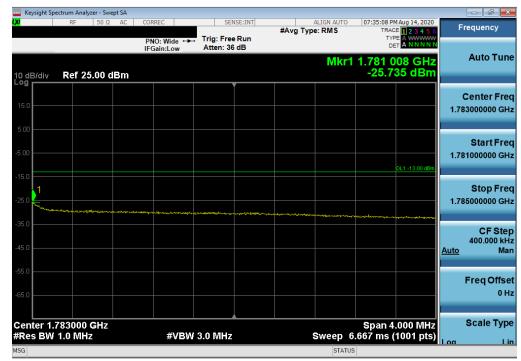


	ectrum Analyzer - Swept									
XI	RF 50 Ω	AC CORREC PNO: Wide	Trig: Free		#Avg Typ	ALIGN AUTO e: RMS	TRAC	MAug 12, 2020 E 1 2 3 4 5 6 E A WWWW	F	requency
10 dB/div Log	Ref 25.00 dB	IFGain:Low	#Atten: 3	6 dB		Mkr1	1.780 0	08 GHz 19 dBm		Auto Tune
15.0										Center Freq 0000000 GHz
5.00			man l						1.77	Start Fred 6000000 GH2
-15.0				1				DL1 -13.00 dBm	1.78	Stop Fred 4000000 GH;
-35.0				and a second	Anna ana ana ana ana ana ana ana ana ana	and an and a second second	and the second	####53*################################	<u>Auto</u>	CF Step 800.000 kH Mar
-55.0										Freq Offse 0 Hi
-65.0	780000 GHz						Snan 8	.000 MHz	Log	Scale Type Lir
#Res BW		#VB	W 430 kHz		#	Sweep	13.33 m <u>s (</u>	1001 pts)		
MSG						STATU				

Plot 7-364. Upper Band Edge Plot (LTE Band 66 - 10MHz QPSK - Full RB Configuration)



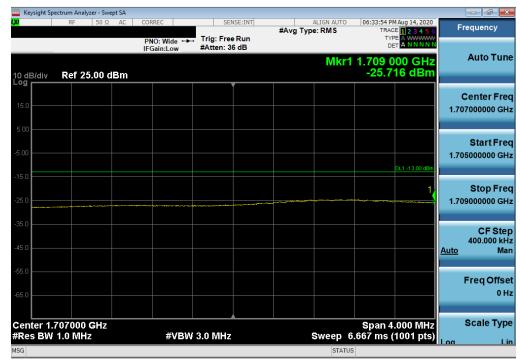
Plot 7-365. Upper Extended Band Edge Plot (LTE Band 66 - 10MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: Test Dates:		EUT Type:	Dogo 200 of 200
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Keysight Spectrum Analyzer - Swept SA					
RF 50 Ω AC	CORREC	SENSE:INT SOUR	CE OFF ALIGN AUTO #Avg Type: RMS	TRACE 1 2 3 4 5 6	Frequency
		Frig: Free Run Atten: 36 dB	Mkr	1 1.710 000 GHz	Auto Tune
10 dB/div Ref 25.00 dBm				-27.22 dBm	
15.0					Center Freq 1.710000000 GHz
5.00		Jan		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	
-5.00					Start Freq 1.704000000 GHz
				DL1 -13.00 dBm	
-15.0		1, 1			Stop Freq 1.716000000 GHz
-35.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	man and a start of the start of			CF Step
-45.0					1.200000 MHz <u>Auto</u> Man
					FreqOffset
-55.0					0 Hz
-65.0					
					Scale Type
Center 1.710000 GHz #Res BW 180 kHz	#VBW 62	20 kHz	#Sween	Span 12.00 MHz 1.000 ms (1001 pts)	Log <u>Lin</u>
MSG	#VDVV02		#Oweep		

Plot 7-366. Lower Band Edge Plot (LTE Band 66/4 - 15MHz QPSK – Full RB Configuration)



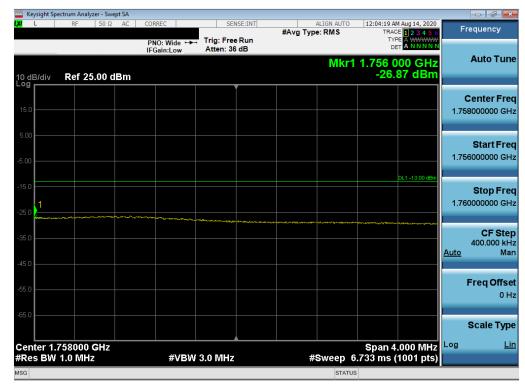
Plot 7-367. Lower Extended Band Edge Plot (LTE Band 66/4 - 15MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dage 210 of 280	
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	ectrum Analyzer - Swept SA									- 6 - X
	RF 50 Ω AC	CORREC		SE:INT SOUR	#Avg Typ	ALIGN AUTO e: RMS	TRAC	Aug 12, 2020	Fred	quency
10 dB/div Log	Ref 25.00 dBm	IFGain:Low	#Atten: 3			Mkr1	1.755 0	04 GHz 74 dBm	P	luto Tune
15.0										e nter Freq 100000 GHz
-5.00		and the second						DL1 -13.00 dBm		Start Freq
-15.0										Stop Freq 100000 GHz
-35.0			٦.	1 Maria	ward and a second	-man	y www.	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	1.2 <u>Auto</u>	CF Step 00000 MHz Mar
-55.0									Fi	r eq Offse 0 Ha
-65.0	755000 GHz						Snap 1	2.00 MHz	S Log	cale Type Lir
#Res BW		#VBW	620 kHz		#	Sweep 1	.000 ms (2.00 MH2 1001 pts)		
MSG						STATUS				

Plot 7-368. Upper Band Edge Plot (LTE Band 4 - 15MHz QPSK – Full RB Configuration)



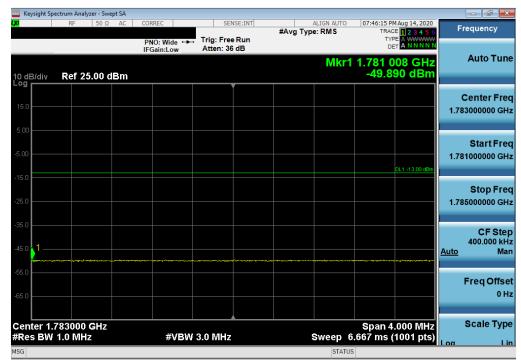
Plot 7-369. Upper Extended Band Edge Plot (LTE Band 4 - 15MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: Test Dates:		EUT Type:		Dama 044 at 200
1M2007130107-03.ZNF	07/30/2020 - 09/03/2020	Portable Handset		Page 211 of 389
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Keysight Spe	ectrum Analyzer - Swept SA								
X	RF 50 Ω AC	CORREC PNO: Wide	. Trig: Free		#Avg Typ	ALIGN AUTO e: RMS	TRACI TYP	Aug 12, 2020	Frequency
10 dB/div	Ref 25.00 dBm	IFGain:Low	#Atten: 3	6 dB		Mkr1	1.779 9	.,	Auto Tun
15.0									Center Fre 1.780000000 GH
5.00		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~							Start Fre 1.774000000 GH
25.0				1				DL1 -13.00 dBm	Stop Fre 1.786000000 GH
45.0				a and a contraction of the second sec	······			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	CF Stej 1.200000 MH <u>Auto</u> Ma
55.0									Freq Offse 0 H
65.0									Scale Type
Center 1.7 #Res BW	780000 GHz 180 kHz	#VBW	620 kHz		#	Sweep 1	Span 12 // 000 ms.	2.00 19112	Log <u>Li</u>
ISG						STATUS			

Plot 7-370. Upper Band Edge Plot (LTE Band 66 - 15MHz QPSK - Full RB Configuration)



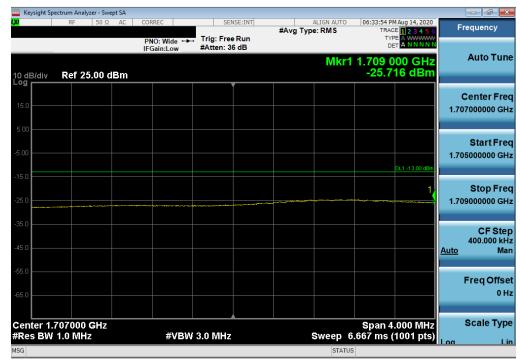
Plot 7-371. Upper Extended Band Edge Plot (LTE Band 66 - 15MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager	
Test Report S/N: Test Dates:		EUT Type:	Dega 212 of 200	
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	ectrum Analyzer - Swept SA									
l XI	RF 50 Ω AC	CORREC	Trig: Free Ru		#Avg Typ	ALIGN AUTO e: RMS	TRACI TYP	Aug 12, 2020 1 2 3 4 5 6 E A WWWWW	Fr	equency
10 dB/div Log	Ref 24.00 dBm	IFGain:Low	#Atten: 36 dE	}		Mkr1	1.709 9	84 GHz 60 dBm		Auto Tune
14.0										Center Freq 0000000 GHz
-6.00								DL1 -13.00 dBm	1.70	Start Freq 2000000 GHz
-16.0			مى	r					1.71	Stop Freq 8000000 GHz
-36.0									1 <u>Auto</u>	CF Step .600000 MHz Mar
-56.0										Freq Offsel 0 Hz
	710000 GHz						Span 1	0.00 10112	Log	Scale Type <u>Lin</u>
#Res BW	240 kHz	#VBW	820 kHz		#	Sweep 1	.333 ms (1001 pts)		
MSG						STATU	5			

Plot 7-372. Lower Band Edge Plot (LTE Band 66/4 - 20MHz QPSK – Full RB Configuration)



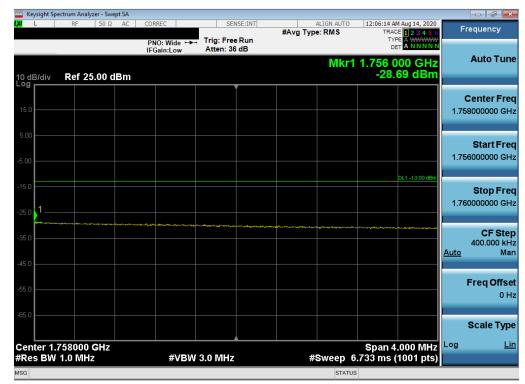
Plot 7-373. Lower Extended Band Edge Plot (LTE Band 66/4 - 20MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:	Page 213 of 389	
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	ectrum Analyzer - Swept SA								-	
X	RF 50 Ω AC	CORREC	. Trig: Free		#Avg Typ	ALIGN AUTO e: RMS	TRAC TYP	Aug 12, 2020 1 2 3 4 5 6 E A WWWWW	Fre	quency
10 dB/div Log	Ref 25.00 dBm	IFGain:Low	#Atten: 3	6 dB		Mkr1	1.755 0	04 GHz 26 dBm	,	Auto Tune
15.0										e nter Freq 000000 GHz
5.00	an a	and a second								Start Freq 000000 GHz
-15.0			- fight					DL1 -13.00 dBm		Stop Freq 000000 GHz
-35.0			*****		han many la	when any	น _า างสาวารใกล่งระก	mon	1.6 <u>Auto</u>	CF Step 00000 MHz Mar
55.0									F	r eq Offse 0 Hz
-65.0	755000 GHz						Snan 1	6.00 MHz	S Log	cale Type <u>Lir</u>
#Res BW		#VBW	820 kHz		#	Sweep 1	.000 ms (0.00 191112		
MSG						STATUS	3			

Plot 7-374. Upper Band Edge Plot (LTE Band 4 - 20MHz QPSK – Full RB Configuration)



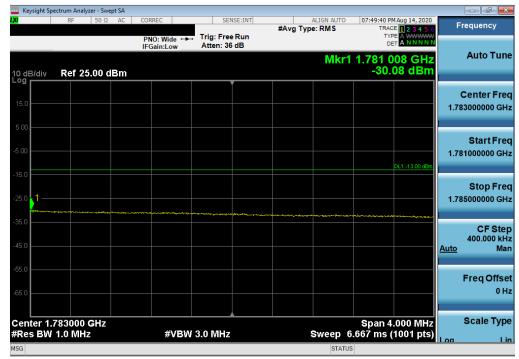
Plot 7-375. Upper Extended Band Edge Plot (LTE Band 4 - 20MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)		Approved by: Quality Manager
Test Report S/N: Test Dates:		EUT Type:		Dama 014 af 200
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Keysight Spectrum Analyzer - Swept SA						- 7 -
KI RF 50 Ω AC	CORREC PNO: Wide ↔	SENSE:I		ALIGN AUTO Type: RMS	09:04:53 PM Aug 12, 2020 TRACE 1 2 3 4 5 6 TYPE A WWWWW	Frequency
10 dB/div Ref 25.00 dBm	IFGain:Low	#Atten: 36 dB		Mkr1	1.780 000 GHz -27.48 dBm	Auto Tune
15.0						Center Freq 1.780000000 GHz
5.00						Start Fred 1.772000000 GHz
-15.0		4 1			DL1 -13.00 dBm	Stop Fred 1.788000000 GHz
-35.0			mmenge	minun	a march and a famous the and a famous the second	CF Step 1.600000 MH: <u>Auto</u> Mar
						Freq Offse 0 H:
66.0					On on 46 00 Milia	Scale Type
Center 1.780000 GHz #Res BW 240 kHz	#VBW 1	820 kHz		Sweep_1	Span 16.00 MHz .000 ms (1001 pts)	
ISG				STATU		

Plot 7-376. Upper Band Edge Plot (LTE Band 66 - 20MHz QPSK - Full RB Configuration)



Plot 7-377. Channel Edge Plot (LTE Band 66 - 20MHz QPSK – Full RB Configuration)

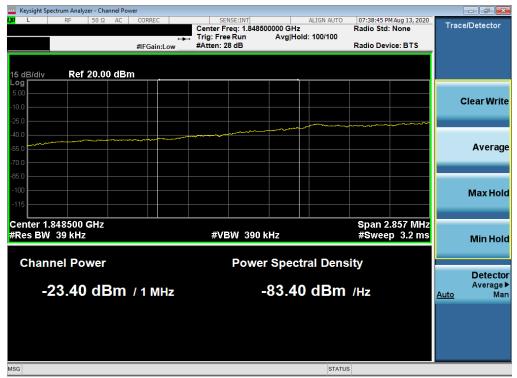
FCC ID: ZNFK920AM	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 215 of 200
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LTE Band 25/2



Plot 7-378. Lower Band Edge Plot (LTE Band 25/2 – 1.4MHz QPSK – Full RB Configuration)



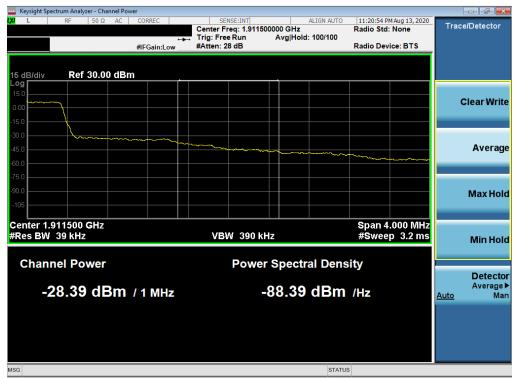
Plot 7-379. Extended Lower Band Edge Plot (LTE Band 25/2 – 1.4MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	PCTEST Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N: Test Dates:		EUT Type:	Dogo 216 of 280
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Keysight Spectrum Analyzer - Swept S					
RF 50Ω A	PNO: Wide ↔	SENSE:INT SOU	JRCE OFF ALIGN AUTO #Avg Type: RMS	09:51:33 PM Aug 12, 2020 TRACE 1 2 3 4 5 6 TYPE A WWWW DET A N N N N N	Frequency
10 dB/div Ref 25.00 dBr	IFGain:Low	#Atten: 36 dB	Mkr	1 1.910 004 GHz -31.09 dBm	Auto Tune
15.0					Center Freq 1.91000000 GHz
5.00	,				Start Frec 1.908000000 GHz
.15.0		1		DL1 -13.00 dBm	Stop Fred 1.912000000 GHz
35.0			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Mar har har har har har har har har har h	CF Step 400.000 kH <u>Auto</u> Mar
56.0					Freq Offse 0 H:
65.0				Span 4.000 MHz	Scale Type
Res BW 16 kHz	#VBW	56 kHz	#Sweep	5.733 ms (1001 pts)	
ISG			STATU	JS	

Plot 7-380. Upper Band Edge Plot (LTE Band 2 – 1.4MHz QPSK – Full RB Configuration)



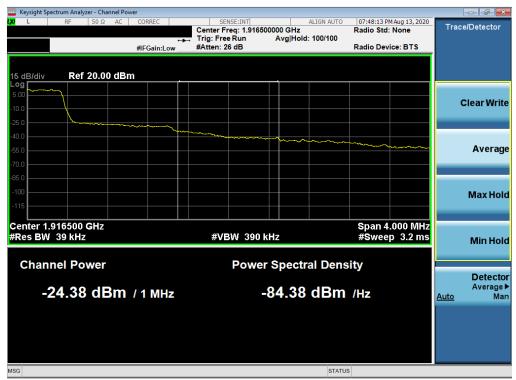
Plot 7-381. Extended Upper Band Edge Plot (LTE Band 2 – 1.4MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N: Test Dates:		EUT Type:		Dage 217 of 200
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🔤 Keysight Sp	ectrum Analyzer - S										
L <mark>XI</mark> L	RF 50 9	Ω ΑC (ORREC	SEI	NSE:INT	#Avg Ty	ALIGN AUTO		MAug 13, 2020	F	requency
			PNO: Wide ↔ FGain:Low	Trig: Free Atten: 36				TYI Di			
10 dB/div Log	Ref 25.00	dBm					Mkr1	1.915 0 -29.)64 GHz 83 dBm		Auto Tune
15.0					Í						Center Freq 5000000 GHz
5.00		puma		~~~~~						1.91	5000000 GH2
										1.91	Start Freq 3000000 GHz
-5.00									DL1 -13.00 dBm		
-15.0					. 1					1.91	Stop Freq 7000000 GHz
-35.0	mm			/	hun	www	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				CF Step
-45.0							m	~h~	A	<u>Auto</u>	400.000 kHz Man
-55.0											Freq Offset
-65.0											0 Hz
-65.0											Scale Type
	915000 GHz	2	10.0					Span 4	.000 MHz	Log	<u>Lin</u>
#Res BW	15 KHz		#VBW	51 kHz			#Sweep 6		(1001 pts)		
MSG							STATUS				

Plot 7-382. Upper Band Edge Plot (LTE Band 25 – 1.4MHz QPSK – Full RB Configuration)



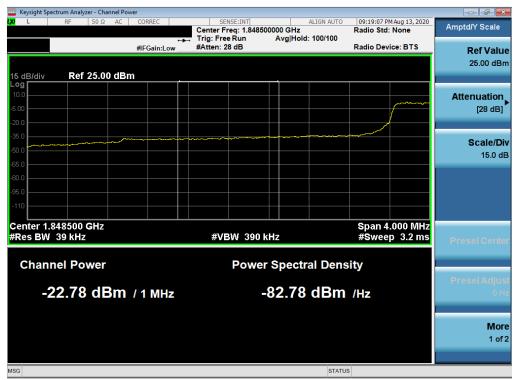
Plot 7-383. Extended Upper Band Edge Plot (LTE Band 25 – 1.4MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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Keysight Spo	ectrum Analyzer									_	
<mark>XI</mark> L	RF 5	50 Ω AC	CORREC	SEN	ISE:INT	#Avg Typ	ALIGN AUTO		MAug 13, 2020 DE 1 2 3 4 5 6	F	requency
			PNO: Wide ++- IFGain:Low	. Trig: Free Atten: 36		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		TYI Di			Auto Tune
10 dB/div Log	Ref 25.0	0 dBm					Mkr1	1.850 0 -27.	04 GHz 17 dBm		Auto Tune
15.0											Center Freq 60000000 GHz
-5.00					\int	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			~~~~~	1.84	Start Freq 8000000 GHz
-15.0					1				DL1 -13.00 dBm	1.85	Stop Freq 2000000 GHz
-35.0	~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		~~~~						<u>Auto</u>	CF Step 400.000 kHz Man
-45.0											Freq Offset 0 Hz
-65.0											Scale Type
Center 1.3 Res BW 3	850000 GI	Hz	#\/B\\/	130 kHz		#	Swoon 2	Span 4	.000 MHz (1001 pts)	Log	Lin
	D9 KHZ		#4044	TOU KHZ		#*			(100 Fpts)		
ASG							STATUS	·			

Plot 7-384. Lower Band Edge Plot (LTE Band 25/2 - 3MHz QPSK - Full RB Configuration)



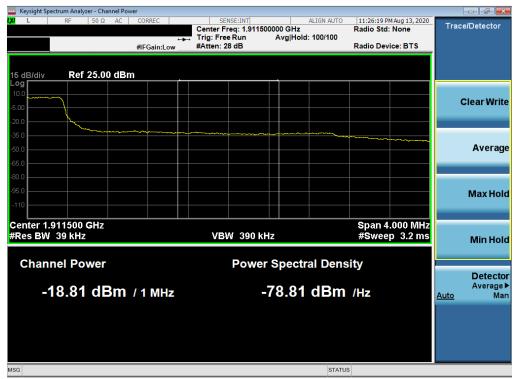
Plot 7-385. Extended Lower Band Edge Plot (LTE Band 25/2 - 3MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	PCTEST° Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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	ectrum Analyzer - Swept S									
L <mark>XI</mark>	RF 50 Ω A			ISE:INT SOUR	CE OFF #Avg Typ	ALIGN AUTO e: RMS	TRAC	MAug 12, 2020 E 1 2 3 4 5 6 E A WWWW	F	requency
10 dB/div Log	Ref 25.00 dBi	PNO: Wide ↔→ IFGain:Low	#Atten: 3			Mkr1	1.910 C	004 GHz 52 dBm		Auto Tune
15.0										Center Freq 0000000 GHz
-5.00								DL1 -13.00 dBm	1.90	Start Freq 8000000 GHz
-15.0				1					1.91	Stop Freq 2000000 GHz
-35.0					~~~~	~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<u> </u>	<u>Auto</u>	CF Step 400.000 kHz Mar
-55.0										Freq Offsel 0 Hz
-65.0							Cror 4		Log	Scale Type
Center 1.9 #Res BW	910000 GHz 36 kHz	#VBW	130 kHz		#	Sweep 2	span 4 .000 ms (.000 MHz 1001 pts)	9	
MSG						STATUS				

Plot 7-386. Upper Band Edge Plot (LTE Band 2 - 3MHz QPSK – Full RB Configuration)



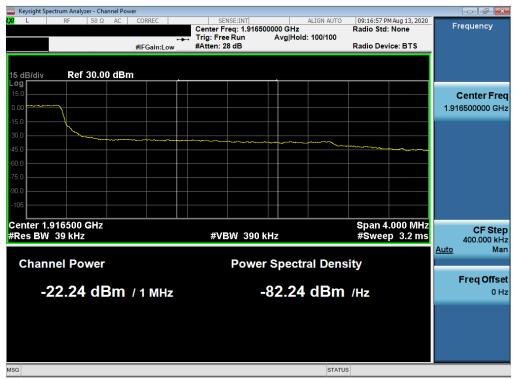
Plot 7-387. Extended Upper Band Edge Plot (LTE Band 2 - 3MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dama 000 at 000
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	ectrum Analyzer - Swept SA								
LXI L	RF 50 Ω AC	CORREC	SENSE		ALIGN		PM Aug 13, 2020 ACE 1 2 3 4 5 6	Fr	equency
		PNO: Wide ↔ IFGain:Low	Trig: Free R Atten: 36 d	lun		т			Auto Tune
10 dB/div Log	Ref 25.00 dBm					Mkr1 1.915 -26	.55 dBm		
15.0									enter Freq
								1.91	5000000 GHz
5.00		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~						Start Freq
-5.00								1.91;	3000000 GHz
-15.0							DL1 -13.00 dBm		Stop Freq
-25.0								1.91	7000000 GHz
-35.0			λ		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~				CF Step
								<u>Auto</u>	400.000 kHz Man
-45.0									Freq Offset
-55.0									0 Hz
-65.0									Scale Type
Contor 4 (915000 GHz					Spen	4.000 MHz		Lin
Res BW 3	9 kHz	#VBW	130 kHz		#Sw	span ep 2.000 ms	4.000 MH2 (1001 pts)		200
MSG						STATUS			

Plot 7-388. Upper Band Edge Plot (LTE Band 25 - 3MHz QPSK - Full RB Configuration)



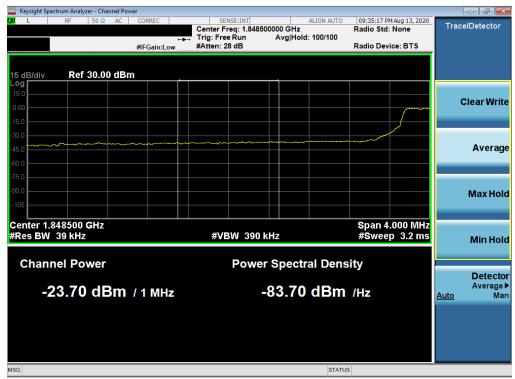
Plot 7-389. Extended Upper Band Edge Plot (LTE Band 25 - 3MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	PCTEST [®] Proud to be part of [®] element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Keysight S	Spectrum Analyze									_	
L <mark>XI</mark> L	RF	50 Ω AC	CORREC	SEN	ISE:INT	#Avg Ty	ALIGN AUTO		Aug 13, 2020	F	requency
			PNO: Wide ↔ IFGain:Low	Trig: Free Atten: 36		"		TYF DE			Auto Tune
10 dB/div Log	Ref 25.	00 dBm					Mkr1	1.850 0 -29.	04 GHz 53 dBm		Auto Turic
				,							Center Freq
15.0										1.85	0000000 GHz
5.00					m				~~~~~		Start Freq
-5.00										1.84	8000000 GHz
-15.0									DL1 -13.00 dBm		Stop Freq
-25.0					1					1.85	2000000 GHz
			A	and and	1						CF Step
-35.0		~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	man	<u>-</u>						Auto	400.000 kHz Man
-45.0											_
-55.0											Freq Offset 0 Hz
-65.0											0112
											Scale Type
	1.850000 G	Hz						Span 4	.000 MHz	Log	<u>Lin</u>
	N 62 kHz		#VBW	200 kHz			#Sweep 2	_	1001 pts)		
MSG							STATUS	5			

Plot 7-390. Lower Band Edge Plot (LTE Band 25/2 - 5MHz QPSK - Full RB Configuration)



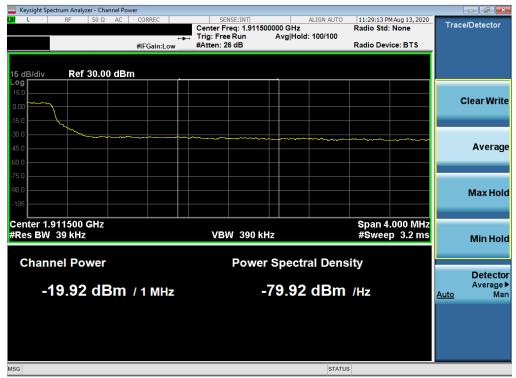
Plot 7-391. Extended Lower Band Edge Plot (LTE Band 25/2 - 5MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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	ectrum Analyzer - Swept SA									
IXI	RF 50 Ω AC	PNO: Wide		NSE:INT SOUR	#Avg Typ	ALIGN AUTO	TRAC	MAug 12, 2020 E 1 2 3 4 5 6 E A WWWW	F	requency
10 dB/div Log	Ref 25.00 dBm	IFGain:Low	#Atten: 3			Mkr1	1.910 0	04 GHz 64 dBm		Auto Tune
15.0										Center Freq 0000000 GHz
-5.00		,						DL1 -13.00 dBm	1.90	Start Freq 8000000 GHz
-15.0			- L	1					1.91	Stop Freq 2000000 GHz
-35.0						······	······································	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	<u>Auto</u>	CF Step 400.000 kHz Man
-55.0										Freq Offset 0 Hz
-65.0										Scale Type
Center 1. #Res BW	910000 GHz 62 kHz	#\/B\A	220 kHz		÷	Sween 2	Span 4	.000 MHz 1001 pts)	Log	<u>Lin</u>
MSG DW	W4 MH4	#VD94	220 KHZ			STATUS		roor pisj		

Plot 7-392. Upper Band Edge Plot (LTE Band 2 - 5MHz QPSK – Full RB Configuration)



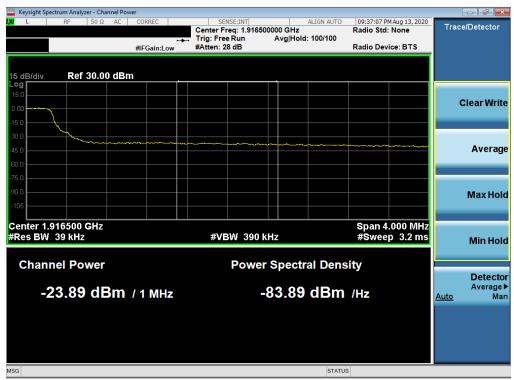
Plot 7-393. Extended Upper Band Edge Plot (LTE Band 2 - 5MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Daga 222 of 280
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🔤 Keysight Spe	ctrum Analyzer - Swe										
L <mark>XI</mark> L	RF 50 Ω	AC	CORREC	SEI	NSE:INT	#Avg Ty	ALIGN AUTO		Aug 13, 2020	Fi	requency
			PNO: Wide ↔ IFGain:Low	, Trig: Free Atten: 36				TYF			Auto Tune
10 dB/div Log	Ref 25.00 c	lBm						-29.	69 dBm		
45.0											Center Freq
15.0										1.91	5000000 GHz
5.00	~~~~~~	~~~~		~~							Start Freq
-5.00										1.91	3000000 GHz
-15.0									DL1 -13.00 dBm		Stop Freq
-25.0					. 1					1.91	7000000 GHz
				- <u>``</u>							CF Step
-35.0									~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Auto	400.000 kHz Man
-45.0											
-55.0											Freq Offset 0 Hz
-65.0											0112
											Scale Type
Center 1.9 #Res BW	15000 GHz		#\/B\A	/ 200 kHz			≠Sweep 2	Span 4	.000 MHz	Log	Lin
#RES DW	02 NH2		#404	200 KHZ		,	status	_	roor pts)		

Plot 7-394. Upper Band Edge Plot (LTE Band 25 - 5MHz QPSK – Full RB Configuration)



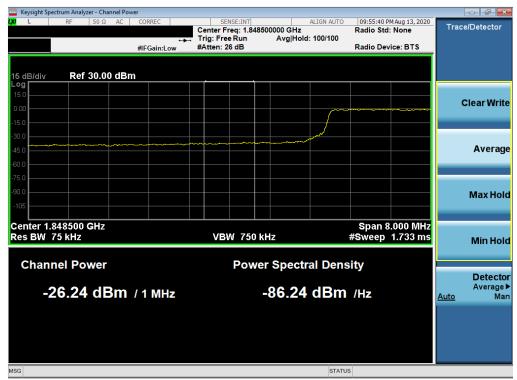
Plot 7-395. Extended Upper Band Edge Plot (LTE Band 25 - 5MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 224 of 280
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	Spectrum An											
L <mark>XI</mark> L	RF	50 Ω	AC CO	RREC	SEI	NSE:INT	#Avg Ty	ALIGN AUTO		Aug 13, 2020	F	requency
				NO: Wide ↔ Gain:Low	Trig: Free Atten: 36				TYPE DE1	A WWWWW A N N N N N		Auto Tune
10 dB/div Log	Ref	25.00 d	Bm					Mkr1	1.850 0 -32.7	00 GHz /1 dBm		Auto Tune
15.0												Center Freq
5.00											1.65	0000000 GH2
						/	and the second second	and the state of the	gory and produced and and and and and and and and and an	&,^~,~,~,~,~,~,~,~,~,~,~,~,~,~,~,~,~,~,~	1.84	Start Freq
-5.00									(0L1 -13.00 dBm		
-15.0											1.85	Stop Freq 4000000 GHz
-25.0						1.₩ /~						CF Step
-35.0	and the second sec	᠕ᡔ᠆᠆᠆ᡁ	᠕ᡏᠬᠡ᠘ᡃᢛᠬᡘᡇᢓᡭᡣᠴᡅᡀ	gylyw ^a e ysgede e <i>C</i> allenowe a f	And the second s						<u>Auto</u>	800.000 kHz Man
-45.0												
-55.0												Freq Offset 0 Hz
-65.0												Scale Type
Center	1 95000								Snan 9	000 MHz	Log	Lin
#Res B				#VBV	430 kHz		#	≠Sweep 4	.000 ms (1	000 10112		
MSG								STATUS	6		_	

Plot 7-396. Lower Band Edge Plot (LTE Band 25/2 - 10MHz QPSK – Full RB Configuration)



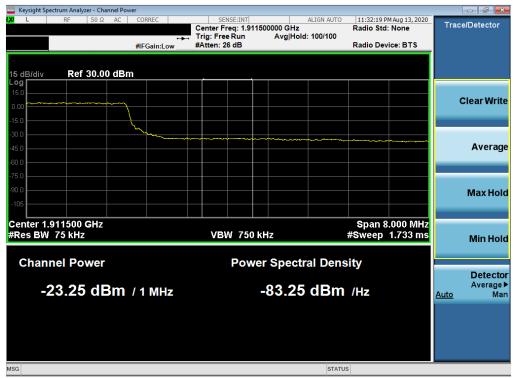
Plot 7-397. Extended Lower Band Edge Plot (LTE Band 25/2 - 10MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 225 of 280
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	ectrum Analyzer - Swept SA									
l <mark>XI</mark>	RF 50 Ω A0			ISE:INT SOURC	#Avg Typ	ALIGN AUTO e: RMS	TRAC	Aug 12, 2020	F	requency
10 dB/div	Ref 25.00 dBn	PNO: Wide ↔ IFGain:Low	Trig: Free #Atten: 3			Mkr1	DE			Auto Tune
15.0										Center Freq 0000000 GHz
-5.00	- yydd awy a wedd arwyd dan y	and a start of the	Wen					DL1 -13.00 dBm	1.90	Start Freq 6000000 GHz
-15.0			- Hills	1					1.91	Stop Freq 4000000 GHz
-35.0			Y	and a stand of the	°₩₩₩₽₩₽₩₩₩₩₩₩	mont more and	magana	Annonemotik uppern	<u>Auto</u>	CF Step 800.000 kHz Mar
-55.0										Freq Offset 0 Hz
-65.0							0		Log	Scale Type
Center 1.9 #Res BW	910000 GHz 120 kHz	#VBW	430 kHz		#	Sweep_4	:Span 8 () 000 ms.	000 10112	Log	
MSG						STATUS				

Plot 7-398. Upper Band Edge Plot (LTE Band 2 - 10MHz QPSK – Full RB Configuration)



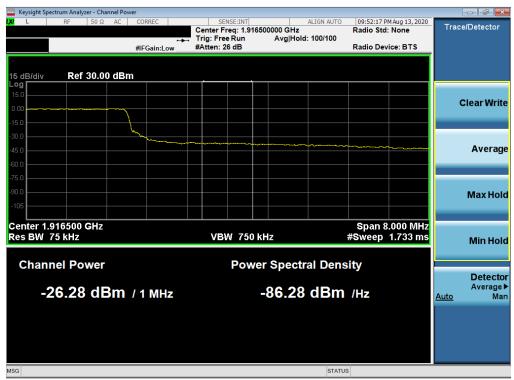
Plot 7-399. Extended Upper Band Edge Plot (LTE Band 2 - 10MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 226 of 280
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	ectrum Analyzer - Swept SA									
L <mark>XI</mark> L	RF 50 Ω AC	CORREC	SEN	ISE:INT	#Avg Ty	ALIGN AUTO		Aug 13, 2020	F	requency
		PNO: Wide ↔ IFGain:Low	Trig: Free Atten: 36				TYP			
10 dB/div Log	Ref 25.00 dBm					Mkr1	1.915 0 -31.07	00 GHz 70 dBm		Auto Tune
15.0										Center Freq 5000000 GHz
5.00 میسٹریں -5.00	Terre of the terre of	ane and and a second and a							1.91	Start Freq 1000000 GHz
-15.0								DL1 -13.00 dBm	1.91	Stop Freq 9000000 GHz
-35.0			~~ <u>~</u>	1	engelander, orgenoue	and and a start of the start of	and and a start of the start of	- Marine Starter	<u>Auto</u>	CF Step 800.000 kHz Man
-45.0										Freq Offset 0 Hz
-65.0									Log	Scale Type
Center 1.9 #Res BW	915000 GHz 120 kHz	#VBW	430 kHz		#	≠Sweep 4	.9 Span 8 // Span 8.	200 1911 12	LUg	Lin
MSG						STATUS				

Plot 7-400. Upper Band Edge Plot (LTE Band 25 - 10MHz QPSK – Full RB Configuration)



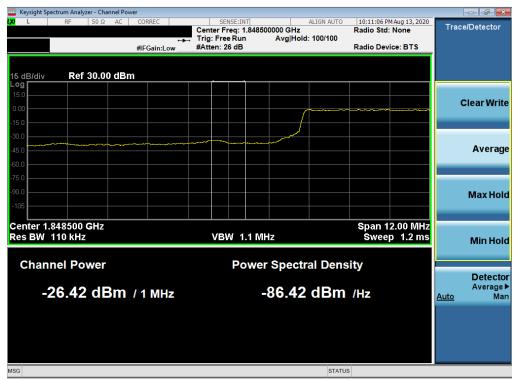
Plot 7-401. Extended Upper Band Edge Plot (LTE Band 25 - 10MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 227 of 200
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🔤 Keysight Spe	ectrum Analyzer - Swe										
LXI L	RF 50 Ω	AC	CORREC	SEN	ISE:INT	#Avg Typ	ALIGN AUTO		Aug 13, 2020	Fre	equency
			PNO: Wide ↔ IFGain:Low	Trig: Free Atten: 36				TYP DE			Auto Tune
10 dB/div Log	Ref 25.00 c	dBm					Mkr1	1.850 0 -32.	00 GHz 14 dBm		Auto Tune
15.0				Ì							enter Freq
										1.850	000000 GHz
5.00					~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Legen more	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	n	1 844	Start Freq
-5.00									DL1 -13.00 dBm	1.04	
-15.0					1					1.856	Stop Freq
-25.0					1, 1						CF Step
-35.0	we www.	- Andrew - and - and		angana at ang						1. <u>Auto</u>	200000 MHz Man
-45.0											_
-55.0										F	F req Offset 0 Hz
-65.0											Decle Trme
										Log	Scale Type Lin
Center 1.8 #Res BW	350000 GHz 180 kHz		#VBW	620 kHz			Sweep 1	:1 Span ') 000 ms(2.00 MHz 1001 pts)	LUg	
MSG							STATUS				

Plot 7-402. Lower Band Edge Plot (LTE Band 25/2 - 15MHz QPSK – Full RB Configuration)



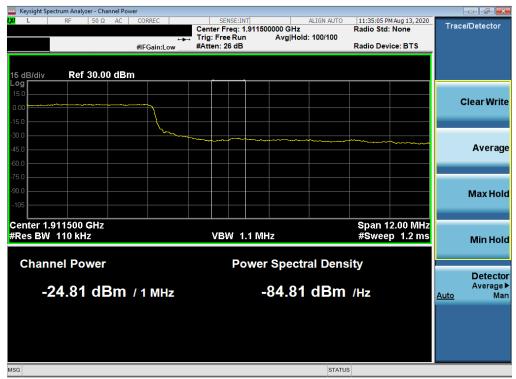
Plot 7-403. Extended Lower Band Edge Plot (LTE Band 25/2 - 15MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 220 of 200
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	ctrum Analyzer - Swept SA								_	
XI	RF 50 Ω AC	CORREC		NSE:INT SOUR	CE OFF	ALIGN AUTO	TRAC	MAug 12, 2020 E 1 2 3 4 5 6 E A WWWW	Freq	uency
10 dB/div	Ref 25.00 dBm	IFGain:Low	#Atten: 3			Mkr1	1.909 9	92 GHz 97 dBm	A	uto Tune
15.0										nter Freq 00000 GHz
5.00 										Start Freq 00000 GHz
-15.0			-	1				DL1 -13.00 dBm		Stop Freq 00000 GHz
-35.0				homen	m	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	m market		1.2 <u>Auto</u>	CF Step 00000 MHz Man
-55.0									Fr	eq Offsel 0 Hz
-65.0							On on 4	2.00 844	So	cale Type
Center 1.9 #Res BW)10000 GHz 180 kHz	#VBW	620 kHz			Sweep_1	span 1 1.000 ms (2.00 10112	209	<u></u>
MSG						STATU				

Plot 7-404. Upper Band Edge Plot (LTE Band 2 - 15MHz QPSK – Full RB Configuration)



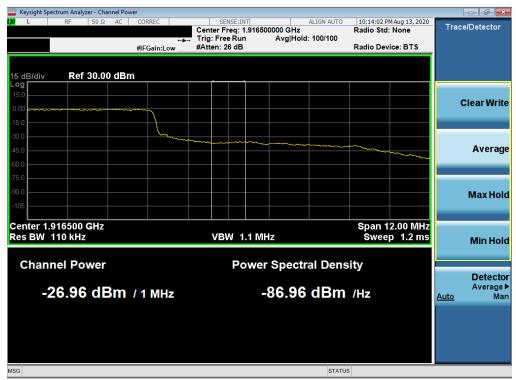
Plot 7-405. Extended Upper Band Edge Plot (LTE Band 2 - 15MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	PCTEST * Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 220 of 280
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🔤 Keysight	t Spectrum Ar											_	
LXI L	RF	50 Ω	AC	CORREC		SEN	ISE:INT	#Ava	ALIGN AUTO Type: RMS		PM Aug 13, 2020	Fr	equency
				PNO: Wid IFGain:Lo		Trig: Free Atten: 36				דו נ			Auto Tune
10 dB/div Log	Ref	25.00 c	lBm							-28	.76 dBm		
													Center Freq
15.0												1.91	5000000 GHz
5.00				100									Start Freq
-5.00	- 0,000				001-00							1.90	9000000 GHz
											DL1 -13.00 dBm		
-15.0													Stop Freq
-25.0						hy -	1					1.92	1000000 GHz
						Land La	m	in the second	20.00				CF Step
-35.0							<u>~</u>				unn	1 <u>Auto</u>	.200000 MHz Man
-45.0													
-55.0													Freq Offset 0 Hz
													0 112
-65.0													Scale Type
Center	1.91500	0 GHz								Span '	12.00 10112	Log	Lin
#Res B	W 180 k	Hz		#\	/BW (620 kHz			Sweep	1.000 ms	(1001 pts)		
MSG									STAT	JS			

Plot 7-406. Upper Band Edge Plot (LTE Band 25 - 15MHz QPSK – Full RB Configuration)



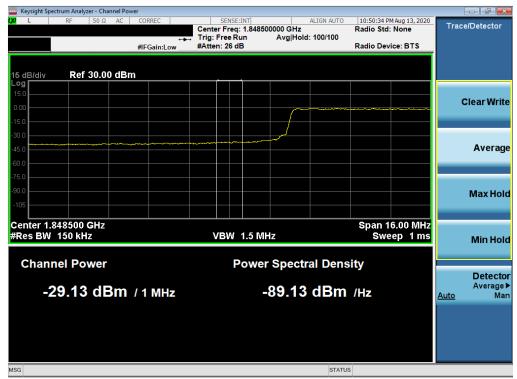
Plot 7-407. Extended Upper Band Edge Plot (LTE Band 25 - 15MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 220 of 280
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	ectrum Analyzer - Swept SA									p 🗙
LXI L	RF 50 Ω AC	CORREC	SENS	E:INT	#Avg Typ	ALIGN AUTO	10:39:42 PM TRACE	Aug 13, 2020	Frequenc	cy
		PNO: Wide ↔ IFGain:Low	Trig: Free F #Atten: 36 d		****8 i jp		TYPE DET	A WWWWW A N N N N N		
10 dB/div Log	Ref 25.00 dBm					Mkr1	1.849 98 -32.8	84 GHz 2 dBm	Auto	Tune
15.0			Ĭ						Center	
									1.85000000	0 GHZ
5.00				~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		prominenter	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	Start	
-5.00								0L1 -13.00 dBm	1.84200000	0 GHZ
-15.0								CT - 13.00 dBm		Freq
-25.0									1.85800000	0 GHz
-35.0		www.www.www.www		A. A					CF	Step
-45.0	- Marillan Marilland								Auto	Man
									FreqC	Offset
-55.0									•	0 Hz
-65.0									Scale	Туре
	850000 GHz						Span 16	.00 MHz	Log	Lin
#Res BW	240 kHz	#VBW	820 kHz			Sweep 1	.000 ms (1	001 pts)		
MSG						STATUS	5			

Plot 7-408. Lower Band Edge Plot (LTE Band 25/2 - 20MHz QPSK – Full RB Configuration)



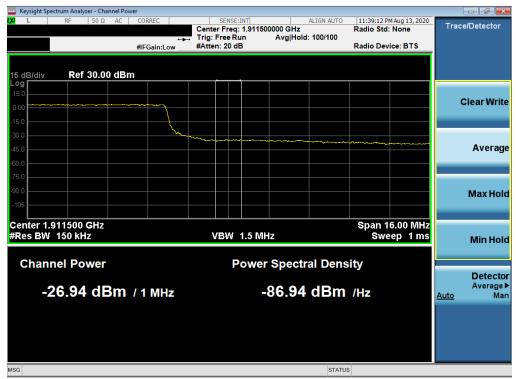
Plot 7-409. Extended Lower Band Edge Plot (LTE Band 25/2 - 20MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	PCTEST° Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 221 of 280
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	ectrum Analyzer - Swe									
XI	RF 50 Ω	AC	CORREC		NSE:INT SOUR	ALIGN AUTO	TRA	PM Aug 12, 2020 CE 1 2 3 4 5 6 (PE A WWWWW	Fr	equency
10 dB/div	Ref 25.00 c	iBm	PNO: Wide ↔ IFGain:Low	#Atten: 3		Mki	1 1.909			Auto Tune
15.0										Center Freq 0000000 GHz
-5.00	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~		, mar and a mar and a mar a					DL1 -13.00 dBm	1.902	Start Freq 2000000 GHz
-15.0				4	1				1.91	Stop Freq 3000000 GHz
-35.0					- Annon mark		and a star and a second se	and the second s	1 <u>Auto</u>	CF Step .600000 MHz Mar
55.0									· ·	Freq Offset 0 Hz
-65.0							0 4+++ 4 04		Log	Scale Type
start 1.90 #Res BW	2000 GHz 240 kHz		#VBW	820 kHz		Sweep		8000 GHz (1001 pts)	209	<u></u>
ISG						STAT				

Plot 7-410. Upper Band Edge Plot (LTE Band 2 - 20MHz QPSK – Full RB Configuration)



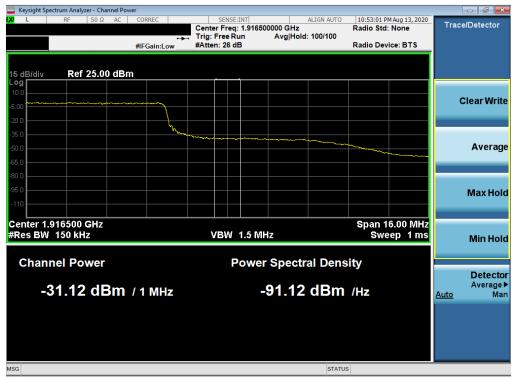
Plot 7-411. Extended Upper Band Edge Plot (LTE Band 2 - 20MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dama 000 of 000
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	ectrum Analyzer - Swept SA									7 ×
LXI L	RF 50 Ω AC	CORREC	SEN	ISE:INT	#Avg Ty	ALIGN AUTO		Aug 13, 2020	Frequenc	су
		PNO: Wide ↔ IFGain:Low	Trig: Free Atten: 36		•		TYP	A WWWWW A N N N N N		
10 dB/div Log	Ref 25.00 dBm					Mkr1	1.915 0 -33.90	32 GHz)3 dBm	Auto	Tune
15.0									Center 1.91500000	
-5.00	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	- market and a second	wrod						Start 1.90700000	t Freq 0 GHz
-15.0								DL1 -13.00 dBm	Stop 1.92300000	Freq 0 GHz
-35.0			t.	1	Amara	m	many		CF 1.60000 <u>Auto</u>	Step 0 MHz Man
-45.0									Freq C	Offset 0 Hz
-65.0									Scale	Type Lin
Center 1.9 #Res BW	915000 GHz 240 kHz	#VBW	820 kHz			Sweep 1	Span 16 /.000 ms (7.00 IVII 12	Log	
MSG						STATUS				_

Plot 7-412. Upper Band Edge Plot (LTE Band 25 - 20MHz QPSK – Full RB Configuration)



Plot 7-413. Extended Upper Band Edge Plot (LTE Band 25 - 20MHz QPSK – Full RB Configuration)

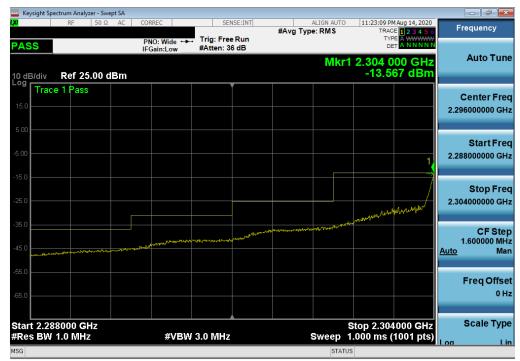
FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 222 of 280
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LTE Band 30

	nalyzer - Swept SA						
l <mark>XI</mark> RF	50 Ω AC	CORREC	SENSE:INT	#Avg Type	BMS	09:49:21 PM Aug 10, 2 TRACE 1 2 3	
		PNO: Wide ↔ IFGain:Low	Trig: Free Run #Atten: 36 dB				
10 dB/div Ref	25.00 dBm				Mkr1	2.305 004 G -28.15 dE	Hz Auto Tune Bm
15.0							Center Freq 2.305000000 GHz
-5.00						DL1 -13.00	Start Freq 2.303000000 GHz
-15.0			1				Stop Freq 2.307000000 GHz
-35.0	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~					CF Step 400.000 kHz <u>Auto</u> Man
-55.0							Freq Offset 0 Hz
-65.0							Scale Type
Center 2.30500 #Res BW 62 kH		#VBW	220 kHz	#\$	Sweep 2	Span 4.000 M .000 ms (1001 p	IHz ^{Log <u>Lin</u> ots)}
MSG					STATUS		

Plot 7-414. Lower Band Edge Plot (LTE Band 30 - 5MHz QPSK - Full RB Configuration)



Plot 7-415. Extended Lower Band Edge Plot (LTE Band 30 - 5MHz QPSK - Full RB Configuration)

FCC ID: ZNFK920AM	PCTEST [®] Proud to be part of [®] element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dage 224 of 280	
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Keysight Spectrum Analyzer - Swept SA					
RF 50 Ω AC	CORREC	SENSE:INT	ALIGN AUTO #Avg Type: RMS	08:56:28 PM Aug 10, 2020 TRACE 1 2 3 4 5 6	Frequency
10 dB/div Ref 25.00 dBm		Trig: Free Run #Atten: 40 dB		TYPE A WWWW DET A NNNNN 1 2.315 04 GHz -30.99 dBm	Auto Tune
					Center Freq 2.315000000 GHz
5.00	Ale and the second s			DL1 -13 00 dBm	Start Freq 2.310000000 GHz
-15.0		1			Stop Freq 2.320000000 GHz
-35.0		her	Marmorenawer	- a manufully	CF Step 1.000000 MHz <u>Auto</u> Man
-55.0					Freq Offset 0 Hz
-65.0					Scale Type
Center 2.315000 GHz #Res BW 62 kHz	#VBW 2	20 kHz	#Sweep \$	Span 10.00 MHz 5.000 ms (1001 pts)	
MSG			STATU		

Plot 7-416. Upper Band Edge Plot (LTE Band 30 - 5MHz QPSK – Full RB Configuration)



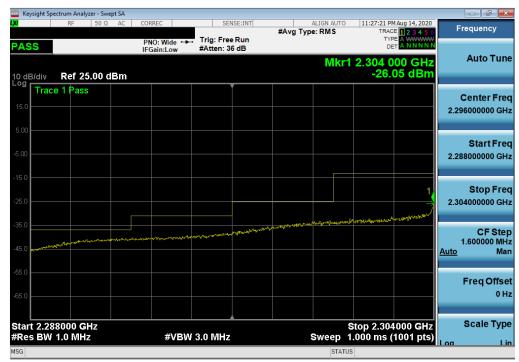
Plot 7-417. Extended Upper Band Edge Plot (LTE Band 30 - 5MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Keysight Sp	ectrum Analyzer		4									
<mark>X</mark>	RF	50 Ω A	C COF	REC	SE	NSE:INT	#Avg Typ	ALIGN AUTO		Aug 11, 2020	F	requency
				IO: Wide ↔ Gain:Low	Trig: Fre #Atten: 3				TYP DE			Auto Tune
10 dB/div Log	Ref 25.0	00 dBn	n					Mkr1	2.304 9	92 GHz 12 dBm		Auto Tune
						Ĭ						Center Freq
15.0											2.30	5000000 GHz
5.00						~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	***********	an a	hadan dan series and			Start Freq
-5.00											2.30	1000000 GHz
										DL1 -13.00 dBm		
-15.0											2.30	Stop Freq
-25.0						,1 ,1						
-35.0	Land and and and and a second	want	Martin	more	une year						Auto	CF Step 800.000 kHz Man
-45.0												
-55.0												Freq Offset 0 Hz
-65.0												
												Scale Type
Center 2.		Hz		<i>4</i> 3 (B)					Span 8	.000 MHz	Log	<u>Lin</u>
#Res BW	120 KHZ			#VBV	V 430 kHz		#		.000 ms (1001 pts)		
MSG								STATUS	5			

Plot 7-418. Lower Band Edge Plot (LTE Band 30 - 10MHz QPSK – Full RB Configuration)



Plot 7-419. Extended Lower Band Edge Plot (LTE Band 30 - 10MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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🔤 Keysight Spe	ectrum Analyzer - S									
L <mark>XI</mark>	RF 50	Ω AC	CORREC	SE	NSE:INT	#Avg Typ	ALIGN AUTO		Aug 10, 2020	Frequency
			PNO: Wide IFGain:Low			• ,.		TYP DE		Auto Tune
10 dB/div Log	Ref 25.00	dBm					Mki	1 2.315 -33.2	01 GHz 23 dBm	Auto Tune
					Ĭ					Center Freq
15.0										2.315000000 GHz
5.00	and the second	adaangeragaag	aurran an a	man						Start Freq
-5.00										2.310000000 GHz
-15.0									DL1 -13.00 dBm	Stop Freq
-25.0										2.320000000 GHz
				×.	1					CF Step
-35.0					and a second	and the second strategy and the second state of the second state o				1.000000 MHz Auto Man
-45.0								and and here any application	hor have been and	
-55.0										Freq Offset 0 Hz
-65.0										
										Scale Type
Center 2.3 #Res BW	315000 GHz 120 kHz	2	#VI	BW 430 kHz		#	Sween _	9 Span ') Span 10 () Span 10	0.00 MHz 1001 pts)	Log <u>Lin</u>
MSG							STATU		reerpts)	

Plot 7-420. Upper Band Edge Plot (LTE Band 30 - 10MHz QPSK – Full RB Configuration)

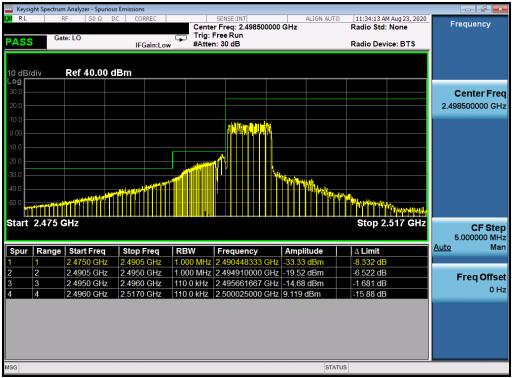


Plot 7-421. Extended Upper Band Edge Plot (LTE Band 30 - 10MHz QPSK – Full RB Configuration)

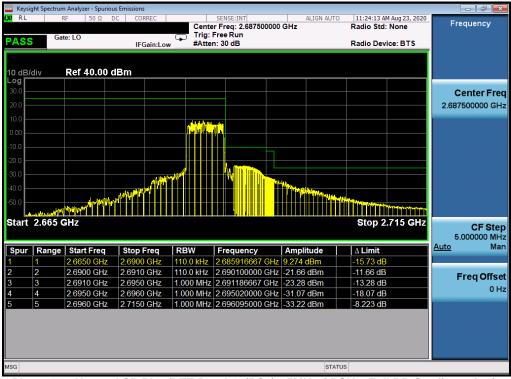
FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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LTE Band 41(PC3)



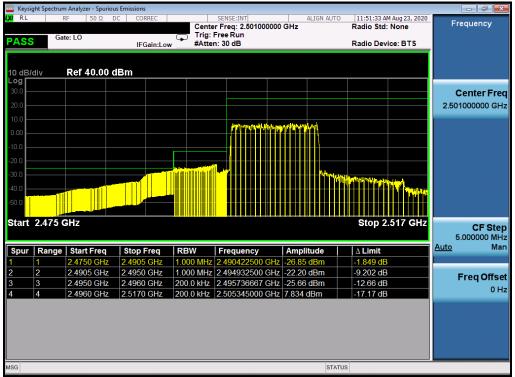
Plot 7-422. Lower ACP Plot (LTE Band 41(PC3) - 5MHz QPSK – Full RB Configuration)



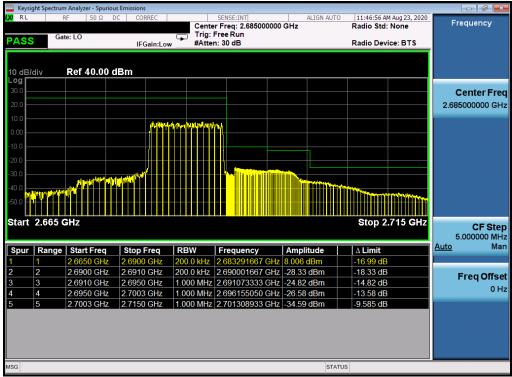
Plot 7-423. Upper ACP Plot (LTE Band 41(PC3) - 5MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	PCTEST° Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 220 of 200
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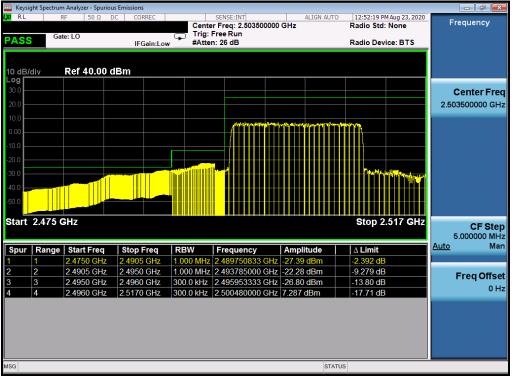
Plot 7-424. Lower ACP Plot (LTE Band 41(PC3) - 10MHz QPSK – Full RB Configuration)



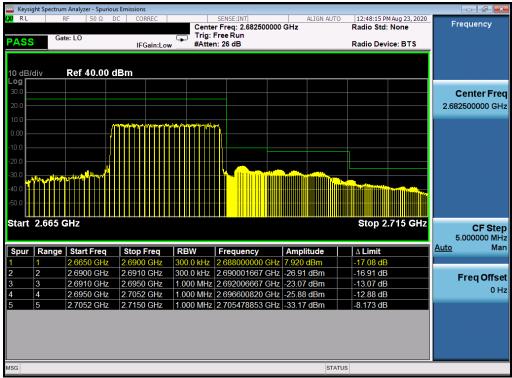
Plot 7-425. Upper ACP Plot (LTE Band 41(PC3) - 10MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	PCTEST° Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Page 239 of 389
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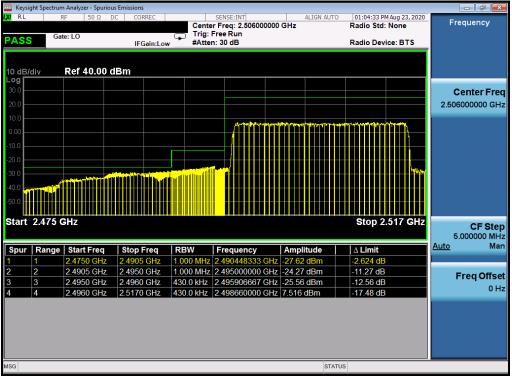
Plot 7-426. Lower ACP Plot (LTE Band 41(PC3) - 15MHz QPSK – Full RB Configuration)



Plot 7-427. Upper ACP Plot (LTE Band 41(PC3) - 15MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	PCTEST [®] Proud to be part of [®] element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager	
Test Report S/N:	Test Dates:	EUT Type:	Dago 240 of 280	
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Plot 7-428. Lower ACP Plot (LTE Band 41(PC3) - 20MHz QPSK – Full RB Configuration)



Plot 7-429. Upper ACP Plot (LTE Band 41(PC3) - 20MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	PCTEST * Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 244 of 280
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ULCA - LTE Band 5



Plot 7-430. Lower Band Edge Plot (LTE Band 5 – 10MHz BW QPSK – Full RB Configuration)

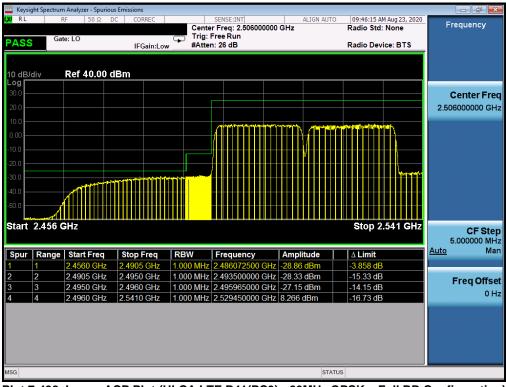


Plot 7-431. Upper Band Edge Plot (LTE Band 5 – 10MHz BW QPSK – Full RB Configuration)

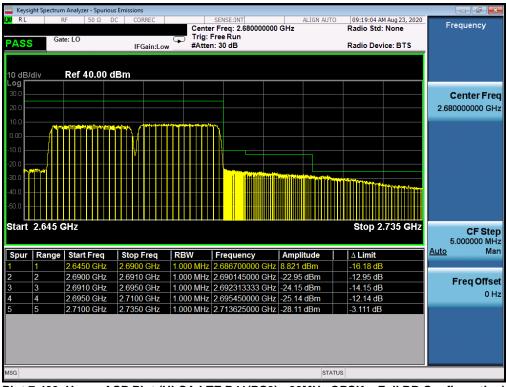
FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 242 of 280
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ULCA - LTE Band 41(PC3)



Plot 7-432. Lower ACP Plot (ULCA LTE B41(PC3) - 20MHz QPSK – Full RB Configuration)



Plot 7-433. Upper ACP Plot (ULCA LTE B41(PC3) - 20MHz QPSK – Full RB Configuration)

FCC ID: ZNFK920AM	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dega 242 of 200
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NR Band n71



Plot 7-434. Lower Band Edge Plot (NR Band n71 – 5.0MHz - Full RB)



Plot 7-435. Upper Band Edge Plot (NR Band n71 – 5.0MHz - Full RB)

FCC ID: ZNFK920AM	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 244 of 280
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Plot 7-437. Upper Band Edge Plot (NR Band n71 – 10.0MHz - Full RB)

FCC ID: ZNFK920AM	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dage 245 of 280
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Plot 7-438. Lower Band Edge Plot (NR Band n71 – 15.0MHz - Full RB)



Plot 7-439. Upper Band Edge Plot (NR Band n71 – 15.0MHz - Full RB)

FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 246 of 280
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Plot 7-440. Lower Band Edge Plot (NR Band n71 – 20.0MHz - Full RB)

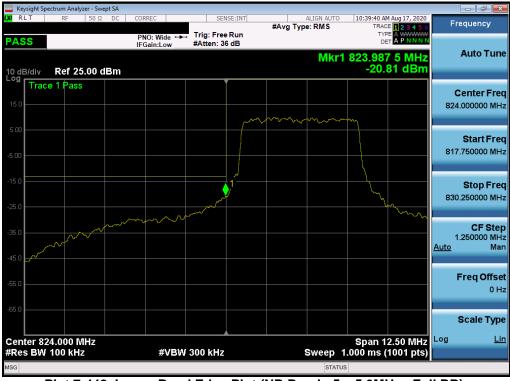


Plot 7-441. Upper Band Edge Plot (NR Band n71 – 20.0MHz - Full RB)

FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 247 of 280
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NR Band n5



Plot 7-442. Lower Band Edge Plot (NR Band n5 – 5.0MHz - Full RB)

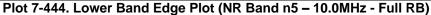


Plot 7-443. Upper Band Edge Plot (NR Band n5 – 5.0MHz - Full RB)

FCC ID: ZNFK920AM	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 249 of 200
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Plot 7-445. Upper Band Edge Plot (NR Band n5 – 10.0MHz - Full RB)

FCC ID: ZNFK920AM	PCTEST* Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 240 of 290
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Plot 7-446. Lower Band Edge Plot (NR Band n5 – 15.0MHz - Full RB)



Plot 7-447. Upper Band Edge Plot (NR Band n5 – 15.0MHz - Full RB)

FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:	Dogo 250 of 280
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Keysight Spectrum Analyzer - Swe	pt SA				
X/RLT RF 50Ω	DC CORREC	SENSE:INT	ALIGN AUTO : #Avg Type: RMS	11:05:57 AM Aug 17, 2020 TRACE 1 2 3 4 5 6	Frequency
PASS	PNO: Fast ↔→	Trig: Free Run #Atten: 36 dB		TYPE A WWWWW DET A P N N N N	
	in Guineon		Mkr	1 823.95 MHz	Auto Tune
10 dB/div Ref 25.00 d	Bm			-28.01 dBm	
Trace 1 Pass		Ĭ			Center Freq
15.0					824.000000 MHz
5.00		Mon Mark	www.www.	tury	Start Freq
-5.00					799.000000 MHz
-15.0					Stop Freq
					849.000000 MHz
-25.0		?			
-35.0		And and a start of the start of		Mohmy	CF Step
	www.www.wee				5.000000 MHz <u>Auto</u> Man
45.0					
					Freq Offset
-55.0					0 Hz
65.0					
					Scale Type
Center 824.00 MHz				Spap 50 00 MHz	Log Lin
#Res BW 100 kHz	#VBW	300 kHz	Sweep 2.40	Span 50.00 MHz 00 ms (1001 pts)	
ISG			STATUS		

Plot 7-448. Lower Band Edge Plot (NR Band n5 - 20.0MHz - Full RB)

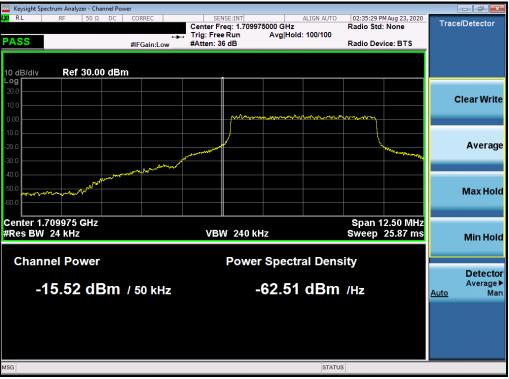


Plot 7-449. Upper Band Edge Plot (NR Band n5 – 20.0MHz - Full RB)

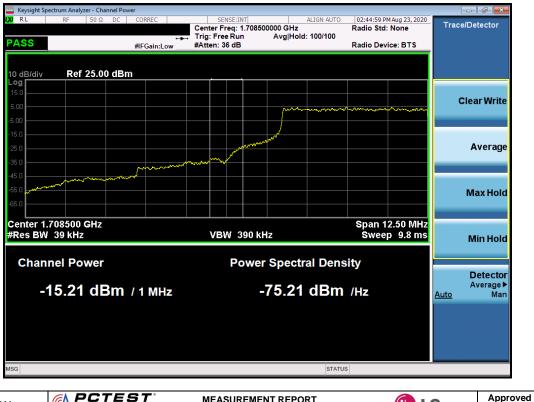
FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 251 of 290
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NR Band n66



Plot 7-450. Lower Band Edge Plot (NR Band n66 - 5.0MHz - Full RB)

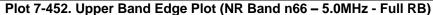


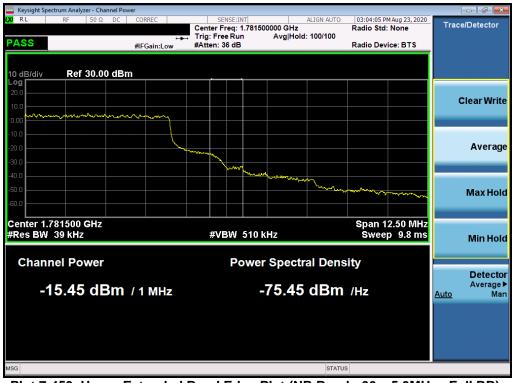
FCC ID: ZNFK920AM	PCTEST [®] Proud to be part of ® element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-451. Lower Extended Band Edge Plot (NR Band n66 - 5.0MHz - Full RB)



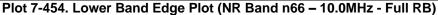


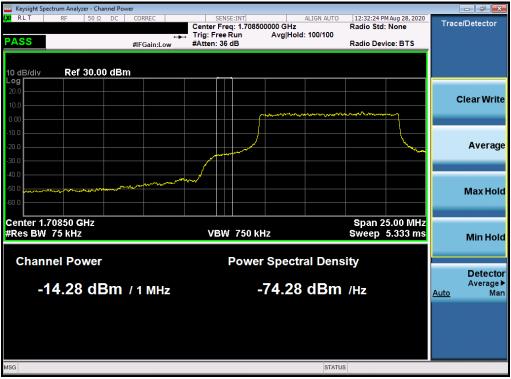
Plot 7-453. Upper Extended Band Edge Plot (NR Band n66 – 5.0MHz - Full RB)

FCC ID: ZNFK920AM	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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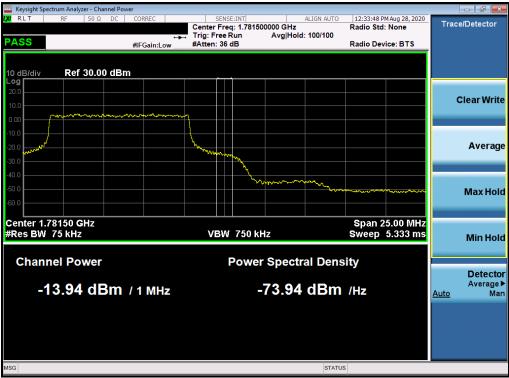
Plot 7-455. Lower Extended Band Edge Plot (NR Band n66 – 10.0MHz - Full RB)

FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-456. Upper Band Edge Plot (NR Band n66 - 10.0MHz - Full RB)



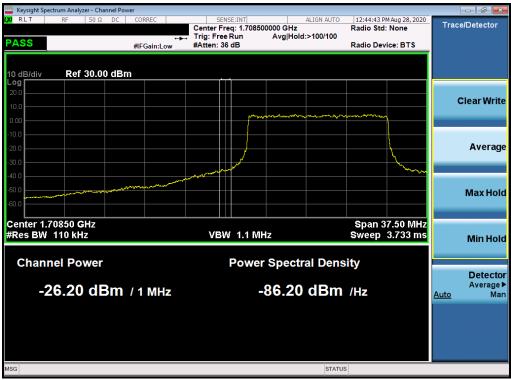
Plot 7-457. Upper Extended Band Edge Plot (NR Band n66 – 10.0MHz - Full RB)

FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager		
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Plot 7-458. Lower Band Edge Plot (NR Band n66 - 15.0MHz - Full RB)



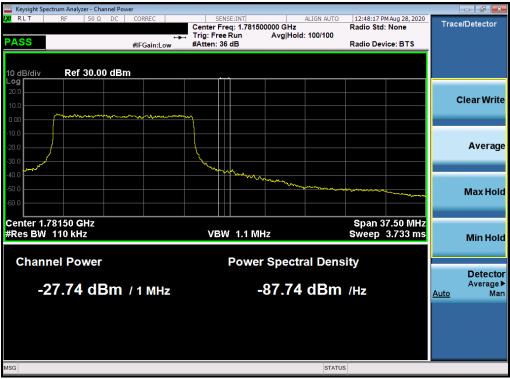
Plot 7-459. Lower Extended Band Edge Plot (NR Band n66 – 15.0MHz - Full RB)

FCC ID: ZNFK920AM	PCTEST° Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager		
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Plot 7-460. Upper Band Edge Plot (NR Band n66 - 15.0MHz - Full RB)



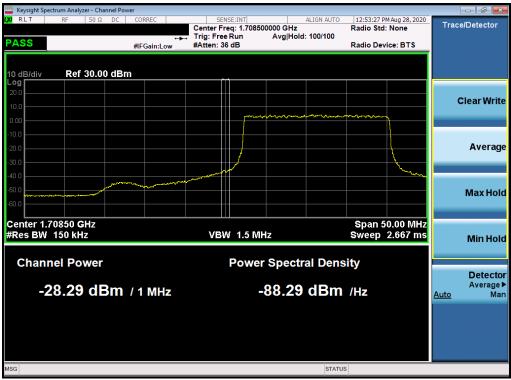
Plot 7-461. Upper Extended Band Edge Plot (NR Band n66 – 15.0MHz - Full RB)

FCC ID: ZNFK920AM	PCTEST° Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	🕕 LG	Approved by: Quality Manager
Test Report S/N:	Test Dates:	EUT Type:		Dage 257 of 200
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Plot 7-462. Lower Band Edge Plot (NR Band n66 - 20.0MHz - Full RB)



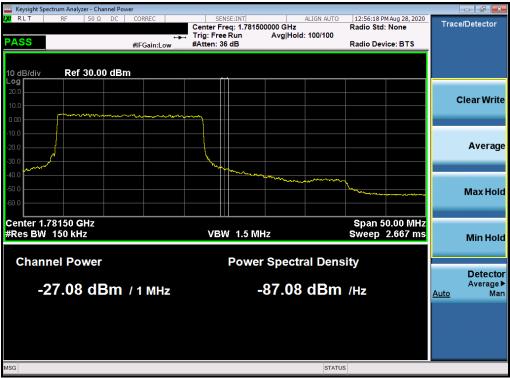
Plot 7-463. Lower Extended Band Edge Plot (NR Band n66 – 20.0MHz - Full RB)

FCC ID: ZNFK920AM	PCTEST° Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager		
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Plot 7-464. Upper Band Edge Plot (NR Band n66 - 20.0MHz - Full RB)



Plot 7-465. Upper Extended Band Edge Plot (NR Band n66 – 20.0MHz - Full RB)

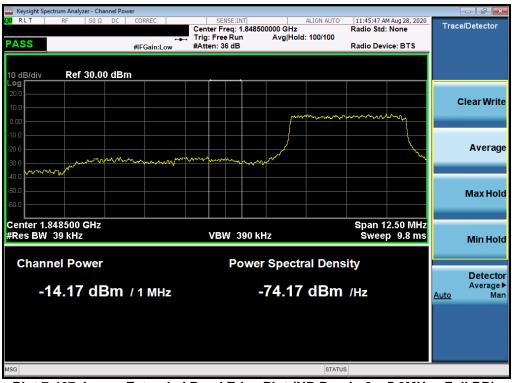
FCC ID: ZNFK920AM	PCTEST° Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager		
Test Report S/N:	Test Dates:	EUT Type:	Daga 250 of 280		
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NR Band n2



Plot 7-466. Lower Band Edge Plot (NR Band n2 – 5.0MHz - Full RB)

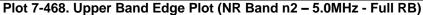


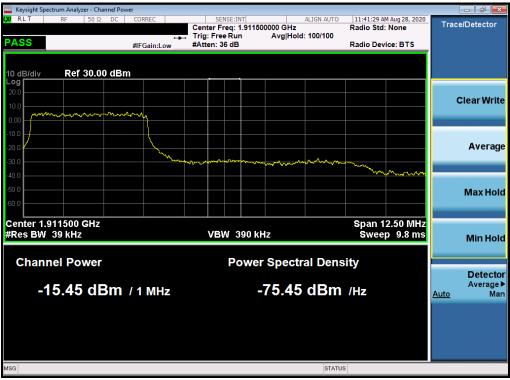
Plot 7-467. Lower Extended Band Edge Plot (NR Band n2 – 5.0MHz - Full RB)

FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	🕒 LG	Approved by: Quality Manager
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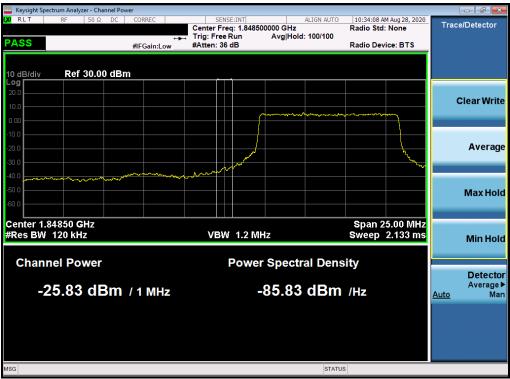
Plot 7-469. Upper Extended Band Edge Plot (NR Band n2 – 5.0MHz - Full RB)

FCC ID: ZNFK920AM	Proud to be part of element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-470. Lower Band Edge Plot (NR Band n2 - 10.0MHz - Full RB)



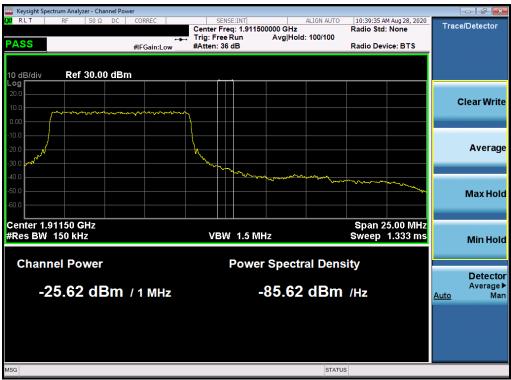
Plot 7-471. Lower Extended Band Edge Plot (NR Band n2 – 10.0MHz - Full RB)

FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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	ectrum Analy	zer - Swep	it SA										
X/RLT	RF	50 Ω	DC	CORREC				#Avg Ty	ALIGN AUTO	TRA	AM Aug 28, 2020 CE 1 2 3 4 5 6 (PE A MARINE	F	requency
PASS	Ref 25	.00 di	Зm	PNO: W IFGain:L	ide ↔ .ow	#Atten: 3			Mkr	1 1.910	025 GHz .41 dBm		Auto Tune
15.0	e 1 Pass												Center Freq 0000000 GHz
-5.00		<u>~~~~</u>	~~~~		~~~~~^							1.89	Start Freq 7500000 GHz
-15.0							1					1.92	Stop Freq 2500000 GHz
-35.0	<i>ک</i> سر 						J. March	~~~~	~~~^	m	-marina a	Auto	CF Step 2.500000 MHz Man
-55.0													Freq Offset 0 Hz
-65.0													Scale Type
Center 1. #Res BW				ŧ	≠vbw	430 kHz			Sweep	Span 2 1.000 ms	25.00 MHz (1001 pts)	Log	Lin
MSG									STATI	JS			

Plot 7-472. Upper Band Edge Plot (NR Band n2 – 10.0MHz - Full RB)



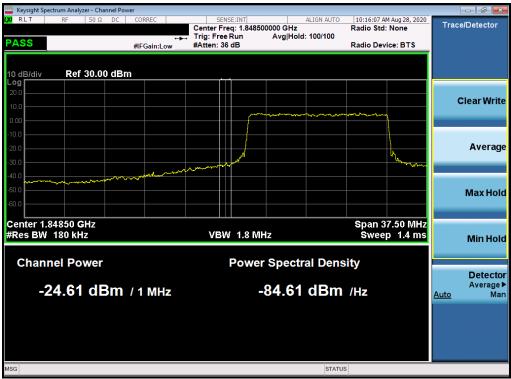
Plot 7-473. Upper Extended Band Edge Plot (NR Band n2 – 10.0MHz - Full RB)

FCC ID: ZNFK920AM	PCTEST° Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager		
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Plot 7-474. Lower Band Edge Plot (NR Band n2 - 15.0MHz - Full RB)



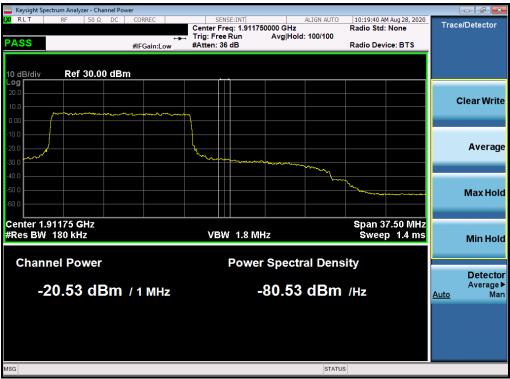
Plot 7-475. Lower Extended Band Edge Plot (NR Band n2 – 15.0MHz - Full RB)

FCC ID: ZNFK920AM	Proud to be part of @ element	MEASUREMENT REPORT (CERTIFICATION)	Approved by: Quality Manager
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Plot 7-476. Upper Band Edge Plot (NR Band n2 – 15.0MHz - Full RB)



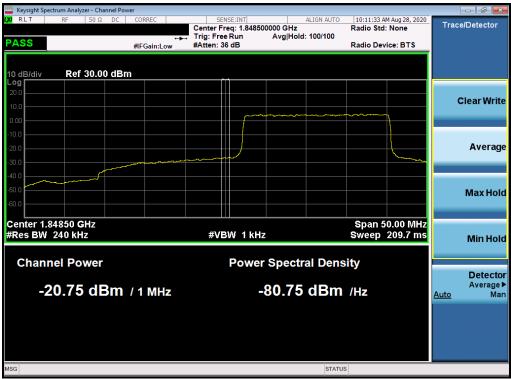
Plot 7-477. Upper Extended Band Edge Plot (NR Band n2 – 15.0MHz - Full RB)

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Plot 7-478. Lower Band Edge Plot (NR Band n2 - 20.0MHz - Full RB)



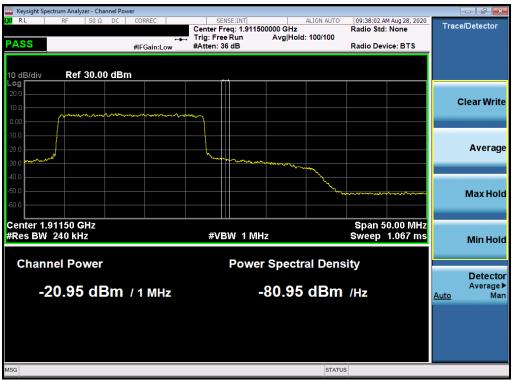
Plot 7-479. Lower Extended Band Edge Plot (NR Band n2 – 20.0MHz - Full RB)

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	pectrum Analy:												
X/RL	RF	50 Ω	DC	CORREC		SEI	NSE:INT	#Avg Ty	ALIGN AUTO pe: RMS	TRAC	M Aug 28, 2020	Frec	uency
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Plot 7-480. Upper Band Edge Plot (NR Band n2 – 20.0MHz - Full RB)



Plot 7-481. Upper Extended Band Edge Plot (NR Band n2 – 20.0MHz - Full RB)

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7.5 Peak-Average Ratio

Test Overview

A peak to average ratio measurement is performed at the conducted port of the EUT. The spectrum analyzers Complementary Cumulative Distribution Function (CCDF) measurement profile is used to determine the largest deviation between the average and the peak power of the EUT in a given bandwidth. The CCDF curve shows how much time the peak waveform spends at or above a given average power level. The percent of time the signal spends at or above the level defines the probability for that particular power level.

Test Procedure Used

KDB 971168 D01 v03r01 - Section 5.7.1

Test Settings

- 1. The signal analyzer's CCDF measurement profile is enabled
- 2. Frequency = carrier center frequency
- 3. Measurement BW ≥ OBW or specified reference bandwidth
- 4. The signal analyzer was set to collect one million samples to generate the CCDF curve
- 5. The measurement interval was set depending on the type of signal analyzed. For continuous signals (>98% duty cycle), the measurement interval was set to 1ms. For burst transmissions, the spectrum analyzer is set to use an internal "RF Burst" trigger that is synced with an incoming pulse and the measurement interval is set to less than the duration of the "on time" of one burst to ensure that energy is only captured during a time in which the transmitter is operating at maximum power

Test Setup

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



Figure 7-4. Test Instrument & Measurement Setup

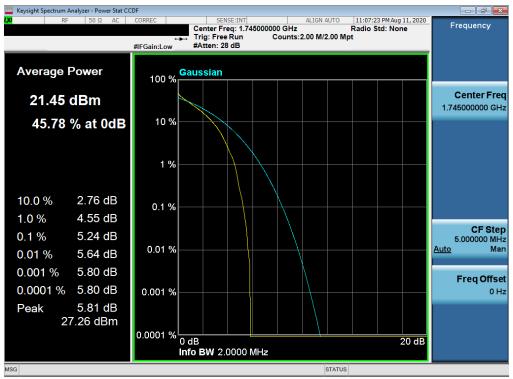
Test Notes

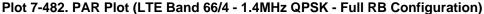
None.

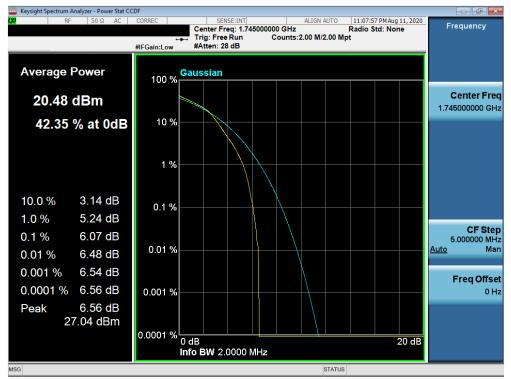
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LTE Band 66/4







Plot 7-483. PAR Plot (LTE Band 66/4 - 1.4MHz 16-QAM - Full RB Configuration)

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