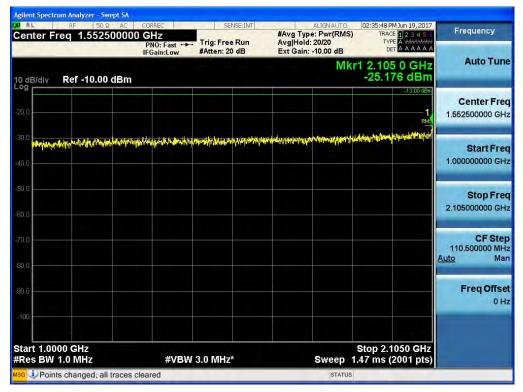
Conducted Spurious Emissions (1 GHz – 2.105 GHz)

[Downlink Low]



	0: Fast Trig: Fre in:Low #Atten: 2	0 68	Avg[Hold: Ext Gain:	-10.00 dB Mk	TRA TY D -1 2.06 -27.1	M Jun 19, 2017 CE 12 3 4 5 A MANAGE T A A A A A A A 7 4 GHz 77 dBm -13.00 dBm	Frequency Auto Tune Center Freq 1.552500000 GHz
10 dB/div Ref -10.00 dBm -20.0	#Atten: 2	0 68	Ext Gain:	-10.00 dB Mk	1 2.06 -27.1	7 4 GHz 77 dBm	Center Freq
-20.0	ierricht, calesperaturenterfai	awayawaahayawaa	het any or her of the state	alar Martha an Indon	t to the reading	-13.00 dBm	
	ieretetetetetetetetetetetetetetetetetete	away water water water	telespotent in the second	with the state	LUS MARKEN	المعام والمجاول والمجاول والعر	
							Start Freq 1.000000000 GHz
-80.0							Stop Freq 2.105000000 GHz
-70.0 -80.0							CF Step 110.500000 MHz <u>Auto</u> Man
-100							Freq Offset 0 Hz
Start 1.0000 GHz #Res BW 1.0 MHz	#VBW 3.0 MHz	*		Sweep 1		1050 GHz (2001 pts)	



enter Freq 1.55250000	O GHz PNO: Fast ↔ IFGain:Low	, Trig: Free Run #Atten: 20 dB	ALIGNAUTO #Avg Type: Pwr(RMS Avg Hold: 20/20 Ext Gain: -10.00 dB	02:44:52 PM Jun 19, 2017 TRACE 1 2 3:4 5 5 TYPE A WAYAWAY DET A A A A A A	Frequency
dB/div Ref -10.00 dBm			MI	r1 2.102 2 GHz -26.974 dBm	Auto Tune
.0 .0				+13.00 dBm	Center Fred 1.552500000 GH2
0.0 3.0 3.0	op Mining of Copy and the for	and an	h, yada ya na da ya na ya na ya ka na da ya fan	elynesistender helfnen fra fallen for stanser soller for stanser soller for stanser soller for stanser soller f	Start Free 1.000000000 GH:
3.0					Stop Fre 2.105000000 GH
10 10					CF Stej 110.500000 MH <u>Auto</u> Ma
					Freq Offse 0 H
tart 1.0000 GHz Res BW 1.0 MHz		(3.0 MHz*		Stop 2.1050 GHz 1.47 ms (2001 pts)	

Conducted Spurious Emissions (2.185 GHz – 12.75 GHz) [Downlink Low]







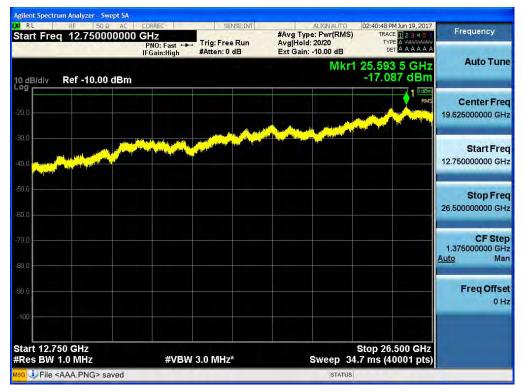
RL RF 50Ω AC Center Freq 7.46750000	CORREC O GHZ PNO: Fast ↔ IEGain:Low	- Trig: Free Run #Atten: 10 dB	ALIGNAUTO #Avg Type: Pwr(RMS) Avg Hold: 20/20 Ext Gain: -10.00 dB	02:45:00 PM Jun 19, 2017 TRACE 1 2 3 4 5 5 TYPE A WAYAWAYA DET A A A A A A	Frequency
0 dB/div Ref -10.00 dBm			Mkr1 1	2.599 98 GHz -26.656 dBm	Auto Tune
20.0				-13.00 dBm	Center Fred 7.467500000 GH:
	, a bala da Mida da Madaria da Andre Martina da Mida da Mida da Mida da Mida Martina da Mida		deather and then be		Start Fred 2.185000000 GHz
60.0					Stop Free 12.750000000 GH;
70.0					CF Stej 1.056500000 GH <u>Auto</u> Ma
90.0					Freq Offse 0 H
Start 2.185 GHz #Res BW 1.0 MHz	#VBM	√ 3.0 MHz*	Sweep 18	Stop 12.750 GHz .7 ms (40001 pts)	



Conducted Spurious Emissions (12.75 GHz – 26.5 GHz)

[Downlink Low]











Single channel Enhancer Plots of Spurious Emission for AWS BAND LTE 20 MHz Conducted Spurious Emissions (9 kHz – 150 kHz)



[Downlink Low]





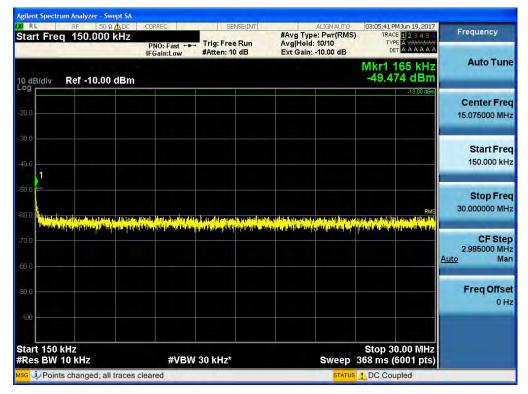




Conducted Spurious Emissions (150 kHz – 30 MHz)

RLRF _50.Ω Center Freq 15.0750		SENSE;INT Trig: Free Run #Atten: 10 dB	ALIGNAUTO #Avg Type: Pwr(RMS Avg Hold: 10/10 Ext Gain: -10.00 dB	03:01:07 PM Jun 19, 2017) TRACE 1 2 3 4 5 5 TYPE A WARMANN DET A A A A A A	Frequency
0 dB/div Ref -10.00 d	IBm			Mkr1 150 kHz -50.299 dBm	Auto Tune
og				13,00 dBm)	Center Free 15.075000 MH
40.0					Start Free 150.000 kH
50.0	da sine du Jon Marita kara da mate	andi na dani	in Mang tanàna dia kaominina dia mandritra dia kaominina dia kaominina dia kaominina dia kaominina dia kaominin	RMS	Stop Fre 30.000000 MH
	nd de directe kiele kryde syderen af olen is	direct levels being der street also	andal Vengere a Gela Alamani (a Alamani)		CF Ste 2.985000 M⊢ <u>Auto</u> Ma
100					Freq Offse 0 H
tart 150 kHz Res BW 10 kHz	#VBW	30 kHz*	Sweep	Stop 30.00 MHz 368 ms (6001 pts)	
sg 🤳 Points changed; all tr	aces cleared		STATUS	DC Coupled	

[Downlink Low]

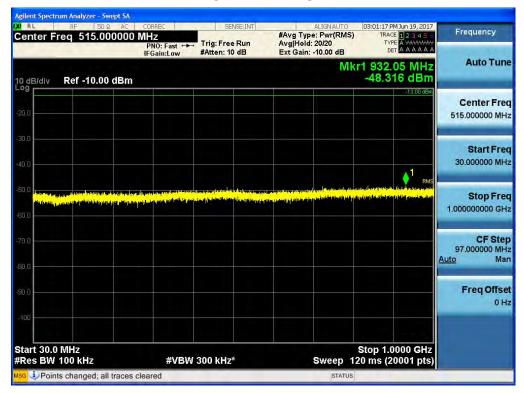




Agilent Spectrum Analyzer - Swept SA	T		1		
M RL RF 50 Ω ADC Center Freq 15.075000 M	CORREC	SENSE:INT	ALIGNAUTO #Avg Type: Pwr(RMS) Avg Hold: 10/10	03:08:58 PM Jun 19, 2017 TRACE 1 2 3 4 5 5 TYPE A WANALAW	Frequency
	IFGain:Low	#Atten: 10 dB	Ext Gain: -10.00 dB	DET A A A A A A	Auto Tune
10 dB/div Ref -10.00 dBm				Mkr1 155 kHz -48.932 dBm	Auto Turk
.og				-13.00 dBm	0-14-15-14
20,0					Center Free 15.075000 MH
30,0					Start Free
-40.0					150.000 kH:
50.0 🗲					Stop Free
		a li anna si li sa dara li mara an a bia a tira. Na anna anna anna anna anna anna anna a	la bardha kilo in sealler an internito se anath I a subarda a sealler an internito se an ath	RMS Hody In police of colling to be New York of the Police of the Police	30.000000 MH
70,0					CF Stej 2.985000 MH Auto Ma
80.0					Freq Offse
-100					он
Start 150 kHz #Res BW 10 kHz	#VBW	30 kHz*	Sweep 3	Stop 30.00 MHz 68 ms (6001 pts)	
Ass JPoints changed; all traces of				DC Coupled	

Conducted Spurious Emissions (30 MHz – 1 GHz)

[Downlink Low]



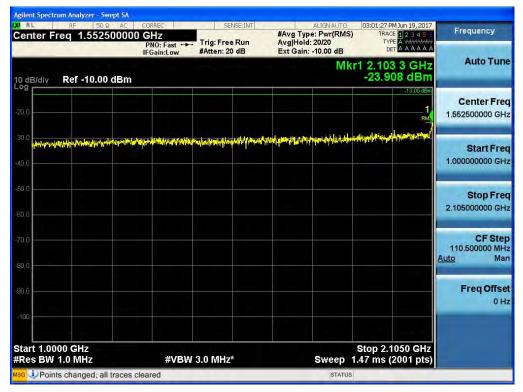




Center Freq 515.000000	MHz PNO: Fast ↔ IFGain:Low	, Trig: Free Run #Atten: 10 dB	ALIGNAUTO #Avg Type: Pwr(RMS Avg Hold: 20/20 Ext Gain: -10.00 dB	03:09:08 PM Jun 19, 2017) TRACE 1 2 3 4 5 5 TYPE A WARNAW DET A A A A A A	Frequency
0 dB/div Ref -10.00 dBm			MI	(r1 770.35 MHz -48.323 dBm	Auto Tune
og				13.00 dBm)	Center Free 515.000000 MH
40.0			1		Start Free 30.000000 MH
50.0 milliologic contraction of the second s	ne. Un este la service de la président en prime président de la président	i se se foto de la constant de la co	er A son mellese sin die kennen die bester die bester Angeweine geweinigt werzelichten die bester die bester Angeweinigt werzelichten die bester die bester die bester	RMS Law Wester by Date By Sound Along Angel of propping in a Union Processing Date (1997)	Stop Free 1.000000000 GH
70.0					CF Ste 97.000000 MH Auto Ma
30,0					Freq Offse 0 H
100 Start 30.0 MHz #Res BW 100 kHz		/ 300 kHz*		Stop 1.0000 GHz 20 ms (20001 pts)	

Conducted Spurious Emissions (1 GHz – 2.105 GHz)

[Downlink Low]



Agilent Spectrum Analyzer - Swept SA					
X RL RF 50 Ω AC Start Freq 1.0000000000		SENSE:INT	ALIGNAUTO #Avg Type: Pwr(RMS Avg Hold: 20/20	03:06:00 PM Jun 19, 2017) TRACE 1 2 3 4 5 5 TYPE A WARAAAAA	Frequency
	PNO: Fast	#Atten: 20 dB	Ext Gain: -10.00 dB	DET A A A A A A	Auto Tune
10 dB/div Ref -10.00 dBm			Mk	r1 2.104 4 GHz -26.414 dBm	Auto Tune
				-:13.00 dBm	Center Freq
-20.0				1 RM	1.552500000 GHz
-30.0	addaddaadar y ywryd y stafyd	us ^{unnal} ahedatan kunalanta	langadildan palangkan perioderi derikan berantekan	y hele a still of the last in the still of the state	Start Freq
-40.0.					1.000000000 GHz
-60.0					Stop Freq 2.105000000 GHz
-00,0					
-70,0					CF Step 110.500000 MHz <u>Auto</u> Man
-90.0					Freq Offset 0 Hz
-100					
Start 1.0000 GHz #Res BW 1.0 MHz	#VBW	3.0 MHz*	Sweep	Stop 2.1050 GHz 1.47 ms (2001 pts)	
MSG Devints changed; all traces	cleared		STATUS		



Center Freq 1.55250000	CORREC 0 GHz PNO: Fast ↔→→ IEGain:Low	SENSE:INT Trig: Free Run #Atten: 20 dB	ALIGNAUTO #Avg Type: Pwr(RM: Avg[Hold: 20/20 Ext Gain: -10.00 dB		
0 dB/div Ref -10.00 dBm	in Sumicow		М	kr1 2.105 0 GHz -26.021 dBm	
og					Center Free 1.552500000 GH:
30.0 <mark>Haysaan Kanadan ahayadaan</mark> 40.0	สมจำแสดจารุ่งไม่สามสามสา	hinal providence and the second	ามปุ่นก็รากกุญาหางมากหน่างที่มีมาก สมปุ่นก็รากกุญาหางมากหน่างที่มีมาก	wijestersplatifierder fan ferster fan ferster fan ferster fan ferster	Start Free 1.000000000 GH:
30.0					Stop Free 2.105000000 GH
70.0					CF Stej 110.500000 MH <u>Auto</u> Ma
100					Freq Offse 0 H
Start 1.0000 GHz Res BW 1.0 MHz	#VBW	3.0 MHz*	Sweep	Stop 2.1050 GHz 1.47 ms (2001 pts)	

Conducted Spurious Emissions (2.185 GHz – 12.75 GHz) [Downlink Low]







α RL RF 50Ω AC Center Freq 7.467500000	CORREC GHZ PNO: Fast ↔ IEGain:Low	- Trig: Free Run #Atten: 10 dB	ALIGNAUTO #Avg Type: Pwr(RMS Avg Hold: 20/20 Ext Gain: -10.00 dB	03:09:26 PM Jun 19, 2017) TRACE 1 2 3:4 5 1 TYPE A WARAWAY DET A A A A A A	Frequency
0 dB/div Ref -10.00 dBm			Mkr	1 2.185 26 GHz -24.235 dBm	Auto Tune
20.0 1					Center Fred 7.467500000 GH:
40.0 	an a				Start Free 2.185000000 GH:
50.0 80.0					Stop Fred 12.750000000 GH
70.0					CF Stej 1.056500000 GH <u>Auto</u> Ma
90.0					Freq Offse 0 H
100 Start 2.185 GHz Res BW 1.0 MHz	#VBW	/ 3.0 MHz*	Sweep 1	Stop 12.750 GHz 8.7 ms (40001 pts)	



Conducted Spurious Emissions (12.75 GHz – 26.5 GHz)

[Downlink Low]









Single channel Enhancer Plots of Spurious Emission for AWSBAND CDMA Conducted Spurious Emissions (9 kHz – 150 kHz)



[Downlink Low]





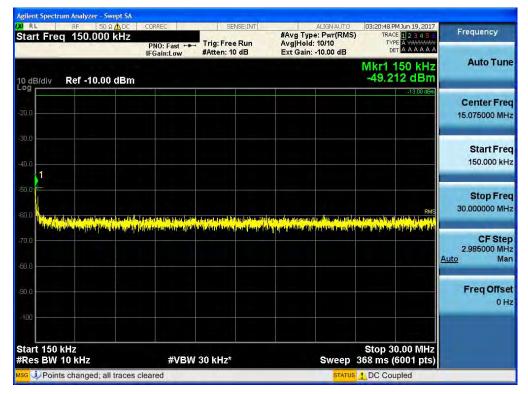
Center Freq 79.500 kHz	CORREC PNO: Far	. Trig: Free Run #Atten: 10 dB	ALIGNAUTO #Avg Type: Pwr(RMS) Avg Hold: 10/10 Ext Gain: -10.00 dB	03:25:50 PM Jun 19, 2017 TRACE 1 2 3 4 5 5 TYPE A WWWWWW DET A A A A A A	Frequency
10 dB/div Ref -10.00 dBm	I Guineow		Mk	r1 25.638 kHz -43.718 dBm	Auto Tune
20.0				-13.00 dBm	Center Fred 79.500 kHz
40.0					Start Free 9.000 kH:
-50.0 M MM M MM MM	Mahrom	1		RMS	Stop Free 150.000 kHz
-70.0		In wy when	n han many and han hall	MMMM Jump	CF Step 14.100 kH uto Mar
-100					Freq Offse 0 H
- 100				Stop 150.00 kHz	



Conducted Spurious Emissions (150 kHz – 30 MHz)

RL RF 50 Ω Δ Center Freq 15.07500		SENSE;INT Trig: Free Run #Atten: 10 dB	ALIGNAUTO #Avg Type: Pwr(RMS Avg Hold: 10/10 Ext Gain: -10.00 dB	03:17:37 PM Jun 19, 2017) TRACE 1 2 3 4 5 5 TYPE A WARMANN DET A A A A A A	Frequency
0 dB/div Ref -10.00 dE	3m			Mkr1 150 kHz -50.624 dBm	Auto Tune
og				13.00 dBm)	Center Free 15.075000 MH
40.0					Start Free 150.000 kH
	ali mili ngali nganga ki kutiki antaka kutiki a ju	والعربين والتعاريق والتعاول	and the major statistic free of the second states of the	RMS	Stop Free 30.000000 MH
	ad have a full of a shared over the state of	a milan milanan a sura ni sura di su	ine plat data and a local all and a local and a loc		CF Ste 2.985000 M⊢ Auto Ma
100					Freq Offse 0 H
tart 150 kHz Res BW 10 kHz	#VBW	30 kHz*	Sweep	Stop 30.00 MHz 368 ms (6001 pts)	
G UPoints changed; all tra	ces cleared		STATUS	DC Coupled	

[Downlink Low]



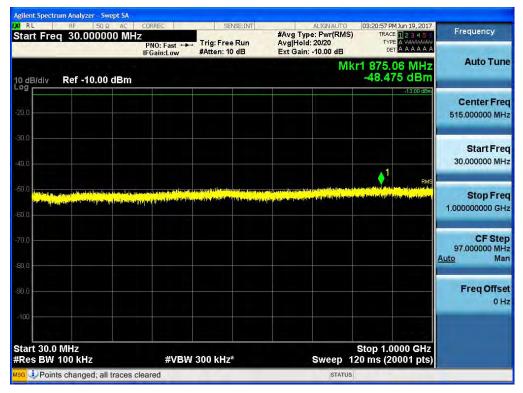


Agilent Spectrum Analyzer - Swept XI RL RF 50 Ω 🛕		SENSE:INT	ALIGNAUTO	03:25:59 PM Jun 19, 2017	
Center Freq 15.07500		Trig: Free Run #Atten: 10 dB	#Avg Type: Pwr(RMS) Avg Hold: 10/10 Ext Gain: -10.00 dB		Frequency
10 dB/div Ref -10.00 dB	m			Mkr1 150 kHz -48.529 dBm	Auto Tune
-og				-13.00 dBm)	Center Free 15.075000 MH
40.0					Start Fre 150.000 kH
50.0	an a shi bi da da an al mari	a ir smarta, de che itana antican la chesta	i frighter (the scene of the statistics of (), if defined	RMS	Stop Fre 30.000000 MH
70.0 80.0	ar and brind in the second life	nanto ana hadistra karta	e dinates inte (all er medities intil me		CF Ste 2.985000 MH Auto Ma
90.0 -100					Freq Offse 0 H
Start 150 kHz #Res BW 10 kHz	#VBW	30 kHz*	Sweep	Stop 30.00 MHz 368 ms (6001 pts)	
use UPoints changed; all trac	es cleared		STATUS	DC Coupled	

Conducted Spurious Emissions (30 MHz – 1 GHz)

[Downlink Low]



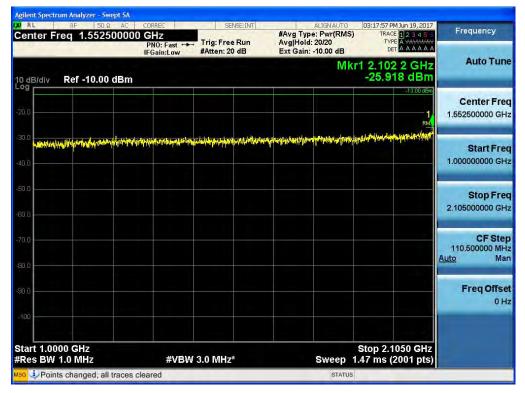




Agilent Spectrum Analyzer - Swept SA XI RL RF 50 Ω AC	CORREC	SENSE:INT	ALIGNAUTO	03:26:08 PM Jun 19, 2017	
Center Freq 515.00000			#Avg Type: Pwr(RMS Avg Hold: 20/20 Ext Gain: -10.00 dB		Frequency
IO dB/div Ref -10.00 dBm			M	kr1 949.61 MHz -48.574 dBm	Auto Tune
20,0				-13.00 dBm	Center Free 515.000000 MH2
40.0					Start Free 30.000000 MH;
0.0 Hereiten aus and the state of the state	estan porten Aldana (estato de la stata). Anten estato de la secolar con la sua de	ann an tal an Billion An Digenser (). Seann an Star Digenser (). Seann an Star Digenser ().	an a	n ha al-base transfer for a sea or or gange an an ay iyon the transfer gange and	Stop Fred 1.000000000 GH:
70.0					CF Step 97.000000 MH <u>Auto</u> Mai
90,ù					Freq Offse 0 Hi
-100 Start 30.0 MHz #Res BW 100 kHz	#\/B)A	/ 300 kHz*	Swaan	Stop 1.0000 GHz 120 ms (20001 pts)	
sg iPoints changed; all traces		500 MHZ	STATUS		-

Conducted Spurious Emissions (1 GHz – 2.105 GHz)

[Downlink Low]



Agilent Spectrum Analyzer - Swept SA					
W RL RF 50Ω AC Start Freq 1.0000000000	GHZ	SENSE;INT	ALIGNAUTO #Avg Type: Pwr(RMS)	03:21:08 PM Jun 19, 2017 TRACE 1 2 3 4 5	Frequency
	PNO: Fast	Trig: Free Run #Atten: 20 dB	Avg Hold: 20/20 Ext Gain: -10.00 dB		1000
10 dB/div Ref -10.00 dBm			Mk	r1 2.105 0 GHz -27.203 dBm	Auto Tune
-20.0				13.00 dBm 1 1 1	Center Freq 1.552500000 GHz
-30.0 Norman Nation North Anti-	hulhd <mark>arghannaghanna</mark>	specialistication and the second	ndaftaring by data sharikari pengering bir katilari	natoriente antisente	Start Freq 1.000000000 GHz
-60.0					Stop Freq 2.105000000 GHz
-70.0					CF Step 110.500000 MHz <u>Auto</u> Man
.90.0					Freq Offset 0 Hz
Start 1.0000 GHz #Res BW 1.0 MHz	#VBW	3.0 MHz*	Sweep	Stop 2.1050 GHz 1.47 ms (2001 pts)	
MSG UPoints changed; all traces of			STATUS		



RL RF 50Ω AC Center Freq 1.552500000	CORREC GHz PNO: Fast ↔→→ IEGain:Low	SENSE;INT Trig: Free Run #Atten: 20 dB	ALIGNAUTO #Avg Type: Pwr(RMS Avg Hold: 20/20 Ext Gain: -10.00 dB	03:26:19 PM Jun 19, 2017 TRACE 1 2 3 4 5 TYPE A MARAMM DET A A A A A A	Frequency
0 dB/div Ref -10.00 dBm			Mk	r1 2.104 4 GHz -25.995 dBm	
•g				13,00 dBm 1 RM	Center Fred 1.552500000 GH:
30.0 Janhari Manghir Yanghiri Malakatini Mahakat i 40.0	wyfant offenlyffeldera	a-autrupophysiologican-builtaning	nyanya yang pantaga kana kana yana yana ya	en allefanselsen het het staden en staden	Start Free 1.000000000 GH:
60.0					Stop Free 2.105000000 GH
70.0					CF Step 110.500000 MH <u>Auto</u> Ma
100					Freq Offse 0 H
Start 1.0000 GHz Res BW 1.0 MHz	#VBW	3.0 MHz*	Sweep	Stop 2.1050 GHz 1.47 ms (2001 pts)	

Conducted Spurious Emissions (2.185 GHz – 12.75 GHz) [Downlink Low]







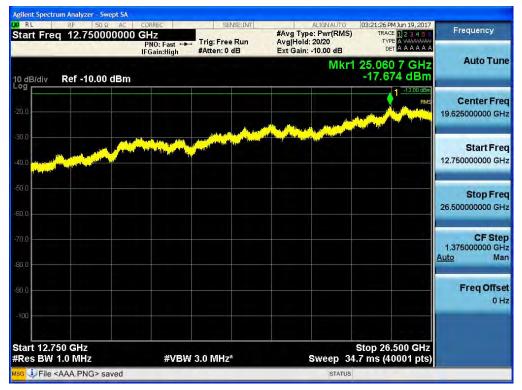
Center Freq 7.467500000	CORREC GHz PNO: Fast ↔ IFGain:Low	SENSE;INT Trig: Free Run #Atten: 10 dB	ALIGNAUTO #Avg Type: Pwr(RMS) Avg Hold: 20/20 Ext Gain: -10.00 dB	03:26:27 PM Jun 19, 2017 TRACE 1 2 3 4 5 5 TYPE A WATWANT DET A A A A A A	Frequency
0 dB/div Ref -10.00 dBm			Mkr1	12.559 57 GHz -27.047 dBm	Auto Tune
0.0				-13.00 dBm	Center Fred 7.467500000 GH2
					Start Fred 2.185000000 GHz
ισ.o 					Stop Free 12.75000000 GH
10.0 10.0					CF Step 1.056500000 GH <u>Auto</u> Mar
100					Freq Offse 0 H
Start 2.185 GHz Res BW 1.0 MHz	#\/B\A	3.0 MHz*	Sween 18	Stop 12.750 GHz .7 ms (40001 pts)	



Conducted Spurious Emissions (12.75 GHz – 26.5 GHz)

[Downlink Low]









Single channel Enhancer Plots of Spurious Emission for AWSBAND WCDMA Conducted Spurious Emissions (9 kHz – 150 kHz)



[Downlink Low]





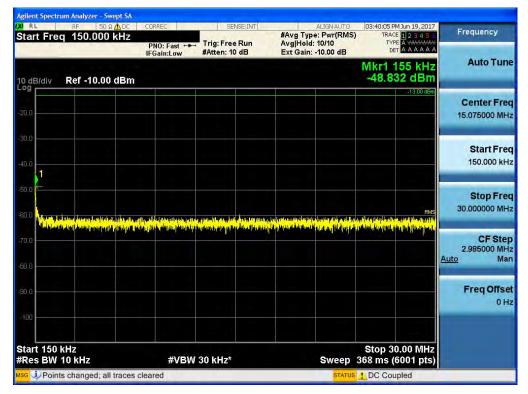




Conducted Spurious Emissions (150 kHz – 30 MHz)

International state International state <thinternatistate< th=""> <thinternational state<="" th=""></thinternational></thinternatistate<>	RL RF Center Freq 15.0	50 Ω <u>A</u> DC 075000 M	CORREC HZ PNO: Fast ↔ IFGain:Low	. Trig: Free Run #Atten: 10 dB	#Avg T Avg Ho	ALIGNAUTO ype: Pwr(RMS) old: 10/10 in: -10.00 dB) TRAC TYL	M Jun 19, 2017 E 1 2 3 4 5 5 PE A WAAAAAA ET A A A A A A A	Frequency
Cente 1.000 Cente 150.0000 Cente 150.0000 Cente 150.0000 Cente 150.0000 Cente 150.0000 Cente 150.0000 Cente 150.0000 Cente 150.00000 Cente 150.00000 Cente 150.00000 Cente 150.00000 Cente 150.00000 Cente 150.000000 Cente 150.000000 Cente 150.0000000 Cente 150.000000000 Cente 150.000000000000000000000	0 dB/div Ref -10	.00 dBm							Auto Tu
1 Star								-13.00 dBm	Center Fr 15.075000 M
S000 Extended and the second and the	10.0								Start Fr 150.000 k
CF CF <thcf< th=""> CF CF CF<!--</td--><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>and the balance</td><td>Stop Fr 30.000000 M</td></thcf<>								and the balance	Stop Fr 30.000000 M
100 tart 150 kHz Stop 30.00 MHz	0,0	ni oland (poljectica)ka	llenation, Marine (NAL Dealler ,		alle alle en la frage de la c		dener of the second second	an a	CF St 2.985000 M <u>Auto</u> M
									Freq Offs 0
Res BW 10 kHz #VBW 30 kHz* Sweep 368 ms (6001 pts)	tart 150 kHz Res BW 10 kHz		#VBM	30 kHz*		Sweep			

[Downlink Low]





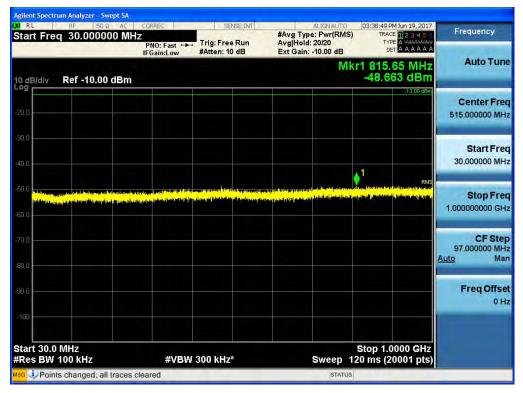
Agilent Spectrum Analyzer - Swept					
x RL RF 50ΩA Center Freq 15.07500		SENSE:INT Trig: Free Run #Atten: 10 dB	ALIGNAUTO #Avg Type: Pwr(RMS) Avg[Hold: 10/10 Ext Gain: -10.00 dB	03:43:40 PM Jun 19, 2017 TRACE 1 2 3 4 5 5 TYPE A WWWWW DET A A A A A A	Frequency
10 dB/diy Ref -10.00 dB				Mkr1 155 kHz -49.060 dBm	Auto Tun
20.0				13,00 dBm	Center Fre 15.075000 MH
40.0					Start Fre 150.000 kH
	ké lutheri na stál n ^{al} ta analás kanta dat, ha	tatogra teo ad puede a baldera <mark>teansie</mark>	a ka prakon ku wa kisi wa waki ku ka da kwangi ka juni ka gu	RMS	Stop Free 30.000000 MH
70.0 80.0	a dia mpikana adina si kana matangkan diki podi	lova od navledna konzerian da na filozofian da navledna da navledna da navledna da navledna da navledna da nav Tenes od navledna navledna da navledna d	ang		CF Ste 2.985000 MH Auto Ma
90,0					Freq Offse 0 H
Start 150 kHz #Res BW 10 kHz	#VBW	30 kHz*	Sweep 3	Stop 30.00 MHz 68 ms (6001 pts)	
Asg 🤳 Points changed; all trac	ces cleared		STATUS	DC Coupled	



Conducted Spurious Emissions (30 MHz – 1 GHz)

[Downlink Low]



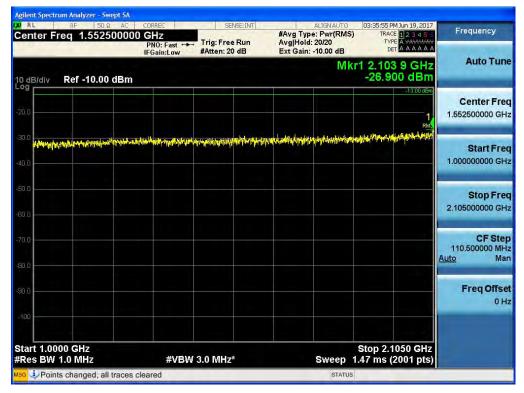




CRL RF 50Ω AC	CORREC	SENSE:INT	ALIGNAUTO	03:43:49 PM Jun 19, 2017	Frequency
enter Freq 515.000000	PNO: Fast	Trig: Free Run #Atten: 10 dB	#Avg Type: Pwr(RMS) Avg Hold: 20/20 Ext Gain: -10.00 dB	TRACE 1 2 3 4 5 TYPE A MANANAN DET A A A A A A	
0 dB/div Ref -10.00 dBm			Mk	1 949.17 MHz -47.260 dBm	Auto Tune
•g				-13.00 dBm)	Center Fred 515.000000 MHz
40.0				1 RMS	Start Free 30.000000 MH
50.0 Norther and a start of the		e san di antifa di kananga tana ta di kanangan kanangan kanangan kanangan kanangan kanangan kanangan kanangan k Kanangan kanangan kana Kanangan kanangan kan	is the stilling of the state of	e de la constante de constante de la constante Constante de la constante de la Constante de la constante de la	Stop Fred 1.000000000 GH:
70.0					CF Stej 97.000000 MH <u>Auto</u> Mai
30.å					Freq Offse 0 H
100 Start 30.0 MHz Res BW 100 kHz		300 kHz*		Stop 1.0000 GHz 20 ms (20001 pts)	
	100 000 000			10	

Conducted Spurious Emissions (1 GHz – 2.105 GHz)

[Downlink Low]



[Downlink Middle]





	RF 50 Ω A0 1.5525000		- Trig: Free Run #Atten: 20 dB	ALIGN/ #Avg Type: Pwr Avg Hold: 20/20 Ext Gain: -10.00	(RMS) TR	PMJun 19, 2017 ACE 1 2 3 4 5 5 YPE A MARANAN DET A A A A	Frequency
	ef -10.00 dBr				Mkr1 2.10 -26.	02 8 GHz 502 dBm	Auto Tune
20,0						-13,00 dBm	Center Free 1.552500000 GH
30.0 11 44441744-441 40.0	anifesimityaten affrond	delsen dyrefpersærstærededi	en gener generalise generalise generalise generalise generalise generalise generalise generalise generalise gen	(reference) and all of the last last last last last last last last	entre for the second	n in in the second s	Start Free 1.000000000 GH
50.0							Stop Fre 2.105000000 GH
70.0							CF Ste 110.500000 M⊢ <u>Auto</u> Ma
100							Freq Offse 0 H
Start 1.0000		#VBM	(3.0 MHz*	Swe		.1050 GHz (2001 pts)	

Conducted Spurious Emissions (2.185 GHz – 12.75 GHz) [Downlink Low]



[Downlink Middle]





enter Freq 7.467500000	CORREC GHZ PNO: Fast ↔ IEGain:Low	- Trig: Free Run #Atten: 10 dB	ALIGNAUTO #Avg Type: Pwr(RMS) Avg Hold: 20/20 Ext Gain: -10.00 dB	03:44:08 PM Jun 19, 2017 TRACE 1 2 3 4 5 5 TYPE A WARWAW DET A A A A A A	Frequency
0 dB/div Ref -10.00 dBm			Mkr1	12.610 28 GHz -26.648 dBm	Auto Tune
•g				13.00 dBm	Center Fred 7.467500000 GH:
	na ang ang ang ang ang ang ang ang ang a	alinger földer Tegen förde _{n so} rarlagen av till og para so			Start Free 2.185000000 GH:
50.0 80.0					Stop Fre 12.75000000 GH
70.0					CF Ste 1.056500000 GH <u>Auto</u> Ma
90.0					Freq Offse 0 H
100 Start 2.185 GHz Res BW 1.0 MHz	#VBM	/ 3.0 MHz*	Sween 1	Stop 12.750 GHz 3.7 ms (40001 pts)	



Conducted Spurious Emissions (12.75 GHz – 26.5 GHz)

[Downlink Low]



[Downlink Middle]









Intermodulation Spurious Emissions for FCC_AWSBAND LTE 5 MHz



[Downlink Low]





Intermodulation Spurious Emissions for FCC_AWS BAND LTE 10 MHz

T RF 50Ω AC	CORREC PNO: Fast	SENSE:INT Trig: Free Run #Atten: 30 dB	ALIGNAUTO Avg Type: Pwr(RMS) Avg Hold: 100/100 Ext Gain: -10.00 dB	04:18:29 PM Jun 19, 2017 TRACE 1 2 3 4 5 5 TYPE A MANAMI DET A A A A A A	Frequency
0 dB/div Ref 30.00 dBm			Mkr	1 2.110 00 GHz -20.500 dBm	Auto Tune
		proprie	manner from	RMS	Center Free 2.110000000 GH
0.0 .00					Start Fre 2.090000000 GH
0.0		1		-13.00 dBm	Stop Fre 2.13000000 GH
0.0	in when a short when the	munund			CF Ste 4.000000 MH Auto Ma
0.0					Freq Offse 0 H
enter 2.11000 GHz Res BW 200 kHz		620 kHz*		Span 40.00 MHz 1.27 ms (1001 pts)	

[Downlink Low]





Intermodulation Spurious Emissions for FCC_AWS BAND LTE 20 MHz

Τ RF 50Ω AC	CORREC PNO: Fast	SENSE:INT Trig: Free Run #Atten: 30 dB	ALIGNAUTO Avg Type: Pwr(RMS Avg Hold: 100/100 Ext Gain: -10.00 dB		Frequency
0 dB/div Ref 30.00 dBm			Mk	r1 2.110 00 GHz -19.578 dBm	Auto Tune
ä		monen	month have and for	Www.www.www.	Center Free 2.110000000 GH
0.0 .00					Start Fre 2.070000000 GH
0.0 		1		-13.00 dBm	Stop Fre 2.150000000 GH
	an Levik Millerbellenenenen L				CF Ste 8.000000 MH <u>Auto</u> Ma
x0.0					Freq Offse 0 H
Center 2.11000 GHz Res BW 430 kHz	#\/B\M	1.3 MHz*	Swoon	Span 80.00 MHz 1.00 ms (1001 pts)	

[Downlink Low]





Intermodulation Spurious Emissions for FCC_AWS CDMA

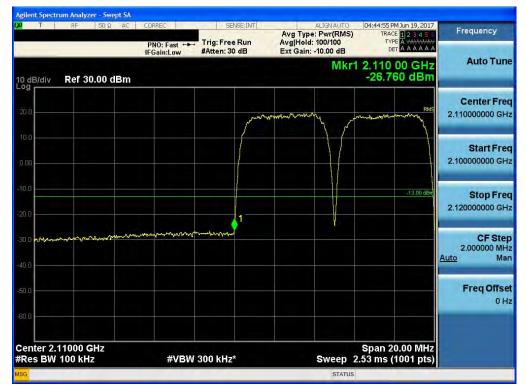
gilent Spectrum Analyzer - Swept SA 04:39:15 PM Jun 19, 2017 TRACE 1 2 3 4 5 5 TYPE A WAMAAAA DET A A A A A A Frequency Avg Type: Pwr(RMS) Avg[Hold: 100/100 Ext Gain: -10.00 dB Trig: Free Run PNO: Far +++ Trig: Free Run IFGain:Low #Atten: 30 dB Mkr1 2.110 000 GHz -32.067 dBm Auto Tune Ref 30.00 dBm 10 dB/div **Center Freq** 2.110000000 GHz Start Freq 2.106500000 GHz Stop Freq 2.113500000 GHz mm Vinne CF Step 700.000 kHz m.m Man Auto Freq Offset 0 Hz Center 2.110000 GHz #Res BW 30 kHz Span 7.000 MHz Sweep 9.53 ms (1001 pts) #VBW 100 kHz* STATUS

[Downlink Low]





Intermodulation Spurious Emissions for FCC_AWS BAND WCDMA



[Downlink Low]





Single channel Enhancer Band Edge_AWS13 BAND LTE 5 MHz

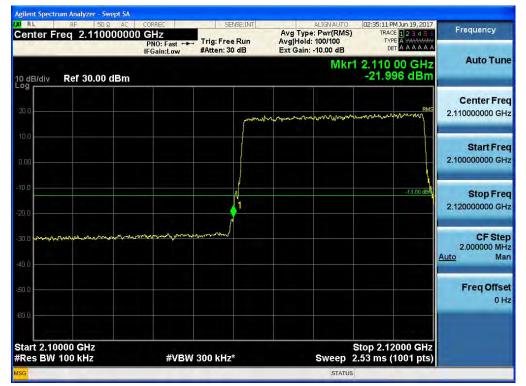


[Downlink Low]





Single channel Enhancer Band Edge_AWS13 BAND LTE 10 MHz



[Downlink Low]





Single channel Enhancer Band Edge_AWS13 BAND LTE 20 MHz



[Downlink Low]





Single channel Enhancer Band Edge_AWS BAND CDMA



[Downlink Low]





Single channel Enhancer Band Edge_AWS BAND WCDMA



[Downlink Low]





10. RADIATED SPURIOUS EMISSIONS

Test Requirement(s):

§ 2.1053 Measurements required: Field strength of spurious radiation.

(a) Measurements shall be made to detect spurious emissions that may be radiated directly from the cabinet, control circuits, power leads, or intermediate circuit elements under normal conditions of installation and operation. Curves or equivalent data shall be supplied showing the magnitude of each harmonic and other spurious emission. For this test, single sideband, independent sideband, and controlled carrier transmitters shall be modulated under the conditions specified in paragraph (c) of §2.1049, as appropriate. For equipment operating on frequencies below 890 MHz, an open field test is normally required, with the measuring instrument antenna located in the far-field at all test frequencies. In the event it is either impractical or impossible to make open field measurements (e.g. a broadcast transmitter installed in a building) measurements will be accepted of the equipment as installed. Such measurements must be accompanied by a description of the site where the measurements were made showing the location of any possible source of reflections which might distort the field strength measurements. Information submitted shall include the relative radiated power of each spurious emission with reference to the rated power output of the transmitter, assuming all emissions are radiated from halfwave dipole antennas.

(b) The measurements specified in paragraph (a) of this section shall be made for the following equipment:

(1) Those in which the spurious emissions are required to be 60 dB or more below the mean power of the transmitter.

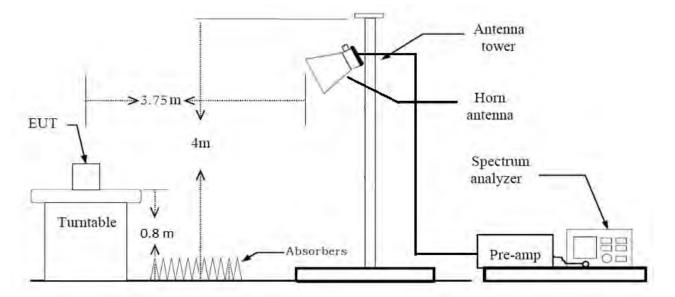
- (2) All equipment operating on frequencies higher than 25 MHz.
- (3) All equipment where the antenna is an integral part of, and attached directly to the transmitter.
- (4) Other types of equipment as required, when deemed necessary by the Commission.

Test Procedures:

As required by 47 CFR 2.1053, *field strength of radiated spurious measurements* were made in accordance with the procedures of ANSI/TIA-603-C-2004 "Land Mobile FM or PM Communications Equipment Measurement and Performance Standards".

Radiated emission measurements were performed inside a 3 meter semi-anechoic chamber.

The EUT was set at a distance of 3m from the receiving antenna. The EUT's RF ports were terminated to 50ohm load. The EUT was set to transmit at the low, mid and high channels of the transmitter frequency range at its maximum power level. The EUT was rotated about 360and the receiving antenna scanned from 1-3m in order to capture the maximum emission. A calibrated antenna source was positioned in place of the EUT and the previously recorded signal was duplicated. The maximum EIRP of the emission was calculated by adding the forward power to the calibrated source plus its appropriate gain value. These steps were carried. out with the receiving antenna in both vertical and horizontal polarization. Harmonic emissions up to the 10th or 40GHz, whichever was the lesser, were investigated.



Radiated Spurious Emissions Test Setup

Note :

- 1. According to SVSWR requirement in ANSI 63.4-2014, We performed the radiated test at 3.75 m distance from center of turn table. So, we applied the distance factor(reference distance : 3 m).
- 2. Distance extrapolation factor = 20 log (test distance / specific distance) (dB)



Test Result:

Input signal is the CW signal.

Harmonics were not found.

AWS

Ch.	Freq.(MHz)	Measured Level	Measured Power	Ant. Factor	C.L	A.G.	H.P.F	D.F.	Pol.	Result
		[dBuV/m]	[dBm]	[dB/m] [dB] [dB] [dB] [dB]	[dB]		[dBm]			
No Critical Peaks Found										

* C.L.: Cable Loss / A.G.: Ant. Gain / H.P.F.: High Pass Filter / D.F.: Distance Factor (3.75 m)

Notes:

We have done horizontal and vertical polarization in detecting antenna.



11. FREQUENCY STABILITY OVER TEMPERATURE AND VOLTAGE VARIATIONS

FCC Rules

Test Requirement(s): §2.1055(a)(1), § 27.54

Test Procedures:

As required by 47 CFR 2.1055, *Frequency Stability measurements* were made at the RF output terminals using a Spectrum Analyzer.

The EUT was placed in the Environmental Chamber.

A CW signal was injected into the EUT at the appropriate RF level. The frequency counter option on the Spectrum Analyzer was used to measure frequency deviations.

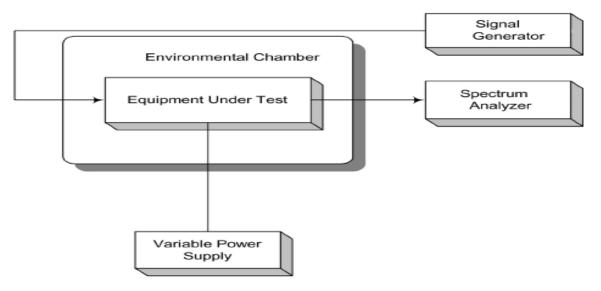
The frequency drift was investigated for every 10 °C increment until the unit is

stabilized then recorded the reading in tabular format with the temperature range of -30 to 50 °C.

Voltage supplied to EUT is 110 Vac reference temperature was done at 20°C.

The voltage was varied by ± 15 % of nominal

Test Setup:





Frequency Stability and Voltage Test Results

[AWS BAND]

Reference: 120 Vac at 20 C Freq. = 2145.00 MHz									
Voltage	Temp.	Frequency	Frequency	Deviation	nnm				
(%)	(°C)	(Hz)	Error (Hz)	(Hz)	ppm				
	+20(Ref)	2145 000 000	0.113	0.000	0.00000				
	-30	2145 000 000	-0.037	-0.150	-0.00006				
	-20	2145 000 000	0.019	-0.094	-0.00004				
	-10	2145 000 001	0.892	0.779	0.00030				
100%	0	2145 000 000	-0.314	-0.427	-0.00016				
	+10	2145 000 000	-0.197	-0.310	-0.00012				
	+30	2145 000 000	-0.023	-0.136	-0.00005				
	+40	2145 000 000	0.335	0.222	0.00009				
	+50	2145 000 000	0.081	-0.032	-0.00001				
115%	+20	2145 000 001	0.959	0.846	0.00033				
85%	+20	2145 000 000	0.148	0.035	0.00001				

Reference: 120 Vac at 20°C Freq. = 2145.00 MHz