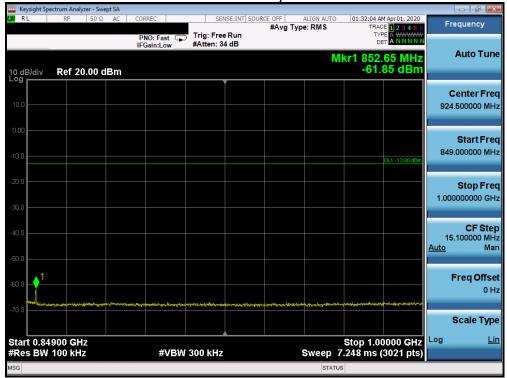


NR Band n5

K/RL	RF	50 Ω	AC	CORREC	SE	NSE:INT SO	URCE OFF	ALIGN AUTO	01:31:57 A	4 Apr 01, 2020		
				PNO: Fast	🖵 Trig: Fre		#Avg Ty	pe: RMS	TRAC	E 1 2 3 4 5 6 E A WWWW A N N N N N	Frequ	ency
				IFGain:Low	#Atten: 3	4 dB					Δι	to Tun
10 dB/div	Ref 2	0.00 d	Bm					M	kr1 823. -39.	00 MHz 18 dBm	Au	
-~8											Cen	ter Fre
10.0											426.500	
0.00											St	artFre
10.0												0000 M
										DL1 -13.00 dBm		
20.0											St	opFr
											823.000	0000 M
30.0										1,		
40.0											79.300	CF St
											Auto	M
50.0												
60.0											Fre	q Offs
30.0										/		0
70.0 111.4				dela la deservente								
											Sca	ale Ty
start 30.									Stop 8	23.0 MHz	Log	L
Res BW	100 kH	z		#VB	W 300 kHz	:		Sweep 38	3.06 ms (1	5861 pts)		

Plot 7-206. Conducted Spurious Plot (n5 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Low Channel)



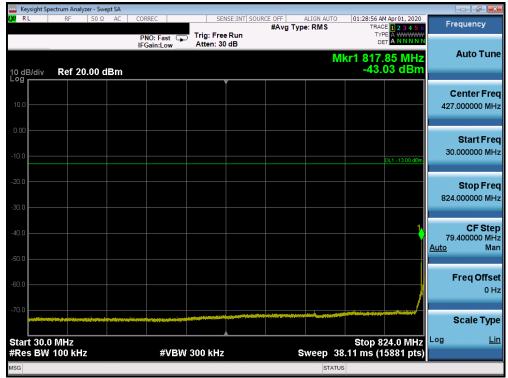
Plot 7-207. Conducted Spurious Plot (n5 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 102 of 257	
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Plot 7-208. Conducted Spurious Plot (n5 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-209. Conducted Spurious Plot (n5 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG981V	Proud to be part of @ eterment	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 104 of 257
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	Spectrum Analyzer - Swept SA					
LXI RL	RF 50 Ω AC	CORREC	SENSE:INT SOUR	CE OFF ALIGN AUTO #Avg Type: RMS	01:29:03 AM Apr 01, 2020 TRACE 1 2 3 4 5 6	Frequency
10 dB/div	Ref 20.00 dBm	PNO: Fast 😱 IFGain:Low	Trig: Free Run Atten: 30 dB	• //	kr1 849.05 MHz -66.88 dBm	Auto Tune
						Center Freq 924.500000 MHz
-10.0					DL1 -13.00 dBm	Start Freq 849.000000 MHz
-20.0						Stop Freq 1.000000000 GHz
-40.0						CF Step 15.100000 MHz <u>Auto</u> Man
-60.0 1 -70.0						Freq Offset 0 Hz
	34900 GHz				Stop 1.00000 GHz	Scale Type
	V 100 kHz	#VBW 3	00 kHz	Sweep 7	Stop 1.00000 GHz 2.248 ms (3021 pts)	
MSG				STATUS	5	

Plot 7-210. Conducted Spurious Plot (n5 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Mid Channel)



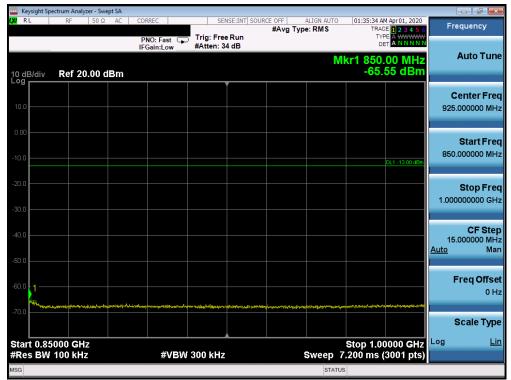
Plot 7-211. Conducted Spurious Plot (n5 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Deg. 105 of 257
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Plot 7-212. Conducted Spurious Plot (n5 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-213. Conducted Spurious Plot (n5 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG981V	PCTEST° Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Daga 106 of 257	
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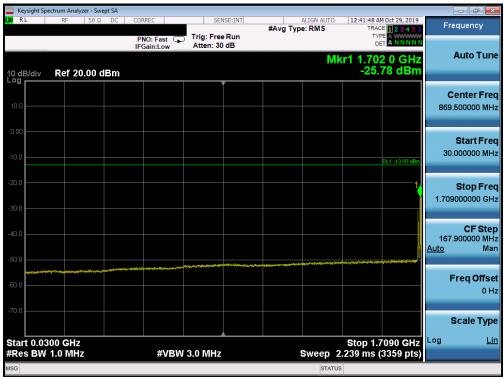


Plot 7-214. Conducted Spurious Plot (n5 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG981V	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 127 of 257
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Band 66/4



Plot 7-215. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-216. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Daga 120 of 257	
1M2003090034-05.A3L	10/22/2019-5/6/2020	Portable Handset		Page 128 of 357	
© 2020 PCTEST		•		V 9 0 02/01/2019	



	ectrum Analy	zer - Swept	t SA										
L <mark>XI</mark> RL	RF	50 Ω	DC	CORREC		SEI	NSE:INT	#Avg Typ	ALIGN AUTO		M Oct 29, 2019	Fre	equency
				PNO: Fa IFGain:L	ast 😱	Trig: Free Atten: 10				TY D			
10 dB/div Log	Ref 0.	00 dBr	n						Mł	(r1 19.97 -54.	2 5 GHz 99 dBm		Auto Tune
-10.0											DL1 -13.00 dBm		enter Freq 0000000 GHz
-20.0												10.000	Start Freq 0000000 GHz
-40.0											1	20.000	Stop Freq 0000000 GHz
-60.0			and Second State			n standillarindallarindalar Agrilla ingening filgestanta	antania (Carangan)	n galan gang di kana katan katan kata ng galan yang di kang di katan katan katan katan katan katan katan katan ng galan yang di katan kata		n sega li parta general de la casa de la cas	n gemeen op de te de te de terrester Ne gemeende geleter Millemer de ge	1.000 <u>Auto</u>	CF Step 0000000 GHz Man
-80.0												F	F req Offset 0 Hz
-90.0													Scale Type
Start 10.0 #Res BW		2		4	VBW	3.0 MHz		9	weep_1	Stop 20 17.33 ms (2	0.000 GHz	Log	Lin
MSG									STAT				

Plot 7-217. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



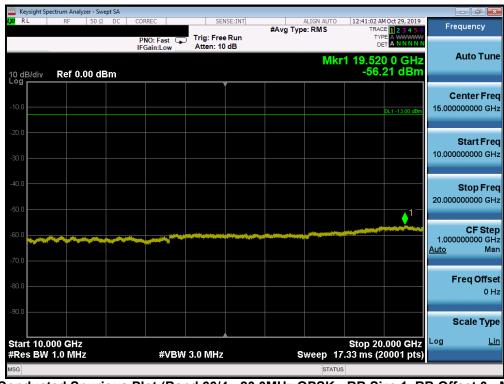
Plot 7-218. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG981V	PCTEST° Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 120 of 257	
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Plot 7-219. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



Plot 7-220. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG981V	PCTEST° Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N: Test Dates:		EUT Type:		Dage 120 of 257	
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	ectrum Analyzer - Swept SA	A				
LXI RL	RF 50 Ω D0	C CORREC	SENSE:INT	ALIGN AUTO #Avg Type: RMS	12:43:08 AM Oct 29, 2019 TRACE 1 2 3 4 5 6	Frequency
10 dB/div	Ref 20.00 dBn	PNO: Fast 😱 IFGain:Low	Trig: Free Run Atten: 30 dB	• 71	Cr1 1.693 5 GHz -49.88 dBm	Auto Tune
10.0						Center Freq 870.000000 MHz
-10.0					DL1 -13.00 dBm	Start Freq 30.000000 MHz
-20.0						Stop Freq 1.710000000 GHz
-40.0					1	CF Step 168.000000 MHz <u>Auto</u> Man
-60.0	**************************************	**************************************				Freq Offset 0 Hz
-70.0						Scale Type
Start 0.03 #Res BW		#VBW	3.0 MHz	Sweep 2	Stop 1.7100 GHz 2.240 ms (3361 pts)	Log <u>Lin</u>
MSG				STATU	S	

Plot 7-221. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-222. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ elonuml	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 121 of 257
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	ectrum Analyze									
LXI RL	RF	50 Ω DC	CORREC	SEI	NSE:INT	#Avg Typ	ALIGN AUTO		1 Oct 29, 2019 E 1 2 3 4 5 6	Frequency
			PNO: Fast 🕞 IFGain:Low	Trig: Free Atten: 10				TYF DE		
10 dB/div Log	Ref 0.0	0 dBm					Mkr	1 19.53 -55.	7 0 GHz 83 dBm	Auto Tune
-10.0									DL1 -13.00 dBm	Center Freq 15.00000000 GHz
-20.0										Start Freq 10.000000000 GHz
-40.0									1_	Stop Freq 20.000000000 GHz
-60.0				a al college de los des est						CF Step 1.00000000 GHz <u>Auto</u> Man
-80.0										Freq Offset 0 Hz
-90.0										Scale Type
Start 10.0 #Res BW			#VBV	V 3.0 MHz		s	weep 17	Stop 20 .33 ms (2	.000 GHz 0001 pts)	Log <u>Lin</u>
MSG							STATUS			

Plot 7-223. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

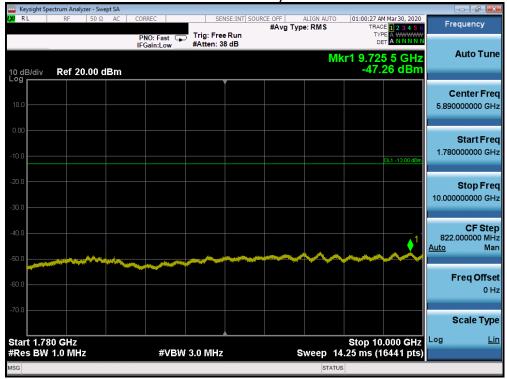
FCC ID: A3LSMG981V	PCTEST Proud to be part of @element	MEASUREMENT REPORT (CERTIFICATION)	G	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 122 of 257
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NR Band n66

Keysight Spectrum							
XV RL RI	50 Ω)	AC CORREC	SENSE:INT S	#Avg Type: R	MS TRAC	1 Mar 30, 2020 E 1 2 3 4 5 6 E A WWWWW	Frequency
10 dB/div Re	f 20.00 dB	PNO: Fast G IFGain:Low	#Atten: 36 dB		Mkr1 1.692		Auto Tun
10.0							Center Fre 869.000000 MH
-10.0						DL1 -13.00 dBm	Start Fre 30.000000 MH
-20.0						\	Stop Fre 1.708000000 G⊦
40.0						AL	CF Ste 167.800000 MI <u>ito</u> Mi
60.0 	ingin canada ang ang ang ang ang ang ang ang ang an	97., 1946, 1923, 2014, 1947, 1957, 1978, 1987, 1988, 1988, 1988, 1988, 1988, 1988, 1988, 1988, 1988, 1988, 198	and a state of the			,	Freq Offs 01
70.0 Start 0.0300 C #Res BW 1.0		#\/B\A	3.0 MHz		Stop 1.7 eep 2.239 ms ((080 GHz	Scale Typ
SG	WIL 12	#0800	5.0 10112	300	STATUS	JJJJ PLS)	

Plot 7-224. Conducted Spurious Plot (n66 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-225. Conducted Spurious Plot (n66 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMG981V	PCTEST*	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 122 of 257
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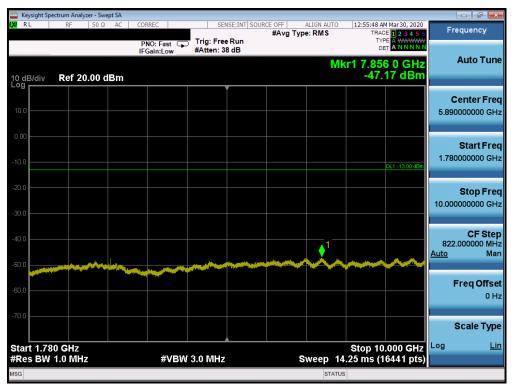
Plot 7-226. Conducted Spurious Plot (n66 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Low Channel)



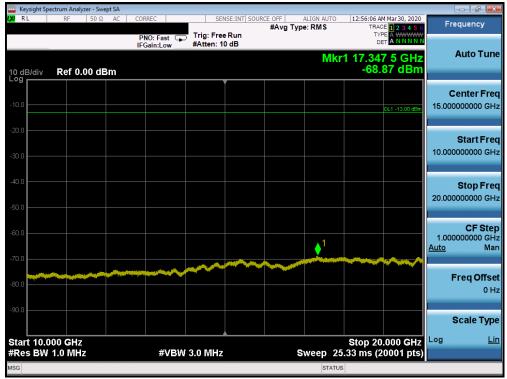
Plot 7-227. Conducted Spurious Plot (n66 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG981V	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 124 of 257
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Plot 7-228. Conducted Spurious Plot (n66 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Mid Channel)



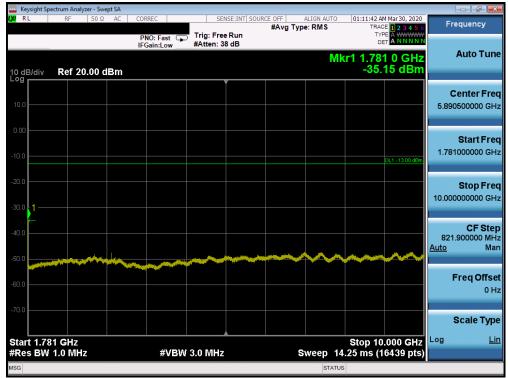
Plot 7-229. Conducted Spurious Plot (n66 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 125 of 257
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Plot 7-230. Conducted Spurious Plot (n66 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-231. Conducted Spurious Plot (n66 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ elonant!	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 126 of 257
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Plot 7-232. Conducted Spurious Plot (n66 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - High Channel)

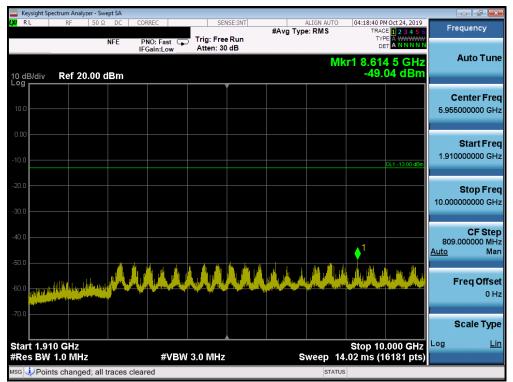
FCC ID: A3LSMG981V	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 127 of 257
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Band 2

	ectrum Analyzer - Sw										ð 💌
0 RL	RF 50 Ω	NFE F	RREC PNO: Fast Gain:Low			#Avg Type	ALIGN AUTO e: RMS	TRAC	MOCt 24, 2019 E 1 2 3 4 5 6 E A WWWWW A N N N N N	Frequer	су
0 dB/div	Ref 20.00 (dBm					MI	kr1 1.849 -51.3	9 0 GHz 81 dBm	Auto	Tur
10.0										Cente 939.50000	
10.0									DL1 -13.00 dBm	Star 30.00000	
80.0										Stoj 1.8490000	
io.o									1	CF 181.90000 <u>Auto</u>	Ste DO MI M
60.0	dial italia za watema andi	and the second second	and shared and an and a start of the start and a start a start a	<u>tin like pidety</u> te provi	Marcaret Angles Side	alahan alahan alah	ogen af the local data of the	al hill house all hears		Freq	Offs 0 I
										Scale	
tart 0.03 Res BW	1.0 GHz		#VBW	3.0 MHz		5	Sweep 2	Stop 1.8 2.425 ms (3490 GHz 3639 pts)	Log	L
SG							STATU	s			

Plot 7-233. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

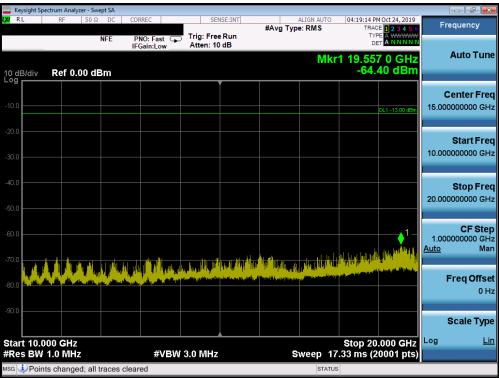


Plot 7-234. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

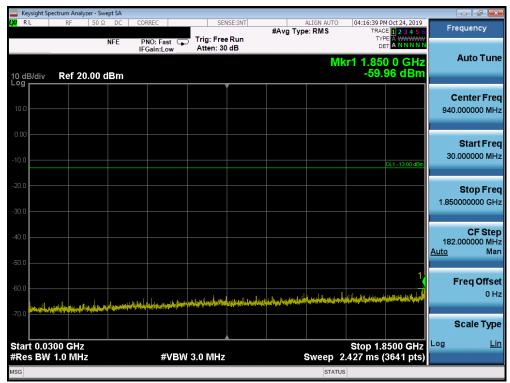
FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 129 of 257
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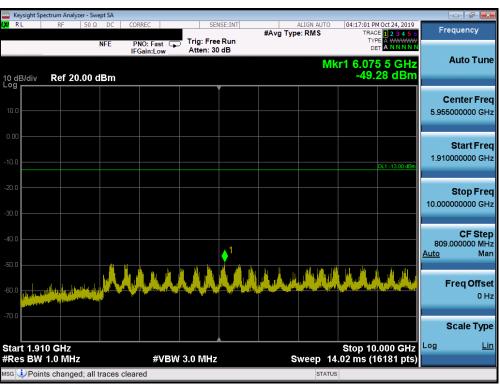
Plot 7-235. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



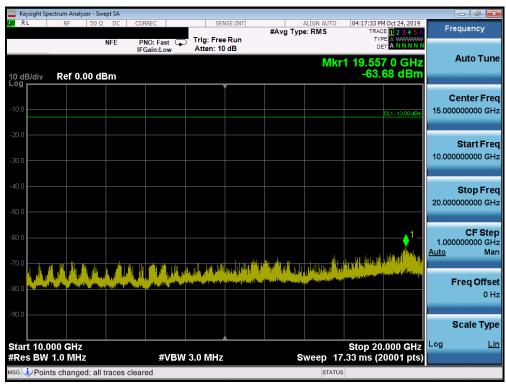
Plot 7-236. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG981V	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-237. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



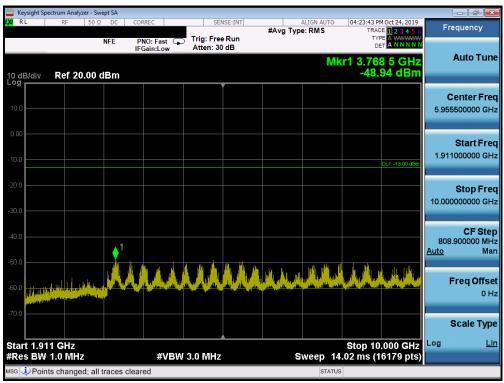
Plot 7-238. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Daga 140 of 257	
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	ysight Sp	ectrum	Analyze		pt SA												- • ×
l <mark>,XI</mark> RI	L	R	F	50 Ω	DC	CORR	REC		SE	NSE:INT	#4		ALIGN AUTO e: RMS		PM Oct 24, 2019	Fre	equency
					NFE		O: Fast ain:Lov		Trig: Fre Atten: 30			•9 ·)P		Mkr1 77	7PE A NNNN 1.5 MHz .82 dBm		Auto Tune
10 dE	3/div	Re	ef 20.	00 d	Bm						_			-59	.82 aBm		
10.0																	enter Freq .000000 MHz
0.00 -10.0															DL1 -13.00 dBm	30.	Start Freq 000000 MHz
-20.0 -30.0																1.850	Stop Freq 0000000 GHz
-40.0 -50.0																182. <u>Auto</u>	CF Step 000000 MHz Man
									1				a balikata	u.L. of Manager	وروبي المتعارية	F	Freq Offset 0 Hz
-70.0						din series and a series of the	, the second	gaber film				in the state of the		ing and information			
-70.0																	Scale Type
	t 0.03 s BW						#\	/BW	3.0 MHz				Sweep	Stop 1. 2.427 ms	8500 GHz (3641 pts)	Log	<u>Lin</u>
MSG													STATU	JS			

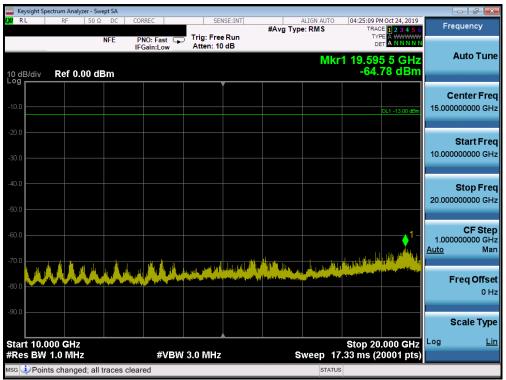
Plot 7-239. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-240. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dega 141 of 257	
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Plot 7-241. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

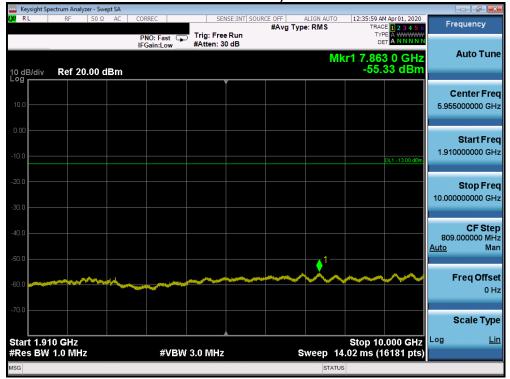
FCC ID: A3LSMG981V	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 142 of 257
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NR Band n2

Keysight Spe	RF	50 Ω		CORRE	C		SENSE:INT SO	OURCE OFF	ALIGN AUTO	12:41:49 AM	Apr 01, 2020	
				PNO	:Fast G		ree Run	#Avg T	ype: RMS	TRACE	123456 A WWWW A N N N N N	Frequency
				IFGa	in:Low	#Atten	: 34 dB				-	Auto Tur
10 dB/div Log	Ref 20	.00 dl	Зm						IVII	kr1 1.848 -28.6	6 dBm	
												Center Fre
10.0												939.000000 MH
0.00												Otort Ers
-10.0												Start Fre 30.000000 MH
										C)L1 -13.00 dBm	
-20.0											1,	Stop Fre
-30.0												1.848000000 GH
40.0												CF Ste
												181.800000 MH <u>Auto</u> Ma
-50.0												
60.0 		and an address of the	unterstation)		مارد پادو.د مذر اور		*****				fariyi,degendiyi	Freq Offs
-70.0												
												Scale Typ
Start 0.03										Stop 1.8	480 GHz	Log <u>L</u>
Res BW	1.0 MHz	2			#VB\	N 3.0 MI	IZ		Sweep 2	2.425 ms (3	639 pts)	

Plot 7-242. Conducted Spurious Plot (n2 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Low Channel)



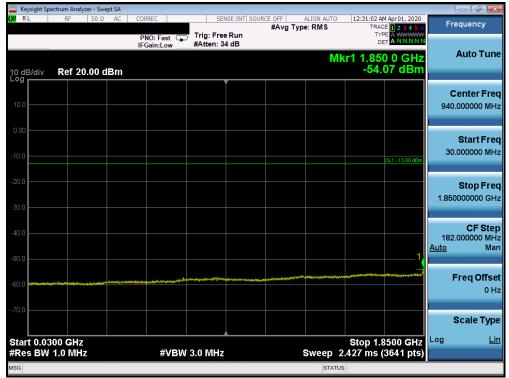
Plot 7-243. Conducted Spurious Plot (n2 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMG981V	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 142 of 257	
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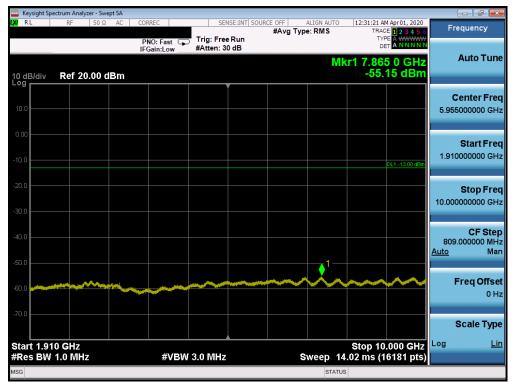
Plot 7-244. Conducted Spurious Plot (n2 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Low Channel)



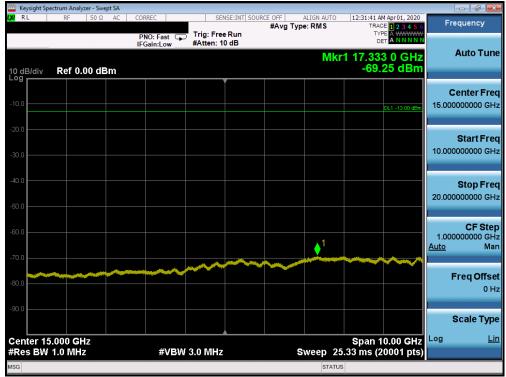
Plot 7-245. Conducted Spurious Plot (n2 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG981V	PCTEST*	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-246. Conducted Spurious Plot (n2 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Mid Channel)



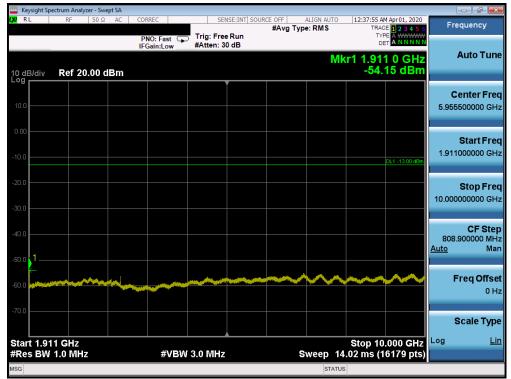
Plot 7-247. Conducted Spurious Plot (n2 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG981V	PCTEST° Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 145 of 357
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	nt Spectrum Analyzer - Swept S					
LXI RL	RF 50 Ω A	C CORREC	SENSE:INT SO	URCE OFF ALIGN AUTO #Avg Type: RMS	12:37:39 AM Apr 01, 2020 TRACE 1 2 3 4 5 6	Frequency
10 dB/di	v Ref 20.00 dBr	PNO: Fast 🖵 IFGain:Low	Trig: Free Run #Atten: 34 dB		rr1 1.845 0 GHz -55.43 dBm	Auto Tune
10.0						Center Freq 940.000000 MHz
-10.0					DL1 -13.00 dBm	Start Freq 30.000000 MHz
-20.0						Stop Freq 1.85000000 GHz
-40.0						CF Step 182.00000 MHz <u>Auto</u> Man
-60.0	an a	ann dian a bang tang tang tang tang tang tang tang t	halacasha galika muta ng kina aka sha antara na aa	ant, og og att for høgen og ser for skale og ser ser skale og ser som	an fan fan de skriefter f	Freq Offset 0 Hz
	.0300 GHz				Stop 1.8500 GHz	Scale Type
	W 1.0 MHz	#VBW	3.0 MHz	Sweep 2	.427 ms (3641 pts)	
MSG				STATUS		

Plot 7-248. Conducted Spurious Plot (n2 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-249. Conducted Spurious Plot (n2 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ eterment	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 146 of 357
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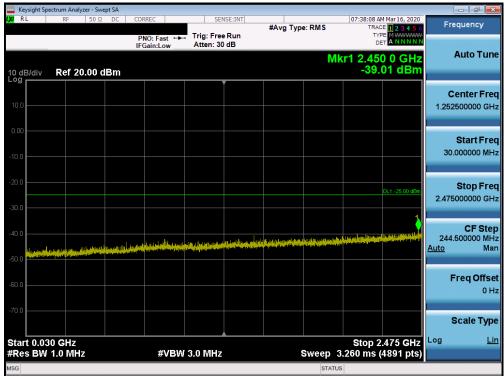


Plot 7-250. Conducted Spurious Plot (n2 - 20.0MHz DFT-s-OFDM BPSK - RB Size 1, RB Offset 0 - High Channel)

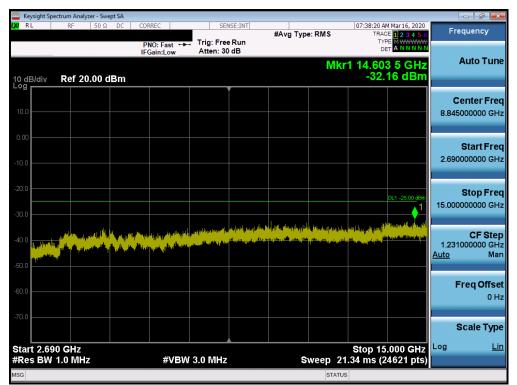
FCC ID: A3LSMG981V	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	AMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 147 of 257	
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Band 41



Plot 7-251. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



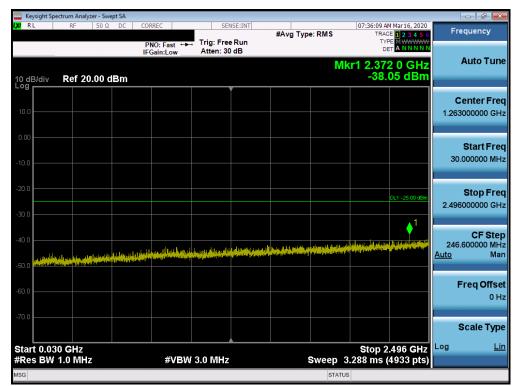
Plot 7-252. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Daga 149 of 257	
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	pectrum Analyz											- 6 🗙
XU RL	RF	50 Ω D0	PN	0:Fast ↔			#Avg Typ	e: RMS	TRAC	M Mar 16, 2020 DE 1 2 3 4 5 6 PE M WWWWW ET A N N N N N	Fred	quency
I0 dB/div	Ref 0.0	00 dBm						Mkr	1 26.38 -46.	4 5 GHz 49 dBm	4	uto Tun
-10.0												enter Fre 00000 GH
30.0										DL1 -25.00 dBm		Start Fre 00000 GH
40.0			ala a ca ai finais	^{منار} ي أمرار أوريا والم ^{الي}	No 2 and 1 de la Contra de la	ىلىد ئەدىرىل _{تى} لىغانغان. 1. يەرىرىلى يىلىغانغان	a la la sulla della d	N 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	olinge (Blatting & A			Stop Fre 00000 GH
50.0 ****	and the second and the billing	Party Carton Constant		and a link of the second s	na kana se _{ka} nakana	ing in a state of the state	an the address of the second				1.2000 <u>Auto</u>	CF Ste 00000 GH Ma
80.0											Fi	reqOffso 0 ⊢
-90.0	000 GHz								Stop 27	.000 GHz	S Log	cale Typ Li
	1.0 MHz	:		#VBW	3.0 MHz		S	weep 20	.80 ms (2	.000 GH2 4001 pts)		
SG								STATUS				

Plot 7-253. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



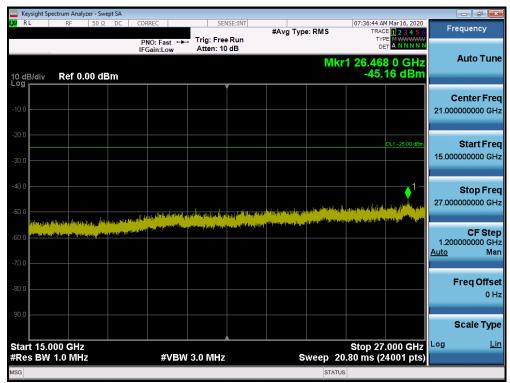
Plot 7-254. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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🔤 Keysight Sp	ectrum Analyzer	- Swept SA									
L <mark>XU</mark> RL	RF 5	0Ω DC	CORREC PNO: F	ast 🔸			#Avg Typ	e: RMS	TRA TY	M Mar 16, 2020 CE <u>1 2 3 4 5 6</u> PE M WWWWWW FT A N N N N N	Frequency
10 dB/div Log	Ref 20.0	0 dBm	IFGain:	Low	Atten: 30	dB		Mk	r1 14.37	0 5 GHz 23 dBm	Auto Tune
10.0											Center Freq 8.845000000 GHz
-10.0											Start Freq 2.690000000 GHz
-20.0										DL1 -25.00 dBm	Stop Freq 15.000000000 GHz
-40.0				An Paula Na tanàn	ann gur san an a		ni galogi (<u>19</u> 19) galogi (1999) (19 ₁₉ - Mary Mary (1999) (1919 - San (1999)		ka ing kayang pana Ani tina aya siya ing	n hegeneer XI Anne gegere De seene stikke stelense	CF Step 1.231000000 GHz <u>Auto</u> Man
-60.0											Freq Offset 0 Hz
-70.0 Start 2.69	90 GHz								Stop 15	.000 GHZ	Scale Type
#Res BW	1.0 MHz			#VBW	3.0 MHz		S	weep 2	1.34 ms (2	24621 pts)	

Plot 7-255. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



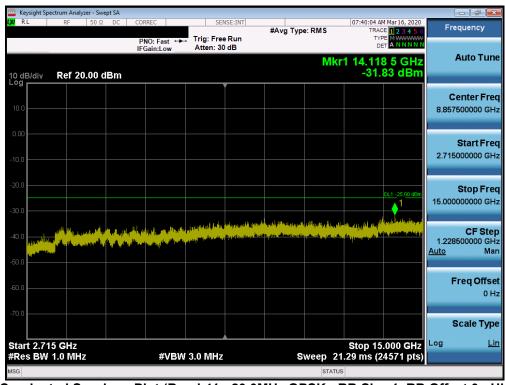
Plot 7-256. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG981V	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SUNG	Approved by: Quality Manager
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	ectrum Analyzer - Swe										×
LXU RL	RF 50 Ω	DC COR	REC	SEN	ISE:INT	#Avg Typ	e: RMS		Mar16, 2020	Frequency	/
10 dB/div	Ref 20.00 d	IFG	O: Fast ↔ ain:Low	Trig: Free Atten: 30		• 1	M	be kr1 2.47	5 GHz 38 dBm	Auto T	une
10.0										Center F 1.263000000	
-10.0										Start F 30.000000	
-20.0									DL1 -25.00 dBm	Stop F 2.496000000	
-40.0					ali lani qa lidig		land the plan with the	yy et wet wet to a state of the second		CF S 246.600000 <u>Auto</u>	
-60.0										Freq Of	f fset 0 Hz
-70.0										Scale T	
Start 0.03 #Res BW			#VBW	3.0 MHz			Sweep	Stop 2 3.288 ms (.496 GHz 4933 pts)	Log	Lin
MSG							STAT				

Plot 7-257. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-258. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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PNO: Fast Trig: Free Run (FGain:Low Trig: Free Run Atten: 10 dB Trig: Free Run (PG dB) Trig: Free Run (PG dB) <thtrig< th=""> Free Run (PG dB)</thtrig<>		ight Spec		lyzer - Swe											
Inclusion Atten: 10 dB Der ANNNN Mkr1 26.514 5 GHz -45.93 dBm Auto Tune 10 dB/div Ref 0.00 dBm -45.93 dBm Center Freq 21.000000000 GHz 200 0.1 .2500 dPm 0.1 .2500 dPm Start Freq 15.00000000 GHz 300 0.1 .2500 dPm 0.1 .2500 dPm Start Freq 15.00000000 GHz 400 0.1 .2500 dPm 0.1 .2500 dPm Start Freq 15.00000000 GHz 400 0.1 .2500 dPm 0.1 .2500 dPm Start Freq 15.00000000 GHz 400 0.1 .2500 dPm 0.1 .2500 dPm Start Freq 15.00000000 GHz 400 0.1 .2500 dPm 0.1 .2500 dPm Start Freq 15.00000000 GHz 400 0.1 .2500 dPm 0.1 .2500 dPm Start Freq 15.00000000 GHz 400 0.1 .2 .500 dPm 0.1 .2 .500 dPm 0.1 .2 .500 dPm 400 0.1 .2 .500 dPm 0.1 .2 .500 dPm 0.1 .2 .500 dPm 400 0.1 .2 .500 dPm 0.1 .2 .500 dPm 0.1 .2 .500 dPm 400 0.1 .2 .500 dPm 0.1 .2 .500 dPm 0.1 .2 .500 dPm 400 0.1 .2 .500 dPm 0.1 .2 .500 dPm 0.1 .2 .500 d	l <mark>XI</mark> RL		RF	50 Ω	DC	CORRE	C	5	SENSE:INT	#Avg Ty	pe:RMS	TRAC	DE 1 2 3 4 5 6	Fr	requency
Mkr1 26.514 5 GHz -45.93 dBm Auto Tune 100 dB/div Ref 0.00 dBm Center Freq 21.00000000 GHz 100 dB/div 1												TY D	PE MWWWWW ET ANNNNN		
10 dB/div Ref 0.00 dBm -45.93 dBm 100 <t< th=""><th></th><th></th><th></th><th></th><th></th><th>II Gal</th><th>II.LOW</th><th>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</th><th></th><th></th><th>M</th><th>kr1 26.51</th><th>4 5 GHz</th><th></th><th>Auto Tune</th></t<>						II Gal	II.LOW	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			M	kr1 26.51	4 5 GHz		Auto Tune
Image: Start Freq Image: Start Freq Image: Start Freq Image: Start Freq 1000 1		div	Ref 0	.00 dE	3m							-45.	93 dBm		
-100									Ĭ						Contor From
1 1	-10.0														•
Image: state in the state i															
.300	-20.0												DI 4 - 25 00 dBm		Start Eron
2000 Image: Stop Freq 4000 Image:													DE1 -25.00 (IBM	15.00	•
.500 Image: state of the	-30.0														
.500 Image: state st	-40.0												1 _		Stop Erog
-500 -500													I. 🔶 I	27.00	
-60.0 -60.0	-50.0				e 18				a a a a a a a a a a a a a a a a a a a	الملدد بمليل حرر كلك	an a successful de la succession de la s	a lu stanoù e tel	Andrea Constanti Marine State		
Auto Man -80.0	P.	dialendar 	A STATE OF THE STA	Nos Galli II a constantes		er operation of the	ي. الأوساط مريك	المعريف من الأحمار (إيا	territe and the second	and Marine Street in		الالان المعلي الانتمار المؤن والأربط	ladin pilindah .		CF Step
-70.0 -80.0 -90.0	-60.0	<u>اللہ پالی دانہ</u>	ilian (ilian)	<u>اللكم بدا الملة</u>	di con										0000000 GHz
-80.0 -90.0	-70.0													Auto	Ivian
-80.0 -90.0															
-90.0	-80.0														•
	-90.0														Scale Type
Start 15.000 GHz Stop 27.000 GHz Log Lin #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 20.80 ms (24001 pts)							#\/P)		7		Sween	Stop 27	.000 GHz	Log	Lin
#Res Bw 1.0 Min2 #VBW 3.0 Min2 Sweep 20.80 ms (24001 pts) Msg status		-144		2			#VD	W 3.0 Min	2				4001 pts)		

Plot 7-259. Conducted Spurious Plot (Band 41 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Band 7



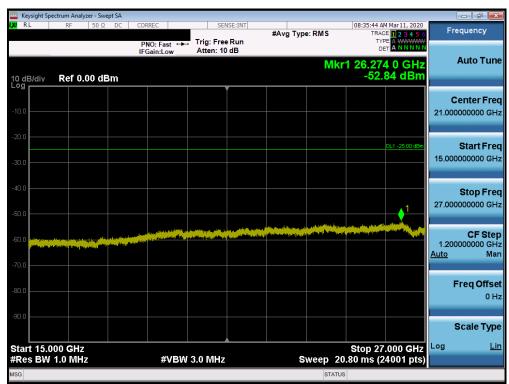
Plot 7-260. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMG981V	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-262. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

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	pectrum Analyzer - Swept SA					
LXI RL	RF 50 Ω DC	CORREC	SENSE:INT	#Avg Type: RMS	08:32:50 AM Mar 11, 2020 TRACE 1 2 3 4 5 6	Frequency
	_		ig: Free Run tten: 30 dB			Auto Tune
10 dB/div	Ref 20.00 dBm				-47.46 dBm	
10.0						Center Freq 1.265000000 GHz
-10.0						Start Freq 30.000000 MHz
-20.0					DL1 -25.00 dBm	Stop Freq 2.50000000 GHz
-30.0					1	CF Step 247.000000 MHz
-50.0	**********		wang ang ang ang ang ang ang ang ang ang	and the second		<u>Auto</u> Man Freq Offset
-60.0						0 Hz
Start 0.0	20 047				Stop 2.500 GHz	Scale Type
	1.0 MHz	#VBW 3.0	MHz	Sweep	3.293 ms (4941 pts)	
MSG				STAT	US	

Plot 7-263. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



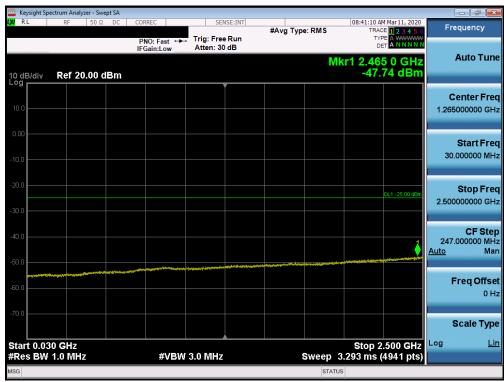
Plot 7-264. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG981V	PCTEST Proud to be part of @ elonuent	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-265. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



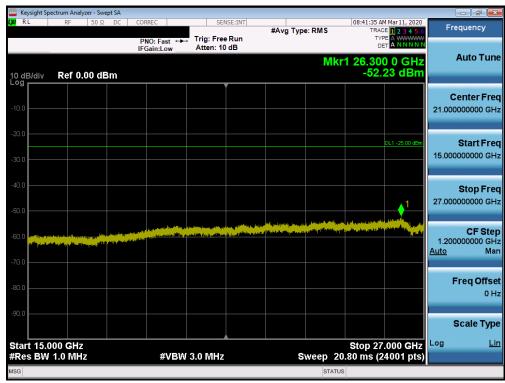
Plot 7-266. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG981V	PCTEST Proud to be part of @ elonuent	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-267. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-268. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel

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7.4 Band Edge Emissions at Antenna Terminal

Test Overview

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at 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 $43 + 10 \log_{10}(P_{[Watts]})$, where P is the transmitter power in Watts.

Test Procedure Used

KDB 971168 D01 v03r01 - Section 6.0

Test Settings

- 1. Start and stop frequency were set such that the band edge would be placed in the center of the plot
- 2. Span was set large enough so as to capture all out of band emissions near the band edge
- 3. RBW \geq 1% of the emission bandwidth
- 4. VBW <u>></u> 3 x RBW
- 5. Detector = RMS
- 6. Number of sweep points $\geq 2 \times \text{Span/RBW}$
- 7. Trace mode = trace average
- 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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Test Notes

Per 22.917(b) 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.

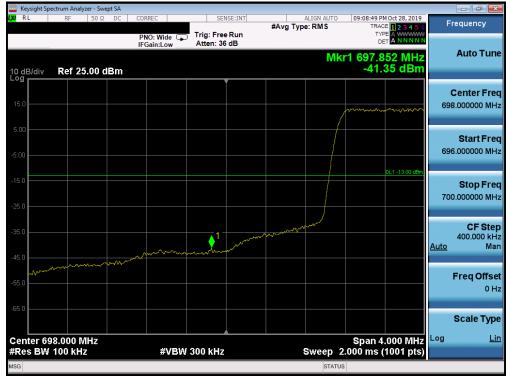
For all plots showing emissions in the 763 – 775MHz and 793 – 805MHz band, the FCC limit per 27.53(c)(4) is 65 + 10 $\log_{10}(P)$ = -35dBm in a 6.25kHz bandwidth.

All SCS's and Waveforms (CP-OFDM vs DFT-s OFDM) were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

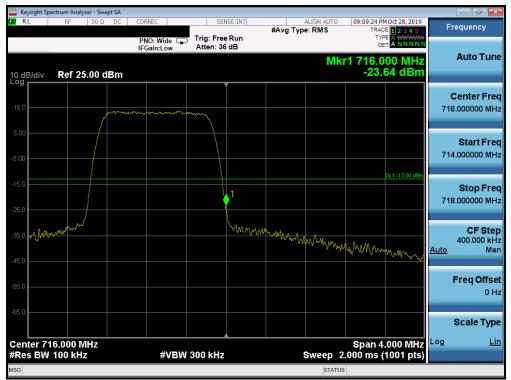
FCC ID: A3LSMG981V	PCTEST° Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 150 of 257
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Band 12



Plot 7-269. Lower Band Edge Plot (Band 12 - 1.4MHz QPSK - Full RB Configuration)



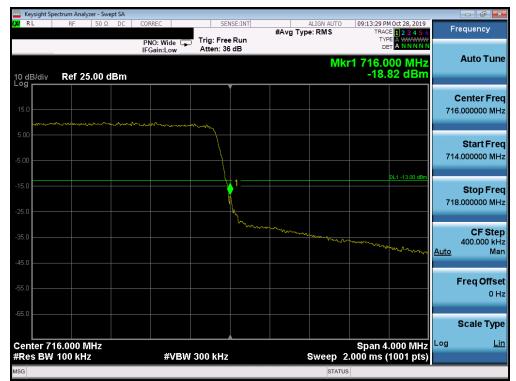
Plot 7-270. Upper Band Edge Plot (Band 12 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ eloniant	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Daga 160 of 257	
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Plot 7-271. Lower Band Edge Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-272. Upper Band Edge Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 161 of 257
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	ectrum Analyzer - Sv										
LXI RL	RF 50 S	2 DC 0	CORREC	SEI	ISE:INT	#Ava Tu	ALIGN AUTO		MOct 28, 2019	F	requency
10 dB/div	Ref 25.00		PNO: Wide 🕞 IFGain:Low	Trig: Free Atten: 36				tyr DE kr1 697.9			Auto Tune
15.0											Center Freq 3.000000 MHz
-5.00										69	Start Freq 5.000000 MHz
-15.0							A starting of the start of the	/	DL1 -13.00 dBm	70	Stop Freq 0.000000 MHz
-35.0	who who and a factor		m	m	mm	m	www			<u>Auto</u>	CF Step 400.000 kHz Man
-55.0											Freq Offset 0 Hz
-65.0 Center 69	98.000 MHz							Span 4	.000 MHz	Log	Scale Type Lin
#Res BW			#VBW	300 kHz				2.000 ms (1001 pts)		
ISG							STAT	05			

Plot 7-273. Lower Band Edge Plot (Band 12 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-274. Upper Band Edge Plot (Band 12 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	Proved to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 162 of 357
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Keysight Spectrum Analyzer - Swept SA						
XIRL RF 50Ω DC	CORREC	SENSE:INT	ALIGI #Avg Type: RI		Oct 28, 2019	Frequency
10 dB/div Ref 25.00 dBm		Free Run n: 36 dB	#Avg Type. Ki	TYP DE Mkr1 698.0		Auto Tune
15.0						Center Freq 698.000000 MHz
-5.00				a fan wear an		Start Freq 694.000000 MHz
-15.0			- P		DL1 -13.00 dBm	Stop Freq 702.000000 MHz
-35.0	when produce and the product of the	1			Aut	CF Step 800.000 kHz 0 Man
-55.0						Freq Offset 0 Hz
-65.0						Scale Type
Center 698.000 MHz #Res BW 100 kHz	#VBW 300 k	Hz	Swi	Span 8. eep 4.000 ms (*	000 MHz ^{Log} 1001 pts)	y <u>Lin</u>

Plot 7-275. Lower Band Edge Plot (Band 12 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-276. Upper Band Edge Plot (Band 12 - 10.0MHz QPSK - Full RB Configuration)

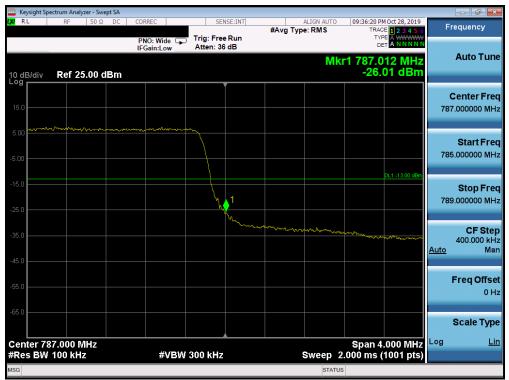
FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ elonson!	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 162 of 257
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Band 13



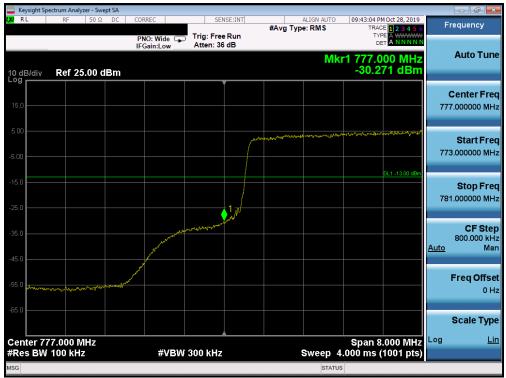
Plot 7-277. Lower Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)



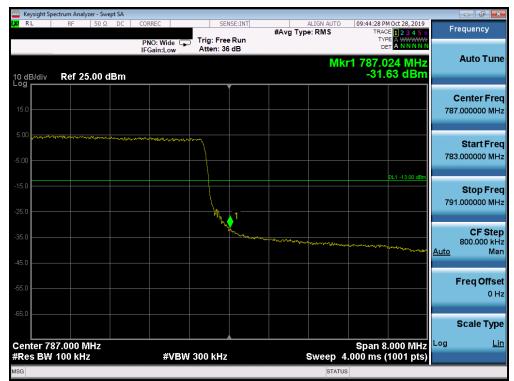
Plot 7-278. Upper Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 164 of 257
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Plot 7-279. Lower Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

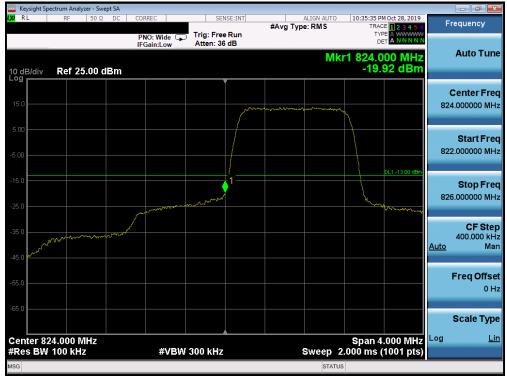


Plot 7-280. Upper Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

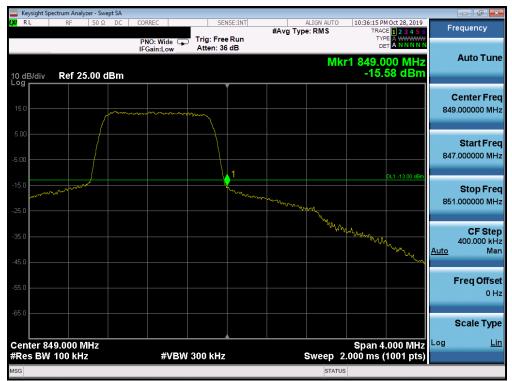
FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dere 165 of 257	
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Band 26/5



Plot 7-281. Lower Band Edge Plot (Band 26/5 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-282. Upper Band Edge Plot (Band 26/5 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Daga 166 of 257	
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Plot 7-283. Lower Band Edge Plot (Band 26/5 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-284. Upper Band Edge Plot (Band 26/5 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	Proved to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 167 of 257
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Keysight Spectrum Analyzer - Swept SA					
LXU RF 50Ω DC	CORREC	SENSE:INT	ALIGN AUTO #Avg Type: RMS	10:44:15 PM Oct 28, 2019 TRACE 1 2 3 4 5 6	Frequency
10 dB/div Ref 25.00 dBm	PNO: Wide 🖵 IFGain:Low	Trig: Free Run Atten: 36 dB	- //	TYPE DET ANNNNN (r1 823.968 MHz -25.06 dBm	Auto Tune
15.0					Center Freq 824.000000 MHz
-5.00					Start Freq 822.000000 MHz
-15.0		1.N		DL1 -13.00 dBm	Stop Freq 826.000000 MHz
-35.0					CF Step 400.000 kHz <u>Auto</u> Man
-55.0					Freq Offset 0 Hz
-65.0					Scale Type
Center 824.000 MHz #Res BW 100 kHz	#VBW	300 kHz	Sweep	Span 4.000 MHz 2.000 ms (1001 pts)	
MSG			STATU	JS	

Plot 7-285. Lower Band Edge Plot (Band 26/5 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-286. Upper Band Edge Plot (Band 26/5 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 169 of 257
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	ght Spec																				
L <mark>XI</mark> RL		RF		50 Ω	DC	CO	RREC			SEN	SE:INT		#Av		ALIGN AUT	0	11:31:19 TR		28,2019 2 3 4 5 6		Frequency
10 dB/c	diu	Dof	25.0	00 d	Bm	PI IF	NO: Wi Gain:L	de 🖵 ow	Trig: Atte		e Run i dB			3 ·) -		lkr'	823		MHz		Auto Tune
			23.	<u></u>																	Center Freq 24.000000 MHz
-5.00												ſ	1 -1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-	n na	n Uhisterieren u	N-2-5U	Alfred and and and and and and and and and an			ε	Start Freq 20.000000 MHz
-15.0											1.1	,							-13.00 dBm	E	Stop Freq 28.000000 MHz
-35.0	نيەي بەرىيىنى	nanew	tonger Mar	ww	weer/we	n hallan	a, de la constante de la const	ant a faith and a	لىمەتىر _{ىتە} م مەرە	angers and	ivi '									Auto	CF Step 800.000 kHz 2 Mar
-55.0 —																					Freq Offse 0 H;
-65.0																					Scale Type
Cente #Res				Iz			#	VBW	300	۲					Sweep	4.0	Span 100 ms	8.00 (100	0 MHz)1 pts)	Log	Lin
MSG															STA	TUS					

Plot 7-287. Lower Band Edge Plot (Band 26/5 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-288. Upper Band Edge Plot (Band 26/5 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 160 of 257
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	trum Analyzer -						
LXI RL	RF 51	0Ω DC	CORREC	SENSE:INT	ALIGN AUTO #Avg Type: RMS	11:37:02 PM Oct 28, 2019 TRACE 1 2 3 4 5 6	Frequency
			PNO: Wide 🖵 IFGain:Low	Trig: Free Run Atten: 36 dB			Auto Tune
10 dB/div Log	Ref 25.0	0 dBm				-33.01 dBm	
15.0							Center Freq 824.000000 MHz
-5.00							Start Freq 818.000000 MHz
-15.0						DL1 -13.00 dBm	Stop Freq 830.000000 MHz
-35.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~	, and the second	1 /			CF Step 1.200000 MH <u>Auto</u> Mar
-55.0							Freq Offset 0 Hz
-65.0							Scale Type
Center 824 #Res BW 1		Z	#VBW	470 kHz	Sweep	Span 12.00 MHz 1.000 ms (1001 pts)	Log <u>Lin</u>
MSG					STATU	IS	

Plot 7-289. Lower Band Edge Plot (Band 26 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-290. Upper Band Edge Plot (Band 26 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ elonson!	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 170 of 257
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NR Band n5



Plot 7-291. Lower Band Edge Plot (n5 – 5.0MHz DFT-s-OFDM BPSK - Full RB Configuration)



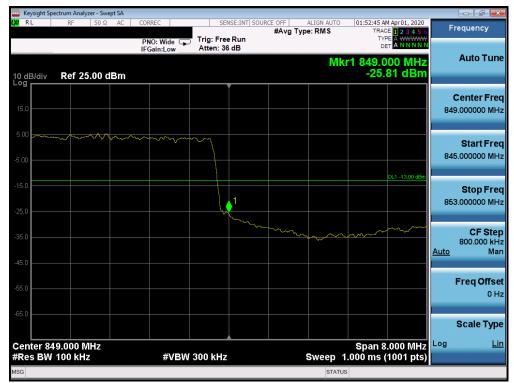
Plot 7-292. Upper Band Edge Plot (n5 – 5.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 171 of 357
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	ectrum Analyz											
N RL	RF	50 Ω AC	C CORRE	C	SEI	SE:INT SO		ALIGN AUTO		M Apr 01, 2020	E	requency
			PNO: IFGai	Wide 🖵 n:Low	Trig: Free Atten: 36		#Avg i	ype: KWS	TYP	ET A NNNNN		
I0 dB/div	Ref 25	.00 dBn	n					M	(r1 824.0 -23.	00 MHz 86 dBm		Auto Tun
15.0												Center Fre 4.000000 MH
5.00							~~~~~	~~~~			820	Start Fre 0.000000 MH
25.0					~~	1.				DL1 -13.00 dBm	82	Stop Fre 3.000000 MH
5.0		~~~~~	~~~~	~~~~							<u>Auto</u>	CF Ste 800.000 kł Ma
5.0												Freq Offs 01
65.0												Scale Typ
enter 82 Res BW				#VBW	300 kHz			Sweep	Span 8 1.000 ms (.000 MHz (1001 pts)	Log	L
SG								STATI	JS			

Plot 7-293. Lower Band Edge Plot (n5 – 10.0MHz DFT-s-OFDM BPSK - Full RB Configuration)



Plot 7-294. Upper Band Edge Plot (n5 – 10.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ elorment	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Deg. 170 of 257
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	ctrum Analyzer									di 🗾
URL	RF 5	50Ω AC	CORREC	S	ENSE:INT SO		ALIGN AUTO	01:43:41 AM Apr 01, 2020		ncv
			PNO: Wide IFGain:Lov	Trig: Fr Atten: 3	ee Run 36 dB	#Avg I	ype: RMS	TRACE 1 2 3 4 5 TYPE A WWWW DET A NNNN	Ň	
0 dB/div	Ref 25.0	0 dBm					Mk	r1 823.988 MH: -25.93 dBn	2	o Tun
15.0									Cente 824.0000	
5.00						, п Со. Со .			818.0000	rt Fre
25.0					1			DL1 -13.00 dB		р Fre 00 м⊦
5.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		·····	www.www.www.www.www.www.www.www.www.ww					C 1.2000 <u>Auto</u>	F Ste 00 MH Ma
i5.0									Freq	Offs 0 I
55.0									Scal	е Тур
enter 82 Res BW	4.000 MH 150 kHz	Z	#V	/BW 470 kH	z		Sweep	Span 12.00 MH I.000 ms (1001 pts	z Log)	L
SG							STATU	s		

Plot 7-295. Lower Band Edge Plot (n5 – 15.0MHz DFT-s-OFDM BPSK - Full RB Configuration)



Plot 7-296. Upper Band Edge Plot (n5 – 15.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

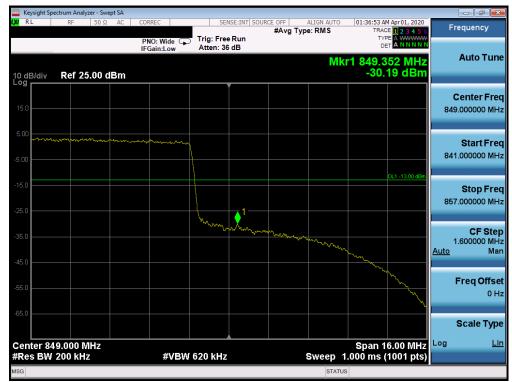
FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ elorment	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Deg. 172 of 257
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	ectrum Analyzer								
I <mark>XI</mark> RL	RF	50 Ω AC	CORREC PNO: Wide				ALIGN AUTO	01:32:37 AM Apr 01, 2020 TRACE 1 2 3 4 5 6 TYPE A WWWW DET A N N N N N	Frequency
10 dB/div	Ref 25.0	00 dBm	IFGall.Low	Allen. oc			Mk	r1 823.984 MHz -26.87 dBm	Auto Tune
15.0									Center Fred 824.000000 MH:
-5.00						·····	front and the second	a gury a mina ra na mina na min	Start Free 816.000000 MH
-15.0					1			DL1 -13.00 dBm	Stop Fre 832.000000 MH
.45.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	······	man					CF Ste 1.600000 MH <u>Auto</u> Ma
55.0									Freq Offse 0 H
-65.0	4 000 141								Scale Typ
Center 82 #Res BW		Z	#VBV	V 620 kHz			Sweep	Span 16.00 MHz 1.000 ms (1001 pts)	
ISG							STATU	IS	

Plot 7-297. Lower Band Edge Plot (n5 – 20.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

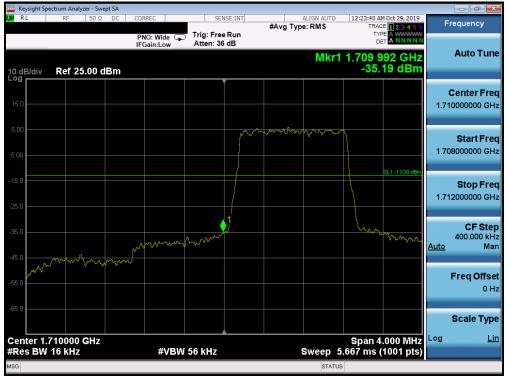


Plot 7-298. Upper Band Edge Plot (n5 – 20.0MHz DFT-s-OFDM BPSK - Full RB Configuration)

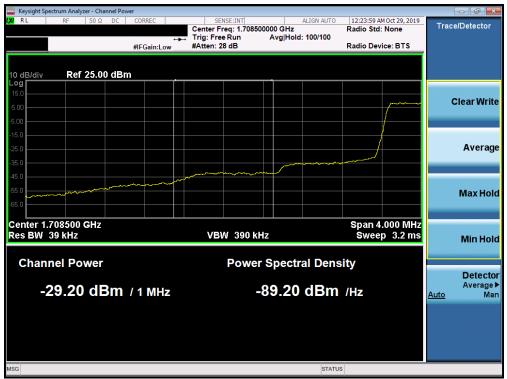
FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Band 66/4



Plot 7-299. Lower Band Edge Plot (Band 66/4 - 1.4MHz QPSK - Full RB Configuration)



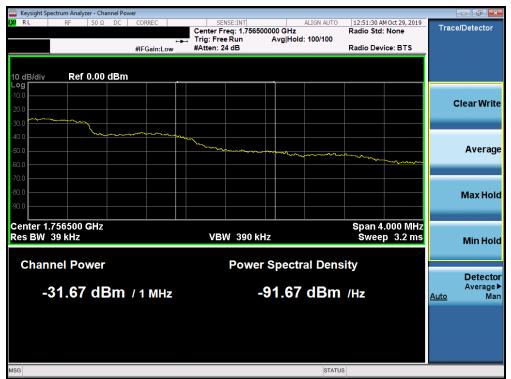
Plot 7-300. Lower Extended Band Edge Plot (Band 66/4 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 175 of 257
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Plot 7-301. Upper Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)



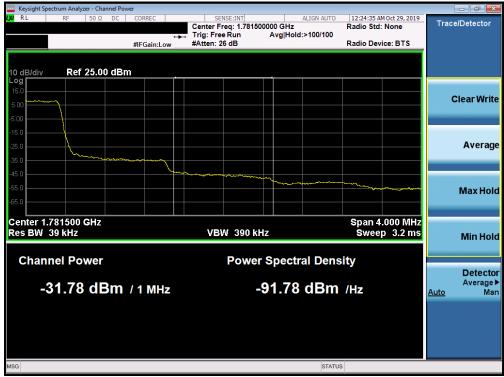
Plot 7-302. Upper Extended Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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	pectrum Analyze	r - Swept	SA													- 6 -
K <mark>I</mark> RL	RF	50 Ω	DC C	ORREC			SENSE:INT	Г	#Ava	ALIG Type: R	IN AUTO	12:2		M Oct 29, 201 E 1 2 3 4 5		Frequency
	_			PNO: Wi FGain:L	de 🖵 ow		Free Run : 36 dB			.,,			TYP		w/	
0 dB/div	Ref 25.	00 dB	m								Mkr	1 1.78	30 0 -33.	16 GH 01 dBr	z	Auto Tun
15.0																Center Fre
															1.7	'80000000 GH
5.00		M	~~^^	m	ممد	\sim										Start Fre
5.00														DL1 -13.00 dB		78000000 GH
15.0		1														Stop Fre 82000000 GH
25.0							1									CF Ste
^{35.0}								ww	www.	νų					Auto	400.000 kH
45.0											www.	w.	~ <u>,</u> ^	Marry	~	Freq Offse
5.0																0 -
i5.0																Scale Typ
	.780000 G	Hz				56 kH	_				0.07			.000 MH		Li
Res BW	16 kHz			#	VEW	30 KH	2			SW	STAT		ins (1001 pt	2	

Plot 7-303. Upper Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)



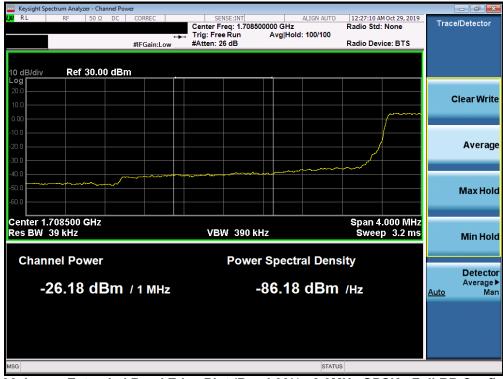
Plot 7-304. Upper Extended Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST* Proud to be part of @ elonnen!	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
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🔤 Keysight Spectrum Analyzer - Swept S					
LX RL RF 50 Ω D	C CORREC	SENSE:INT	ALIGN AUTO #Avg Type: RMS	12:26:55 AM Oct 29, 2019 TRACE 1 2 3 4 5 6	Frequency
10 dB/div Ref 25.00 dB	PNO: Wide 🖵 IFGain:Low	Trig: Free Run Atten: 36 dB	Mkr1	туре А WWWW DET A NNNNN I 1.710 000 GHz -26.74 dBm	Auto Tune
15.0					Center Fred 1.710000000 GHz
5.00			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	DL1 -13.00 dBm	Start Fred 1.708000000 GH:
-25.0		1			Stop Fred 1.712000000 GH:
35.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~			CF Step 400.000 kH <u>Auto</u> Ma
65.0					Freq Offse 0 H
-65.0				Opuli 4.000 Mil 12	Scale Type
#Res BW 36 kHz	#VBW	130 kHz	Sweep 3	2.000 ms (1001 pts)	

Plot 7-305. Lower Band Edge Plot (Band 66/4 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-306. Lower Extended Band Edge Plot (Band 66/4 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG981V	PCTEST° Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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