

Keysight Spectrum Analyzer - Occu									
()2 RL RF 50Ω	DC CORREC	Center Trig: F	SENSE:INT Freq: 2.59300 ree Run : 36 dB		ALIGN AUTO	Radio Ste	PMFeb 19, 2019 d: None evice: BTS	Trac	e/Detector
10 dB/div Ref 30.00	dBm			;					
20.0		and the second	han an a	mmy					Clear Write
0.00 -10.0 -20.0 June of the offer offer of the offer of the offer of the offer offe	noremach				Yama	mplos vita	marthonnes		Average
-30.0 -40 d -50.0 -50.0									Max Hold
Center 2.59300 GHz Res BW 360 kHz		#	VBW 1.1 N	1Hz			37.50 MHz eep 1 ms		Min Hold
Occupied Bandy			Total P	ower	32.	2 dBm			
Transmit Freq Erro	13.532	2 MHZ .742 kHz	% of O	BW Pow	ver 9	9.00 %		Auto	Detector Peak Man
x dB Bandwidth		4.77 MHz	x dB			.00 dB			
MSG					STATU	JS			

Plot 7-125. Occupied Bandwidth Plot (Band 41 PC3 / Band 38 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-126. Occupied Bandwidth Plot (Band 41 PC3 / Band 38 - 15.0MHz 16-QAM - Full RB Configuration)

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Keysight Spectrum Analyzer - Occupied BW					
	Trig:	SENSE:INT r Freq: 2.593000000 C Free Run Avg n: 36 dB	ALIGN AUTO Hz Hold:>100/100	Radio Std: None	Trace/Detector
10 dB/div Ref 30.00 dBm					
20.0	mananan	mannorman	m		Clear Write
0.00			- \		
10.0					
20.0 Waleyaran for an and the Dimboration	*		with any we	ninter a new party and	Average
00					
50.0					Max Hold
50,0					
Center 2.59300 GHz Res BW 360 kHz	#	VBW 1.1 MHz		Span 37.50 Sweep 1	
Occupied Bandwidth		Total Powe	r 30	.1 dBm	
	498 MHz				Detector
Transmit Freq Error	2.153 kHz	% of OBW F	ower 9	99.00 %	Auto Man
x dB Bandwidth	14.72 MHz	x dB	-20	6.00 dB	
SG			STAT	rus	

Plot 7-127. Occupied Bandwidth Plot (Band 41 PC3 / Band 38 - 15.0MHz 64-QAM - Full RB Configuration)



Plot 7-128. Occupied Bandwidth Plot (Band 41 PC3 / Band 38 - 15.0MHz 256-QAM - Full RB Configuration)

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Keysight Spectrum Analyzer - Occupied						- 3 - 8
09 RL RF 50.0. DC	#FGain:Low	SENSE:INT Center Freq: 2.59300 Trig: Free Run #Atten: 36 dB	ALIGN AUTO 00000 GHz Avg Hold:>100/100	09:07:03 PM Fe Radio Std: No Radio Device	one Tra	ce/Detector
		-Autorenter	strender of the second s			Clear Write
0.00 -10.0 -20.0	wind		marine	mharrowlage	whater.	Average
-30 0 -40.0 -50.0						Max Hold
Center 2.59300 GHz Res BW 470 kHz Occupied Bandwid	1th	#VBW 1.5 M		Span 50.0 Sweep 1 dBm	00 MHz 0 1 ms	Min Hold
	8.000 MH -11.665 k 19.44 M	HZ KHz % of O	BW Power 9	9.00 % 5.00 dB	Auto	Detector Peak <u>Mar</u>
MSG			STAT	us		

Plot 7-129. Occupied Bandwidth Plot (Band 41 PC3 / Band 38 - 20.0MHz QPSK - Full RB Configuration)



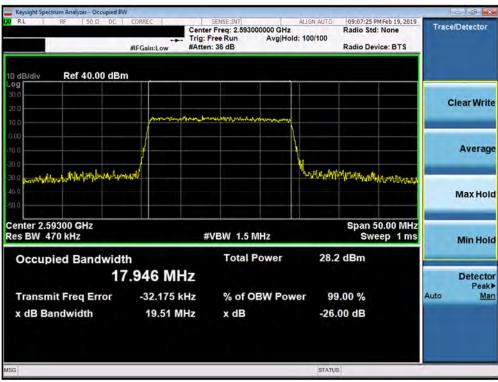
Plot 7-130. Occupied Bandwidth Plot (Band 41 PC3 / Band 38 - 20.0MHz 16-QAM - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Occupied BW		1				
RL RF 50 Q DC	#IFGain:Low	SENSE:INT Center Freq: 2.59300 Trig: Free Run #Atten: 36 dB	ALIGN A 0000 GHz Avg Hold: 100/10	Radio Std:		Trace/Detector
10 dB/div Ref 40.00 dBm		men manager	-			Clear Write
0.00 0.00 10.0 20.0 11.0 11.0 11.0 11.0	woo			~nhadelangeartal);[1]	lum d.	Average
0.0 0.0 0.0					ann an an	Max Hold
Center 2.59300 GHz Les BW 470 kHz		#VBW 1.5 M			0.00 MHz ep 1 ms	Min Hold
Occupied Bandwidtl 17 Transmit Freq Error x dB Bandwidth	n 7.964 MH -28.512 kH 19.57 MH	Z Iz % of OE	3W Power	99.00 % -26.00 dB		Detector Peak⊧ Auto <u>Man</u>
SG			9	STATUS		

Plot 7-131. Occupied Bandwidth Plot (Band 41 PC3 / Band 38 - 20.0MHz 64-QAM - Full RB Configuration)



Plot 7-132. Occupied Bandwidth Plot (Band 41 PC3 / Band 38 - 20.0MHz 256-QAM - Full RB Configuration)

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7.3 Spurious and Harmonic Emissions at Antenna Terminal

Test Overview

The level of the carrier 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 10th 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.

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

Test Procedure Used

KDB 971168 D01 v03r01 - Section 6.0

Test Settings

- 1. Start 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
- 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 7-2. Test Instrument & Measurement Setup

Test Notes

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. 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.

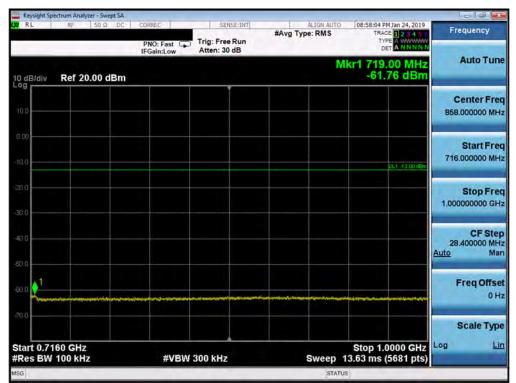
FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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Band 12

RL RF 50 Q DC	CORREC SENSE:IN		08:57:51 PM Jan 24, 2019	En anten al
	PNO: Fast IFGain:Low Atten: 30 dB	#Avg Type: RMS	TYPE A WWWW	Frequency
IO dB/div Ref 20.00 dBm		Mk	r1 693.30 MHz -46.84 dBm	Auto Tun
10.0				Center Fre 363.950000 MH
a co ia a			0L1 -13 00 dBm	Start Fre 30,000000 MH
an 0 30 0				Stop Fre 697.900000 MF
40.0				CF Ste 66.790000 MH Auto Ma
80 0			angungatan sangarang kalanda	Freq Offse 0 H
70.0				Scale Typ
Start 30.0 MHz #Res BW 100 kHz	#VBW 300 kHz	Sweep 32.	Stop 697.9 MHz 06 ms (13359 pts)	Log L
SG		STATUS		

Plot 7-133. Conducted Spurious Plot (Band 12 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

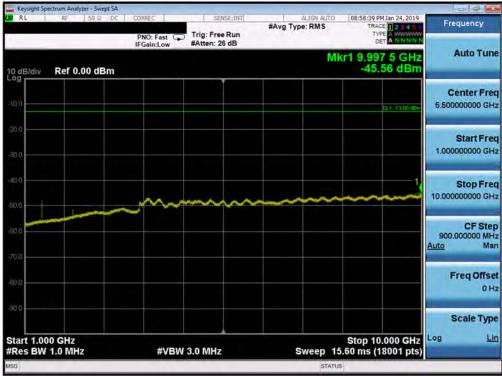


Plot 7-134. Conducted Spurious Plot (Band 12 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

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Plot 7-135. Conducted Spurious Plot (Band 12 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-136. Conducted Spurious Plot (Band 12 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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RL RF 50 Ω DC	CORREC	SENSE:INT	ALIGN AUTO	08:56:00 PM Jan 24, 2019	- accurate the
	PNO: Fast	Trig: Free Run Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 0 TYPE A WWWWW DET A NNNNN	Frequency
0 dB/div Ref 20.00 dBm			N	lkr1 716.35 MHz -61.63 dBm	Auto Tuni
00					Center Free 858.000000 MH
ασ				DL1-13.00 dEm	Start Fre 716.000000 MH
no					Stop Fre 1.000000000 GH
α σ					CF Ste 28.400000 MH Auto Ma
0.0 1	1	annan an a	tenter erren er pågare minne og en ande	ฟฟางการจะจากราย เป็นเสรียง เป็นเสรียง รัง	Freq Offse 0 H
tart 0.7160 GHz	#\/D\\			Stop 1.0000 GHz	Scale Typ
Res BW 100 kHz	#VBW	300 kHz	Sweep	13.63 ms (5681 pts)	

Plot 7-137. Conducted Spurious Plot (Band 12 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



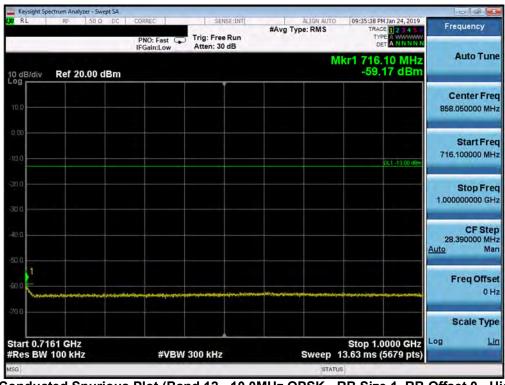
Plot 7-138. Conducted Spurious Plot (Band 12 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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- @ X	Street Server Markenson			ectrum Analyzer - Swept SA	
Frequency	09:35:30 PM Jan 24, 2019 TRACE 2 3:4 5 0 TYPE A WANNIN DET A NNNNN	#Avg Type: RMS	sENSE:INT Trig: Free Run Atten: 30 dB	RF 50 Ω DC CORRE PNO: IFGai	X RL
Auto Tune	kr1 697.65 MHz -46.12 dBm	М		Ref 20.00 dBm	10 dB/div
Center Free 364.000000 MHz					10.0
Start Free 30,000000 MH;	CL1 -13 00 dBm				0.00 -i0.0
Stop Free 698.000000 MH					-200
CF Step 66,800000 MH Auto Mar	1				-40.0
Freq Offse 0 H	y. al. aliantic and the second se				60.0
Scale Type	Stop 698.0 MHz				.70 0 Start 30.0
	.06 ms (13361 pts)	Sweep 32	VBW 300 kHz	100 KHZ	#Res BW

Plot 7-139. Conducted Spurious Plot (Band 12 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-140. Conducted Spurious Plot (Band 12 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

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Plot 7-141. Conducted Spurious Plot (Band 12 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

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Band 13

Keysight Spectrum Analyzer - Swept S RL RF 50 Ω D		SENSE:INT	ALIGN AUTO	11:12:26 PM Feb 01, 2019	
Ne 18 5032 5	PNO: Fast	Trig: Free Run Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 0 TYPE A WWWW DET A NNNNN	Frequency
ID dB/div Ref 20.00 dBr	m		М	kr1 777.00 MHz -29.10 dBm	Auto Tun
10,0					Center Free 403.500000 MH
0.00 iα 0				DL1 -13 (0 dēm	Start Fre 30.000000 MH
20.0				1	Stop Fre 777.000000 MH
40 0					CF Ste 74.700000 MH Auto Ma
60 0			a la base a substitution de ser distinuit a besterniste de		Freq Offs 0 F
.70.0 Martin and Martin Andrew Martin		ale if the second department of the	an in the second se		Scale Typ
Start 30.0 MHz #Res BW 100 kHz	#VBW	300 kHz	Sweep 35	Stop 777.0 MHz 5.86 ms (14941 pts)	Log <u>Li</u>
ISG	_		STATUS		

Plot 7-142. Conducted Spurious Plot (Band 13 - 10.0MHz QPSK - RB Size 1, RB Offset 0)

RL RF 50 Q DC	CORREC	SENSE:INT	ALIGN AUTO	11:12:31 PM Feb 01, 2019	Frequency
	PNO: Fast 😱 IFGain:Low	Trig: Free Run Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 5 TYPE A WWWWW DET A NNNNN	
dB/div Ref 20.00 dBm			м	kr1 787.00 MHz -56.69 dBm	Auto Tun
					Center Fre 893,500000 MH
10				0L1 -13 00 dBm	Start Fre 787,000000 MH
10 10					Stop Fre 1.000000000 GH
1.0					CF Ste 21.300000 MH Auto Ma
	State in the state of the state	un the angle of the second			Freq Offse 0 H
art 0.7870 GHz tes BW 100 kHz	#VBW 3			Stop 1.0000 GHz 0.22 ms (4261 pts)	Scale Typ

Plot 7-143. Conducted Spurious Plot (Band 13 - 10.0MHz QPSK - RB Size 1, RB Offset 0)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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RL RF 50 Ω	DC CORREC	SENSE:INT	ALIGN AUTO	11:12:50 PM Feb 01, 2019	Participation and
	PNO: Fast 😱 IFGain:Low	Trig: Free Run #Atten: 36 dB	#Avg Type: RMS	TYPE A WWWWW DET A NNNNN	Frequency
0 dB/div Ref 0.00 dB	m		M	471 9.963 5 GHz -38.93 dBm	Auto Tune
iù 0				DL1 -13,00 dBm	Center Free 5.500000000 GH
an o an o					Start Free 1.000000000 GH
		~~~~			Stop Fre 10.000000000 GH
70.0					CF Ste 900.000000 MH Auto Ma
80					Freq Offse 0 H
80.0					Scale Type
tart 1.000 GHz Res BW 1.0 MHz	#VBW 3	3.0 MHz	Sweep 15	Stop 10.000 GHz 5.60 ms (18001 pts)	Log <u>Lir</u>

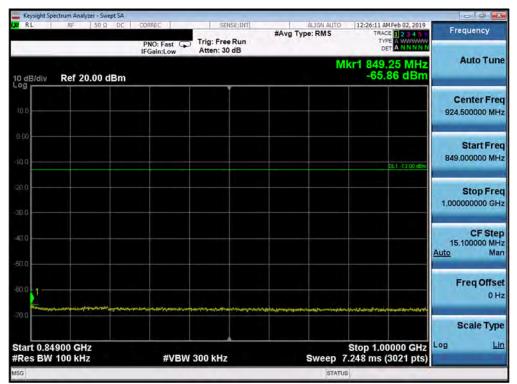
Plot 7-144. Conducted Spurious Plot (Band 13 - 10.0MHz QPSK - RB Size 1, RB Offset 0)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Swept SA RL RF 50 Ω DC	CORREC   SEN	SE:INT	ALIGN AUTO 12:26:05 AM	1Feb 02, 2019
	PNO: Fast C Trig: Free IFGain:Low Atten: 30		e: RMS TRAC	E 12345 Frequency
O dB/div Ref 20.00 dBm			Mkr1 818. -46.	20 MHz Auto Tun 67 dBm
10.0				Center Fre 426.500000 MH
10.0				Start Fre 30,000000 MH
20.0				Stop Fre 823.000000 MH
40.0				CF Ste 79.300000 Mi <u>Auto</u> Ma
60.0				Freq Offs 0 F
70.0		an other defined to demonstrate or to		Scale Typ
Start 30.0 MHz ≉Res BW 100 kHz	#VBW 300 kHz	S	Stop 8: weep 38.06 ms (1	23.0 MHz Log L 5861 pts)
ISG			STATUS	

Plot 7-145. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



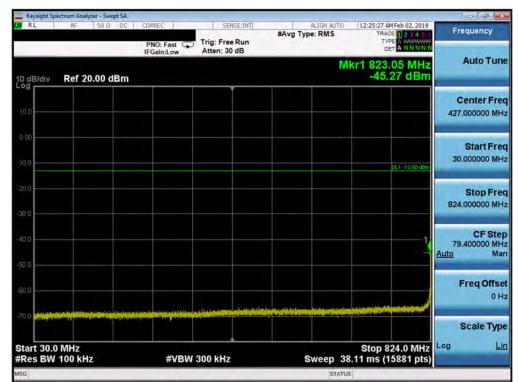
Plot 7-146. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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Keysight Spectrum Analyzer - Swept SA					- 6 ×
XIRL RF 50Ω DC	PNO: Fast	SENSE:INT Trig: Free Run #Atten: 36 dB	#Avg Type: RMS	12:26:20 AM Feb 02, 2019 TRACE 1 2 3 4 5 0 TYPE A WINNY DET A NNNNN	Frequency
10 dB/div Ref 0.00 dBm	IP Gall.LOW		M	lkr1 9.848 5 GHz -38.54 dBm	Auto Tune
-iù 0				DL1 -13 00 dBm	Center Free 5.500000000 GH
30.0				4	Start Fre 1.000000000 GH
40.0	www.				Stop Fre 10.000000000 GH
60.0					CF Ste 900.000000 MH Auto Ma
80.0					Freq Offs 0 F
Start 1.000 GHz	4) (B)(1)	2.0.144		Stop 10.000 GHz	Scale Typ
#Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep	5.60 ms (18001 pts)	

Plot 7-147. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



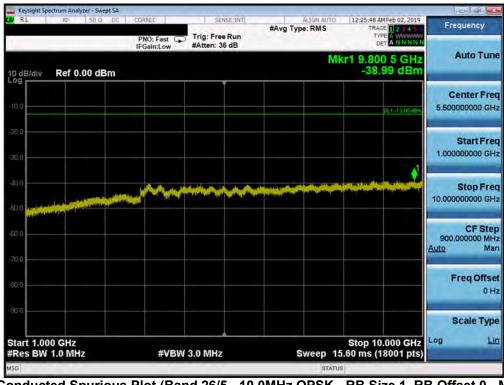
Plot 7-148. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

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Keysight Spectrum Analyzer - Swept		SENSE:INT	ALIGN AUTO	12:25:32 AM Feb 02, 2019	
	PNO: Fast 😱 IFGain:Low	Trig: Free Run Atten: 30 dB	#Avg Type: RMS	TRACE 23450 TYPE A WWWW DET A NNNNN	Frequency
10 dB/div Ref 20.00 dB	m		N	lkr1 849.20 MHz -65.05 dBm	Auto Tune
10.0					Center Free 924,500000 MH
10.00				0L1 -13 00 dEm	Start Fre 849.000000 MH
30.0					Stop Fre 1.000000000 GH
10 Q					CF Ste 15.100000 MH Auto Ma
50.0 1	and a state of the	الوران بلا الدور مراجع المراجع المراجع المراجع	14 mm production of the second		Freq Offs 0 H
700 Start 0.84900 GHz #Res BW 100 kHz		300 kHz		Stop 1.00000 GHz 7.248 ms (3021 pts)	Scale Typ Log <u>L</u>
150			STATI		

Plot 7-149. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



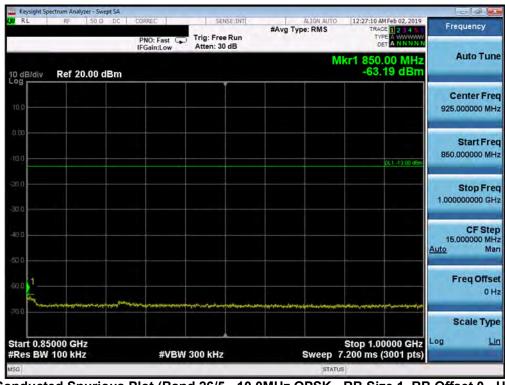
Plot 7-150. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

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Keysight Spectrum An RL RF	50 Ω DC	CORREC	SENSE:INT	ALI	GN AUTO 12:27:	05 AM Feb 02, 2019	
		PNO: Fast	Trig: Free Run Atten: 30 dB	#Avg Type:	RMS	TYPE A WWWWW DET A NNNNN	Frequency
10 dB/div Ref 2	20.00 dBm				Mkr1 8: -6	20.90 MHz 53.22 dBm	Auto Tune
100							Center Free 427.000000 MH
0.00 - ia a						0L1 -13 00 dBm	Start Free 30,000000 MH
-200							Stop Fre 824.000000 MH
40.0							CF Ste 79.400000 MH Auto Ma
60.0			1			1	Freq Offse 0 H
Start 30.0 MHz			All and the second s	200. pp. disk (marked (m. 1) at 1955	Sto	p 824.0 MHz	Scale Typ
#Res BW 100 kl	łz	#VBW	300 kHz	Sw	eep 38.11 ms	s (15881 pts)	
ISG					STATUS		

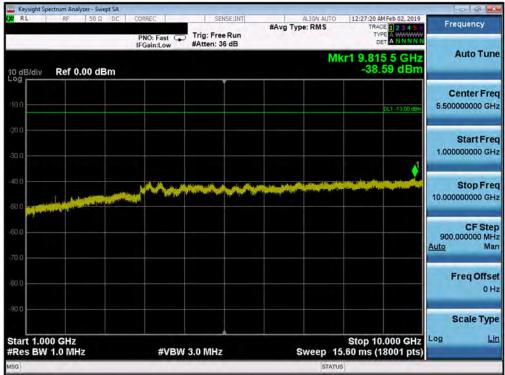
Plot 7-151. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-152. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

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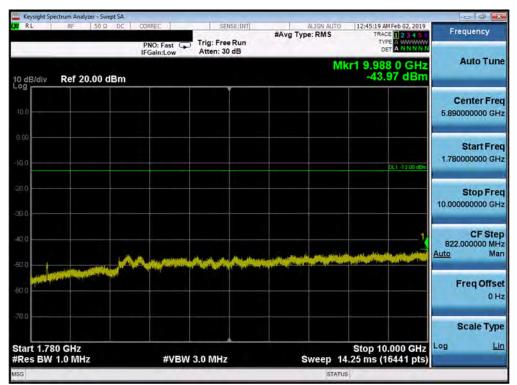
Plot 7-153. Conducted Spurious Plot (Band 26/5 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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Keysight Spectrum Analyzer - Swept SA   RL RF 50 Ω DC	CORREC SENSE:INT	ALIGN AUTO	12:45:12 AM Feb 02, 2019	And in case of the
	PNO: Fast C Trig: Free Run IFGain:Low Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A NNNNN	Frequency
0 dB/div Ref 20.00 dBm		Mk	r1 1.709 0 GHz -30.50 dBm	Auto Tun
10.0				Center Fre 869.500000 MH
10.00			DL1 -13 00 dBm	Start Fre 30.000000 M⊦
30.0			1	Stop Fre 1.709000000 GH
40.0				CF Ste 167.900000 MH Auto Ma
60.0		na sector e a constructiva de la constructiva de la construcción de la construcción de la construcción de la co	inin si san manana	Freq Offs 0 F
70.0				Scale Typ
Start 0.0300 GHz Res BW 1.0 MHz	#VBW 3.0 MHz	Sweep 2	Stop 1.7090 GHz .239 ms (3359 pts)	Log <u>L</u>
	#VBW 3.0 MHz	Sweep 2	.239 ms (3359 pts)	And a constraint of

Plot 7-154. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-155. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 07 of 200
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Keysight Spectrum Analyzer - Swept S	A.		-			- @ ×
XI RL RF 50Ω D	C CORREC PNO: Fast C	SENSE:INT Trig: Free Run Atten: 10 dB	#Avg Type	ALIGN AUTO E: RMS	12:45:26 AM Feb 02, 2019 TRACE 2 3 4 5 TYPE A WHYNN N	Frequency
10 dB/div Ref 0.00 dBm				Mkr	1 19.548 0 GHz -59.26 dBm	Auto Tune
-10.0					DL1 -13.00 dBm	Center Fred 15.000000000 GH;
30.0						Start Free 10.000000000 GH
-40.0						Stop Fre 20.000000000 GH
60.0			a tala tala asia dala dala dala dala dala dala dala da			CF Ste 1.000000000 GH <u>Auto</u> Ma
-80.0						Freq Offse 0 H
Start 10.000 GHz #Res BW 1.0 MHz	#VBW	3.0 MHz	S	weep 17	Stop 20.000 GHz .33 ms (20001 pts)	Scale Type Log <u>Lir</u>
MSG				STATUS		

Plot 7-156. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

	SENSE:INT	ALIGN AUTO	12:44:43 AM Feb 02, 2019	
PNO: Fast	Trig: Free Run Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WWWW DET A NNNNN	Frequency
		М	kr1 1.700 5 GHz -46.80 dBm	Auto Tun
				Center Free 870.000000 MH
			DL1 -13 00 dēm.	Start Fre 30.000000 MH
				Stop Fre 1.710000000 GH
				CF Ste 168.000000 MH Auto Ma
ana feranya salan ang kanalan na manaka	an a	n de la facta de la contrata de la c	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Freq Offse 0 F
			Stop 1.7100 GHz	Scale Typ
	IFGein:Low		PNO: Fast Trig: Free Run Atten: 30 dB	PNO: Fast Trig: Free Run Atten: 30 dB Mkr1 1.700 5 GHz -46.80 dBm

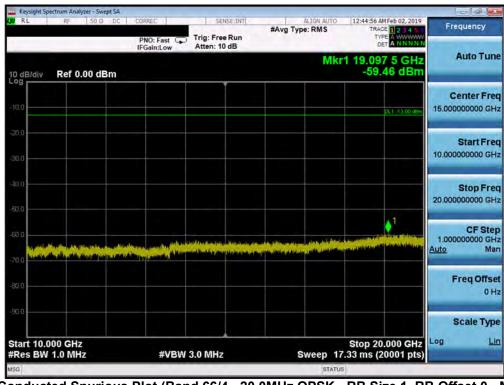
Plot 7-157. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 09 of 290
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Keysight Spectrum Analyzer - Sw					- @ ×
RL RF 50 S	PNO: Fast	SENSE:INT Trig: Free Run Atten: 30 dB	#Avg Type: RMS	12:44:49 AM Feb 02, 2019 TRACE 2 3 4 5 0 TYPE A W100000 DET A NNNNN	Frequency
10 gB/div Ref 20.00			M	kr1 9.820 0 GHz -44.16 dBm	Auto Tuni
10.0					Center Fre 5.890000000 GH
à cò ià a				0L1 -13 00 dBm	Start Fre 1.780000000 GH
200					Stop Fre 10.000000000 GH
40.0	-	Sauth, and structure	a secolar of the second se		CF Ste 822.000000 MH Auto Ma
60.0					Freq Offs 0 F
700 Start 1.780 GHz #Res BW 1.0 MHz	#\/B\M	3.0 MHz	Sween 1/	Stop 10.000 GHz 1.25 ms (16441 pts)	Scale Typ
ISG			STATU		

Plot 7-158. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



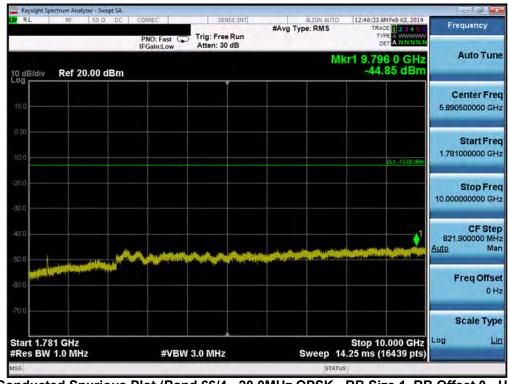
Plot 7-159. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 00 of 280
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- @ ×	- the state of the state of the		-	trum Analyzer - Swept SA	
Frequency	12:46:27 AM Feb 02, 2019 TRACE 1 2 3 4 5 6 TYPE A WARMAN DET A NNNNN	#Avg Type: RMS	SENSE:INT Trig: Free Run Atten: 30 dB	RF 50 Ω DC CORREC PNO: Fast IFGain:Low	UN RL
Auto Tune	cr1 1.705 0 GHz -54.37 dBm	M		Ref 20.00 dBm	10 dB/div
Center Fred 870.000000 MH:					100
Start Free 30.000000 MH;	0L1 -13 00 dBm				0.00 -10.0
Stop Free 1.710000000 GH					20.0 30.0
CF Step 168.000000 MH Auto Mar	1				40.0
Freq Offse 0 H	n an	and you want to be a product of the second	~~~~		-60.0
Scale Type Log <u>Lir</u>	Stop 1.7100 GHz 240 ms (3361 pts)		3.0 MHz		Start 0.030
		Sweep 2	5.0 WIN2	-0 MH2 #VBW	#Res BW 1

Plot 7-160. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-161. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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RL RF 50 Ω DC	CORREC	SENSE:INT	ALIG	AUTO 12:46:46 A	M Feb 02, 2019	Carlos and a state
	PNO: Fast	Trig: Free Run Atten: 10 dB	#Avg Type: Ri	MS TRAC TYS DI	E 2 3 4 5 6 E A WATHAN A N N N N N	Frequency
dB/div Ref 0.00 dBm				Mkr1 19.37 -59.	1 5 GHz 55 dBm	Auto Tune
10					DL1 -13 00 dBm	Center Free 15.000000000 GH
10						Start Free 10.00000000 GH
10						Stop Fre 20.000000000 GH
	-	n de la china primi di bata na si dina Mana di seconda di seconda di seconda di seconda di seconda di seconda di			1	CF Stej 1.000000000 GH <u>Auto</u> Ma
a.o						Freq Offse 0 H
art 10.000 GHz Res BW 1.0 MHz	#\/B\A(	3.0 MHz	Sime	Stop 20	.000 GHz	Scale Type

Plot 7-162. Conducted Spurious Plot (Band 66/4 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

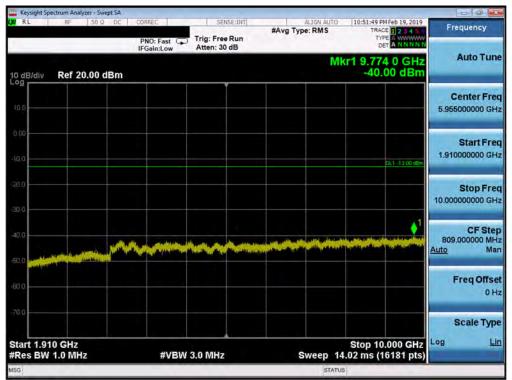
FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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### Band 2

Keysight Spectrum Analyzer - Swept SA   RL RF 50 Ω DC	CORREC	SENSE:INT	ALIGN AUTO	10:51:42 PM Feb 19, 2019	
		rig: Free Run Atten: 30 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A NNNNN	Frequency
0 dB/div Ref 20.00 dBm			M	r1 1.849 0 GHz -25.76 dBm	Auto Tun
10.0					Center Fre 939.500000 MH
10.0				DL1 -13.00 dBm	Start Fre 30.000000 MH
20.0				1	Stop Fre 1.849000000 GH
NC D					CF Ste 181.900000 MH Auto Ma
50.0		lua (sylverydd egyn flwr o flâfiyd	8-15-0-1-0-1-0-1-0-1-0-1-0-1-0-1-0-1-0-1-	nen og en som en	Freq Offs 0 F
7α0					Scale Typ
Start 0.0300 GHz Res BW 1.0 MHz	#VBW 3.	0 MHz	Sweep 2	Stop 1.8490 GHz 2.425 ms (3639 pts)	Log <u>L</u>
SG	# <b>4</b> BW 5.	O WITE	STATU		

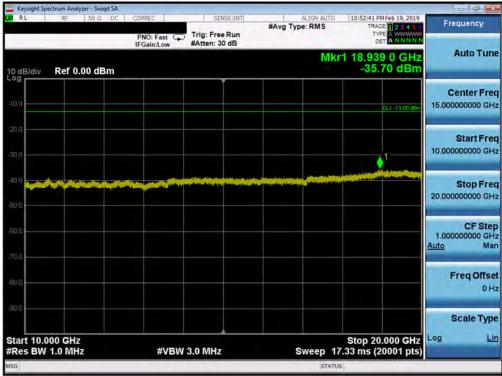
Plot 7-163. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



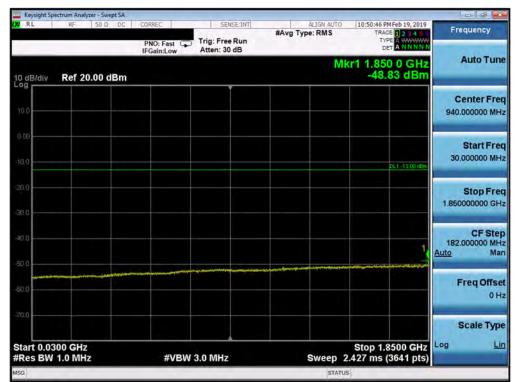
Plot 7-164. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 102 of 220
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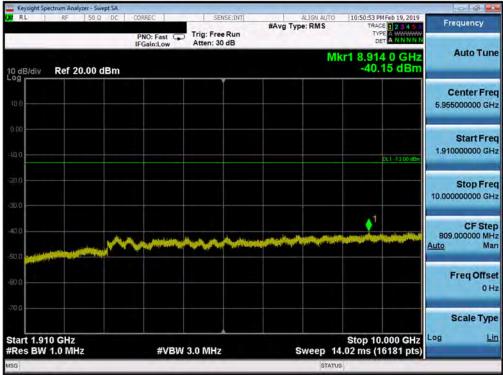
Plot 7-165. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



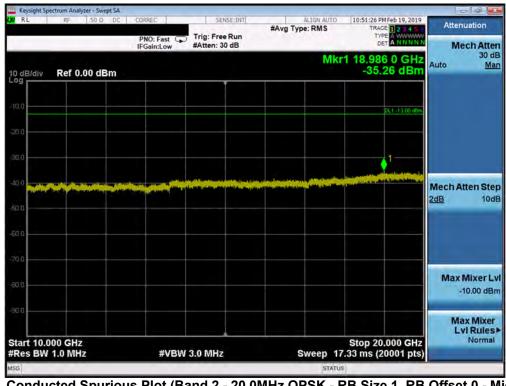
Plot 7-166. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 102 of 290
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Plot 7-167. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



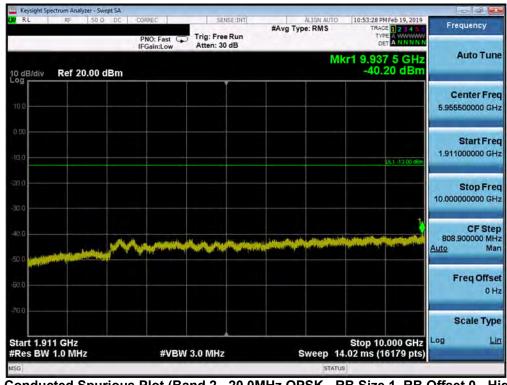
Plot 7-168. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 104 of 290
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Keysight Spectrum Analyzer - Swept SA			and the second se	A starting to	- @ X
RL RF 50Ω DC	PNO: Fast	SENSE:INT Trig: Free Run Atten: 30 dB	#Avg Type: RMS	10:53:21 PM Feb 19, 2019 TRACE 2 3 4 5 6 TYPE A WWWW DET A NNNNN	Frequency
dB/div Ref 20.00 dBm			М	kr1 1.749 5 GHz -50.05 dBm	Auto Tune
9					Center Free 940.000000 MH
(d				0L1 -13 00 dBm	Start Fre 30,000000 MH
.0					Stop Fre 1.85000000 GH
10				↓ ¹	CF Ste 182.000000 MH Auto Ma
0	<u></u>	an an an Anna Anna Anna	energeneter of the free free free free free free free fr		Freq Offse 0 H
art 0.0300 GHz tes BW 1.0 MHz	#VBW	3.0 MHz	Sweep	Stop 1.8500 GHz 2.427 ms (3641 pts)	Scale Typ
			STATL		

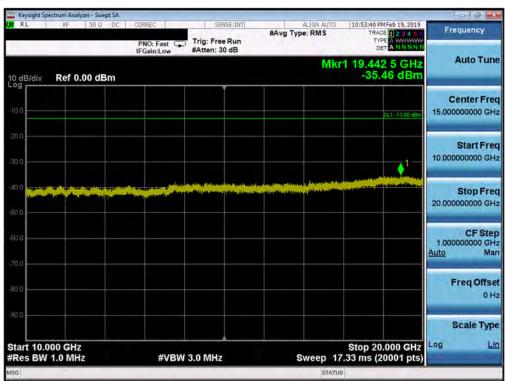
Plot 7-169. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-170. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 105 of 290
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Plot 7-171. Conducted Spurious Plot (Band 2 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

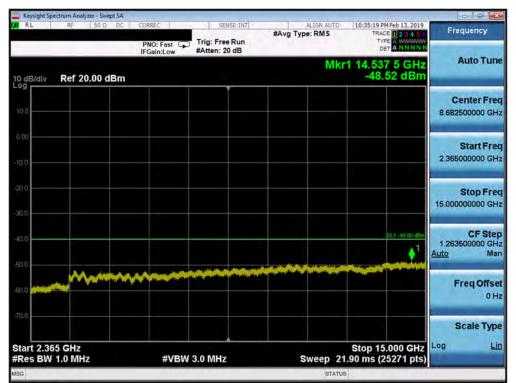
FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 106 of 200	
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## Band 30

Keysight Spectrum Analyzer - Swept SA   RL RF 50 Ω DC	CORREC	SENSE-INT	ALIGN AUTO	10:35:06 PM Feb 13, 2019	
KL KF 3012 DL	PNO: Fast	Trig: Free Run Atten: 30 dB	#Avg Type: RMS	10:35:06 PM Feb 13, 2019 TRACE 1 2 3 4 5 0 TYPE A WWWWW DET A N N N N N	Frequency
0 dB/div Ref 20.00 dBm			M	r1 2.244 5 GHz -48.48 dBm	Auto Tun
10.0					Center Fre 1.159000000 GH
0.00 10.0					Start Fre 30.000000 MH
20.0					Stop Fre 2.288000000 GH
40.0				01.1 -40.00 uSm	CF Ste 225.800000 MH Auto Ma
38.0	Warner and the state of the sta	nin open de la constant de la constant	ang a sa a la sa ang ang ang ang ang ang ang ang ang an		Freq Offse 0 F
Start 0.030 GHz	4000			Stop 2.288 GHz	Scale Typ
Res BW 1.0 MHz	#VBW 3	5.0 WH2	Sweep 3	.011 ms (4517 pts)	

Plot 7-172. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



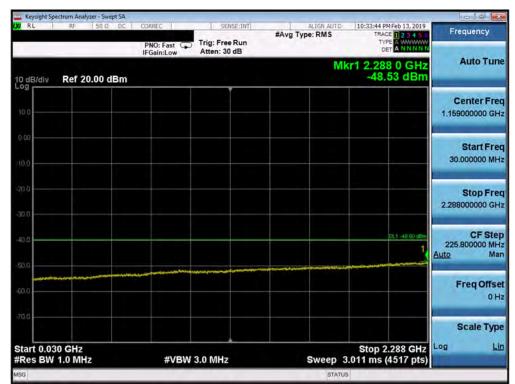
Plot 7-173. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Daga 107 of 200		
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RL RF 50Ω DC	CORREC	SENSE:INT	ALIGN AUTO #Avg Type: RMS	10:35:34 PM Feb 13, 2019 TRACE 1 2 3 4 5 0	Frequency
	PNO: Fast 😱	Trig: Free Run #Atten: 10 dB	#Avg Type. Rm3	TYPE A WWWWW	
0 dB/div Ref 0.00 dBm			Mk	r1 26.238 0 GHz -52.66 dBm	Auto Tun
10.0					Center Free 21.000000000 GH
30.0					Start Fre 15.000000000 GH
40.0				DL3 -40.00 aBH	Stop Fre 27.000000000 GH
					CF Ste 1.200000000 GH Auto Ma
90 a					Freq Offse 0 F
start 15.000 GHz				Stop 27.000 GHz	Scale Typ
Res BW 1.0 MHz	#VBW :	3.0 MHz	Sweep 2	0.80 ms (24001 pts)	

Plot 7-174. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



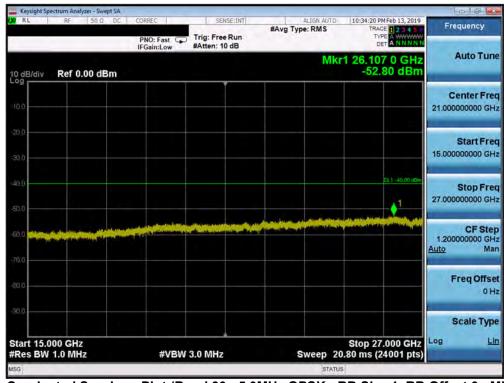
Plot 7-175. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Dege 109 of 290		
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- 6 ×		1000	-	-	n Analyzer - Swept SA	
Frequency	10:34:04 PM Feb 13, 2019 TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A NNNNN	#Avg Type: RMS	SENSE:INT Trig: Free Run #Atten: 20 dB	PNO: Fast		RL
Auto Tuno	1 14.360 5 GHz -48.28 dBm	Mk	WAILEN LO UD	IFGam.Low	ef 18.07 dBm	10 dB/div
Center Free 8.682500000 GH						8.07
Start Free 2.365000000 GH						1 93 11 9
Stop Fre 15.000000000 GH						319
CF Step 1.263500000 GH Auto Mar	DL1-40.00 cEm					41.9
Freq Offse 0 H					Mumber	61.9
Scale Type	Stop 15.000 GHz .90 ms (25271 pts)	Ewaan 2	3.0 MHz	#)/D)//		Start 2.365 #Res BW 1
		Sweep 2	5.0 10112	#VBVV	191112	ISG

Plot 7-176. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



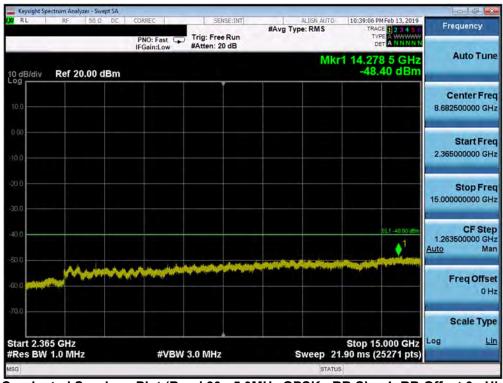
Plot 7-177. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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6					Keysight Spectrum
Frequency	10:38:55 PM Feb 13, 2019 TRACE 2 3 4 5 0 TYPE A WWWW DET A NNNNN	ALIGN AUTO #Avg Type: RMS	Trig: Free Run Atten: 30 dB	50 2 DC CORREC PNO: Fast IFGain:Low	W RL R
Auto Tun	r1 2.280 5 GHz -48.40 dBm	M		20.00 dBm	10 dB/div Re
Center Fre 1.159000000 GH					10.0
Start Fre 30.000000 MH					0.00
Stop Fre 2.288000000 GH					20.0
CF Ste 225.800000 MH Auto Ma	DL1 -40 00 uBm				40.0
Freq Offse 0 H		and a star frank and and a star a	newsens of the state of the sta	and the second	50.0 60.0
Scale Typ	Stop 2.288 GHz				Start 0.030 G
-	.011 ms (4517 pts)	sweep	3.0 MHz	nz #VBW	#Res BW 1.0

Plot 7-178. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-179. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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RL RF 50Ω	DC CORREC	SENSE:INT	#Avg Type: RMS	10:39:21 PM Feb 13, 2019 TRACE 1 2 3 4 5 0	Frequency
	PNO: Fast G	Trig: Free Run #Atten: 10 dB	#Avg type. Km3	TYPE A WWWWW	
0 dB/div Ref 0.00 dB			Mk	r1 26.201 0 GHz -52.73 dBm	Auto Tune
og 10.0					Center Fred 21.000000000 GH;
ia.a					Start Free 15,000000000 GH
0.0				0).1 -40,00 eBm	Stop Free 27.000000000 GH
aa					CF Step 1.200000000 GH Auto Ma
30.0					Freq Offse 0 H
0.0					Scale Type
tart 15.000 GHz Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep 2	Stop 27.000 GHz 0.80 ms (24001 pts)	Log <u>Lir</u>

Plot 7-180. Conducted Spurious Plot (Band 30 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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# Band 7

RL RF 50 Ω DC	CORREC	SENSE:INT	ALIGN AUTO	09:58:32 PM Feb 19, 2019	Contraction of the local division of the loc
	PNO: Fast G	Trig: Free Run Atten: 30 dB	#Avg Type: RMS	TYPE A WWWWW DET A NNNNN	Frequency
dB/div Ref 20.00 dBm			M	r1 2.474 0 GHz -47.70 dBm	Auto Tune
0.0					Center Fred 1.252500000 GHz
0.0					Start Free 30.000000 MH
20				0L1 -25 00 attm	Stop Free 2.475000000 GH
ac				1	CF Ste 244.500000 MH Auto Ma
0.0	with miny of a law contraction of a law	and the second sec	de la grande de la construcción de		Freq Offse 0 H
tart 0.030 GHz				Oton 2 475 Olla	Scale Type
Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep 3	Stop 2.475 GHz .260 ms (4891 pts)	Local

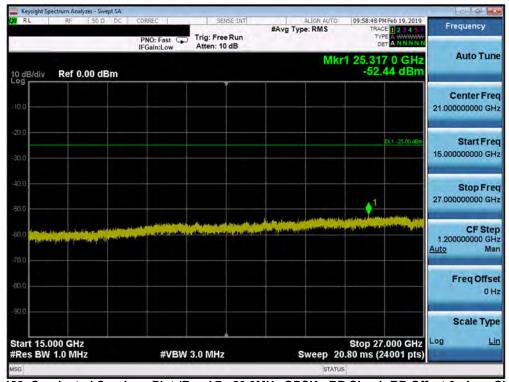
Plot 7-181. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Swept S RL RF 50 Q D			
X RL RF 50Ω D	C CORREC SENSE:INT PNO: Fast Trig: Free Run IFGain:Low Atten: 30 dB	ALIGN AUTO: 09:58:39 PM Feb 19, 20 #Avg Type: RMS TRACE 2 2 4 Type A Type A Typ	Frequency
10 dB/div Ref 20.00 dBr	n	Mkr1 14.500 0 Gł -38.09 dB	lz Auto Tun m
10.0			Center Fre 8.785000000 GH
10.0			Start Fre 2.570000000 GH
30.0		0,1 -25 00 -	Stop Fre
40.0			CF Ste 1.243000000 GH Auto Ma
68.0			Freq Offs 0 F
Start 2.570 GHz #Res BW 1.0 MHz	#VBW 3.0 MHz	Stop 15.000 G Sweep 21.55 ms (24861 p	Scale Typ
ISG		STATUS	

Plot 7-182. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



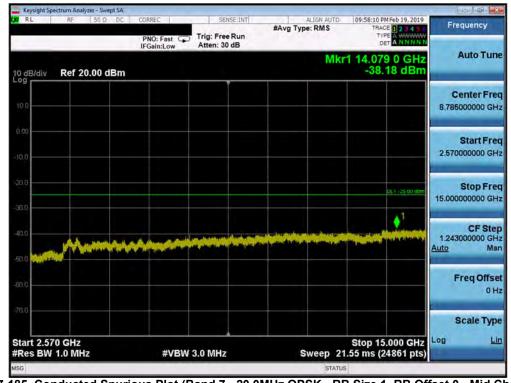
Plot 7-183. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Frequency	09:58:03 PM Feb 19, 2019 TRACE 2 3 4 5 0 TYPE A WWWW DET A NN NN N	ALIGN AUTO #Avg Type: RMS	Fast 😱 Trig: Free Run	50 12 DC CORREC PNO: Fast G IFGain:Low	RF 50 0	RL
Auto Tun	r1 2.498 0 GHz -47.31 dBm	M			Ref 20.00	10 dB/div
Center Fre 1.265000000 GH						10.0
Start Fre 30.000000 MH						10.0
Stop Fre 2.50000000 GH	0L1 -25.00 dBm					30.0
CF Ste 247.000000 MH Auto Ma	1					-40.0
Freq Offse 0 H				ana ana amin'ny tanàna amin'ny tanàna amin'ny tanàna amin'ny tanàna amin'ny tanàna mangkatana amin'ny tanàna ka	Auftre state and a state and	60.0
Scale Typ	Stop 2.500 GHz					Start 0.03
	.293 ms (4941 pts)	Sweep 3	#VBW 3.0 MHz	#VBV	1.0 MHz	#Res BW

Plot 7-184. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



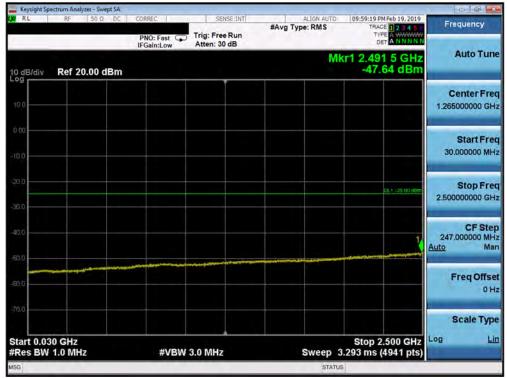
Plot 7-185. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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RL	ectrum Analyzer - Swept SA RF 50 Ω DC	CORREC	SENSE:INT	ALIGN AUTO		Frequency
		PNO: Fast	Trig: Free Run	#Avg Type: RMS		requirey
		IFGain:Low	Atten: 10 dB			Auto Tune
0 dB/div	Ref 0.00 dBm		_	NII	r1 26.225 5 GHz -52.34 dBm	
-09						Center Fre
10.0						21.00000000 GH
20,0					0L1 -25.00 dBm	Start Fre
30,0						15.00000000 GH
40,0						Stop Fre
50.0					1	27.00000000 GH
in the second seco	and the second	- AND	Manager and the of	An An and a subscription		CF Ste
		AND INCOMENTAL AND INCOMENT	and the state of t			1.20000000 GH Auto Ma
70.0						
89.0						Freq Offse 0 H
90,0						a la constante de la constante
						Scale Typ
Start 15.0 Res BW		#VBW	3.0 MHz	Sweep	Stop 27.000 GHz 20.80 ms (24001 pts)	Log <u>Li</u>
ISG				STAT		

Plot 7-186. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



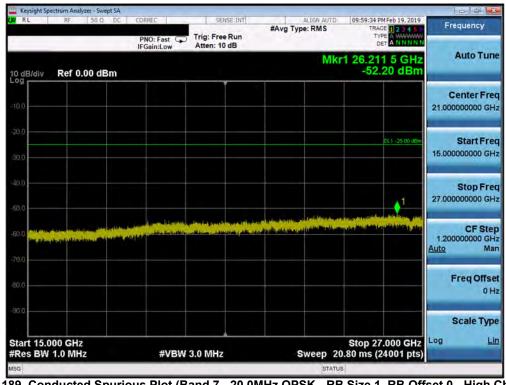
Plot 7-187. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Swept SA			- 6 -
20 RL RF 50.02 D(	PNO: Fast IFGain:Low Atten: 30 dB	ALIGN AUTO 09:59:26 PM Feb 19, 2019 #Avg Type: RMS TRACE 12, 2, 4, 5 TYPE A	Frequency
10 dB/div Ref 20.00 dBn	1	Mkr1 14.280 5 GH; -38.14 dBn	Auto Tun
10.0			Center Fre 8.797500000 GH
10,0			Start Fre 2.595000000 GH
-23.0		0L1 -25 00 e8r	Stop Fre 15.00000000 GH
40.0			CF Ste 1.240500000 GH <u>Auto</u> Ma
60.0			Freq Offs 01
Start 2.595 GHz #Res BW 1.0 MHz	#VBW 3.0 MHz	Stop 15.000 GH Sweep 21.50 ms (24811 pts	Scale Typ
ISG		STATUS	

Plot 7-188. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-189. Conducted Spurious Plot (Band 7 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

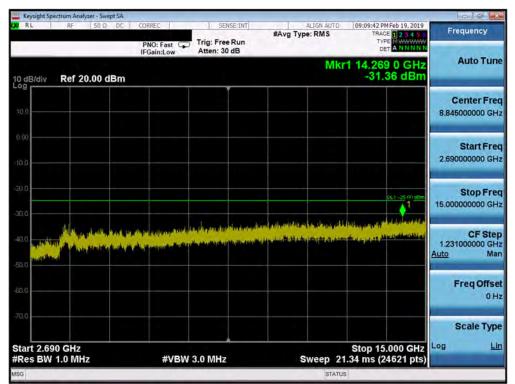
FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Band 41 (PC3) / Band 38

🔤 Keysight Spe	ectrum Analy	ter - Swept S	SA								
UKU RL	RF	50 Ω Ι	DC	CORREC PNO: Fast	Trig: F	SENSE:INT	#Avg Ty	ALIGN AUTO pe: RMS	TRA	PM Feb 19, 2019 CE 1 2 3 4 5 0 PE MUNICIPAL	Frequency
10 dB/div	Ref 20	.00 dB	m	IFGain:Low	Atten:	30 dB		Ň	lkr1 2.33	1 0 GHz 27 dBm	Auto Tune
10.0											Center Freq 1.252500000 GHz
0.00 -i0.0											Start Freq 30.000000 MHz
-20.0										0L1-25.00.40m	Stop Freq 2.475000000 GHz
-40.0 -50.0 <b>(19)/14</b>	Natiolania		the states	un dinistra	tiyyi Norishi da bashi d	i laga an thai sigal	nijte (kurter)	لاين المراجع ا محمد المراجع الم	والمحاد فالأواج فيدر	al person internisione	CF Step 244.500000 MHz <u>Auto</u> Man
-60.0											Freq Offset 0 Hz
-70.0											Scale Type
Start 0.03 #Res BW				#VE	3W 3.0 MH	Iz		Sweep	Stop 2 3.260 ms	2.475 GHz (4891 pts)	Log <u>Lin</u>
MSG								STAT			

Plot 7-190. Conducted Spurious Plot (Band 41 PC3 / Band 38 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



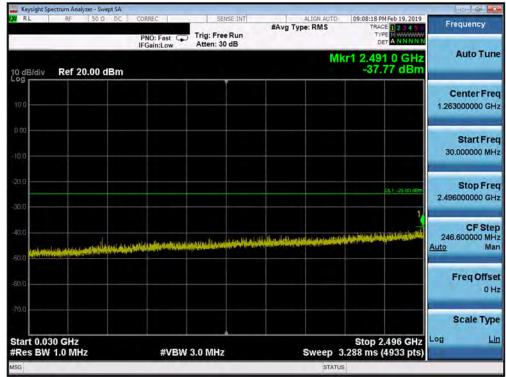
Plot 7-191. Conducted Spurious Plot (Band 41 PC3 / Band 38 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Keysight Spectrum Analyzer - Swept SA	A state of the second second second		- 6 -
α RL RF _ 50 Ω _ DC	CORREC SENSE:INT PNO: Fast Trig: Free Run IFGain:Low Atten: 10 dB	ALIGN AUTO 09:09:50 PM Feb 19, 201 #Avg Type: RMS TRACE TAKE TYPE DET ALIGN	Frequency
0 dB/div Ref 0.00 dBm		Mkr1 23.771 5 GH -45.97 dBr	z Auto Tun n
10.0			Center Fre 21.00000000 GF
30.0		DL1 -25 00 e8	Start Fre
40.0	an barran and straining the state of the state	1	Stop Fre 27.00000000 Gi
	arren det set vite den andere ander som som andere atte det		CF Sto 1.200000000 G Auto M
80.0			Freq Offs 0
ant 15.000 GHz Res BW 1.0 MHz	#VBW 3.0 MHz	Stop 27.000 GH Sweep 20.80 ms (24001 pt	Scale Typ
SG		STATUS	

Plot 7-192. Conducted Spurious Plot (Band 41 PC3 / Band 38 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



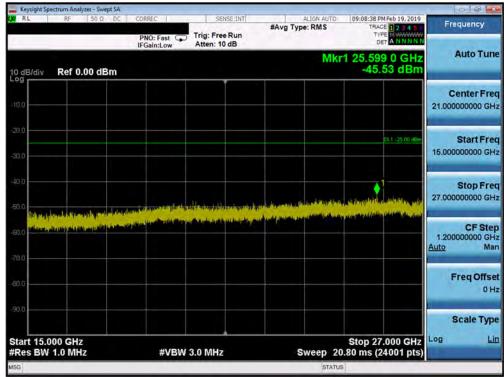
Plot 7-193. Conducted Spurious Plot (Band 41 PC3 / Band 38 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

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Keysight Spectrum Analyzer - Swept S			the second second		- 6 - S
α RL RF 50Ω D	PNO: Fast	Trig: Free Run Atten: 30 dB	#Avg Type: RMS	09:08:27 PM Feb 19, 2019 TRACE 2 3 4 5 0 TYPE M WWWWW DET A NNNNN	Frequency
IO dB/div Ref 20.00 dB	m		Mkr	1 14.547 0 GHz -31.62 dBm	Auto Tun
10.0					Center Fre 8.845000000 GH
10.0					Start Fre 2.690000000 GH
20.0				01.1 -25.00 cem	Stop Fre 15.00000000 GH
	s of delation products	na ita mana diala panilin na ita mangina ita ita mangina	al y docenski produktor od konstanti na na na se stan se na na se		CF Ste 1.231000000 GH Auto Ma
50.0					Freq Offs 0 F
70.0 Start 2.690 GHz #Res BW 1.0 MHz	41/BW	3.0 MHz	<b>S</b> ucces 24	Stop 15.000 GHz	Scale Typ
sg	#VBVV	5.0 WIN2	Sweep 21	.34 ms (24621 pts)	

Plot 7-194. Conducted Spurious Plot (Band 41 PC3 / Band 38 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



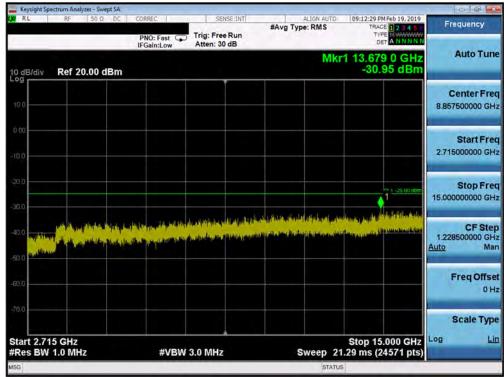
Plot 7-195. Conducted Spurious Plot (Band 41 PC3 / Band 38 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

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Keysight Spectrum Analyzer - Swept S			- 6 - 3
<b>XI RL RF 50 Ω D</b>	C CORREC SENSE:INT PNO: Fast Trig: Free Run IFGain:Low Atten: 30 dB	ALIGN AUTO 09:12:23 PM Feb 19, 201 #Avg Type: RMS TRACE 12:34 S TYPE TYPE OCT ANNING	Frequency
10 dB/div Ref 20.00 dBr	in Guineon	Mkr1 2.416 5 GH -39.30 dBn	Auto Tune
10.0			Center Free 1.263000000 GH
10.0			Start Fre 30.000000 MH
30.0		0L1-2500 48	Stop Fre 2.496000000 GH
-40.0 -50.0 1011-1011-1011-101-101-101-101-101-101	legi indisi dan din kanala di kanala din di kanala di k	م ما الم الما الم الما الم الما الما الم	CF Ste 246.600000 MH <u>Auto</u> Ma
-60.0			Freq Offse 0 H
Start 0.030 GHz #Res BW 1.0 MHz	#VBW 3.0 MHz	Stop 2.496 GH Sweep 3.288 ms (4933 pts	Scale Typ
MSG		STATUS	4

Plot 7-196. Conducted Spurious Plot (Band 41 PC3 / Band 38 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-197. Conducted Spurious Plot (Band 41 PC3 / Band 38 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

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RL RF 50 0 D	C CORREC	SENSE:INT	ALIGN AUTO		Englishment
	PNO: Fast 😱	Trig: Free Run Atten: 10 dB	#Avg Type: RMS		Frequency
dB/div Ref 0.00 dBm	IFGain:Low	Atten: 10 dB	M	(r1 26.026 0 GHz -46.06 dBm	Auto Tune
		Ť.			
0,0					Center Free 21.000000000 GH
0.0				DL1 -25.00 dBm	Start Free
0.0					15.00000000 GH
0.0		a colation	all takes a second state the solutions.	1. 1. 001. 011.1.0 (A.L.	Stop Free 27.000000000 GH
0.0 This as her defined as an a shirt set	The second se	in the state of the second	de site de soudifiétéeren	als size and the distance and	CF Ste
0.0	And a second				1.200000000 GH Auto Ma
0.0					Freq Offse
0.0					
					Scale Type
tart 15.000 GHz Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep 2	Stop 27.000 GHz 20.80 ms (24001 pts)	Log <u>Li</u>
G			STAT		

Plot 7-198. Conducted Spurious Plot (Band 41 PC3 / Band 38 - 20.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

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## 7.4 Band Edge Emissions at Antenna Terminal

#### **Test Overview**

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

# The minimum permissible attenuation level of any spurious emission is 43 + 10 log₁₀(P_[Watts]), where P is the transmitter power in Watts.

For LTE B13, the minimum permissible attenuation level of all emissions in the 763 – 775MHz and 793 – 805MHz band is  $65 + 10 \log_{10}(P_{[Watts]})$  in a 6.25kHz bandwidth, where P is the transmitter power in Watts.

For LTE B30, the minimum permissible attenuation levels are 43 + 10 log ( $P_{[Watts]}$ ) dB on all frequencies between 2305 and 2320 MHz and on all frequencies between 2345 and 2360 MHz that are outside the licensed band(s) of operation, 55 + 10 log ( $P_{[Watts]}$ ) dB on all frequencies between 2320 and 2324 MHz and on all frequencies between 2341 and 2345 MHz, 61 + 10 log ( $P_{[Watts]}$ ) dB on all frequencies between 2324 and 2328 MHz and on all frequencies between 2337 and 2341 MHz, 67 + 10 log ( $P_{[Watts]}$ ) dB on all frequencies between 2328 and 2337 MHz, 43 + 10 log ( $P_{[Watts]}$ ) dB on all frequencies between 2300 and 2305 MHz, 55 + 10 log ( $P_{[Watts]}$ ) dB on all frequencies between 2296 and 2300 MHz, 61 + 10 log ( $P_{[Watts]}$ ) dB on all frequencies between 2292 and 2296 MHz, 67 + 10 log ( $P_{[Watts]}$ ) dB on all frequencies between 2288 and 2292 MHz, 70 + 10 log ( $P_{[Watts]}$ ) dB below 2288 MHz, 43 + 10 log ( $P_{[Watts]}$ ) dB on all frequencies between 2360 and 2365 MHz, and 70 + 10 log ( $P_{[Watts]}$ ) dB above 2365 MHz.

For LTE B7, B41/38, the minimum permissible attenuation levels are 40 + 10 log ( $P_{[Watts]}$ ) dB on all frequencies between the channel edge and 5 megahertz from the channel edge, 43 + 10 log ( $P_{[Watts]}$ ) dB on all frequencies between 5 megahertz and X megahertz from the channel edge, and 55 + 10 log ( $P_{[Watts]}$ ) 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 minimum permissible attenuation levels shall not be less than 43 + 10 log ( $P_{[Watts]}$ ) dB on all frequencies between 2490.5 MHz and 2496 MHz and 55 + 10 log ( $P_{[Watts]}$ ) dB at or below 2490.5 MHz.

#### Test Procedure Used

KDB 971168 D01 v03r01 - Section 6.0

#### **Test Settings**

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

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



Figure 7-3. Test Instrument & Measurement Setup

### Test Notes

Per 22.917(b) 24.238(a) 27.53(h) in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed to demonstrate compliance with the out-of-band emissions limit. The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emission are attenuated at least 26 dB below the transmitter power.

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

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

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

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## Band 12



Plot 7-199. Lower Band Edge Plot (Band 12 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-200. Upper Band Edge Plot (Band 12 - 1.4MHz QPSK - Full RB Configuration)

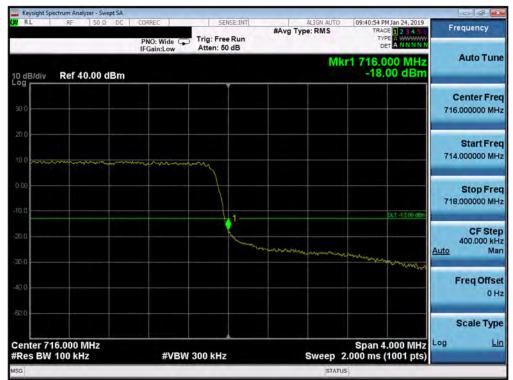
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Plot 7-201. Lower Band Edge Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-202. Upper Band Edge Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)

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RL RF 50 Q DC	CORREC	SENSE:INT		LIGN AUTO	09:38:04 PM		Frequency
	PNO: Wide C	Trig: Free Run Atten: 50 dB	#Avg Type	RMS	TYPE	123456 A WWWWW A NNNNN	in squares y
10 dB/div Ref 40.00 dBm				Mk	r1 697.9 -25.0	60 MHz 04 dBm	Auto Tune
30.0							Center Free 698.000000 MH
10.0					montant	miningui	Start Fre 696,000000 MH
0.00						041-13.00 dBm	Stop Fre 700.000000 MH
20 0	marian	numeron in	n-n-turner	and the second			CF Ste 400.000 kF Auto Ma
40.0							Freq Offs 0 F
50.0							Scale Typ
Center 698.000 MHz #Res BW 100 kHz	#VBW :	300 kHz	s	weep 2	Span 4. .000 ms (1	000 MHz 1001 pts)	
SG				STATUS			

Plot 7-203. Lower Band Edge Plot (Band 12 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-204. Upper Band Edge Plot (Band 12 - 5.0MHz QPSK - Full RB Configuration)

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RL RF 50 Ω DC	CORREC	SENSE:INT	ALIGN AUT		-accuracións
	PNO: Wide C	Trig: Free Run Atten: 50 dB	#Avg Type: RMS	TRACE 23450 TYPE A WWWWW DET A NNNNN	Frequency
0 dB/div Ref 40.00 dBm			N	lkr1 697.744 MHz -27.74 dBm	Auto Tun
300					Center Fre 698.000000 MH
20.0					Start Fre 694,000000 MH
α DD				0.1 -13.00 (Bm)	Stop Fre 702.000000 MH
20 0	والمتحر والمري وسيعرس	programmer and the second	and the second		CF Ste 800.000 kH Auto Ma
40.0					Freq Offs 0 F
center 698.000 MHz				opan 0.000 Minz	Scale Typ
Res BW 100 kHz	#VBW	300 kHz		4.000 ms (1001 pts)	

Plot 7-205. Lower Band Edge Plot (Band 12 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-206. Upper Band Edge Plot (Band 12 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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## Band 13



Plot 7-207. Lower Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)



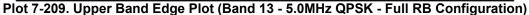
Plot 7-208. Lower Emission Mask Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

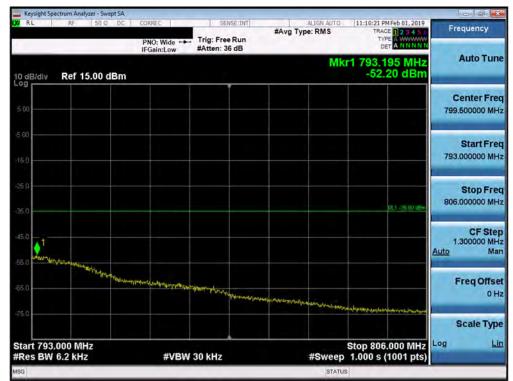
FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 100 of 200
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RL RF 50 Q DC	CORREC	SENSE:INT	#Avg Type: RMS	11:07:34 PM Feb 01, 2019 TRACE 2 3 4 5 0	Frequency
	PNO: Wide 🖵	Trig: Free Run Atten: 36 dB	worg type. Kino	TYPE A WWWWW DET A NNNNN	Auto Tun
ID dB/div Ref 25.00 dBm -22.41 dBm					
g 50 web/m/m/m/m/m/m/m/m/m/m/m/m/m/m/m/m/m/m/m	and the second second				Center Fre 787.000000 Mi
00					Start Fr 785.000000 M
5.σ		the 1		DL1-13.00 @Bm	Stop Fr 789.000000 M
5.0 5.0					CF Sto 400.000 k <u>Auto</u> M
5.â					Freq Offs 0
enter 787.000 MHz Res BW 100 kHz	#VBW:	300 kHz	Sweep 2	Span 4.000 MHz 2.000 ms (1001 pts)	Scale Ty





Plot 7-210. Upper Emission Mask Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 120 of 200
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RL	RF 50 Ω DC	CORREC	SENSE:INT	#Avg Type: RMS	11:13:52 PM Feb 01, 2019 TRACE 1 2 3 4 5 0	Frequency
		PNO: Wide 🖵	Trig: Free Run Atten: 36 dB	arrig Type this	DET A NN NN N	
Mkr1 776.992 MHz 23.41 dBm						Auto Tune
15,0						Center Free 777.000000 MH
500			ſ		and a factor of a second s	Start Fre 773.000000 MH
25.0			- ind		DL1 -13.00 dBm	Stop Fre 781.000000 MH
35.0		1 million				CF Ste 800.000 kH Auto Ma
						Freq Offse 0 H
65.0 Center 777					Shop 8 000 Mile	Scale Typ
Res BW 1		#VBW	300 kHz	Sweep	Span 8.000 MHz 4.000 ms (1001 pts)	
ISG				STATL	IS	

Plot 7-211. Lower Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-212. Lower Emission Mask Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 120 of 280
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X RL RF 50Ω DC	PNO: Wide	Trig: Free Run Atten: 36 dB	ALIGN AUTO #Avg Type: RMS	11:14:18 PM Feb 01, 2019 TRACE 2 3 4 5 0 TYPE A WWWW DET A NNNNN	Frequency
10 dB/div Ref 25.00 dBm			Mk	1 787.000 MHz -24.58 dBm	Auto Tune
15,0					Center Free 787.000000 MH
5 00 <b></b>	45994 sqr4624 sqr8655				Start Fre 783.000000 MH
25.0		In 1		DL1 -13,60 dBm	Stop Fre 791.000000 MH
35.ā			ender mangal marked de presentado	and a second and a second a	CF Ste 800.000 kH Auto Ma
55 â					Freq Offse 0 H
Center 787.000 MHz #Res BW 100 kHz	#VBW	300 kHz	Sweep 4	Span 8.000 MHz .000 ms (1001 pts)	Scale Type

Plot 7-213. Upper Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)



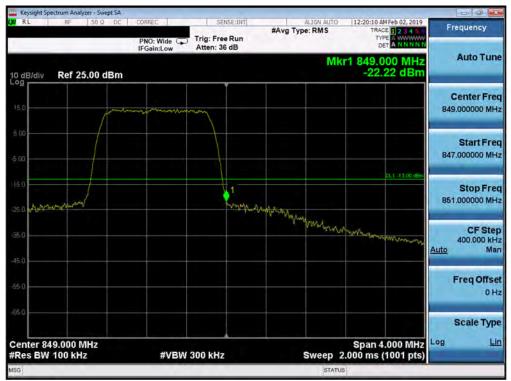
Plot 7-214. Upper Emission Mask Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 121 of 280
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Plot 7-215. Lower Band Edge Plot (Band 26/5 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-216. Upper Band Edge Plot (Band 26/5 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 122 of 290
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CORREC	SENSE:INT	#Avg Type: RMS	0 12:22:07 AM Feb 02, 2019 TRACE 1 2 3 4 5 0	Frequency
PNO: Wide CP	Trig: Free Run Atten: 36 dB		DET A NNNNN	
		N	lkr1 823.996 MHz -18.07 dBm	Auto Tun
				Center Fre 824.000000 MH
	$\square$			Start Fre 822,000000 Mi
in the second	-North Martin		CL1 -13.00 dBm	Stop Fr 826.000000 M
NW Lotter C				CF Ste 400,000 k Auto M
				Freq Offs 0
#\/B\//	300 kHz	Sween	Span 4.000 MHz	Scale Tyj Log L
	PNO: Wide C	PNO: Wide Trig: Free Run IFGain:Low Atten: 36 dB	PNO: Wide Trig: Free Run Atten: 36 dB	PNO: Wide Trig: Free Run Atten: 36 dB Hkr1 823.996 MHz -18.07 dBm CLI 7300 dEm CLI 7300 dEm Span 4.000 MHz

Plot 7-217. Lower Band Edge Plot (Band 26/5 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-218. Upper Band Edge Plot (Band 26/5 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Daga 122 of 280	
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RL RF 50Ω D	CORREC	SENSE:INT	ALIGN AUTO	12:23:52 AM Feb 02, 2019	Frequency
	PNO: Wide C	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	TRACE 23450 TYPE A WWWWW DET A NNNNN	
O dB/div Ref 25.00 dB	m		M	r1 823.992 MHz -21.58 dBm	Auto Tuni
15,0				wywand wywante	Center Free 824.000000 MH
5.00					Start Fre 822.000000 MH
15.0 25.0 www.m.w.m.m.m.m.m.m.m.m.m.m.m.m.m.m.m.m	. Markalanda	-		CL1 -13.00 dBm	Stop Fre 826.000000 MH
45.0					CF Ste 400.000 kH Auto Ma
65.0					Freq Offs 0 F
Center 824.000 MHz				Span 4.000 MHz	Scale Typ
Res BW 100 kHz	#VBW	300 kHz	Sweep	2.000 ms (1001 pts)	-
150			STAT	JS	

Plot 7-219. Lower Band Edge Plot (Band 26/5 - 5.0MHz QPSK - Full RB Configuration)



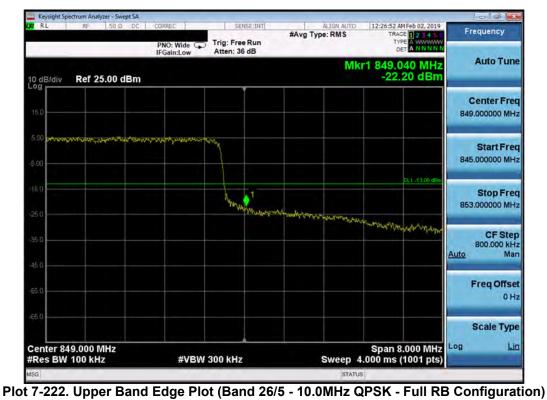
Plot 7-220. Upper Band Edge Plot (Band 26/5 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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RL RF 50 Ω DC	CORREC	SENSE:INT		ALIGN AUTO	12:26:34 AM Feb 02, 2019	Frequency
	PNO: Wide C	Trig: Free Run Atten: 36 dB	#Avg	Type: RMS	TRACE 2 3 4 5 6 TYPE A WHANNIN DET A NNNNN	
O dB/div Ref 25.00 dBm				Mk	r1 823.984 MHz -26.36 dBm	Auto Tuni
15.0						Center Free 824.000000 MH
5.00 5.00			www.www.	المحرب ومتحر ومراجعه	af yerryan an a	Start Fre 820.000000 MH
15.0		1. John			DL1 -13 00 dBm	Stop Fre 828.000000 MH
35 0 mmmulhanan 10 mm	nana dittanti Uningtu	neris-eneristr. 199				CF Ste B00.000 kH Auto Ma
65 D						Freq Offs 0 F
65.0 Center 824.000 MHz #Res BW 100 kHz	40/DW	200 111-			Span 8.000 MHz	Scale Typ
ISG	#4044	300 kHz		Sweep	4.000 ms (1001 pts)	

Plot 7-221. Lower Band Edge Plot (Band 26/5 - 10.0MHz QPSK - Full RB Configuration)



FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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RL RF 50Ω DC	CORREC PNO: Wide	SENSE:INT Trig: Free Run Atten: 36 dB	#Avg Type: RMS	11:24:28 PM Feb 19, 2019 TRACE 2 3 4 5 0 TYPE A WWWWW DET A NNNNN	Frequency
IO dB/div Ref 25.00 dBm			MI	kr1 823.832 MHz -21.07 dBm	Auto Tuni
15.0					Center Fre 824.000000 MH
5.00			ment grant grant m	an a	Start Fre 818,000000 MH
150 250 main and a second	mmm	manifund		CL1 -13.00 dBm	Stop Fre 830.000000 MF
35.0					CF Ste 1.200000 MH Auto Ma
65 0					Freq Offs 0 F
65.0 Center 824.000 MHz #Res BW 160 kHz	#VBW	510 kHz	Sween	Span 12.00 MHz 1.000 ms (1001 pts)	Scale Typ Log <u>L</u> i

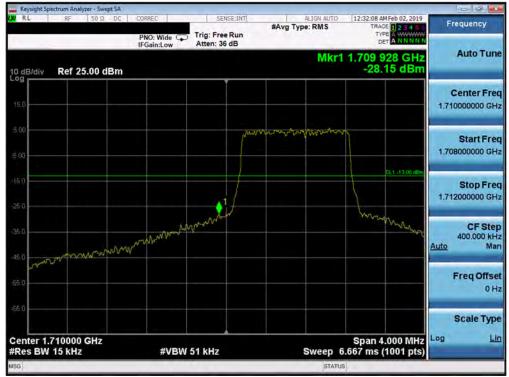
Plot 7-223. Lower Band Edge Plot (Band 26 - 15.0MHz QPSK - Full RB Configuration)



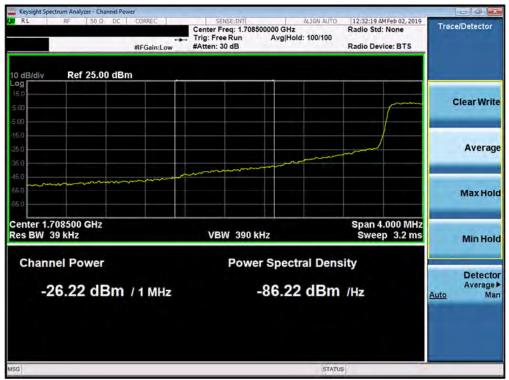
Plot 7-224. Upper Band Edge Plot (Band 26 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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Plot 7-225. Lower Band Edge Plot (Band 66/4 - 1.4MHz QPSK - Full RB Configuration)



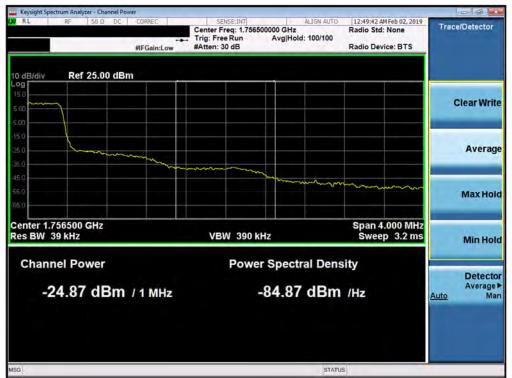
Plot 7-226. Lower Extended Band Edge Plot (Band 66/4 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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TRACE DEPENDENT Frequency			RL RF 50Ω DC C
	#Avg Type: RMS TRACE 2 TYPE A W DET A N	PNO: Wide C Trig: Free Run IFGain:Low Atten: 36 dB	
55 068 GHz Auto Tun -26.70 dBm	Mkr1 1.755 068 ( -26.70 c		10 dB/div Ref 25.00 dBm
Center Fre 1.755000000 GH			15.0
Start Fre 1.753000000 GH			500
Stop Fro 1.757000000 G	GL1-13		50
Auto M	mont		15 0
Freq Offs 01			55 0
Scale Typ Dan 4.000 MHz ms (1001 pts)	Span 4.000 Sweep 2.667 ms (1001	#VBW 82 kHz	Center 1.755000 GHz
517	Sweep 2.66	#VBW 82 kHz	-55 0 -55 0 -55 -55 0 -50 0 -5

Plot 7-227. Upper Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)



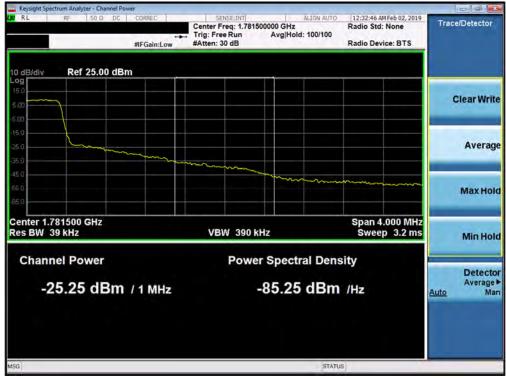
Plot 7-228. Upper Extended Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	<b>Approved by:</b> Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 129 of 290	
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RL RF 50Ω DC		SENSE:INT g: Free Run ten: 36 dB	#Avg Type: RMS	12:32:41 AM Feb 02, 2019 TRACE 2 3 4 5 0 TYPE A WWWW DET A NNNNN	Frequency
dB/div Ref 25.00 dBm			Mkr	1.780 044 GHz -27.48 dBm	Auto Tun
5.0					Center Fre 1.780000000 GH
00	with min				Start Fre 1.778000000 GH
50				DL1 -13.00 dBm	Stop Fre 1.782000000 GH
50 million Mirr		-tropy	wwwwwww	wood way	CF Ste 400.000 kF Auto Ma
50				Sund	Freq Offs 0 F
enter 1.780000 GHz				Span 4.000 MHz	Scale Typ
Res BW 15 kHz	#VBW 511	kHz	Sweep	6.667 ms (1001 pts)	

Plot 7-229. Upper Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)



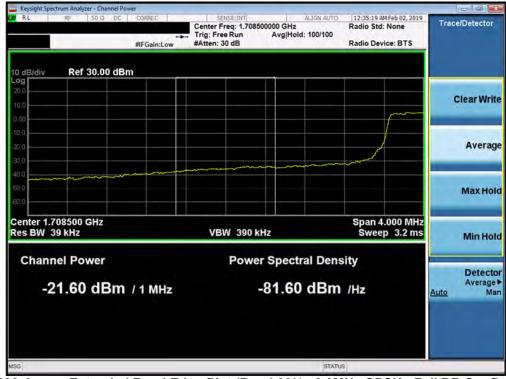
Plot 7-230. Upper Extended Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 120 of 290	
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RL RF 50Ω DC	CORREC	SENSE:INT	#Avg Type: RMS	TRACE 1 2 3 4 5.0	Frequency
	PNO: Wide 🖵 IFGain:Low	Trig: Free Run Atten: 36 dB		DET A NNNN	to a labor
0 dB/div Ref 25.00 dBm			Mkr	1 1.710 000 GHz -25.893 dBm	Auto Tuni
15.0					Center Fre 1.710000000 GH
5.00				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Start Fre 1.708000000 GF
15 0		1		DL1 -13.00 dBm	Stop Fre 1.712000000 GH
35.0	nipmin	~~~~~			CF Ste 400.000 kF Auto Ma
55 0					Freq Offs 0 F
56.0 Center 1.710000 GHz				Span 4.000 MHz	Scale Typ
Res BW 36 kHz	#VBW	130 kHz	Sweep	2.000 ms (1001 pts)	

Plot 7-231. Lower Band Edge Plot (Band 66/4 - 3.0MHz QPSK - Full RB Configuration)



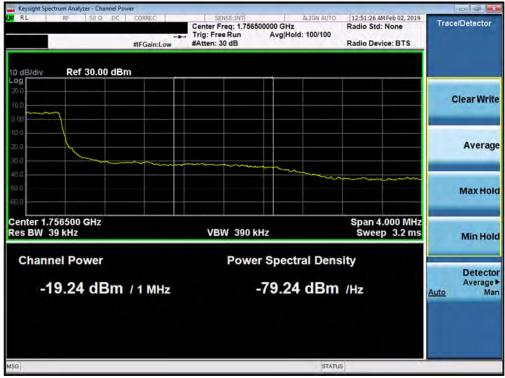
Plot 7-232. Lower Extended Band Edge Plot (Band 66/4 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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RL RF 50Ω DC	CORREC	SENSE:INT	ALIGN AUTO #Avg Type: RMS	12:51:20 AM Feb 02, 2019 TRACE 1 2 3 4 5 0	Frequency
	PNO: Wide C	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	TYPE A WWWWW	
0 dB/div Ref 25.00 dBm			Mkr	1.755 000 GHz -23.67 dBm	Auto Tune
og 15.0					Center Fred 1.755000000 GH;
5.00		$\neg$			Start Free 1.753000000 GH
25 0				DL1 -13.00 dBm	Stop Free 1.757000000 GH
45.0		5	······		CF Ste 400.000 kH Auto Ma
55 0					Freq Offse 0 H
560 Center 1.755000 GHz				Span 4.000 MHz	Scale Type
Res BW 36 kHz	#VBW	130 kHz	Sweep 2	2.000 ms (1001 pts)	

Plot 7-233. Upper Band Edge Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-234. Upper Extended Band Edge Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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RL RF 50 Ω DC	CORREC	SENSE:INT	ALIGN AUTO #Avg Type: RMS	12:35:48 AM Feb 02, 2019 TRACE 1 2 3 4 5 6	Frequency
	PNO: Wide 🖵 IFGain:Low	Trig: Free Run Atten: 36 dB	wry type. And	TYPE A WWWWW	
O dB/div Ref 25.00 dBm			Mkr1	1.780 000 GHz -24.107 dBm	Auto Tune
15.0					Center Fred 1.78000000 GH
5.00	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~			Start Free 1.778000000 GH
50		(		DL1 -13.00 dBm	Stop Free 1.782000000 GH
15.0		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			CF Ster 400.000 kH Auto Ma
50					Freq Offse 0 H
6.0					Scale Type
enter 1.780000 GHz Res BW 36 kHz	#VBW	130 kHz	Sweep 2	Span 4.000 MHz 2.000 ms (1001 pts)	Log <u>Lir</u>
50			STATU		

Plot 7-235. Upper Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-236. Upper Extended Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager	
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RL RF 50 Ω	DC CORREC	SENSE:INT	ALIGN AUTO	12:37:34 AM Feb 02, 2019	Frequency
	PNO: Wide 😱 IFGain:Low	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	TRACE 2 3 4 5 0 TYPE A WWWW DET A NNNNN	Trequency
0 dB/div Ref 25.00 d	Bm		Mkr	1.709 988 GHz -28.15 dBm	Auto Tun
i5,0					Center Fre 1.710000000 GH
5.00			- month of the form	en an	Start Fre 1.708000000 GH
25.0		1		OL1 -13.00 dBm	Stop Fre 1.712000000 GH
35.0 mar what	an an analouse	Sum			CF Ste 400.000 kF Auto Ma
55 0.					Freq Offs 0 F
Center 1.710000 GHz				Span 4.000 MHz	Scale Typ
Res BW 62 kHz	#VBW	220 kHz	Sweep	2.000 ms (1001 pts)	

Plot 7-237. Lower Band Edge Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)



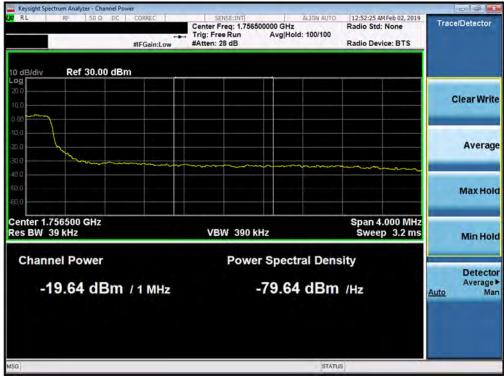
Plot 7-238. Lower Extended Band Edge Plot (Band 66/4 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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	rig: Free Run ttten: 36 dB		pe: RMS	1.755 00 -26.57	3 GHz 7 dBm	Auto Tune Center Free 1.75500000 GH Start Free
and and a			Mkr1	1.755 004 -26.57	8 GHz 7 dBm	Center Free 1.75500000 GH Start Free
						1.755000000 GH Start Free
······						
						1.753000000 GH
	1			DL1	-13.00 dBm	Stop Fre 1.757000000 GH
		m	min	······		CF Ste 400.000 kH Auto Ma
						Freq Offso 0 H
						Scale Typ
#VBW 22	0 kHz		Sweep 2	Span 4.00 .000 ms (10	00 10112	
	#VBW 22	#VBW 220 kHz			Span 4.0	Span 4.000 MHz #VBW 220 kHz Sweep 2.000 ms (1001 pts)

Plot 7-239. Upper Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)



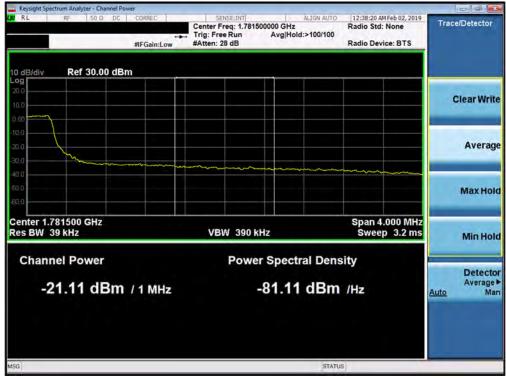
Plot 7-240. Upper Extended Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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	and and and and	#Avg Type: RMS	TRACE 1 2 3 4 5 6	Frequency
FGain:Low	Trig: Free Run Atten: 36 dB			
- Gam.Low		Mk	r1 1.780 004 GHz -24.88 dBm	Auto Tune
				Center Fred 1.780000000 GH:
and and a second				Start Free 1.778000000 GH
	ty T		CL1 -13.00 dBm	Stop Fre 1.782000000 GH
	W. Connorde	mmmm	mon me	CF Ste 400.000 kH Auto Ma
				Freq Offse 0 H
				Scale Typ
#VBW 2	20 kHz	Sweep	Span 4.000 MHz 2.000 ms (1001 pts)	Log <u>Li</u>
		#VBW 220 kHz	#VBW 220 kHz Sweep	-24.88 dBm

Plot 7-241. Upper Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)



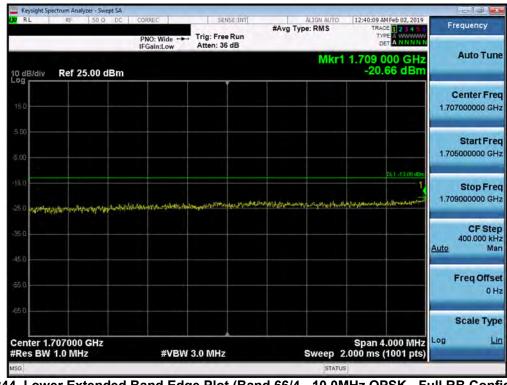
Plot 7-242. Upper Extended Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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RL RF 50 Ω DC	CORREC	SENSE:INT	#Ava	ALIGN AUTO Type: RMS	12:40:02 AM Feb 02, 201 TRACE 1 2 3 4 5	Frequency
	PNO: Wide 🖵	Trig: Free Run Atten: 36 dB			TYPE A WMWW	
dB/div Ref 25.00 dBm				Mkr1	1.709 984 GH -28.03 dBn	z Auto Tun 1
5.0						Center Fre 1.710000000 GH
; çò			- Norm Wandwald	يرادير الميلي مالي حاوره	n <mark>esendesis proventien anderes sensen anderes s</mark>	Start Fre 1.706000000 GH
50		14			DL1 -13.00 dĐ	Stop Fre 1.714000000 GH
5.0 manuanterination and a state and a state of the state	er fan Milland Armendel	we and the state of the state o				CF Ste B00.000 kf Auto Ma
50						Freq Offs 01
5.0						Scale Typ
enter 1.710000 GHz Res BW 120 kHz	#VBW	430 kHz		Sweep 4	Span 8.000 MH .000 ms (1001 pts	Z Log L

Plot 7-243. Lower Band Edge Plot (Band 66/4 - 10.0MHz QPSK - Full RB Configuration)



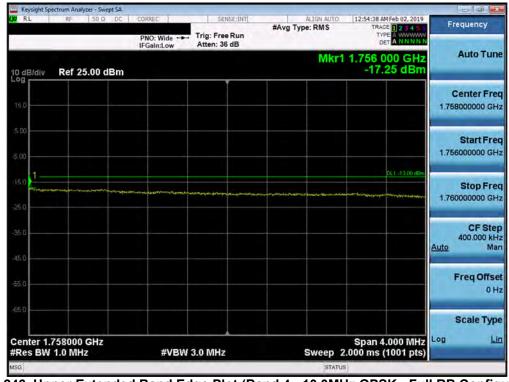
Plot 7-244. Lower Extended Band Edge Plot (Band 66/4 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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RL	RF 50 Ω D	CORREC	SENSE:INT	ALIGN AUTO	12:54:31 AM Feb 02, 2019	Frequency
		PNO: Wide 😱 IFGain:Low	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	TRACE 2 3 4 5 0 TYPE A WARMAN	requercy
0 dB/div	Ref 25.00 dBr	m		Mkr	1 1.755 008 GHz -24.64 dBm	Auto Tune
15.0						Center Fre 1.755000000 GH
5.00 opworene 5.00	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					Start Fre 1.751000000 GH
15.0			hard 1		0L1 -13 00 dBm	Stop Fre 1.759000000 GH
35.0				and a second	and a second day of the second day and a se	CF Ste 800.000 kH Auto Ma
55 0						Freq Offs 0 F
	55000 GHz				Span 8.000 MHz	Scale Typ
Res BW	120 KHZ	#VBW	430 kHz	Sweep	4.000 ms (1001 pts)	-

Plot 7-245. Upper Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-246. Upper Extended Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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RL RF 50Ω DC	CORREC	SENSE:INT	ALIGN AUTO	12:40:25 AM Feb 02, 2019	Frequency
	PNO: Wide 😱	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WARMAN DET A NNNNN	requercy
odB/div Ref 25.00 dBm	IP Gall.LOW		Mkr	1 1.780 000 GHz -27.638 dBm	Auto Tune
15.0					Center Free 1.780000000 GH
5 00 <b></b>	un medicari da constante constante constante constante constante constante constante constante constante consta Internet	~			Start Fre 1.776000000 GH
15.0		Mun 1		CL1 -13.00 dBm	Stop Fre 1.784000000 GH
35.0 45.0		Mar and a	han han an a		CF Ste 800.000 kH Auto Ma
55 0					Freq Offse 0 H
56.0 Center 1.780000 GHz				Span 8.000 MHz	Scale Typ
Res BW 120 kHz	#VBW	430 kHz	Sweep	4.000 ms (1001 pts)	

Plot 7-247. Upper Band Edge Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)



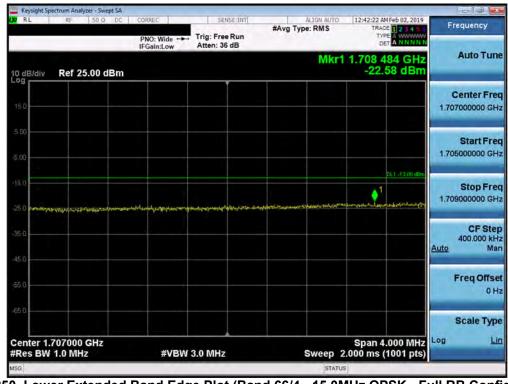
Plot 7-248. Upper Extended Band Edge Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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RL RF 50 Ω	DC CORREC	SENSE;INT	#Avg Type: RMS	12:42:14 AM Feb 02, 2019 TRACE 1 2 3 4 5 6	Frequency
	PNO: Wide 😱 IFGain:Low	Trig: Free Run Atten: 36 dB			
0 dB/div Ref 25.00 d	iBm		Mkr	1.710 000 GHz -28.27 dBm	Auto Tun
15.0					Center Fre 1.710000000 GH
5.00			- hand have a start of the second start of the		Start Fre 1.704000000 GH
25.0		J.		DL1 -13.00 dBm	Stop Fre 1.716000000 GH
35.0	minimum	www			CF Ste 1.200000 MF Auto Ma
55 D					Freq Offs 0 F
65.0					Scale Typ
Center 1.710000 GHz #Res BW 180 kHz	#VBW	620 kHz	Sweep	Span 12.00 MHz 1.000 ms (1001 pts)	Log <u>L</u>
ISG			STATL		

Plot 7-249. Lower Band Edge Plot (Band 66/4 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-250. Lower Extended Band Edge Plot (Band 66/4 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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RL RF 50 Ω	DC CORREC	SENSE:INT	ALIGN AUTO	12:56:13 AM Feb 02, 2019	Frequency
	PNO: Wide G	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	TYPE A WWWWW DET A NNNNN	
0 dB/div Ref 25.00 (	dBm		Mkr1	1.755 000 GHz -21.56 dBm	Auto Tuni
og 15.0					Center Free 1.755000000 GH
5.00					Start Fre 1.749000000 GH
50		1 mmm	mmanne	CL1 -13.00 dBm	Stop Fre 1.761000000 GH
i5.0					CF Ste 1.200000 MF Auto Ma
50.					Freq Offs 0 H
5.0					Scale Typ
enter 1.755000 GHz Res BW 180 kHz	#VBW	620 kHz	Sweep	Span 12.00 MHz 1.000 ms (1001 pts)	

Plot 7-251. Upper Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-252. Upper Extended Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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RL RF 50 Ω DC	CORREC	SENSE:INT	ALIGN AUTO	12:42:37 AM Feb 02, 2019	Frequency
	PNO: Wide C	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	TYPE A WWWWW DET A NNNNN	requirey
10 dB/div Ref 25.00 dBm			Mkr	1.780 072 GHz -29.15 dBm	Auto Tuni
15.0					Center Free 1.780000000 GH
5.00	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	$\gamma$			Start Fre 1.774000000 GH
25.0		1_1_		OL1 -13.00 dBm	Stop Fre 1.786000000 GH
45.0		h from the	n	nan and an	CF Ste 1.200000 MH Auto Ma
55 0					Freq Offs 0 F
66.0					Scale Typ
Center 1.780000 GHz #Res BW 180 kHz	#VBW	620 kHz	Sweep	Span 12.00 MHz 1.000 ms (1001 pts)	
150	_		STATU		

Plot 7-253. Upper Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)



Plot 7-254. Upper Extended Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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X RL RF 50Ω DC	PNO: Wide	SENSE:INT Trig: Free Run Atten: 36 dB	#Avg Type: RMS	12:45:42 AM Feb 02, 2019 TRACE 1 2 3 4 5 0 TYPE A WWWW DET A NNNNN	Frequency
10 dB/div Ref 25.00 dBm			Mkr	1.710 000 GHz -29.25 dBm	Auto Tuni
15.0					Center Fre 1.710000000 GH
5.00		$\int$	hanneren	·····	Start Fre 1.702000000 GH
15.0		1,0		DL1 -13.00 dBm	Stop Fre 1.718000000 GH
35.0	mm	how was a feature			CF Ste 1.600000 MF Auto Ma
-55 D					Freq Offs 0 H
Center 1.710000 GHz #Res BW 240 kHz	#\/B)/(	820 kHz	Swaan	Span 16.00 MHz 1.000 ms (1001 pts)	Scale Typ Log L

Plot 7-255. Lower Band Edge Plot (Band 66/4 - 20.0MHz QPSK - Full RB Configuration)



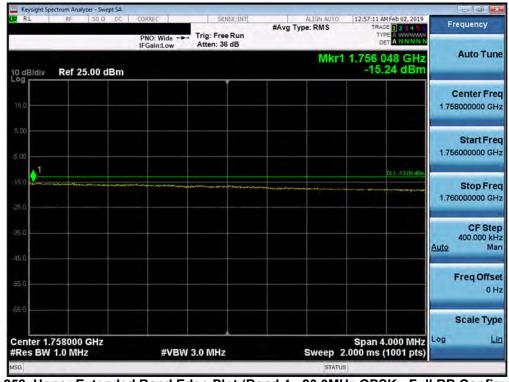
Plot 7-256. Lower Extended Band Edge Plot (Band 66/4 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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RL	RF 50 Ω DC	CORREC	SENSE:INT	ALIGN AUTO	12:57:03 AM Feb 02, 2019	Frequency
		PNO: Wide 😱 IFGain:Low	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	TRACE 23450 TYPE A WWWWW DET A NNNNN	
0 dB/div R	ef 25.00 dBm			Mkr	1 1.755 032 GHz -20.39 dBm	Auto Tune
15.0						Center Fred 1.755000000 GH;
5.00						Start Free 1.747000000 GH
-150			1-	-	CL1 -13.00 dBm	Stop Free 1.763000000 GH
35.0						CF Ste 1.600000 MH Auto Ma
55 0						Freq Offse 0 H
65.0						Scale Typ
Center 1.755 #Res BW 240		#VBW	820 kHz	Sweep	Span 16.00 MHz 1.000 ms (1001 pts)	Log <u>Lir</u>
so				STAT		

Plot 7-257. Upper Band Edge Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)



Plot 7-258. Upper Extended Band Edge Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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RL RF 50 Ω DC	CORREC	SENSE:INT	ALIGN AUTO	12:46:07 AM Feb 02, 2019	Frequency
	PNO: Wide C	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	TYPE A WWWWW DET A NNNNN	requercy
dB/div Ref 25.00 dBm			Mkr1	1.780 128 GHz -28.73 dBm	Auto Tune
5.0					Center Free 1.780000000 GH
00	unan				Start Free 1.772000000 GH
50		11		OL1 -13.00 dBm	Stop Fre 1.788000000 GH
5.0		and and a second	na fantalana an dan an a	and the second second	CF Ste 1.600000 MH Auto Ma
50					Freq Offso 0 H
5.0					Scale Typ
enter 1.780000 GHz Res BW 240 kHz	#VBW	820 kHz	Sweep	Span 16.00 MHz 1.000 ms (1001 pts)	Log <u>Li</u>

Plot 7-259. Upper Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)



Plot 7-260. Upper Extended Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)

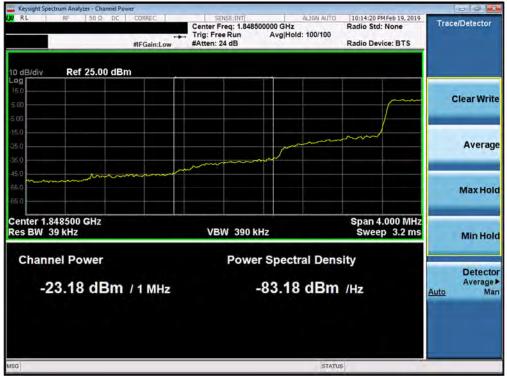
FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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## Band 2



Plot 7-261. Lower Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-262. Lower Extended Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U		MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager	
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Plot 7-263. Upper Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-264. Upper Extended Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: A3LSMG977U	AND ALL THE LANDAUGHT ON	MEASUREMENT REPORT (CERTIFICATION)	SAMSUNG	Approved by: Quality Manager
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