

	pectrum Analyzer		A								
I,XI RL	RF	50Ω AC	C COF	RREC	SEN	ISE:INT	#Avg Typ	e: RMS		Mar 07, 2018	Frequency
	_		PI IF(NO: Fast 🕞 Gain:Low	Trig: Free #Atten: 4			MI	TYF De		Auto Tune
10 dB/div Log	Ref 0.00) dBm							-36.	16 dBm	
-10.0										DL1 -13.00 dBm	Center Freq 5.500000000 GHz
-20.0									1		Start Freq 1.000000000 GHz
-40.0			^^~~,								Stop Freq 10.000000000 GHz
-60.0											CF Step 900.000000 MHz <u>Auto</u> Man
-80.0											Freq Offset 0 Hz
-90.0											Scale Type
Start 1.0 #Res BW	00 GHz 1.0 MHz			#VBW	3.0 MHz		s	weep 15	Stop 10 5.60 ms (1	.000 GHz 8001 pts)	Log <u>Lin</u>
MSG								STATUS			

Plot 7-105. Conducted Spurious Plot (Band 26/5 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 71 of 017
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 71 of 217
© 2018 PCTEST Engineering Labora	atory Inc.			V 7 5 2/14/2018



	ectrum Analyze									(
I <mark>XI</mark> RL	RF	50 Ω AC	CORREC PNO: Fast			#Avg Typ	e:RMS	TRAC	M Mar 23, 2018 DE 1 2 3 4 5 6 PE A WWWWW ET A N N N N N	Fre	equency
10 dB/div	Ref 20.	00 dBm	I Gam.Low _				MI	kr1 1.70 -45.	9 0 GHz 12 dBm		Auto Tun
10.0											enter Fre 500000 MH
-10.0									DL1 -13.00 dBm		Start Fre
-20.0										1.709	Stop Fre 000000 G⊦
-40.0									1,	167. <u>Auto</u>	CF Ste 900000 M⊦ Ma
60.0	and the second se	<u></u>		an far an	1911	el filmen (filf fan i starfilme)		**************************************		F	r eq Offs 0 H
-70.0											Scale Typ
Start 0.03 #Res BW	300 GHz 1.0 MHz		#VB\	V 3.0 MHz			Sweep 2	Stop 1.7 2.239 ms (7090 GHz (3359 pts)	Log	Li
MSG							STATU	s			

Plot 7-106. Conducted Spurious Plot (Band 4/66 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



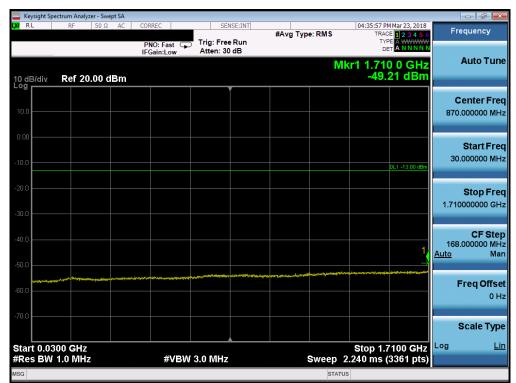
Plot 7-107. Conducted Spurious Plot (Band 4/66 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 70 of 017
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 72 of 217
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018			



Keysight Spe		zer - Swep	ot SA										
LXI RL	RF	50 Ω	AC	CORREC		SEI	NSE:INT	#Avg Typ	e: RMS		M Mar 23, 2018	Fre	equency
				PNO: F IFGain:	ast 🖵	Trig: Fre Atten: 10				TY			
				IFGain:	LOW	Atten. It	ub .		Mk		5 0 GHz		Auto Tune
10 dB/div	Ref 0.0	00 dB	m						WIKI	-63.	76 dBm		
							Í						
													enter Freq
-10.0											DL1 -13.00 dBm	15.000	0000000 GHz
-20.0													
-20.0													Start Freq
-30.0												10.000	000000 GHz
-40.0													Stop Freq
												20.000	0000000 GHz
-50.0													
													CF Step
-60.0									≬'				0000000 GHz
						and the second secon			1			<u>Auto</u>	Man
-70.0													
-80.0												F	req Offset
-00.0													0 Hz
-90.0													
												:	Scale Type
										Oton 96		Log	Lin
Start 10.0 #Res BW		,			#VBW	3.0 MHz		s	weep 2	5.33 ms (2	.000 GHz 20001 pts)	209	
MSG 🗼 Point			aces c			010 11112			STATU	_			
	o onango	a, an a	4000 0	lourou					01110				

Plot 7-108. Conducted Spurious Plot (Band 4/66 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



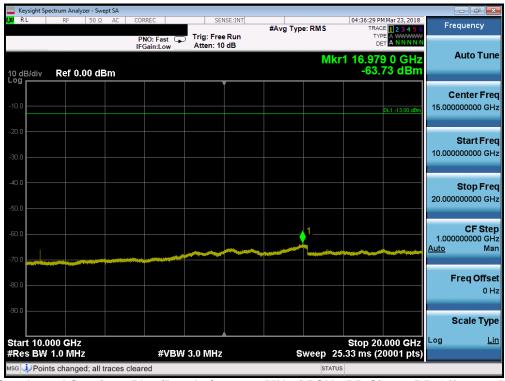
Plot 7-109. Conducted Spurious Plot (Band 4/66 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 72 of 217
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 73 of 217
© 2018 PCTEST Engineering Labor	atory. Inc.			V 7.5 2/14/2018



	ectrum Analyzer - Sv	vept SA								- # X
L <mark>XI</mark> RL	RF 50 S	2 AC	CORREC	SEI	ISE:INT	#Avg Type	RMS		Mar 23, 2018	Frequency
			PNO: Fast G	Trig: Free Atten: 30		0 71		TYP		Auto Tune
10 dB/div Log	Ref 20.00	dBm						-45.4	48 dBm	
10.0										Center Freq 5.877500000 GHz
-10.0									DL1 -13.00 dBm	Start Freq 1.755000000 GHz
-20.0										Stop Freq 10.00000000 GHz
-40.0		• ¹								CF Step 824.500000 MHz <u>Auto</u> Man
-60.0										Freq Offset 0 Hz
-70.0										Scale Type
Start 1.75 #Res BW			#VBV	V 3.0 MHz		S	weep 14	Stop 10 1.29 ms (1	000 0112	in the second
мsg 🗼 Poin	ts changed; all	traces cl	eared				STATU	s		

Plot 7-110. Conducted Spurious Plot (Band 4/66 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



Plot 7-111. Conducted Spurious Plot (Band 4/66 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 74 of 017
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 74 of 217
© 2018 PCTEST Engineering Laboration		V 7.5 2/14/2018		



	ectrum Analyzer - S	Swept SA								[
L <mark>XI</mark> RL	RF 50	Ω AC	CORREC	SEI	ISE:INT	#Avg Typ	e: RMS		M Mar 23, 2018	Fre	quency
			PNO: Fast (IFGain:Low	Trig: Free Atten: 30				TY D			
10 dB/div Log	Ref 20.00	dBm					M	lkr1 1.69 -52.	5 0 GHz 12 dBm		Auto Tune
10.0											enter Freq 000000 MHz
-10.0									DL1 -13.00 dBm		Start Freq 000000 MHz
-20.0											Stop Freq 000000 GHz
-40.0									1	168. <u>Auto</u>	CF Step 000000 MHz Man
-60.0		and a second	99-10-0	****}*********************************						F	r eq Offset 0 Hz
-70.0											Scale Type
Start 0.03 #Res BW			#VB	W 3.0 MHz			Sweep	Stop 1. 2.240 ms	7100 GHz (3361 pts)	Log	Lin
MSG							STAT				

Plot 7-112. Conducted Spurious Plot (Band 4/66 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-113. Conducted Spurious Plot (Band 4/66 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕑 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 75 of 017
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 75 of 217
© 2018 PCTEST Engineering Laboration	V 7.5 2/14/2018			



	pectrum Analy											
LXU RL	RF	50 Ω	AC	CORREC		Trig: Free		#Avg Typ	e:RMS	04:5	9:50 PM Mar 23, 2018 TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A NNNNN	Frequency
10 dB/div	Ref 0.	00 dBr	n	IFGain:L	ow	Atten: 10	dB		Μ	lkr1 17	.023 0 GHz 64.01 dBm	Auto Tune
-10.0											DL1 -13.00 dBm	Center Freq 15.00000000 GHz
-20.0												Start Freq 10.000000000 GHz
-40.0												Stop Freq 20.000000000 GHz
-60.0						_	~_~		1			CF Step 1.00000000 GHz <u>Auto</u> Man
-80.0												Freq Offset 0 Hz
-90.0 Start 10.										Sto	p 20.000 GHz	Scale Type
#Res BW					#VBW	3.0 MHz		s		25.33 n	ns (20001 pts)	
	no change	a, an da	1003 016	Juieu	_				31/			

Plot 7-114. Conducted Spurious Plot (Band 4/66 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 76 of 017
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 76 of 217
© 2018 PCTEST Engineering Labor	atory Inc.			V 7 5 2/14/2018



	ectrum Analy												
I <mark>XI</mark> RL	RF	50 Ω		ORREC PNO: Fas FGain:Lo	t 🖵	Trig: Free Atten: 30		#Avg Typ	e: RMS	TRA	PM Mar 23, 2018 CE 1 2 3 4 5 6 (PE A WWWWW A N N N N N	Fr	requency
10 dB/div Log	Ref 20	.00 dB		FGain:Lo	w	Atten: 30	/ub		M	kr1 1.84 -42	9 0 GHz .53 dBm		Auto Tun
10.0													Center Fre 9.500000 МН
-10.0											DL1 -13.00 dBm	30	Start Fre 0.000000 MH
-20.0												1.84	Stop Fre 9000000 G⊦
-40.0											1	181 <u>Auto</u>	CF Ste 1.900000 MH Ma
60.0			lgg_200200-200000000	**************************************	1		and Supervision of Supervision and Supervision and Supervision and Supervision and Supervision and Supervision	ale ale a seconda de la composicione de la composicione de la composicione de la composicione de la composicion Internet de la composicione de la co	- (440 ⁻⁴ -191-191-191-191-191-191-191-191-191-19		1		Freq Offs 0 F
-70.0	300 GHz									Stop 1	8490 GHz	Log	Scale Typ
Res BW		2		#\	/BW :	3.0 MHz			Sweep 2	2.425 ms	(3639 pts)		
ISG									STATU	s			

Plot 7-115. Conducted Spurious Plot (Band 2/25 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-116. Conducted Spurious Plot (Band 2/25 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 77 of 217
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 77 of 217
© 2018 PCTEST Engineering Labora	atory, Inc.	·		V 7.5 2/14/2018





Plot 7-117. Conducted Spurious Plot (Band 2/25 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-118. Conducted Spurious Plot (Band 2/25 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Daga 70 of 017
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 78 of 217
© 2018 PCTEST Engineering Labora	atory, Inc.			V 7.5 2/14/2018



	ctrum Analyzer - S	Swept SA					
LXU RL	RF 50	Ω AC	CORREC	SENSE:INT	#Avg Type: RM	02:42:37 PM Mar 23, 2018 TRACE 1 2 3 4 5 6	Frequency
			PNO: Fast G	Trig: Free Run Atten: 30 dB		TYPE A WWWW DET A NNNN	Auto Tune
10 dB/div Log	Ref 20.00	dBm				Mkr1 5.799 0 GHz -50.17 dBm	
10.0							Center Freq 5.955000000 GHz
-10.00						DL1 -13.00 dBm	Start Freq 1.910000000 GHz
-20.0							Stop Freq 10.000000000 GHz
-40.0				1			CF Step 809.000000 MHz <u>Auto</u> Man
-60.0							Freq Offset 0 Hz
-70.0							Scale Type
Start 1.91 #Res BW			#VBV	V 3.0 MHz	Swee	Stop 10.000 GHz p 14.02 ms (16181 pts)	Log <u>Lin</u>
	s changed; a	II traces of				STATUS	
4	0 -1 -						

Plot 7-119. Conducted Spurious Plot (Band 2/25 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



Plot 7-120. Conducted Spurious Plot (Band 2/25 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 70 of 017
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 79 of 217
© 2018 PCTEST Engineering Labora	atory, Inc.			V 7.5 2/14/2018



	ectrum Analyzer -	Swept SA								
LXIRL	RF 5	0Ω AC	CORREC	SEI	VSE:INT	#Avg Typ	e: RMS		M Mar 23, 2018	Frequency
			PNO: Fast C IFGain:Low	Trig: Free Atten: 30				TY		
10 dB/div Log	Ref 20.0	0 dBm					Μ	lkr1 1.84 -52.	6 5 GHz 07 dBm	Auto Tune
10.0										Center Free 940.000000 MH
-10.0									DL1 -13.00 dBm	Start Free 30.000000 MH
-20.0										Stop Free 1.850000000 GH
-40.0									1	CF Step 182.000000 MH <u>Auto</u> Mar
-60.0		1994 - E. 1994 - Ale 1		₩₩₩ ₩₩₩			*******			Freq Offse 0 H
-70.0										Scale Type
Start 0.03 #Res BW			#VB	W 3.0 MHz			Sweep	Stop 1. 2.427 ms	8500 GHz (3641 pts)	
MSG							STAT	US		

Plot 7-121. Conducted Spurious Plot (Band 2/25 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-122. Conducted Spurious Plot (Band 2/25 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 80 of 217
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 80 of 217
© 2018 PCTEST Engineering Labor	atory, Inc.	•		V 7.5 2/14/2018



W RL RF 50 Ω AC CORREC SENSE:INT 02:46:35 PM Mar 23, 2018 Frequent BNO: East Trig: Free Run Trig: Free Run Trig: Area II 23 445 6 TVPE <	ncv
PNO: Fast Trig: Free Run TYPE A WWWWW IFGain:Low Atten: 10 dB DET ANNININ	
	o Tune
10 dB/div Ref 0.00 dBm -63.69 dBm	
	- Ener
	on GHz
15.0000000 DL1-13.00 dBm	00 0112
-20.0	4 F
10.000000	nt Freq
-30.0	
-40.0	n Eron
	p Freq
-50.0	oo on iz
	F Step
	00 GHz
-70.0	Man
	Offset
	0 Hz
-900 Scal	е Туре
Start 10.000 GHz Stop 20.000 GHz Log #Res BW 1.0 MHz #VBW 3.0 MHz Sweep 25.33 ms (20001 pts) Log	Lin
MSG DPoints changed; all traces cleared STATUS	

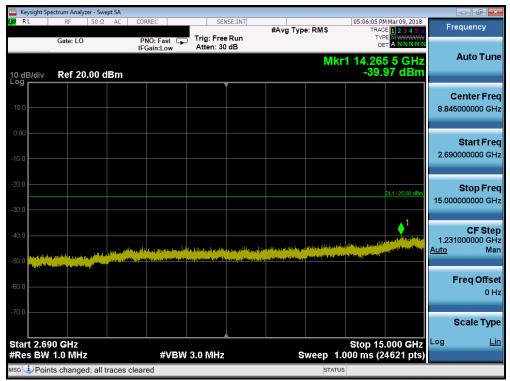
Plot 7-123. Conducted Spurious Plot (Band 2/25 - 5.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 91 of 917
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 81 of 217
© 2018 PCTEST Engineering Labor	atory Inc.			V 7 5 2/14/2018



Keysight Spe KIRL	ectrum Analyzer - Swept RF 50 Ω	SA AC CORREC	SENSE:INT	#Avg Type: RMS	05:05:25 PM Mar 09, 2018 TRACE 1 2 3 4 5 6	Frequency
	Gate: LO	PNO: Fast 🖵 IFGain:Low	Trig: Free Run Atten: 30 dB	#Avg Type: RWS		
0 dB/div	Ref 20.00 dE	Im		M	kr1 2.154 0 GHz -46.11 dBm	Auto Tur
10.0						Center Fre 1.252500000 GH
1.00						Start Fre 30.000000 MH
20.0					DL1 -25.00 dBm	Stop Fre 2.475000000 GH
10.0					القالية والقائل التبد بالعل البعد وبالمالي توازر ورباسين المرار	CF Ste 244.500000 Mi <u>Auto</u> Mi
60.0 					ren (province) (provin	Freq Offs 0 F
					Stop 2 475 CH	Scale Typ
itart 0.03 Res BW		#VBW	3.0 MHz	Sweep	Stop 2.475 GHz 1.000 ms (4891 pts)	

Plot 7-124. Conducted Spurious Plot (Band 41 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



Plot 7-125. Conducted Spurious Plot (Band 41 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 92 of 217
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 82 of 217
© 2018 PCTEST Engineering Labora	atory, Inc.	·		V 7.5 2/14/2018



🔤 Keysight Sp	ectrum Analyz	er - Swept SA										P X
LXI RL	RF	50 Ω AC	CORRE	C	SE	NSE:INT	#Avg Typ	DMS		M Mar 09, 2018	Frequenc	cy
	Gate: LO			:Fast 🖵 in:Low	Trig: Fre Atten: 10		#C181.1h		TY			
10 dB/div Log	Ref 0.0	00 dBm						Mk	1 25.61 -52.	3 5 GHz 74 dBm	Auto	Tune
-10.0											Center 21.00000000	
-20.0										DL1 -25.00 dBm	Start 15.00000000	
-40.0									•	1	Stop 27.00000000	
-60.0			an a	مار بر الروانية من الروانية. الاير الم ماريد في المعر مرادة		an a		legen general te feransis blan Station general and an deal			CF 1.200000000 <u>Auto</u>	Step 0 GHz Mar
-80.0											Freq C	Offsel 0 Hz
-90.0											Scale	
Start 15.0				41.751.47	0 0 MU-				Stop 27	.000 GHz	Log	Lin
#Res BW					3.0 MHz		5		``````````````````````````````````````	4001 pts)		
мsg 🗼 Poin	ts change	d; all trace	es cleared					STATU	S			

Plot 7-126. Conducted Spurious Plot (Band 41 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Low Channel)



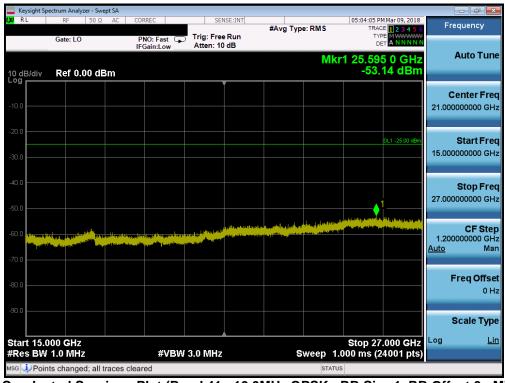
Plot 7-127. Conducted Spurious Plot (Band 41 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 92 of 217	
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 83 of 217	
© 2018 PCTEST Engineering Labor	V 7.5 2/14/2018				



🔤 Keysight Spectrum Analyzer - Swept SA 💿 🙃 💽									
🗶 RL RF 50	Ω AC CORREC	SENSE:INT	#Avg Type: RMS	05:02:57 PM Mar 09, 2018 TRACE 1 2 3 4 5 6	Frequency				
Gate: LO 10 dB/div Ref 20.00	PNO: Fast IFGain:Low	Trig: Free Run Atten: 30 dB	Mkr	1 14.294 5 GHz -39.93 dBm	Auto Tune				
10.0					Center Freq 8.845000000 GHz				
-10.0					Start Freq 2.690000000 GHz				
-20.0				DL1 -25.00 dBm	Stop Freq 15.000000000 GHz				
-40.0	n a jatula sa kuta sa kuta sa	es travel attribute and the analysis of the second second second second second second second second second seco	Sincere any alphanety of the sector states the	1 International Street and American Management and American Street and American Stree	CF Step 1.231000000 GHz <u>Auto</u> Man				
-60.0					Freq Offset 0 Hz				
-70.0 Start 2.690 GHz				Stop 15.000 GHz	Scale Type Log <u>Lin</u>				
#Res BW 1.0 MHz	#VBW	3.0 MHz	Sweep 1.	000 ms (24621 pts)					
мsg 🗼 Points changed; a	I traces cleared		STATUS	6					

Plot 7-128. Conducted Spurious Plot (Band 41 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)



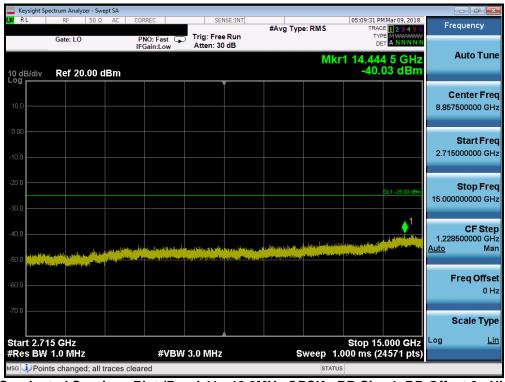
Plot 7-129. Conducted Spurious Plot (Band 41 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - Mid Channel)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🔁 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 04 of 017
1M1802260032-08-R1.ZNF	302260032-08-R1.ZNF 2/26 - 3/29/2018 Portable Handset			Page 84 of 217
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018			



	🔤 Keysight Spectrum Analyzer - Swept SA 👘 💼													
LX/ RL		RF	50 Ω	AC	CORR	EC	SEI	NSE:INT	#Avg Typ	e: RMS		M Mar 09, 2018	Frequ	iency
		Gate: LO			PNC	D: Fast 🖵	Trig: Free Atten: 30				TY			
					IFGa	ain:Low	Atten. 30	ив			kr1 2.49		Au	ito Tune
10 dB	<i>ldiu</i>	Ref 20	00.4	Bm						IVI	-42.	08 dBm		
Log			.00 u				, ,							
													Cen	ter Freq
10.0													1.26300	0000 GHz
0.00													St	artFreq
-10.0													30.000	0000 MHz
-20.0													St	op Freq
												DL1 -25.00 dBm		0000 GHz
-30.0														
												1		CF Step
-40.0													246.600	0000 MHz
-50.0								at an an tra	in a state of the state of the	li di di di Staro nua stati		an a la la facilitation	<u>Auto</u>	Man
-50.0			ing a la parter L'ante d'Alama			alla desina dala barria. Mangana dala dalamina	the set of the set of the set	Character and and and	A DECEMBER OF STREET, SALE	(Allow Self (Self of the Arder				
-60.0													Fre	qOffset
														0 Hz
-70.0														
													Sca	ale Type
Start	0.030	GH7									Stop 2	.496 GHz	Log	Lin
		.0 MHz				#VBW	3.0 MHz			Sweep	1.000 ms (-700 OHZ	_	
MSG										STATU	IS			
	_	_	_	-	-									

Plot 7-130. Conducted Spurious Plot (Band 41 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)



Plot 7-131. Conducted Spurious Plot (Band 41 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:			
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 85 of 217	
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	Keysight Spectrum Analyzer - Swept SA											
L <mark>XI</mark> RL		RF 50	Ω AC	CORREC		SEN	ISE:INT	#Avg Typ	e: RMS		M Mar 09, 2018	Frequency
	Ga	te: LO		PNO: Fa IFGain:Lo	ist 🖵	Trig: Free Atten: 10				T [
				II Guille					M	kr1 25.61	15GHz	Auto Tune
10 dBr Log 🗖	/div R	ef 0.00 (dBm							-53	.54 dBm	
-°9												Center Freq
-10.0												21.000000000 GHz
-20.0											DL1 -25.00 dBm	Start Freq
-30.0												15.00000000 GHz
-40.0												Stop Freq
-50.0											1	27.00000000 GHz
-30.0											treinteksiking sold ava	
-60.0 🔐		a piere	and the property of the	In the second second second	ى بايغان بملكان. ا		Distanti di Presidente Stati a di La contratti	n in de la company de la c La company de la company de		and a state of the second s	والمركز ومراد والمركز والا	CF Step 1.20000000 GHz
1	And and a state of the state of	No. of Concession, Name	an attration	A BARREL MARLINE AND IN	a si di si di secolo	التنجيم يعلم التوجر إمرا						<u>Auto</u> Man
-70.0												
-80.0												Freq Offset
												0 Hz
-90.0												Acrela Trans
												Scale Type
	15.000										.000 0112	Log <u>Lin</u>
	BW 1.0				VBW	3.0 MHz		S		1.000 ms (24001 pts)	
MSG 🤳	Points cl	nanged; a	ll traces o	leared					STA	TUS		

Plot 7-132. Conducted Spurious Plot (Band 41 - 10.0MHz QPSK - RB Size 1, RB Offset 0 - High Channel)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 96 of 017	
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	6 - 3/29/2018 Portable Handset		Page 86 of 217	
© 2018 PCTEST Engineering Labor	atory Inc	-		V 7 5 2/14/2018	



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

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

Test Procedure Used

KDB 971168 D01 v03 - Section 6.0

Test Settings

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

Test Setup

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

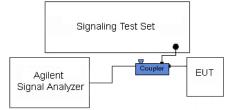


Figure 7-3. Test Instrument & Measurement Setup

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 97 of 017	
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	018 Portable Handset		Page 87 of 217	
© 2018 PCTEST Engineering Labor	atory. Inc.			V 7.5 2/14/2018	



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.

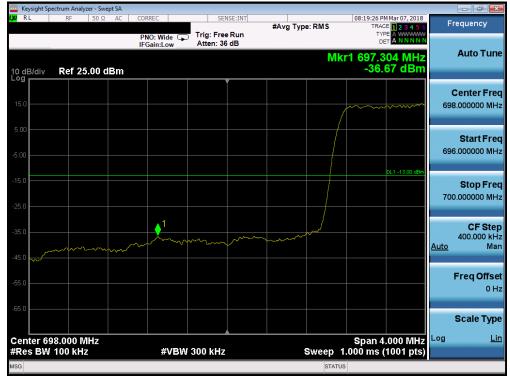
Per 27.53(c)(5) for operations in the 776-788 MHz band, in the 100 kHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least 30 kHz may be employed to demonstrate compliance with the out-of-band emissions limit.

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

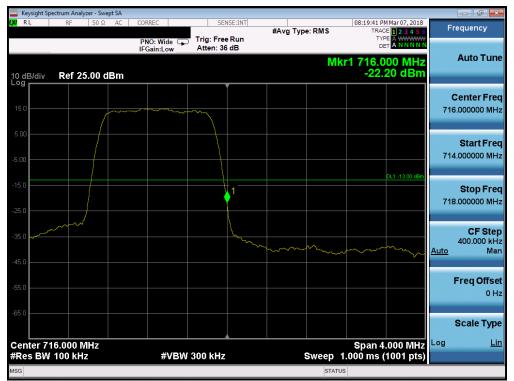
Per 27.53(m) for operations in the BRS/EBS bands, the attenuation factor shall be not less than $40 + 10 \log (P) dB$ on all frequencies between the channel edge and 5 megahertz from the channel edge, $43 + 10 \log (P) dB$ on all frequencies between 5 megahertz and X megahertz from the channel edge, 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.

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 99 of 217
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 88 of 217
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Plot 7-133. Lower Band Edge Plot (Band 12 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-134. Upper Band Edge Plot (Band 12 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 00 of 017	
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 89 of 217	
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018				

V 7.5 2/14/2018



RL	ectrum Analyz RF	50 Ω AC			SEN	ISE:INT			08:17:02 PM	4 Mar 07, 2018	F	requency
			PNO: V IFGain:		Trig: Free Atten: 36		#Avg Typ	e:RMS	TRAC TYF DE	E 1 2 3 4 5 6 E A WWWWW T A N N N N N		requeries
0 dB/div	Ref 25.	00 dBm	1					Mki	1 697.7 -39.0	92 MHz 00 dBm		Auto Tun
og									~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			Center Fre 8.000000 M⊦
5.00										DL1 -13.00 dBm	69	Start Fre 6.000000 MH
25.0										ULT -13.00 (IBN)	70	Stop Fre 0.000000 MH
15.0 					1	~~~~^	~~~~				<u>Auto</u>	CF Ste 400.000 kH Ma
5.0												Freq Offs 0 I
enter 60	98.000 M	H7							Snan 4	000 MHz	Log	Scale Typ
	100 kHz			#VBW 3	800 kHz			Sweep 1	.000 m <u>s (</u>	.000 MHz 1001 pts)		
SG								STATUS				

Plot 7-135. Lower Band Edge Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-136. Upper Band Edge Plot (Band 12 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dogo 00 of 217
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 90 of 217
© 2018 PCTEST Engineering Labor	atory. Inc.			V 7.5 2/14/2018



Keysight Spectrum Analyzer - Swept SA				
LX RL RF 50 Ω AC CO	ORREC SENSE:INT	#Avg Type: RMS	08:14:13 PM Mar 07, 2018 TRACE 1 2 3 4 5 6	Frequency
10 dB/div Ref 25.00 dBm	PNO: Wide 🖵 Trig: Free Run FGain:Low Atten: 36 dB	Mkr1	697.740 MHz -39.68 dBm	Auto Tune
15.0				Center Freq 698.000000 MHz
-5.00			DL1 -13.00 dBm	Start Freq 696.000000 MHz
-15.0			DL1-13:00 dDm	Stop Freq 700.000000 MHz
-35.0	1			CF Step 400.000 kHz <u>Auto</u> Man
-65.0				Freq Offset 0 Hz
-65.0				Scale Type
Center 698.000 MHz #Res BW 100 kHz	#VBW 300 kHz	Sweep 1.0	Span 4.000 MHz 00 ms (1001 pts)	Log <u>Lin</u>
MSG		STATUS		

Plot 7-137. Lower Band Edge Plot (Band 12 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-138. Lower Band Edge Plot (Band 17 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 01 of 017
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset	Page 91 of 217
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018		



Keysight Spectrum Analyzer - Swept SA				
XIRL RF 50Ω AC	CORREC SENS	#Avg Typ	e: RMS TRAC	IMar 07, 2018 Frequency E 1 2 3 4 5 6
10 dB/diy Ref 25.00 dBm	PNO: Wide Trig: Free F IFGain:Low Atten: 36 d		DE Mkr1 716.0	Auto Tune Auto Tune 88 dBm
				Center Freq 716.000000 MHz
-5.00				Start Freq 714.000000 MHz
-15.0		1		Stop Freq 718.000000 MHz
-35.0				CF Step 400.000 kH <u>Auto</u> Mar
-55.0				Freq Offse 0 H
-65.0				Scale Type
Center 716.000 MHz #Res BW 100 kHz	#VBW 300 kHz		Span 4 Sweep 1.000 ms (.000 MHz ^{Log Lir} 1001 pts)
MSG			STATUS	

Plot 7-139. Upper Band Edge Plot (Band 12/17 - 5.0MHz QPSK - Full RB Configuration)



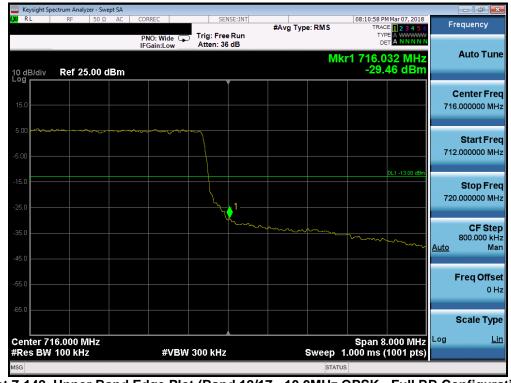
Plot 7-140. Lower Band Edge Plot (Band 12 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type: Portable Handset		Dogo 02 of 217
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018			Page 92 of 217
© 2018 PCTEST Engineering Labor	atory. Inc.	-		V 7.5 2/14/2018



Keysight Spectrum Analyzer - Swept SA					
IXI RE 50Ω AC	CORREC	SENSE:INT	#Avg Type: RMS	12:57:16 PM Mar 28, 2018 TRACE 1 2 3 4 5 6	Frequency
		ig: Free Run tten: 36 dB		DET A NNNN	
10 dB/div Ref 25.00 dBm			M	(r1 704.000 MHz -29.81 dBm	Auto Tune
15.0					Center Fred 704.000000 MH;
-5.00				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Start Free 700.000000 MH
-15.0		1		DL1 -13.00 dBm	Stop Free 708.000000 MH
-35.0					CF Stej 800.000 kH <u>Auto</u> Ma
-55.0					Freq Offse 0 H
-65.0					Scale Type
Center 704.000 MHz #Res BW 100 kHz	#VBW 300	0 kHz	Sweep	Span 8.000 MHz 1.000 ms (1001 pts)	Log <u>Lir</u>
MSG			STAT	JS	

Plot 7-141. Lower Band Edge Plot (Band 17 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-142. Upper Band Edge Plot (Band 12/17 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type: Portable Handset		
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018			Page 93 of 217
© 2018 PCTEST Engineering Laboration	V 7.5 2/14/2018			





Plot 7-143. Lower Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-144. Upper Band Edge Plot (Band 13 - 5.0MHz QPSK - Full RB Configuration)

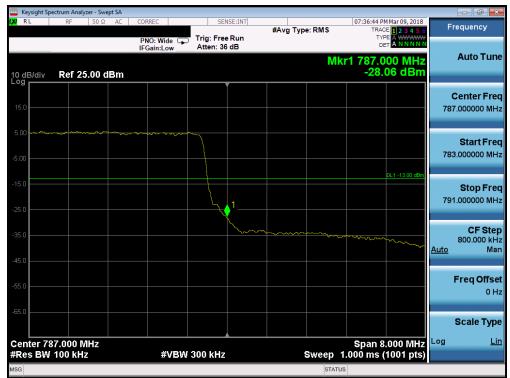
FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type: Portable Handset		
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018			Page 94 of 217
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018			

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RL RF 50Ω AC	CORREC	SENSE:INT		07:36:21 PM Mar 09, 2018	Frequency
		Free Run I: 36 dB	#Avg Type: RMS	TRACE 1 2 3 4 5 6 TYPE A WWWWW DET A NNNNN	Trequency
0 dB/div Ref 25.00 dBm			M	kr1 777.000 MHz -29.31 dBm	Auto Tur
15.0					Center Fre 777.000000 Mi
5.00				DL1 -13.00 dBm	Start Fr 773.000000 Mi
25.0					Stop Fr 781.000000 M
15.0					CF St 800.000 k <u>Auto</u> M
55.0					Freq Off s 0
65.0					Scale Ty
enter 777.000 MHz Res BW 100 kHz	#VBW 300 k	Hz	Sweep	Span 8.000 MHz 1.000 ms (1001 pts)	Log <u>l</u>

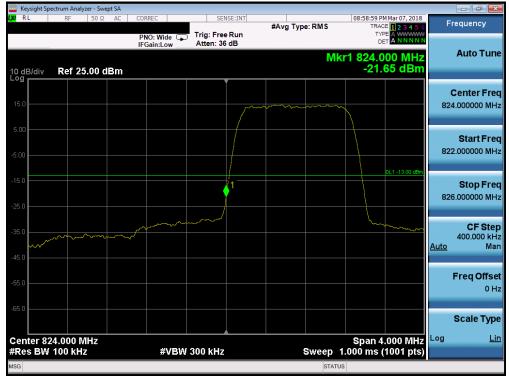
Plot 7-145. Lower Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-146. Upper Band Edge Plot (Band 13 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type: Portable Handset		Dage OF of 217
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018			Page 95 of 217
© 2018 PCTEST Engineering Labor	atory Inc	•		V 7 5 2/14/2018





Plot 7-147. Lower Band Edge Plot (Band 26/5 - 1.4MHz QPSK - Full RB Configuration)



Plot 7-148. Upper Band Edge Plot (Band 26/5 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM				Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type: Portable Handset		
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018			Page 96 of 217
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018			

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R L RF	50 Ω AC	CORREC	SEN	SE:INT	#Avg Typ		08:56:48 PM	Mar 07, 2018	Fi	equency
		PNO: Wide	Trig: Free Atten: 36		#Avg Typ	e. Rivis	TYF	E A WWWWW T A N N N N N		
dB/div Ref 25.	00 dBm					Mk	r1 823.9 -17.:	96 MHz 27 dBm		Auto Tur
5.0				~~						Center Fr 1.000000 Mi
5.00 5.00									822	Start Fr 2.000000 M
5.0				1				DL1 -13.00 dBm	826	Stop Fr 5.000000 M
5.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~	~~~~						<u>Auto</u>	CF St 400.000 k N
5.0										Freq Offs 0
5.0										Scale Ty
enter 824.000 MI Res BW 100 kHz	Hz	#VBW	300 kHz			Sweep 1	Span 4 .000 ms (000	Log	Ţ

Plot 7-149. Lower Band Edge Plot (Band 26/5 - 3.0MHz QPSK - Full RB Configuration)



Plot 7-150. Upper Band Edge Plot (Band 26/5 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕑 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type: Portable Handset		Dogo 07 of 017
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018			Page 97 of 217
© 2018 PCTEST Engineering Labor	V 7.5 2/14/2018			



Keysight Spectrum Analyz						
RL RF		CORREC	SENSE:INT	#Avg Type: RMS		Frequency
10 dB/div Ref 25	.00 dBm	PNO: Wide 🖵 IFGain:Low	Trig: Free Run Atten: 36 dB		Mkr1 824.000 MHz -22.52 dBm	Auto Tune
15.0				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	,	Center Fred 824.000000 MH:
-5.00					DL1 -13.00 dBm	Start Free 822.000000 MH
-15.0						Stop Free 826.000000 MH
-35.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		~			CF Step 400.000 kH <u>Auto</u> Mar
-55.0						Freq Offse 0 H
-65.0						Scale Type
Center 824.000 M #Res BW 100 kHz		#VBW	300 kHz	Swee	Span 4.000 MHz p 1.000 ms (1001 pts)	Log <u>Lir</u>
MSG				5	TATUS	

Plot 7-151. Lower Band Edge Plot (Band 26/5 - 5.0MHz QPSK - Full RB Configuration)



Plot 7-152. Upper Band Edge Plot (Band 26/5 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:			
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 98 of 217	
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Keysight Spectrum Analyz										
XI RL RF	50 Ω AC	CORREC		SE:INT	#Avg Typ	e: RMS	TRAC	4 Mar 07, 2018 E 1 2 3 4 5 6	Fr	equency
		PNO: Wide G	Trig: Free Atten: 36				TYF DE			
						Mk	1 824.0	00 MHz		Auto Tun
10 dB/div Ref 25	.00 dBm						-29.	07 dBm		
									c	enter Fre
15.0										.000000 MH
5.00				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~	······	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			Start Fre
-5.00									820	.000000 MH
								DL1 -13.00 dBm		
-15.0										Stop Fre
-25.0				1					828	.000000 MH
-25.0										
-35.0			~~~~							CF Ste 800.000 kH
~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~								<u>Auto</u>	Ma
-45.0										
-55.0									i	Freq Offs
										0 H
-65.0										
										Scale Typ
Center 824.000 M							Span 8	000 10112	Log	L
Res BW 100 kHz	2	#VBW	300 kHz			Sweep 1	.000 ms (	1001 pts)		
ISG						STATUS				

Plot 7-153. Lower Band Edge Plot (Band 26/5 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-154. Upper Band Edge Plot (Band 26/5 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 00 of 017	
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 99 of 217	
© 2018 PCTEST Engineering Labora	atory, Inc.			V 7.5 2/14/2018	



🤤 Keysight Spectrum Analyzer - Swept SA 🚽				
LX RL RF 50Ω AC	CORREC SENSE:INT	#Avg Type: RMS	09:01:03 PM Mar 07, 2018 TRACE 1 2 3 4 5 6	Frequency
	PNO: Wide  Trig: Free Run IFGain:Low Atten: 36 dB	M	TYPE A WWWWW DET A NNNNN (r1 824.000 MHz	Auto Tune
10 dB/div Ref 25.00 dBm			-26.94 dBm	
15.0				Center Fred 824.000000 MHz
-5.00				Start Fred 818.000000 MH;
-15.0	1.1		DL1 -13.00 dBm	Stop Fred 830.000000 MH:
-35.0				<b>CF Stej</b> 1.200000 MH <u>Auto</u> Ma
-55.0				<b>Freq Offse</b> 0 H
-65.0				Scale Type
Center 824.000 MHz #Res BW 150 kHz	#VBW 470 kHz	Sweep	Span 12.00 MHz 1.000 ms (1001 pts)	Log <u>Lir</u>
MSG		STATU	IS	

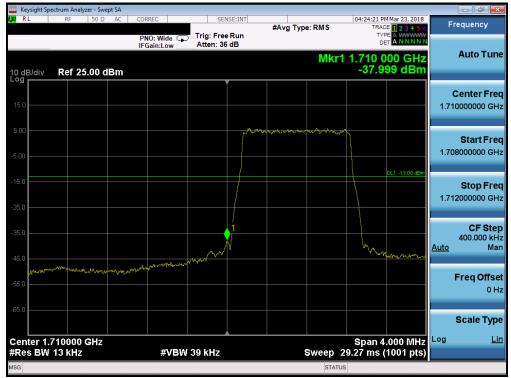
Plot 7-155. Lower Band Edge Plot (Band 26 - 15.0MHz QPSK - Full RB Configuration)



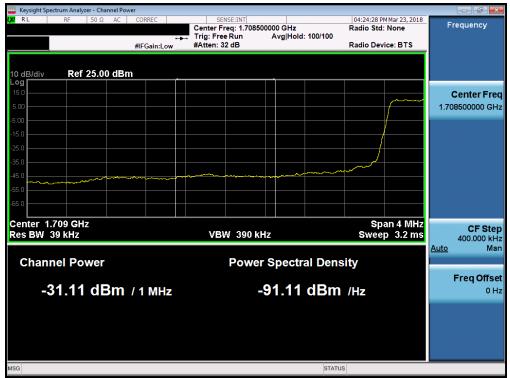
Plot 7-156. Upper Band Edge Plot (Band 26 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕑 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 100 of 217
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 100 of 217
© 2018 PCTEST Engineering Laboration	atory, Inc.	·		V 7.5 2/14/2018





Plot 7-157. Lower Band Edge Plot (Band 4/66 - 1.4MHz QPSK - Full RB Configuration)



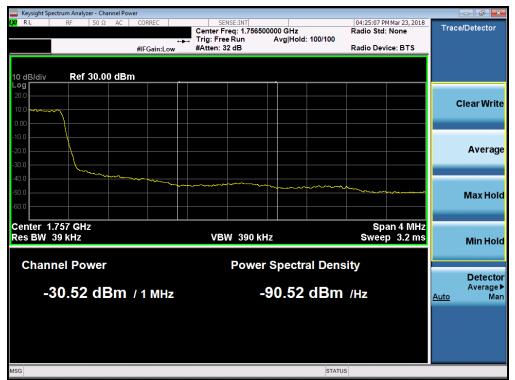
Plot 7-158. Extended Lower Band Edge Plot (Band 4/66 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕑 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 101 of 217
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 101 of 217
© 2018 PCTEST Engineering Labor	atory Inc			V 7 5 2/14/2018



	ight Spectrum													
RL	R	KF 50	Ω AC	PNC	: Wide		ig: Fre		#Avg T	ype: RMS	TR. T	PM Mar 23, 2018 ACE 1 2 3 4 5 6 YPE A WWWWW DET A N N N N N	F	requency
0 dBi	/div Re	ef 25.00	dBm	IFGa	in:Low	A	tten: 3	o dB		Mkr	1 1.755	012 GHz .33 dBm		Auto Tur
15.0														Center Fre
			- Compo		uwy daoir	Rell You, Japo							1.7	<b>Start Fr</b> 53000000 G
5.0		/										DL1 -13.00 dBm	1.7	<b>Stop Fr</b> 57000000 G
5.0 -		www						1					<u>Auto</u>	<b>CF St</b> 400.000 k M
5.0 -	www.www									mang	n-n-nenperter	wat-mana		Freq Offs 0
5.0													1.07	Scale Ty
	er 1.7550 BW 131		Z		#VE	3W 39	kHz			Sweep	Span 29.27 ms	4.000 MHz (1001 pts)	Log	Ĺ
SG										STATU	JS			

Plot 7-159. Upper Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)



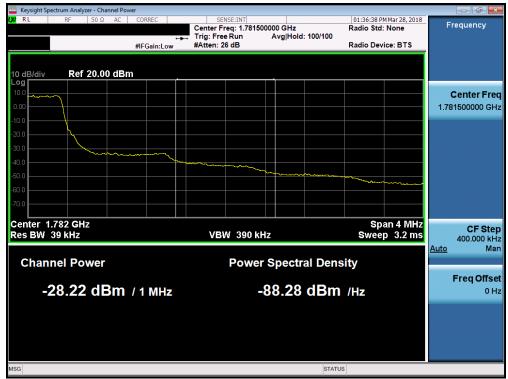
Plot 7-160. Extended Upper Band Edge Plot (Band 4 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🔁 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dega 102 of 217	
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 102 of 217	
© 2018 PCTEST Engineering Labora	atory, Inc.			V 7.5 2/14/2018	



Keysight	Spectrum Analyz	er - Swe 50 Ω	AC AC	CORREC			NSE:INT			01:26:26	PM Mar 28, 2018		
KL	KF	50 32	AC		ide 🖵	Trig: Fre Atten: 3	e Run	#Avg Ty	pe: RMS	TR/	ACE         1         2         3         4         5         6           YPE         A         WWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWWW	F	requency
0 dB/div	Ref 25	.00 d	Bm						Mki	r1 1.780 -29	000 GHz .97 dBm		Auto Tur
15.0													Center Fre
5.00			h	por and and	*******	w						1.77	<b>Start Fr</b> 78000000 Gi
5.0		/					1				DL1 -13.00 dBm	1.78	<b>Stop Fr</b> 32000000 G
5.0 5.0	monord						howward	unthe Regard of the State	pro-sono de la constancia de la constanc			<u>Auto</u>	CF Ste 400.000 kl M
5.0										and a second	and Mark Conner and a		Freq Offs 01
5.0													Scale Ty
	1.780000 ( W 13 kHz	GHz			≠VBW	39 kHz			Sweep	Span - 29.27 <u>ms</u>	4.000 MHz (1001 pts)	Log	L
G									STA				

Plot 7-161. Upper Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)



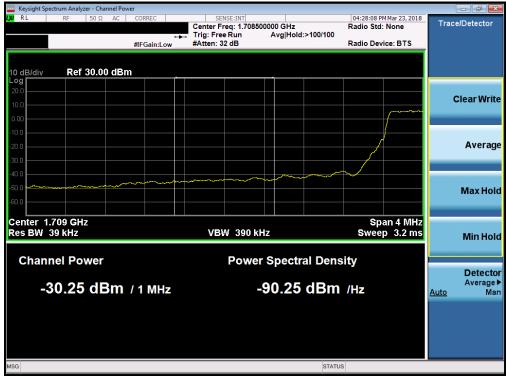
Plot 7-162. Extended Upper Band Edge Plot (Band 66 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 102 of 217
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 103 of 217
© 2018 PCTEST Engineering Labora	atory, Inc.	•		V 7.5 2/14/2018



🔤 Keysight Spectrum Analyzer - Swep	pt SA				
X/RL RF 50Ω	AC CORREC	Trig: Free Run Atten: 36 dB	#Avg Type: RMS	04:28:00 PM Mar 23, 2018 TRACE 1 2 3 4 5 6 TYPE A WWWW DET A N N N N N	Frequency
10 dB/div Ref 25.00 dl		Atten: 36 dB	Mkr	1 1.709 996 GHz -25.18 dBm	Auto Tun
15.0					Center Fre 1.710000000 GH
5.00				DL1 -13.00 dBm	<b>Start Fre</b> 1.708000000 GH
25.0		<b>9</b> 1		UL - 13.00 UDri	<b>Stop Fre</b> 1.712000000 G⊦
45.0		~~~			CF Ste 400.000 kH <u>Auto</u> Ma
55.0					Freq Offs 0 H
65.0 Center 1.710000 GHz				Span 4.000 MHz	Scale Typ
Res BW 30 kHz	#VBW	91 kHz	Sweep	5.533 ms (1001 pts)	

Plot 7-163. Lower Band Edge Plot (Band 4/66 - 3.0MHz QPSK - Full RB Configuration)

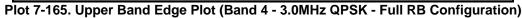


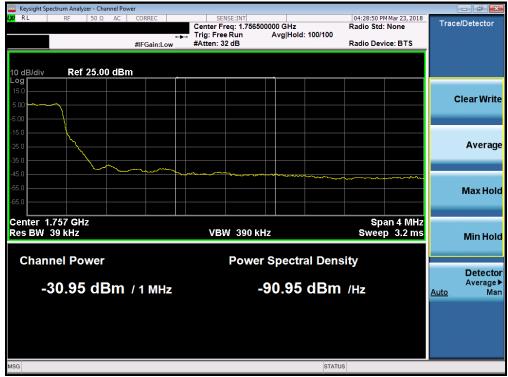
Plot 7-164. Extended Lower Band Edge Plot (Band 4/66 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Page 104 of 217	
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset			
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018				



Keysight Spectrum Analyzer - Swept SA					
<b>ΙΧΊ RL RF 50 Ω AC</b>	CORREC SE	NSE:INT #Avg Typ	e: RMS TRAC		Frequency
	PNO: Wide Trig: Free IFGain:Low Atten: 3		Mkr1 1.755 0		Auto Tune
10 dB/div Ref 25.00 dBm			-25.	37 dBm	
15.0				1.7	Center Free 755000000 GH
5.00					Start Free 753000000 GH
-15.0		1		DL1 -13.00 dBm	<b>Stop Free</b> 757000000 GH
-35.0				Auto	CF Stej 400.000 kH Ma
-55.0					Freq Offse 0 H
-65.0					Scale Typ
Center 1.755000 GHz #Res BW 30 kHz	#VBW 91 kHz		Span 4 Sweep 5.533 ms (	.000 MHz Log	<u>Lir</u>
MSG			STATUS		





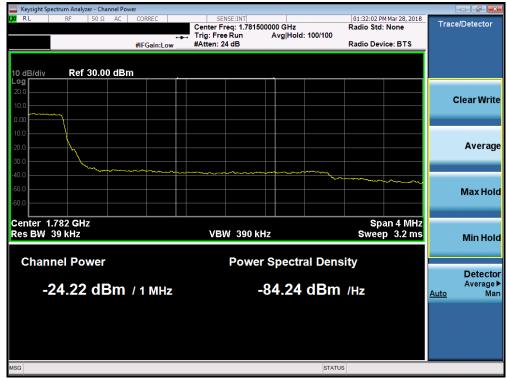
Plot 7-166. Extended Upper Band Edge Plot (Band 4 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 105 of 217	
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 105 of 217	
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018				



	pectrum Analy	zer - Swept	SA										
XVI RL	RF	50 Ω		ORREC	ide 🖵	Trig: F	sense:INT	#Avg Ty	pe: RMS	TRA	MMar 28, 2018 CE 1 2 3 4 5 6 PE A WWWWW ET A NNNNN	F	requency
10 dB/div	Ref 25	5.00 dB		IFGain:L	.ow	Atten:	36 dB		Mkr	1 1.780 (			Auto Tune
15.0													Center Fre 0000000 GH
5.00	~~~~~	- - - - - - - - - - - - - - - - - - -	V	· ····	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~						1.77	<b>Start Fre</b> 8000000 G⊦
25.0							1				DL1 -13.00 dBm	1.78	<b>Stop Fre</b> 2000000 G⊦
45.0							- Concord	······································	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			<u>Auto</u>	CF Ste 400.000 kH Ma
55.0													Freq Offs 0 H
65.0	.780000	CH2								Snan	.000 MHz	Log	Scale Typ
	/ 30 kHz	GHZ		#	#VBW	91 kHz			Sweep	5.533 ms	(1001 pts)	3	
ISG									STAT	US			

Plot 7-167. Upper Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)



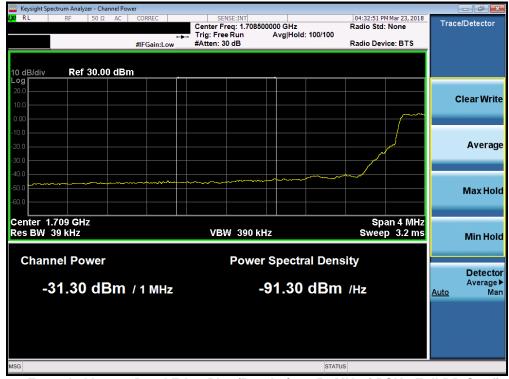
Plot 7-168. Extended Upper Band Edge Plot (Band 66 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager			
Test Report S/N:	Test Dates:	EUT Type:		Dogo 100 of 017			
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 106 of 217			
© 2018 PCTEST Engineering Laboratory, Inc. V 7.5 2/14/2							



	pectrum Analyz	ter - Swept S	A									
I <mark>XU</mark> RL	RF	50Ω A	PNO	EC D:Wide ⊂∎ ain:Low			#Avg Typ	e: RMS	TRAC	M Mar 23, 2018 DE 1 2 3 4 5 6 DE A WWWW T A N N N N N	Fi	equency
10 dB/div Log	Ref 25	.00 dBr		am:Low	Atten: 0			Mkr	1 1.710 0			Auto Tune
15.0												Center Free 0000000 GH
-5.00											1.70	Start Free 8000000 GH
-15.0						1				DL1 -13.00 dBm	1.71	<b>Stop Fre</b> 2000000 GH
-35.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~		~~~	~						<u>Auto</u>	CF Ste 400.000 kH Ma
55.0												FreqOffso 0⊦
-65.0	.710000 (	GHz							Span 4	.000 MHz	Log	Scale Typ <u>Li</u>
#Res BV	v 51 kHz			#VBV	V 160 kHz				1.933 ms (	(1001 pts)		
ISG								STATU	JS			

Plot 7-169. Lower Band Edge Plot (Band 4/66 - 5.0MHz QPSK - Full RB Configuration)



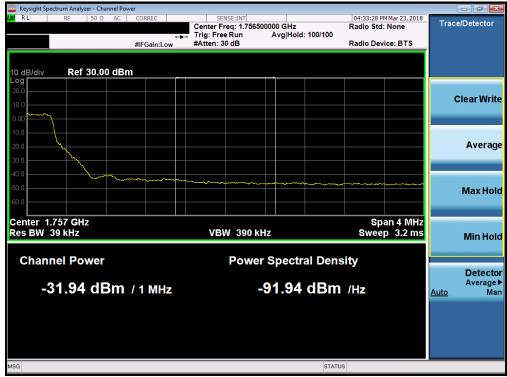
Plot 7-170. Extended Lower Band Edge Plot (Band 4/66 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕑 LG	Approved by: Quality Manager			
Test Report S/N:	Test Dates:	EUT Type:		Dega 107 of 017			
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 107 of 217			
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	ctrum Analyzer	- Swept SA									
LX/IRL	RF	50 Ω AC	CORREC		Run	#Avg Typ	e: RMS	TRAC	Mar 23, 2018 E 1 2 3 4 5 6 E A WWW T A N N N N N	Fr	equency
10 dB/div	Ref 25.0	10 dBm	IFGain:Low	Atten: 36			Mkr1	1.755 0	04 GHz 62 dBm		Auto Tune
15.0											Center Free 5000000 GH
-5.00									DL1 -13.00 dBm	1.75	<b>Start Fre</b> 3000000 GH
-15.0					1					1.75	<b>Stop Fre</b> 7000000 GH
35.0										<u>Auto</u>	CF Ste 400.000 kH Ma
55.0											F <b>req Offs</b> 0 F
.65.0										Log	Scale Typ Li
Center 1.7 #Res BW :		ΠZ	#VBW	160 kHz			Sweep 1	span 4 1.933 ms (	.000 MHz 1001 pts)	209	
ISG							STATU	S			

Plot 7-171. Upper Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)



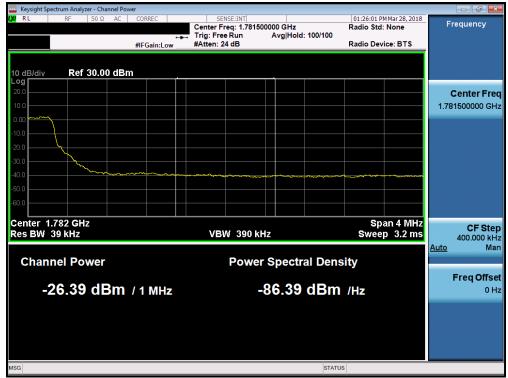
Plot 7-172. Extended Upper Band Edge Plot (Band 4 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕑 LG	Approved by: Quality Manager			
Test Report S/N:	Test Dates:	EUT Type:		Dage 109 of 217			
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 108 of 217			
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	ectrum Analy.												
<mark>0</mark> RL	RF	50 Ω	AC	CORREC PNO: W	/ide ♀	Trig: Fre Atten: 36		#Avg Typ	e: RMS	TRAC	M Mar 28, 2018 DE <b>1 2 3 4 5</b> 6 PE A WWWWW ET A N N N N N	Fi	requency
0 dB/div	Ref 25	.00 dE	3m	II Gam.	LOW				Mkr	1 1.780 ( -29.	04 GHz 00 dBm		Auto Tun
15.0													Center Fre 0000000 GH
5.00	~~~~	`````	~~~~	~~~~~	~~~~~~							1.77	<b>Start Fre</b> 8000000 G⊦
25.0							1				DL1 -13.00 dBm	1.78	<b>Stop Fre</b> 2000000 GF
15.0							Se construction of the second	<b>`</b>	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		~~~~~	<u>Auto</u>	<b>CF Ste</b> 400.000 kł Ma
5.0													Freq Offs 0 I
enter 1.	780000	GH7								Snap.4	.000 MHz		Scale Typ
Res BW		eniz-		ţ	#VBW	160 kHz			Sweep	1.933 ms (	(1001 pts)		
SG									STATI	JS			

Plot 7-173. Upper Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)



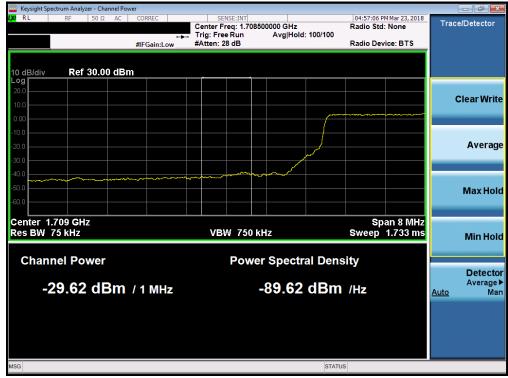
Plot 7-174. Extended Upper Band Edge Plot (Band 66 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager				
Test Report S/N:	Test Dates:	EUT Type:		Dage 100 of 217				
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 109 of 217				
© 2018 PCTEST Engineering Laboratory, Inc. V 7.5 2/14/2018								



	trum Analyzer -									[	- • ×
<mark>XI</mark> RL	RF 50	Ω AC	CORREC	Trig: Free		#Avg Typ	e:RMS	TRACE	Mar 23, 2018           1 2 3 4 5 6           A WWWWW           A NNNN	Fre	quency
10 dB/div Log	Ref 25.00	) dBm	IFGain:Low	Atten: 36	dB		Mkr1	1.710 0			Auto Tun
15.0											<b>enter Fre</b> 000000 GH
5.00					$\square$		······	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			<b>Start Fre</b> 000000 G⊦
25.0					1				0L1 -13.00 dBm	1.714	<b>Stop Fre</b> 000000 G⊦
35.0 45.0				~						Auto	CF Ste 800.000 kH Ma
55.0										F	r <b>eq Offs</b> 0 F
65.0											cale Typ
Center 1.7 Res BW 1		Z	#VBV	V 300 kHz			Sweep 1	Span 8. 1.000 ms (1	000 MHz 1001 pts)	Log	L
ISG							STATU	s			

Plot 7-175. Lower Band Edge Plot (Band 4/66 - 10.0MHz QPSK - Full RB Configuration)



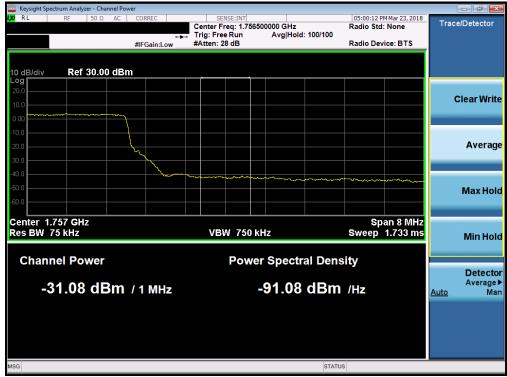
Plot 7-176. Extended Lower Band Edge Plot (Band 4/66 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕑 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 110 of 017
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 110 of 217
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018			



	ectrum Analyz										d 🗙
XI RL	RF	50 Ω AC	PNO: Wide	Trig: Free		#Avg Typ	e:RMS	TRAC	Mar 23, 2018 E 1 2 3 4 5 6 E A WWW T A N N N N N	Freque	ncy
I0 dB/div	Ref 25	.00 dBm	IFGain:Low _	Atten: 36	αB		Mkr1	1.755 0 -29.		Aut	o Tun
15.0										Cent 1.7550000	
5.00	······		w							Sta 1.7510000	n <b>t Fre</b> 000 GI
25.0					.1				DL1 -13.00 dBm	<b>Sto</b> 1.7590000	<b>pFr</b> 000 GI
45.0											F Ste 000 k M
i5.0										Freq	Offs 0
55.0	755000									Scal	le Typ
	755000 ( 100 kHz		#VB	W 300 kHz			Sweep ′	span 8 1.000 ms (	.000 MHz 1001 pts)		
SG							STATU	s			

Plot 7-177. Upper Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)



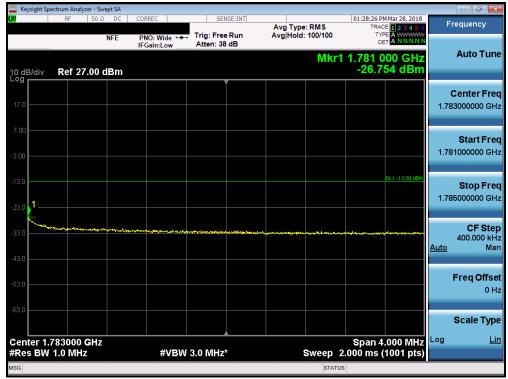
Plot 7-178. Extended Upper Band Edge Plot (Band 4 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degs 111 of 017
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 111 of 217
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018			



Keysight Sp	ectrum Analy												
<mark>u</mark>	RF	50 Ω	DC	CORREC	ide ↔	SE	NSE:INT	Avg Type Avg Hold		TRA	M Mar 28, 2018 CE 1 2 3 4 5 6 PE A M N N N N	F	requency
		r	NFE	IFGain:L		Atten: 3		,					Auto Tun
0 dB/div	Ref 27	7.00 d	Bm						Mkr1	1.780 ( -33.2	000 GHz 29 dBm		Auto Tur
							Ĭ						Center Fre
17.0												1.78	8000000 GH
7.00													
3.00	~~~~	~~~~~~	and the second s		~~~~~	~						1.77	Start Fre 6000000 GI
5.00													
13.0											DL1 -13.00 dBm		Stop Fre
23.0						\						1.78	4000000 GI
3.0						Jor ^M	1						CF Ste
13.0							Charles Marken	ي والماري				<u>Auto</u>	800.000 ki M
13.0								Mary Mary Mary	and the second	han an a	Anna Anna anna anna anna anna anna anna		
i3.0													Freq Offs
3.0													01
.5.0													Scale Typ
enter 1.										Span 8	.000 MHz	Log	L
Res BW	100 kH	z		7	#VBW	300 kHz	*				(1001 pts)		
G									STATU	5			

Plot 7-179. Upper Band Edge Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)



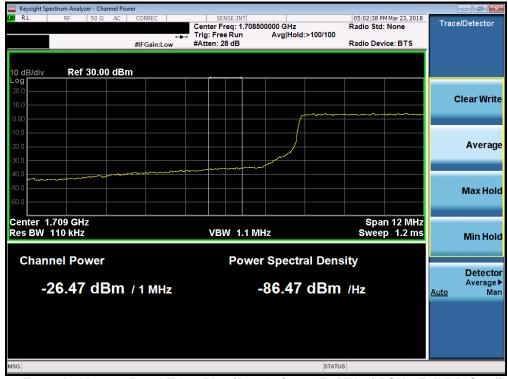
Plot 7-180. Extended Upper Band Edge Plot (Band 66 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager			
Test Report S/N:	Test Dates:	EUT Type:		Dage 110 of 017			
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 112 of 217			
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	Spectrum Analy												- 7
XI RL	RF	50 Ω	AC	PNO: W	ide 🖵	SE Trig: Fre Atten: 30		#Avg Ty	pe:RMS	TRA	M Mar 23, 2018 CE <b>1 2 3 4 5</b> 6 PE A WWWWW ET A N N N N N	Fr	equency
10 dB/div Log r	Ref 2	5.00 di	3m	IFGain:L	.ow	Atten: 36			Mkr	1 1.709 9			Auto Tun
15.0													<b>enter Fre</b> 0000000 GH
-5.00										ᡔᡂᢪᠣᠰᡗᠯ᠊ᠣᡪ _{ᢧᡅ} ᠺᡣᢍ	DL1 -13.00 dBm	1.704	Start Fre 1000000 G⊦
-15.0							1					1.710	<b>Stop Fre</b> 5000000 G⊦
-35.0 	······································	~~~~			᠕᠂᠆ᡣ							1 <u>Auto</u>	CF Ste 200000 MH Ma
55.0												-	F <b>req Offs</b> 0 H
-65.0	1.710000	GHz								Span 1		Log	Scale Typ
fRes BV	N 150 kH			#	VBW	470 kHz				1.000 ms	(1001 pts)		
SG									STAT	US			

Plot 7-181. Lower Band Edge Plot (Band 4/66 - 15.0MHz QPSK - Full RB Configuration)



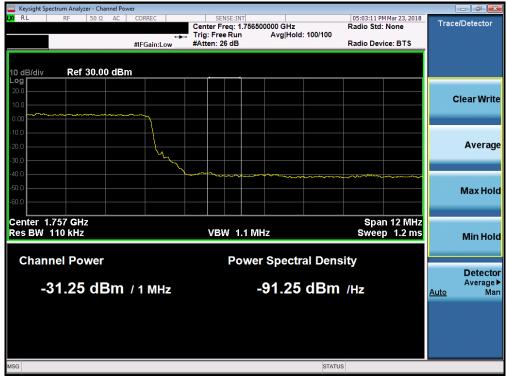
Plot 7-182. Extended Lower Band Edge Plot (Band 4/66 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 112 of 217
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 113 of 217
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018			



	Spectrum Analyz	er - Swept SA									
XI RL	RF	50 Ω AC	PNO: Wide 🔾	Trig: Free		#Avg Typ	e:RMS	TRAC	1 Mar 23, 2018 E 1 2 3 4 5 6 E A WWWWW T A N N N N N	Frequ	ency
10 dB/div	Ref 25	.00 dBm	IFGain:Low	Atten: 36	dB		Mkr1	1.755 0		Au	to Tun
15.0										Cen 1.755000	<b>ter Fre</b> 0000 G⊦
5.00	www.even	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Jon Jon and a star and						DL1 -13.00 dBm	<b>St</b> 1.749000	art Fre
25.0					1					<b>St</b> 1.761000	<b>op Fre</b> 0000 Gi
35.0 <b></b>					·	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		·····	~~~~~		CF Ste 0000 MI Mi
5.0										Fre	<b>q Offs</b> 0
65.0											ale Typ
enter 1 Res BV	.755000 ( V 150 kHz	GHZ	#VB\	N 470 kHz			Sweep	Span 1: 1.000 ms (	2.00 MHz 1001 pts)	LOg	Ĺ
SG							STATU	s			

Plot 7-183. Upper Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)



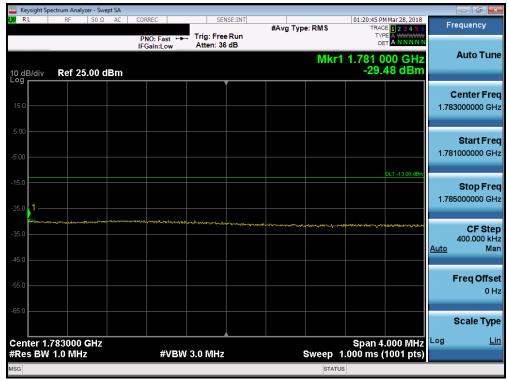
Plot 7-184. Extended Upper Band Edge Plot (Band 4 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕑 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degs 114 of 017
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 114 of 217
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018			



Keysight Spectrum Analyzer - Sw					
🗶 RL RF 50 Ω	2 AC CORREC	SENSE:INT	#Avg Type: RMS	01:19:31 PM Mar 28, 2018 TRACE 1 2 3 4 5 6	Frequency
	PNO: Wide 🖵 IFGain:Low	Trig: Free Run Atten: 36 dB		DET A WWWWW DET A NNNN	Auto Turo
10 dB/div Ref 25.00 d	dBm		Mkr1	1.780 078 GHz -34.44 dBm	Auto Tune
15.0					Center Freq 1.780000000 GHz
5.00	mm	~			Start Freq 1.774000000 GHz
-15.0				DL1 -13.00 dBm	<b>Stop Freq</b> 1.786000000 GHz
-35.0		How I	mmmm	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	CF Step 1.200000 MH: <u>Auto</u> Mar
-65.0					<b>Freq Offse</b> 0 H:
-65.0					Scale Type
Center 1.780000 GHz #Res BW 150 kHz		470 kHz	Sweep 1	Span 12.00 MHz .000 ms (1001 pts)	Log <u>Lin</u>
MSG			STATUS		

Plot 7-185. Upper Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)



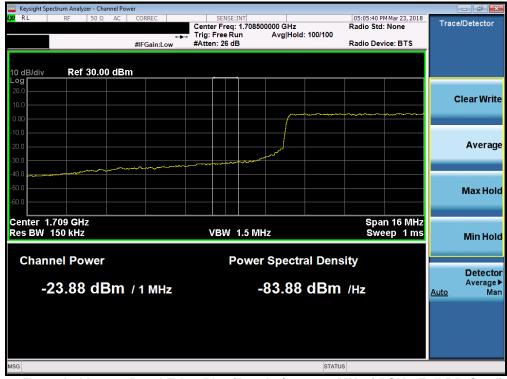
Plot 7-186. Extended Upper Band Edge Plot (Band 66 - 15.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 115 of 217
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 115 of 217
© 2018 PCTEST Engineering Labor	atory, Inc.			V 7.5 2/14/2018



	Spectrum Analy	zer - Swept S	SA							- 6 -
XI RL	RF	50Ω A	PI	RREC	Trig: Fr		#Avg Typ	e:RMS	05:05:35 PM Mar 23, 2018 TRACE 1 2 3 4 5 6 TYPE A WWWW DET A N N N N N	Frequency
10 dB/div Log	Ref 25	5.00 dBi		Gain:Low _	Atten: 3	36 dB		Mkr1	1.710 000 GHz -27.09 dBm	Auto Tun
15.0										Center Fre 1.710000000 GH
5.00								~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Start Fre 1.702000000 G⊦
-15.0						1,~			DL1 -13.00 dBm	Stop Fre 1.718000000 G⊦
35.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	, and a second	······································	~~~~~					CF Ste 1.600000 MH <u>Auto</u> Ma
55.0										Freq Offs 0 H
-65.0										Scale Typ
	1.710000 N 200 kHz			#VB	W 620 kH	z		Sweep	Span 16.00 MHz 1.000 ms (1001 pts)	Log <u>L</u>
ISG								STATU	s	

Plot 7-187. Lower Band Edge Plot (Band 4/66 - 20.0MHz QPSK - Full RB Configuration)



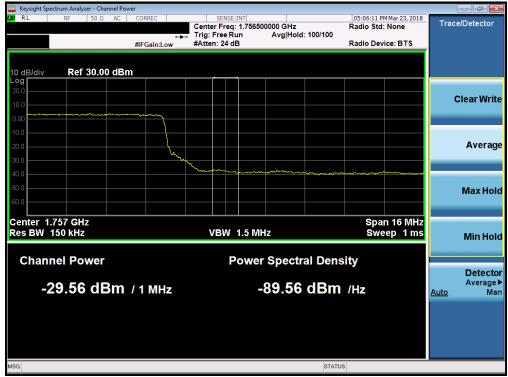
Plot 7-188. Extended Lower Band Edge Plot (Band 4/66 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕞 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 116 of 217
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 116 of 217
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018			



	pectrum Analyz	ter - Swept SA									
LXU RL	RF	50 Ω AC	CORREC	Trig: Free		#Avg Typ	e: RMS	TRAC	Mar 23, 2018 E 1 2 3 4 5 6 PE A WWWWW T A N N N N N	Fr	equency
10 dB/div	Ref 25	.00 dBm	IFGain:Low	Atten: 36	dB		Mkr	1 1.755 0			Auto Tune
15.0											Center Frec
-5.00	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~								1.74	Start Free 7000000 GH
-15.0					1				DL1 -13.00 dBm	1.76	<b>Stop Fre</b> 3000000 GH
-35.0					hanne	m	v.	-	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	1 <u>Auto</u>	<b>CF Stej</b> .600000 MH Ma
-55.0											Freq Offse 0 H
-65.0											Scale Type
	.755000 ( / 200 kHz		#VBI	N 620 kHz			Sweep	Span 1 1.000 ms (	0.00 191112	Log	<u>Lir</u>
MSG							STATU	IS			

Plot 7-189. Upper Band Edge Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)



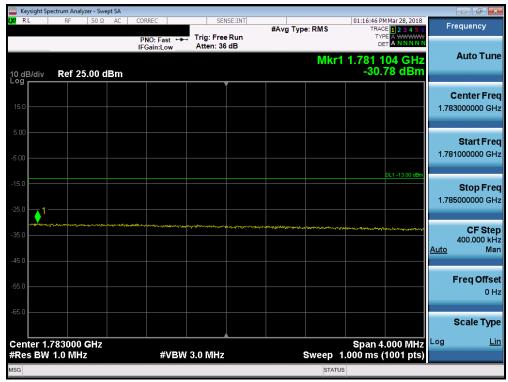
Plot 7-190. Extended Upper Band Edge Plot (Band 4 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Degs 117 of 017
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 117 of 217
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018			



	pectrum Analy											×
L <mark>XI</mark> RL	RF	50 Ω A	C CORF	REC		ENSE:INT	#Avg Typ	e: RMS	TRAC	M Mar 28, 2018	Frequenc	y
			PN IFG	0:Fast G ain:Low	Trig: Fr Atten: 3	ee Run 6 dB			TYF	ET A WWWWW A N N N N N		
								Mkr	1 1.780 0	01 GHz	Auto	Tune
10 dB/div Log	Ref 25	5.00 dBn	n		_				-35.	01 dBm		
Ĩ						Ĭ					Center	Fred
15.0											1.78000000	) GHz
5.00												
5.00 ~~~~	men m	mm	Munn	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	m						Start	
-5.00											1.772000000	) GHz
-15.0										DL1 -13.00 dBm		
-15.0											Stop 1.78800000	
-25.0											1.78800000	JGHZ
					W.	1					CF	Step
-35.0						human	······	······	h har har har har har har har har har ha		1.600000	мн.
-45.0											<u>Auto</u>	Mar
											Freq O	offset
-55.0												0 Hz
-65.0												
											Scale	Туре
Center 1	.780000	GHz				×			Span 1	6.00 MHz	Log	Lin
	/ 200 kH			#VBV	V 620 kH	z		Sweep	1.000 ms (	1001 pts)		
MSG								STATU	JS			

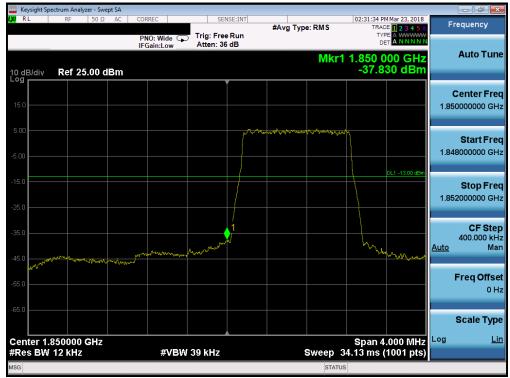
Plot 7-191. Upper Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)



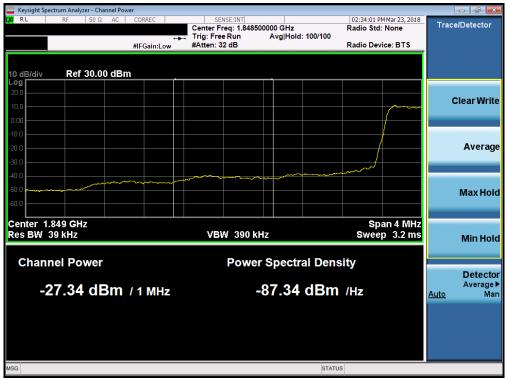
Plot 7-192. Extended Upper Band Edge Plot (Band 66 - 20.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 110 of 017
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 118 of 217
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Plot 7-193. Lower Band Edge Plot (Band 2/25 - 1.4MHz QPSK - Full RB Configuration)



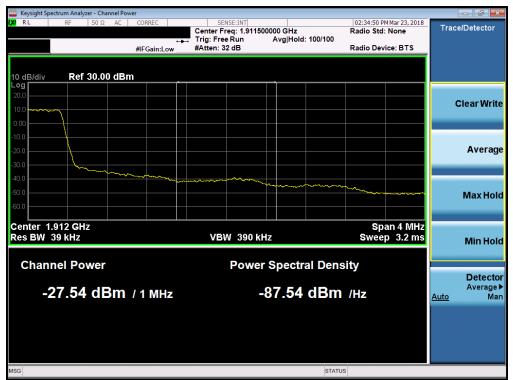
Plot 7-194. Extended Lower Band Edge Plot (Band 2/25 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 110 of 017	
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 119 of 217	
© 2018 PCTEST Engineering Labor	atory Inc			\/ 7 5 2/14/2018	



		ectrum Analy													- 6
RI	L	RF	50 Ω	AC	PNO:	Wide 🔾		j:Fre en:36		#Avg Ty	pe:RMS	TF	8 PM Mar 23, 2018 RACE 1 2 3 4 5 6 TYPE A WWWWW DET A NNNNN	F	requency
0 dE og 1	3/div	Ref 25	.00 d	Bm	IFGair	I:LOW	Au	en. oo			Mkr1	1.910 -36.	000 GHz 266 dBm		Auto Tur
5.0															Center Fre
.00 .00				E. January and a start and a start and a start	******	and and a second								1.9	<b>Start Fre</b> 08000000 Gi
5.0 5.0			1										DL1 -13.00 dBm	1.9 [.]	<b>Stop Fr</b> 12000000 G
5.0 5.0	r.v.r	som ang	~						1	And March Mr.	~~~~			<u>Auto</u>	CF Ste 400.000 ki M
5.0												And and a second se	and provide fillowing		Freq Offs 01
:5.0 en	ter 1.9	910000	GHz									Span	4.000 MHz	Log	Scale Typ
		12 kHz				#VBV	V 39 k	κHz			Sweep 3	34.13 ms	s (1001 pts)		
SG											STATU	s			

Plot 7-195. Upper Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)



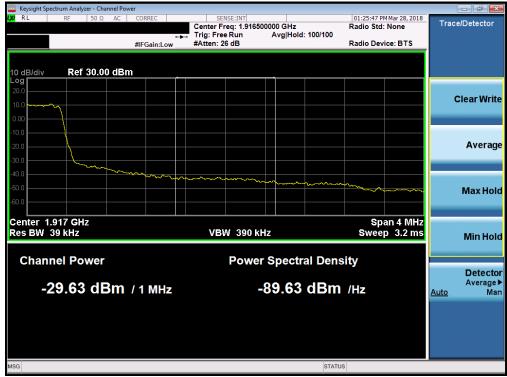
Plot 7-196. Extended Upper Band Edge Plot (Band 2 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	G	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 100 of 017	
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 120 of 217	
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018				



Keysight Spectrum Analyzer - Swept SA					
XIRL RF 50Ω AC	PNO: Wide		pe: RMS	01:25:11 PM Mar 28, 2018 TRACE 1 2 3 4 5 6 TYPE A WWWWW	Frequency
10 dB/div Ref 25.00 dBm	IFGain:Low Atten: 3	36 dB	Mkr1 1	I.915 000 GHz -36.63 dBm	Auto Tun
15.0					Center Fre 1.915000000 GH
5.00	Landon and the second			DL1 -13.00 dBm	Start Fre 1.913000000 GF
25.0					<b>Stop Fre</b> 1.917000000 G⊦
15.0		1 Martingen			CF Ste 400.000 kH <u>Auto</u> Ma
55.0		Margare Margare	where the warnes	naget for the anget	Freq Offs 0 F
65.0					Scale Typ
Center 1.915000 GHz Res BW 13 kHz sg	#VBW 39 kHz		Sweep 29	Span 4.000 MHz .27 ms (1001 pts)	Log <u>L</u> i

Plot 7-197. Upper Band Edge Plot (Band 25 - 1.4MHz QPSK - Full RB Configuration)



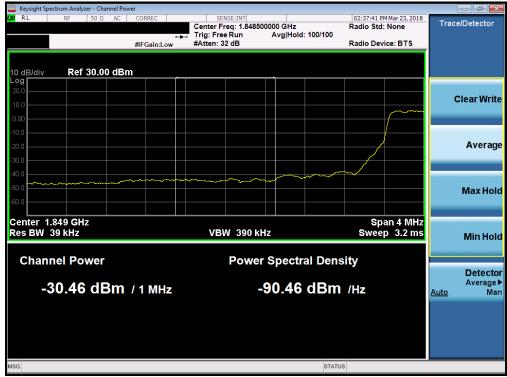
Plot 7-198. Extended Upper Band Edge Plot (Band 25 - 1.4MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dogo 101 of 017	
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 121 of 217	
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018				



	pectrum Analyzer	- Swept SA									
LXI RL	RF 5	50 Ω AC	CORREC			#Avg Typ	e: RMS	TRAC	M Mar 23, 2018 DE 1 2 3 4 5 6 DE A WWWW T A N N N N N	F	requency
10 dB/div Log	Ref 25.0	0 dBm	IFGain:Low	Atten: 36	dB		Mkr1	1.850 0			Auto Tune
15.0											Center Fred 00000000 GH:
-5.00							a nananan na sanan	n beland a china an	DL1 -13.00 dBm	1.84	Start Free 8000000 GH
-15.0					1					1.85	<b>Stop Fre</b> 2000000 GH
-35.0		have the second second	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	m						<u>Auto</u>	CF Stej 400.000 kH Ma
-55.0											Freq Offse 0 H
-65.0	.850000 GI	17						Span 4	.000 MHz	Log	Scale Type
#Res BW			#VBW	91 kHz				5.533 ms (	(1001 pts)		
MSG							STATU	S			

Plot 7-199. Lower Band Edge Plot (Band 2/25 - 3.0MHz QPSK - Full RB Configuration)



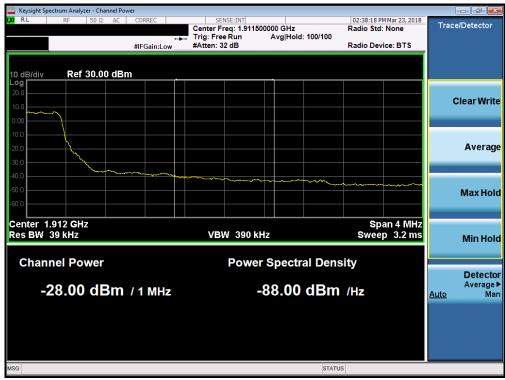
Plot 7-200. Extended Lower Band Edge Plot (Band 2/25 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager			
Test Report S/N:	Test Dates:	EUT Type:		Dega 100 of 017			
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 122 of 217			
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Keysight Spectrum Analyzer - Swept SA					
X RL RF 50Ω AC	CORREC	SENSE:INT	#Avg Type: RMS	02:38:11 PM Mar 23, 2018 TRACE 1 2 3 4 5 6	Frequency
		Free Run n: 36 dB			
10 dB/div Ref 25.00 dBm			Mkr	1 1.910 000 GHz -24.84 dBm	Auto Tune
15.0					Center Freq 1.910000000 GHz
5.00					Start Fred 1.908000000 GHz
-15.0		1		DL1 -13.00 dBm	<b>Stop Fred</b> 1.912000000 GH:
-35.0				~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<b>CF Step</b> 400.000 kH <u>Auto</u> Mar
-45.0					Freq Offse 0 H
-65.0					Scale Type
Center 1.910000 GHz #Res BW 30 kHz	#VBW 91 kH	łz	Sweep	Span 4.000 MHz 5.533 ms (1001 pts)	Log <u>Lir</u>
MSG			STAT		

Plot 7-201. Upper Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)



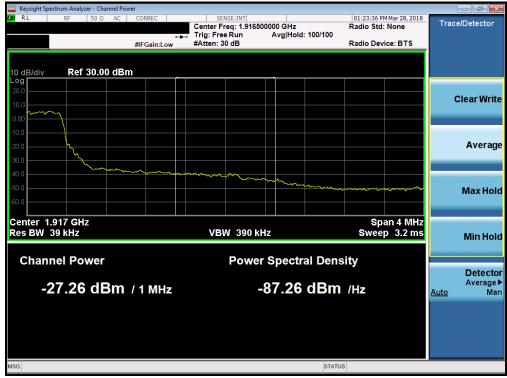
Plot 7-202. Extended Upper Band Edge Plot (Band 2 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Dega 102 of 217		
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 123 of 217		
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Keysight Spectrum Anal	yzer - Swept SA									
X/RL RF	50 Ω AC	CORREC	Trig: Free		#Avg Typ	e: RMS	TRAC	1 Mar 28, 2018 E 1 2 3 4 5 6 E A WWWW T A N N N N N	Fr	equency
10 dB/div Ref 2	5.00 dBm	IFGain:Low	Atten: 36	dB		Mkr1	1.915 0	00 GHz 74 dBm		Auto Tune
15.0										<b>Center Fre</b> 5000000 GH
5.00	~~~~ <u>~</u> ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	way - o for the second						DL1 -13.00 dBm	1.91	<b>Start Fre</b> 3000000 G⊦
25.0				1					1.91	<b>Stop Fre</b> 7000000 G⊦
45.0				horner	· · · · · · · · · · · · · · · · · · ·	- Contraction	-m-	hump	<u>Auto</u>	CF Ste 400.000 kH Ma
55.0										F <b>req Offs</b> 0 F
65.0 Center 1.915000	CH7						Snan 4	.000 MHz	Log	Scale Typ
Res BW 30 kHz		#VBW	91 kHz			Sweep 5	.533 ms (	1001 pts)		
ISG						STATUS	3			

Plot 7-203. Upper Band Edge Plot (Band 25 - 3.0MHz QPSK - Full RB Configuration)



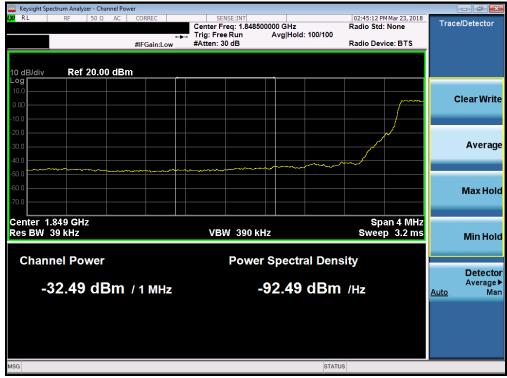
Plot 7-204. Extended Upper Band Edge Plot (Band 25 - 3.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager			
Test Report S/N:	Test Dates:	EUT Type:		Dana 404 af 047			
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 124 of 217			
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🔤 Keysight Spectrum Analyzer - Swept SA 🚽					
X RL RF 50Ω AC	PNO: Wide 🕞 Trig: Free		pe: RMS TR	PM Mar 23, 2018 ACE 1 2 3 4 5 6 TYPE A WWWWW DET A N N N N N	Frequency
10 dB/div Ref 25.00 dBm	IFGain:Low Atten: 36	ab	Mkr1 1.850		Auto Tune
15.0				1,	Center Fred B50000000 GH:
-5.00				DL1 -13.00 dBm	<b>Start Fre</b> 848000000 GH
-25.0		1			<b>Stop Fre</b> 852000000 GH
45.0				Auto	CF Ste 400.000 kH 2 Ma
55.0					Freq Offse 0 H
-65.0 Center 1.850000 GHz			Span	4.000 MHz	Scale Typ
#Res BW 51 kHz	#VBW 160 kHz		Sweep 1.933 ms		

Plot 7-205. Lower Band Edge Plot (Band 2/25 - 5.0MHz QPSK - Full RB Configuration)



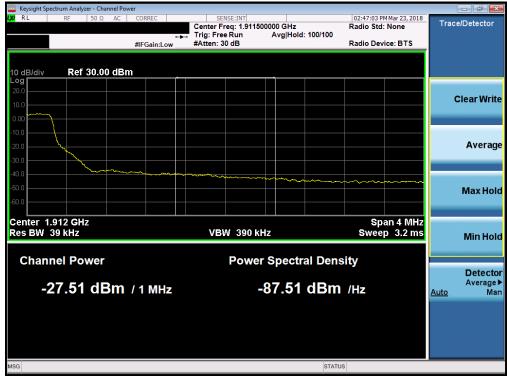
Plot 7-206. Extended Lower Band Edge Plot (Band 2/25 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Dega 105 of 017	
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 125 of 217	
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018				



Keysight Spectrum Analyz									
🗶 RL RF	50 Ω AC	CORREC	Trig: Free		#Avg Typ	e:RMS	02:46:55 PM TRACE TYPE	Mar 23, 2018           1 2 3 4 5 6           A WWWWW           A NNNNN	Frequency
10 dB/div Ref 25	.00 dBm	IFGain:Low	Atten: 36	dB		Mkr1	1.910 00		Auto Tu
15.0				/					<b>Center Fr</b> 1.910000000 G
5.00								L1 -13,00 dBm	<b>Start Fr</b> 1.908000000 G
25.0				1					<b>Stop Fr</b> 1.912000000 G
45.0					m			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	CF Ste 400.000 kl <u>Auto</u> M
55.0									Freq Offs 0 1
65.0	244						Spop 44	000 MHz	Scale Typ
#Res BW 51 kHz	302	#VBW	160 kHz			Sweep 1	Span 4.0 1.933 ms (1	001 pts)	
SG						STATU	s		

Plot 7-207. Upper Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)



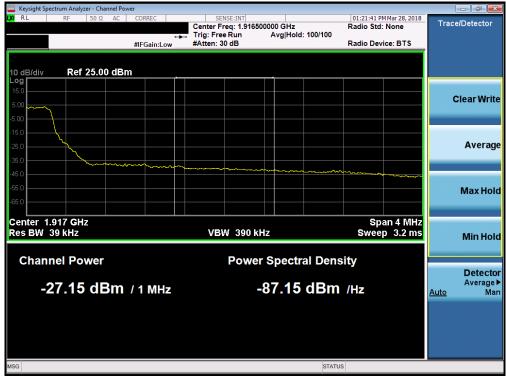
Plot 7-208. Extended Upper Band Edge Plot (Band 2 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Dega 100 of 017	
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 126 of 217	
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018				



Keysight Spectrum											- ē 🛃
XU RL R	F 50 Ω	P	NO: Wide	Trig: Free		#Avg Typ	e:RMS	TRAC	M Mar 28, 2018 DE <b>1 2 3 4 5</b> 6 PE A WWWWW T A N N N N N	Fr	equency
10 dB/div Re	ef 25.00 de		Gain:Low	Atten: 36	dB		Mkr1	1.915 0	00 GHz 26 dBm		Auto Tun
15.0											<b>Center Fre</b> 5000000 GH
5.00			ht						DL1 -13.00 dBm	1.91	<b>Start Fre</b> 3000000 GF
25.0					1					1.91	<b>Stop Fr</b> 7000000 GI
15.0					L	·····	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		<u>Auto</u>	<b>CF Ste</b> 400.000 k M
5.0											F <b>req Offs</b> 0
enter 1.915								Spop 4	.000 MHz		Scale Tyj
Res BW 51 I			#VBW	150 kHz			Sweep 1	span 4 .933 ms (	.000 MHZ (1001 pts)	9	
SG							STATUS	5			

Plot 7-209. Upper Band Edge Plot (Band 25 - 5.0MHz QPSK - Full RB Configuration)



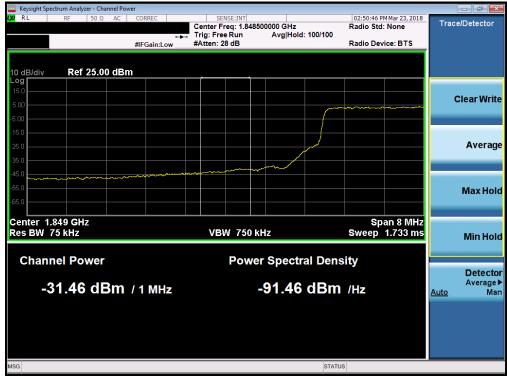
Plot 7-210. Extended Upper Band Edge Plot (Band 25 - 5.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Dega 107 of 017	
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 127 of 217	
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018				



Keysight Spectrum Analyze		-					
XURL RF		ORREC	SENSE:	#Avg Ty	/pe: RMS	02:50:40 PM Mar 23, 2018 TRACE 1 2 3 4 5 6 TYPE A WWWW DET A N N N N N	Frequency
10 dB/div Ref 25.	ا 00 dBm	FGain:Low	Atten: 36 dB		Mkr1	1.850 000 GHz -29.15 dBm	Auto Tun
15.0							Center Fre 1.850000000 GF
5.00					~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	¢	Start Fre 1.846000000 GF
25.0			1:			DL1 -13.00 dBm	<b>Stop Fre</b> 1.854000000 GF
45.0			~~~~				CF Ste 800.000 kł <u>Auto</u> Ma
55.0							Freq Offs 0 H
65.0 Center 1.850000 G	Hz					Span 8.000 MHz	Scale Typ
Res BW 100 kHz		#VBW	300 kHz		Sweep 1	.000 ms (1001 pts)	
ISG					STATU	5	

Plot 7-211. Lower Band Edge Plot (Band 2/25 - 10.0MHz QPSK - Full RB Configuration)



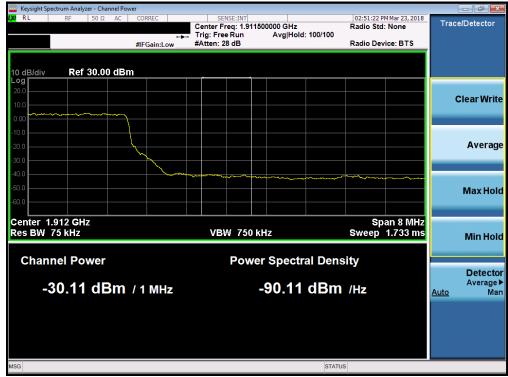
Plot 7-212. Extended Lower Band Edge Plot (Band 2/25 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Dega 100 of 017	
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 128 of 217	
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018				



Keysight Spectrum Anal	·									
RL RF	50 Ω AC	CORREC	Trig: Free		#Avg Typ	e: RMS	TRAC	Mar 23, 2018 E 1 2 3 4 5 6 PE A M N N N N	F	requency
0 dB/div Ref 2	5.00 dBm	IFGain:Low	Atten: 36	dB		Mkr1	1.910 0	00 GHz 35 dBm		Auto Tur
5.0										Center Fre
									1.90	<b>Start Fr</b> 6000000 G
5.0				1				DL1 -13.00 dBm	1.91	<b>Stop Fr</b> 4000000 G
5.0				h	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				<u>Auto</u>	CF St 800.000 k M
5.0										Freq Offs 0
^{5.0}	GHz						Span 8	.000 MHz	Log	Scale Ty
Res BW 100 kH		#VBW	300 kHz			Sweep 1	.000 ms (	1001 pts)		
G						STATUS				

Plot 7-213. Upper Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)



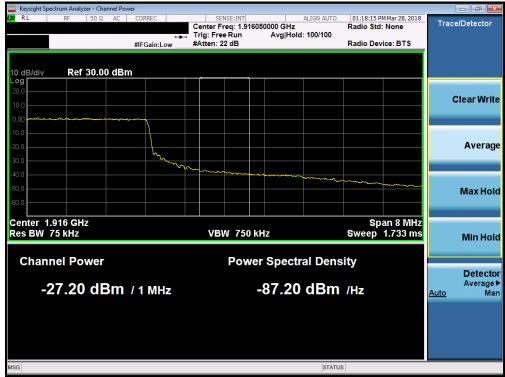
Plot 7-214. Extended Upper Band Edge Plot (Band 2 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:		Dega 100 of 017	
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset		Page 129 of 217	
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018				



	pectrum Analyz									- # <b>*</b>
XI RL	RF	50 Ω AC	CORREC PNO: Wide	Trig: Free		#Avg Typ	e:RMS	01:18:52 PM Mar 2 TRACE 2 TYPE A W DET A N	3456	Frequency
10 dB/div Log	Ref 25	.00 dBm	IFGain:Low	Atten: 36	αB		Mkr1	1.915 000 -28.31 c	GHz	Auto Tun
15.0										Center Fre 1.915000000 GH
5.00	<del>,,</del>									Start Fre 1.911000000 GF
-15.0					1				3.00 dBm	<b>Stop Fre</b> 1.919000000 GH
35.0					· ····	~~~ <u>~</u>	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	A	CF Ste 800.000 kH uto Ma
55.0										Freq Offs 0 H
65.0										Scale Typ
	.915000 ( / 100 kHz		#VB	W 300 kHz			Sweep	Span 8.000 1.000 ms (100′	191122	og <u>L</u>
ISG							STATU	s		

Plot 7-215. Upper Band Edge Plot (Band 25 - 10.0MHz QPSK - Full RB Configuration)



Plot 7-216. Extended Upper Band Edge Plot (Band 25 - 10.0MHz QPSK - Full RB Configuration)

FCC ID: ZNFG710VM		MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:		Dage 120 of 217
1M1802260032-08-R1.ZNF	2/26 - 3/29/2018	Portable Handset	Page 130 of 217	
© 2018 PCTEST Engineering Labora	V 7.5 2/14/2018			