- 5.0MHz QPSK- RB Size 1, RB Offset 0- Low Channel- Ant A)



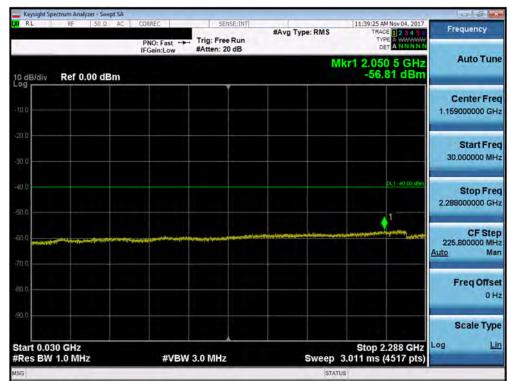
Plot 7-185. Conducted Spurious Plot (Band 30- 5.0MHz QPSK- RB Size 1, RB Offset 0- Low Channel- Ant A)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 115 of 240	
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RL RF 50 Ω A	C CORREC	SENSE:INT		11:42:31 AM Nov 04, 2017	Frequency
	PNO: Fast +++	Trig: Free Run #Atten: 14 dB	#Avg Type: RMS	TRACE 23456 TYPE A WWWWW DET A NNNNN	
0 dB/div Ref 0.00 dBm			M	kr1 26.906 5 GHz -49.99 dBm	Auto Tun
0.0					Center Fre 21.000000000 GH
80.0					Start Fre 15.000000000 GH
0.0				DL1 -40.00 dBm	Stop Fre 27.00000000 Gł
		and the second			CF Ste 1.200000000 GI <u>Auto</u> M
82.0					Freq Offs 01
tart 15.000 GHz Res BW 1.0 MHz	#VBW :	3.0 MHz	Sweep	Stop 27.000 GHz 30.40 ms (24001 pts)	Scale Typ Log L
SG .			STAT		<u> </u>

Plot 7-186. Conducted Spurious Plot (Band 30- 5.0MHz QPSK- RB Size 1, RB Offset 0- Low Channel- Ant A)



Plot 7-187. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel- Ant A)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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RL         RF         S0 Ω         AC		SENSE:INT		11:39:49 AM Nov 04, 2017	- 6 2
NE Nº 3032 AC	PNO: Fast	Trig: Free Run #Atten: 20 dB	#Avg Type: RMS	TRACE 2 3 4 5 6 TYPE A WINNIN DET A NNNNN	Frequency
dB/div Ref 0.00 dBm			Mki	1 14.661 0 GHz -52.40 dBm	Auto Tur
0					Center Fre 8.682500000 GH
o o					Start Fre 2.365000000 G
α				DL1 -40 00 abm	Stop Fr 15.00000000 G
a					CF St 1.263500000 G Auto N
.0					Freq Offs 0
art 2.365 GHz es BW 1.0 MHz	#VBW	3.0 MHz	Sween 2	Stop 15.000 GHz 5.27 ms (25271 pts)	Scale Ty
CS DW 1.0 WI12	#*E9**		STATU		

Plot 7-188. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel- Ant A)



Plot 7-189. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel- Ant A)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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Keysight Spectrum Analyzer - Swept SA					- 6 -
RL RF 50Ω AC	PNO: Fast	SENSE:INT	#Avg Type: RMS	11:50:02 AM Nov 04, 2017 TRACE 1 2 3 4 5 6 TYPE A WWWW DET A N N N N	Frequency
10 dB/div Ref 12.00 dBm	Poan.Low		N	lkr1 2.133 0 GHz -56.20 dBm	Auto Tun
2.00					Center Fre 1.159000000 GH
-18.0					Start Fre 30.000000 MH
36.0				DL1-4000 dam	Stop Fre 2.288000000 GH
88.0 58.0				↓ <sup>1</sup>	CF Ste 225.800000 M Auto M
58.8	M <sub>ayddiffed</sub> ollaiwr nydann rfeb				Freq Offs 01
780 Start 0.030 GHz #Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	Stop 2.288 GHz 3.011 ms (4517 pts)	Scale Typ Log L
Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	3.011 ms (4517 pts)	1.000

Plot 7-190. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel- Ant A)



Plot 7-191. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel- Ant A)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 119 of 240	
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RL RF 50 Q AC	CORREC	SENSE:INT		11:50:02 AM Nov 04, 2017	Frequency
	PNO: Fast IFGain:Low	Trig: Free Run #Atten: 22 dB	#Avg Type: RMS	TRACE 123456 TYPE A WWWWWW DET ANNNNN	I to be a second
odB/div Ref 12.00 dBm			1	Mkr1 2.133 0 GHz -56.20 dBm	Auto Tune
2.00					Center Free 1.159000000 GH
8.00 18.0					Start Free 30.000000 MH
28.0				0.1 -40100 (Billin	Stop Free 2.288000000 GH
180 S80				↓ ↓	CF Ste 225.800000 MH Auto Ma
88.0	ulder aller al				Freq Offse 0 H
rao itart 0.030 GHz				Stop 2.288 GHz	Scale Type
Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	3.011 ms (4517 pts)	10000

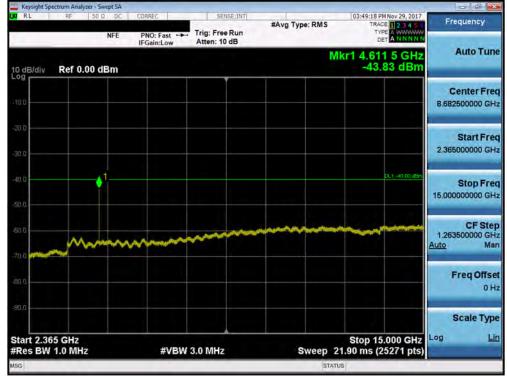
Plot 7-192. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel- Ant A)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 110 of 240
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Keysight Spectrum Analyzer - Swept SA					- 6 -
X RL RF 50 Ω DC NFE	PNO: Fast	SENSE:INT	#Avg Type: RMS	03:48:46 PM Nov 29, 2017 TRACE 2 3 4 5 6 TYPE A WINNNN	Frequency
10 dB/div Ref 20.00 dBm	IFGain:Low	Atten: 30 dB	M	r1 2.249 5 GHz -48.72 dBm	Auto Tun
10.0					Center Fre 1.159000000 GH
-10.0					Start Fre 30.000000 M⊦
-20.0					Stop Fre 2.288000000 GH
-40.0				DLT -40.00 attm	CF Ste 225.800000 MH Auto Ma
-60.0	and a second	layan girang dan pang kang kang kang kang kang kang kang k	an shi ya da y Ina na n		Freq Offs 0 F
-70 0 Start 0.030 GHz #Res BW 1.0 MHz	#\/B\W	3.0 MHz	Succes 2	Stop 2.288 GHz .011 ms (4517 pts)	Scale Typ
#Res BW 1.0 WIHZ	# 4 5 4 4	5.6-141112	Sweep S		

Plot 7-193. Conducted Spurious Plot (Band 30- 5.0MHz QPSK- RB Size 1, RB Offset 0- Low Channel- Ant B)



Plot 7-194. Conducted Spurious Plot (Band 30- 5.0MHz QPSK- RB Size 1, RB Offset 0- Low Channel- Ant B)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager			
Test Report S/N:	Test Dates:	EUT Type:		Dage 120 of 240			
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Keysight Spectrum Analyzer						- 6 -
X RL RF	NFE	PNO: Fast	SENSE:INT Trig: Free Run Atten: 10 dB	#Avg Type: RMS	03:51:10 PM Nov 29, 2017 TRACE 2 3 4 5 6 TYPE A WWWWW DET A NNNNN	Frequency
10 dB/div Ref 0.00	) dBm			M	kr1 26.122 5 GHz -50.38 dBm	Auto Tun
-10.0						Center Fre 21.000000000 GH
30.0						Start Fre 15.000000000 GF
40.0					DL1 -40.00 dBm	Stop Fre 27.000000000 G
50 0 70 0						CF Ste 1.200000000 Gi Auto M
50.0						Freq Offs 0
Start 15.000 GHz		#\/[5\]	2 0 1412		Stop 27.000 GHz	Scale Tyj Log L
Res BW 1.0 MHz		#VBW	3.0 MHz		20.80 ms (24001 pts)	

Plot 7-195. Conducted Spurious Plot (Band 30- 5.0MHz QPSK- RB Size 1, RB Offset 0- Low Channel- Ant B)



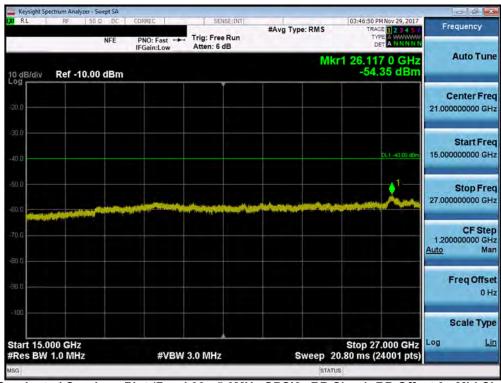
Plot 7-196. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel- Ant B)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 121 of 240
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	ectrum Analyzer										- 6 -
RL	RF	NFE	PNO:	Fast -	-		#Avg Type	RMS	TI	6 PMNov 29, 2017 RACE 2 3 4 5 6 TYPE A WARNING DET A NNNNN	Frequency
0 dB/div	Ref 0.00	dBm	ii Gain						Mkr1 4.6 -4	16 0 GHz 4.30 dBm	Auto Tun
10.0											Center Fre 8.682500000 GH
20.0											Start Fre 2.365000000 Gi
10.0 50.0		¢ <sup>1</sup>								DL1 -40,00 dBm	Stop Fr 15.00000000 G
50 0	~~~		~~~~		and a	yayaan d					CF Sto 1.263500000 G <u>Auto</u> M
ad.a.											Freq Offs 0
tart 2.36	5 GHz 1.0 MHz			#VBW	3.0 MHz			ween	Stop	15.000 GHz (25271 pts)	Scale Tyj Log <u>l</u>
SG	110 11112				ONO IVITIE			_	ATUS	(Lotin pro)	

Plot 7-197. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel- Ant B)



Plot 7-198. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel- Ant B)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Swept SA RL RF 50 Ω DC	CORREC	SENSE:INT		04:01:15 PM Nov 29, 2017	- 6 2
NFE	PNO: Fast	Trig: Free Run Atten: 30 dB	#Avg Type: RMS	TRACE 2 3 4 5 6 TYPE A WWWW DET A NNNNN	Frequency
10 dB/div Ref 20.00 dBm			, N	/kr1 2.140 0 GHz -48.75 dBm	Auto Tun
10.0					Center Fre 1.159000000 GH
0.00					Start Fre 30.000000 MH
30.0					Stop Fro 2.288000000 Gi
ю с 				DL1 46 00 dBm	CF Ste 225.800000 M Auto M
50.0	and the second		9,447,497,497,497,497,497,497,497,497,49		Freq Offs 0
	#VBW	3.0 MHz	Sweep	Stop 2.288 GHz 3.011 ms (4517 pts)	Scale Tyj Log <u>L</u>
Start 0.030 GHz #Res BW 1.0 MHz	#VBW :	3.0 MHz	Sweep	3.011 ms (4517 pts)	Log

Plot 7-199. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel- Ant B)



Plot 7-200. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel- Ant B)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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	NFE	PNO: Fast 😱 IFGain:Low	Trig: Free Run Atten: 10 dB	#Avg Type: RMS	TRACE 2 3 4 5 6 TYPE A WWWWWW DET A NNNNN	Frequency
0 dB/div Ref 0.00 d	IBm			Ν	lkr1 26.122 0 GHz -49.97 dBm	Auto Tune
0.0						Center Free 21.000000000 GH:
30.0						Start Free 15.000000000 GH
10.0 50.0					DL1 -40.00 dBm	Stop Free 27.000000000 GH
			*****			CF Ste 1.200000000 GH <u>Auto</u> Ma
30.0						Freq Offse 0 H
tart 15.000 GHz					Stop 27.000 GHz	Scale Type
Res BW 1.0 MHz		#VBW	3.0 MHz	Sweep	20.80 ms (24001 pts)	

Plot 7-201. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel- Ant B)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Swept SA           RL         RF         50 Ω         DC	CORREC	SENSE:INT	the local sectors of	07:41:26 AM Nov 30, 2017	- 6 2
NFE	PNO: Fast 😱 IFGain:Low	Trig: Free Run Atten: 30 dB	#Avg Type: RMS	TRACE 2 3 4 5 0 TYPE A WWWW DET A NNNNN	Frequency
0 dB/div Ref 20.00 dBm			М	kr1 2.471 5 GHz -48.09 dBm	Auto Tun
10.0					Center Fre 1.252500000 GH
0.0					Start Fre 30.000000 Mi
20.0 				0C1 -25.00 dBm	Stop Fr 2.475000000 G
10.0				1	CF Str 244.500000 M Auto M
92.0 90.0				When we want to be a second	Freq Offs 01
1200 Hz				Stop 2.475 GHz	Scale Typ
Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	3.260 ms (4891 pts)	
SG			STATU	IS	

Plot 7-202. Conducted Spurious Plot (Band 7- 5.0MHz QPSK- RB Size 1, RB Offset 0- Low Channel- Ant A)



Plot 7-203. Conducted Spurious Plot (Band 7- 5.0MHz QPSK- RB Size 1, RB Offset 0 - Low Channel- Ant A)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager	
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Keysight Spectrum Analyzer - Swe		I sever unt		02 11 50 1111 - 20 2012	
	DC CORREC	SENSE:INT Trig: Free Run Atten: 10 dB	#Avg Type: RMS	07:41:50 AM Nov 30, 2017 TRACE 2 3 4 5 0 TYPE A WARMAN DET A NNNNN	Frequency
10 dB/div Ref 0.00 dE	3m		Mkr	1 26.097 5 GHz -49.49 dBm	Auto Tun
-10.0					Center Fre 21.000000000 GH
30.0				DL1 -25.00 dBm	Start Fre 15,000000000 GF
40.0 50.0				1	Stop Fre 27.000000000 GH
50.0					CF Ste 1.200000000 Gi <u>Auto</u> M
60.0					Freq Offs 01
Start 15.000 GHz #Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep 20	Stop 27.000 GHz ).80 ms (24001 pts)	Scale Typ
SG			STATU		

Plot 7-204. Conducted Spurious Plot (Band 7 - 5.0MHz QPSK- RB Size 1, RB Offset 0- Low Channel- Ant A)



Plot 7-205. Conducted Spurious Plot (Band 7- 5.0MHz QPSK- RB Size 1, RB Offset 0 - Mid Channel- Ant A)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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Keysight Spectrum Analyzer -							- 6 💌
RL RF 5	NFE	PNO: Fast	SENSE:INT Trig: Free Run Atten: 30 dB	#Avg Type: RMS	TRA	PM Nov 29, 2017 CE 1 2 3 4 5 0 PE A WHAT N N N N DET A N N N N N	Frequency
10 dB/div Ref 20.0	0 dBm				Mkr1 14.23 -37	9 0 GHz .03 dBm	Auto Tun
10.0							Center Fre 8.785000000 GH
9.00 -10 0							Start Fre 2.570000000 GF
20.0						011-25.00 dBm	Stop Fro 15.00000000 Gi
	m	-		****			CF Sto 1.243000000 G <u>Auto</u> M
50.0							Freq Offs 0
70.0 Start 2.570 GHz #Res BW 1.0 MHz		#\/B\M	3.0 MHz	Sweer	Stop 1: 21.55 ms (	5.000 GHz	Scale Typ Log <u>L</u>
ISG		11 EV4	Cho mine		TATUS	inter proj	

Plot 7-206. Conducted Spurious Plot (Band 7 - 5.0MHz QPSK- RB Size 1, RB Offset 0- Mid Channel- Ant A)



Plot 7-207. Conducted Spurious Plot (Band 7- 5.0MHz QPSK- RB Size 1, RB Offset 0- Mid Channel- Ant A)

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Keysight Spectrum Analyzer - Swept SA RL RF 50 Ω DC		SENSE:INT		12:41:17 PM Nov 09, 2017	
NFE	PNO: Fast	Trig: Free Run Atten: 30 dB	#Avg Type: RMS	TRACE 2 3 4 5 6 TYPE A WARNING DET A NNNNN	Frequency
IO dB/div Ref 20.00 dBm			М	kr1 2.493 0 GHz -47.73 dBm	Auto Tun
10.0					Center Free 1.265000000 GH
0.00					Start Fre 30.000000 MH
20.0				DL1 +25.00 dBm	Stop Fre 2.500000000 GH
4D.0				1	CF Ste 247.000000 MH Auto Ma
50.0 50.0	anun an	nggangan ng pingkang ng pingkang ng pingkan kang pingkan kang pingkan kang pingkan kang pingkan kang pingkan ka	9 Yan Ay ang kang kang kang kang kang kang kang		Freq Offs 0 H
700 Start 0.030 GHz Res BW 1.0 MHz	#\/DW/	3.0 MHz		Stop 2.500 GHz 3.293 ms (4941 pts)	Scale Typ
sg	#0000	5.0 IVIN2	Sweep		

Plot 7-208. Conducted Spurious Plot (Band 7- 5.0MHz QPSK- RB Size 1, RB Offset 0- High Channel- Ant A)



Plot 7-209. Conducted Spurious Plot (Band 7- 5.0MHz QPSK- RB Size 1, RB Offset 0- High Channel- Ant A)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager	
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RL RF	50 Q DC	CORREC	SENSE:INT		12:42:13 PM Nov 09, 2017	and the second second
	NFE	PNO: Fast 😱 IFGain:Low	Trig: Free Run Atten: 10 dB	#Avg Type: RMS	TYPE A WWWWW DET A NNNN	Frequency
10 dB/div Ref 0.00	) dBm			V	lkr1 26.100 5 GHz -49.71 dBm	Auto Tun
.10.0						Center Fre 21.000000000 GH
30.0					DL1 -25.00 dBm	Start Fre 15.000000000 GH
40.0					<b>∮</b> <sup>1</sup>	Stop Fre 27.000000000 GH
50 C			d with a standar			CF Ste 1.20000000 GH <u>Auto</u> Ma
60.0						Freq Offs 0 H
90.0 Start 15.000 GHz					Stop 27.000 GHz	Scale Typ
Res BW 1.0 MHz		#VBW	3.0 MHz	Sweep	20.80 ms (24001 pts)	

Plot 7-210. Conducted Spurious Plot (Band 7- 5.0MHz QPSK- RB Size 1, RB Offset 0- High Channel- Ant A)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dega 120 of 240	
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Keysight Spectrum Analyzer - Swe		1				- 6 - *
X RL RF 50 Ω	NFE	PNO: Fast	SENSE:INT Trig: Free Run Atten: 30 dB	#Avg Type: RMS	07:41:26 AM Nov 30, 2017 TRACE 2 3 4 5 6 TYPE A WWWWW DET A NNNNN	Frequency
10 dB/div Ref 20.00 d		Gumeou		M	kr1 2.471 5 GHz -48.09 dBm	Auto Tune
10.0						Center Freq 1.252500000 GHz
0.00						Start Freq 30.000000 MHz
-20.0					DL1 -25 00 d8m	Stop Freq 2.475000000 GHz
-40.0					1	CF Step 244.500000 MHz Auto Mar
-50.2	ligi wirwaister	an a	nad an ing sa ing s	annan de la parte de la consectión de la c		Freq Offset 0 Ha
Start 0.030 GHz					Stop 2 475 CHr	Scale Type
#Res BW 1.0 MHz		#VBW	3.0 MHz	Sweep	Stop 2.475 GHz 3.260 ms (4891 pts)	
MSG				STATU	3L	

Plot 7-211. Conducted Spurious Plot (Band 7- 5.0MHz QPSK- RB Size 1, RB Offset 0- Low Channel- Ant B)



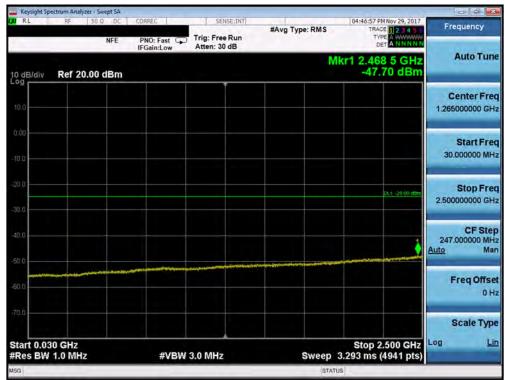
Plot 7-212. Conducted Spurious Plot (Band 7- 5.0MHz QPSK- RB Size 1, RB Offset 0- Low Channel- Ant B)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 120 of 240	
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Keysight Spectrum Analyzer - Sv					In contract of the last	- 6 ×
K RL RF 50.0	NFE	CORREC PNO: Fast	SENSE:INT Trig: Free Run Atten: 10 dB	#Avg Type: RMS	07:41:50 AM Nov 30, 2017 TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A NNNNN	Frequency
10 dB/div Ref 0.00 d	IBm	a dameon		Mk	r1 26.097 5 GHz -49.49 dBm	Auto Tune
-10.0						Center Fred 21.000000000 GH
-20.0					DL1 -25.00 dBm	Start Free 15.000000000 GH
40.0					<b>↓</b> 1	Stop Free 27.000000000 GH
60.0 70.0						CF Ste 1.200000000 GH <u>Auto</u> Ma
60.0						Freq Offse 0 H
en n Start 15.000 GHz #Res BW 1.0 MHz		#VBW	3.0 MHz	Sween 2	Stop 27.000 GHz 0.80 ms (24001 pts)	Scale Type Log <u>Li</u> t
MSG				STAT		

Plot 7-213. Conducted Spurious Plot (Band 7- 5.0MHz QPSK- RB Size 1, RB Offset 0- Low Channel- Ant B)



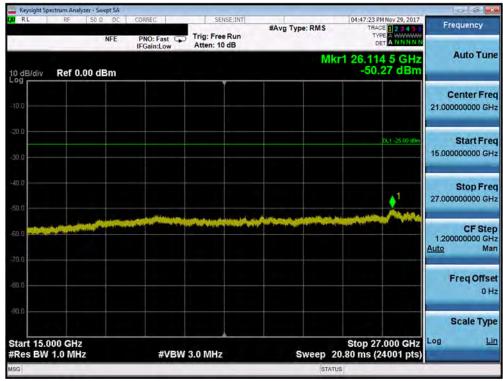
Plot 7-214. Conducted Spurious Plot (Band 7- 5.0MHz QPSK- RB Size 1, RB Offset 0- Mid Channel- Ant B)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager			
Test Report S/N:	Test Dates:	EUT Type:		Dego 121 of 240			
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Keysight Spectrum Analyzer						- 6 🛃
RL RF	50 Ω DC NFE	PNO: Fast	SENSE:INT Trig: Free Run Atten: 30 dB	#Avg Type: RMS	04:47:09 PM Nov 29, 2017 TRACE 2 3 4 5 6 TYPE A WARNING DET A N N N N N	Frequency
10 dB/div Ref 20.0	00 dBm	I Guilleon		М	kr1 14.239 0 GHz -37.03 dBm	Auto Tun
10.0						Center Fre 8.785000000 GH
0.00						Start Fre 2.570000000 GF
80.0					DL1 -25 00 dēm	Stop Fro 15.00000000 G
	-					CF Sto 1.243000000 G Auto M
50.0						Freq Offs 0
tart 2.570 GHz		#1 (P)11	0.0.04		Stop 15.000 GHz	Scale Tyj
Res BW 1.0 MHz		#VBW	3.0 MHz		21.55 ms (24861 pts)	

Plot 7-215. Conducted Spurious Plot (Band 7- 5.0MHz QPSK- RB Size 1, RB Offset 0- Mid Channel- Ant B)



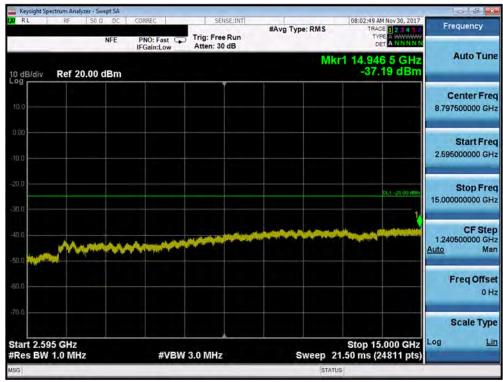
Plot 7-216. Conducted Spurious Plot (Band 7- 5.0MHz QPSK- RB Size 1, RB Offset 0- Mid Channel- Ant B)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 122 of 240
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- 6	0.0.00.00.000.00.00.000.00		L course and	L connero	trum Analyzer - Swept SA	RL RL
Frequency	08:02:39 AM Nov 30, 2017 TRACE 2 3 4 5 6 TYPE A WWWWW DET A NNNNN	#Avg Type: RMS	SENSE:INT Trig: Free Run Atten: 30 dB	PNO: Fast	RF 50 Ω DC	KL
Auto Tun	kr1 2.478 5 GHz -47.85 dBm	M			Ref 20.00 dBm	0 dB/div
Center Fre 1.265000000 GH						10.0
Start Fre 30.000000 MH						0.00 10.0
Stop Fre 2.500000000 GH	.D.1 -25 (0) dBm					20.0
CF Ste 247.000000 MH Auto Ma	1					40.0 50.0
Freq Offse 0 F		Ange and and a second	a <u>an an a</u>	and the second	antroin provinsion of the	50.0
Scale Typ Log <u>Li</u>	Stop 2.500 GHz 3.293 ms (4941 pts)	Sween	3 0 MHz	#VBW 3		tart 0.030
		STATL	5.0 141112	#VDVV	.0 101112	SG

Plot 7-217. Conducted Spurious Plot (Band 7- 5.0MHz QPSK- RB Size 1, RB Offset 0- High Channel- Ant B)



Plot 7-218. Conducted Spurious Plot (Band 7- 5.0MHz QPSK- RB Size 1, RB Offset 0- High Channel- Ant B)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 122 of 240
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RF 50 Q DC CORREC	SENSE:INT		:59 AM Nov 30, 2017	Frequency
	#Avg rig: Free Run tten: 10 dB	Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A NNNNN	
v Ref 0.00 dBm		Mkr1 26	090 0 GHz 50.22 dBm	Auto Tune
				Center Free 21.000000000 GH
			0(1 -25.00 dBm	Start Free 15.00000000 GH
			<b>●</b> <sup>1</sup>	Stop Fre 27.000000000 GH
				<b>CF Ste</b> 1.200000000 GH <u>Auto</u> Ma
				Freq Offse 0 H
5.000 GHz		Stor	27.000 GHz	Scale Type
W 1.0 MHz #VBW 3.0	MHz	Sweep 20.80 m	s (24001 pts)	-

Plot 7-219. Conducted Spurious Plot (Band 7- 5.0MHz QPSK- RB Size 1, RB Offset 0- High Channel- Ant B)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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Keysight Spectrum Analyzer - Swept SA					
X RL RF 50Ω AC	PNO: Fast	SENSE:INT	#Avg Type: RMS	08:22:15 PM Nov 03, 2017 TRACE 2 3 4 5 6 TYPE MWANN NN DET A N N N N N	Frequency
10 dB/div Ref 20.00 dBm	IFGain:Low	Atten: 30 dB	M	kr1 2.127 0 GHz -43.29 dBm	Auto Tun
10.0					Center Free 1.252500000 GH
10.0					Start Fre 30.000000 MH
20.0				DL1 -25 (0 88m)	Stop Fre 2.475000000 GH
40.0	رور و مرور و مرور و رور و ر	يتماز الملاجة سار في المارين سور ومعادر			CF Ste 244.500000 MH Auto Ma
60.0					Freq Offse 0 F
30 0 Start 0.030 GHz				Stop 2.475 GHz	Scale Typ
#Res BW 1.0 MHz	#VBW :	3.0 MHz		24.45 ms (4891 pts)	
ISG			STATU	5	

Plot 7-220. Conducted Spurious Plot (Band 38/41- 5.0MHz QPSK- RB Size 1, RB Offset 0- Low Channel)



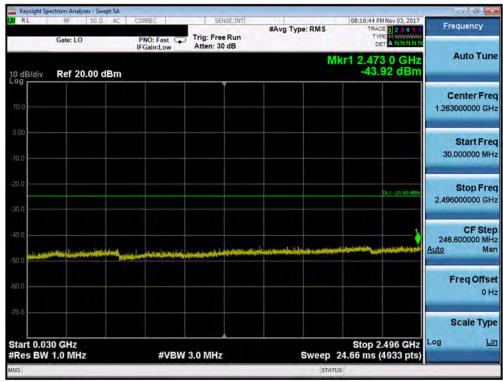
Plot 7-221. Conducted Spurious Plot (Band 38/41- 5.0MHz QPSK- RB Size 1, RB Offset 0- Low Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 125 of 240	
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- 6	the second second		and the second second			ectrum Analyzei	
Frequency	08:23:54 PM Nov 03, 2017 TRACE 2 3 4 5 6 TYPE MWWWWWW DET A NNNNN	#Avg Type: RMS	SENSE:INT Trig: Free Run Atten: 10 dB	PNO: Fast	50 Ω AC	RF Gate: LO	RL
Auto Tur	r1 26.893 0 GHz -48.82 dBm	Mk			) dBm	Ref 0.00	dB/div
Center Fre 21.000000000 GH							).0 
Start Fre 15.000000000 GF	DL1 -25.00 dBm						).0 ).0
Stop Fre 27.00000000 GH	and a state and						0.0 .0
CF Ste 1.200000000 GF Auto Ma			and the second secon		Melenner.		) a
Freq Offs 01							J.B.
Scale Typ Log <u>L</u>	Stop 27.000 GHz 40.0 ms (24001 pts)	Sweep 2	3.0 MHz	#VBW 3		00 GHz 1.0 MHz	art 15.0
		STATL					3

Plot 7-222. Conducted Spurious Plot (Band 38/41- 5.0MHz QPSK- RB Size 1, RB Offset 0- Low Channel)



Plot 7-223. Conducted Spurious Plot (Band 38/41- 5.0MHz QPSK- RB Size 1, RB Offset 0- Mid Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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	ctrum Analyze								- 6
RL	RF Gate: LO	50 Ω AC	PNO: Fast	Trig: Free R Atten: 30 di	un	#Avg Type: RM	S T	8 PM Nov 03, 2017 RACE 1 2 3 4 5 6 TYPE M WINN N DET A N N N N N	Frequency
0 dB/div	Ref 20.	00 dBm	i damesi				Mkr1 14.3 -3	69 5 GHz 5.29 dBm	Auto Tur
10.0									Center Fre 8.845000000 GH
10.0									<b>Start Fr</b> 2.690000000 G
10.0								0.1 - <u>25.00 d</u> 8m	Stop Fr 15.00000000 G
0.0 10.0		فالمحمد	an and the second second			Mana della comenti			CF St 1.231000000 G Auto M
0.0									Freq Offs 0
tart 2.69 Res BW			#VE	3W 3.0 MHz		Swee	Stop	15.000 GHz (24621 pts)	Scale Ty
SG	The Milling						STATUS	(ETOET Pto)	

Plot 7-224. Conducted Spurious Plot (Band 38/41- 5.0MHz QPSK- RB Size 1, RB Offset 0- Mid Channel)



Plot 7-225. Conducted Spurious Plot (Band 38/41- 5.0MHz QPSK- RB Size 1, RB Offset 0- Mid Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Keysight Spectrum									- 6 -3
	F 50 Ω	AC CORREC PNO: Fas	Trig: Fre		#Avg Typ	e: RMS	TRAC	MNov 03, 2017 E 2 3 4 5 6 PE M WWWWWWW	Frequency
10 dB/div Re	ef 20.00 dB	IFGain:Lo	w Atten: 3	0 dB		M	(r1 2.48	3 5 GHz 76 dBm	Auto Tuno
10.0									Center Free 1.263000000 GH
0.00									Start Fre 30.000000 MH
20.0 								DU 1 - 25.00 dBm	Stop Fre 2.496000000 GH
40.0	uninaminin nutribili	Mannester	الاوحديد وروار وروار	line to service and	-	the second second second second	aller to the second	1. 	CF Ste 246.600000 MH Auto Ma
50.0									Freq Offs 0 F
70.0 Start 0.030 G #Res BW 1.0		#	/BW 3.0 MHz			Sween 2	Stop 2	.496 GHz 4933 pts)	Scale Typ
ARES BW 1.0	MHZ	#	VEW 3.0 MHz			Sweep 2		4933 pts)	

Plot 7-226. Conducted Spurious Plot (Band 38/41- 5.0MHz QPSK- RB Size 1, RB Offset 0- High Channel)



Plot 7-227. Conducted Spurious Plot (Band 38/41- 5.0MHz QPSK- RB Size 1, RB Offset 0- High Channel)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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			SENSE:INT		08:28:15 PM Nov 03, 2017	
RF 50 Gate: LO	Ω AC	PNO: Fast	Trig: Free Run	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE MWWWWWW DET A N N N N N	Frequency
Ref 0.00	dBm	IFGain:Low	Atten. 10 db	M	48.99 dBm	Auto Tun
						Center Fre 21.000000000 GH
					DL1 -25.00 dBm	Start Fre 15.000000000 GH
					1	Stop Fre 27.000000000 GH
	Warmer .	a de la companya de l	and the second sec	میں بی المیں ا المیں المیں الم		CF Ste 1.20000000 GF <u>Auto</u> Ma
						Freq Offs 0 H
0 GHz		#VBW	3.0 MHz	Sween	Stop 27.000 GHz	Scale Typ Log <u>L</u>
	Gate: LO Ref 0.00	Gate: LO Ref 0.00 dBm	Gate: LO PNO: Fast IFGain:Low	Gate: LO PNO: Fast Trig: Free Run Atten: 10 dB	Gate: LO PNO: Fast Frig: Free Run Atten: 10 dB PNO: Fast Frig: Free Run Frig: Free	Gate: LO         PNO: Fast         Trig: Free Run         #Avg Type: RMS         TRACE         D.2.4 & Sort           Ref 0.00 dBm         Image: Store Sto

Plot 7-228. Conducted Spurious Plot (Band 38/41- 5.0MHz QPSK- RB Size 1, RB Offset 0- High Channel)

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# 7.4 Band Edge Emissions at Antenna Terminal §2.1051 §22.917(a) §24.238(a) §27.53(c) §27.53(g) §27.53(h) §27.53(m) §27.53(a)(4)

## 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 its maximum duty cycle, 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  $43 + \log_{10}(P_{[Watts]})$ , where P is the transmitter power in Watts.

The minimum permissible attenuation level for Band 30 is > 43 + 10log10 (P[Watts] at 2300-2305MHz & 2345-2360MHz, > 55 + 10log10 (P[Watts]) at 2320-2324MHz & 2341-2345MHz, > 61 + 10log10 (P[Watts]) at 2324-2328MHz & 2337-2341MHz, > 67 + 10log10 (P[Watts]) at 2288-2292MHz & 2328-2337MHz, and > 70 + 10log10 (P[Watts]) at frequencies < 2288MHz & >2365MHz.

The minimum permissible attenuation level for Band 7 and 41 is as noted in the Test Notes on the following page.

### Test Procedure Used

KDB 971168 D01 v03 - 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 > 1% of the emission bandwidth
- 4. VBW ≥ 3 x RBW
- 5. Detector = RMS
- 6. Number of sweep points  $\geq 2 \times \text{Span/RBW}$
- 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.

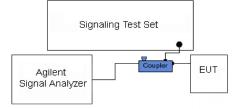


Figure 7-3. Test Instrument & Measurement Setup

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Per 22.917(b), 24.238(a), 27.53(h), 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.

Per 27.53(g) for operations in the 698-746 MHz band, in the 100 kHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least 30 kHz may be employed to demonstrate compliance with the out-of-band emissions limit.

Per 27.53(c)(5) for operations in the 776-788 MHz band, in the 100 kHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least 30 kHz may be employed to demonstrate compliance with the out-of-band emissions limit.

For all plots showing emissions in the 763 - 775MHz and 793 - 805MHz band, the FCC limit per 27.53(c)(4) is  $65 + 10log_{10}(P) = -35dBm$  in a 6.25kHz bandwidth.

Per 27.53(a)(5) in the 1 MHz bands immediately outside and adjacent to the channel blocks at 2305, 2310, 2315, 2320, 2345, 2350, 2355, and 2360 MHz, a resolution bandwidth of at least 1 percent of the emission bandwidth of the fundamental emission of the transmitter may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e., 1 MHz). 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.

Per 27.53(m) for operations in the BRS/EBS bands, the attenuation factor shall be not less than  $40 + 10 \log (P) dB$  on all frequencies between the channel edge and 5 megahertz from the channel edge,  $43 + 10 \log (P) dB$  on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log (P) dB on all frequencies more than X megahertz from the channel edge, where X is the greater of 6 megahertz or the actual emission bandwidth. In addition, the attenuation factor shall not be less that  $43 + 10 \log (P) dB$  on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log (P) dB at or below 2490.5 MHz.

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Plot 7-229. Lower Band Edge Plot (Band 71 - 5.0MHz QPSK - Full RB Configuration)



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RL RF 50 Ω AC	CORREC	SENSE:INT	State of the local diversion of the	12:17:32 PM Nov 22, 2017	Etaquanda
	PNO: Wide 🖵 IFGain:Low	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	TRACE 23450 TYPE A WARMAN DET A NNNNN	Frequency
0 dB/div Ref 25.00 dBm			M	cr1 662.984 MHz -26.97 dBm	Auto Tun
15.0					Center Fre 663.000000 MH
5.00			m		Start Fre 659.000000 MH
ιsα		1		CL1 -13 00 dBm	Stop Fre 667.000000 MH
15 0					CF Ste 800.000 ki Auto Ma
50					Freq Offs 0 I
enter 663.000 MHz Res BW 100 kHz	#VBW	300 kHz	Sweep	Span 8.000 MHz 1.000 ms (1001 pts)	Scale Typ

Plot 7-231. Lower Band Edge Plot (Band 71 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-232. Upper Band Edge Plot (Band 71 - 10.0MHz QPSK - Full RB Configuration)

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RL RF 50 Ω AC	CORREC	SENSE:INT	#Avg Type: RMS	12:32:30 PM Nov 22, 2017 TRACE 123450	Frequency
	PNO: Wide C	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	TYPE A WWWWW DET A N N N N N	
0 dB/div Ref 25.00 dBm			M	kr1 662.964 MHz -24.81 dBm	Auto Tun
15.0					Center Fre 663.000000 MH
5.00					Start Fre 657.000000 MH
15 Ω 25.0		- Il		Cl. 1 -13.00 dBm	Stop Fre 669.000000 MH
35.0					CF Ste 1.200000 MH Auto Ma
55.0					Freq Offs 0 F
65 0 Center 663.000 MHz				Span 12.00 MHz	Scale Typ
Res BW 150 kHz	#VBW 4	470 kHz	Sweep	1.000 ms (1001 pts)	1 · · · · · · · · · · · ·

Plot 7-233. Lower Band Edge Plot (Band 71 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-234. Upper Band Edge Plot (Band 71 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 111 of 210
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RL RF 50Ω 4	CORREC	SENSE:INT	#Avg Type: RMS	12:44:37 PM Nov 22, 2017 TRACE 1 2 3 4 5 0	Frequency
	PNO: Fast	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	TYPE A WWWWW DET A NNNNN	
10 dB/div Ref 25.00 dBr	m		M	r1 663.000 MHz -20.49 dBm	Auto Tune
15.0					Center Fre 663,000000 MH
5.00					Start Fre 655.000000 MH
25.0				CL1 -13.00 dBm	Stop Fre 671.000000 MH
35.0 45.0					CF Ste 1.600000 MH Auto Ma
55.0					Freq Offse 0 F
65.0 Center 663.000 MHz				Span 16.00 MHz	Scale Typ
Res BW 200 kHz	#VBW 6	620 kHz	Sweep	1.000 ms (1001 pts)	

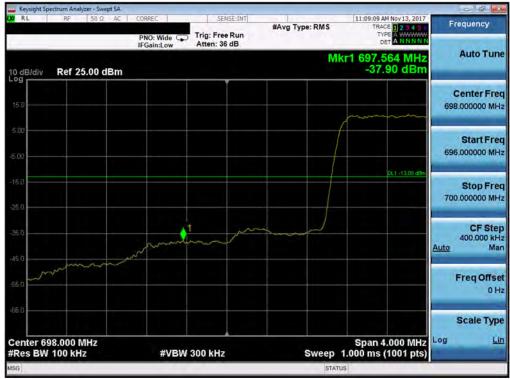
Plot 7-235. Lower Band Edge Plot (Band 71 - 20.0MHz QPSK - Full RB Configuration)



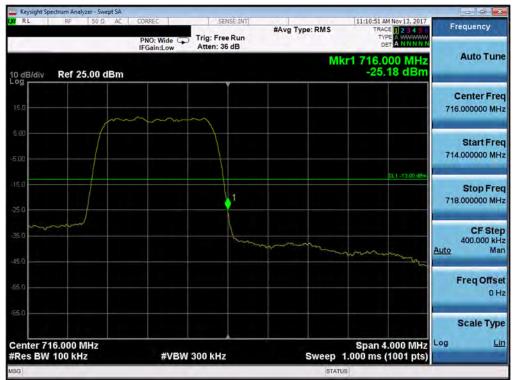
Plot 7-236. Upper Band Edge Plot (Band 71 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 145 of 240
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Plot 7-237. Lower Band Edge Plot (Band 12 - 1.4MHz QPSK - Full RB Configuration)



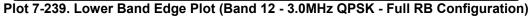
Plot 7-238. Upper Band Edge Plot (Band 12 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dego 146 of 240	
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RL RF 50 Ω AC	CORREC SENSE:INT	11:14:13 AM Nov 13, 2017	Provincial
	PNO: Wide C Trig: Free Run IFGain:Low Atten: 36 dB	#Avg Type: RMS TRACE 2 3 4 5 TYPE A DET A NNNN	Frequency
0 dB/div Ref 25.00 dBm		Mkr1 696.996 MHz -36.57 dBm	Auto Tun
<b>og</b> 15.0			Center Fre 698.000000 MH
5.00			Start Fre 696.000000 Mi
15.0		CL1-13:00 dBm	Stop Fr 700.000000 M
150		~~~~~	CF Sto 400.000 k <u>Auto</u> M
50			Freq Offs 0
55 0 Center 698.000 MHz Res BW 100 kHz	#VBW 300 kHz	Span 4.000 MHz Sweep 1.000 ms (1001 pts)	Scale Tyj Log <u>L</u>
SG		STATUS	

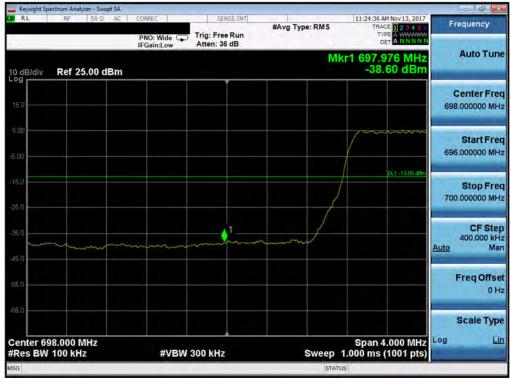




Plot 7-240. Upper Band Edge Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dego 147 of 240
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Plot 7-241. Lower Band Edge Plot (Band 12 - 5.0MHz QPSK - Full RB Configuration)



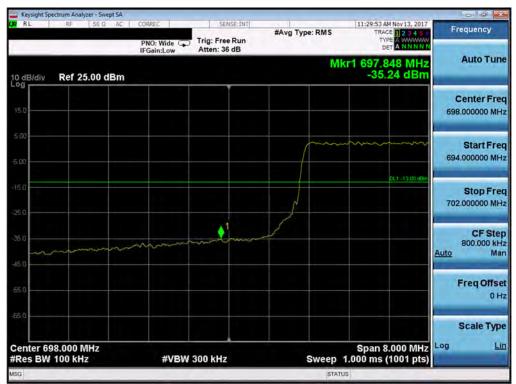
Plot 7-242. Lower Band Edge Plot (Band 17 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 148 of 349
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Plot 7-243. Upper Band Edge Plot (Band 12/17 - 5.0MHz QPSK - Full RB Configuration)



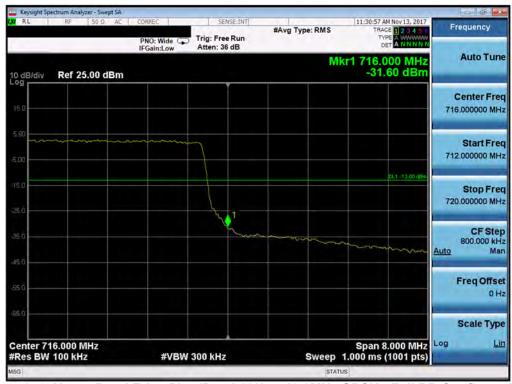
Plot 7-244. Lower Band Edge Plot (Band 12 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 140 of 240
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RL RF 50 Q AC	CORREC	SENSE:INT	#Avg Type: RMS	01:41:10 PM Dec 05, 2017 TRACE 1 2 3 4 5 6	Frequency
	PNO: Wide C	Trig: Free Run Atten: 36 dB		DET A NNNNN	
0 dB/div Ref 25.00 dBm			M	(r1 704.000 MHz -26.85 dBm	Auto Tuno
15.0					Center Free 704.000000 MH
5.00				and the second sec	Start Fre 702.000000 MH
25.0		1		DL1 -13.00 dBm	Stop Fre 706.000000 MH
15 0					CF Ste 400.000 kH Auto Ma
55.0					Freq Offs 0 F
35.0					Scale Typ
enter 704.000 MHz Res BW 100 kHz	#VBW :	300 kHz	Sweep	Span 4.000 MHz 1.000 ms (1001 pts)	Log

Plot 7-245. Lower Band Edge Plot (Band 17 - 10.0MHz QPSK - Full RB Configuration)



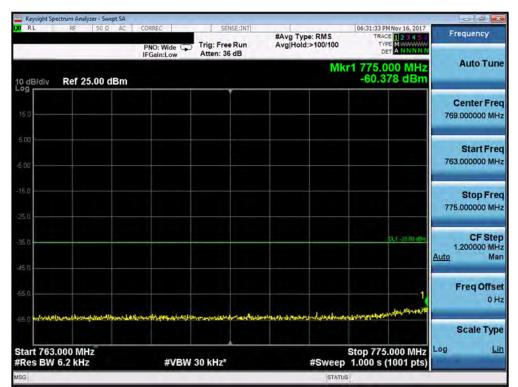
Plot 7-246. Upper Band Edge Plot (Band 12/17 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 150 of 240	
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Plot 7-247. Lower Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)



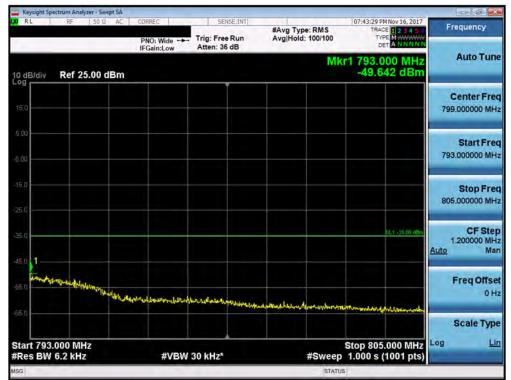
Plot 7-248. Lower Emission Mask Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dego 151 of 240
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PNO: Wide IFGain:Low	Trig: Free Run Atten: 36 dB	#Avg Type: RMS Avg Hold: 100/100	TRACE 2 3 4 5 0 TYPE A WWWWWW DET A NNNNN	Frequency
		Mk	r1 787.000 MHz -23.388 dBm	Auto Tur
				Center Fre 787.000000 Mi
				Start Fre 785.000000 Mi
			CL1 -13 00 dBm	Stop Fr 789.000000 M
	~~~	·····		CF Sto 400.000 k Auto M
				Freq Offs 0
#VBW:	300 kHz*	Sweep 1	Span 4.000 MHz .000 ms (1001 pts)	Scale Typ
		#VBW 300 kHz*	Mk	Mkr1 787.000 MHz -23.388 dBm 

Plot 7-249. Upper Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)



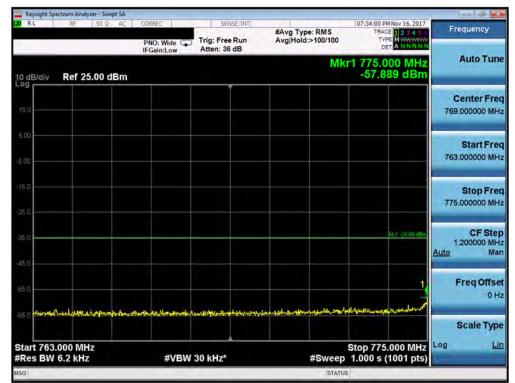
Plot 7-250. Upper Emission Mask Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 152 of 240
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RL RF 50Ω AC		5ENSE:INT	#Avg Type: RMS Avg Hold: 100/100	07:31:56 PM Nov 16, 2017 TRACE 2 3 4 5 0 TYPE A WWWWW DET A N N N N N	Frequency
0 dB/div Ref 25.00 dBm	" Gameon		Mkr	777.000 MHz -26.826 dBm	Auto Tun
15.0					Center Fre 777.000000 MH
5.00					Start Fre 773.000000 MH
15.0 25.0		1		C(1 -13.00 dBm	Stop Fre 781.000000 MH
35.0					CF Ste 800.000 ki Auto Ma
55.0					Freq Offs 0 F
Center 777.000 MHz Res BW 100 kHz	#VBW 300	kHz*	Sweep 1.	Span 8.000 MHz 000 ms (1001 pts)	Scale Typ

Plot 7-251. Lower Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)



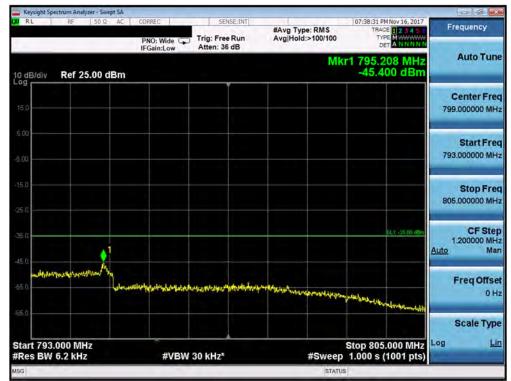
Plot 7-252. Lower Emission Mask Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dego 152 of 240	
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RL RF 50 Ω AC	CORREC	SENSE:INT	#Avg Type: RMS	07:35:23 PM Nov 16, 2017 TRACE 2 3 4 5 0 TYPE A MANAMAN	Frequency
	IFGain:Low	Atten: 36 dB		DET A NN NN N	Auto Tun
dB/diy Ref 25.00 dBm			Mk	r1 787.016 MHz -26.594 dBm	Auto Tun
5.0					Center Fre 787.000000 MH
.00		$\gamma$			Start Fre 783.000000 Mi
5 a		1		CL1 -13 00 dBm	Stop Fre 791.000000 Mi
50		No.			CF Ste 800.000 ki <u>Auto</u> M
5.0					Freq Offs 01
enter 787.000 MHz Res BW 100 kHz	#VBW:	300 kHz	Sweep	Span 8.000 MHz 1.000 ms (1001 pts)	Scale Ty; Log L

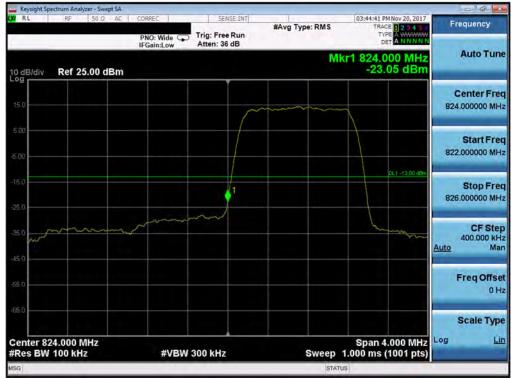
Plot 7-253. Upper Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-254. Upper Emission Mask Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dego 154 of 240	
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Plot 7-255. Lower Band Edge Plot (Band 5/26 - 1.4MHz QPSK - Full RB Configuration)



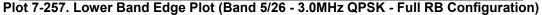
Plot 7-256. Upper Band Edge Plot (Band 5/26 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Dage 155 of 240		
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Keysight Spectrum Analyzer - Swept SA RL RF 50 Ω AC	CORREC	SENSE:INT		03:30:34 PM Nov 20, 2017	
	PNO: Wide 😱	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	TRACE 2 3 4 5 0 TYPE A WINNINN DET A NNNNN	Frequency
IO dB/div Ref 25.00 dBm			Mk	r1 824.000 MHz -18.76 dBm	Auto Tun
15.0			-m-mm		Center Fre 824.000000 MH
5.00					Start Fre 822.000000 MH
25.0				0.1 -13.00 dBm	Stop Fre 826.000000 MH
35.0	innin				CF Ste 400.000 kH Auto Ma
55 0					Freq Offs 0 F
© 0 Center 824.000 MHz #Res BW 100 kHz	#VBW :	300 kHz	Sweep	Span 4.000 MHz 1.000 ms (1001 pts)	Scale Typ





Plot 7-258. Upper Band Edge Plot (Band 5/26 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Dego 156 of 240		
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RL RF 50 Q AC	CORREC	SENSE:INT	#Avg Type: RMS	03:11:09 PM Nov 20, 2017 TRACE 1 2 3 4 5 0	Frequency
	PNO: Wide CONTRACT IFGain:Low	Trig: Free Run Atten: 36 dB		DET A NNNNN	
0 dB/div Ref 25.00 dBm			Mk	1 824.000 MHz -23.42 dBm	Auto Tur
15.0					Center Fre B24.000000 MH
5.00					Start Fre 822.000000 Mi
15 D		¢?		0(.1 -13 00 dBm	Stop Fr 826.000000 M
15 0		~			CF Ste 400.000 ki Auto M
50					Freq Offs 0
enter 824.000 MHz Res BW 100 kHz	#VBW 3	300 kHz	Sweep 1	Span 4.000 MHz .000 ms (1001 pts)	Scale Typ

Plot 7-259. Lower Band Edge Plot (Band 5/26 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-260. Upper Band Edge Plot (Band 5/26 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dego 157 of 240
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RL RF 50 Ω AC	CORREC	SENSE:INT		01:56:43 PM Nov 20, 2017	Frequency
	PNO: Wide 😱 IFGain:Low	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WARMAN DET A NNNNN	
dB/div Ref 25.00 dBm			M	kr1 824.000 MHz -27.60 dBm	Auto Tune
9 50					Center Free 824.000000 MH
00					Start Fre B20.000000 MH
;a		1		CL1 -13.00 dBm	Stop Fre 828.000000 MF
. a		~~~			CF Ste 800.000 kH Auto Ma
					Freq Offs 0 F
enter 824.000 MHz				Span 8.000 MHz	Scale Typ
Res BW 100 kHz	#VBW :	300 kHz	Sweep	1.000 ms (1001 pts)	
2			STAT	US	

Plot 7-261. Lower Band Edge Plot (Band 5/26 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-262. Upper Band Edge Plot (Band 5/26 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 159 of 240
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	AC CORREC	SENSE:INT		03:54:40 PM Nov 20, 2017	Frequency
	PNO: Wide 🖵 IFGain:Low	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	TRACE 2 3 4 5 0 TYPE A WHITTAN DET A NNNNN	
0 dB/div Ref 25.00 dE	Зm		Mk	1 823.988 MHz -24.69 dBm	Auto Tune
15.0					Center Free 824.000000 MH
5.00				man	Start Fre B1B.000000 MH
25.0		1.		C(.1 -13.0) dBm	Stop Fre 830.000000 MH
35.0					CF Ste 1.200000 MH Auto Ma
45.0					
55.0					Freq Offse
		470 kHz		Span 12.00 MHz .000 ms (1001 pts)	Freq Offs 0 H Scale Typ Log L

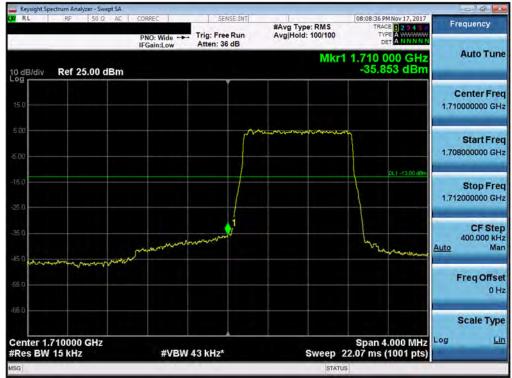
Plot 7-263. Lower Band Edge Plot (Band 26 - 15.0MHz QPSK - Full RB Configuration)



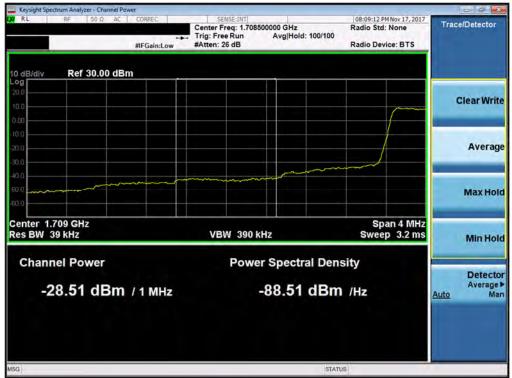
Plot 7-264. Upper Band Edge Plot (Band 26 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Daga 150 of 240	
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Plot 7-265. Lower Band Edge Plot (Band 4/66 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-266. Lower Extended Band Edge Plot (Band 4/66 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 160 of 240
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RL RF S0 Q AC	CORREC	SENSE:INT		08:44:37 PM Nov 17, 2017	Frequency
	PNO: Wide	Trig: Free Run Atten: 36 dB	#Avg Type: RMS Avg Hold: 100/100	TRACE 2 3 4 5 6 TYPE A WWW DET A NNNNN	requercy
0 dB/div Ref 25.00 dBm	I-Gain.Low		Mkr1	1.755 068 GHz -35.943 dBm	Auto Tune
15.0					Center Fre 1.755000000 GH
5.00	ann an	tym			Start Fre 1.753000000 GH
15.0				DL1 -13.00 a8m	Stop Fre 1.757000000 GH
BO MANNAMAN		1 min	mymalenamen	monteronterran	CF Ste 400.000 kl Auto Ma
i5.0					Freq Offse 0 H
enter 1.755000 GHz				Span 4.000 MHz	Scale Typ
Res BW 15 kHz	#VBW	43 kHz*	Sweep 2	2.07 ms (1001 pts)	

Plot 7-267. Upper Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)



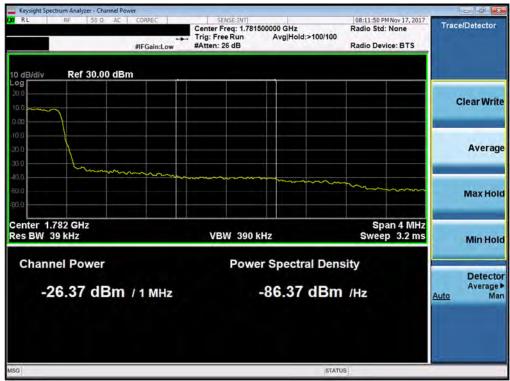
Plot 7-268. Upper Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 161 of 240
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RL RF 50 Ω AC	CORREC	SENSE:INT	HALL THE DISC	08:11:32 PM Nov 17, 2017	Frequency
	PNO: Wide IFGain:Low	Trig: Free Run Atten: 36 dB	#Avg Type: RMS Avg Hold: 100/100	TRACE 2 3 4 5 0 TYPE A WARMAN DET A NNNNN	
0 dB/div Ref 25.00 dBm			Mkr1	1.780 068 GHz -36.229 dBm	Auto Tun
15.0					Center Fre 1.780000000 GH
5.00	no n	~			Start Fre 1.778000000 GH
25.0				CL1 -13.00 dBm	Stop Fre 1.782000000 GH
35.0 mmmmm		him	an and the second second	Authorespectures	CF Ste 400.000 kH Auto Ma
55.0					Freq Offs 0 F
55.0 Senter 1.780000 GHz				Span 4.000 MHz	Scale Typ
Res BW 15 kHz	#VBW 4	13 kHz*	Sweep 2	2.07 ms (1001 pts)	

Plot 7-269. Upper Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)



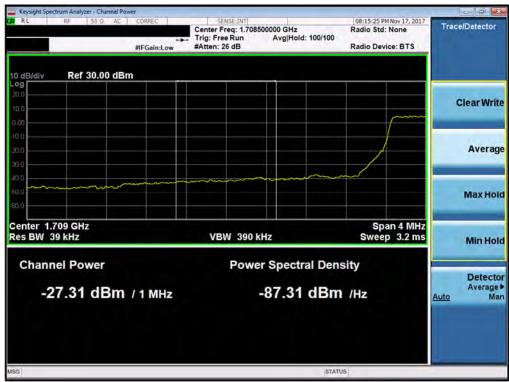
Plot 7-270. Upper Extended Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 162 of 240	
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PNO: Wide IFGain:Low	Trig: Free Run Atten: 36 dB	#Avg Type: RMS Avg Hold: 100/100	TYPE A WHAT	Frequency
		Mkr1	1.710 000 GHz -25.735 dBm	Auto Tun
				Center Fre 1.710000000 GH
			······································	Start Fre 1.708000000 GH
	<u>}</u>		01.1 -13.00 dBm	Stop Fre 1.712000000 GH
	~			CF Ste 400.000 kH Auto Ma
				Freq Offs 0 H
			Span 4.000 MHz	Scale Typ
	IFGain:Low	IFGain:Low Atten: 36 dB	IFGainLow Atten: 36 dB	Mkr1 1.710 000 GHz -25.735 dBm

Plot 7-271. Lower Band Edge Plot (Band 4/66 - 3.0MHz QPSK - Full RB Configuration)

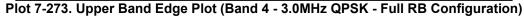


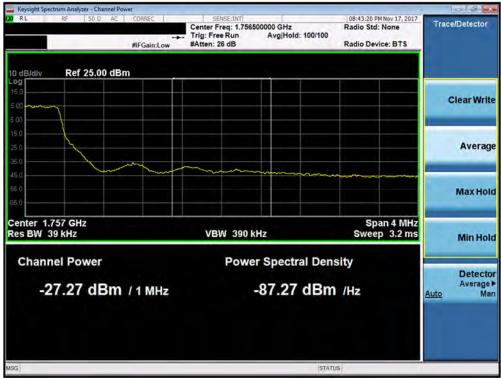
Plot 7-272. Lower Extended Band Edge Plot (Band 4/66 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dego 162 of 240	
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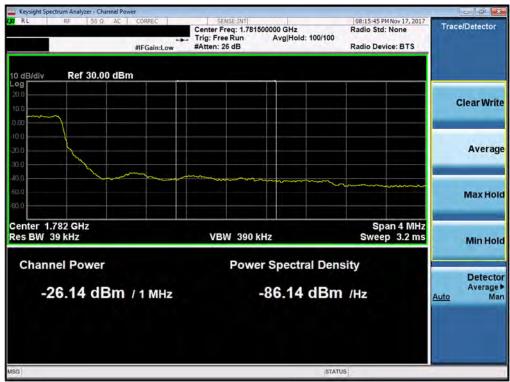
Plot 7-274. Upper Extended Band Edge Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dego 164 of 240	
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Plot 7-275. Upper Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)



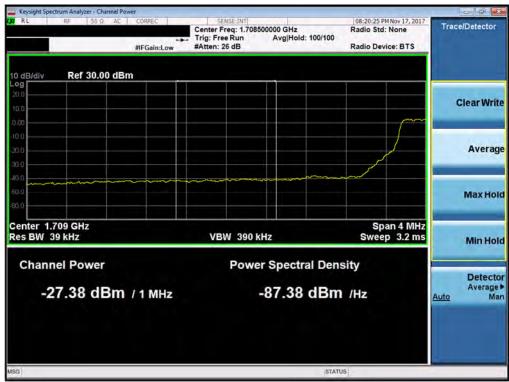
Plot 7-276. Upper Extended Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 165 of 240	
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RL RF 50 Q AC	CORREC	SENSE:INT	#Avg Type: RMS	08:19:57 PM Nov 17, 2017 TRACE 1 2 3 4 5 0	Frequency
	PNO: Wide IFGain:Low	Trig: Free Run Atten: 36 dB	Avg Hold: 100/100	DET A NNNNN	
O dB/div Ref 25.00 dBm			Mkr1	1.710 000 GHz -27.419 dBm	Auto Tun
15.0					Center Fre 1.710000000 GH
5.07		(	·····		Start Fre 1.708000000 GH
15.0		1		DL1 -13,00 dBm	Stop Fre 1.712000000 GH
15.0	www	~~~			CF Ste 400.000 kł Auto Ma
55.0					Freq Offs 0 H
55 0 Senter 1.710000 GHz				Strop 4 000 MU	Scale Typ
Res BW 51 kHz	#VBW	160 kHz*	Sweep 1	Span 4.000 MHz .933 ms (1001 pts)	

Plot 7-277. Lower Band Edge Plot (Band 4/66 - 5.0MHz QPSK - Full RB Configuration)



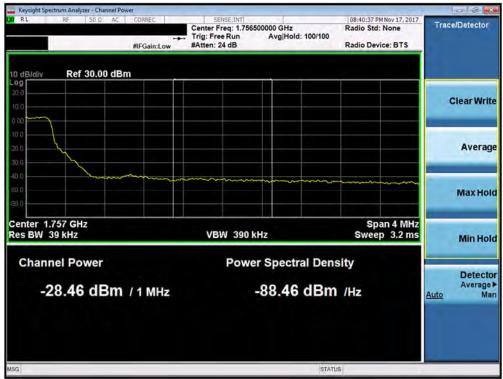
Plot 7-278. Lower Extended Band Edge Plot (Band 4/66 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 166 of 349
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CORREC	SENSE:INT		08:40:56 PM Nov 17, 2017	Frequency
PNO: Wide	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	TYPE A WWWWW	
		Mkr	1 1.755 000 GHz -27.994 dBm	Auto Tune
				Center Free 1.755000000 GH
	$\sum$			Start Fre 1.753000000 GH
			DL1 -13,00 dBm	Stop Fre 1.757000000 GH
	- A	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	y mana	CF Ste 400.000 kH Auto Ma
				Freq Offse 0 H
			Span 4.000 <u>MHz</u>	Scale Typ
	PNO: Wide	PNO: Wide Trig: Free Run	PNO: Wide Trig: Free Run IFGain:Low Atten: 36 dB Mkr	PNO: Wide IFGein:Low Trig: Free Run Atten: 36 dB MKr1 1.755 000 GHz -27.994 dBm 01 - 1500 dbm

Plot 7-279. Upper Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)



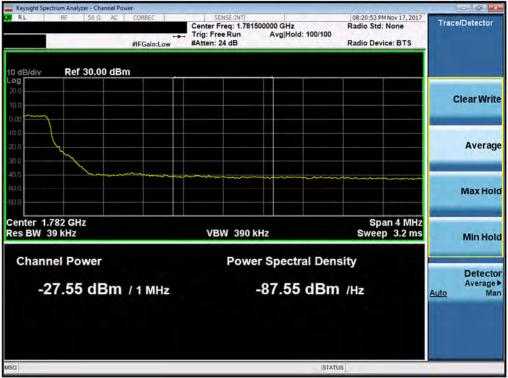
Plot 7-280. Upper Extended Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dega 167 of 240	
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RL RF 50 Q AC	CORREC	SENSE:INT	#Avg Type: RMS	08:21:19 PM Nov 17, 2017 TRACE 2 3 4 5 0	Frequency
	PNO: Wide	Trig: Free Run Atten: 36 dB	Avg Hold: 100/100	TYPE A WWWWW DET A NNNNN	
0 dB/div Ref 25.00 dBm			Mkr1	1.780 008 GHz -28.052 dBm	Auto Tun
15.0					Center Fre 1.780000000 GH
5.00		$\gamma$			Start Fre 1.778000000 GH
50		1_1_		CL1 -13 00 dBn	Stop Fre 1.782000000 GF
150		<u></u>	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		CF Ste 400.000 kH Auto Ma
55.0					Freq Offs 0 F
Eenter 1.780000 GHz Res BW 51 KHz	#VBW	160 kHz*	Sweep 1	Span 4.000 MHz .933 ms (1001 pts)	Scale Typ
Res BW 51 kHz	#VBW	160 kHz*	Sweep 1	.933 ms (1001 pts)	





Plot 7-282. Upper Extended Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 169 of 240
1M1711010281-03-R3.A3L	11/1/2017-1/12/2018	Portable Handset		Page 168 of 349
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RL RF 50 Ω AC	CORREC	SENSE:INT	#Avg Type: RMS	08:25:11 PM Nov 17, 2017 TRACE 1 2 3 4 5 0	Frequency
	PNO: Wide IFGain:Low	Trig: Free Run Atten: 36 dB	Avg Hold: 100/100	TYPE A WWWWW DET A NNNNN	
0 dB/div Ref 25.00 dBm			Mkr1	1.710 000 GHz -28.905 dBm	Auto Tune
15.0					Center Fred 1.710000000 GH
5.00			~~~~~	·····	Start Fre 1.705000000 GH
15.0				CL1 -13.00 dBm	Stop Fre 1.714000000 GH
45.0	·····	~			CF Ste 800.000 kH Auto Ma
55 Ú					Freq Offso 0 F
65.0					Scale Typ
Center 1.710000 GHz Res BW 100 kHz	#VBW	300 kHz*	Sweep 1	Span 8.000 MHz .000 ms (1001 pts)	Log Li
SG			STATU		

Plot 7-283. Lower Band Edge Plot (Band 4/66 - 10.0MHz QPSK - Full RB Configuration)



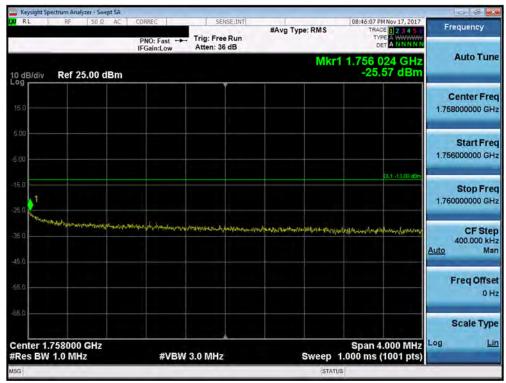
Plot 7-284. Lower Extended Band Edge Plot (Band 4/66 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Daga 160 of 240	
1M1711010281-03-R3.A3L	11/1/2017-1/12/2018	Portable Handset		Page 169 of 349	
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RL	RF 50 Ω AC	CORREC	SENSE:INT		08:45:57 PM Nov 17, 2017	Frequency
		PNO: Wide	Trig: Free Run Atten: 36 dB	#Avg Type: RMS Avg Hold: 100/100	TYPE A WWWWW DET A NNNNN	requercy
0 dB/div	Ref 25.00 dBm			Mkr	1.755 000 GHz -29.812 dBm	Auto Tune
15,0						Center Fred 1.755000000 GH
5.00	~~~~~	w~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	7			Start Fre 1.751000000 GH
15.0			1-		DL1 -13,00 dBm	Stop Fre 1.759000000 GH
15.0				·····	······································	CF Ste 800.000 kH Auto Ma
55.0.						Freq Offse 0 F
Center 1	755000 CH2				Spap 8 000 MHz	Scale Typ
Res BW		#VBW	300 kHz*	Sweep	1.000 ms (1001 pts)	-
	755000 GHz 100 kHz	#VBW :	300 kHz*	Sweep '	1.000 ms (1001 pts)	Log

Plot 7-285. Upper Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-286. Upper Extended Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 170 of 349
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Keysight Spectrum Analyzer - Swept SA           RL         RF         50 Ω         AC	CORREC	SENSE:INT		08:26:07 PM Nov 17, 2017	Frequency
	PNO: Wide	Trig: Free Run Atten: 36 dB	#Avg Type: RMS Avg Hold:>100/100	TYPE A WWWWWW DET A NNNNN	requency
0 dB/div Ref 25.00 dBm			Mkr1	1.780 008 GHz -29.646 dBm	Auto Tune
<b>9</b> 15.0					Center Fre 1.780000000 GH
5.00		7			Start Fre 1.776000000 GH
15.0		11		Ct.1 -13.00 dBm	Stop Fre 1.784000000 GH
±5.á		- And		·/······	CF Ste 800.000 ki Auto Ma
55.0					Freq Offs 0 H
senter 1.780000 GHz				Span 8.000 MHz	Scale Typ
Res BW 100 kHz	#VBW :	300 kHz*	Sweep 1	.000 ms (1001 pts)	

Plot 7-287. Upper Band Edge Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-288. Upper Extended Band Edge Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Swept SA RL RF 50 Ω AC	CORREC	SENSE:INT		08:29:40 PM Nov 17, 2017	
	PNO: Wide IFGain:Low	Trig: Free Run Atten: 36 dB	#Avg Type: RMS Avg Hold: 100/100	TRACE 2 3 4 5 0 TYPE A WHITTAN DET A NNNNN	Frequency
0 dB/div Ref 25.00 dBm			Mkr1	1.710 000 GHz -28.935 dBm	Auto Tun
15.0					Center Fre 1.710000000 GH
5.00		ſ			Start Fre 1.704000000 GF
15 0 25.0		لمر و		DL1 -13.00 dBm	Stop Fre 1.716000000 GF
45.0	m	~			CF Ste 1.200000 Mi Auto Mi
65 Ū					Freq Offs 01
65 0 Center 1.710000 GHz				Span 12.00 MHz	Scale Typ
≉Res BW 150 kHz sci	#VBW	470 kHz*	Sweep 1	.000 ms (1001 pts)	

Plot 7-289. Lower Band Edge Plot (Band 4/66 - 15.0MHz QPSK - Full RB Configuration)



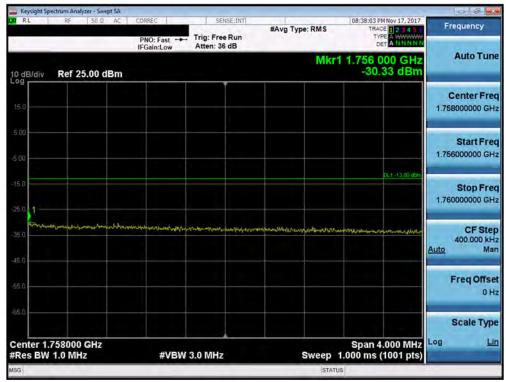
Plot 7-290. Lower Extended Band Edge Plot (Band 4/66 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 172 of 240	
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RL RF 50 Q AC	CORREC	SENSE:INT		08:38:38 PM Nov 17, 2017	Frequency
	PNO: Wide	Trig: Free Run Atten: 36 dB	#Avg Type: RMS Avg Hold: 100/100	TRACE 1 2 3 4 5-6 TYPE A WWWWW DET A NNNNN	requerey
0 dB/div Ref 25.00 dBm			Mkr1	1.755 048 GHz -30.185 dBm	Auto Tuno
15.0					Center Free 1.755000000 GH
5.00		7			Start Fre 1.749000000 GH
15.0 25.0		1		DL1 -13,00 dBm	Stop Fre 1.761000000 GH
±6.		1	un man	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	CF Ste 1:200000 MH Auto Ma
55.0					Freq Offs 0 F
Center 1.755000 GHz				Span 12.00 MHz	Scale Typ
Res BW 150 kHz	#VBW	470 kHz*	Sweep 1	.000 ms (1001 pts)	

Plot 7-291. Upper Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)



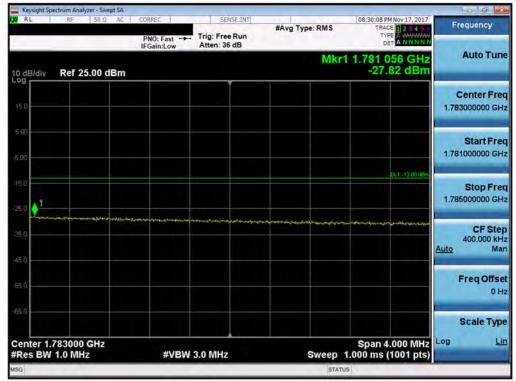
Plot 7-292. Upper Extended Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 172 of 240
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	08:30:25 PM Nov 17, 2017		SENSE:INT	CORREC	RF 50 Ω AC	RL RL
Frequency	TRACE 2 3 4 5 0 TYPE A WWWWW DET A NNNNN	#Avg Type: RMS Avg Hold: 100/100	Trig: Free Run Atten: 36 dB			
Auto Tur	1.780 000 GHz -30.278 dBm	Mkr1			Ref 25.00 dBm	0 dB/div
Center Fre 1.780000000 GH						5.0
Start Fre 1.774000000 GF					m.m.m.	.00
Stop Fre 1.786000000 GH	Ci.1 -13.00 dBm		4 1-			50 5.0
CF Ste 1.200000 MH Auto Ma	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Jun			5.0
Freq Offs 0 F						5.0
Scale Typ	Span 12.00 MHz 000 ms (1001 pts)	Sweep 1.	170 kHz*	#VBW 4	0000 GHz 50 kHz	enter 1.7 Res BW
		STATUS				G

Plot 7-293. Upper Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)



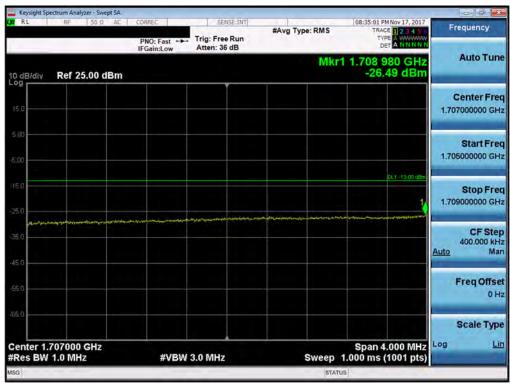
Plot 7-294. Upper Extended Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager			
Test Report S/N:	Test Dates:	EUT Type:		Dage 174 of 240			
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RL RF 50 Q AC	CORREC	SENSE:INT		08:34:49 PM Nov 17, 2017	
	PNO: Fast IFGain:Low	Trig: Free Run Atten: 36 dB	#Avg Type: RMS Avg Hold: 100/100	TRACE 1 2 3 4 5 0 TYPE A WWWWW DET A NNNNN	Frequency
0 dB/div Ref 25.00 dBm			Mkr1	1.710 000 GHz -28.504 dBm	Auto Tun
15 0				*	Center Fre 1.710000000 GH
5.00		ſ	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	C(1 -13.00 dBm	Start Fre 1.702000000 GH
15 d 25.á		Ind		0.1-13.00 (001)	Stop Fre 1.718000000 GH
35.0					CF Ste 1.600000 MH Auto Ma
65 Ū					Freq Offs 0 H
65 0 Center 1.710000 GHz				Span 10.00 Minz	Scale Typ
¢Res BW 200 kHz	#VBW	620 kHz*	Sweep 1	.000 ms (1001 pts)	

Plot 7-295. Lower Band Edge Plot (Band 4/66 - 20.0MHz QPSK - Full RB Configuration)



Plot 7-296. Lower Extended Band Edge Plot (Band 4/66 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	AMSUNG	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Dage 175 of 240		
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RL RF 50 Q AC	CORREC	SENSE:INT	HALL THE DALL	08:37:24 PM Nov 17, 2017	Frequency
	PNO: Fast	Trig: Free Run Atten: 36 dB	#Avg Type: RMS Avg Hold: 100/100	TRACE 1 2 3 4 5-6 TYPE A WWWW DET A NNNNN	
0 dB/div Ref 25.00 dBm			Mkr1	1.755 000 GHz -30.097 dBm	Auto Tune
15.0					Center Free 1.755000000 GH
5.00		7			Start Fre 1.747000000 GH
15.0 25.0		1		DL1 -13,00 d9m	Stop Fre 1.763000000 GH
35.0		- Ann	mmmm	han an a	CF Ste 1.600000 MH Auto Ma
55.0					Freq Offse
65.Ó					Scale Typ
Center 1.755000 GHz Res BW 200 kHz	#VBW	620 kHz*	Sweep 1.	Span 16.00 MHz 000 ms (1001 pts)	Log <u>Li</u>

Plot 7-297. Upper Band Edge Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)



Plot 7-298. Upper Extended Band Edge Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Swept SA           RL         RF         50 Ω         AC	CORREC	SENSE:INT		08:35:37 PM Nov 17, 2017	
	PNO: Fast	Trig: Free Run Atten: 36 dB	#Avg Type: RMS Avg Hold: 100/100	TRACE 1 2 3 4 5 0 TYPE A WWWWWW DET A NNNNN	Frequency
dB/div Ref 25.00 dBm	I Gameow		Mkr1	1.780 000 GHz -29.894 dBm	Auto Tun
15.0					Center Fre 1.78000000 GH
.00	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	7			Start Fre 1.772000000 GF
50		4.1		CL1-13.00 dBm	Stop Fre 1.788000000 GF
150		- Andrew			CF Ste 1.600000 MH Auto Ma
is 0					Freq Offs 01
enter 1.780000 GHz Res BW 200 kHz	#VBW	620 kHz*	Sweep 1	Span 16.00 MHz .000 ms (1001 pts)	Scale Typ
ig i			STATUS		

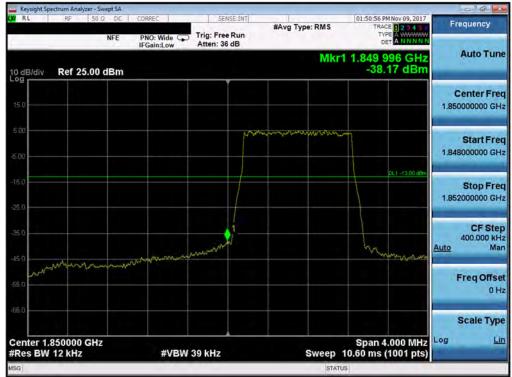
Plot 7-299. Upper Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)



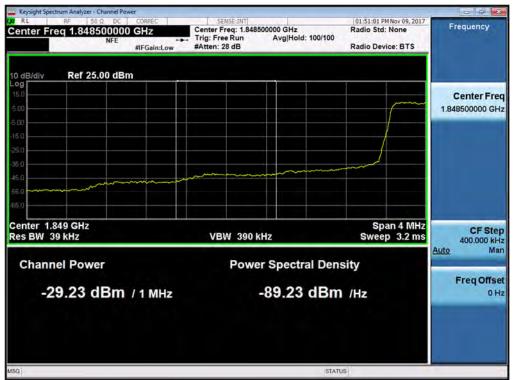
Plot 7-300. Upper Extended Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager			
Test Report S/N:	Test Dates:	EUT Type:		Dega 177 of 240			
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Plot 7-301. Lower Band Edge Plot (Band 2/25 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-302. Lower Extended Band Edge Plot (Band 2/25 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Dage 179 of 240		
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RL RF	50 12 AC	CORREC	SENSE:INT		08:49:04 PM Nov 17, 2017	Frequency
		PNO: Wide	Trig: Free Run Atten: 36 dB	#Avg Type: RMS Avg Hold: 100/100	TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A NNNNN	requercy
0 dB/div Ref 25.0	00 dBm	II Gam.cow		Mkr	1.910 008 GHz -38.493 dBm	Auto Tune
15.0						Center Free 1.910000000 GH
5.00	Mon	-Nove-all-all-all-all-all-all-all-all-all-al	7			Start Fre 1.908000000 GH
25.0					DL1 -13,00 dBm	Stop Fre 1.912000000 GH
15.0			1-	mannan	warmen warmen	CF Ste 400.000 kH Auto Ma
55,0						Freq Offse 0 F
65 D						Scale Typ
Center 1.910000 G Res BW 15 kHz	HZ	#VBW	43 kHz*	Sweep 2	Span 4.000 MHz 22.07 ms (1001 pts)	
SG				STATU		

Plot 7-303. Upper Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)



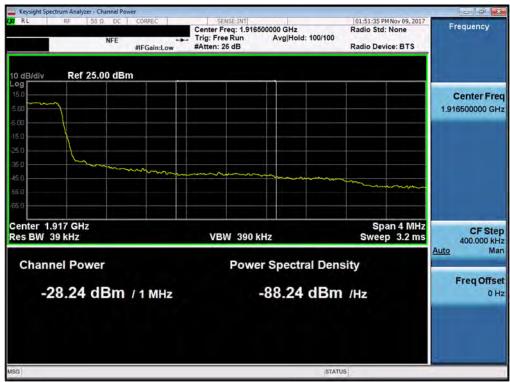
Plot 7-304. Upper Extended Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 170 of 240
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RL RF 50 Ω DC CC	RREC SENSE:INT	and the second	01:51:30 PM Nov 09, 2017	Englisher
NFE P	NO: Wide Trig: Free Run Gain:Low Atten: 36 dB	#Avg Type: RMS	TYPE A WHITTAN DET A NNNNN	Frequency
0 dB/div Ref 25.00 dBm		Mkr1	1.915 060 GHz -36.08 dBm	Auto Tun
15.0				Center Fre 1.915000000 GH
5.00	manyary			Start Fre 1.913000000 GF
25.0			0(1 -13,00 dBm	Stop Fre 1.917000000 GF
35.0	1 minung	mm		CF Ste 400.000 ki Auto Ma
55.0		Mun Manna	and and and and a second of the	Freq Offs 0 I
65 0 Senter 1.915000 GHz			Span 4.000 MHz	Scale Typ
Res BW 12 kHz	#VBW 39 kHz	Sweep 1	10.60 ms (1001 pts)	

Plot 7-305. Upper Band Edge Plot (Band 25 - 1.4MHz QPSK - Full RB Configuration)



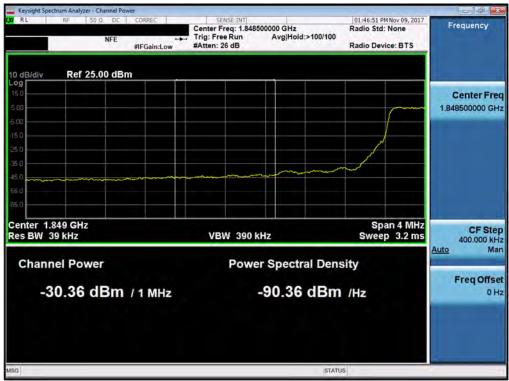
Plot 7-306. Upper Extended Band Edge Plot (Band 25 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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RL RF 50 Ω DC 0	ORREC	SENSE:INT		01:46:44 PM Nov 09, 2017	Frequency
NFE		: Free Run en: 36 dB	#Avg Type: RMS	TYPE A WWWWW DET A NNNNN	
10 dB/div Ref 25.00 dBm			Mkr1	1.849 996 GHz -25.87 dBm	Auto Tun
15.0					Center Fre 1.85000000 GH
5.00			······	m	Start Fre 1.848000000 GH
25.0		<b>∮</b> <sup>1</sup>		C(1 - 13.00 dBm	Stop Fre 1.852000000 GH
35.0		/			CF Ste 400.000 kH Auto Ma
65.0					Freq Offs 0 H
©S 0 Center 1.850000 GHz #Res BW 30 kHz	#VBW 91 k	H7	Sween	Span 4.000 MHz 2.000 ms (1001 pts)	Scale Typ

Plot 7-307. Lower Band Edge Plot (Band 2/25 - 3.0MHz QPSK - Full RB Configuration)



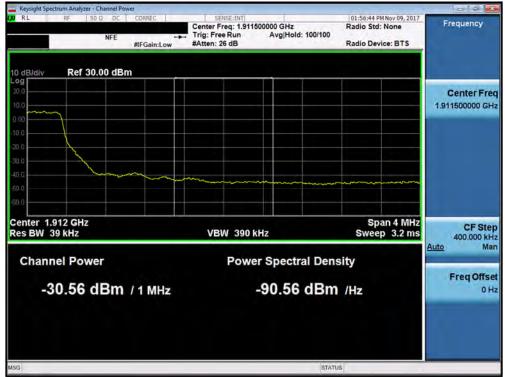
Plot 7-308. Lower Extended Band Edge Plot (Band 2/25 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 191 of 240
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Plot 7-309. Upper Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)



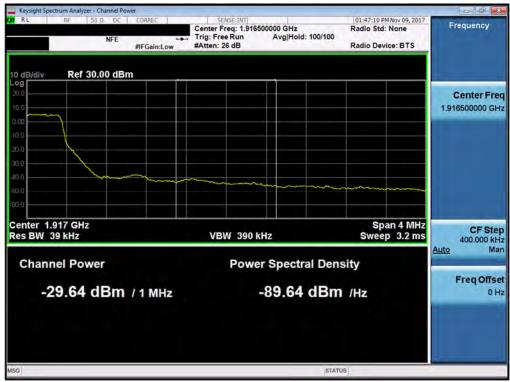
Plot 7-310. Upper Extended Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 192 of 240
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RL RF 50 Ω DC	CORREC	SENSE:INT		01:47:06 PM Nov 09, 2017	Frequency
NFE	PNO: Wide 😱	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	TRACE 2 3 4 5 0 TYPE A WWWWW DET A NNNNN	Frequency
0 dB/div Ref 25.00 dBm			Mkr	1.915 000 GHz -24.725 dBm	Auto Tun
150					Center Fre 1.915000000 GH
5.00		~			Start Fre 1.913000000 GF
15.0		4		C(1 -13.00 dBm	Stop Fre 1.917000000 GH
±ة ڤ				hannen	CF Ste 400.000 ki Auto Ma
55.0					Freq Offs 0 F
enter 1.915000 GHz Res BW 30 kHz	#VBW 9			Span 4.000 MHz 2.000 ms (1001 pts)	Scale Typ Log <u>L</u>

Plot 7-311. Upper Band Edge Plot (Band 25 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-312. Upper Extended Band Edge Plot (Band 25 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 192 of 240
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RL RF 50 Ω DC 0	ORREC	SENSE:INT		01:40:33 PM Nov 09, 2017	Frequency
NFE		rig: Free Run Atten: 36 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 0 TYPE A WARMAN DET A N N N N N	
0 dB/div Ref 25.00 dBm			Mkr1	1.850 000 GHz -27.93 dBm	Auto Tun
15.0					Center Fre 1.85000000 GH
5.00		$\square$		······································	Start Fre 1.848000000 GF
15.0		15		CL1 -13.00 dBm	Stop Fre 1.852000000 GF
15.0	m	~			CF Ste 400.000 kF Auto Ma
55.0					Freq Offs 0 F
55 0 Center 1.850000 GHz					Scale Typ
Res BW 51 kHz	#VBW 10	60 kHz	Sweep 2	.000 ms (1001 pts)	

Plot 7-313. Lower Band Edge Plot (Band 2/25 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-314. Lower Extended Band Edge Plot (Band 2/25 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG960U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 194 of 240
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