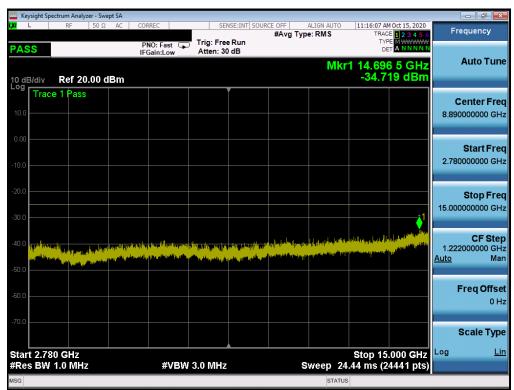


🔤 Keysight Spec	trum Analyzer - S									
LXI L	RF 50	Ω AC	CORREC	SEN	SE:INT SOURCE	#Avg Typ	ALIGN AUTO		I Oct 15, 2020	Frequency
PASS			PNO: Fast	Trig: Free Atten: 30	Run	• ,,		TYP	E M WWWWW T A N N N N N	
			II Gam.Low				Mk	r1 2.472	2 5 GHz	Auto Tune
10 dB/div Log	Ref 20.00	dBm						-38.4	35 dBm	
Trace	1 Pass			Ĭ						Center Freq
10.0										1.270000000 GHz
0.00										Start Freq
-10.0										30.000000 MHz
-20.0										Stop Freq
-30.0										2.510000000 GHz
-30.0									1	
-40.0						. ktore.	مرام مربع فاسط	and show I successful the		CF Step 248.000000 MHz
(advant let	ورامها (معردان ال					and a second		and the desident of the	فمانا النار بالضائير سارا وريتان	Auto Man
-50.0										
-60.0										Freq Offset
										0 Hz
-70.0										
										Scale Type
Start 0.030								Stop 2	510 GHz	Log <u>Lin</u>
#Res BW 1	.0 MHz		#VBW	3.0 MHz				· · · · ·	4961 pts)	
MSG							STATUS			

Plot 7-211. Conducted Spurious Plot (NR Band n41 - 100.0MHz - RB Size 1, RB Offset 0 - High Channel)



Plot 7-212. Conducted Spurious Plot (NR Band n41 - 100.0MHz - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG998U	PCTEST Proud to be part of @ element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
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Plot 7-213. Conducted Spurious Plot (NR Band n41 - 100.0MHz - RB Size 1, RB Offset 0 - High Channel)

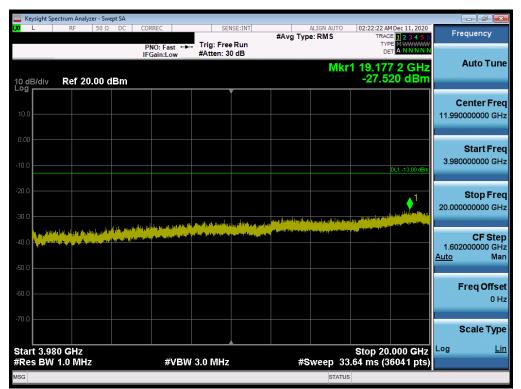
FCC ID: A3LSMG998U		PART 27 MEASUREMENT REPORT	AMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 100 of 202
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## NR Band n77

Keysight Spectrum Analyzer - Swept S	5A				
<b>L </b> RF 50 Ω E	PNO: Fast	SENSE:INT	ALIGN AUTO #Avg Type: RMS	02:17:08 AM Dec 11, 2020 TRACE 1 2 3 4 5 6 TYPE MWWWW DET A N N N N N	Frequency
10 dB/div Ref 20.00 dB	IFGain:Low	#Atten: 30 dB	M	(r1 3.698 5 GHz -36.930 dBm	Auto Tune
10.0					Center Fred 1.865000000 GH
-10.0				DL1 -13.00 dBm	Start Free 30.000000 MH
-20.0					<b>Stop Fre</b> 3.700000000 GH
-40.0	a standard a state of a		a la verse de se de se de se de la se de la de la de la deserva de se de se de se de la de la de la de la de s La se de la de se de se de la de l La de la d		<b>CF Ste</b> j 367.000000 MH <u>Auto</u> Ma
-60.0					Freq Offso 0 ⊦
-70.0					Scale Typ
Start 30 MHz #Res BW 1.0 MHz	#VBW	3.0 MHz	#Sweep 7	Stop 3.700 GHz 7.340 ms (7341 pts)	Log <u>Li</u>
ISG			STATU	3	

Plot 7-214. Conducted Spurious Plot (NR Band n77 -100.0MHz - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-215. Conducted Spurious Plot (NR Band n77 - 100.0MHz - RB Size 1, RB Offset 0 - Low Channel)

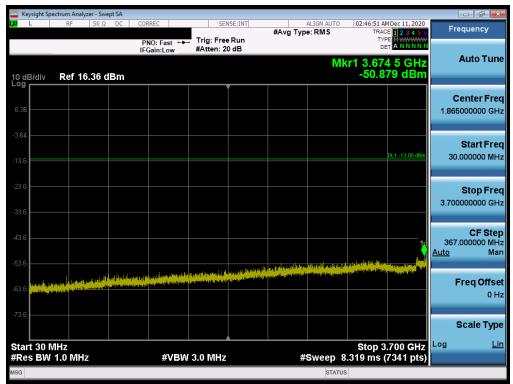
FCC ID: A3LSMG998U	POINTEST Pound to be part of the element	PART 27 MEASUREMENT REPORT	MSUND	Approved by: Quality Manager
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Keysight	t Spectrum Analyzer -		ORREC	SEN	SE:INT		ALIGN AUTO	02:39:44 AM Dec 11, 202	
	N St		PNO: Fast ↔ FGain:Low		Run	#Avg Typ		TRACE 1 2 3 4 5 TYPE MWWW DET A N N N N	6 ₩ N
10 dB/di	v Ref 16.30	∂dBm					Mkr	1 39.068 0 GH -25.158 dBn	z Auto Tun n
6.36									Center Fre 30.000000000 GH
3.64 — 13.6 —								DL1 -13.00 dB	<b>Start Fre</b> 20.000000000 GH
-23.6									<b>Stop Fre</b> 40.000000000 GH
43.6 <mark>4441</mark> 53.6	Langel al handshild frank a di Ganagan yang balan sa tang t		ga miliya sayilalariya wa shekatara wanas	Andrewy gynal Andry A Y Dry Angella ( nambr	alingkan parti 		A Antonio de la compositione de la composition de la compos		CF Ste 2.000000000 GI <u>Auto</u> Mi
63.6									Freq Offs
73.6									Scale Typ
	0.00 GHz W 1.0 MHz		#VBW	3.0 MHz		#S	weep 40	Stop 40.00 GH .00 ms (40001 pts	z Log <u>L</u> 5)
ISG							STATUS		

Plot 7-216. Conducted Spurious Plot (NR Band n77 - 100.0MHz - RB Size 1, RB Offset 0 - Low Channel)



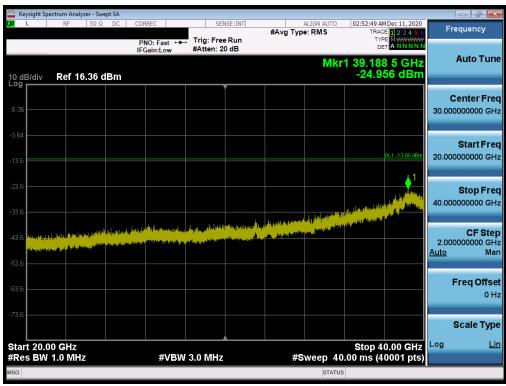
Plot 7-217. Conducted Spurious Plot (NR Band n77 - 100.0MHz - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG998U	PCTEST Proud to be part of @ element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
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🔤 Keysig	ht Spectrum A		pt SA										
<b>lxi</b> L	RF	<u>50 Ω</u>	DC	CORREC		SEN	ISE:INT	#Avg Typ	ALIGN AUTO e: RMS		M Dec 11, 2020 DE 1 2 3 4 5 6	Fre	quency
				PNO: Fas IFGain:Lo		Trig: Free #Atten: 20		0 ,1		TYI Di			
10 dB/d Log	liv <b>Ref</b>	16.36 d	Bm						Mkr	1 19.72 -42.2	1 3 GHz 04 dBm		Auto Tune
6.36 —													e <b>nter Freq</b> 000000 GHz
-3.64											DL1 -13.00 dBm		<b>Start Freq</b> 000000 GHz
-23.6													<b>Stop Freq</b> 000000 GHz
-43.6		a ta ta ang	R BANK BAR BAR BAR	y.lepillet.eu	d, parter	al a sta aitean ann		ing the state of t	rayajurya Halasta Interativati	t <sub>eta</sub> nisten eta artea eta artea Eta eta eta eta eta eta eta eta eta eta e		1.6020 <u>Auto</u>	<b>CF Step</b> 000000 GHz Man
-53.6 <mark>-</mark>		, Marstan para di Bal	in the state of the									F	<b>req Offset</b> 0 Hz
-73.6										Stop 20		S	cale Type Lin
	3.980 GH 3W 1.0 N			#	VBW :	3.0 MHz		#S	weep 33	stop 20 1.64 ms (3	.000 GHz 6041 pts)		
MSG									STATUS	3			

Plot 7-218. Conducted Spurious Plot (NR Band n77 - 100.0MHz - RB Size 1, RB Offset 0 - Mid Channel)



Plot 7-219. Conducted Spurious Plot (NR Band n77 - 100.0MHz - RB Size 1, RB Offset 0 - Mid Channel)

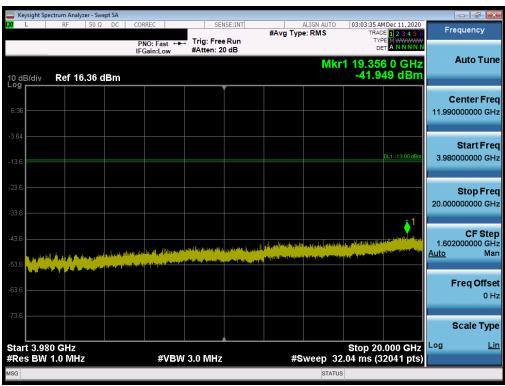
FCC ID: A3LSMG998U		PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
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🔤 Key	sight Spect		-										_	
<b>l,XI</b> L		RF	50 Ω	DC	CORRE	C	SE	NSE:INT	#Avg Typ	ALIGN AUTO e: RMS	TRA	M Dec 11, 2020 DE 1 2 3 4 5 6	F	requency
						:Fast ↔ in:Low	Trig: Fre #Atten: 2				TY D			
					II Gui	II.LOW				Mk	r1 3.61	3 0 GHz		Auto Tune
10 dB	3/div	Ref	16.36 c	IBm							-50.1	22 dBm		
Log								Ĭ						
6.36														Center Freq 5000000 GHz
0.00													1.00	5000000 GH2
-3.64														
												DL1 -13.00 dBm	_	Start Freq
-13.6					-							DET -13.00 dBm	3	0.000000 MHz
-23.6														Stop Freq
-33.6													3.70	0000000 GHz
00.0														
-43.6												*1	36	CF Step 7.000000 MHz
												•	Auto	Man
-53.6									a grand data (	ىلى <u>ما</u> رىكىنىڭ رايدا.				
	الملك ملكم		- <b>TH</b> (Report		U (III)	ing all and the state of the st	and the state of the		a <b>da parta da kana kana kana</b> Jerupa yang kana kana kana kana kana kana kana k	i talan, sy sel ini a fu stal				Freq Offset
-63.6		a a suite	in and taken in party											0 Hz
-73.6														
														Scale Type
													Log	Lin
	t 30 MH 5 BW 1		Hz			#VBM	3.0 MHz		#	Sween 8	Stop 3	.700 GHz (7341 pts)	LUg	
MSG		W	112			# V D VV	5.0 WHZ		#	status		rour pis)		
mod										STATUS				

Plot 7-220. Conducted Spurious Plot (NR Band n77 - 100.0MHz - RB Size 1, RB Offset 0 - High Channel)



Plot 7-221. Conducted Spurious Plot (NR Band n77 - 100.0MHz - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG998U	PCTEST* Proted to be part of @ element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
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🔤 Keys	sight Spe	ctrum An	alyzer - Swe											
L <b>XI</b> L		RF	50 Ω	DC	CORREC		SE	NSE:INT	#Avg Typ	ALIGN AUTO	TRA	M Dec 11, 2020 DE 1 2 3 4 5 6	Fre	equency
					PNO: F IFGain:	ast ↔	Trig: Fre #Atten:				TY D	PE MWWWWW ET A N N N N N		
					ii Gain.	LOW				Mkr	1 39.39	7 0 GHz		Auto Tune
10 dB	/div	Ref '	16.36 d	Bm							-26.5	56 dBm		
Log								Ĭ						enter Freg
6.36														000000 GHz
													00.000	
-3.64														Start Freq
												DL1 -13.00 dBm	20.000	000000 GHz
-13.6 -														
-23.6												<u></u> 1		Stop Freq
												A DESCRIPTION OF	40.000	000000 GHz
-33.6											a standard and a standard of the	A DECEMBER OF		
-43.6 -				li	والتلاقين أربر	ويلموالاند	فالأطران والسع	ne hale de la		AND AND ADDRESS OF ADDR	And Isonthe			CF Step
-43.6	UTQUES		a a a a a a a a a a a a a a a a a a a	r seriet an National Analysis	and a state	ومعتلقه	an a	Contraction of the	A STREET STREET	h.			2.000 Auto	000000 GHz Man
-53.6	أرجانا والروام ال		<u> </u>										Auto	Wall
													F	req Offset
-63.6														0 Hz
-73.6														
													\$	Scale Type
Ctort	- 20.0	0 GHz									Cton 4		Log	Lin
		0 GHZ 1.0 MI				#VBW	3.0 MHz	2	#\$	Sweep 40	- stop 4 1.00 ms (4	0.00 GHz 0001 pts)		
MSG										STATUS				

Plot 7-222. Conducted Spurious Plot (NR Band n77 - 100.0MHz - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG998U	PCTEST* Proud to be part of @element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
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OPCIES



#### Band Edge Emissions at Antenna Terminal 7.5

### **Test Overview**

All out of band emissions are measured with a spectrum analyzer connected to the antenna terminal of the EUT while the EUT is operating at maximum power, and at the appropriate frequencies. All data rates were investigated to determine the worst case configuration. All modes of operation were investigated and the worst case configuration results are reported in this section.

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

The minimum permissible attenuation level for Band 30 is > 43 + 10 log10 (P[Watts] at 2300-2305MHz & 2345-2360MHz, > 55 + 10 log10 (P[Watts]) at 2320-2324MHz & 2341-2345MHz, > 61 + 10 log10 (P[Watts]) at 2324-2328MHz & 2337-2341MHz, > 67 + 10 log10 (P[Watts]) at 2288-2292MHz & 2328-2337MHz, and > 70 + 10 log10 (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 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 > 1% of the emission bandwidth
- 4. VBW > 3 x RBW
- 5. Detector = RMS
- 6. Number of sweep points  $\geq 2 \times \text{Span/RBW}$
- Trace mode = trace average for continuous emissions, max hold for pulse emissions
- 8. Sweep time = auto couple
- The trace was allowed to stabilize

### **Test Setup**

The EUT and measurement equipment were set up as shown in the diagram below.



Figure 7-4. Test Instrument & Measurement Setup

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### Test Notes

- Per 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.
- 2. 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.
- 3. 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.
- 4. Per 27.53(I) for operations in the 3700-3980 MHz band, the conducted power of any emission outside the licensee's authorized bandwidth shall not exceed −13 dBm/MHz.
- 5. For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and 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.

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## LTE Band 30

	pectrum Analyz	zer - Swep	ot SA											
XI RL	RF	50 Ω	AC	CORREC		SE	NSE:INT	#Ave	ALIG Type: R	N AUTO		AM Oct 01, 2020	F	requency
	_			PNO: W IFGain:L	ide ⊶⊶ .ow	Trig: Fre Atten: 3					T' [		(	
10 dB/div	Ref 25	.00 dl	Bm							Mkr1	2.304 -29	992 GHz .87 dBm		Auto Tun
15.0														Center Fre
5.00								enter ente		49-000-4-4- <b>4</b> 9	ante-Manang-and-Ang	therease and the second se	2.3	Start Fre
25.0							1					DL1 -13.00 dBm	2.3	Stop Fre
35.0 	ryahihitiya f <sup>ara</sup> yadow,	المريبين اليول	and and the state of the state	Al, say say	مىرادۇي <sub>ل</sub> ەرسىرى	an a							Auto	CF Ste 800.000 k M
55.0													-	Freq Offs 0
65.0														Scale Ty
	.305000 ( / 120 kHz				≇VB₩	430 kHz			Sw	eep 1	Span 3 3 33 ms	8.000 MHz (1001 pts	Log	Ĺ
ISG						Townall2			011	STATUS		(ree i plo		



Plot 7-223. Lower Band Edge Plot (LTE Band 30 - 10MHz QPSK - Full RB Configuration)

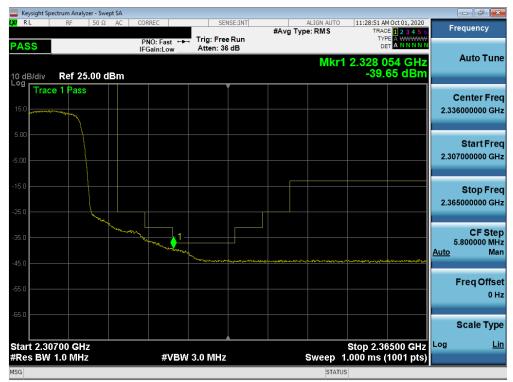
Plot 7-224. Extended Lower Band Edge Plot (LTE Band 30 - 10MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG998U	PCTEST <sup>®</sup> Proud to be part of @element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
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	ctrum Analyzer - Swept					
LXI RL	RF 50 Ω	AC CORREC	SENSE:INT	ALIGN AUTO #Avg Type: RMS	11:27:29 AM Oct 01, 2020 TRACE 1 2 3 4 5 6	Frequency
		PNO: Wide ↔ IFGain:Low	Trig: Free Run Atten: 36 dB	- //	DET A NNNN	Auto Tune
10 dB/div Log	Ref 25.00 dB	sm			r1 2.315 02 GHz -31.07 dBm	
						Center Freq
15.0						2.315000000 GHz
5.00		and the second state of th	m			Start Freq
-5.00						2.310000000 GHz
-15.0					DL1 -13.00 dBm	Stop Freq
-25.0						2.320000000 GHz
-20.0						OE Otom
-35.0					a marine and the	CF Step 1.000000 MHz <u>Auto</u> Man
-45.0						
-55.0						Freq Offset 0 Hz
-65.0						
						Scale Type
Center 2.3 #Res BW	15000 GHz	#\/B\A	430 kHz	Sween	Span 10.00 MHz 16.67 ms (1001 pts)	Log <u>Lin</u>
WINGS DW		#VDVV	450 MH2	aweep	io.or ins (iou r pis)	

Plot 7-225. Upper Band Edge Plot (LTE Band 30 - 10MHz QPSK – Full RB Configuration)



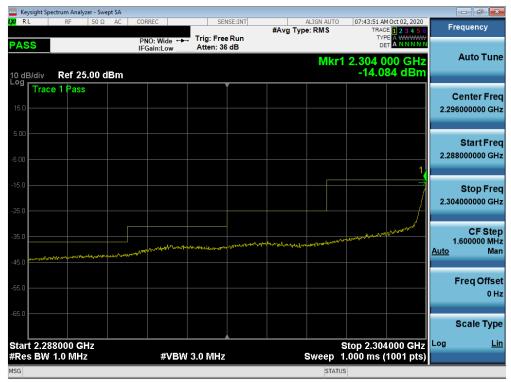
Plot 7-226. Extended Upper Band Edge Plot (LTE Band 30 - 10MHz QPSK – Full RB Configuration)

FCC ID: A3LSMG998U	PCTEST Protect to be port of @ element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
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	pectrum Ana		·										
RL	RF	50 Ω	AC	CORRE		SE	NSE:INT	#Ava 1	ALIGN AUTO		Oct 01, 2020	F	requency
	-			PNO: IFGai	Wide ⊶⊶ n:Low	Trig: Fre Atten: 3			,	TYP DE			
0 dB/div	Ref 2	5.00 (	dBm						Mkr1	2.305 0 -29.99	00 GHz 99 dBm		Auto Tun
og 15.0													Center Fre 05000000 GH
5.00								~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	and a second	ananta ang ang ang ang ang ang ang ang ang an	an far	2.30	Start Fre
5.0							1				DL1 -13.00 dBm	2.30	Stop Fre
5.0		a-1,00 Mayorine	man		and and a start of the	har and the	<b>,</b>					<u>Auto</u>	CF Ste 400.000 ki Ma
5.0													Freq Offs 0 I
6.0													Scale Typ
enter 2										Span 4.	000 MHz	Log	L
Res BW	62 kHz	4			#VBW	220 kHz			Sweep 6	.667 ms ('	1001 pts)		

Plot 7-227. Lower Band Edge Plot (LTE Band 30 - 5MHz QPSK – Full RB Configuration)



Plot 7-228. Extended Lower Band Edge Plot (LTE Band 30 - 5MHz QPSK - Full RB Configuration)

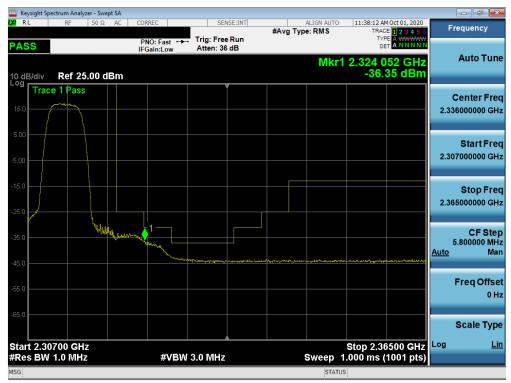
FCC ID: A3LSMG998U	PCTEST Porad to be part of @ element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
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	ectrum Analy												
RL	RF	50 Ω	AC	CORREC	de ↔		ENSE:INT	#Avg T	ALIGN AUTO	TRJ	AM Oct 01, 2020 ACE 1 2 3 4 5 6 YPE A WWWW	F	requency
0 dB/div	Ref 2	5.00 dE	3m	IFGain:L		Atten: 3	36 dB		M		5 00 GHz 533 dBm		Auto Tun
15.0													Center Fre 5000000 GH
.00	******	Papale ngapaté	P., 1. 19	an an the state of		the many					DL1 -13.00 dBm	2.31	Start Fre
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5.0													Freq Offs 01
enter 2.	315000	CH7								Snap	10.00 MHz	Log	Scale Typ L
Res BW		enz-		#	VBW	220 kH	z		Sweep	16.67 ms	(1001 pts)		_
6G									STAT		· · · · · · · · · · · · · · · · · · ·		

Plot 7-229. Upper Band Edge Plot (LTE Band 30 - 5MHz QPSK – Full RB Configuration)



Plot 7-230. Extended Upper Band Edge Plot (LTE Band 30 - 5MHz QPSK - Full RB Configuration)

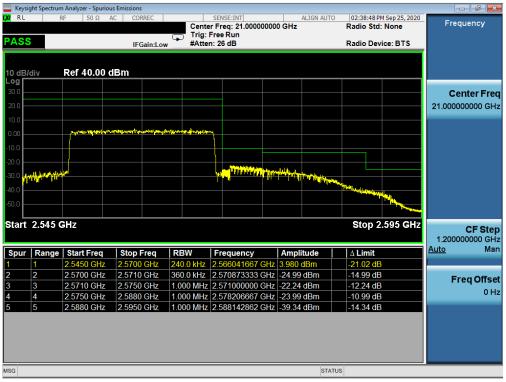
FCC ID: A3LSMG998U	PCTEST* Proud to be part of @element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 140 of 222
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# LTE Band 7

	ight Spectrur					1													
X/RL		RF	50 Ω	AC	CORR	EC		Cente		G: 21.00	000000	0 GHz	ALIGN AUT		02:38:0		Sep 25, 2020 None	Fr	equency
PASS							Ģ	Trig:	Free	Run									
ASC	<u> </u>				IFGa	in:Lov	v	#Atte	n: 26	dB					Radio I	Devid	e: BTS		
10 dB/	div	Ref 4	0.00	dBm															
Log 30.0																			
																			enter Fre
20.0									$\rightarrow$									21.000	0000000 GH
10.0																			
0.00										milting	aglice at ferror	n <sup>te</sup> len fan stelen stele	and the state of the	-	and the second second	щ.			
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-20.0								(i)											
-30.0					Lawrence M			The second s	, <mark>In</mark> l	<b>,</b>						14	Martin Martin		
40.0				A PARTY AND	<b>P</b> 1												. r		
-50.0			and the second second																
<b>)</b> -44		-																	
Start	2.475	GHz													Stop	o 2.:	525 GHz		CF Ster
																		1.200	0000000 GH
Spur	Range	Start	Freq	St	op Fr	eq	RB	W	Fre	quency	/	Ampl	itude		∆ Lim	it		<u>Auto</u>	Ma
1	1	2.4750	) GHz	2.4	905 (	GHz	1.00	0 MHz	2.49	026750	00 GHz	-31.90	) dBm	Í	-6.900	dB			
2	2	2.490	5 GHz	2.4	960 (	GHz	1.00	0 MHz	2.49	534000	)0 GHz	-23.49	dBm		-10.49	dB			Freq Offse
3	3	2.4960	) GHz	2.4	990 (	GHz	1.00	0 MHz	2.49	88200	00 GHz	-21.86	i dBm		-11.86	dB			0 H
4	4	2.4990	) GHz	2.5	000 (	GHz	360	0 kHz	2.49	97283	33 GHz	-25.49	dBm		-15.49	dB			UH
5	5	2.5000	) GHz	2.5	250 (	GHz	240	0 kHz	2.50	71250	00 GHz	3.424	dBm		-21.58	dB			
SG	_	_	_	_	_	_	_	_	-	_	_	_	ST/	TUS	_	-			
													317						

Plot 7-231. Lower ACP Plot (LTE Band 7 - 20MHz QPSK - Full RB Configuration)



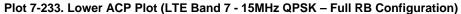
Plot 7-232. Upper ACP Plot (LTE Band 7 - 20MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG998U	POINTEST Proud to be part of @ element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 141 of 222
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X/RL							
	RF 50 Ω	AC CORREC	Conto	SENSE:INT r Freq: 2.535000000	ALIGN AUTO	0 02:41:55 PM Sep 25, 2020 Radio Std: None	Frequency
				Free Run	GHZ	Radio Stu. None	
PASS		IFGain:Lov	w #Atter	n: 26 dB		Radio Device: BTS	_
10 dB/div	Ref 40.00	dBm					
Log	1101 40.00	dBill					
30.0							Center Fre
20.0							2.535000000 GH
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	and the second sec						
	and the second sec					Stop 2.525 GHz	UF SIE
	and the second sec					Stop 2.525 GHz	5.000000 MH
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Start 2.4	75 GHz		RBW				5.000000 MH
Start 2.4 Spur Ra 1 1 2 2	Ange Start Freq 2.4750 GHz 2.4905 GHz	Stop Freq	RBW 1.000 MHz 1.000 MHz	Frequency 2.490319167 GHz 2.495816667 GHz	-34.82 dBm -24.76 dBm	<u>∆ Limit</u> -9.822 dB -11.76 dB	5.000000 MH <u>Auto</u> Ma
Start 2.4 Spur Ra 1 1 2 2	A75 GHz ange   Start Freq 2.4750 GHz	Stop Freq 2.4905 GHz	RBW 1.000 MHz 1.000 MHz	Frequency 2.490319167 GHz	-34.82 dBm -24.76 dBm	Δ Limit -9.822 dB	5.000000 M⊢ Auto Ma
Start 2.4 Spur Ra 1 1 2 2 3 3 4 4	Ange Start Freq 2.4750 GHz 2.4905 GHz	Stop Freq           2.4905 GHz           2.4960 GHz	RBW 1.000 MHz 1.000 MHz 1.000 MHz	Frequency 2.490319167 GHz 2.495816667 GHz	-34.82 dBm -24.76 dBm -22.38 dBm	<u>∆ Limit</u> -9.822 dB -11.76 dB	5.000000 M⊢ <u>Auto</u> Ma
Start 2.4 Spur Ra 1 1 2 2 3 3	Ange Start Freq 2.4750 GHz 2.4905 GHz 2.4960 GHz	Stop Freq           2.4905 GHz           2.4960 GHz           2.4990 GHz	RBW 1.000 MHz 1.000 MHz 1.000 MHz	Frequency 2.490319167 GHz 2.495816667 GHz 2.498965000 GHz	-34.82 dBm -24.76 dBm -22.38 dBm	Δ Limit -9.822 dB -11.76 dB -12.38 dB	Auto Freq Of
tart 2.4	Ange Start Freq 2.4750 GHz 2.4905 GHz 2.4960 GHz	Stop Freq           2.4905 GHz           2.4960 GHz           2.4990 GHz	RBW 1.000 MHz 1.000 MHz 1.000 MHz 270.0 kHz	Frequency 2.490319167 GHz 2.495816667 GHz 2.498965000 GHz	-34.82 dBm -24.76 dBm -22.38 dBm -26.64 dBm	Δ Limit -9.822 dB -11.76 dB -12.38 dB	Auto Mi
Start 2.4	Inge Start Freq 2.4750 GHz 2.4905 GHz 2.4905 GHz 2.4900 GHz 2.4990 GHz	Stop Freq           2.4905 GHz           2.4960 GHz           2.4990 GHz           2.5000 GHz	RBW 1.000 MHz 1.000 MHz 1.000 MHz 270.0 kHz	Frequency 2.490319167 GHz 2.495816667 GHz 2.498965000 GHz 2.499083333 GHz	-34.82 dBm -24.76 dBm -22.38 dBm -26.64 dBm	Δ Limit -9.822 dB -11.76 dB -12.38 dB -16.64 dB	5.000000 Mi Auto Ma



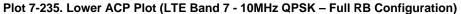


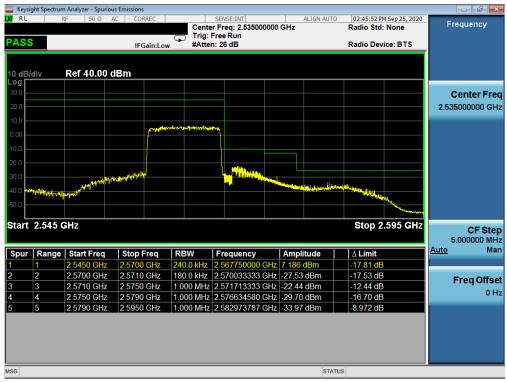
Plot 7-234. Upper ACP Plot (LTE Band 7 - 15MHz QPSK – Full RB Configuration)

FCC ID: A3LSMG998U	Postest*	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
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			ious Emissio										
RL	R	RF 50 Ω	AC O	ORREC			SENSE:INT		0	ALIGN AUT		3 PM Sep 25, 2020	Frequency
							Freq: 2.53 ree Run	5000000	GHZ		Radio	sta: None	
ASS	3			FGain:L			26 dB				Radio I	Device: BTS	
0 dB/	/div	Ref 40.00	dBm										
. <b>og</b> 30.0													
0.0													Center Fr
20.0													2.535000000 G
10.0													
							and the	the second states	- Second Second				
10.0													
20.0 -													
30.0													
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50.0		- AMERICAN CONTRACT											
la se s		and the second											
<b>1</b> 799	2.475 0	GHz									Stop	2.525 GHz	CF Ste
<b>1</b> 799	2.475 0	GHz									Stop	) 2.525 GHz	<b>CF St</b> e 5.000000 M
itart			Stop	Freq	RBW		Frequenc	÷ <b>y</b>	Ampl	litude	Stor		
itart	2.475 C			• Freq			Frequenc 2.4902416		Ampl			it	5.00000 M
tart Spur	Range	Start Freq	2.490		1.000	MHz		67 GHz	-35.01	l dBm	∆ Lim	it dB	5.000000 M <u>Auto</u> M
start Spur	Range	Start Freq	2.490 2.496	)5 GHz	1.000 1.000	MHz MHz	2.4902416	67 GHz 33 GHz	-35.01 -25.60	I dBm ) dBm	∆ Lim	it dB dB	5.000000 M <u>Auto</u> M Freq Offs
start Spur	<b>Range</b> 1 2 3	<b>Start Freq</b> 2.4750 GHz 2.4905 GHz	2.490 2.496 2.499	)5 GHz 60 GHz	1.000 1.000 1.000	MHz MHz MHz	2.4902416 2.4953033	67 GHz 33 GHz 00 GHz	- <mark>35.01</mark> -25.60 -21.87	I dBm ) dBm 7 dBm	∆ Lim -10.01 -12.60	it dB dB dB	5.000000 M <u>Auto</u> M
spur	<b>Range</b> 1 2 3	<b>Start Freq</b> 2.4750 GHz 2.4905 GHz 2.4960 GHz	2.490 2.496 2.499 2.499	)5 GHz 60 GHz 90 GHz	1.000 1.000 1.000 180.0	MHz 2 MHz 2 MHz 2 kHz 2	2.4902416 2.4953033 2.4987900	67 GHz 33 GHz 00 GHz 33 GHz	-35.01 -25.60 -21.87 -27.74	I dBm ) dBm 7 dBm 4 dBm	∆ Lim -10.01 -12.60 -11.87	it dB dB dB dB	5.000000 M <u>Auto</u> M Freq Offs
start Spur	Range 1 2 3 4	<b>Start Freq</b> 2.4750 GHz 2.4905 GHz 2.4960 GHz 2.4990 GHz	2.490 2.496 2.499 2.499	05 GHz 60 GHz 90 GHz 90 GHz	1.000 1.000 1.000 180.0	MHz 2 MHz 2 MHz 2 kHz 2	2.4902416 2.4953033 2.4987900 2.4999933	67 GHz 33 GHz 00 GHz 33 GHz	-35.01 -25.60 -21.87 -27.74	I dBm ) dBm 7 dBm 4 dBm	Δ Lim -10.01 -12.60 -11.87 -17.74	it dB dB dB dB	5.000000 M <u>Auto</u> M Freq Offs
la se s	Range 1 2 3 4	<b>Start Freq</b> 2.4750 GHz 2.4905 GHz 2.4960 GHz 2.4990 GHz	2.490 2.496 2.499 2.499	05 GHz 60 GHz 90 GHz 90 GHz	1.000 1.000 1.000 180.0	MHz 2 MHz 2 MHz 2 kHz 2	2.4902416 2.4953033 2.4987900 2.4999933	67 GHz 33 GHz 00 GHz 33 GHz	-35.01 -25.60 -21.87 -27.74	I dBm ) dBm 7 dBm 4 dBm	Δ Lim -10.01 -12.60 -11.87 -17.74	it dB dB dB dB	5.000000 M <u>Auto</u> M Freq Offs
Start Spur	Range 1 2 3 4	<b>Start Freq</b> 2.4750 GHz 2.4905 GHz 2.4960 GHz 2.4990 GHz	2.490 2.496 2.499 2.499	05 GHz 60 GHz 90 GHz 90 GHz	1.000 1.000 1.000 180.0	MHz 2 MHz 2 MHz 2 kHz 2	2.4902416 2.4953033 2.4987900 2.4999933	67 GHz 33 GHz 00 GHz 33 GHz	-35.01 -25.60 -21.87 -27.74	I dBm ) dBm 7 dBm 4 dBm	Δ Lim -10.01 -12.60 -11.87 -17.74	it dB dB dB dB	5.000000 M <u>Auto</u> M Freq Offs
spur	Range 1 2 3 4	<b>Start Freq</b> 2.4750 GHz 2.4905 GHz 2.4960 GHz 2.4990 GHz	2.490 2.496 2.499 2.499	05 GHz 60 GHz 90 GHz 90 GHz	1.000 1.000 1.000 180.0	MHz 2 MHz 2 MHz 2 kHz 2	2.4902416 2.4953033 2.4987900 2.4999933	67 GHz 33 GHz 00 GHz 33 GHz	-35.01 -25.60 -21.87 -27.74	I dBm ) dBm 7 dBm 4 dBm	Δ Lim -10.01 -12.60 -11.87 -17.74	it dB dB dB dB	5.000000 M <u>Auto</u> M Freq Offs
spur	Range 1 2 3 4	<b>Start Freq</b> 2.4750 GHz 2.4905 GHz 2.4960 GHz 2.4990 GHz	2.490 2.496 2.499 2.499	05 GHz 60 GHz 90 GHz 90 GHz	1.000 1.000 1.000 180.0	MHz 2 MHz 2 MHz 2 kHz 2	2.4902416 2.4953033 2.4987900 2.4999933	67 GHz 33 GHz 00 GHz 33 GHz	-35.01 -25.60 -21.87 -27.74	I dBm ) dBm 7 dBm 4 dBm	Δ Lim -10.01 -12.60 -11.87 -17.74	it dB dB dB dB	5.000000 M <u>Auto</u> M Freq Offs



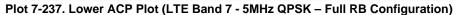


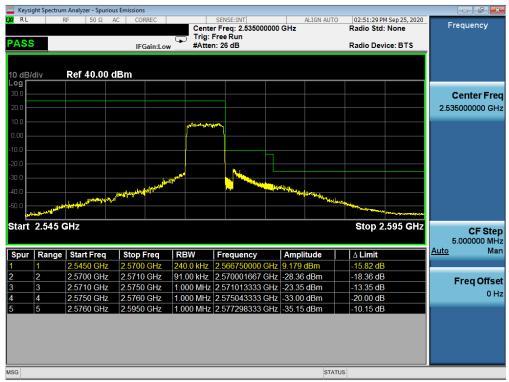
Plot 7-236. Upper ACP Plot (LTE Band 7 - 10MHz QPSK – Full RB Configuration)

FCC ID: A3LSMG998U	Postest*	PART 27 MEASUREMENT REPORT	AMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 142 of 222
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		n Analyzer - Spuriou	us emissions					
KU RL		RF 50Ω			SENSE:INT	ALIGN AUTO		Frequency
Cent	er Freq	2.535000	000 GHz		r Freq: 2.535000000 Free Run	GHz	Radio Std: None	ricquericy
PASS	S		IFGain:Lov		ree Run 1: 26 dB		Radio Device: BTS	
	_		IFGaIn:Lov	v #Atte	1. 20 UD		Radio Device. D13	-
10 dB.	/div	Ref 40.00 (	dBm					
-og								
30.0								Center Fre
20.0								2.535000000 GH
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							Asthe Ville Contract of the Co	
50.0			MARNA BURNESS				Anthe Mary California	
-	ulferfra pela menajer						and the stand of t	
-	2.475 (	GHz					Stop 2.525 GHz	UF SIE
Start		GHZ	Stop Freq	RBW	Frequency	Amplitude	and the stand of t	5.000000 MH
Start					Frequency 2.493588333 GHz	Amplitude	Stop 2.525 GHz	5.000000 MH
Start Spur		Start Freq	Stop Freq	1.000 MHz		Amplitude	Stop 2.525 GHz	5.000000 M⊢ Auto Ma
Start Spur 1 2	Range	Start Freq 2.4750 GHz	<b>Stop Freq</b> 2.4940 GHz	1.000 MHz 1.000 MHz	2.493588333 GHz	Amplitude -36.73 dBm -31.49 dBm	Stop 2.525 GHz	5.000000 M⊢ Auto Ma
Start	Range	<b>Start Freq</b> 2.4750 GHz 2.4940 GHz	<b>Stop Freq</b> 2.4940 GHz 2.4960 GHz	1.000 MHz 1.000 MHz 1.000 MHz	2.493588333 GHz 2.495883333 GHz	Amplitude -36.73 dBm -31.49 dBm -21.18 dBm	Stop 2.525 GHz <u>A Limit</u> -18.49 dB	5.000000 MH Auto Ma
Start	Range	Start Freq           2.4750 GHz           2.4940 GHz           2.4960 GHz	<b>Stop Freq</b> 2.4940 GHz 2.4960 GHz 2.4990 GHz	1.000 MHz 1.000 MHz 1.000 MHz 91.00 kHz	2.493588333 GHz 2.495883333 GHz 2.498895000 GHz	Amplitude -36.73 dBm -31.49 dBm -21.18 dBm -25.84 dBm	Stop 2.525 GHz Δ Limit -11.73 dB -18.49 dB -11.18 dB	5.000000 MH Auto Ma
-	Range 1 2 3 4	Start Freq           2.4750 GHz           2.4940 GHz           2.4960 GHz           2.4990 GHz	<b>Stop Freq</b> 2.4940 GHz 2.4960 GHz 2.4990 GHz 2.5000 GHz	1.000 MHz 1.000 MHz 1.000 MHz 91.00 kHz	2.493588333 GHz 2.495883333 GHz 2.498895000 GHz 2.499923333 GHz	Amplitude -36.73 dBm -31.49 dBm -21.18 dBm -25.84 dBm	Δ Limit           -11.73 dB           -18.49 dB           -15.84 dB	5.000000 MH
Start	Range 1 2 3 4	Start Freq           2.4750 GHz           2.4940 GHz           2.4960 GHz           2.4990 GHz	<b>Stop Freq</b> 2.4940 GHz 2.4960 GHz 2.4990 GHz 2.5000 GHz	1.000 MHz 1.000 MHz 1.000 MHz 91.00 kHz	2.493588333 GHz 2.495883333 GHz 2.498895000 GHz 2.499923333 GHz	Amplitude -36.73 dBm -31.49 dBm -21.18 dBm -25.84 dBm	Δ Limit           -11.73 dB           -18.49 dB           -15.84 dB	5.000000 MH Auto Ma
Start	Range 1 2 3 4	Start Freq           2.4750 GHz           2.4940 GHz           2.4960 GHz           2.4990 GHz	<b>Stop Freq</b> 2.4940 GHz 2.4960 GHz 2.4990 GHz 2.5000 GHz	1.000 MHz 1.000 MHz 1.000 MHz 91.00 kHz	2.493588333 GHz 2.495883333 GHz 2.498895000 GHz 2.499923333 GHz	Amplitude -36.73 dBm -31.49 dBm -21.18 dBm -25.84 dBm	Δ Limit           -11.73 dB           -18.49 dB           -15.84 dB	5.000000 MH Auto Ma
Start	Range 1 2 3 4	Start Freq           2.4750 GHz           2.4940 GHz           2.4960 GHz           2.4990 GHz	<b>Stop Freq</b> 2.4940 GHz 2.4960 GHz 2.4990 GHz 2.5000 GHz	1.000 MHz 1.000 MHz 1.000 MHz 91.00 kHz	2.493588333 GHz 2.495883333 GHz 2.498895000 GHz 2.499923333 GHz	Amplitude -36.73 dBm -31.49 dBm -21.18 dBm -25.84 dBm	Δ Limit           -11.73 dB           -18.49 dB           -15.84 dB	5.000000 MH Auto Ma
start Spur	Range 1 2 3 4	Start Freq           2.4750 GHz           2.4940 GHz           2.4960 GHz           2.4990 GHz	<b>Stop Freq</b> 2.4940 GHz 2.4960 GHz 2.4990 GHz 2.5000 GHz	1.000 MHz 1.000 MHz 1.000 MHz 91.00 kHz	2.493588333 GHz 2.495883333 GHz 2.498895000 GHz 2.499923333 GHz	Amplitude -36.73 dBm -31.49 dBm -21.18 dBm -25.84 dBm	Δ Limit           -11.73 dB           -18.49 dB           -15.84 dB	5.000000 MH Auto Ma



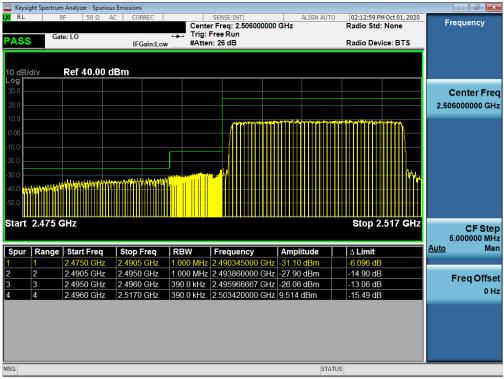


Plot 7-238. Upper ACP Plot (LTE Band 7 - 5MHz QPSK – Full RB Configuration)

FCC ID: A3LSMG998U	PCTEST* Nouse to be part of @ demonst	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dege 111 of 222
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# LTE Band 41(PC2)



Plot 7-239. Lower ACP Plot (LTE Band 41(PC2) - 20MHz QPSK – Full RB Configuration)

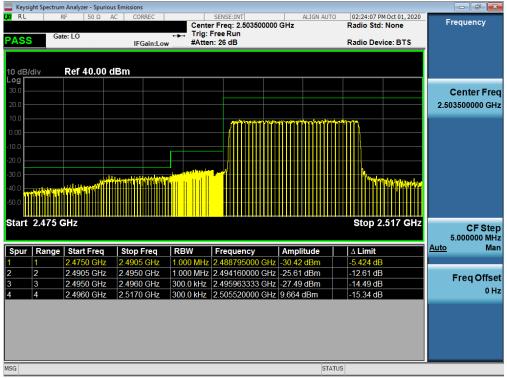


Plot 7-240. Upper ACP Plot (LTE Band 41(PC2) - 20MHz QPSK – Full RB Configuration)

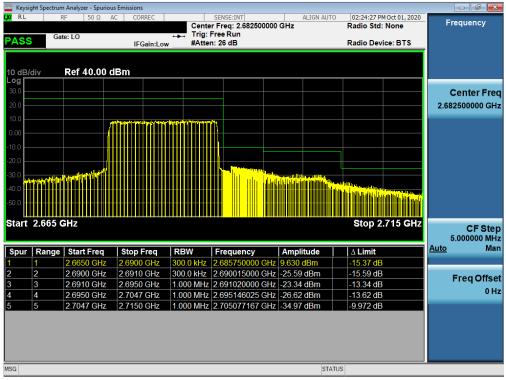
FCC ID: A3LSMG998U	POTEST Porad to be part of @ element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 145 of 222
1M2009230152-28.A3L	9/23 - 12/13/2020	Portable Handset	Fage 145 01 222
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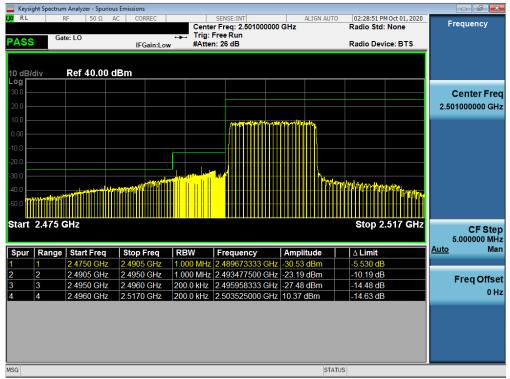




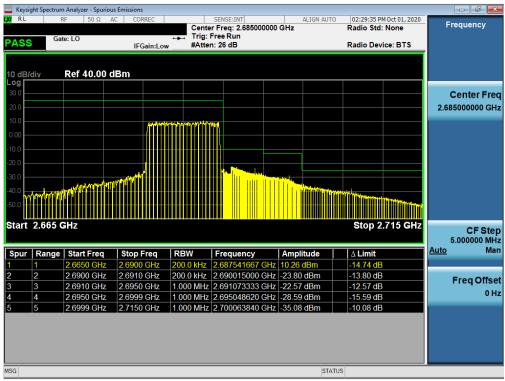
Plot 7-242. Upper ACP Plot (LTE Band 41(PC2) - 15MHz QPSK – Full RB Configuration)

FCC ID: A3LSMG998U	PCTEST * Protect to be post of @ element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 146 of 222
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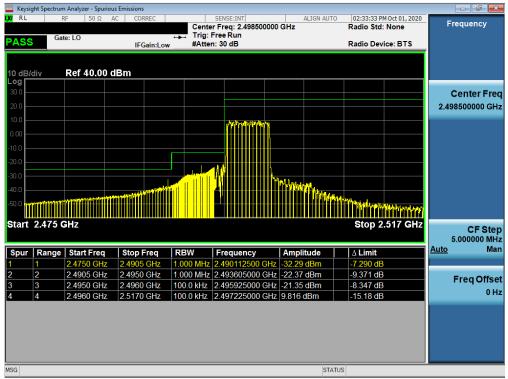




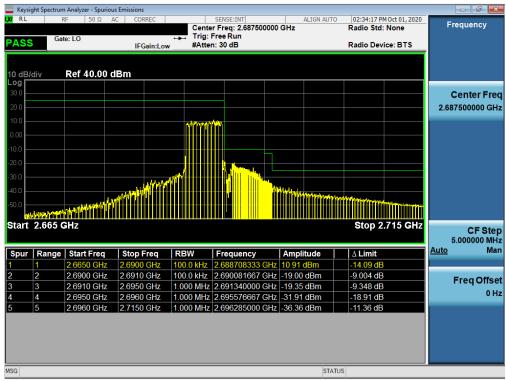
Plot 7-244. Upper ACP Plot (LTE Band 41(PC2) - 10MHz QPSK – Full RB Configuration)

FCC ID: A3LSMG998U	PCTEST* Proud to be part of @element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dege 147 of 222
1M2009230152-28.A3L	9/23 - 12/13/2020	Portable Handset		Page 147 of 222
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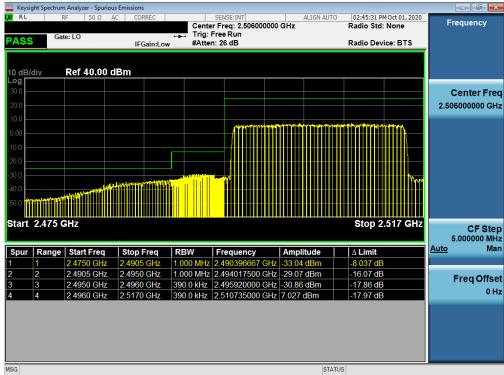


Plot 7-246. Upper ACP Plot (LTE Band 41(PC2) - 5MHz QPSK – Full RB Configuration)

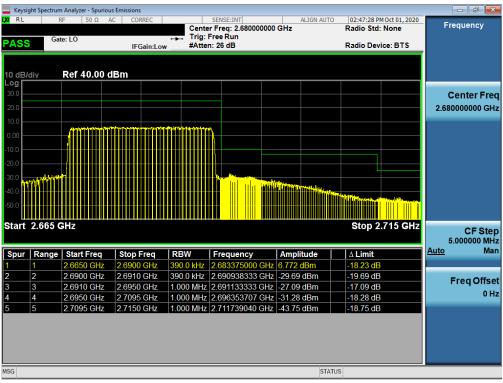
FCC ID: A3LSMG998U	PCTEST* Proud to be part of @ element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 149 of 222
1M2009230152-28.A3L	9/23 - 12/13/2020	Portable Handset		Page 148 of 222
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## LTE Band 41(PC3)



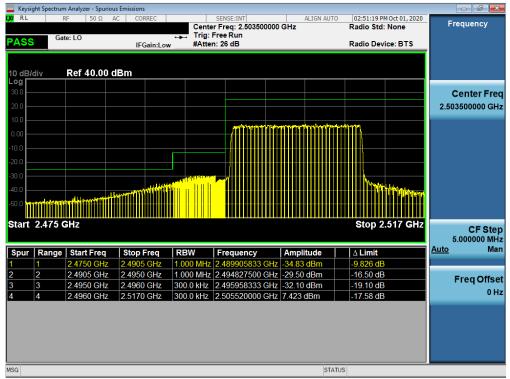
Plot 7-247. Lower ACP Plot (LTE Band 41(PC3) - 20MHz QPSK – Full RB Configuration)



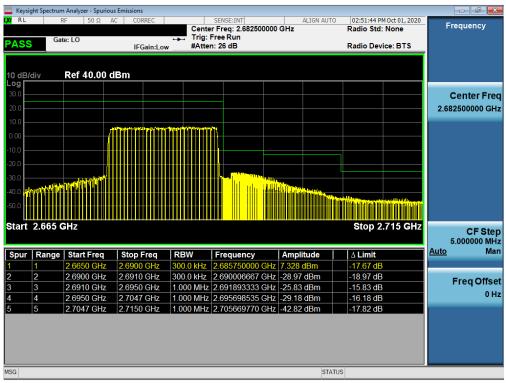
Plot 7-248. Upper ACP Plot (LTE Band 41(PC3) - 20MHz QPSK – Full RB Configuration)

FCC ID: A3LSMG998U	PCTEST* Proud to be part of @ element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 140 of 222
1M2009230152-28.A3L	9/23 - 12/13/2020	Portable Handset		Page 149 of 222
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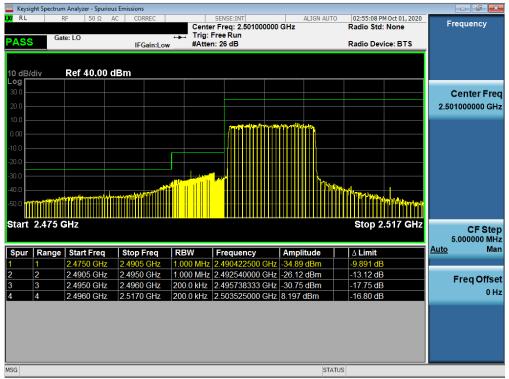




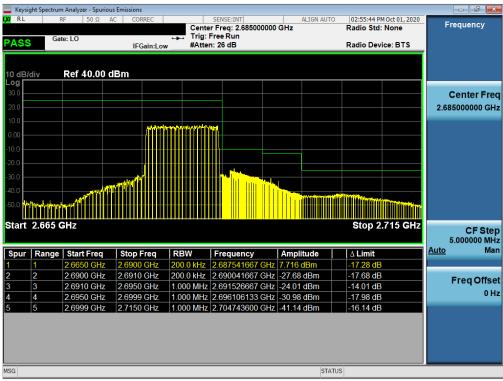
Plot 7-250. Upper ACP Plot (LTE Band 41(PC3) - 15MHz QPSK – Full RB Configuration)

FCC ID: A3LSMG998U	PCTEST* Proud to be part of @element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 150 of 222
1M2009230152-28.A3L	9/23 - 12/13/2020	Portable Handset		
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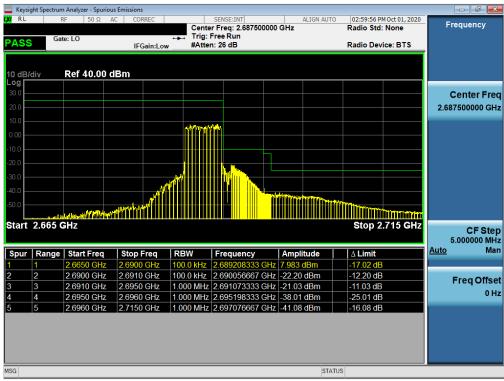
Plot 7-252. Upper ACP Plot (LTE Band 41(PC3) - 10MHz QPSK – Full RB Configuration)

FCC ID: A3LSMG998U		PART 27 MEASUREMENT REPORT	EAMSUND	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dego 151 of 222	
1M2009230152-28.A3L	9/23 - 12/13/2020	Portable Handset		Page 151 of 222	
© 2020 PCTEST	-			V 1.2 11/02/20	



<mark>o</mark> RL			ous Emissions						
	RF	50 Ω	AC CORREC	Canto	SENSE:INT	ALIGN AUT		Oct 01, 2020	Frequency
	Gate: L	0			er Freq: 2.498500000 Free Run	GHZ	Radio Std:	None	
PASS	Gate: L	.0	IFGain:Lov		n: 26 dB		Radio Devi	ce: BTS	
l0 dB/div ₋og	v Re	ef 40.00	dBm						
30.0									Center Fre
							_		
20.0									2.498500000 GH
10.0					و من محمد الم				
0.00									
10.0									
20.0									
30.0					<i>.</i>				
40.0					<u>/ ^ </u>	New Contraction			
50.0		and the state of the				Martus			
50.0 1111						The second s	hild failuin and an international	A .	
								MARCHMAN	
Start 2	475 CH	-					Stop 2		
Start 2	2.475 GH	z						517 GHz	CF Ste
							Stop 2		5.000000 MH
	Range   St	tart Freq	Stop Freq	RBW	Frequency	Amplitude	Stop 2.		
Spur   F 1 1	Range St	tart Freq 4750 GHz	2.4905 GHz	1.000 MHz	2.490396667 GHz	Amplitude -36.86 dBm	Stop 2.		5.000000 MH
<b>Spur   F</b> 1 1 2 2	Range   St 2.4	<b>tart Freq</b> 1750 GHz 1905 GHz	2.4905 GHz 2.4950 GHz	1.000 MHz 1.000 MHz	2.490396667 GHz 2.494932500 GHz	Amplitude -36.86 dBm -24.83 dBm	Stop 2.		5.000000 MH <u>Auto</u> Ma
<b>Spur   F</b> 1 1 2 2 3 3	Range         St           2.4         2.4           3.         2.4	<b>tart Freq</b> 4750 GHz 4905 GHz 4950 GHz	2.4905 GHz 2.4950 GHz 2.4960 GHz	1.000 MHz 1.000 MHz 100.0 kHz	2.490396667 GHz 2.494932500 GHz 2.495361667 GHz	Amplitude -36.86 dBm -24.83 dBm -24.57 dBm	Stop 2. △ Limit -11.86 dB -11.83 dB -11.57 dB		5.000000 MH <u>Auto</u> Ma Freq Offse
<b>Spur   F</b>   1 2 2 3 3	Range         St           2.4         2.4           3.         2.4	<b>tart Freq</b> 1750 GHz 1905 GHz	2.4905 GHz 2.4950 GHz	1.000 MHz 1.000 MHz 100.0 kHz	2.490396667 GHz 2.494932500 GHz	Amplitude -36.86 dBm -24.83 dBm -24.57 dBm	Stop 2.		5.000000 MH <u>Auto</u> Ma
Spur   F   1 2 2 3 3	Range         St           2.4         2.4           3.         2.4	<b>tart Freq</b> 4750 GHz 4905 GHz 4950 GHz	2.4905 GHz 2.4950 GHz 2.4960 GHz	1.000 MHz 1.000 MHz 100.0 kHz	2.490396667 GHz 2.494932500 GHz 2.495361667 GHz	Amplitude -36.86 dBm -24.83 dBm -24.57 dBm	Stop 2. △ Limit -11.86 dB -11.83 dB -11.57 dB		5.000000 MH <u>Auto</u> Ma Freq Offso
<b>Spur   F</b> 1 1 2 2 3 3	Range         St           2.4         2.4           3.         2.4	<b>tart Freq</b> 4750 GHz 4905 GHz 4950 GHz	2.4905 GHz 2.4950 GHz 2.4960 GHz	1.000 MHz 1.000 MHz 100.0 kHz	2.490396667 GHz 2.494932500 GHz 2.495361667 GHz	Amplitude -36.86 dBm -24.83 dBm -24.57 dBm	Stop 2. △ Limit -11.86 dB -11.83 dB -11.57 dB		5.000000 MH <u>Auto</u> Ma Freq Offse
<b>Spur   F</b> 1 1 2 2 3 3	Range         St           2.4         2.4           3.         2.4	<b>tart Freq</b> 4750 GHz 4905 GHz 4950 GHz	2.4905 GHz 2.4950 GHz 2.4960 GHz	1.000 MHz 1.000 MHz 100.0 kHz	2.490396667 GHz 2.494932500 GHz 2.495361667 GHz	Amplitude -36.86 dBm -24.83 dBm -24.57 dBm	Stop 2. △ Limit -11.86 dB -11.83 dB -11.57 dB		5.000000 MH <u>Auto</u> Ma Freq Offso
Spur   F   1 2 2 3 3	Range         St           2.4         2.4           3.         2.4	<b>tart Freq</b> 4750 GHz 4905 GHz 4950 GHz	2.4905 GHz 2.4950 GHz 2.4960 GHz	1.000 MHz 1.000 MHz 100.0 kHz	2.490396667 GHz 2.494932500 GHz 2.495361667 GHz	Amplitude -36.86 dBm -24.83 dBm -24.57 dBm	Stop 2. △ Limit -11.86 dB -11.83 dB -11.57 dB		5.000000 MH <u>Auto</u> Ma Freq Offso
Spur   F   1 2 2 3 3	Range         St           2.4         2.4           3.         2.4	<b>tart Freq</b> 4750 GHz 4905 GHz 4950 GHz	2.4905 GHz 2.4950 GHz 2.4960 GHz	1.000 MHz 1.000 MHz 100.0 kHz	2.490396667 GHz 2.494932500 GHz 2.495361667 GHz	Amplitude -36.86 dBm -24.83 dBm -24.57 dBm	Stop 2. △ Limit -11.86 dB -11.83 dB -11.57 dB		5.000000 MH <u>Auto</u> Ma Freq Offso
Spur   F 1 2 3	Range         St           2.4         2.4           3.         2.4	<b>tart Freq</b> 4750 GHz 4905 GHz 4950 GHz	2.4905 GHz 2.4950 GHz 2.4960 GHz	1.000 MHz 1.000 MHz 100.0 kHz	2.490396667 GHz 2.494932500 GHz 2.495361667 GHz	Amplitude -36.86 dBm -24.83 dBm -24.57 dBm 7.692 dBm	Stop 2. △ Limit -11.86 dB -11.83 dB -11.57 dB		5.000000 MH <u>Auto</u> Ma Freq Offs





Plot 7-254. Upper ACP Plot (LTE Band 41(PC3) - 5MHz QPSK – Full RB Configuration)

FCC ID: A3LSMG998U	Porat to be part of @ element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 152 of 222	
1M2009230152-28.A3L	9/23 - 12/13/2020	Portable Handset		Page 152 of 222	
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## NR Band n41 ANT E

	RF 50 Ω	AC CORREC	Trig:	SENSE:INT SOUR er Freq: 2.50602 Free Run		ALIGN AUTO	09:24:45 A Radio Std	M Oct 15, 2020 : None	Frequency
ASS		IFGain:Lo	w #Atte	n: 26 dB			Radio Dev	vice: BTS	
0 dB/div og	Ref 40.00	dBm							
0.0									Center Fre
0.0									2.506020000 GH
0.0									2.000020000 01
.00									
0.0		━━━━┼┍┹							
0.0									
0.0									
0.0					-				
10								and a second	
0.0									
0.0 tart 2.396	GHz						Stop 2	.696 GHz	CE Ste
an the second	GHz						Stop 2	2.696 GHz	
an the second		Stop Freq	RBW	Frequency	Ampli	itude	Stop 2	2.696 GHz	25.000000 MH
tart 2.396		Stop Freq 2.4905 GHz		Frequency					25.000000 MH
tart 2.396 Spur Range	e   Start Freq	2.4905 GHz 2.4950 GHz	1.000 MHz 1.000 MHz	2.487665000 2.493275000	GHz -35.76 GHz -35.02	dBm dBm	Δ Limit -10.76 dE -22.02 dE	3 3	25.000000 MH <u>Auto</u> Ma
tart 2.396 Spur Range	<ul> <li>Start Freq</li> <li>2.3960 GHz</li> <li>2.4905 GHz</li> <li>2.4950 GHz</li> </ul>	2.4905 GHz 2.4950 GHz 2.4960 GHz	1.000 MHz 1.000 MHz 1.000 MHz	2.487665000 2.493275000 2.495996667	GHz -35.76 GHz -35.02 GHz -29.52	dBm dBm dBm	∆ Limit -10.76 dE -22.02 dE -16.52 dE	3 3 3 3	25.000000 MH <u>Auto</u> Ma Freq Offs
tart 2.396	<ul> <li>Start Freq</li> <li>2.3960 GHz</li> <li>2.4905 GHz</li> <li>2.4950 GHz</li> <li>2.4950 GHz</li> <li>2.4960 GHz</li> </ul>	2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5960 GHz	1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz	2.487665000 2.493275000 2.495996667 2.539500000	GHz -35.76 GHz -35.02 GHz -29.52 GHz 2.152	dBm dBm dBm dBm	∆ Limit -10.76 dE -22.02 dE -16.52 dE -22.85 dE	3 3 3 3 3	25.000000 MH <u>Auto</u> Ma Freq Offs
tart 2.396	<ul> <li>Start Freq</li> <li>2.3960 GHz</li> <li>2.4905 GHz</li> <li>2.4950 GHz</li> <li>2.4960 GHz</li> <li>2.5960 GHz</li> </ul>	2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5960 GHz 2.6010 GHz	1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz	2.487665000 2.493275000 2.495996667 2.539500000 2.596125000	GHz -35.76 GHz -35.02 GHz -29.52 GHz 2.152 GHz -36.63	dBm dBm dBm dBm dBm	△ Limit -10.76 dE -22.02 dE -16.52 dE -22.85 dE -26.63 dE	3 3 3 3 3 3 3	25.000000 MH <u>Auto</u> Ma Freq Offs
tart 2.396	<ul> <li>Start Freq</li> <li>2.3960 GHz</li> <li>2.4905 GHz</li> <li>2.4950 GHz</li> <li>2.4960 GHz</li> <li>2.5960 GHz</li> <li>2.5960 GHz</li> <li>2.6010 GHz</li> </ul>	2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5960 GHz 2.6010 GHz 2.6940 GHz	1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz	2.487665000 ( 2.493275000 ( 2.495996667 ( 2.53950000 ( 2.596125000 ( 2.603790000 (	GHz         -35.76           GHz         -35.02           GHz         -29.52           GHz         2.152           GHz         -36.63           GHz         -39.73	dBm dBm dBm dBm dBm dBm	Δ Limit -10.76 dE -22.02 dE -16.52 dE -22.85 dE -26.63 dE -26.73 dE	3 3 3 3 3 3 3 3 3	CF Ste 25.000000 MH <u>Auto</u> Ma Freq Offso 0 H
tart 2.396	<ul> <li>Start Freq</li> <li>2.3960 GHz</li> <li>2.4905 GHz</li> <li>2.4950 GHz</li> <li>2.4960 GHz</li> <li>2.5960 GHz</li> </ul>	2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5960 GHz 2.6010 GHz 2.6940 GHz	1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz	2.487665000 2.493275000 2.495996667 2.539500000 2.596125000	GHz         -35.76           GHz         -35.02           GHz         -29.52           GHz         2.152           GHz         -36.63           GHz         -39.73	dBm dBm dBm dBm dBm dBm	△ Limit -10.76 dE -22.02 dE -16.52 dE -22.85 dE -26.63 dE	3 3 3 3 3 3 3 3 3	25.000000 MH <u>Auto</u> Ma Freq Offs
tart 2.396	<ul> <li>Start Freq</li> <li>2.3960 GHz</li> <li>2.4905 GHz</li> <li>2.4950 GHz</li> <li>2.4960 GHz</li> <li>2.5960 GHz</li> <li>2.5960 GHz</li> <li>2.6010 GHz</li> </ul>	2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5960 GHz 2.6010 GHz 2.6940 GHz	1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz	2.487665000 ( 2.493275000 ( 2.495996667 ( 2.53950000 ( 2.596125000 ( 2.603790000 (	GHz         -35.76           GHz         -35.02           GHz         -29.52           GHz         2.152           GHz         -36.63           GHz         -39.73	dBm dBm dBm dBm dBm dBm	Δ Limit -10.76 dE -22.02 dE -16.52 dE -22.85 dE -26.63 dE -26.73 dE	3 3 3 3 3 3 3 3 3	25.000000 Mi <u>Auto</u> M Freq Offs
tart 2.396	<ul> <li>Start Freq</li> <li>2.3960 GHz</li> <li>2.4905 GHz</li> <li>2.4950 GHz</li> <li>2.4960 GHz</li> <li>2.5960 GHz</li> <li>2.5960 GHz</li> <li>2.6010 GHz</li> </ul>	2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5960 GHz 2.6010 GHz 2.6940 GHz	1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz	2.487665000 ( 2.493275000 ( 2.495996667 ( 2.53950000 ( 2.596125000 ( 2.603790000 (	GHz         -35.76           GHz         -35.02           GHz         -29.52           GHz         2.152           GHz         -36.63           GHz         -39.73	dBm dBm dBm dBm dBm dBm	Δ Limit -10.76 dE -22.02 dE -16.52 dE -22.85 dE -26.63 dE -26.73 dE	3 3 3 3 3 3 3 3 3	25.000000 MH <u>Auto</u> Ma Freq Offs

Plot 7-255. Lower ACP Plot (NR Band n41 - 100MHz CP-OFDM-QPSK - Full RB)



### Plot 7-256. Upper ACP Plot (NR Band n41 - 100MHz CP-OFDM-QPSK – Full RB)

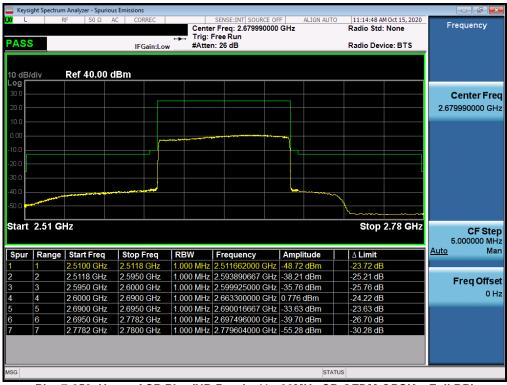
FCC ID: A3LSMG998U	Postest*	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dogo 152 of 222	
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PASS	Rf	- 50 Ω		ORREC Gain:Lo	Trig:	SENSE:INT SOURC r Freq: 2.506020 Free Run n: 26 dB		ALIGN AL	Radio	8:38 AM Oct 3 o Std: Non o Device: E	ie	Frequency
10 dB/div	,	Ref 40.00	dBm									
_ <b>og</b> 30.0 20.0												Center Fre 2.506020000 GH
10.0												
20.0 30.0 40.0												
50.0											·····	
Start 2.	.406 G	iHZ							St	op 2.676		CF Ste 5.000000 MH
Spur   F	Range	Start Freq	Stop	Freq	RBW	Frequency	Am	plitude	Δ Li	mit		<u>Auto</u> Ma
1 1		2.4060 GHz	2.490	5 GHz	1.000 MHz	2.489795833 (	GHz -36.	81 dBm	-11.8	31 dB		
2 2		2.4905 GHz	2.495	0 GHz	1.000 MHz	2.494962500 (	GHz -36.	20 dBm	-23.2	20 dB		Freq Offs
3 3		2.4950 GHz	2.496	0 GHz	910.0 kHz	2.495991667	GHz -32.4	44 dBm	-19.4	14 dB		
4		2.4960 GHz	2.586	0 GHz	1.000 MHz	2.531100000	GHz 1.62	5 dBm	-23.3	37 dB		01
5 5		2.5860 GHz	2.591	0 GHz	1.000 MHz	2.586083333	GHz -36.	82 dBm	-26.8	32 dB		
6 6		2.5910 GHz	2.674	2 GHz	1.000 MHz	2.595992000 (	GHz -40.4	49 dBm	-27.4	49 dB		
7 7		2.6742 GHz	2.676	0 GHz	1.000 MHz	2.675694000 0	GHz -47.9	96 dBm	-22.9	96 dB		
		2.0742 GHZ	2.676	U GHZ	1.000 MHZ	2.075094000 (	o⊓z  -47.	90 aBm	-22.	90 GB		

Plot 7-257. Lower ACP Plot (NR Band n41 - 90MHz CP-OFDM-QPSK – Full RB)



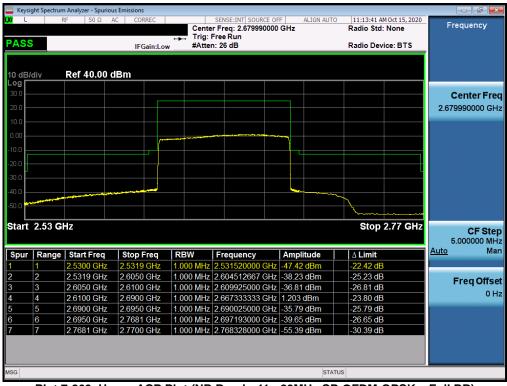
Plot 7-258. Upper ACP Plot (NR Band n41 - 90MHz CP-OFDM-QPSK - Full RB)

FCC ID: A3LSMG998U	PCTEST Pout to be part of @element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 154 of 222	
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PASS		F 50Ω	AC CORREC	Trig:	SENSE:INT SOURCE C Fr Freq: 2.50602000 Free Run n: 26 dB		0 10:50:24 AM Oct 15, 2020 Radio Std: None Radio Device: BTS	Frequency
10 dB/	div	Ref 40.00 (	dBm					
_ <b>og</b> 30.0 20.0								Center Fre 2.506020000 GH
10.0								
20.0 30.0 —								
40.0 - 50.0 -								
Start	2.416 C	βHz					Stop 2.656 GHz	CF Ste 5.00000 MH
Spur	Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	∆ Limit	<u>Auto</u> Ma
1	1	2.4160 GHz	2.4905 GHz	1.000 MHz	2.489755000 GHz	2 -36.85 dBm	-11.85 dB	
2	2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.494572500 GHz	-36.23 dBm	-23.23 dB	Freq Offs
3	3	2.4950 GHz	2.4960 GHz	820.0 kHz	2.495763333 GHz	2 -37.26 dBm	-24.26 dB	
	4	2.4960 GHz	2.5760 GHz	1.000 MHz	2.531066667 GHz	2.122 dBm	-22.88 dB	01
1	5	2.5760 GHz	2.5810 GHz	1.000 MHz	2.576025000 GHz	2 -34.71 dBm	-24.71 dB	
	6	2.5810 GHz	2.6541 GHz	1.000 MHz	2.583193000 GHz	-38.23 dBm	-25.23 dB	
5	0	2.6541 GHz	2.6560 GHz	1 000 MHz	2.655240000 GHz	-47.65 dBm	-22.65 dB	
4 5 6	0	2 65 44 011-	2 6560 CHz	1.000 MHz	2 655240000 GH	-47.65 dBm	-22.65 dB	

Plot 7-259. Lower ACP Plot (NR Band n41 - 80MHz CP-OFDM-QPSK - Full RB)



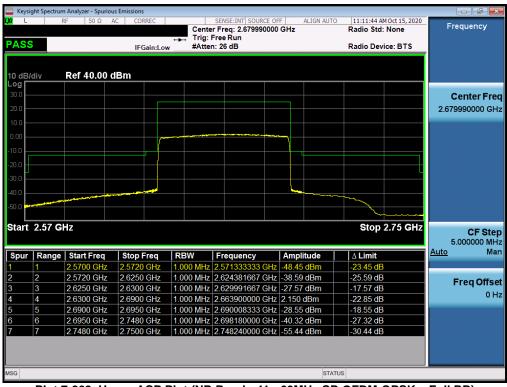
Plot 7-260. Upper ACP Plot (NR Band n41 - 80MHz CP-OFDM-QPSK - Full RB)

FCC ID: A3LSMG998U		PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 155 of 222	
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		F 50 Ω	AC COF	RREC		SENSE:INT SOUR		ALIGN AUTO	10:52:05 A Radio Std	M Oct 15, 2020 : None	Freque	ency
PASS	5		IFG	Gain:Lov		Free Run n: 26 dB			Radio Dev	rice: BTS		
10 dB/ Log <b>[</b>	/div	Ref 40.00	dBm									
30.0											Cent 2.506020	er Fre 000 G⊢
10.0												
20.0												
-40.0												
Stort	2.436 0	211-							Stop 2	.616 GHz		CF Ste
start	2.100 0	∍ΠZ									5.000	
			Stop F	Freq	RBW	Frequency	Amp	olitude	∆ Limit		5.000 <u>Auto</u>	
	Range		Stop F			Frequency 2.490318333			∆ Limit -10.99 dB	}		
Spur 1	Range	Start Freq	2.4905 2.4950	GHz GHz	1.000 MHz		GHz -35.9	9 dBm			<u>Auto</u>	Ma
<b>Spur</b> 1 2	Range 1 2	Start Freq	2.4905	GHz GHz	1.000 MHz 1.000 MHz	2.490318333	GHz -35.9 GHz -35.2	9 dBm 2 dBm	-10.99 dB	}	<u>Auto</u>	Ma q Offs
<b>Spur</b> 1 2 3	Range 1 2 3 4	<b>Start Freq</b> 2.4360 GHz 2.4905 GHz	2.4905 2.4950	GHz GHz GHz	1.000 MHz 1.000 MHz 620.0 kHz	2.490318333 ( 2.492817500 (	GHz -35.9 GHz -35.2 GHz -36.8	9 dBm 2 dBm 0 dBm	-10.99 dE	3	<u>Auto</u>	Ma q Offs
<b>Spur</b> 1 2 3 4	Range 1 2 3 4 5	<b>Start Freq</b> 2.4360 GHz 2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5560 GHz	2.4905 2.4950 2.4960 2.5560 2.5560	GHz GHz GHz GHz GHz	1.000 MHz           1.000 MHz           620.0 kHz           1.000 MHz           1.000 MHz           1.000 MHz	2.490318333 ( 2.492817500 ( 2.495971667 ( 2.535800000 ( 2.556025000 (	GHz         -35.9           GHz         -35.2           GHz         -36.8           GHz         2.906           GHz         -28.0	9 dBm 2 dBm 0 dBm 3 dBm 4 dBm	-10.99 dE -22.22 dE -23.80 dE -22.09 dE -18.04 dE	} } } }	<u>Auto</u>	Ma q Offs
<b>Spur</b> 2 3 4	Range           1           2           3           4           5           6	<b>Start Freq</b> 2.4360 GHz 2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5560 GHz 2.5610 GHz	2.4905 2.4950 2.4960 2.5560 2.5610 2.6140	GHz GHz GHz GHz GHz GHz	1.000 MHz           1.000 MHz           620.0 KHz           1.000 MHz           1.000 MHz           1.000 MHz           1.000 MHz           1.000 MHz           1.000 MHz	2.490318333 ( 2.492817500 ( 2.495971667 ( 2.535800000 ( 2.556025000 ( 2.563650000 (	GHz         -35.9           GHz         -35.2           GHz         -36.8           GHz         2.906           GHz         2.906           GHz         -28.0           GHz         -35.9	9 dBm 2 dBm 0 dBm 5 dBm 4 dBm 7 dBm	-10.99 dE -22.22 dE -23.80 dE -22.09 dE -18.04 dE -22.97 dE	3 3 3 3 3 3	<u>Auto</u>	Ma q Offs
<b>Spur</b> 1 2 3 4 5 6 7	Range           1           2           3           4           5           6	<b>Start Freq</b> 2.4360 GHz 2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5560 GHz	2.4905 2.4950 2.4960 2.5560 2.5560	GHz GHz GHz GHz GHz GHz	1.000 MHz           1.000 MHz           620.0 KHz           1.000 MHz           1.000 MHz           1.000 MHz           1.000 MHz           1.000 MHz           1.000 MHz	2.490318333 ( 2.492817500 ( 2.495971667 ( 2.535800000 ( 2.556025000 (	GHz         -35.9           GHz         -35.2           GHz         -36.8           GHz         2.906           GHz         2.906           GHz         -28.0           GHz         -35.9	9 dBm 2 dBm 0 dBm 5 dBm 4 dBm 7 dBm	-10.99 dE -22.22 dE -23.80 dE -22.09 dE -18.04 dE	3 3 3 3 3 3	<u>Auto</u>	

Plot 7-261. Lower ACP Plot (NR Band n41 - 60MHz CP-OFDM-QPSK - Full RB)



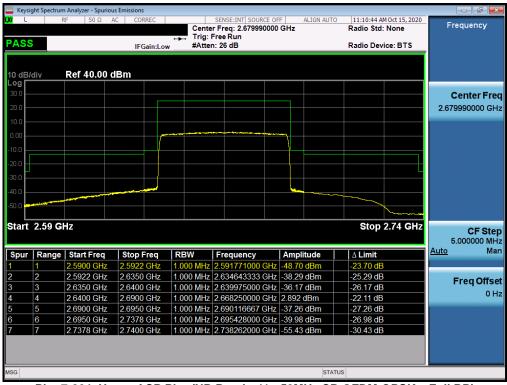
Plot 7-262. Upper ACP Plot (NR Band n41 - 60MHz CP-OFDM-QPSK - Full RB)

FCC ID: A3LSMG998U	PCTEST Prod to be part of @ element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 156 of 222	
1M2009230152-28.A3L	9/23 - 12/13/2020	Portable Handset		Page 156 of 222	
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PASS	RF 50 Ω	AC CORREC	Trig: I	SENSE:INT SOURCE OF r Freq: 2.506020000 Free Run 1: 26 dB		10:54:10 AM Oct 15, 2020 Radio Std: None Radio Device: BTS	Frequency
10 dB/div	Ref 40.00	dBm					
30.0 20.0							Center Fre 2.506020000 GH
10.0 0.00 10.0							
20.0							
50.0							
Start 2.446	GHz					Stop 2.596 GHz	CF Ste 5.000000 MH
Spur   Rang	e Start Freq	Stop Freq	RBW	Frequency	Amplitude	∆ Limit	<u>Auto</u> Ma
1 1	2.4460 GHz	2.4905 GHz	1.000 MHz	2.490351667 GHz	-35.75 dBm	-10.75 dB	
2 2	2.4905 GHz	2.4950 GHz	1.000 MHz	2.493020000 GHz	-34.65 dBm	-21.65 dB	Freq Offse
3 3	2.4950 GHz	2.4960 GHz	560.0 kHz	2.495110000 GHz	-36.84 dBm	-23.84 dB	
4 4	2.4960 GHz	2.5460 GHz	1.000 MHz	2.531250000 GHz	3.841 dBm	-21.16 dB	0 H
5 5	2.5460 GHz	2.5510 GHz	1.000 MHz	2.546016667 GHz	-30.92 dBm	-20.92 dB	
6 6	2.5510 GHz	2.5938 GHz	1.000 MHz	2.551856000 GHz	-34.34 dBm	-21.34 dB	
7 7	2.5938 GHz	2.5960 GHz	1.000 MHz	2.595736000 GHz	-47.37 dBm	-22.37 dB	

Plot 7-263. Lower ACP Plot (NR Band n41 - 50MHz CP-OFDM-QPSK – Full RB)



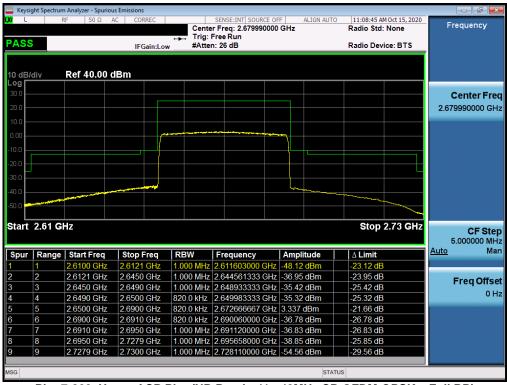
Plot 7-264. Upper ACP Plot (NR Band n41 - 50MHz CP-OFDM-QPSK - Full RB)

FCC ID: A3LSMG998U	PCTEST Proted to be port of @ element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 157 of 222
1M2009230152-28.A3L	9/23 - 12/13/2020	Portable Handset		Page 157 of 222
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200       20.506020         100       2.506020         100       2.506020         100       2.506020         100       2.506020         100       2.506020         100       2.506020         100       2.506020         100       2.506020         100       2.506020         100       2.506020         2.20       2.506020         2.20       2.507         2.21       2.507         2.21       2.4905         2.22       2.4905         2.24905       2.4960         2.22       2.4905         2.22       2.4905         2.22       2.4905         2.24905       2.4960         2.22       2.4960         2.24905       2.4960         3.3       2.4950         3.3       2.4950         3.3       2.4950         3.3       2.4960         3.3       2.4960         3.3       2.4960         3.3       2.4960         3.3       2.4960         3.3       2.4960         3.4       2.5360	luency	Freq	None	10:56:05 AM Radio Std: I Radio Devic	ALIGN AUTO					CORRE	Ω AC	F 50 S	R	AS
30.0       40.0       30.0       40.0										m	00 dB	Ref 40.0	/div	
Number         Stop Freq         RBW         Frequency         Amplitude         Δ Limit           1         24560 GHz         24905 GHz         1000 MHz         2499982500 GHz         33.19 dBm         -20.19 dB         -20.29 dB         -20.29 dB         -20.29 dB         -20.22 dB         -20.576 GHz         -20.21 dB         -20.22 dB         -20.22 dB         -20.22 dB         -20.21 dB         -20.21 dB         -20.21 dB         -20.22 dB         -20.24 dB         -20.64 dB	nter Fre 20000 GI													30.0 20.0 -
200       30.0         30.0       40.0         30.0       40.0         50.0       50.0         Start 2.456 GHz       Stop Freq         Start 2.456 GHz       Stop Freq         Start 2.456 GHz       Stop Freq         Start 2.4560 GHz       2.4905 GHz         1       2.4560 GHz         2       2.4905 GHz         2       2.4905 GHz         2.4950 GHz       2.4905 GHz         3       2.4950 GHz         2.4950 GHz       2.4950 GHz         3.3       2.4950 GHz         2.4960 GHz       2.500 GHz         3.0 2.4950 GHz       2.5300 GHz         3.0 2.4950 GHz       2.5300 GHz         3.0 2.4950 GHz       2.5300 GHz         3.0 2.4960 GHz       2.5300 GHz         3.0 2.4960 GHz       2.5300 GHz         2.531400000 GHz       3.0 22 dBm         5       5         5       5.25300 GHz         2.5310 GHz       2.5312400000 GHz       3.0 22 dBm         5       5       2.5310 GHz       2.5312400000 GHz       3.0 64 dBm         7       7       2.5410 GHz       1.000 MHz       2.54290000 GHz       3.26.4 dBm       -19.6									,					).00 -
Solution       Start Freq       Stop Freq       RBW       Frequency       Amplitude       Δ Limit         1       1       2.4560 GHz       2.4905 GHz       1.000 MHz       2.489982500 GHz       34.23 dBm       -9.225 dB         2       2       2.4905 GHz       2.4905 GHz       1.000 MHz       2.494872500 GHz       33.19 dBm       -20.19 dB         3       3       2.4950 GHz       2.4906 GHz       390.0 kHz       2.49525000 GHz       -35.99 dBm       -22.99 dB         4       4       2.4960 GHz       2.530 GHz       2.533400000 GHz       -30.22 dBm       -20.22 dB         5       5       2.5300 GHz       2.5307 GHz       820.0 kHz       2.5332400000 GHz       -30.22 dBm       -20.22 dB         6       6       2.5370 GHz       2.5410 GHz       1.000 MHz       2.542200000 GHz       -30.64 dBm       -20.64 dB         7       7       2.5410 GHz       1.000 MHz       2.5372400000 GHz       -30.64 dBm       -19.64 dB														20.0
Spur         Range         Start Freq         Stop Freq         RBW         Frequency         Amplitude         ∆ Limit         ∆ Limit           1         1         2,4560 GHz         2,4905 GHz         1,000 MHz         2,489982500 GHz         -34,23 dBm         -9.225 dB         -9.225 dB           2         2         2,4905 GHz         2,4900 GHz         1,000 MHz         2,49892500 GHz         -33.19 dBm         -20.19 dB         Frequency         Frequency         -20.19 dB         -20.19 dB         -20.19 dB         -20.29 dB         -20.29 dB         -20.29 dB         -20.29 dB         -20.21 dB         -20.530 GHz         -20.570 GHz         -25.370 GHz         2.5301 000 GHz         -30.22 dBm         -20.22 dB         -20.22 dB         -20.22 dB         -20.5410 GHz         -20.5410 GHz         -20.5410 GHz         -20.5730 GHz         -20.790 GHz         -20.64 dB         -20.64 dB         -20.74 dB         -20.74 dB         -20.75 dHz									1			New Array		
Spun         Range         Statt Freq         Stop Freq         Rev         Prequency         Prequency         Statut         Addition         Addi	CF Ste	5.00	576 GHz	Stop 2.								Hz	2.456 G	tart
2         2         2.4905 GHz         2.4950 GHz         1.000 MHz         2.494872500 GHz         3.3.19 dBm         -20.19 dB           3         3         2.4950 GHz         2.4960 GHz         390.0 kHz         2.495925000 GHz         35.99 dBm         -22.99 dB           4         2.4960 GHz         2.5306 GHz         25300 GHz         2533400000 GHz         37.91 dBm         -2121 dB           5         5         2.5360 GHz         2.5301 0 kHz         2.533450000 GHz         30.22 dBm         -20.22 dB           6         6         2.5370 GHz         2.5410 GHz         1.000 MHz         2.5372400000 GHz         30.64 dBm         -20.06 4 dB           7         2.5410 GHz         2.5739 GHz         1.000 MHz         2.544290000 GHz         32.64 dBm         -19.64 dB		Auto		∆ Limit	itude	Am	equency	RBW	eq	Stop Fre	eq	Start Fre	Range	Spur
3       2.4950 GHz       2.4960 GHz       390.0 kHz       2.495925000 GHz       35.99 dBm       -22.99 dB         4       2.4960 GHz       2.5360 GHz       820.0 kHz       2.533400000 GHz       3.791 dBm       -21.21 dB         5       2.5360 GHz       2.5370 GHz       820.0 kHz       2.536158333 GHz       -30.22 dBm       -20.22 dB         6       2.5370 GHz       2.5410 GHz       1.000 MHz       2.537240000 GHz       -30.64 dBm       -20.64 dB         7       2.5410 GHz       2.5739 GHz       1.000 MHz       2.544290000 GHz       -32.64 dBm       -19.64 dB	M	Auto			3 dBm	Iz -34.2	189982500 GH	.000 MHz	Hz 1	2.4905 G	Hz 2	2.4560 G	1	
3       2.4950 CHz       2.4960 CHz       390.0 kHz       2.495025000 CHz       359.9 dBm       -22.99 dB         4       2.4960 CHz       2.5306 CHz       820.0 kHz       2.533400000 CHz       3.791 dBm       -21.21 dB         5       2.5360 CHz       2.5370 CHz       820.0 kHz       2.536158333 GHz       -30.22 dBm       -20.22 dB         6       2.5370 CHz       2.5410 GHz       1.000 MHz       2.57240000 GHz       -30.64 dBm       -20.64 dB         7       2.5410 GHz       2.5739 GHz       1.000 MHz       2.544290000 GHz       -32.64 dBm       -19.64 dB		Auto		-9.225 dB						1050.0	Hz 2	2 4905 G	2	
5         2.5360 GHz         2.5370 GHz         820.0 kHz         2.536158333 GHz         30.22 dBm         -20.22 dB           6         2.5370 GHz         2.5410 GHz         1.000 MHz         2.537240000 GHz         -30.64 dBm         -20.64 dB           7         2.5410 GHz         2.5739 GHz         1.000 MHz         2.544290000 GHz         -32.64 dBm         -19.64 dB	М	_			) dBm	<b>Iz</b> -33.1	194872500 GH	.000 MHz	Hz 1	2.4950 G				
6         2.5370 GHz         2.5410 GHz         1.000 MHz         2.537240000 GHz         -30.64 dBm         -20.64 dB           7         2.5410 GHz         2.5739 GHz         1.000 MHz         2.544290000 GHz         -32.64 dBm         -19.64 dB	M eq Offs	_		-20.19 dB									3	
7 2.5410 GHz 2.5739 GHz 1.000 MHz 2.544290000 GHz -32.64 dBm -19.64 dB	M eq Offs	_		-20.19 dB -22.99 dB	) dBm	Hz -35.9	195925000 GH	90.0 kHz	Hz 3	2.4960 G	GHz 2	2.4950 GI	-	
	M eq Offs	_		-20.19 dB -22.99 dB -21.21 dB	dBm dBm	Hz -35.9 Hz 3.79	195925000 GH 533400000 GH	90.0 kHz 20.0 kHz	Hz 3 Hz 8	2.4960 G 2.5360 G	GHz 2 GHz 2	2.4950 GI 2.4960 GI	4	
		_		-20.19 dB -22.99 dB -21.21 dB -20.22 dB	dBm dBm dBm	Hz -35.9 Hz 3.79 Hz -30.2	I95925000 GH 533400000 GH 536158333 GH	90.0 kHz 20.0 kHz 20.0 kHz	Hz 3 Hz 8 Hz 8	2.4960 G 2.5360 G 2.5370 G	GHZ 2 GHZ 2 GHZ 2	2.4950 GI 2.4960 GI 2.5360 GI	4 5	
8 2.5739 GHz 2.5760 GHz 1.000 MHz 2.575832000 GHz 43.60 dBm -18.60 dB	M eq Offs	_		-20.19 dB -22.99 dB -21.21 dB -20.22 dB -20.64 dB	dBm dBm dBm dBm dBm	Hz -35.9 Hz 3.79 Hz -30.2 Hz -30.6	195925000 GH 533400000 GH 536158333 GH 537240000 GH	90.0 kHz 20.0 kHz 20.0 kHz .000 MHz	6Hz 3 6Hz 8 6Hz 8 6Hz 1	2.4960 G 2.5360 G 2.5370 G 2.5410 G	SHz 2 SHz 2 SHz 2 SHz 2	2.4950 GI 2.4960 GI 2.5360 GI 2.5370 GI	4 5 6	

Plot 7-265. Lower ACP Plot (NR Band n41 - 40MHz CP-OFDM-QPSK - Full RB)



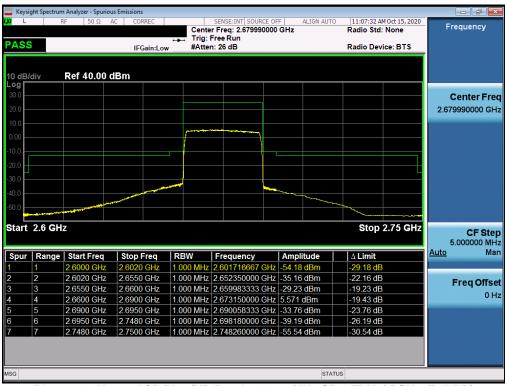
Plot 7-266. Upper ACP Plot (NR Band n41 - 40MHz CP-OFDM-QPSK – Full RB)

FCC ID: A3LSMG998U	PCTEST* Proud to be part of @ element	PART 27 MEASUREMENT REPORT	TAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 159 of 222
1M2009230152-28.A3L	9/23 - 12/13/2020	Portable Handset		Page 158 of 222
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		F 50 Ω	AC C	ORREC			SENSE:INT SOU r Freq: 2.67999 Free Run			LIGN AUTO		2 AM Oct 15, 2020 Std: None	-	quency
PASS	<u> </u>		1	FGain:L			n: 26 dB				Radio D	Device: BTS		
10 dB/	/div	Ref 40.00	dBm											
- <b>og</b> 30.0													C.	enter Fre
20.0														90000 GF
10.0													2.079	90000 GF
					0									
0.00														
10.0														
20.0														
30.0 —														
40.0				-					~~					
50.0 -			with the second s											
											-			
start	2.6 GH	7									Sto	p 2.75 GHz		CF Ste
													5.0	
		Start Freq	Stop	Freq	RB	N	Frequency	<i>I</i>	Amplit	ude	∆ Limi		5.0 <u>Auto</u>	00000 MH Ma
Spur 1	Range			o Freq 20 GHz			Frequency 2.601716667					it		000000 MH
	Range	Start Freq	2.602		1.00	0 MHz		GHz -	54.18 (	dBm	∆ Limi	it dB	<u>Auto</u>	00000 MH Ma
<b>Spur</b> 1 2	Range 1 2 3	<b>Start Freq</b> 2.6000 GHz 2.6020 GHz 2.6550 GHz	2.602 2.655 2.660	20 GHz 50 GHz 50 GHz	1.00 1.00 1.00	0 MHz 0 MHz 0 MHz	2.601716667 2.652350000 2.659983333	GHz -{ GHz -{ GHz -2	54.18 ( 35.16 ( 29.23 (	dBm dBm dBm	Δ Limi -29.18 -22.16 -19.23	it dB dB dB	<u>Auto</u>	000000 M⊦ Ma req Offs
<b>Spur</b> 1 2 3 4	Range 1 2 3 4	<b>Start Freq</b> 2.6000 GHz 2.6020 GHz 2.6550 GHz 2.6600 GHz	2.602 2.655 2.660 2.690	20 GHz 50 GHz 00 GHz 00 GHz	1.000 1.000 1.000 1.000	0 MHz 0 MHz 0 MHz 0 MHz	2.601716667 2.652350000 2.659983333 2.673150000	GHz - GHz - GHz - GHz 5	54.18 ( 35.16 ( 29.23 ( 5.571 d	dBm dBm dBm Bm	Δ Limi -29.18 -22.16 -19.23 -19.43	it dB dB dB dB	<u>Auto</u>	000000 M⊦ Ma req Offs
<b>Spur</b> 1 2 3 4	Range 1 2 3 4 5	<b>Start Freq</b> 2.6000 GHz 2.6020 GHz 2.6550 GHz 2.6600 GHz 2.6900 GHz	2.602 2.655 2.660 2.690 2.695	20 GHz 50 GHz 50 GHz 50 GHz 50 GHz	1.000 1.000 1.000 1.000 1.000	0 MHz 0 MHz 0 MHz 0 MHz 0 MHz	2.601716667 2.652350000 2.659983333 2.673150000 2.690058333	GHz - GHz - GHz - GHz 5 GHz -	54.18 ( 35.16 ( 29.23 ( 5.571 d 33.76 (	dBm dBm dBm Bm dBm	Δ Limi -29.18 -22.16 -19.23 -19.43 -23.76	t dB dB dB dB dB dB	<u>Auto</u>	000000 M⊦ Ma req Offs
<b>Spur</b> 1 2 3 4	Range           1           2           3           4           5           6	<b>Start Freq</b> 2.6000 GHz 2.6020 GHz 2.6550 GHz 2.6600 GHz 2.6900 GHz 2.6950 GHz	2.602 2.655 2.660 2.690 2.695 2.695 2.748	20 GHz 50 GHz 50 GHz 50 GHz 50 GHz 30 GHz	1.000 1.000 1.000 1.000 1.000 1.000	0 MHz 0 MHz 0 MHz 0 MHz 0 MHz 0 MHz	2.601716667 2.652350000 2.659983333 2.673150000 2.690058333 2.698180000	GHz - GHz - GHz - GHz 5 GHz - GHz -	54.18 ( 35.16 ( 29.23 ( 571 d 33.76 ( 39.19 (	dBm dBm dBm dBm dBm dBm dBm	Δ Limi -29.18 -22.16 -19.23 -19.43 -23.76 -26.19	it dB dB dB dB dB dB dB	<u>Auto</u>	000000 MH
<b>Spur</b> 2 3 4	Range 1 2 3 4 5	<b>Start Freq</b> 2.6000 GHz 2.6020 GHz 2.6550 GHz 2.6600 GHz 2.6900 GHz	2.602 2.655 2.660 2.690 2.695 2.695 2.748	20 GHz 50 GHz 50 GHz 50 GHz 50 GHz	1.000 1.000 1.000 1.000 1.000 1.000	0 MHz 0 MHz 0 MHz 0 MHz 0 MHz 0 MHz	2.601716667 2.652350000 2.659983333 2.673150000 2.690058333	GHz - GHz - GHz - GHz 5 GHz - GHz -	54.18 ( 35.16 ( 29.23 ( 571 d 33.76 ( 39.19 (	dBm dBm dBm dBm dBm dBm dBm	Δ Limi -29.18 -22.16 -19.23 -19.43 -23.76	it dB dB dB dB dB dB dB	<u>Auto</u>	000000 MH Ma
<b>Spur</b>	Range           1           2           3           4           5           6	<b>Start Freq</b> 2.6000 GHz 2.6020 GHz 2.6550 GHz 2.6600 GHz 2.6900 GHz 2.6950 GHz	2.602 2.655 2.660 2.690 2.695 2.695 2.748	20 GHz 50 GHz 50 GHz 50 GHz 50 GHz 30 GHz	1.000 1.000 1.000 1.000 1.000 1.000	0 MHz 0 MHz 0 MHz 0 MHz 0 MHz 0 MHz	2.601716667 2.652350000 2.659983333 2.673150000 2.690058333 2.698180000	GHz - GHz - GHz - GHz 5 GHz - GHz -	54.18 ( 35.16 ( 29.23 ( 571 d 33.76 ( 39.19 (	dBm dBm dBm dBm dBm dBm dBm	Δ Limi -29.18 -22.16 -19.23 -19.43 -23.76 -26.19	it dB dB dB dB dB dB dB	<u>Auto</u>	000000 MH Ma req Offs
Spur	Range           1           2           3           4           5           6	<b>Start Freq</b> 2.6000 GHz 2.6020 GHz 2.6550 GHz 2.6600 GHz 2.6900 GHz 2.6950 GHz	2.602 2.655 2.660 2.690 2.695 2.695 2.748	20 GHz 50 GHz 50 GHz 50 GHz 50 GHz 30 GHz	1.000 1.000 1.000 1.000 1.000 1.000	0 MHz 0 MHz 0 MHz 0 MHz 0 MHz 0 MHz	2.601716667 2.652350000 2.659983333 2.673150000 2.690058333 2.698180000	GHz - GHz - GHz - GHz 5 GHz - GHz -	54.18 ( 35.16 ( 29.23 ( 571 d 33.76 ( 39.19 (	dBm dBm dBm dBm dBm dBm dBm	Δ Limi -29.18 -22.16 -19.23 -19.43 -23.76 -26.19	it dB dB dB dB dB dB dB	<u>Auto</u>	000000 Mł Mi req Offs

Plot 7-267. Lower ACP Plot (NR Band n41 - 30MHz CP-OFDM-QPSK - Full RB)



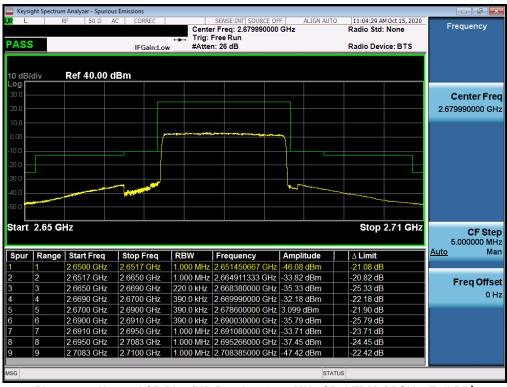
Plot 7-268. Upper ACP Plot (NR Band n41 - 30MHz CP-OFDM-QPSK – Full RB)

FCC ID: A3LSMG998U	PCTEST* Notad to be part of @ element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 150 of 222
1M2009230152-28.A3L	9/23 - 12/13/2020	Portable Handset		Page 159 of 222
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iv	Ref 40.00						Radio Dev	ce: BTS	
		dBm							
									Center Fre 2.506020000 GH
2.476 G	iHz						Stop 2	536 GHz	
									CF Ste 5.000000 MH Auto Ma
							_		
									Freq Offs
-									01
							_		
-									
-									
		2.5360 GHz					_		
	Range	2.4950 GHz           4         2.4960 GHz           5         2.5160 GHz           6         2.5170 GHz           7         2.5210 GHz	Range         Start Freq         Stop Freq           2.4760 GHz         2.4905 GHz         2.4905 GHz           2.24905 GHz         2.4950 GHz         2.4960 GHz           3.24950 GHz         2.4960 GHz         2.4960 GHz           4.24960 GHz         2.5160 GHz         2.5170 GHz           5.25170 GHz         2.5210 GHz         2.5210 GHz           7         2.5210 GHz         2.5343 GHz	Range         Start Freq         Stop Freq         RBW           2         24760 GHz         24905 GHz         1.000 MHz           2         24905 GHz         24950 GHz         1.000 MHz           3         24950 GHz         24950 GHz         200.0 kHz           4         24960 GHz         25160 GHz         390.0 kHz           5         2.5170 GHz         2.5170 GHz         1.000 MHz           7         2.5210 GHz         2.5343 GHz         1.000 MHz	Range         Start Freq         Stop Freq         RBW         Frequency           2         24760 GHz         24905 GHz         1.000 MHz         2490355000 (           2         24905 GHz         24950 GHz         1.000 MHz         2494910000 (           3         24950 GHz         24960 GHz         200.0 kHz         2495430000 (           4         24960 GHz         25160 GHz         390.0 kHz         2514366667 (           5         25170 GHz         25210 GHz         1.000 MHz         2516021667 (           6         25170 GHz         25210 GHz         1.000 MHz         251103000 (           7         2.5210 GHz         25343 GHz         1.000 MHz         2521133000 (	Range         Start Freq         Stop Freq         RBW         Frequency         Ampl           2         24760 GHz         2.4905 GHz         1.000 MHz         2.490355000 GHz         31.33           2         2.4905 GHz         2.4905 GHz         1.000 MHz         2.494910000 GHz         -27.90           3         2.4950 GHz         2.4960 GHz         200.0 kHz         2.495430000 GHz         -31.39           4         2.4960 GHz         2.5160 GHz         390.0 kHz         2.514366667 GHz         3864           5         2.5170 GHz         2.5210 GHz         1.000 MHz         2.517040000 GHz         -28.69           7         2.5210 GHz         2.5343 GHz         1.000 MHz         2.51133000 GHz         -28.69	Range         Start Freq         Stop Freq         RBW         Frequency         Amplitude           2         24760 GHz         2.4905 GHz         1.000 MHz         2.490355000 GHz         -31.35 dBm           2         2.4905 GHz         2.4950 GHz         1.000 MHz         2.494910000 GHz         -27.90 dBm           3         2.4950 GHz         2.4960 GHz         2.4000 kHz         2.495430000 GHz         -31.39 dBm           4         2.4960 GHz         2.5160 GHz         390.0 kHz         2.51366667 GHz         3.864 dBm           5         2.5170 GHz         2.5210 GHz         1.000 MHz         2.516021667 GHz         -28.08 dBm           6         2.5170 GHz         2.5210 GHz         1.000 MHz         2.51130000 GHz         -25.97 dBm           7         2.5210 GHz         2.5343 GHz         1.000 MHz         2.5113000 GHz         -28.69 dBm	Range         Start Freq         Stop Freq         RBW         Frequency         Amplitude         △ Limit           2,4760 GHz         2,4905 GHz         1,000 MHz         2,490355000 GHz         31.35 dBm         -6.349 dB           2         2,4905 GHz         2,4950 GHz         1,000 MHz         2,494910000 GHz         -27.90 dBm         -14.90 dB           3         2,4950 GHz         2,4960 GHz         200.0 kHz         2,495430000 GHz         -31.39 dBm         -18.99 dB           4         2,4960 GHz         2,5160 GHz         390.0 kHz         2,514366667 GHz         3864 dBm         -21.14 dB           5         2,5170 GHz         2,5170 GHz         390.0 kHz         2,516021667 GHz         -28.08 dBm         -18.08 dB           6         2,5170 GHz         2,5210 GHz         1.000 MHz         2,517133000 GHz         -25.97 dBm         -15.97 dB           7         2,5210 GHz         2,5343 GHz         1.000 MHz         2,521133000 GHz         -28.69 dBm         -15.69 dB	Range         Start Freq         Stop Freq         RBW         Frequency         Amplitude         △ Limit           2,4760 GHz         2.4905 GHz         1.000 MHz         2.490355000 GHz         31.35 dBm         -6.349 dB           2         2,4905 GHz         2.4905 GHz         1.000 MHz         2.494910000 GHz         -27.90 dBm         -14.90 dB           3         2,4950 GHz         2.4960 GHz         200.0 kHz         2.495430000 GHz         -31.39 dBm         -18.99 dB           4         2,4960 GHz         2.5160 GHz         390.0 kHz         2.514366667 GHz         3864 dBm         -21.14 dB           5         2.5170 GHz         2.5170 GHz         390.0 kHz         2.516021667 GHz         28.08 dBm         -18.08 dB           6         2.5170 GHz         2.5210 GHz         1.000 MHz         2.517040000 GHz         -25.97 dB         -15.97 dB           7         2.5210 GHz         2.5343 GHz         1.000 MHz         2.521133000 GHz         -28.69 dBm         -15.69 dB

Plot 7-269. Lower ACP Plot (NR Band n41 - 20MHz CP-OFDM-QPSK - Full RB)



Plot 7-270. Upper ACP Plot (NR Band n41 - 20MHz CP-OFDM-QPSK - Full RB)

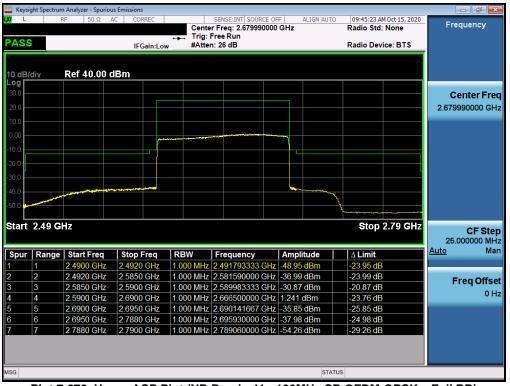
FCC ID: A3LSMG998U	PCTEST Proud to be part of @ element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 160 of 222
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## NR Band n41 ANT B

L		n Analyzer - Sp ຊະ 50 ຊ	AC	CORRE	EC		SENSE:INT SOU er Freq: 2.5060 Free Run		ALIGN AUTO	09:24:45 A Radio Std	AM Oct 15, 2020 I: None	Frequency
ASS	<b>;</b>			IFGai	in:Low		n: 26 dB			Radio Dev	vice: BTS	
0 dB/	div	Ref 40.0	0 dBr	n								
°g 0.0												Center Fre
0.0												2.506020000 GH
0.0												
.00												
0.0												
0.0				$\frown$					•			
0.0	and the second second			$\vdash$								
tart	2.396 <b>C</b>	GHz								Stop 2	2.696 GHz	
		GHz Start Fre	q   S	top Fre	eq	RBW	Frequency	An	plitude	Stop 2	2.696 GHz	25.000000 MH
	Range	Start Fre	-lz 2.	4905 G	θHz	1.000 MHz	2.487665000	) GHz -35	76 dBm	∆ Limit -10.76 df	3	25.000000 MH
	Range	Start Fre 2.3960 GF 2.4905 GF	<mark>-lz 2</mark> . -lz 2.	<mark>4905 G</mark> 4950 G	Hz Hz	1.000 MHz 1.000 MHz	2.487665000 2.493275000	) GHz -35 ) GHz -35	76 dBm 02 dBm	Δ Limit -10.76 df -22.02 df	<b>B</b> B	CF Ste 25.000000 MH <u>Auto</u> Ma Freq Offs
	Range 1 2 3	<b>Start Fre</b> 2.3960 GH 2.4905 GH 2.4950 GH	<mark>+z 2.</mark> +z 2. +z 2.	<mark>4905 G</mark> 4950 G 4960 G	Hz Hz Hz	1.000 MHz 1.000 MHz 1.000 MHz	2.487665000 2.493275000 2.495996667	) GHz -35 ) GHz -35 7 GHz -29	76 dBm 02 dBm 52 dBm	∆ Limit -10.76 dE -22.02 dE -16.52 dE	<b>B</b> 3 3	25.000000 MH <u>Auto</u> Ma Freq Offs
	Range 1 2 3 4	<b>Start Fre</b> <b>2.3960 GF</b> 2.4905 GF 2.4950 GF 2.4960 GF	Iz     2.       Iz     2.       Iz     2.       Iz     2.       Iz     2.       Iz     2.	<mark>4905 G</mark> 4950 G 4960 G 5960 G	Hz Hz Hz Hz	1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz	2.487665000 2.493275000 2.495996667 2.539500000	GHz         -35           GHz         -35           GHz         -29           GHz         2.1	76 dBm 02 dBm 52 dBm 52 dBm	Δ Limit -10.76 df -22.02 df -16.52 df -22.85 df	<b>B</b> 3 3 3 3	25.000000 MH <u>Auto</u> Ma
spur	Range 1 2 3 4 5	<b>Start Fre</b> 2.3960 GF 2.4905 GF 2.4950 GF 2.4960 GF 2.5960 GF	Iz         2.	4905 G 4950 G 4960 G 5960 G 6010 G	iHz iHz iHz iHz iHz iHz	1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz	2.487665000 2.493275000 2.495996667 2.539500000 2.596125000	) GHz -35 ) GHz -35 7 GHz -29 ) GHz 2.1 ) GHz -36	76 dBm 02 dBm 52 dBm 52 dBm 63 dBm	△ Limit -10.76 df -22.02 df -16.52 df -22.85 df -26.63 df	<b>3</b> 3 3 3 3 3 3	25.000000 MH <u>Auto</u> Ma Freq Offs
	Range 1 2 3 4 5 6	<b>Start Fre</b> 2.3960 GF 2.4905 GF 2.4950 GF 2.4960 GF 2.5960 GF 2.6010 GF	Iz         2.           Iz         2.	<mark>4905 G</mark> 4950 G 4960 G 5960 G	iHz iHz iHz iHz iHz iHz iHz	1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz	2.487665000 2.493275000 2.495996667 2.539500000	GHz         -35           GHz         -35           GHz         -29           GHz         2.1           GHz         -36           GHz         -36	76 dBm 02 dBm 52 dBm 52 dBm 63 dBm 73 dBm	Δ Limit -10.76 df -22.02 df -16.52 df -22.85 df	<b>3</b> 3 3 3 3 3 3 3 3	25.000000 Mł <u>Auto</u> Ma Freq Offs
tart <sup>Spur</sup>	Range 1 2 3 4 5 6	<b>Start Fre</b> 2.3960 GF 2.4905 GF 2.4950 GF 2.4960 GF 2.5960 GF	Iz         2.           Iz         2.	4905 G 4950 G 4960 G 5960 G 6010 G 6940 G	iHz iHz iHz iHz iHz iHz iHz	1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz 1.000 MHz	2.487665000 2.493275000 2.495996667 2.539500000 2.596125000 2.603790000	GHz         -35           GHz         -35           GHz         -29           GHz         2.1           GHz         -36           GHz         -36	76 dBm 02 dBm 52 dBm 52 dBm 63 dBm 73 dBm	Δ Limit -10.76 dE -22.02 dE -16.52 dE -22.85 dE -26.63 dE -26.73 dE	<b>3</b> 3 3 3 3 3 3 3 3	25.000000 MH <u>Auto</u> Ma Freq Offs

Plot 7-271. Lower ACP Plot (NR Band n41 - 100MHz CP-OFDM-QPSK - Full RB)



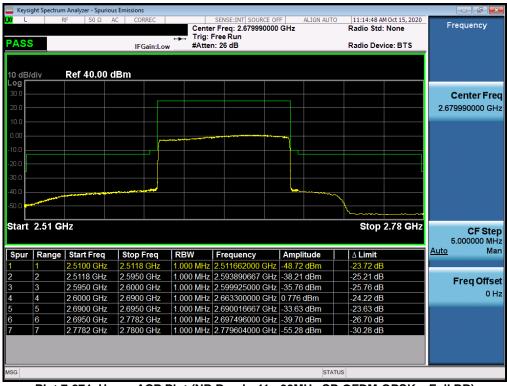
### Plot 7-272. Upper ACP Plot (NR Band n41 - 100MHz CP-OFDM-QPSK – Full RB)

FCC ID: A3LSMG998U	Portest Proud to be part of @ element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 161 of 222
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		¥F 50 Ω	AC CORR	EC		SENSE:INT SOURCE r Freq: 2.5060200 Free Run		ALIGN AUT		38 AM Oct 15, 2020 Std: None	Frequency	
PASS	s		IFGa	in:Low	#Atte	n: 26 dB			Radio	Device: BTS	_	
0 dBi	(div	Ref 40.00	dBm									
og		RCI 40.00										
30.0 -											Center Fi	re
20.0											2.506020000	
10.0 -											2.000020000 0	
0.00 -				r								
10.0							— <mark> </mark>					
20.0												
30.0										L L		
40.0							-		·			
50.0			$\rightarrow$									
•••		*****										
•••	2.406 C	GHz							Sto	p 2.676 GHz	CF St 5.000000 M	
•••		GHz Start Freq	Stop Fr	req	RBW	Frequency	Amp	litude	Sto		5.000000 N	
Start			Stop Fr 2.4905 (			Frequency 2.489795833 GF				nit	5.000000 N	٨ŀ
Start	Range	Start Freq		GHz	1.000 MHz		lz -36.81	l dBm	∆ Lin	nit I dB	5.000000 N <u>Auto</u> N	M⊢ Ma
Start Spur	Range	Start Freq 2.4060 GHz	2.4905 (	GHz GHz	1.000 MHz 1.000 MHz	2.489795833 GH	<mark>lz -36.8</mark> 1 lz -36.20	I <mark>dBm</mark> ) dBm	∆ Lin	nit I dB ) dB	5.000000 M Auto M Freq Off	Al- Ma
Start Spur	Range 1 2	<b>Start Freq</b> <b>2.4060 GHz</b> 2.4905 GHz	2.4905 ( 2.4950 (	GHz GHz GHz	1.000 MHz 1.000 MHz 910.0 kHz	2.489795833 GH 2.494962500 GH	<mark>Iz -36.8</mark> 1 Iz -36.20 Iz -32.44	I <mark>dBm</mark> ) dBm I dBm	∆ Lin -11.81 -23.20	nit I dB ) dB 4 dB	5.000000 M Auto M Freq Off	N⊢ Ma
Start	Range           1           2           3           4	<b>Start Freq</b> 2.4060 GHz 2.4905 GHz 2.4950 GHz	2.4905 ( 2.4950 ( 2.4960 (	GHz GHz GHz GHz GHz	1.000 MHz 1.000 MHz 910.0 kHz 1.000 MHz	2.489795833 GH 2.494962500 GH 2.495991667 GH	lz -36.81 lz -36.20 lz -32.44 lz 1.625	I dBm ) dBm I dBm dBm	∆ Lin -11.81 -23.20 -19.44	hit   dB ) dB 4 dB 7 dB	5.000000 M Auto M Freq Off	Al- Ma
Start	Range           1           2           3           4           5           6	<b>Start Freq</b> 2.4060 GHz 2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5860 GHz 2.5910 GHz	2.4905 ( 2.4950 ( 2.4960 ( 2.5860 ( 2.5910 ( 2.6742 (	GHz GHz GHz GHz GHz GHz GHz	1.000 MHz 1.000 MHz 910.0 kHz 1.000 MHz 1.000 MHz 1.000 MHz	2.489795833 GF 2.494962500 GF 2.495991667 GF 2.531100000 GF 2.586083333 GF 2.595992000 GF	Iz         -36.81           Iz         -36.20           Iz         -32.44           Iz         1.625           Iz         -36.82           Iz         -36.82	dBm ) dBm 4 dBm dBm 2 dBm 9 dBm	Δ Lin -11.81 -23.20 -19.44 -23.31 -26.82 -27.49	nit   dB   dB   dB   dB   dB   dB   dB	5.000000 M Auto M Freq Off	Al- Ma
Start	Range 1 2 3 4 5	<b>Start Freq</b> 2.4905 GHz 2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5860 GHz	2.4905 ( 2.4950 ( 2.4960 ( 2.5860 ( 2.5910 (	GHz GHz GHz GHz GHz GHz GHz	1.000 MHz 1.000 MHz 910.0 kHz 1.000 MHz 1.000 MHz 1.000 MHz	2.489795833 GH 2.494962500 GH 2.495991667 GH 2.531100000 GH 2.586083333 GH	Iz         -36.81           Iz         -36.20           Iz         -32.44           Iz         1.625           Iz         -36.82           Iz         -36.82	dBm ) dBm 4 dBm dBm 2 dBm 9 dBm	Δ Lin -11.81 -23.20 -19.44 -23.31 -26.82	nit   dB   dB   dB   dB   dB   dB   dB	5.000000 M Auto M Freq Off	AH Ma
Start	Range           1           2           3           4           5           6	<b>Start Freq</b> 2.4060 GHz 2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5860 GHz 2.5910 GHz	2.4905 ( 2.4950 ( 2.4960 ( 2.5860 ( 2.5910 ( 2.6742 (	GHz GHz GHz GHz GHz GHz GHz	1.000 MHz 1.000 MHz 910.0 kHz 1.000 MHz 1.000 MHz 1.000 MHz	2.489795833 GF 2.494962500 GF 2.495991667 GF 2.531100000 GF 2.586083333 GF 2.595992000 GF	Iz         -36.81           Iz         -36.20           Iz         -32.44           Iz         1.625           Iz         -36.82           Iz         -36.82	dBm ) dBm 4 dBm dBm 2 dBm 9 dBm	Δ Lin -11.81 -23.20 -19.44 -23.31 -26.82 -27.49	nit   dB   dB   dB   dB   dB   dB   dB	5.000000 M Auto M Freq Off	Al Ma
start Spur	Range           1           2           3           4           5           6	<b>Start Freq</b> 2.4060 GHz 2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5860 GHz 2.5910 GHz	2.4905 ( 2.4950 ( 2.4960 ( 2.5860 ( 2.5910 ( 2.6742 (	GHz GHz GHz GHz GHz GHz GHz	1.000 MHz 1.000 MHz 910.0 kHz 1.000 MHz 1.000 MHz 1.000 MHz	2.489795833 GF 2.494962500 GF 2.495991667 GF 2.531100000 GF 2.586083333 GF 2.595992000 GF	Iz         -36.81           Iz         -36.20           Iz         -32.44           Iz         1.625           Iz         -36.82           Iz         -36.82	dBm ) dBm 4 dBm dBm 2 dBm 9 dBm	Δ Lin -11.81 -23.20 -19.44 -23.31 -26.82 -27.49	nit   dB   dB   dB   dB   dB   dB   dB	5.000000 M Auto M Freq Off	VI VI S

Plot 7-273. Lower ACP Plot (NR Band n41 - 90MHz CP-OFDM-QPSK – Full RB)



Plot 7-274. Upper ACP Plot (NR Band n41 - 90MHz CP-OFDM-QPSK - Full RB)

FCC ID: A3LSMG998U	Pote to be post of the element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 162 of 222
1M2009230152-28.A3L	9/23 - 12/13/2020	Portable Handset		Page 162 of 222
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PASS		F 50 Ω	AC CORREC	Trig:	SENSE:INT SOURCE O Pr Freq: 2.506020000 Free Run n: 26 dB		0   10:50:24 AM Oct 15, 2020 Radio Std: None Radio Device: BTS	Frequency
10 dB/	/div	Ref 40.00	dBm					
_ <b>og</b> 30.0 20.0								Center Fre 2.506020000 GH
10.0 0.00 10.0								
20.0 30.0								
40.0								
Start	2.416 C	GHz					Stop 2.656 GHz	CF Ste 5.000000 MH
Spur	Range	Start Freq	Stop Free	RBW	Frequency	Amplitude	∆ Limit	<u>Auto</u> Ma
1	1	2.4160 GHz	2.4905 GH	z 1.000 MHz	2.489755000 GHz	-36.85 dBm	-11.85 dB	
2	2	2.4905 GHz	2.4950 GH	z 1.000 MHz	2.494572500 GHz	-36.23 dBm	-23.23 dB	Eron Offe
3	3	2.4950 GHz	2.4960 GH	z 820.0 kHz	2.495763333 GHz	-37.26 dBm	-24.26 dB	Freq Offse 0 Hz
4	4	2.4960 GHz	2.5760 GH	z 1.000 MHz	2.531066667 GHz	2.122 dBm	-22.88 dB	
5	5	2.5760 GHz	2.5810 GH	z 1.000 MHz	2.576025000 GHz	-34.71 dBm	-24.71 dB	
6	6	2.5810 GHz	2.6541 GH	z 1.000 MHz	2.583193000 GHz	-38.23 dBm	-25.23 dB	
7	7	2.6541 GHz	2.6560 GH	z 1.000 MHz	2.655240000 GHz	-47.65 dBm	-22.65 dB	

Plot 7-275. Lower ACP Plot (NR Band n41 - 80MHz CP-OFDM-QPSK - Full RB)



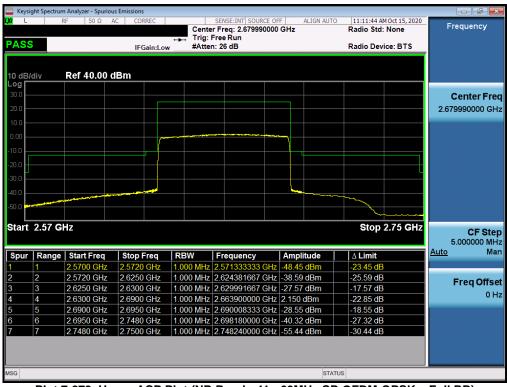
Plot 7-276. Upper ACP Plot (NR Band n41 - 80MHz CP-OFDM-QPSK - Full RB)

FCC ID: A3LSMG998U		PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 162 of 222	
1M2009230152-28.A3L	9/23 - 12/13/2020	Portable Handset		Page 163 of 222	
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KU L		n Analyzer - Spurio RF 50 Ω		EC	Cente	SENSE:INT SOUR		ALIGN AU		):52:05 Al dio Std:	M Oct 15, 2020	_	a a 🛃
PAS	S		IFGai	⊷ in:Low		Free Run n: 26 dB			Ra	dio Dev	ice: BTS		
40 15		D-5 40 00											
10 dB Log <b>[</b>	/div	Ref 40.00	aBm										
30.0 -												Ce	enter Fre
20.0												2.5060	20000 GH
10.0													
0.00 -					_								
10.0													
20.0			F										
				ļ							L		
30.0 -				_									
40.0			1 miles	-			i						
-50.0													
Ľ Start	2.436 C	>⊔-								ton 2	.616 GHz		
Start	2.430 (	3112								stop z	.010 GH2	5.0	CF Ste 000000 MF
		0			RBW			114 1				Auto	Ma
Spur	Range	Start Freq	Stop Fr	eq ir		Frequency	Am	plitude	Δ	Limit			
1	1	2.4360 GHz	2.4905 G	Hz 1.	.000 MHz	2.490318333 (	GHz -35.	99 dBm	-1	0.99 dB			
1 2	1 2	2.4360 GHz 2.4905 GHz	2.4905 C	Hz 1.	.000 MHz .000 MHz	2.490318333 ( 2.492817500 (	<mark>GHz -35.</mark> GHz -35.	<mark>99 dBm</mark> 22 dBm	-1	0.99 dB 2.22 dB		F	reg Offs
<b>Spur</b> 1 2 3	1 2 3	2.4360 GHz 2.4905 GHz 2.4950 GHz	2.4905 C 2.4950 C 2.4960 C	Hz 1 Hz 1 Hz 6	. <mark>000 MHz</mark> .000 MHz 20.0 kHz	2.490318333 ( 2.492817500 ( 2.495971667 (	GHz -35. GHz -35. GHz -36.	99 dBm 22 dBm 80 dBm	-11 -2: -2:	0.99 dB 2.22 dB 3.80 dB		F	
1 2 3 4	1 2 3 4	2.4360 GHz 2.4905 GHz 2.4950 GHz 2.4960 GHz	2.4905 G 2.4950 G 2.4960 G 2.5560 G	Hz 1 Hz 1 Hz 6 Hz 1	.000 MHz .000 MHz 20.0 kHz .000 MHz	2.490318333 ( 2.492817500 ( 2.495971667 ( 2.535800000 (	GHz -35. GHz -35. GHz -36. GHz 2.90	99 dBm 22 dBm 80 dBm 96 dBm	-11 -2: -2: -2:	0.99 dB 2.22 dB 3.80 dB 2.09 dB		F	
1 2 3 4 5	1 2 3 4 5	2.4360 GHz 2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5560 GHz	2.4905 G 2.4950 G 2.4960 G 2.5560 G 2.55610 G	Hz     1       Hz     1       Hz     6       Hz     6       Hz     1       Hz     1       Hz     1       Hz     1	000 MHz 000 MHz 20.0 kHz 000 MHz 000 MHz	2.490318333 ( 2.492817500 ( 2.495971667 ( 2.535800000 ( 2.556025000 (	GHz         -35.           GHz         -35.           GHz         -36.           GHz         2.90           GHz         -28.	99 dBm 22 dBm 80 dBm 6 dBm 04 dBm	-11 -2: -2: -2: -1:	0.99 dB 2.22 dB 3.80 dB 2.09 dB 8.04 dB		F	
1 2 3 4	1 2 3 4 5 6	2.4360 GHz 2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5560 GHz 2.55610 GHz	2.4905 G 2.4950 G 2.4960 G 2.5560 G 2.5610 G 2.6140 G	Hz         1.           Hz         1.           Hz         6.           Hz         1.           Hz         6.           Hz         1.           Hz         1.	000 MHz 000 MHz 20.0 kHz 000 MHz 000 MHz 000 MHz	2.490318333 ( 2.492817500 ( 2.495971667 ( 2.535800000 ( 2.556025000 ( 2.563650000 (	GHz         -35.           GHz         -35.           GHz         -36.           GHz         2.90           GHz         -28.           GHz         -35.	99 dBm 22 dBm 80 dBm 6 dBm 04 dBm 97 dBm	-11 -2: -2: -2: -2: -11 -11	0.99 dB 2.22 dB 3.80 dB 2.09 dB 8.04 dB 2.97 dB		F	r <b>eq Offs</b> o 0 H
1 2 3 4 5	1 2 3 4 5	2.4360 GHz 2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5560 GHz	2.4905 G 2.4950 G 2.4960 G 2.5560 G 2.55610 G	Hz         1.           Hz         1.           Hz         6.           Hz         1.           Hz         6.           Hz         1.           Hz         1.	000 MHz 000 MHz 20.0 kHz 000 MHz 000 MHz 000 MHz	2.490318333 ( 2.492817500 ( 2.495971667 ( 2.535800000 ( 2.556025000 (	GHz         -35.           GHz         -35.           GHz         -36.           GHz         2.90           GHz         -28.           GHz         -35.	99 dBm 22 dBm 80 dBm 6 dBm 04 dBm 97 dBm	-11 -2: -2: -2: -2: -11 -11	0.99 dB 2.22 dB 3.80 dB 2.09 dB 8.04 dB		F	
1 2 3 4 5	1 2 3 4 5 6	2.4360 GHz 2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5560 GHz 2.55610 GHz	2.4905 G 2.4950 G 2.4960 G 2.5560 G 2.5610 G 2.6140 G	Hz         1.           Hz         1.           Hz         6.           Hz         1.           Hz         6.           Hz         1.           Hz         1.	000 MHz 000 MHz 20.0 kHz 000 MHz 000 MHz 000 MHz	2.490318333 ( 2.492817500 ( 2.495971667 ( 2.535800000 ( 2.556025000 ( 2.563650000 (	GHz         -35.           GHz         -35.           GHz         -36.           GHz         2.90           GHz         -28.           GHz         -35.	99 dBm 22 dBm 80 dBm 6 dBm 04 dBm 97 dBm	-11 -2: -2: -2: -2: -11 -11	0.99 dB 2.22 dB 3.80 dB 2.09 dB 8.04 dB 2.97 dB		F	
2 3	1 2 3 4 5 6	2.4360 GHz 2.4905 GHz 2.4950 GHz 2.4960 GHz 2.5560 GHz 2.55610 GHz	2.4905 G 2.4950 G 2.4960 G 2.5560 G 2.5610 G 2.6140 G	Hz         1.           Hz         1.           Hz         6.           Hz         1.           Hz         6.           Hz         1.           Hz         1.	000 MHz 000 MHz 20.0 kHz 000 MHz 000 MHz 000 MHz	2.490318333 ( 2.492817500 ( 2.495971667 ( 2.535800000 ( 2.556025000 ( 2.563650000 (	GHz         -35.           GHz         -35.           GHz         -36.           GHz         2.90           GHz         -28.           GHz         -35.	99 dBm 22 dBm 80 dBm 6 dBm 04 dBm 97 dBm	-11 -2: -2: -2: -2: -11 -11	0.99 dB 2.22 dB 3.80 dB 2.09 dB 8.04 dB 2.97 dB		F	

Plot 7-277. Lower ACP Plot (NR Band n41 - 60MHz CP-OFDM-QPSK – Full RB)



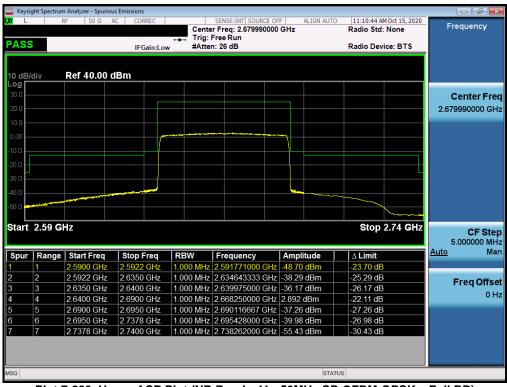
Plot 7-278. Upper ACP Plot (NR Band n41 - 60MHz CP-OFDM-QPSK - Full RB)

FCC ID: A3LSMG998U	PCTEST* Proud to be part of @ element	PART 27 MEASUREMENT REPORT	TAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 164 of 202
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M L PASS	R	n Analyzer - Spurio ξF 50 Ω	AC CO	IS ORREC Gain:Lo	Trig: I	SENSE:INT SOURCE r Freq: 2.5060200 Free Run 1: 26 dB		ALIGN AUTO	10:54:10 AM Radio Std: Radio Devid		Frequency
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-20.0											
-40.0			our de la companya de								
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Spur	Range	Start Freq	Stop	Freq	RBW	Frequency	Ampl	itude	∆ Limit		<u>Auto</u> Ma
1		2.4460 GHz	2.490			2.490351667 G			-10.75 dB		
•	2	2.4905 GHz	2.4950	0 GHz	1.000 MHz	2.493020000 GH	Iz -34.65	dBm	-21.65 dB		Freq Offs
2	3	2.4950 GHz				2.495110000 GH			-23.84 dB		0+
		2.4960 GHz	2 5460	0 GHz		2.531250000 GH			-21.16 dB		UF
2 3 4	4				1 0 0 0 1 11 1	2.546016667 G	Iz -30 92	dBm	-20.92 dB		
3	5	2.5460 GHz	2.551								
3 4	5 6	2.5460 GHz 2.5510 GHz	2.5510 2.5938	8 GHz	1.000 MHz	2.551856000 GI	Hz -34.34	dBm	-21.34 dB		
3 4 5	5	2.5460 GHz	2.551	8 GHz	1.000 MHz		Hz -34.34	dBm	-21.34 dB -22.37 dB		

Plot 7-279. Lower ACP Plot (NR Band n41 - 50MHz CP-OFDM-QPSK – Full RB)



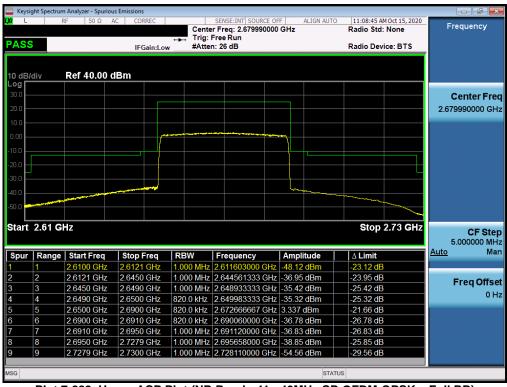
Plot 7-280. Upper ACP Plot (NR Band n41 - 50MHz CP-OFDM-QPSK – Full RB)

FCC ID: A3LSMG998U	PCTEST Proted to be port of @ element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 165 of 222
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Ref 40.0	0 dBm					Contor Fre
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						Center Fre 2.506020000 GH
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nge   Start Free	Stop Freq	RBW	Frequency	Amplitude	∆ Limit	<u>Auto</u> Ma
2.4560 GH	z 2.4905 GHz	1.000 MHz	2.489982500 GHz	-34.23 dBm	-9.225 dB	
2.4905 GH	z 2.4950 GHz	1.000 MHz	2.494872500 GHz	-33.19 dBm	-20.19 dB	Freq Offs
2.4950 GH		390.0 kHz	2.495925000 GHz	-35.99 dBm	-22.99 dB	0
2.4960 GH	z 2.5360 GHz	820.0 kHz	2.533400000 GHz	3.791 dBm	-21.21 dB	0
2.5360 GH	z 2.5370 GHz	820.0 kHz	2.536158333 GHz	-30.22 dBm	-20.22 dB	
2.5370 GH	z 2.5410 GHz	1.000 MHz	2.537240000 GHz	-30.64 dBm	-20.64 dB	
					-19.64 dB	
2.5739 GH	z 2.5760 GHz	1.000 MHz	2.575832000 GHz	-43.60 dBm	-18.60 dB	
	nge Start Frec 2.4560 GH 2.4905 GH 2.4950 GH 2.4960 GH 2.5360 GH 2.5370 GH 2.5370 GH	nge         Start Freq         Stop Freq           2.4560 GHz         2.4905 GHz         2.4905 GHz           2.4905 GHz         2.4960 GHz         2.4960 GHz           2.4960 GHz         2.5360 GHz         2.5360 GHz           2.5360 GHz         2.5370 GHz         2.5370 GHz           2.5370 GHz         2.5410 GHz         2.5410 GHz           2.5410 GHz         2.5739 GHz         2.5739 GHz	nge         Start Freq         Stop Freq         RBW           2.4560 GHz         2.4905 GHz         1.000 MHz           2.4905 GHz         2.4950 GHz         1.000 MHz           2.4950 GHz         2.4960 GHz         390.0 kHz           2.4960 GHz         2.5360 GHz         390.0 kHz           2.4960 GHz         2.5370 GHz         820.0 kHz           2.5370 GHz         2.5370 GHz         1.000 MHz           2.5410 GHz         2.5739 GHz         1.000 MHz	nge         Start Freq         Stop Freq         RBW         Frequency           2.4560 GHz         2.4905 GHz         1.000 MHz         2.489982500 GHz           2.4905 GHz         2.4950 GHz         1.000 MHz         2.494872500 GHz           2.4950 GHz         2.4960 GHz         390.0 kHz         2.494872500 GHz           2.4960 GHz         2.4960 GHz         390.0 kHz         2.494872500 GHz           2.4960 GHz         2.5360 GHz         820.0 kHz         2.5340000 GHz           2.5360 GHz         2.5370 GHz         2.5371 GHz         2.5371 GHz           2.5370 GHz         2.5410 GHz         2.5739 GHz         1.000 MHz         2.54290000 GHz           2.5410 GHz         2.5739 GHz         1.000 MHz         2.54290000 GHz         2.5420000 GHz	Start Freq         Stop Freq         RBW         Frequency         Amplitude           2.4560 GHz         2.4905 GHz         1.000 MHz         2.49982500 GHz         -34.23 dBm           2.4905 GHz         2.4950 GHz         1.000 MHz         2.494872500 GHz         -33.19 dBm           2.4960 GHz         2.4960 GHz         2.4960 GHz         2.4950 GHz         3.90 dBm           2.4960 GHz         2.5360 GHz         8200 kHz         2.533400000 GHz         -35.99 dBm           2.5360 GHz         2.5370 GHz         2.5371 GHz         8200 kHz         2.536158333 GHz         -30.22 dBm           2.5370 GHz         2.5470 GHz         1.000 MHz         2.53720000 GHz         -30.64 dBm           2.5410 GHz         2.5739 GHz         1.000 MHz         2.544290000 GHz         -32.64 dBm	Image         Stop Freq         RBW         Frequency         Amplitude         ∆ Limit           2.4560 GHz         2.4905 GHz         1.000 MHz         2.489982500 GHz         -34.23 dBm         -9.225 dB           2.4905 GHz         2.4950 GHz         1.000 MHz         2.498982500 GHz         -33.19 dBm         -20.19 dB           2.4950 GHz         2.4960 GHz         2.4960 GHz         2.4960 GHz         -39.00 kHz         2.498925000 GHz         -35.99 dBm         -22.99 dB           2.4960 GHz         2.5300 GHz         820.0 kHz         2.533400000 GHz         -35.99 dBm         -22.29 dB           2.5360 GHz         2.5370 GHz         820.0 kHz         2.53754333 GHz         -30.22 dBm         -20.22 dB           2.5370 GHz         2.5410 GHz         1.000 MHz         2.537240000 GHz         -30.64 dBm         -20.64 dB           2.5410 GHz         2.5760 GHz         1.000 MHz         2.575832000 GHz         -43.60 dBm         -18.60 dB

Plot 7-281. Lower ACP Plot (NR Band n41 - 40MHz CP-OFDM-QPSK - Full RB)

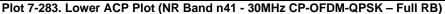


Plot 7-282. Upper ACP Plot (NR Band n41 - 40MHz CP-OFDM-QPSK – Full RB)

FCC ID: A3LSMG998U	PCTEST* Proud to be part of @element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 166 of 222
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Keysigl	ht Spectrum					DEC	1		CEN	T-INT C			AL 7		05-50		1014.2	0.20	[	
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7433	_				IFG	ain:Lo	w	#Atte	n: 26	dB					Radio	Dev	ice: BTS			
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Spur	Range	Start	Fred	s	top F	reg	I RE	W	l Fre	quenc	v	Amp	alitu	de	ΔLir	nit			Auto	Ma
1	1	2.4660			4905		_		-	382950		-			-14.2					
2	2	2.490			4950					949550					-23.4				_	
	3	2.4950			4960					959900					-25.6				F	req Offse
4	4	2.4960	) GHz	2.	5260	GHz				071000					-23.5	6 dB				0 H
5	5	2.5260	) GHz	2.	5270	GHz	620	.0 kHz	2.5	262400	00 GHz	-37.1	9 dE	3m	-27.1	9 dB				
6	6	2.5270	) GHz	2.	5310	GHz				274800					-26.1					
·	7	2.531(	) GHz	2.	5541	GHz	1.0	00 MHz	2.5	312310	00 GHz	-38.3	7 dE	3m	-25.3	7 dB				
3	8	2.554	1 GHz	2.	5560	GHz	1.0	00 MHz	2.5	541380	00 GHz	-46.8	4 dl	3m	-21.8	4 dB				
G				_	_	_	_	_	_	_	_	_	_	STATU		_				





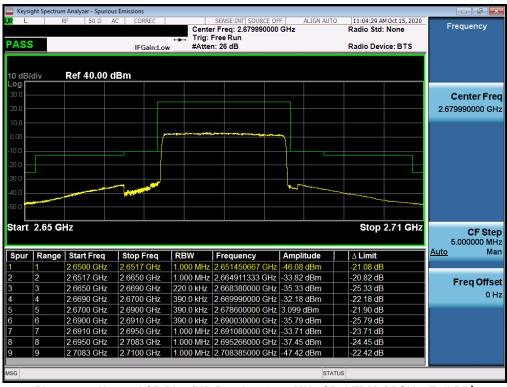
Plot 7-284. Upper ACP Plot (NR Band n41 - 30MHz CP-OFDM-QPSK - Full RB)

FCC ID: A3LSMG998U	Portest* Proud to be part of @element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 167 of 202
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iv	Ref 40.00						Radio Dev	ce: BTS	
		dBm							
									Center Fre 2.506020000 GH
2.476 G	iHz						Stop 2	536 GHz	
									CF Ste 5.000000 MH Auto Ma
							_		
									Freq Offs
-									01
							_		
-									
-									
		2.5360 GHz					_		
	Range       2       3       4       5       6       7	2.4950 GHz           4         2.4960 GHz           5         2.5160 GHz           6         2.5170 GHz           7         2.5210 GHz	Range         Start Freq         Stop Freq           2.4760 GHz         2.4905 GHz         2.4905 GHz           2         2.4950 GHz         2.4960 GHz           3         2.4950 GHz         2.4960 GHz           4         2.4960 GHz         2.5160 GHz           5         2.5170 GHz         2.5170 GHz           6         2.5170 GHz         2.5210 GHz           7         2.5210 GHz         2.5343 GHz	Range         Start Freq         Stop Freq         RBW           2         24760 GHz         24905 GHz         1.000 MHz           2         24905 GHz         24950 GHz         1.000 MHz           3         24950 GHz         24950 GHz         200.0 kHz           4         24960 GHz         25160 GHz         390.0 kHz           5         2.5170 GHz         2.5170 GHz         1.000 MHz           6         2.5170 GHz         2.5210 GHz         1.000 MHz           7         2.5210 GHz         2.5343 GHz         1.000 MHz	Range         Start Freq         Stop Freq         RBW         Frequency           2         24760 GHz         24905 GHz         1.000 MHz         2490355000 (           2         24905 GHz         24950 GHz         1.000 MHz         2494910000 (           3         24950 GHz         24960 GHz         200.0 kHz         2495430000 (           4         24960 GHz         25160 GHz         390.0 kHz         2514366667 (           5         25170 GHz         25210 GHz         1.000 MHz         2516021667 (           6         25170 GHz         25210 GHz         1.000 MHz         251103000 (           7         2.5210 GHz         25343 GHz         1.000 MHz         2521133000 (	Range         Start Freq         Stop Freq         RBW         Frequency         Ampl           2         24760 GHz         2.4905 GHz         1.000 MHz         2.490355000 GHz         31.33           2         2.4905 GHz         2.4905 GHz         1.000 MHz         2.494910000 GHz         -27.90           3         2.4950 GHz         2.4960 GHz         200.0 kHz         2.495430000 GHz         -31.39           4         2.4960 GHz         2.5160 GHz         390.0 kHz         2.514366667 GHz         3864           5         2.5170 GHz         2.5210 GHz         1.000 MHz         2.517040000 GHz         -28.69           7         2.5210 GHz         2.5343 GHz         1.000 MHz         2.51133000 GHz         -28.69	Range         Start Freq         Stop Freq         RBW         Frequency         Amplitude           2         24760 GHz         2.4905 GHz         1.000 MHz         2.490355000 GHz         -31.35 dBm           2         2.4905 GHz         2.4950 GHz         1.000 MHz         2.494910000 GHz         -27.90 dBm           3         2.4950 GHz         2.4960 GHz         2.4000 kHz         2.495430000 GHz         -31.39 dBm           4         2.4960 GHz         2.5160 GHz         390.0 kHz         2.51366667 GHz         3.864 dBm           5         2.5170 GHz         2.5210 GHz         1.000 MHz         2.516021667 GHz         -28.08 dBm           6         2.5170 GHz         2.5210 GHz         1.000 MHz         2.51130000 GHz         -25.97 dBm           7         2.5210 GHz         2.5343 GHz         1.000 MHz         2.5113000 GHz         -28.69 dBm	Range         Start Freq         Stop Freq         RBW         Frequency         Amplitude         △ Limit           2,4760 GHz         2,4905 GHz         1,000 MHz         2,490355000 GHz         31.35 dBm         -6.349 dB           2         2,4905 GHz         2,4950 GHz         1,000 MHz         2,494910000 GHz         -27.90 dBm         -14.90 dB           3         2,4950 GHz         2,4960 GHz         200.0 kHz         2,495430000 GHz         -31.39 dBm         -18.99 dB           4         2,4960 GHz         2,5160 GHz         390.0 kHz         2,514366667 GHz         3864 dBm         -21.14 dB           5         2,5170 GHz         2,5170 GHz         390.0 kHz         2,516021667 GHz         -28.08 dBm         -18.08 dB           6         2,5170 GHz         2,5210 GHz         1.000 MHz         2,517133000 GHz         -25.97 dBm         -15.97 dB           7         2,5210 GHz         2,5343 GHz         1.000 MHz         2,521133000 GHz         -28.69 dBm         -15.69 dB	Range         Start Freq         Stop Freq         RBW         Frequency         Amplitude         △ Limit           2,4760 GHz         2.4905 GHz         1.000 MHz         2.490355000 GHz         31.35 dBm         -6.349 dB           2         2,4905 GHz         2.4905 GHz         1.000 MHz         2.494910000 GHz         -27.90 dBm         -14.90 dB           3         2,4950 GHz         2.4960 GHz         200.0 kHz         2.495430000 GHz         -31.39 dBm         -18.99 dB           4         2,4960 GHz         2.5160 GHz         390.0 kHz         2.514366667 GHz         3864 dBm         -21.14 dB           5         2.5170 GHz         2.5170 GHz         390.0 kHz         2.516021667 GHz         28.08 dBm         -18.08 dB           6         2.5170 GHz         2.5210 GHz         1.000 MHz         2.517040000 GHz         -25.97 dB         -15.97 dB           7         2.5210 GHz         2.5343 GHz         1.000 MHz         2.521133000 GHz         -28.69 dBm         -15.69 dB

Plot 7-285. Lower ACP Plot (NR Band n41 - 20MHz CP-OFDM-QPSK - Full RB)



Plot 7-286. Upper ACP Plot (NR Band n41 - 20MHz CP-OFDM-QPSK – Full RB)

FCC ID: A3LSMG998U		PART 27 MEASUREMENT REPORT	TAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 169 of 222
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# NR Band n77

	Dec 07, 2020	06:07:53 AM	ALIGN AUTO	OFF	SENSE:INT SOURCE		NRREC		r - <mark>Spuriou</mark> 50 Ω A		/sight Spectrun	Keys RL
Frequency		Radio Std:			r Freq: 2.5060200							
	e: BTS	Radio Devi			Free Run n: 26 dB		Gain:Low	IE			S	AS
		rtudio Dem				#7 tete	Gam.LOw	IF				
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<u>Auto</u> Mi								3.6950	0 GHz	3 6000	1	
Auto Ma		-26.52 dB	2 dBm	Hz -39.	3.693416667 GI	1.000 MHz	0 GHz	5.0550		0.0000		
		-28.38 dB	8 dBm	Hz -41.3	3.696586667 GI	510.0 kHz	0 GHz	3.6990		3.6950	2	2
Freq Offs			8 dBm 8 dBm	Hz -41.3 Hz -43.1		510.0 kHz 360.0 kHz	0 GHz 0 GHz		0 GHz			<u>2</u> 3

Plot 7-287. Lower ACP Plot (NR Band n77 - 100MHz CP-OFDM-QPSK - Full RB)



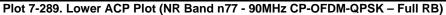
FCC ID: A3LSMG998U	POINTEST Pound to be part of the element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Page 169 of 222
1M2009230152-28.A3L	9/23 - 12/13/2020	Portable Handset	Fage 109 01 222
© 2020 PCTEST	•	•	V 1.2 11/02/20

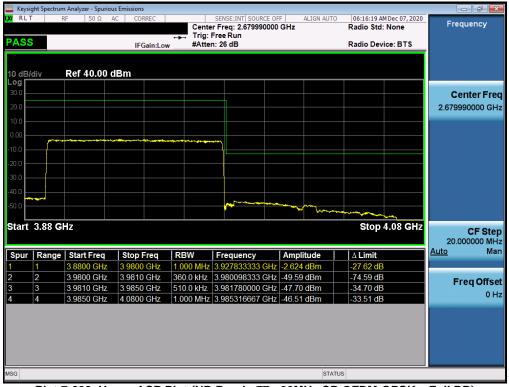
2020 PCTEST



		IFGain:Lov		SENSE:INT   SOURCE OFF           ALIGN AUTO           06:12:20 AM De           ter Freq: 3.710000000 GHz         Radio Std: No           : Free Run			Frequency	
10 dB/div Log	Ref 40.00 c							
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0.00							*	
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40.0			and the second secon	~				
50.0								
Start 3.6 G	Hz					Stop 3	.8 GHz	CF Ste 20.000000 Mi
Spur   Rang	e Start Freq	Stop Freq	RBW	Frequency	Amplitude	∆ Limit		<u>Auto</u> M
1	3.6000 GHz	3.6950 GHz	1.000 MHz	3.681541667 GI	Hz -40.83 dBm	-27.83 dB		
2 2	3.6950 GHz	3.6990 GHz	510.0 kHz	3.697673333 GI	Hz -42.19 dBm	-29.19 dB		Freq Offs
3 3	3.6990 GHz	3.7000 GHz	360.0 kHz	3.699791667 GI	Hz -43.38 dBm	-68.38 dB		
4	3.7000 GHz	3.8000 GHz	1.000 MHz	3.7463333333 GI	Hz -2.709 dBm	-27.71 dB		0

### Plot 7-288. Upper ACP Plot (NR Band n77 - 100MHz CP-OFDM-QPSK - Full RB)





Plot 7-290. Upper ACP Plot (NR Band n77 - 90MHz CP-OFDM-QPSK – Full RB)

FCC ID: A3LSMG998U	PCTEST* Proud to be port of @ element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
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🗶 RL		n Analyzer - Spu ফি 50 Ω		CORREC			er Fre	SE:INT SOURC		ALIGN AUT		06:18:27 AM	1Dec 07, 2020 None	_	a a 💌
PAS	S			IFGain:	Low	Trig: #Atte					F	Radio Devi	ice: BTS		
10 dB	3/div	Ref 40.0	0 dBm												
Log 30.0														Ce	enter Fre
20.0 10.0														3.7100	00000 GH
0.00															
10.0															
-20.0 -30.0															
-40.0							<u>.</u>								
-50.0				, a server			1000								
Start	t 3.6 GH		1									Stop	3.8 GHz		CF Ste
Spur	Range	Start Freq	Ste	op Freg	R	BW	Fre	quency	An	nplitude		∆ Limit		20.0 Auto	00000 MH Ma
1	1	3.6000 GH	z 3.6	950 GH	z 1.	000 MHz	3.69	93733333 G	Hz -39	.89 dBm	İİ	-26.89 dB			
2	2	3.6950 GH	z 3.6	990 GH	z 51	0.0 kHz	3.69	95980000 G	Hz -42	.12 dBm		-29.12 dB		E.	req Offs
3	3	3.6990 GH	z 3.7	000 GH	z 36	60.0 kHz	3.69	99096667 G	Hz -43	.65 dBm		-68.65 dB			01
-	4	3.7000 GH	z 3.8	000 GH	z 1.	000 MHz	3.74	46500000 G	Hz -2.2	282 dBm		-27.28 dB			01
4															

Plot 7-291. Lower ACP Plot (NR Band n77 - 80MHz CP-OFDM-QPSK - Full RB)

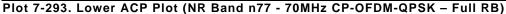


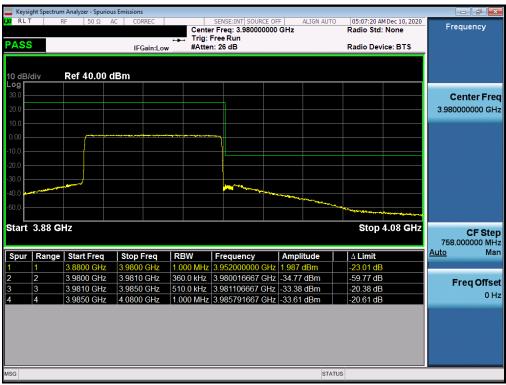
Plot 7-292. Upper ACP Plot (NR Band n77 - 80MHz CP-OFDM-QPSK – Full RB)

FCC ID: A3LSMG998U		PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
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PASS	RF 50 Ω	AC CORREC	Cant	SENSE:INT SOURCE C	OFF ALIGN AUTO	05:08:17 AM Dec 10, 2020	
				er Freg: 2.50602000		Radio Std: None	Frequency
			Trig:	Free Run	0 0112	Radio Stu. None	
		IFGain:L		n: 26 dB		Radio Device: BTS	
I0 dB/div	Ref 40.00	dBm					
-og							
30.0							Center Fre
20.0							2.506020000 GH
10.0							
0.00							
10.0							
20.0							
30.0							
40.0						and the second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second second se	
50.0							
00.0 <b></b>							
Start 3.6 GH	z					Stop 3.8 GHz	
							CF Ste 758.000000 MH
Spur   Range	Start Freq	Stop Freq	RBW	Frequency	Amplitude	∆ Limit	Auto Ma
1	3.6000 GHz	3.6950 GHz		3.694525000 GH		-18.90 dB	
2 2	3.6950 GHz	3.6990 GHz		3.697626667 GH		-20.27 dB	En
3 3	3.6990 GHz	3.7000 GHz		3.699968333 GH		-59.55 dB	Freq Offs
4	3.7000 GHz	3.8000 GHz	: 1.000 MHz	3.741833333 GH	z 1.918 dBm	-23.08 dB	01
4 4	3.7000 GHz	3.8000 GHz	. 1.000 MHz	3.741833333 GH	z   1.918 dBm	-23.08 dB	
sg					STATU	IS	





Plot 7-294. Upper ACP Plot (NR Band n77 - 70MHz CP-OFDM-QPSK – Full RB)

FCC ID: A3LSMG998U	PCTEST* Proud to be part of @element	PART 27 MEASUREMENT REPORT	NE	Approved by: Quality Manager
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		n Analyzer - Spu												
KU <mark>RL</mark>	.T F	RF 50 Ω	AC	CORREC		Cente	SENSE:INT SOUR er Freg: 3.71000				6:23:27 AM dio Std:	1Dec 07, 2020	Freque	ency
					<u> </u>		Free Run	0000 G	112	Ra	ulo stu.	None		
PAS	s			IFGain:L	.ow 🕇	#Atte	n: 26 dB			Ra	dio Devi	ce: BTS		
10 dE	Ridiv	Ref 40.0	0 dBm											
og	27011													
30.0													Cent	er Fre
20.0													3.710000	000 GH
10.0														
0.00														
										~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				
10.0														
20.0														
30.0														
40.0							~							
				1000								mon		
-50.0			and the second s											
Star	t 3.6 GH	7						1			Stop	3.8 GHz		
													20.000	CF Ste
Spur	r Range	Start Free	q St	op Freq	R	3W	Frequency	1	Amplitude	Δ	Limit		<u>Auto</u>	Ma
1	1	3.6000 GH		950 GHz	z 1.0	00 MHz	3.691358333	GHz 🖃	38.46 dBm	-2	5.46 dB			
2	2	3.6950 GH		990 GHz			3.698986667				8.29 dB		Free	Offs
3	3	3.6990 GH		000 GHz			3.699995000				7.26 dB			01
4	4	3.7000 GH	z 3.8	000 GHz	<u>z  1.0</u>	00 MHz	3.734833333	GHz -	1.111 dBm	-2	6.11 dB			01
SG										ATUS				

Plot 7-295. Lower ACP Plot (NR Band n77 - 60MHz CP-OFDM-QPSK - Full RB)



Plot 7-296. Upper ACP Plot (NR Band n77 - 60MHz CP-OFDM-QPSK – Full RB)

FCC ID: A3LSMG998U	PCTEST * Protect to be post of @ element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
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	sight Spectrum													
<mark>o</mark> RL	.T   F	RF 50 9	Ω AC	CORR	EC	Cente	SENSE:INT SOU Freq: 3.7100			LIGN AUTO		18 AM Dec 07, 2020 Std: None	Frequ	Jency
						Trig:	Free Run		0.12					
PAS	s			IFGa	in:Low	#Atte	n: 26 dB				Radio	Device: BTS	-	
10 dE	3/div	Ref 40.	00 dBi	m										
_og														
30.0													Cer	nter Fre
20.0													3.71000	0000 GH
10.0														
0.00														
10.0														
20.0														
30.0														
40.0														
50.0					s and a start							the second second second second second second second second second second second second second second second se		
Star	t 3.6 GH	z									S	top 3.8 GHz		CF Ste
														0000 MI
Spu	Range	Start Fre	ea I S	Stop Fr	ea	RBW	Frequency		Amplit	ude	∆ Lim	nit	<u>Auto</u>	Ma
1	1	3.6000 G		.6950 0		1.000 MHz	3.69389166	7 GHz			-26.80	) dB		
2	2	3.6950 G		.6990 0	GHz	510.0 kHz	3.696820000	) GHz	-40.55 c	Bm	-27.55	dB	Ere	q Offs
3	3	3.6990 G		.7000 0			3.699955000				-66.76			015 01
1	4	3.7000 G	Hz 3	.8000 0	GHz	1.000 MHz	3.729833333	3 GHz	-0.059 c	Bm	-25.06	6 dB		01
	4	3.7000 G	Hz 3	.8000 0	GHz	1.000 MHz	3.729833333	3 GHz	-0.059 c	IBm	-25.06	) dB		

Plot 7-297. Lower ACP Plot (NR Band n77 - 50MHz CP-OFDM-QPSK - Full RB)



Plot 7-298. Upper ACP Plot (NR Band n77 - 50MHz CP-OFDM-QPSK – Full RB)

FCC ID: A3LSMG998U	PCTEST* Proud to be port of @ element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
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		n Analyzer - Spur										X
X/RL	T F	F 50 Ω	AC C	CORREC	Cen	SENSE:INT SOUR ter Freg: 2.50602		ALIGN AUTO	06:38:51 Al Radio Std:	1Dec 07, 2020	Frequency	y
	•				Trig	: Free Run						
PAS	<u> </u>		I	IFGain:Lo	w #Att	en: 26 dB			Radio Dev	ice: BTS		
10 dE	3/div	Ref 40.00	) dBm									
Log												
30.0											Center	Fre
20.0											2.506020000	GF
10.0												
0.00												
10.0												
20.0												
30.0								1				
-40.0					and the second s	- 1		Charles and the second	<b>1</b>			
-50.0				— — ,					- way			
				/								
Start	3.6 GH	Z							Stop	3.8 GHz	CF \$ 20.000000	Ste M⊦
Spur	Range	Start Freq	Sto	p Freq	RBW	Frequency	Amp	litude	∆ Limit		<u>Auto</u>	Ma
1	1	3.6000 GHz	3.69	50 GHz	1.000 MH	z 3.694366667	GHz -39.0	9 dBm	-26.09 dB			
2	2	3.6950 GHz		90 GHz		3.698626667			-26.74 dB		Erea O	ffs
3												0 +
4	4	3.7000 GHz	2 3.800	00 GHz	1.000 MH	z 3.716666667	GHz 1.529	dBm	-23.47 dB			01
2	1	3.6000 GHz	z 3.69 z 3.699 z 3.700	50 GHz	1.000 MH 510.0 kHz 360.0 kHz	z 3.694366667	GHz -39.0 GHz -39.7 GHz -40.8	9 dBm 4 dBm 2 dBm	-26.09 dB		Freq O	

Plot 7-299. Lower ACP Plot (NR Band n77 - 40MHz CP-OFDM-QPSK - Full RB)



Plot 7-300. Upper ACP Plot (NR Band n77 - 40MHz CP-OFDM-QPSK – Full RB)

FCC ID: A3LSMG998U	PCTEST* Protect to be part of @ element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
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<mark>d</mark> RL		n Analyzer - Spu RF 50 Ω		CORREC	Cente	SENSE:INT SOURCE OF		04:48:48 AM Dec 10, 20	20 Frequency
PAS	s			IFGain:Lov	Trig:	Free Run n: 26 dB		Radio Device: BTS	_
0 dB	3/div	Ref 40.00	) dBm						
- <b>og</b> 30.0 - 20.0 -									Center Fre 3.710000000 GH
20.0 - 10.0 -							•		3./10000000 GH
0.00 - 10.0 -									
20.0									
30.0 - 40.0 -					mall and the second	1	Constitution of the second second		
40.0 - 50.0 -				mar ange				and a state of the second	
Start	t 3.6 GH	Z						Stop 3.8 GH	Z CF Ste 758.000000 MH
Spur	Range	Start Freq	St	op Freq	RBW	Frequency	Amplitude	∆ Limit	Auto Ma
		3.6000 GH		950 GHz		3.694050000 GHz		-14.78 dB	
		3.6950 GH		990 GHz		3.698320000 GHz		-16.51 dB	Freq Offse
	3	3.6990 GHz 3.7000 GHz		000 GHz		3.699991667 GHz		-55.82 dB	0 H
1 2 3		3 / III)() ( H	7 38	000 GHz	1.000 MHz	3.714500000 GHz	. 8.653 dBm	-16.35 dB	
	4	0.1000 011							
}	4								



Plot 7-301. Lower ACP Plot (NR Band n77 - 30MHz CP-OFDM-QPSK – Full RB)

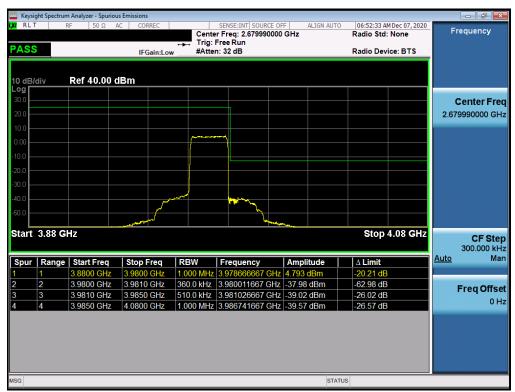
Plot 7-302. Upper ACP Plot (NR Band n77 - 30MHz CP-OFDM-QPSK – Full RB)

FCC ID: A3LSMG998U	PCTEST* Proud to be part of @element	PART 27 MEASUREMENT REPORT	SUNG	Approved by: Quality Manager
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X/ RLT		F 50 Ω		ns DRREC		SENSE:INT SOUR	CE OFE	ALIGN AUTO	06:51:30 AI	1Dec 07, 2020		
						r Freq: 3.71000			Radio Std:		Freq	lency
PASS			IF	-Gain:Lov		Free Run n: 32 dB			Radio Dev	ice: BTS		
				Guilleon								
10 dB/d	div	Ref 40.00	dBm									
Log												
30.0											Cer	nter Fre
20.0											3.71000	0000 GH
10.0												
0.00						provene						
10.0												
-20.0												
30.0												
-40.0						1 <b>~~</b>						
-50.0							<u> </u>					
					and the second		\ \					
Start	3.6 GH	Ζ							Stop	3.8 GHz	30	CF Ste 0.000 k⊢
Spur	Range	Start Freq	Stop	Freq	RBW	Frequency	Amp	olitude	∆ Limit		Auto	Ma
	1	3.6000 GHz	3.695	0 GHz	1.000 MHz	3.694841667	GHz -36.9	7 dBm	-23.97 dB			
			0.000	0 GHz	510.0 kHz	3.698986667	GHz -37.1	0 dBm	-24.10 dB		Ere	eq Offse
1 2	2	3.6950 GHz	3.699	0.0112								
1 2 3	2 3	3.6950 GHz 3.6990 GHz 3.7000 GHz	3.700	0 GHz 0 GHz	360.0 kHz	3.699973333 3.717666667	GHz -36.9		-61.98 dB			01

Plot 7-303. Lower ACP Plot (NR Band n77 - 20MHz CP-OFDM-QPSK - Full RB)



Plot 7-304. Upper ACP Plot (NR Band n77 - 20MHz CP-OFDM-QPSK - Full RB)

FCC ID: A3LSMG998U	PCTEST* Proud to be part of @ element	PART 27 MEASUREMENT REPORT	AMSUND	Approved by: Quality Manager
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# 7.6 Uplink Carrier Aggregation §27.53(m)

# Test Overview

The EUT is set up to transmit two contiguous LTE channels. The power level of both carriers and the various conducted spurious and harmonic frequencies is measured by means of a calibrated spectrum analyzer. The spectrum is scanned from the lowest frequency generated in the equipment up to a frequency including its 10<sup>th</sup> harmonic. 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.

For Band 41/38 the minimum permissible attenuation level of any spurious emission is  $55 + 10 \log_{10}(P_{[Watts]})$ .

# Test Procedure Used

KDB 971168 D01 v03r01 - Section 6.0

### **Test Settings**

- 1. Start frequency was set to 30MHz and stop frequency was set to at least 10 \* the fundamental frequency (separated into at least two plots per channel)
- 2. Detector = RMS
- 3. Trace mode = trace average for continuous emissions, max hold for pulse emissions
- 4. Sweep time = auto couple
- 5. The trace was allowed to stabilize
- 6. Please see test notes below for RBW and VBW settings

### Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.



Figure 7-5. Test Instrument & Measurement Setup

# Test Notes

- Conducted power and spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device. The worst case (highest) powers were found while operating with QPSK modulation with both carriers set to transmit using 1RB.
- 2. Compliance with the applicable limits is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater for frequencies less than 1 GHz and 1 MHz or greater for frequencies greater than 1 GHz. However, 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.

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# **Uplink CA Configuration 41C**

Power	Band	Bandwidth			PCC					SCC			ULCA Tx.									
State		(PCC + SCC)	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Modulation	UL Channel	UL Frequency	UL # RB	UL RB Offset	Power [dBm]									
													39750	2506.0	1	99		39948	2525.8	1	0	26.06
			QPSK	40620	2593.0	1	99	QPSK	40818	2612.8	1	0	26.07									
				41490	2680.0	1	0		41292	2660.2	1	99	26.55									
Max	LTE B41 (PC2)	20MHz + 20MHz	QPSK	40620	2593	100	0	QPSK	40818	2612.8	100	0	25.67									
			16-QAM	40620	2593	100	0	16-QAM	40818	2612.8	100	0	24.55									
			64-QAM	40620	2593	100	0	64-QAM	40818	2612.8	100	0	23.82									
		-	256-QAM	40620	2593	100	0	256-QAM	40818	2612.8	100	0	22.05									

 Table 7-5. Conducted Powers (B41 with Various Combinations for 20MHz Channel Bandwidth)

	t Spectrum Analy												
L <mark>XI</mark> RL	RF	50 Ω	AC (	CORREC		SEN	SE:INT	#Ava Ti	ALIGN AUTO		1 PM Oct 12, 2020 RACE 1 2 3 4 5 6	Fred	uency
PASS	Gate: LO			PNO: Fast IFGain:Lov		Trig: Free Atten: 30			pe. raito				
10 dB/div Log	Ref 20	).00 dE	m						N	/kr1 2.2 -47	284 0 GHz .001 dBm	A	uto Tune
10.0	ace 1 Pass	;											<b>nter Freq</b> 00000 GHz
-10.0													Start Freq 00000 MHz
-20.0													<b>Stop Freq</b> 00000 GHz
-40.0										المراجع والمراجع والمحادمة		246.6 <u>Auto</u>	<b>CF Step</b> 00000 MHz Man
	tedan dan series	in the second second second second second second second second second second second second second second second	<u>La principal de</u>	alater in the second second second second second second second second second second second second second second	it inite of the	Lages (	ites ( it rays in the local ) and a standard problem ( in the local )	עניין אוויזי איזא איזער עניין איזער איזער איזער איזער איזער איזער איזער איזער איזער איזער איזער איזער איזער איז איזער אוויזי אוויזי איזער איזער איזער איזער איזער איזער איזער איזער איזער איזער איזער איזער איזער איזער איזער א				Fr	e <b>q Offset</b> 0 Hz
-70.0													cale Type
	030 GHz W 1.0 MH:	z		#\	/BW 3	.0 MHz			Sweep		o 2.496 GHz s (4933 pts)	Log	Lin
MSG									STAT				

Plot 7-305. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – Low Channel)

FCC ID: A3LSMG998U	PCTEST Proad to be part of @element	PART 27 MEASUREMENT REPORT	TAMSUNG	Approved by: Quality Manager
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Gate: LO       PNO: Fast (FGalu:Low       Trig: Free Run #Atten: 26 dB       #Avg Type: RMS       Trace 1 2:24 2:50 (FGalu:Low)       Frequency         Ref Offset 16 dB (10 dB/div       Ref 20.00 dBm		🖞 Keysight Spectrum Analyzer - Swept SA												
Gate: L0       PHO: Fast       Trig: Free Run #Atten: 26 dB       Trig: Free Run #Atten: 26 dB       Trig: Free Run #Atten: 26 dB       Auto Tune         10 dB/div Gate: L0       Ref Offset 15 dB Ref 20:00 dBm       Center Freq 8.845000000 GHz       Start Freq 2.69000000 GHz         100       Image: Start Sta	l <b>xi</b> Ri	L	RF	50 <u>Ω</u>	AC CO	RREC	SEI	NSE:INT					Fre	equency
Ref 075set 16 dB       -28.689 dBm         100       Trace 1 Pass       -28.689 dBm         100       100       100       100         100       100       100       100       100         100       100       100       100       100       100         100       1	PAS	S	Gate: LO								т	YPE M WWWWW		
Trace 1 Pass       Center Freq         000       Start Freq         000       Start Freq         000       Start Freq         000       Start Freq         000       Start Freq         000       Start Freq         000       Start Freq         000       Start Freq         000       Start Freq         000       Start Freq         000       Start Freq         000       Start Freq         000       Start Freq         000       Start Freq         000       Start Freq         000       Start Freq         000       Start Freq         000       Start	10 dE	3/div								Μ	lkr1 14.74 -28.0	48 0 GHz 689 dBm		Auto Tune
100       Image: start Freq       2.69000000 GHz         200       Image: start Freq       2.69000000 GHz	10.0	Trace	1 Pass											•
300       Image: Construction of the second se													2.690	•
400 400 400 400 400 400 400 400										a na an Iona	العالية مرور ومنه الكريمين		15.000	
600       600       0 Hz         700       100       100       100       100         Start 2.690 GHz       #VBW 3.0 MHz       Sweep 123.1 ms (24621 pts)       Log       Lin														000000 GHz
Start 2.690 GHz #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 123.1 ms (24621 pts)													F	•
#Res BW 1.0 MHz #VBW 3.0 MHz Sweep 123.1 ms (24621 pts)														
						#VB	N 3.0 MHz		8	weep			LUg	<u></u>
	MSG													

Plot 7-306. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – Low Channel)



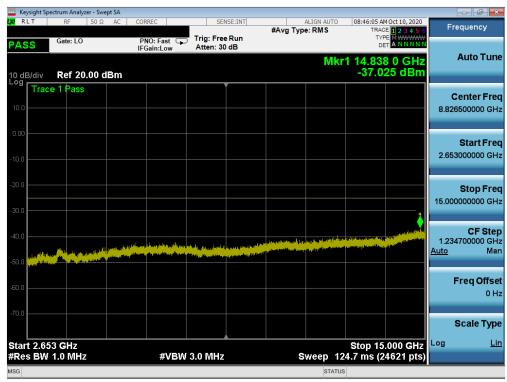
Plot 7-307. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – Low Channel)

FCC ID: A3LSMG998U	Portest Ported to be part of @ element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
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	trum Analyzer - Swept										
LXU RLT	RF 50 Ω	AC COR	REC	SEN	ISE:INT	#Avg Typ	ALIGN AUTO		HOct 10, 2020	Frequ	lency
PASS	Gate: LO		IO: Fast 😱 Jain:Low	Trig: Free Atten: 30				TYF			
10 dB/div Log	Ref 20.00 dB	3m					Μ	lkr1 2.29 -44.4	9 5 GHz 98 dBm	AL	ito Tune
10.0	1 Pass										n <b>ter Freq</b> 0000 GHz
-10.0											t <b>art Freq</b> 0000 MHz
-20.0											<b>top Freq</b> 0000 GHz
-40.0	refrades a tradiction biological bullerou					a la statesta la sut de la sut de		المورجة والمعرف ومعالم			CF Step 0000 MHz Man
-60.0	te di standardi stati si stata si stata si stata si stata si stata si stata si stata si stata si stata si stata	hitelaith product			ta ta para di setta fi	gy da bhe wê di da ba ba				Fre	e <b>q Offset</b> 0 Hz
-70.0										Sc Log	ale Type <u>Lin</u>
Start 0.030 #Res BW 1			#VBW	3.0 MHz			Sweep	24.66 ms (	.496 GHz 4933 pts)	209	
MSG							STAT				

Plot 7-308. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – Mid Channel)



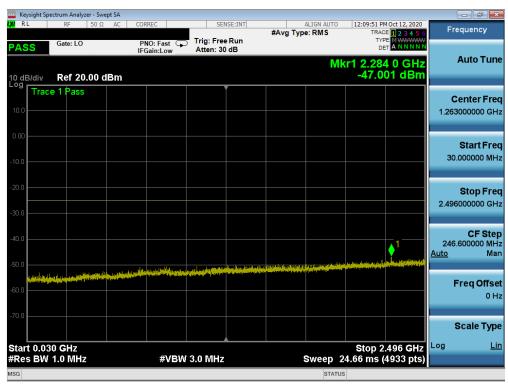
Plot 7-309. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – Mid Channel)

FCC ID: A3LSMG998U	PCTEST Poud to be part of @ element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
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	ctrum Analyzer - Swept S						
L <mark>XI</mark> RLT	RF 50 Ω 4	AC CORREC	SENSE:INT	AL #Avg Type:		RACE 1 2 3 4 5 6	Frequency
PASS	Gate: LO	PNO: Fast 🖵 IFGain:Low	Trig: Free Run Atten: 10 dB				
10 dB/div	Ref 0.00 dBm	1			Mkr1 25.4 -43	104 5 GHz .676 dBm	Auto Tune
-10.0	e 1 Pass						Center Freq 21.000000000 GHz
-20.0							Start Freq 15.000000000 GHz
-40.0		alignited gifting and a good on the good on the	ې ول ول ول ول ول ول ول ول ول ول ول ول ول	يوني محمد ويوني الحمد ويوني ويعدونه ويوني ويوني ويوني ويوني ويوني ويوني ويوني ويوني ويوني ويوني ويوني ويوني وي مرود المرود ويوني ويوني ويوني ويوني ويوني ويوني ويوني ويوني ويوني ويوني ويوني ويوني ويوني ويوني ويوني ويوني ويون موالي موالي ويوني ويو			<b>Stop Freq</b> 27.000000000 GHz
-60.0 <b>a., kinder</b>	And Product of the International State	n fren hielen en fersen in der soner der geschiegen in Line hielen en fersen in der soner der soner die geschiegen in					<b>CF Step</b> 1.200000000 GHz <u>Auto</u> Man
-80.0							Freq Offset 0 Hz
-90.0					04.00		Scale Type
Start 15.0 #Res BW		#VBW	3.0 MHz	Sw	Stop eep 60.80 ms	27.000 GHz	
MSG					STATUS	, mar proj	

Plot 7-310. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – Mid Channel)



Plot 7-311. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – High Channel)

FCC ID: A3LSMG998U	PCTEST* Proud to be part of @element	PART 27 MEASUREMENT REPORT	Approved by: Quality Manager
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	ctrum Analyzer - Swe									
LXI RL	RF 50 Ω	AC COI	RREC	SEN	ISE:INT	#Avg Typ	ALIGN AUT e: RMS		ACE 1 2 3 4 5 6	Frequency
PASS	Gate: LO	P	NO: Fast 🖵 Gain:Low	Trig: Free Atten: 30						Auto Tune
10 dB/div	Ref 20.00 c	iBm					M	kr1 14.8 -41.	67 5 GHz 194 dBm	Auto Tune
Log 10.0	e 1 Pass			,						Center Freq
0.00										8.857500000 GHz
0.00										Start Freq
-10.0										2.715000000 GHz
-20.0										Stop Freq
-30.0										15.000000000 GHz
-40.0										CF Step 1.228500000 GHz
-50.0	A State Ball	Harl and Harles			and a pair of the	a and a state of the second second second second second second second second second second second second second				<u>Auto</u> Man
-60.0										Freq Offset
										0 Hz
-70.0										Scale Type
Start 2.71 #Res BW		1	#VBW	3.0 MHz		s	weep	Stop ' 122.9 ms	15.000 GHz (24571 pts)	Log <u>Lin</u>
MSG								TUS		

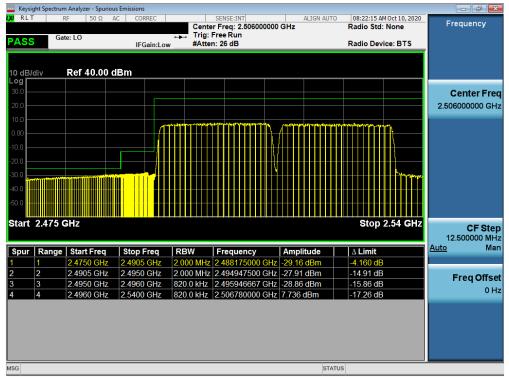
Plot 7-312. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – High Channel)



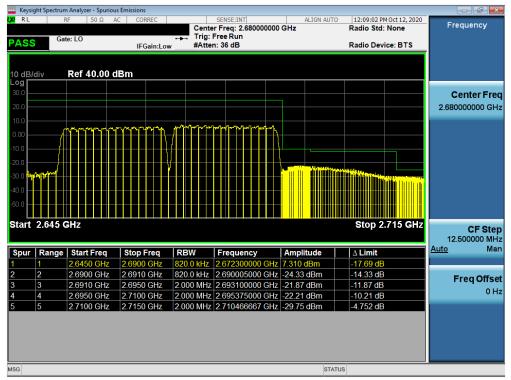
Plot 7-313. Conducted Spurious Plot (Band 41 – 20.0MHz QPSK – Left Carrier 1/99 Right Carrier 1/0 – High Channel)

FCC ID: A3LSMG998U	PCTEST Proud to be part of @ element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
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Plot 7-314. Lower ACP Plot (Band 41 QPSK – Left Carrier:20 MHz Right Carrier:20 MHz – Full RB)



Plot 7-315. Upper ACP Plot (Band 41 QPSK – Left Carrier:20 MHz Right Carrier:20 MHz – Full RB)

FCC ID: A3LSMG998U	PCTEST Pout to be part of @element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
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# 7.7 Radiated Power (EIRP)

# **Test Overview**

Equivalent Isotropic Radiated Power (EIRP) measurements are performed using the substitution method described in ANSI/TIA-603-E-2016 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using vertically and horizontally polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as RMS average measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

# Test Procedures Used

KDB 971168 D01 v03r01 - Section 5.2.1

ANSI/TIA-603-E-2016 - Section 2.2.17

# Test Settings

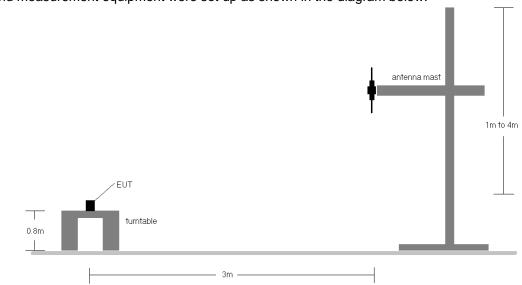
- 1. Radiated power measurements are performed using the signal analyzer's "channel power" measurement capability for signals with continuous operation. For signals with burst transmission, the signal analyzer's "time domain power" measurement capability is used
- 2. RBW = 1 5% of the expected OBW, not to exceed 1MHz
- 3. VBW  $\geq$  3 x RBW
- 4. Span = 1.5 times the OBW
- 5. No. of sweep points  $\geq$  2 x span / RBW
- 6. Detector = RMS
- 7. Trigger is set to "free run" for signals with continuous operation with the sweep times set to "auto". Trigger is set to enable triggering only on full power bursts with the sweep time set less than or equal to the transmission burst duration
- 8. The integration bandwidth was roughly set equal to the measured OBW of the signal for signals with continuous operation. For signals with burst transmission, the "gating" function was enabled to ensure that measurements are performed during times in which the transmitter is operating at its maximum power
- 9. Trace mode = trace averaging (RMS) over 100 sweeps
- 10. The trace was allowed to stabilize

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# Test Setup



The EUT and measurement equipment were set up as shown in the diagram below.

Figure 7-6. Radiated Test Setup <1GHz

# Test Notes

- 1) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 2) This unit was tested with its standard battery.
- 3) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case setup is reported in the tables below.
- 4) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and 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.

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Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Pol.	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
z	QPSK	2310.0	Н	Х	107	202	10.34	1 / 25	12.31	22.65	0.184	23.98	-1.33
MHz	16-QAM	2310.0	Н	Х	107	202	10.34	1 / 25	11.81	22.15	0.164	23.98	-1.83
10 1	64-QAM	2310.0	Н	Х	107	202	10.34	1 / 25	10.36	20.70	0.117	23.98	-3.28
-	256-QAM	2310.0	н	Х	107	202	10.34	1 / 25	7.48	17.82	0.060	23.98	-6.16
		2307.5	Н	Х	107	202	10.33	1 / 12	12.34	22.68	0.185	23.98	-1.30
N	QPSK	2310.0	Н	Х	107	202	10.34	1 / 12	12.36	22.70	0.186	23.98	-1.28
MHz		2312.5	Н	Х	107	202	10.34	1 / 12	12.23	22.57	0.181	23.98	-1.41
2 2	16-QAM	2310.0	Н	Х	107	202	10.34	1 / 12	11.85	22.19	0.165	23.98	-1.79
	64-QAM	2307.5	Н	Х	107	202	10.33	1 / 12	10.13	20.47	0.111	23.98	-3.51
	256-QAM	2310.0	н	Х	107	202	10.34	1 / 12	7.58	17.92	0.062	23.98	-6.06
5 MHz	Opposite Pol.	2310.0	V	Y	186	230	10.34	1 / 25	12.03	22.37	0.172	23.98	-1.61
3 MHZ	WCP	2310.0	Н	WCP	125	135	10.34	1 / 25	7.83	18.17	0.066	23.98	-5.81

Table 7-6. EIRP Data (LTE Band 30)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Pol.	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
	BPSK	2310.0	Н	Х	107	199	10.34	1/0	13.84	23.88	0.244	23.98	-0.10
MHz	QPSK	2310.0	Н	Х	107	199	10.34	1/0	13.38	23.72	0.236	23.98	-0.26
	16-QAM	2310.0	Н	Х	107	199	10.34	1/0	12.11	22.45	0.176	23.98	-1.53
10	64-QAM	2310.0	Н	Х	107	199	10.34	1/0	10.63	20.97	0.125	23.98	-3.01
	256-QAM	2310.0	Н	Х	107	199	10.34	1/0	9.18	19.52	0.089	23.98	-4.46
		2307.5	Н	Х	107	199	0.00	1/0	23.60	23.60	0.229	23.98	-0.38
	BPSK	2310.0	Н	Х	107	199	0.00	1/0	23.67	23.67	0.233	23.98	-0.31
		2312.5	Н	Х	107	199	0.00	1/0	23.50	23.50	0.224	23.98	-0.48
우		2307.5	Н	Х	107	199	10.33	1/0	13.42	23.75	0.237	23.98	-0.23
MHz	QPSK	2310.0	Н	Х	107	199	10.34	1/0	13.43	23.77	0.238	23.98	-0.21
5		2312.5	Н	Х	107	199	10.34	1/0	13.30	23.64	0.231	23.98	-0.34
	16-QAM	2310.0	Н	Х	107	199	10.34	1/0	12.76	23.10	0.204	23.98	-0.88
	64-QAM	2310.0	Н	Х	107	199	10.34	1/0	11.81	22.15	0.164	23.98	-1.83
	256-QAM	2310.0	н	Х	107	199	10.34	1/0	8.51	18.85	0.077	23.98	-5.13
10 MHz	Opposite Pol.	2310.0	V	Y	147	315	10.34	1/0	13.31	23.65	0.231	23.98	-0.33
10-141112	WCP	2310.0	Н	WCP	107	10	10.34	1/0	13.44	23.78	0.239	23.98	-0.20

# Table 7-7. EIRP Data (NR Band n30)

Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Pol.	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
		2510.0	Н	Х	109	219	9.45	1 / 50	11.35	20.80	0.120	33.01	-12.21
N	QPSK	2535.0	Н	Х	102	205	9.42	1 / 50	10.78	20.20	0.105	33.01	-12.81
Ŧ		2560.0	н	Х	109	218	9.45	1 / 99	10.87	20.32	0.108	33.01	-12.69
20 MHz	16-QAM	2510.0	Н	Х	109	219	9.45	1 / 99	10.70	20.15	0.103	33.01	-12.86
2	64-QAM	2510.0	Н	Х	109	219	9.45	1 / 99	9.13	18.58	0.072	33.01	-14.43
	256-QAM	2510.0	н	Х	109	219	9.45	1 / 99	6.41	15.86	0.039	33.01	-17.15
		2507.5	Н	Х	109	219	9.45	1 / 36	11.29	20.74	0.119	33.01	-12.27
N	QPSK	2535.0	н	Х	102	205	9.42	1 / 36	10.81	20.23	0.106	33.01	-12.78
15 MHz		2562.5	Н	Х	109	218	9.46	1/0	10.74	20.20	0.105	33.01	-12.81
5 1	16-QAM	2507.5	н	Х	109	219	9.45	1 / 36	10.86	20.31	0.107	33.01	-12.70
-	64-QAM	2562.5	н	Х	109	218	9.46	1 / 36	9.32	18.78	0.076	33.01	-14.23
	256-QAM	2507.5	Н	Х	109	219	9.45	1 / 36	6.42	15.87	0.039	33.01	-17.14
		2505.0	Н	Х	109	219	9.45	1/0	11.29	20.74	0.119	33.01	-12.27
N	QPSK	2535.0	н	Х	102	205	9.42	1 / 49	10.98	20.40	0.110	33.01	-12.61
10 MHz		2565.0	Н	Х	109	218	9.47	1/0	10.66	20.13	0.103	33.01	-12.88
0	16-QAM	2505.0	Н	Х	109	219	9.45	1/0	10.83	20.28	0.107	33.01	-12.73
~	64-QAM	2565.0	н	Х	109	218	9.47	1/0	9.30	18.77	0.075	33.01	-14.24
	256-QAM	2505.0	Н	Х	109	219	9.45	1/0	6.42	15.87	0.039	33.01	-17.14
		2502.5	Н	Х	109	219	9.46	1 / 24	11.32	20.78	0.120	33.01	-12.23
N	QPSK	2535.0	н	Х	102	205	9.42	1 / 24	11.11	20.53	0.113	33.01	-12.48
Т Ц		2567.5	Н	Х	109	218	9.48	1 / 12	10.63	20.11	0.103	33.01	-12.90
5 MHz	16-QAM	2502.5	н	Х	109	219	9.46	1 / 24	10.89	20.35	0.108	33.01	-12.66
<b>L</b> /	64-QAM	2567.5	н	Х	109	218	9.48	1 / 24	8.96	18.44	0.070	33.01	-14.57
	256-QAM	2502.5	Н	Х	109	219	9.46	1 / 24	6.54	16.00	0.040	33.01	-17.01
20 MHz	Opposite Pol.	2510.0	V	Y	109	129	9.45	1 / 99	9.46	18.91	0.078	33.01	-14.10
20 MHZ	WCP	2510.0	Н	WCP	249	117	9.45	1 / 99	6.59	16.04	0.040	33.01	-16.97

# Table 7-8. EIRP Data (LTE Band 7)

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Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Pol.	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
		2506.0	Н	Х	127	208	9.45	1/0	15.54	24.99	0.316	33.01	-8.02
N	QPSK	2593.0	Н	Х	101	217	9.58	1/0	14.67	24.25	0.266	33.01	-8.76
Ŧ		2680.0	Н	Х	101	211	9.86	1/0	15.32	25.18	0.330	33.01	-7.83
20 MHz	16-QAM	2680.0	Н	Х	101	211	9.86	1 / 99	13.77	23.63	0.231	33.01	-9.38
5	64-QAM	2680.0	Н	Х	101	211	9.86	1 / 99	12.51	22.37	0.173	33.01	-10.64
	256-QAM	2680.0	Н	Х	101	211	9.86	1 / 99	9.24	19.10	0.081	33.01	-13.91
		2503.5	Н	Х	127	208	9.45	1/0	15.61	25.06	0.321	33.01	-7.95
N	QPSK	2593.0	Н	Х	101	217	9.58	1 / 36	14.96	24.54	0.285	33.01	-8.47
НИ		2682.5	н	Х	101	211	9.86	1 / 74	15.94	25.79	0.380	33.01	-7.22
15 MHz	16-QAM	2503.5	н	Х	127	208	9.45	1/0	14.29	23.74	0.237	33.01	-9.27
~	64-QAM	2682.5	Н	Х	101	211	9.86	1 / 74	12.91	22.76	0.189	33.01	-10.25
	256-QAM	2682.5	Н	Х	101	211	9.86	1 / 74	9.32	19.17	0.083	33.01	-13.84
		2501.0	Н	Х	127	208	9.46	1/0	15.40	24.85	0.306	33.01	-8.16
N	QPSK	2593.0	Н	Х	101	217	9.58	1 / 25	14.76	24.34	0.272	33.01	-8.67
10 MHz		2685.0	Н	Х	101	211	9.85	1 / 49	15.65	25.50	0.355	33.01	-7.51
0	16-QAM	2593.0	н	Х	101	217	9.58	1 / 25	14.08	23.66	0.232	33.01	-9.35
, r	64-QAM	2685.0	Н	Х	101	211	9.85	1 / 49	12.82	22.67	0.185	33.01	-10.34
	256-QAM	2685.0	Н	Х	101	211	9.85	1 / 49	9.43	19.28	0.085	33.01	-13.73
		2498.5	н	Х	127	208	9.46	1/0	15.48	24.94	0.312	33.01	-8.07
N	QPSK	2593.0	н	Х	101	217	9.58	1 / 12	14.91	24.49	0.281	33.01	-8.52
5 MHz		2687.5	н	Х	101	211	9.85	1 / 24	16.21	26.05	0.403	33.01	-6.96
2	16-QAM	2593.0	Н	Х	101	217	9.58	1 / 12	14.02	23.60	0.229	33.01	-9.41
	64-QAM	2687.5	Н	Х	101	211	9.85	1 / 24	13.01	22.85	0.193	33.01	-10.16
	256-QAM	2687.5	Н	Х	101	211	9.85	1 / 24	9.39	19.23	0.084	33.01	-13.78

Table 7-9. EIRP Data (LTE Band 41(PC2))

FCC ID: A3LSMG998U	Post to be part of Getement	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager	
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Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
		2546.0	Н	107	278	9.41	1 / 273	15.86	25.27	0.337	33.01	-7.74
	π/2 BPSK	2593.0	Н	155	229	9.58	1/0	14.01	23.59	0.229	33.01	-9.42
ы		2640.0	н	174	221	9.87	1/137	12.51	22.38	0.173	33.01	-10.63
100 MHz	QPSK	2546.0 2593.0	H H	107 155	278 229	9.41 9.58	1 / 273 1 / 0	13.36 11.40	22.77 20.98	0.189	33.01 33.01	-10.24 -12.03
00	Qi OK	2640.0	Н	174	223	9.87	1/0	9.29	19.16	0.082	33.01	-13.85
-	16-QAM	2546.0	Н	107	278	9.41	1/273	12.56	21.97	0.158	33.01	-11.04
	64-QAM	2546.0	Н	107	278	9.41	1 / 273	11.44	20.85	0.122	33.01	-12.16
	256-QAM	2546.0	Н	107	278	9.41	1 / 273	10.39	19.80	0.096	33.01	-13.21
		2541.0	Н	107	278	9.42	1 / 122	15.85	25.27	0.337	33.01	-7.74
	π/2 BPSK	2593.0	н	155	229	9.58	1/61	15.38	24.96	0.313	33.01	-8.05
N		2645.0 2541.0	H	174 107	221 278	9.90 9.42	1/61 1/122	14.65 15.35	24.55 24.77	0.285	33.01 33.01	-8.46 -8.24
Η	QPSK	2593.0	н	155	229	9.58	1/61	14.97	24.55	0.285	33.01	-8.46
90 MHz		2645.0	н	174	221	9.90	1 / 61	13.89	23.79	0.239	33.01	-9.22
	16-QAM	2593.0	Н	155	229	9.58	1 / 61	14.04	23.62	0.230	33.01	-9.39
	64-QAM	2593.0	Н	155	229	9.58	1 / 61	13.73	23.31	0.214	33.01	-9.70
	256-QAM	2593.0	Н	155	229	9.58	1 / 61	9.13	18.71	0.074	33.01	-14.30
		2536.0	Н	107	278	9.42	1 / 108	15.68	25.10	0.324	33.01	-7.91
	π/2 BPSK	2593.0	H	155	229	9.58	1/54	15.21	24.79	0.301	33.01	-8.22
N		2650.0 2536.0	H	174 107	221 278	9.93 9.42	1 / 54 1 / 108	14.46 15.07	24.39 24.49	0.275	33.01 33.01	-8.62 -8.52
80 MHz	QPSK	2536.0	н	107	278	9.42	1/54	14.69	24.49	0.267	33.01	-8.74
80		2650.0	Н	174	223	9.93	1/54	13.59	23.52	0.225	33.01	-9.49
	16-QAM	2593.0	Н	155	229	9.58	1 / 54	13.68	23.26	0.212	33.01	-9.75
	64-QAM	2593.0	Н	155	229	9.58	1 / 54	13.31	22.89	0.195	33.01	-10.12
	256-QAM	2593.0	Н	155	229	9.58	1 / 54	8.80	18.38	0.069	33.01	-14.63
		2526.0	Н	107	278	9.43	1 / 121	15.35	24.78	0.301	33.01	-8.23
	π/2 BPSK	2593.0	н	155	229	9.58	1 / 40	14.89	24.47	0.280	33.01	-8.54
N		2660.0 2526.0	H	174 107	221 278	9.91 9.43	1 / 40 1 / 121	14.15 14.98	24.06 24.41	0.255	33.01 33.01	-8.95 -8.60
60 MHz	QPSK	2526.0	н	107	278	9.43	1/121	14.96	24.41	0.276	33.01	-8.82
20	di oli	2660.0	н	174	221	9.91	1/40	13.53	23.44	0.221	33.01	-9.57
	16-QAM	2593.0	Н	155	229	9.58	1 / 40	13.57	23.15	0.207	33.01	-9.86
	64-QAM	2593.0	Н	155	229	9.58	1 / 40	13.34	22.92	0.196	33.01	-10.09
	256-QAM	2593.0	Н	155	229	9.58	1 / 40	8.87	18.45	0.070	33.01	-14.56
		2521.0	Н	107	278	9.44	1/99	15.60	25.04	0.319	33.01	-7.97
	π/2 BPSK	2593.0	н	155	229	9.58	1/33	15.15	24.73	0.297	33.01	-8.28
N		2665.0 2521.0	H	174 107	221 278	9.90 9.44	1 / 33 1 / 99	14.42 15.02	24.32 24.46	0.270	33.01 33.01	-8.69 -8.55
50 MHz	QPSK	2593.0	н	155	229	9.58	1/33	14.65	24.23	0.265	33.01	-8.78
20		2665.0	Н	174	221	9.90	1/33	13.58	23.48	0.223	33.01	-9.53
	16-QAM	2593.0	н	155	229	9.58	1/33	13.77	23.35	0.216	33.01	-9.66
	64-QAM	2593.0	Н	155	229	9.58	1 / 33	13.48	23.06	0.202	33.01	-9.95
	256-QAM	2593.0	Н	155	229	9.58	1 / 33	8.94	18.52	0.071	33.01	-14.49
	(0.550) (	2516.0	н	107	278	9.44	1 / 54	14.88	24.32	0.270	33.01	-8.69
	π/2 BPSK	2593.0 2670.0	H H	155 174	229 221	9.58 9.89	1 / 26 1 / 26	14.43 13.72	24.01 23.61	0.252 0.230	33.01 33.01	-9.00 -9.40
м		2516.0	Н	107	278	9.44	1/54	14.39	23.83	0.230	33.01	-9.40
40 MHz	QPSK	2593.0	н	155	229	9.58	1/26	14.02	23.60	0.229	33.01	-9.41
40		2670.0	Н	174	221	9.89	1 / 26	12.96	22.85	0.193	33.01	-10.16
	16-QAM	2593.0	Н	155	229	9.58	1 / 26	13.09	22.67	0.185	33.01	-10.34
	64-QAM	2593.0	Н	155	229	9.58	1 / 26	12.82	22.40	0.174	33.01	-10.61
	256-QAM	2593.0	Н	155	229	9.58	1 / 26	8.59	18.17	0.066	33.01	-14.84
	=/0 DD0//	2506.0	н	155	229	9.45	1/39	15.17	24.62	0.290	33.01	-8.39
	π/2 BPSK	2593.0 2680.0	H H	174 107	221 278	9.58 9.86	1 / 19 1 / 19	14.73 14.05	24.31 23.91	0.270	33.01 33.01	-8.70 -9.10
된		2506.0	H	107	278	9.86	1/19	14.05	23.91	0.246	33.01	-9.10
30 MHz	QPSK	2593.0	Н	174	229	9.40	1/19	14.07	23.90	0.238	33.01	-9.11
30	-	2680.0	Н	107	278	9.86	1 / 19	13.29	23.15	0.207	33.01	-9.86
	16-QAM	2593.0	Н	174	221	9.58	1 / 19	13.27	22.85	0.193	33.01	-10.16
	64-QAM	2593.0	Н	174	221	9.58	1 / 19	13.10	22.68	0.185	33.01	-10.33
		2593.0	Н	174	221	9.58	1 / 19	8.82	18.40	0.069	33.01	-14.61
	=/0 DD0//	2506.0	н	107	278	9.45	1/53	14.98	24.43	0.277	33.01	-8.58
	π/2 BPSK	2593.0 2680.0	H H	155 174	229 221	9.58 9.86	1 / 13 1 / 53	14.54 13.86	24.12 23.72	0.258	33.01 33.01	-8.89 -9.29
₽		2506.0	Н	107	278	9.66	1/53	14.65	23.72	0.256	33.01	-9.29
20 MHz	QPSK	2593.0	н	155	229	9.58	1 / 13	14.29	23.87	0.244	33.01	-9.14
20		2680.0	Н	174	221	9.86	1 / 53	13.26	23.12	0.205	33.01	-9.89
	16-QAM	2593.0	Н	155	229	9.58	1 / 53	13.40	22.98	0.199	33.01	-10.03
	64-QAM	2593.0	Н	155	229	9.58	1 / 53	13.03	22.61	0.182	33.01	-10.40
	256-QAM	2593.0	Н	155	229	9.58	1 / 53	8.75	18.33	0.068	33.01	-14.68
400 111	QPSK (CP-OFDM)	2546.0	H	107.0	278.0	9.58	1/273	13.84	23.42	0.220	33.01	-9.59
	QPSK (Opposite Pol.)	2546.0	V	211.0	22.0	9.58	1 / 273	14.74	24.32	0.270	33.01	-8.69
100 MHz	QPSK (WCP)	2546.0	н	116.0	21.0	9.58	1 / 273	14.09	23.67	0.233	33.01	-9.34

FCC ID: A3LSMG998U	PCTEST* Proud to be part of @element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager	
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Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	EUT Pol.	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
		2546.0	н	Y	109	349	9.41	1 / 137	15.44	24.85	0.306	33.01	-8.16
	π/2 BPSK	2593.0	н	Y	101	338	9.58 9.87	1 / 137	14.91	24.49	0.281	33.01	-8.52
보		2640.0 2546.0	H H	Y Y	101 109	338 349	9.87	1 / 137 1 / 137	14.78 15.30	24.65 24.71	0.292	33.01 33.01	-8.36 -8.30
ά	QPSK	2593.0	н	Y	103	338	9.58	1 / 137	15.06	24.64	0.290	33.01	-8.37
100 MHz	di oli	2640.0	н	Ŷ	101	338	9.87	1 / 137	14.70	24.57	0.286	33.01	-8.44
-	16-QAM	2546.0	н	Y	109	349	9.41	1 / 137	14.54	23.95	0.249	33.01	-9.06
	64-QAM	2546.0	н	Y	109	349	9.41	1 / 137	13.06	22.47	0.177	33.01	-10.54
	256-QAM	2546.0	Н	Y	109	349	9.41	1 / 137	12.29	21.70	0.148	33.01	-11.31
	π/2 BPSK	2541.0 2593.0	H H	Y Y	109 101	349 338	9.42 9.58	1/61	15.35 14.82	24.77 24.41	0.300	33.01 33.01	-8.24
	II/2 BPSK	2593.0	н	ř Y	101	338	9.58	1 / 61 1 / 61	14.66	24.41	0.276	33.01	-8.45
보		2541.0	н	Y	109	349	9.42	1/61	15.34	24.76	0.299	33.01	-8.25
90 MHz	QPSK	2593.0	н	Y	101	338	9.58	1 / 61	15.11	24.69	0.294	33.01	-8.32
06		2645.0	н	Y	101	338	9.90	1 / 61	14.72	24.62	0.290	33.01	-8.39
	16-QAM	2541.0	Н	Y	109	349	9.42	1 / 61	14.46	23.88	0.244	33.01	-9.13
	64-QAM	2541.0	н	Y	109	349	9.42	1/61	13.00	22.41	0.174	33.01	-10.60
	256-QAM	2541.0	Н	Y	109	349	9.42	1/61	12.29	21.71	0.148	33.01	-11.30
	π/2 BPSK	2536.0 2593.0	H H	Y Y	109 101	349 338	9.42 9.58	1 / 162 1 / 162	15.43 14.91	24.85 24.49	0.306	33.01 33.01	-8.16 -8.52
		2650.0	н	Y	101	338	9.93	1 / 162	14.71	24.65	0.292	33.01	-8.36
¥		2536.0	н	Y	109	349	9.42	1 / 162	15.28	24.70	0.295	33.01	-8.31
80 MHz	QPSK	2593.0	н	Y	101	338	9.58	1 / 162	15.05	24.63	0.290	33.01	-8.38
8		2650.0	н	Y	101	338	9.93	1 / 162	14.62	24.56	0.286	33.01	-8.45
	16-QAM	2536.0	н	Y	109	349	9.42	1 / 162	14.49	23.92	0.246	33.01	-9.09
	64-QAM 256-QAM	2536.0 2536.0	H H	Y Y	109 109	349 349	9.42 9.42	1/162	13.00 12.24	22.43 21.66	0.175	33.01 33.01	-10.58 -11.35
	250-QAIVI	2536.0	н	Ť Y	109	349	9.42	1 / 162	12.24	21.00	0.147	33.01	-11.35
	π/2 BPSK	2593.0	н	Y	103	338	9.58	1 / 121	14.85	24.44	0.278	33.01	-8.58
		2660.0	н	Y	101	338	9.91	1 / 121	14.68	24.59	0.288	33.01	-8.42
보		2526.0	н	Y	109	349	9.43	1 / 121	15.27	24.70	0.295	33.01	-8.31
60 MHz	QPSK	2593.0	н	Y	101	338	9.58	1 / 121	15.05	24.63	0.290	33.01	-8.38
60		2660.0	н	Y	101	338	9.91	1 / 121	14.65	24.56	0.286	33.01	-8.45
	16-QAM	2526.0	н	Y Y	109 109	349	9.43 9.43	1/121	14.44 13.00	23.87	0.244	33.01	-9.14 -10.58
	64-QAM 256-QAM	2526.0 2526.0	H H	ř Y	109	349 349	9.43	1 / 121 1 / 121	12.24	22.43	0.175	33.01 33.01	-10.58
	200 0/101	2521.0	н	Y	109	349	9.44	1/99	15.40	24.84	0.305	33.01	-8.17
	π/2 BPSK	2593.0	Н	Y	101	338	9.58	1 / 99	15.01	24.59	0.288	33.01	-8.42
		2665.0	н	Y	101	338	9.90	1 / 99	14.85	24.75	0.298	33.01	-8.26
MHz		2521.0	н	Y	109	349	9.44	1 / 99	15.31	24.75	0.299	33.01	-8.26
50 M	QPSK	2593.0	Н	Y	101	338	9.58	1 / 99	15.10	24.68	0.294	33.01	-8.33
20	40.0414	2665.0	H H	Y Y	101 109	338	9.90 9.44	1 / 99 1 / 99	14.71 14.54	24.61	0.289	33.01	-8.40 -9.03
	16-QAM 64-QAM	2521.0 2521.0	н	ř Y	109	349 349	9.44	1/99	13.05	23.98 22.48	0.250	33.01 33.01	-9.03
	256-QAM	2521.0	н	Y	109	349	9.44	1/99	12.36	21.80	0.151	33.01	-11.21
		2516.0	н	Y	109	349	9.44	1 / 26	15.40	24.84	0.305	33.01	-8.17
	π/2 BPSK	2593.0	н	Y	101	338	9.58	1 / 26	15.16	24.74	0.298	33.01	-8.27
		2670.0	н	Y	101	338	9.89	1 / 26	13.89	23.78	0.239	33.01	-9.23
40 MHz	000	2516.0	н	Y	109	349	9.44	1/26	15.37	24.81	0.303	33.01	-8.20
2 9	QPSK	2593.0 2670.0	H H	Y Y	101 101	338 338	9.58 9.89	1 / 26 1 / 26	15.27 14.92	24.85 24.81	0.306	33.01 33.01	-8.16 -8.20
•	16-QAM	2516.0	н	Y	101	349	9.89	1/26	14.92	24.01	0.303	33.01	-9.05
	64-QAM	2516.0	н	Y	109	349	9.44	1 / 26	13.27	22.72	0.187	33.01	-10.29
	256-QAM	2516.0	н	Y	109	349	9.44	1 / 26	12.52	21.96	0.157	33.01	-11.05
		2506.0	Н	Y	109	349	9.45	1 / 19	15.29	24.74	0.298	33.01	-8.27
	π/2 BPSK	2593.0	н	Y	101	338	9.58	1 / 19	14.80	24.38	0.274	33.01	-8.63
N		2680.0	Н	Y	101	338	9.86	1/19	14.68	24.54	0.284	33.01	-8.47
MHz	QPSK	2506.0 2593.0	H H	Y Y	109 101	349 338	9.45 9.58	1 / 19 1 / 19	15.07 14.87	24.52 24.45	0.283	33.01 33.01	-8.49 -8.56
30 N		2593.0	н	ř Y	101	338	9.58	1 / 19	14.87	24.45	0.278	33.01	-8.64
	16-QAM	2506.0	н	Y	109	349	9.45	1 / 19	14.86	24.31	0.270	33.01	-8.70
	64-QAM	2506.0	н	Y	109	349	9.45	1 / 19	13.17	22.63	0.183	33.01	-10.38
	256-QAM	2506.0	Н	Y	109	349	9.45	1 / 19	12.64	22.09	0.162	33.01	-10.92
	10 5	2506.0	н	Y	109	349	9.45	1/37	15.61	25.06	0.321	33.01	-7.95
	π/2 BPSK	2593.0	н	Y	101	338	9.58	1/37	15.12	24.70	0.295	33.01	-8.31
N		2680.0 2506.0	H H	Y Y	101 109	338 349	9.86 9.45	1 / 37 1 / 37	14.99 15.36	24.86 24.81	0.306	33.01 33.01	-8.15 -8.20
20 MHz	QPSK	2506.0	н	ř Y	109	349	9.45	1/37	15.36	24.01	0.303	33.01	-8.20
50		2680.0	н	Y	101	338	9.86	1/37	14.81	24.67	0.293	33.01	-8.34
	16-QAM	2506.0	н	Y	109	349	9.45	1 / 37	14.54	24.00	0.251	33.01	-9.01
	64-QAM	2506.0	н	Y	109	349	9.45	1 / 37	13.09	22.54	0.180	33.01	-10.47
	256-QAM	2506.0	н	Y	109	349	9.45	1 / 37	6.98	16.43	0.044	33.01	-16.58
		т	ahla '	7 4 4		Data (N		nd n / 1	\ ANIT	<b>D</b>			

Table 7-11. EIRP Data (NR Band n41) ANT B

FCC ID: A3LSMG998U	PCTEST* Proud to be part of @element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 100 of 222
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Bandwidth	Mod.	Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Ant. Gain [dBi]	RB Size/Offset	Substitute Level [dBm]	EIRP [dBm]	EIRP [Watts]	EIRP Limit [dBm]	Margin [dB]
		3750.0	н	120.0	224.0	6.82	1 / 50	15.02	21.84	0.153	30.00	-8.16
	π/2 BPSK	3840.0	Н	102.0	211.0	6.76	1 / 50	17.20	23.96	0.249	30.00	-6.04
N		3930.0	н	115.0	218.0	6.65	1 / 50	16.07	22.72	0.187	30.00	-7.28
100 MHz	0001/	3750.0	н	120.0	224.0	6.82	1 / 50	15.40	22.22	0.167	30.00	-7.78
8	QPSK	3840.0 3930.0	H H	102.0 115.0	211.0 218.0	6.76 6.65	1 / 50 1 / 50	16.55 16.57	23.31 23.22	0.214 0.210	30.00 30.00	-6.69 -6.78
÷	16-QAM	3930.0	н	115.0	218.0	6.65	1 / 50	15.32	21.97	0.157	30.00	-8.03
	64-QAM	3930.0	н	115.0	218.0	6.65	1 / 50	14.14	20.79	0.120	30.00	-9.21
	256-QAM	3930.0	н	115.0	218.0	6.65	1 / 50	12.50	19.15	0.082	30.00	-10.85
		3745.0	Н	120.0	224.0	5.96	1/61	15.87	21.83	0.153	30.00	-8.17
	π/2 BPSK	3840.0	н	102.0	211.0	5.81	1/122	18.04	23.85	0.243	30.00	-6.15
		3935.0	н	115.0	218.0	6.26	1/122	16.44	22.70	0.186	30.00	-7.30
뙨		3745.0	н	120.0	224.0	5.96	1/61	16.24	22.20	0.166	30.00	-7.80
90 MHz	QPSK	3840.0	н	102.0	211.0	5.81	1/122 1/122	17.52	23.33	0.215	30.00	-6.67
6	16-QAM	3935.0 3935.0	H H	115.0 115.0	218.0 218.0	6.26 6.26	1/122	16.92 15.73	23.18 21.99	0.208	30.00 30.00	-6.82 -8.01
	64-QAM	3935.0	н	115.0	218.0	6.26	1/122	14.38	20.64	0.138	30.00	-9.36
	256-QAM	3935.0	н	115.0	218.0	6.26	1/122	12.91	19.17	0.083	30.00	-10.83
		3740.0	н	120.0	224.0	5.99	1/54	15.80	21.79	0.151	30.00	-8.21
	π/2 BPSK	3840.0	н	102.0	211.0	5.81	1/108	18.16	23.97	0.249	30.00	-6.03
		3940.0	Н	115.0	218.0	6.31	1/162	16.33	22.64	0.183	30.00	-7.36
보		3740.0	н	120.0	224.0	5.99	1/54	16.12	22.11	0.163	30.00	-7.89
80 MHz	QPSK	3840.0	Н	102.0	211.0	5.81	1/108	17.55	23.36	0.217	30.00	-6.64
×	10.0	3940.0	н	115.0	218.0	6.31	1/162	16.72	23.03	0.201	30.00	-6.97
	16-QAM	3940.0	Н	115.0	218.0	6.31	1/162	15.89	22.20	0.166	30.00	-7.80
	64-QAM 256-QAM	3940.0 3940.0	H H	115.0 115.0	218.0 218.0	6.31 6.31	1/162 1/162	14.17 12.91	20.48 19.22	0.112	30.00	-9.52 -10.78
	200-WAM	3940.0 3735.0	H	115.0 120.0	218.0 224.0	6.31 6.01	1/162	12.91 15.34	19.22 21.35	0.083	30.00 30.00	-10.78 -8.65
	QPSK	3840.0	н	102.0	211.0	5.81	1/94	16.60	21.33 22.41	0.137	30.00	-7.59
70 MHz	di on	3945.0	н	115.0	218.0	6.36	1/94	15.75	22.11	0.162	30.00	-7.89
≥ 0	16-QAM	3840.0	Н	102.0	211.0	5.81	1/94	15.63	21.44	0.139	30.00	-8.56
~	64-QAM	3945.0	н	115.0	218.0	6.36	1/94	13.14	19.50	0.089	30.00	-10.50
	256-QAM	3945.0	Н	115.0	218.0	6.36	1/94	11.56	17.92	0.062	30.00	-12.08
		3730.0	Н	120.0	224.0	6.03	1/40	15.68	21.71	0.148	30.00	-8.29
	π/2 BPSK	3840.0	н	102.0	211.0	5.81	1/40	18.14	23.95	0.248	30.00	-6.05
N		3950.0	н	115.0	218.0	6.41	1/40	16.26	22.67	0.185	30.00	-7.33
60 MHz	0001/	3730.0	н	120.0	224.0	6.03	1/40 1/40	15.98	22.01	0.159	30.00	-7.99
4 Q	QPSK	3840.0 3950.0	H H	102.0 115.0	211.0 218.0	5.81 6.41	1/40	17.54 16.78	23.35 23.19	0.216	30.00 30.00	-6.65 -6.81
	16-QAM	3950.0	н	102.0	218.0	5.81	1/40	16.78	23.19 22.36	0.208	30.00	-0.81
	64-QAM	3950.0	н	115.0	211.0	6.41	1/40	13.13	19.54	0.090	30.00	-10.46
	256-QAM	3950.0	Н	115.0	218.0	6.41	1/40	13.03	19.44	0.088	30.00	-10.56
		3725.0	н	120.0	224.0	6.06	1/33	15.71	21.77	0.150	30.00	-8.23
	π/2 BPSK	3840.0	н	102.0	211.0	5.81	1/66	18.19	24.00	0.251	30.00	-6.00
		3955.0	н	115.0	218.0	6.48	1/33	16.18	22.66	0.184	30.00	-7.34
50 MHz		3725.0	н	120.0	224.0	6.06	1/33	16.15	22.21	0.166	30.00	-7.79
20	QPSK	3840.0	н	102.0	211.0	5.81	1/66	17.61	23.42	0.220	30.00	-6.58
2	16-QAM	3955.0 3840.0	H H	115.0 102.0	218.0 211.0	6.48 6.48	1/33 1/66	16.66 15.57	23.14 22.05	0.206	30.00 30.00	-6.86 -7.95
	64-QAM	3955.0	Н	115.0	211.0	6.48	1/33	13.83	22.05	0.100	30.00	-9.69
	256-QAM	3955.0	Н	115.0	218.0	6.48	1/33	12.86	19.34	0.086	30.00	-10.66
		3720.0	н	120.0	224.0	6.08	1/26	15.72	21.80	0.151	30.00	-8.20
	π/2 BPSK	3840.0	н	102.0	211.0	5.81	1/26	18.15	23.96	0.249	30.00	-6.04
		3960.0	н	115.0	218.0	6.08	1/26	16.63	22.71	0.186	30.00	-7.29
Ŧ		3720.0	Н	120.0	224.0	6.08	1/26	16.06	22.14	0.164	30.00	-7.86
40 MHz	QPSK	3840.0	н	102.0	211.0	5.81	1/26	17.50	23.31	0.214	30.00	-6.69
4	40.0414	3960.0	н	115.0	218.0	6.08	1/26	17.20	23.28	0.213	30.00	-6.72
	16-QAM 64-QAM	3960.0 3960.0	H	115.0 115.0	218.0 218.0	6.08 6.08	1/26 1/26	15.66 14.38	21.74 20.46	0.149 0.111	30.00 30.00	-8.26 -9.54
	256-QAM	3960.0	H H	115.0	218.0	6.08	1/26	14.38	20.46	0.111	30.00	-9.54
	200 00 101	3715.0	н	120.0	210.0	6.10	1/19	15.72	21.82	0.152	30.00	-8.18
	π/2 BPSK	3840.0	н	102.0	211.0	5.81	1/39	18.17	23.98	0.250	30.00	-6.02
		3965.0	н	115.0	218.0	6.63	1/39	16.07	22.70	0.186	30.00	-7.30
Ŧ		3715.0	н	120.0	224.0	6.10	1/19	15.97	22.07	0.161	30.00	-7.93
30 MHz	QPSK	3840.0	н	102.0	211.0	5.81	1/39	17.48	23.29	0.213	30.00	-6.71
33		3965.0	н	115.0	218.0	6.63	1/39	16.57	23.20	0.209	30.00	-6.80
	16-QAM	3965.0	н	115.0	218.0	6.63	1/39	15.20	21.83	0.152	30.00	-8.17
	64-QAM 256-QAM	3965.0	H H	115.0	218.0	6.63	1/39 1/39	14.04	20.67	0.117	30.00	-9.33
	200-QAIVI	3965.0 3710.0	H	115.0 120.0	218.0 224.0	6.63 6.13	1/39	12.86 15.60	19.49 21.73	0.089	30.00 30.00	-10.51 -8.27
	π/2 BPSK	3840.0	н	102.0	224.0	5.81	1/25	18.15	21.75	0.149	30.00	-6.04
		3970.0	н	115.0	218.0	6.70	1/13	15.96	22.66	0.184	30.00	-7.34
부		3710.0	н	120.0	224.0	6.70	1/25	15.40	22.10	0.162	30.00	-7.90
20 MHz	QPSK	3840.0	н	102.0	211.0	6.70	1/37	16.69	23.39	0.218	30.00	-6.61
20		3970.0	н	115.0	218.0	6.70	1/13	16.31	23.01	0.200	30.00	-6.99
	16-QAM	3840.0	н	102.0	211.0	6.70	1/37	15.14	21.84	0.153	30.00	-8.16
				115.0	040.0	6.70	1/13	13.00	19.70	0.093	30.00	-10.30
	64-QAM	3970.0	н	115.0	218.0							
	256-QAM	3970.0	н	115.0	218.0	6.70	1/13	12.60	19.30	0.085	30.00	-10.70

# Table 7-12. EIRP Data (NR Band n77)

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# 7.8 Radiated Spurious Emissions Measurements

# **Test Overview**

Radiated spurious emissions measurements are performed using the field strength conversion method described in KDB 971168 with the EUT transmitting into an integral antenna. Measurements on signals operating below 1GHz are performed using horizontally and vertically polarized tuned dipole antennas. Measurements on signals operating above 1GHz are performed using vertically and horizontally polarized broadband horn antennas. All measurements are performed as peak measurements while the EUT is operating at maximum power, and at the appropriate frequencies.

### **Test Procedures Used**

KDB 971168 D01 v03r01 - Section 5.8

# **Test Settings**

- 1. RBW = 100kHz for emissions below 1GHz and 1MHz for emissions above 1GHz
- 2. VBW  $\geq$  3 x RBW
- 3. Span = 1.5 times the OBW
- 4. No. of sweep points > 2 x span / RBW
- 5. Detector = RMS
- 6. Trace mode = Average (Max Hold for pulsed emissions)
- 7. The trace was allowed to stabilize

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# Test Setup

The EUT and measurement equipment were set up as shown in the diagram below.

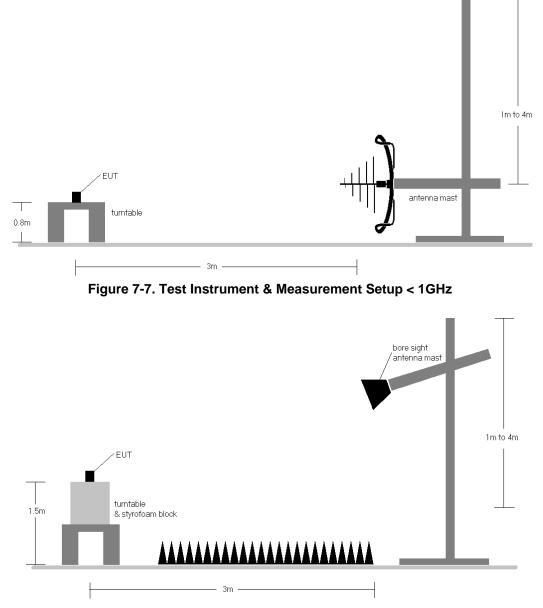


Figure 7-8. Test Instrument & Measurement Setup >1 GHz

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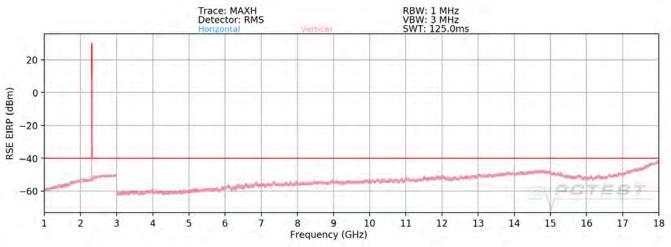
# Test Notes

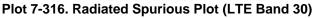
- Field strengths are calculated using the Measurement quantity conversions in KDB 971168 Section 5.8.4.
   b) E(dBµV/m) = Measured amplitude level (dBm) + 107 + Cable Loss (dB) + Antenna Factor (dB/m)
   d) EIRP (dBm) = E(dBµV/m) + 20logD 104.8; where D is the measurement distance in meters.
- 2) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case emissions are reported with the EUT positioning, modulations, RB sizes and offsets, and channel bandwidth configurations shown in the tables below.
- 3) This unit was tested with its standard battery.
- 4) The EUT was tested in three orthogonal planes and in all possible test configurations and positioning. The worst case setup is reported in the tables below.
- 5) The spectrum is measured from 9kHz to the 10th harmonic of the fundamental frequency of the transmitter. The worst-case emissions are reported.
- 6) Emissions below 18GHz were measured at a 3 meter test distance while emissions above 18GHz were measured at a 1 meter test distance with the application of a distance correction factor.
- 7) The "-" shown in the following RSE tables are used to denote a noise floor measurement.
- 8) ULCA spurious emissions measurements were evaluated for the two contiguous channels using various combinations of RB size, RB offset, modulation, and channel bandwidth. Channel bandwidth data is shown in the tables below based only on the channel bandwidths that were supported in this device.
- 9) For NR operation, all subcarrier spacings (SCS) and transmission schemes (e.g. CP-OFDM and 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.
- 10) Spurious emissions shown in this section are measured while operating in EN-DC mode with Sub 6GHz NR carrier as well as an LTE carrier (anchor). Spurious emissions from the NR carrier device, is subject to the rules under which the NR carrier operates. Spurious emission caused by the LTE carrier must meet the requirements of the rules under which the LTE carrier operates.

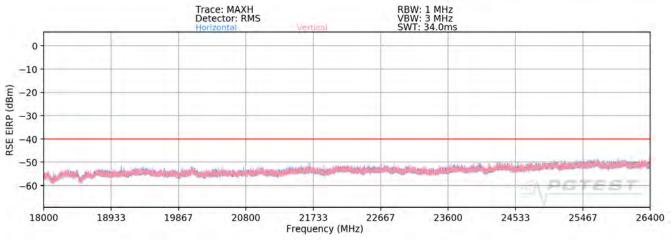
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# LTE Band 30







Plot 7-317. Radiated Spurious Plot (LTE Band 30)

Bandwidth (MHz):	1	0							
Frequency (MHz):	231	0.0							
RB / Offset:	1/	25							
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
4620.0	Н	104	122	-73.10	6.81	40.71	-64.09	-40.00	-24.09
6930.0	Н	241	304	-61.55	11.34	56.79	-48.01	-40.00	-8.01
9240.0	Н	-	-	-76.35	13.48	44.13	-60.67	-40.00	-20.67
11550.0	Н	-	-	-77.75	16.55	45.80	-59.00	-40.00	-19.00

Table 7-13. Radiated Spurious Data (LTE Band 30)

FCC ID: A3LSMG998U	PCTEST Proud to be part of @ element	PART 27 MEASUREMENT REPORT	TAMSUNG	Approved by: Quality Manager
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RBW/VBW: Frequency [MHz]	Ant. Pol.	/ 3MHz Antenna Height	Turntable Azimuth	Analyzer Level	AFCL	Field Strength	EIRP Spurious Emission Level	Limit	Margin
Detector / Trace Mode:		Average							
RB / Offset:	1/	25							
Frequency (MHz):	231	10.0							
Bandwidth (MHz):	1	0							

Frequency [MHz]	[H/V]	Height [cm]	Azimuth [degree]	Level [dBm]	[dB/m]	Strength [dBµV/m]	Emission Level [dBm]	[dBm]	[dB]
4620.00	Н	116	216	-70.46	6.81	43.35	-61.45	-40.00	-21.45
6930.00	H	-	-	-71.67	11.34	46.67	-58.13	-40.00	-18.13
9240.00	Н	-	-	-72.41	13.48	48.07	-56.73	-40.00	-16.73

Table 7-14. Radiated Spurious Data (LTE Band 30) with WCP

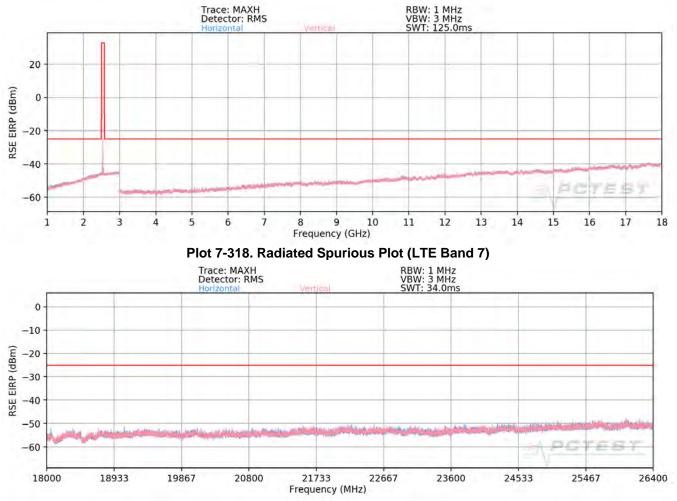
FCC ID: A3LSMG998U	PCTEST Porad to be part of @ element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager	
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Bandwidth (MHz):

20

# LTE Band 7



Plot 7-319. Radiated Spurious Plot (LTE Band 7)

Frequency (MHz):	251	10.0							
RB / Offset:	1/	50							
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5020.0	V	317	351	-70.35	7.88	44.53	-60.27	-25.00	-35.27
7530.0	V	322	355	-68.84	12.13	50.29	-54.51	-25.00	-29.51
10040.0	V	-	-	-76.39	14.91	45.52	-59.28	-25.00	-34.28
12550.0	V	-	-	-76.29	18.23	48.94	-55.86	-25.00	-30.86

Table 7-15. Radiated Spurious Data (LTE Band 7 – Low Channel)

FCC ID: A3LSMG998U	Post to be part of @element	PART 27 MEASUREMENT REPORT	SUNG	Approved by: Quality Manager	
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Bandwidth (MHz):	20
Frequency (MHz):	2535.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5070.0	V	112	340	-72.94	7.75	41.81	-62.99	-25.00	-37.99
7605.0	V	312	337	-68.95	12.73	50.78	-54.02	-25.00	-29.02
10140.0	V	-	-	-75.75	15.03	46.28	-58.52	-25.00	-33.52
12675.0	V	-	-	-76.11	19.24	50.13	-54.67	-25.00	-29.67

# Table 7-16. Radiated Spurious Data (LTE Band 7 – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	2560.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5120.00	V	115	7	-71.29	7.97	43.68	-61.12	-25.00	-36.12
7680.00	V	339	360	-68.11	11.81	50.70	-54.10	-25.00	-29.10
10240.00	V	-	-	-75.42	15.30	46.88	-57.92	-25.00	-32.92
12800.00	V	-	-	-76.21	19.37	50.16	-54.64	-25.00	-29.64

Table 7-17. Radiated Spurious Data (LTE Band 7 – High Channel)

Bandwidth (MHz):	20
Frequency (MHz):	2535.0
RB / Offset:	1 / 50
Detector / Trace Mode:	RMS / Average
RBW/VBW:	1MHz / 3MHz

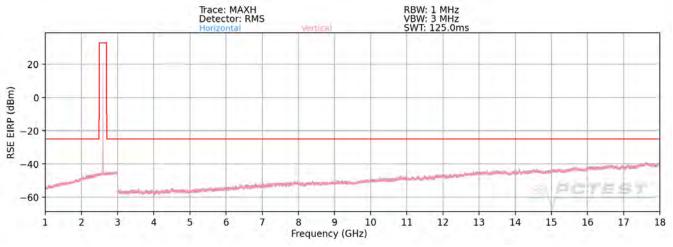
Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5070.0	V	201	44	-72.35	7.75	42.40	-62.40	-25.00	-37.40
7605.0	V	278	354	-68.99	12.73	50.74	-54.06	-25.00	-29.06
10140.0	V	-	-	-75.68	15.03	46.35	-58.45	-25.00	-33.45
12675.0	V	-	-	-76.70	19.24	49.54	-55.26	-25.00	-30.26

Table 7-18. Radiated Spurious Data (LTE Band 7 – Mid Channel) with WCP

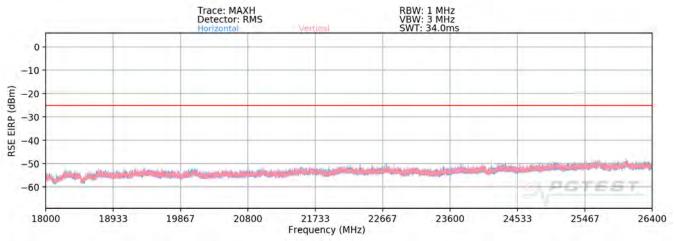
FCC ID: A3LSMG998U		PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
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# LTE Band 41(PC2)







Plot 7-321. Radiated Spurious Plot (LTE Band 41(PC2))

Bandwidth (MHz):	20
Frequency (MHz):	2506.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5012.0	Н	103	37	-71.39	7.85	43.46	-61.34	-25.00	-36.34
7518.0	Н	100	31	-69.63	12.24	49.61	-55.19	-25.00	-30.19
10024.0	Н	115	313	-74.11	14.55	47.44	-57.36	-25.00	-32.36
12530.0	Н	-	-	-77.57	18.30	47.73	-57.07	-25.00	-32.07
15036.0	Н	-	-	-77.95	21.55	50.60	-54.20	-25.00	-29.20

Table 7-19. Radiated Spurious Data (LTE Band 41(PC2) – Low Channel)

FCC ID: A3LSMG998U	PCTEST * Proud to be port of @ element	PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager
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Bandwidth (MHz):	20
Frequency (MHz):	2593.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5186.0	Н	115	39	-73.19	7.70	41.51	-63.29	-25.00	-38.29
7779.0	Н	243	81	-71.48	12.24	47.76	-57.04	-25.00	-32.04
10372.0	Н	117	43	-74.99	15.39	47.40	-57.40	-25.00	-32.40
12965.0	Н	-	-	-77.21	19.30	49.09	-55.71	-25.00	-30.71
15558.0	Н	-	-	-77.79	21.97	51.18	-53.62	-25.00	-28.62

Table 7-20. Radiated Spurious Data (LTE Band 41(PC2) – Mid Channel)

Bandwidth (MHz):	20
Frequency (MHz):	2680.0
RB / Offset:	1 / 50

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5360.0	Н	104	35	-71.08	8.53	44.45	-60.35	-25.00	-35.35
8040.0	Н	111	33	-70.21	12.15	48.94	-55.86	-25.00	-30.86
10720.0	Н	174	354	-74.35	16.39	49.04	-55.76	-25.00	-30.76
13400.0	Н	-	-	-77.69	19.96	49.27	-55.53	-25.00	-30.53
16080.0	Н	-	-	-78.01	22.94	51.93	-52.87	-25.00	-27.87

Table 7-21. Radiated Spurious Data (LTE Band 41(PC2) – High Channel)

Bandwidth (MHz):	20
Frequency (MHz):	2680.0
RB / Offset:	1 / 50
Detector / Trace Mode:	RMS / Average
RBW/VBW:	1MHz / 3MHz

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5360.0	Н	124	6	-71.19	8.53	44.34	-60.46	-25.00	-35.46
8040.0	Н	123	51	-71.24	12.15	47.91	-56.89	-25.00	-31.89
10720.0	Н	-	-	-74.64	16.39	48.75	-56.05	-25.00	-31.05
13400.0	Н	-	-	-77.21	19.96	49.75	-55.05	-25.00	-30.05
16080.0	Н	-	-	-77.00	22.94	52.94	-51.86	-25.00	-26.86

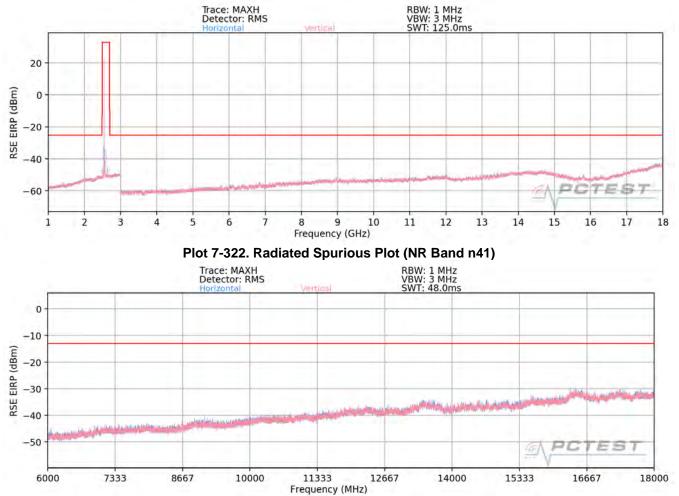
Table 7-22. Radiated Spurious Data (LTE Band 41(PC2) – High Channel) with WCP

FCC ID: A3LSMG998U	PCTEST* Proud to be part of @element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 200 of 222
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# NR Band n41



Plot 7-323. Radiated Spurious Plot (NR Band n41)

Bandwidth (MHz):	100
Frequency (MHz):	2546.0
RB / Offset:	1 / 138

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5092.0	V	114	331	-73.91	3.97	37.06	-67.74	-25.00	-42.74
7638.0	V	117	128	-75.83	9.22	40.39	-64.41	-25.00	-39.41
10184.0	V	-	-	-78.75	11.89	40.14	-64.66	-25.00	-39.66
12730.0	V	-	-	-78.88	14.24	42.36	-62.44	-25.00	-37.44

Table 7-23. Radiated Spurious Data (NR Band n41 – Low Channel)

FCC ID: A3LSMG998U		PART 27 MEASUREMENT REPORT	SAMSUND	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 201 of 222	
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Bandwidth (MHz):	100
Frequency (MHz):	2593.0
RB / Offset:	1 / 138

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5186.0	V	111	198	-69.52	4.45	41.93	-62.87	-25.00	-37.87
7779.0	V	111	168	-77.67	8.94	38.27	-66.53	-25.00	-41.53
10372.0	V	-	-	-78.85	11.88	40.03	-64.77	-25.00	-39.77
12965.0	V	-	-	-78.90	15.05	43.15	-61.65	-25.00	-36.65

Table 7-24. Radiated Spurious Data (NR Band n41 – Mid Channel)

Bandwidth (MHz):	100
Frequency (MHz):	2640.0
RB / Offset:	1 / 138

Frequency [MHz]	Ant. Pol. [H/V]	Antenna Height [cm]	Turntable Azimuth [degree]	Analyzer Level [dBm]	AFCL [dB/m]	Field Strength [dBµV/m]	EIRP Spurious Emission Level [dBm]	Limit [dBm]	Margin [dB]
5280.0	V	114	322	-72.54	3.87	38.33	-66.47	-25.00	-41.47
7920.0	V	117	127	-74.49	9.50	42.01	-62.79	-25.00	-37.79
10560.0	V	-	-	-78.93	11.90	39.97	-64.83	-25.00	-39.83
13200.0	V	-	-	-78.88	15.49	43.61	-61.19	-25.00	-36.19

Table 7-25. Radiated Spurious Data (NR Band n41 – High Channel)

FCC ID: A3LSMG998U	PCTEST Proud to be part of @ element	PART 27 MEASUREMENT REPORT	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Daga 202 of 222	
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