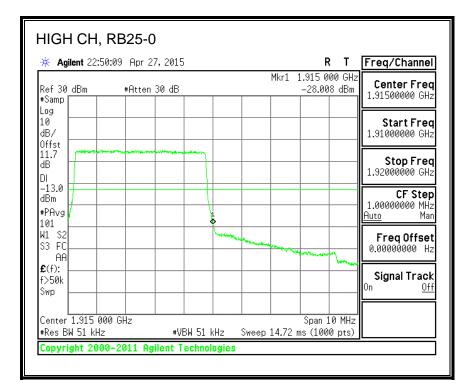
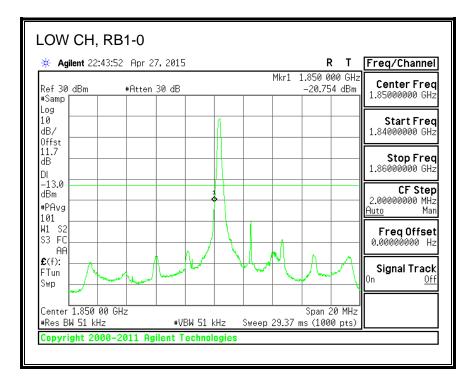
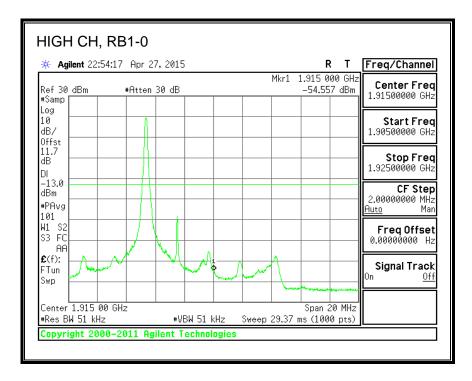
🔆 Agiler	it 22:39:54	Hpr 27	,2015					R	-	Freq/Channel
Ref 30 dE #Samp 🔽	3m	#Atten 3	30 dB			1	Mkr1	1.850 0 -28.54		Center Fred 1.85000000 GHz
Log 10 dB/										Start Freq 1.84500000 GHz
0ffst 11.7 dB DI					~~~ 					Stop Fred 1.85500000 GHz
-13.0				1						<b>CF Step</b> 1.00000000 MHz <u>Auto</u> Mar
101 W1 S2 S3 FC AA				y nu Ì						Freq Offset 0.00000000 Hz
<b>£</b> (f): f>50k Swp										<b>Signal Track</b> On <u>Off</u>
Center 1. #Res BW !	850 000 G	Hz	#\/F		:Hz	Sween	14 72 1	Span 1 ns (100		



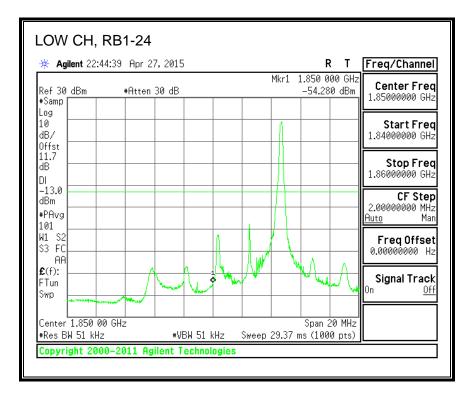
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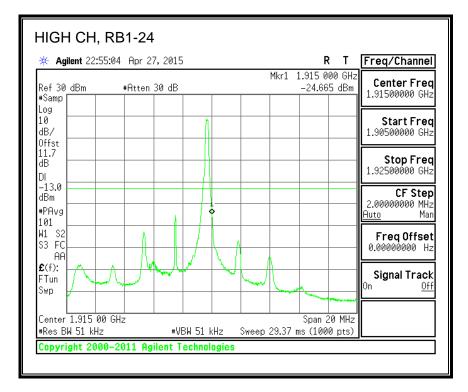
# 16QAM, (5.0 MHz BAND WIDTH)



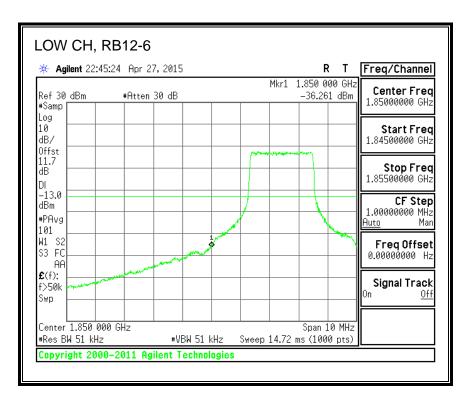


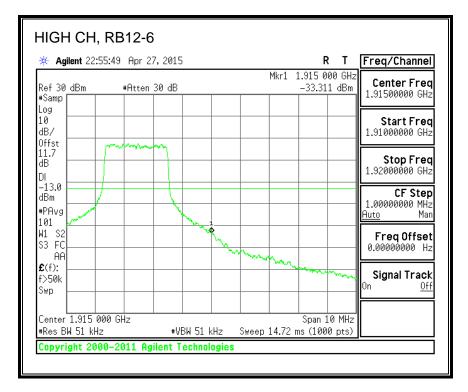
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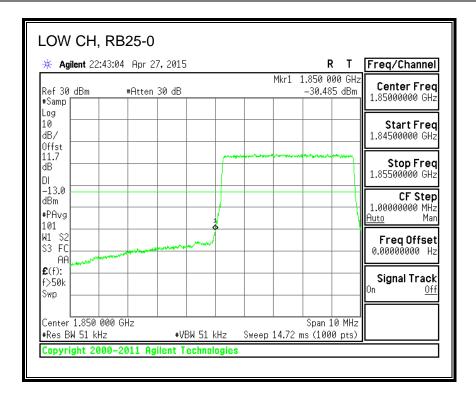


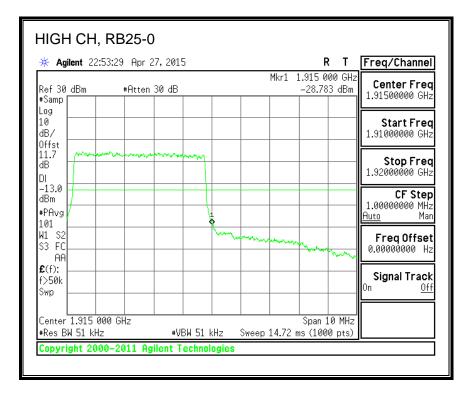
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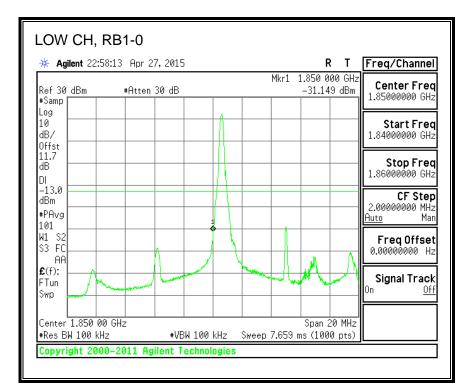
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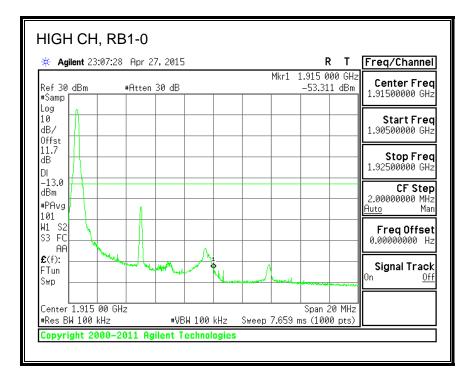




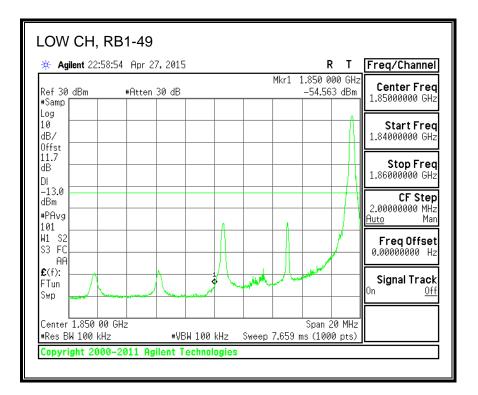
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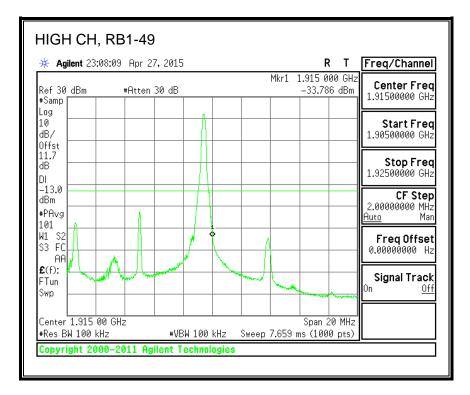
# QPSK, (10.0 MHz BAND WIDTH)



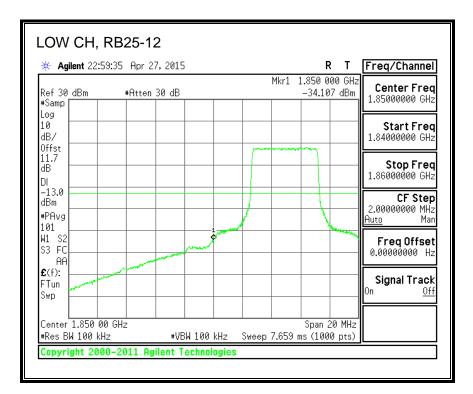


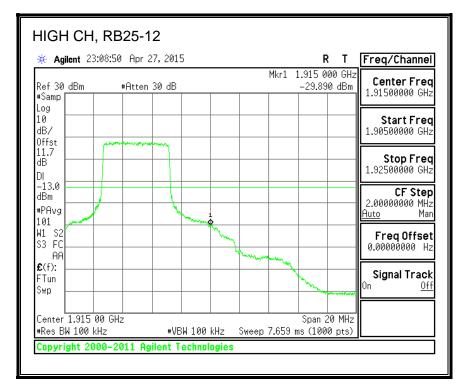
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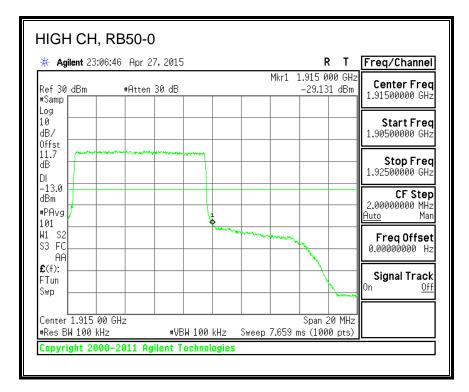
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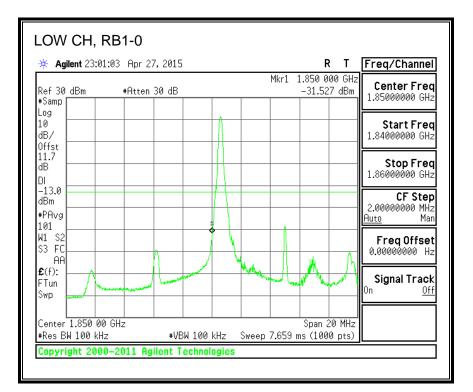
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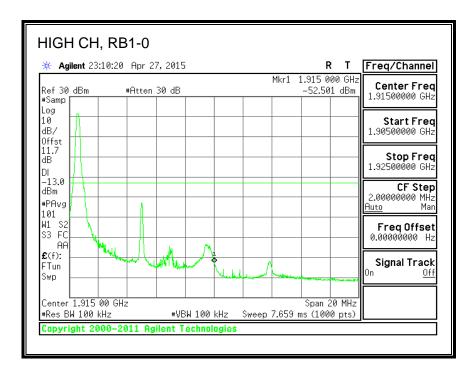
🔆 Ag	ilent 22	:57:31	Apr 2	7,2015					R	? T	Freq/Channel
Ref 30 #Samp	dBm		#Atten	30 dB				Mkr1	1.850 0 -31.38		Center Frec 1.85000000 GHz
Log 10 dB/											Start Freq 1.84000000 GHz
Offst 11.7 dB DI										•••••	Stop Fred 1.86000000 GHz
-13.0 dBm #PAvg 101						1					<b>CF Step</b> 2.00000000 MHz <u>Auto</u> Mar
W1 S2 S3 FC AA					~						Freq Offset 0.00000000 Hz
£(f): F⊤un Swp											<b>Signal Track</b> On <u>Off</u>
Center #Res B	1.850 W 100		z	#VB	W 100	kHz	Sweep	7.659	Span 2 ms (100	20 MHz 0 pts)	



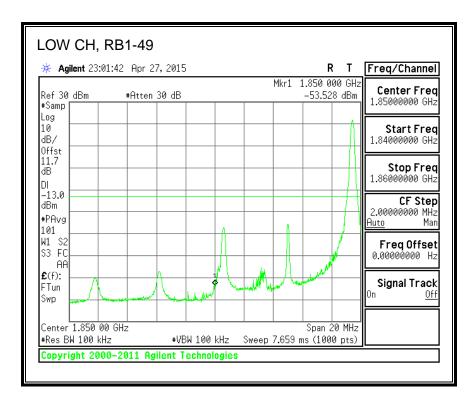
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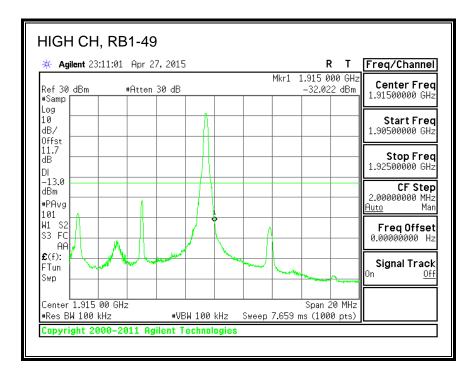
### 16QAM, (10.0 MHz BAND WIDTH)



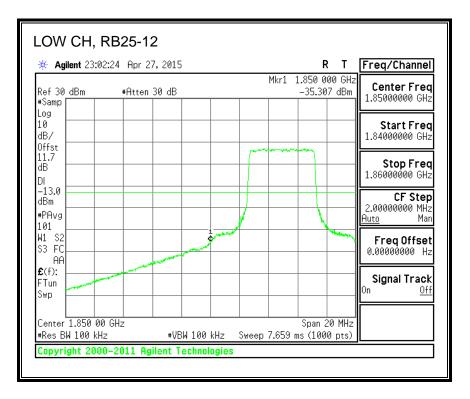


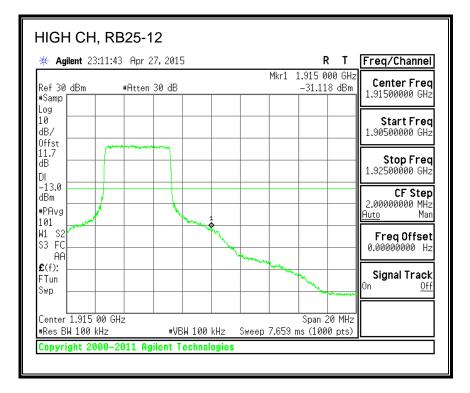
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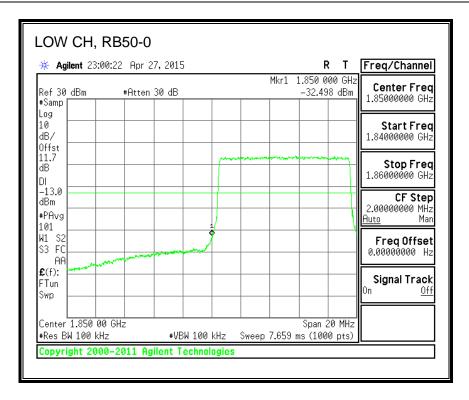


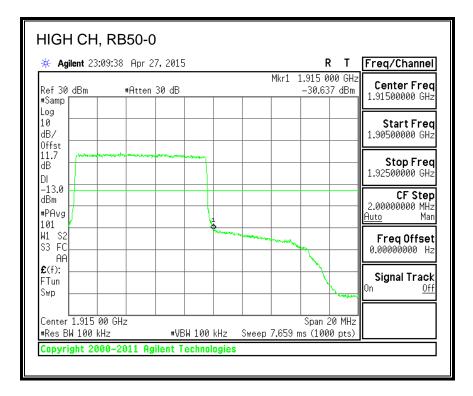
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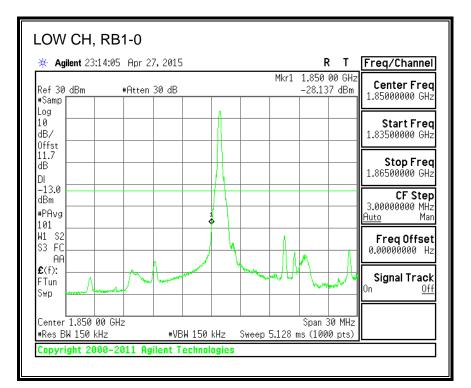
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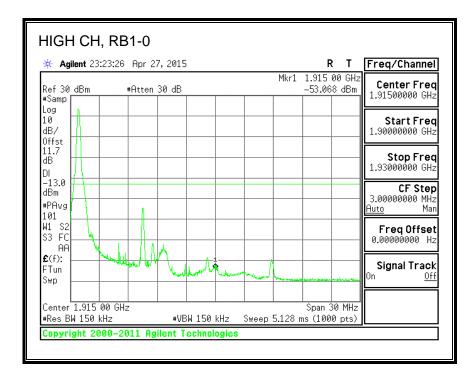




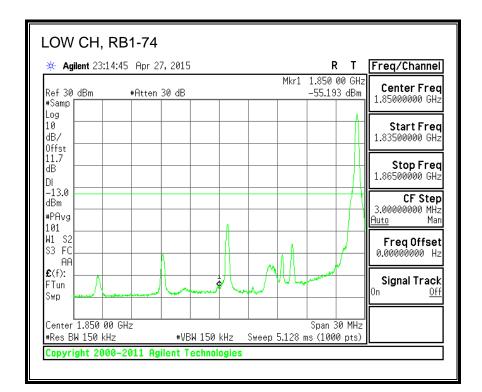
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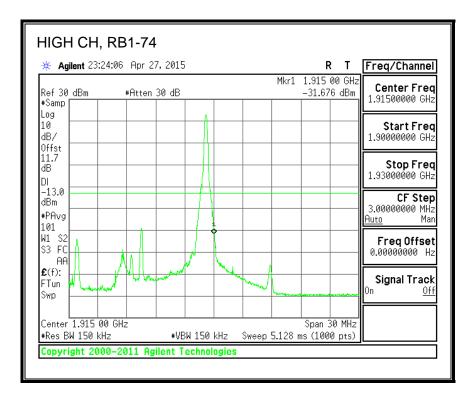
# QPSK, (15.0 MHz BAND WIDTH)



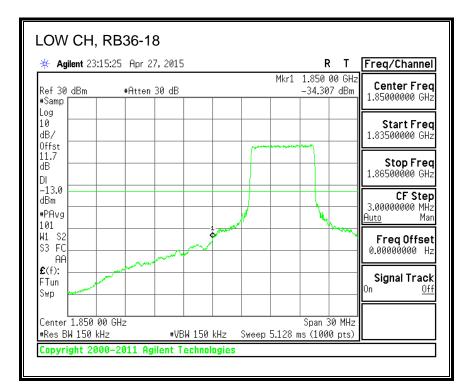


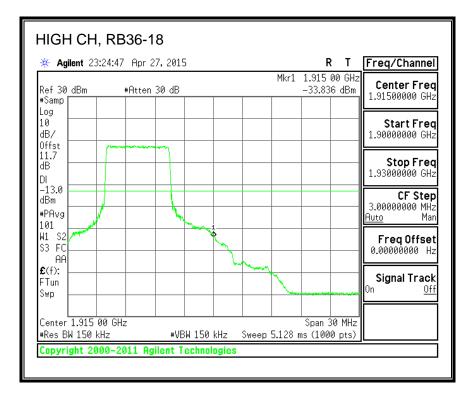
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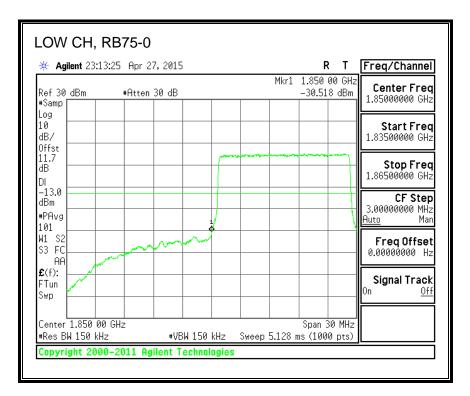


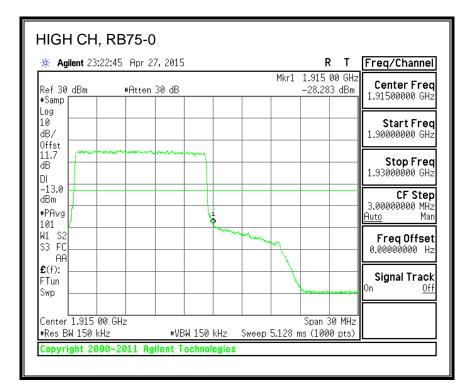
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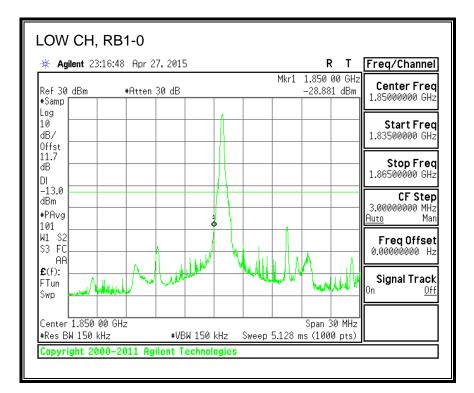
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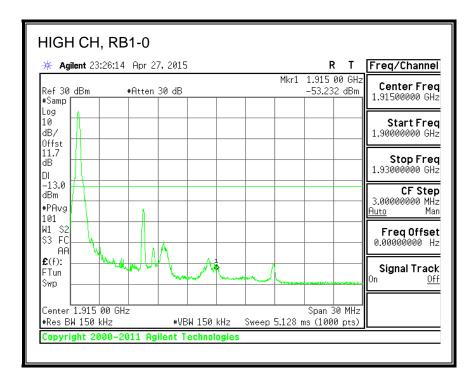




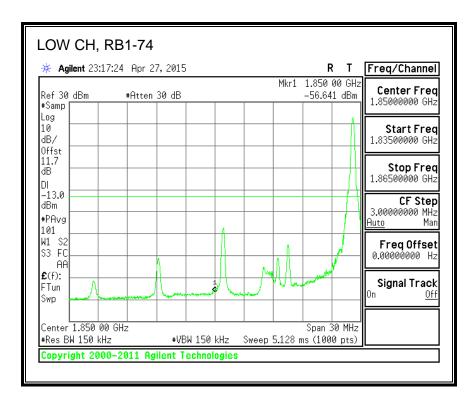
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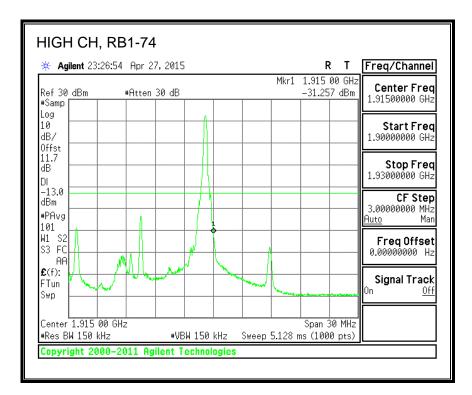
# 16QAM, (15.0 MHz BAND WIDTH)



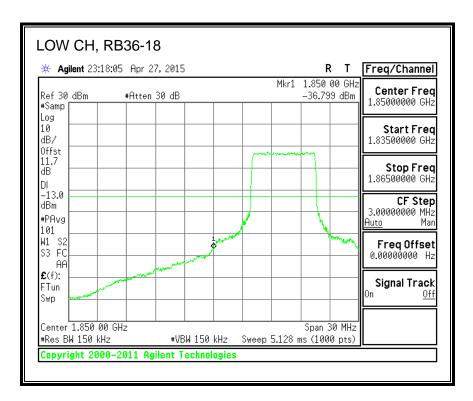


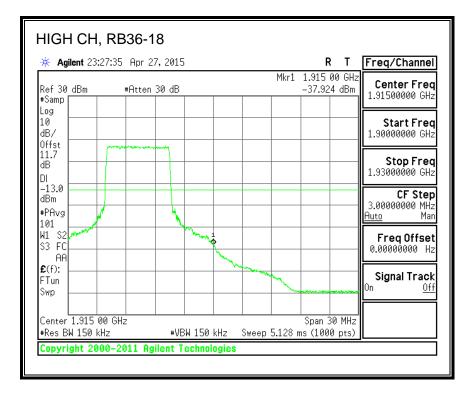
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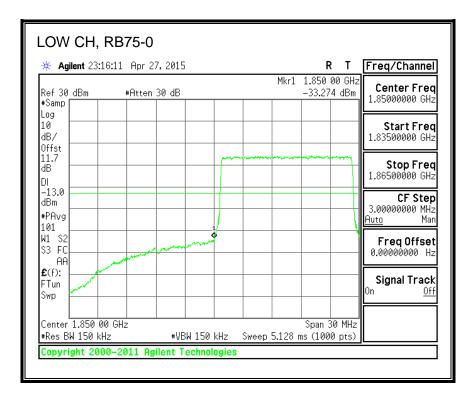


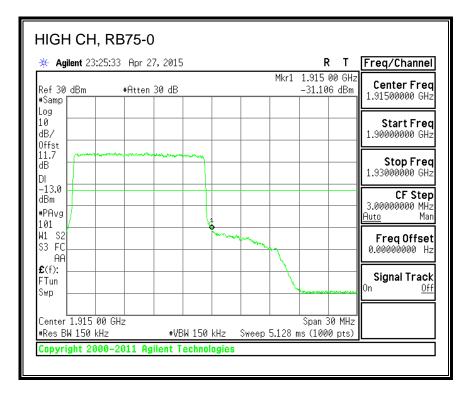
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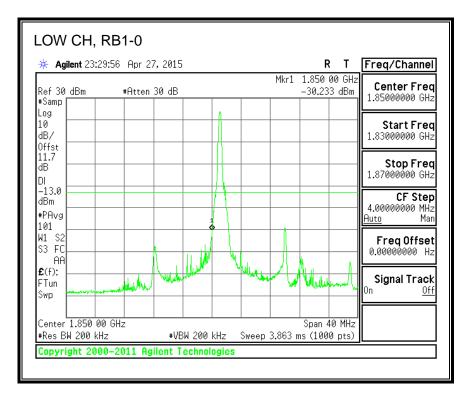
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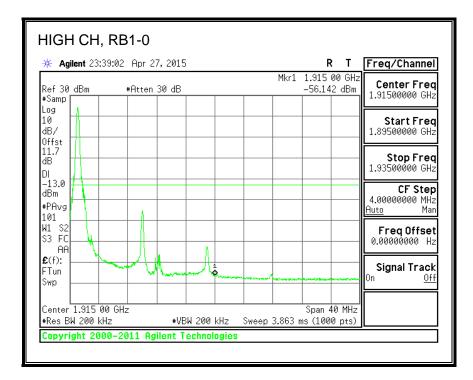




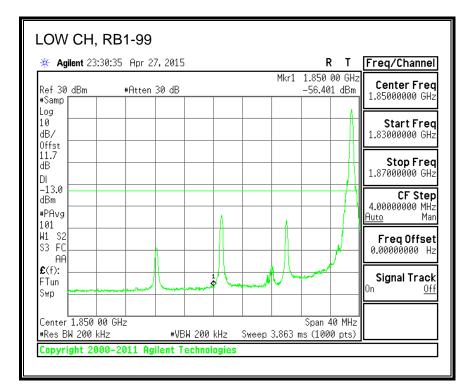
Page 621 of 1995

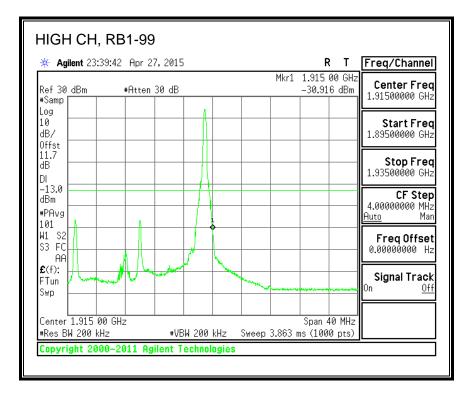
#### QPSK, (20.0 MHz BAND WIDTH)



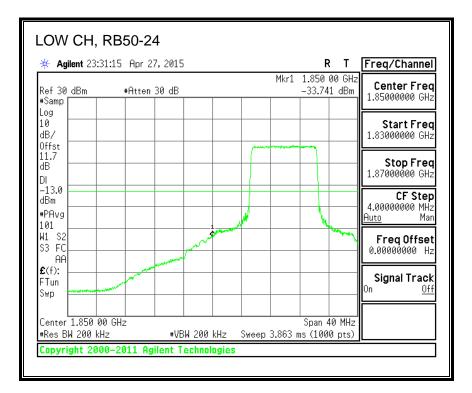


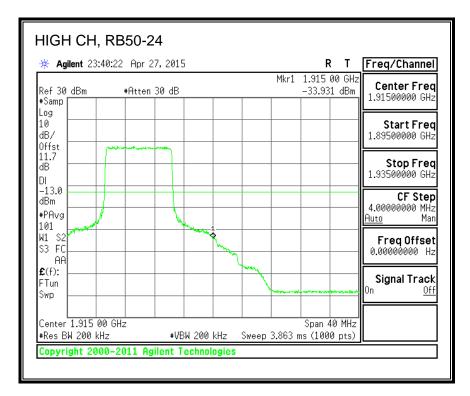
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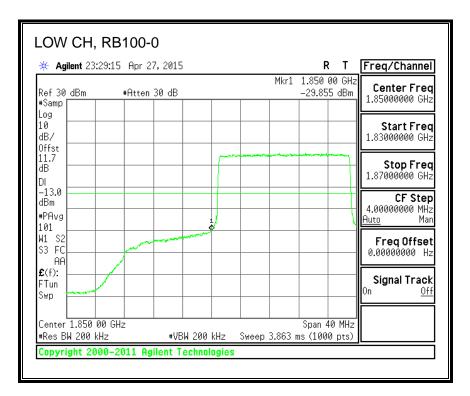


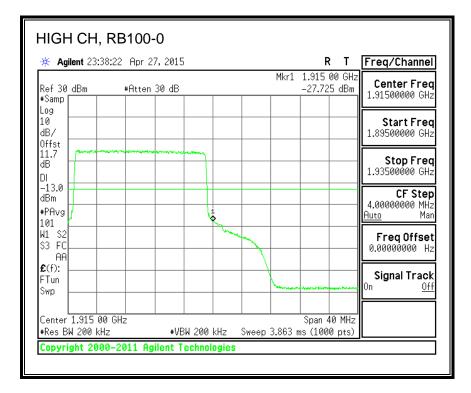
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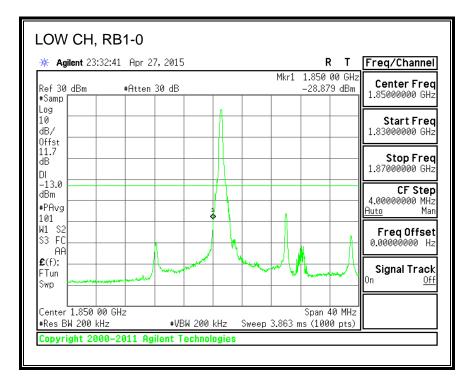
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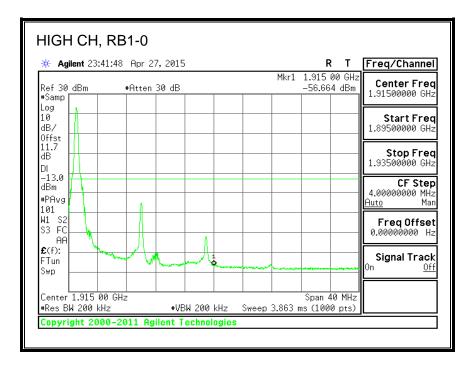




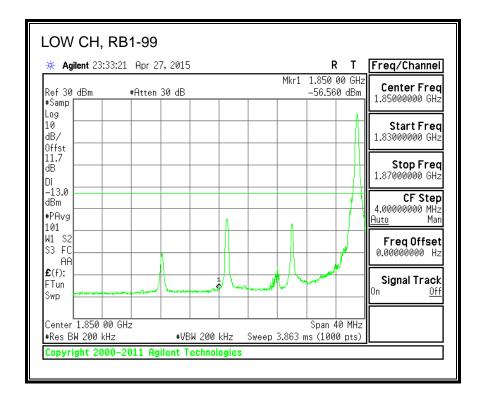
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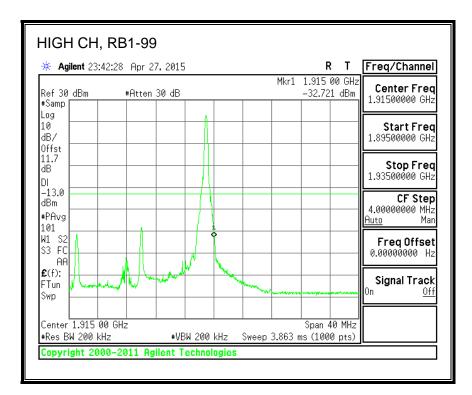
### 16QAM, (20.0 MHz BAND WIDTH)



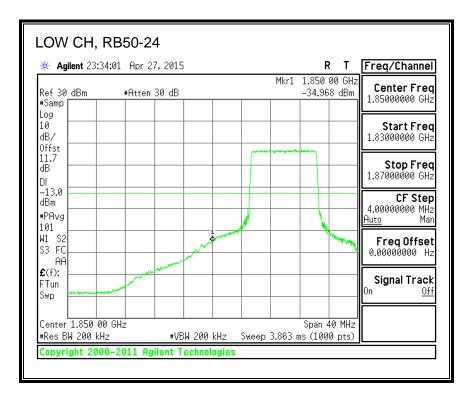


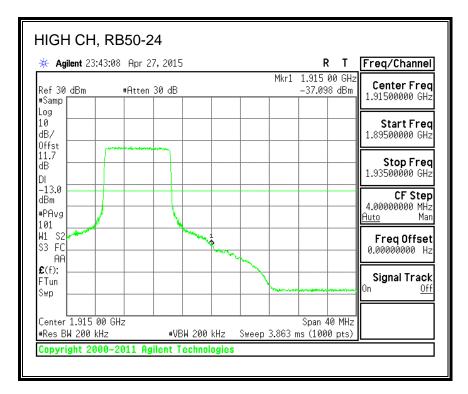
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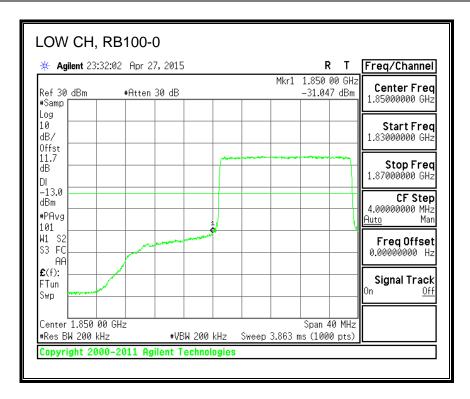


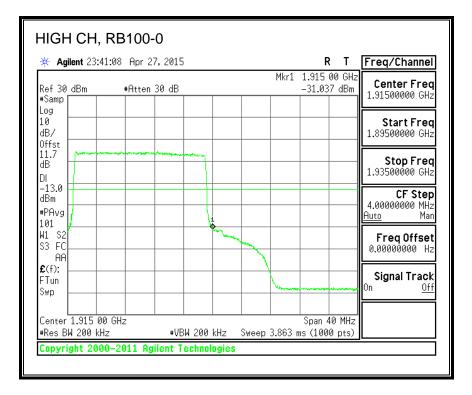
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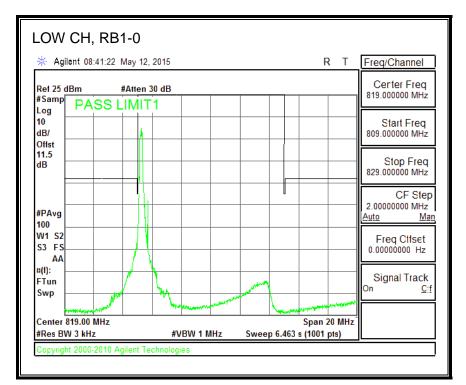


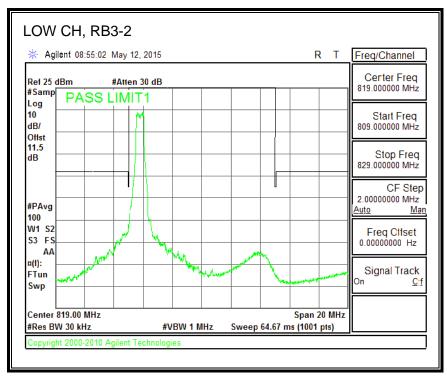


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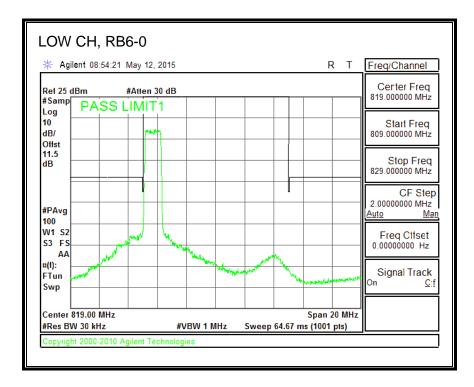
# 8.3.9. LTE BAND 26 EMISSION MASK

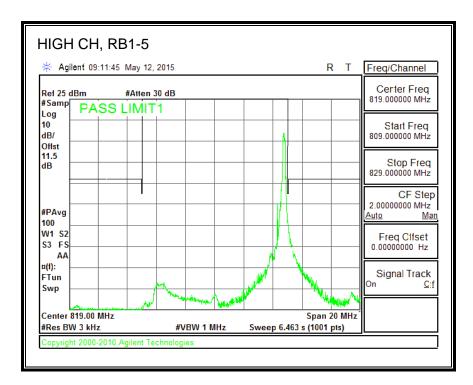
#### QPSK, (1.4 MHz BAND WIDTH)



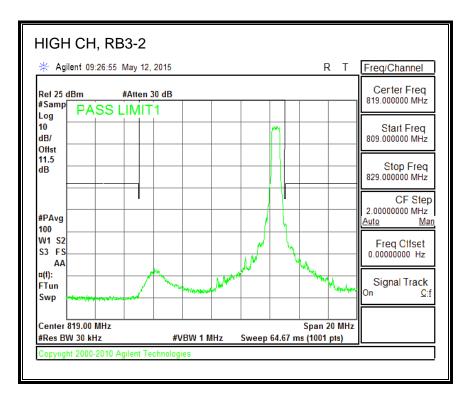


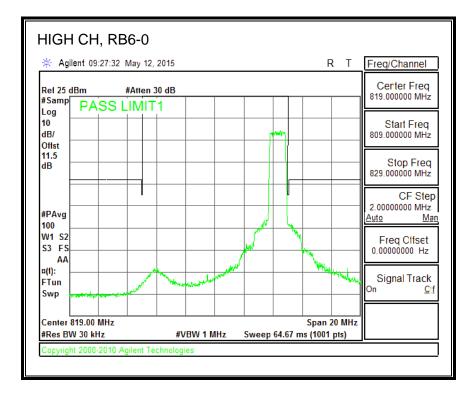
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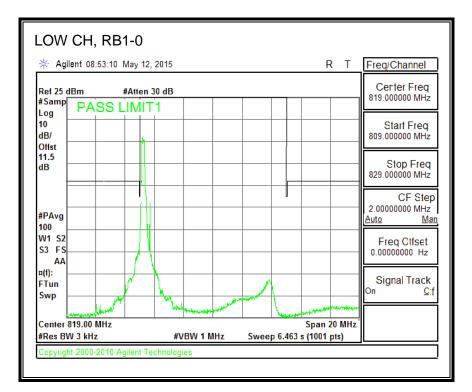
Page 631 of 1995

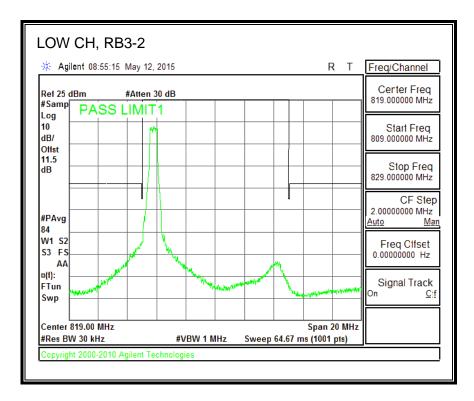




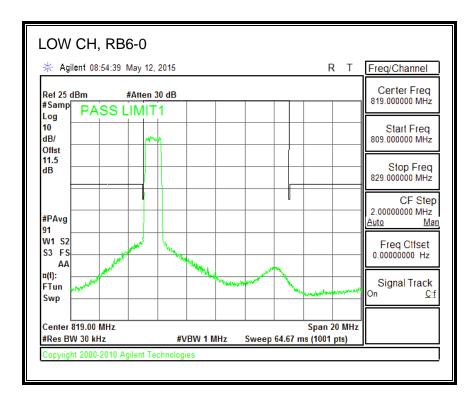
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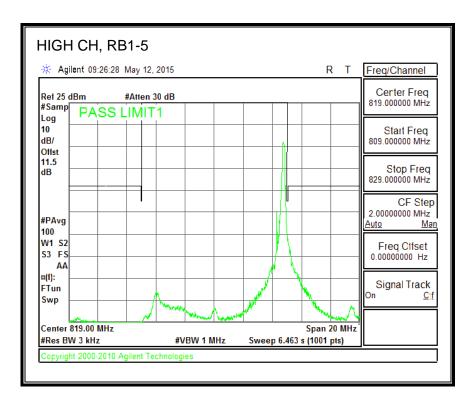
# 16QAM, (1.4 MHz BAND WIDTH)



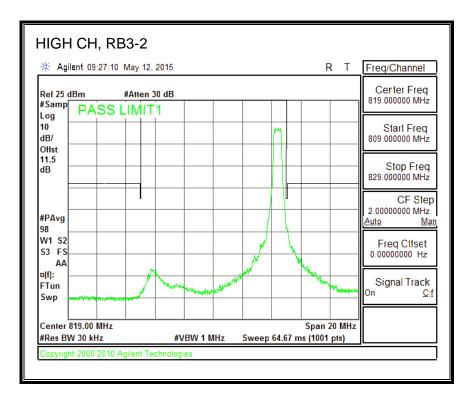


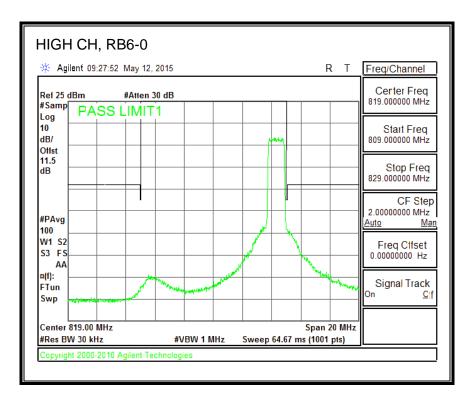
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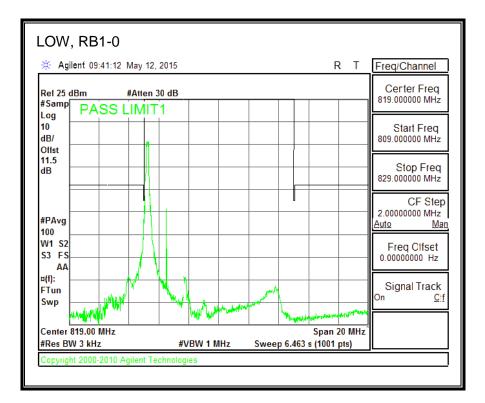
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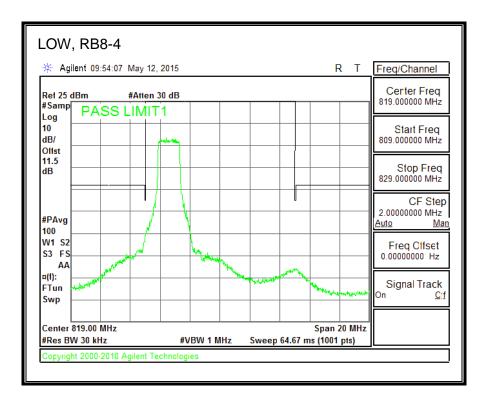




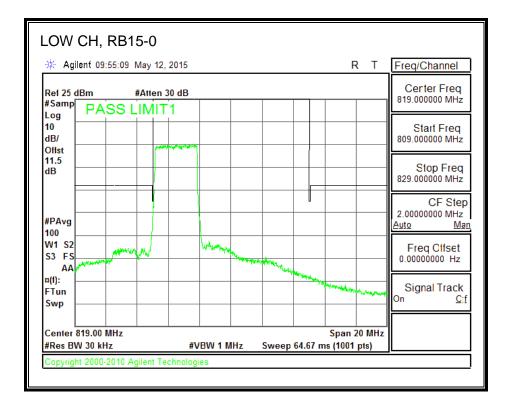
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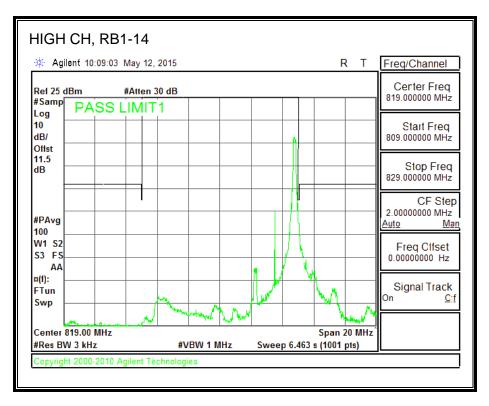
#### QPSK, (3.0 MHz BAND WIDTH)



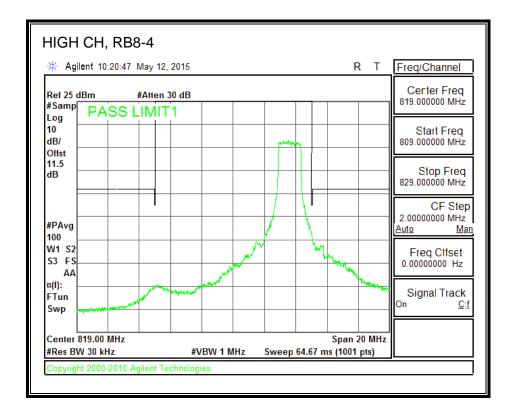


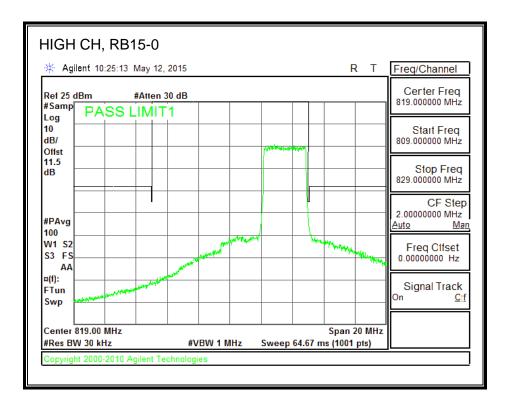
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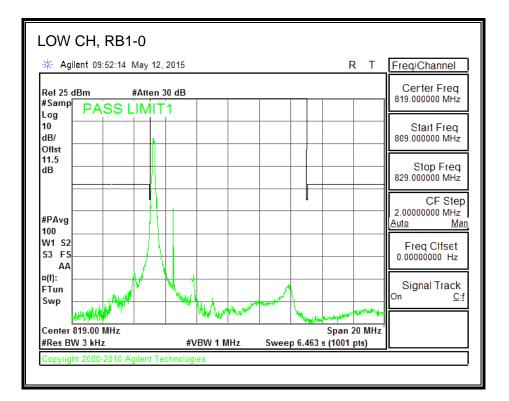
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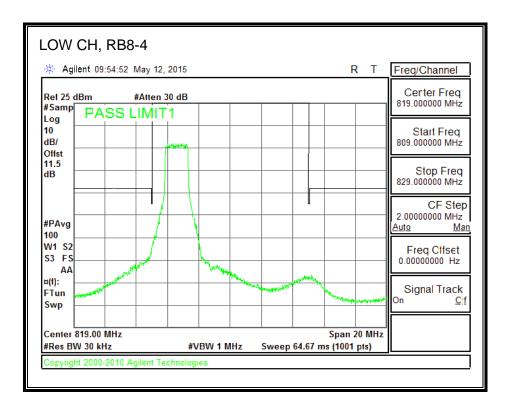




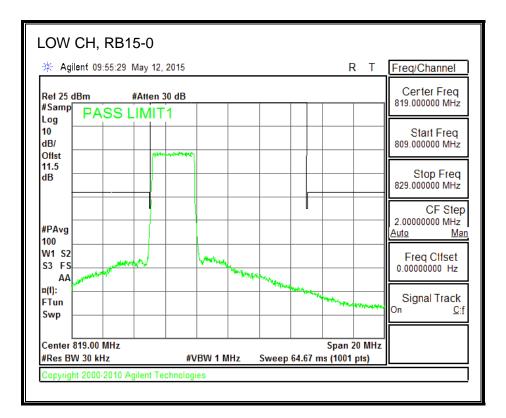
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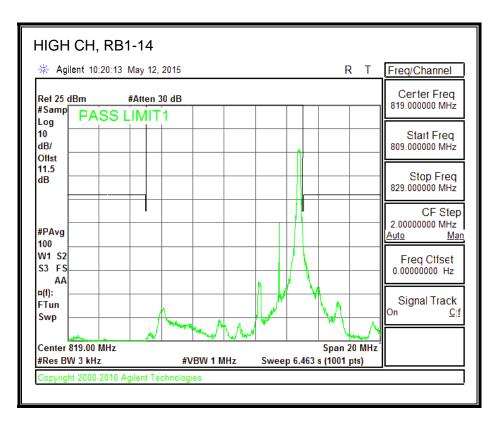
### 16QAM, (3.0 MHz BAND WIDTH)



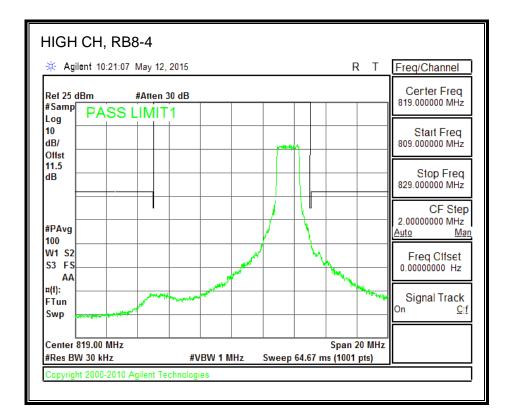


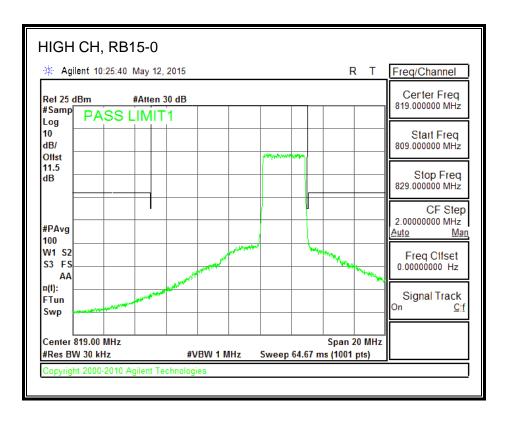
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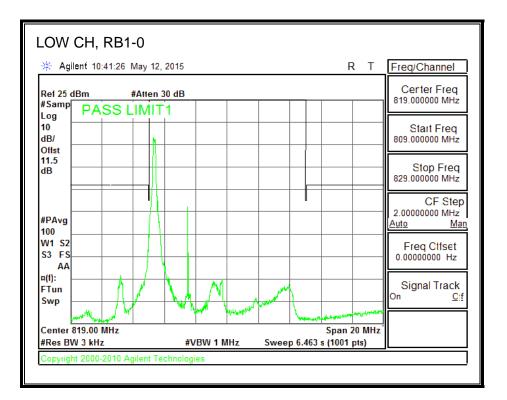
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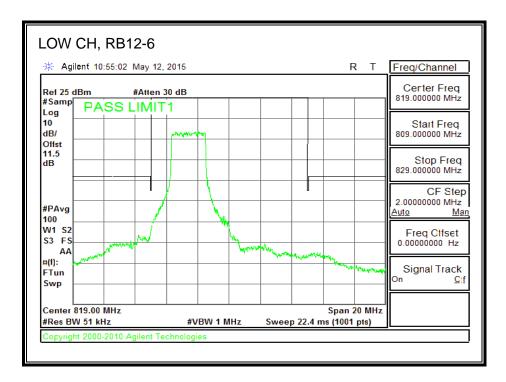




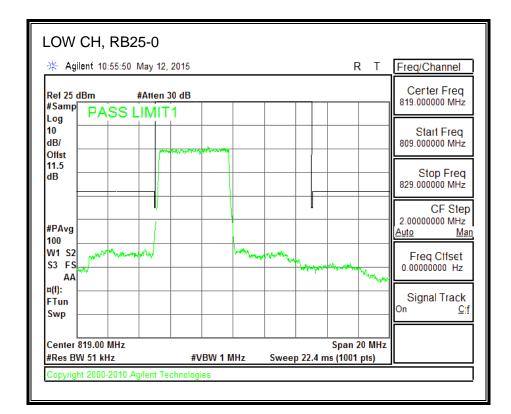
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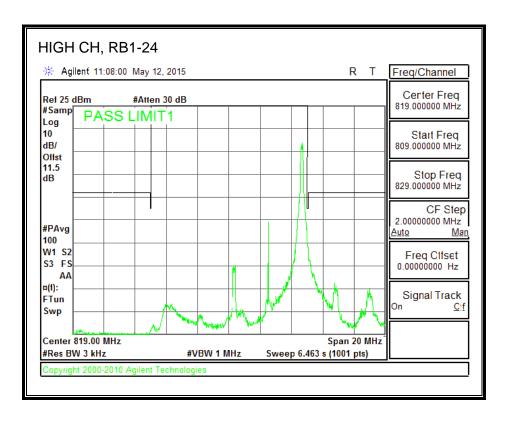
### QPSK, (5.0 MHz BAND WIDTH)



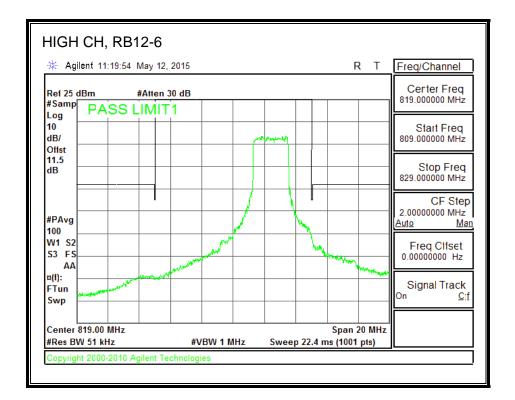


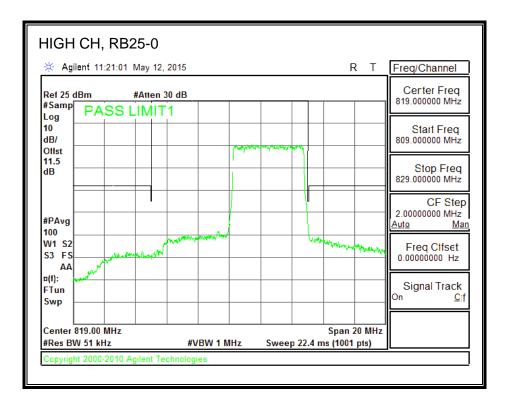
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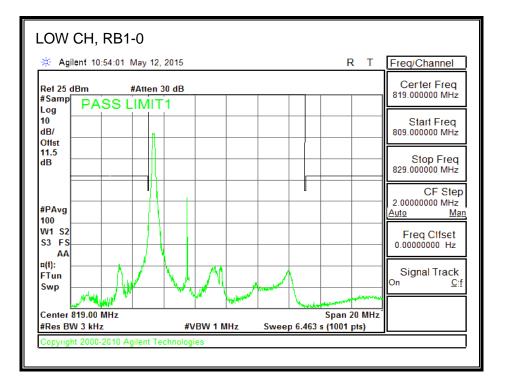
Page 643 of 1995

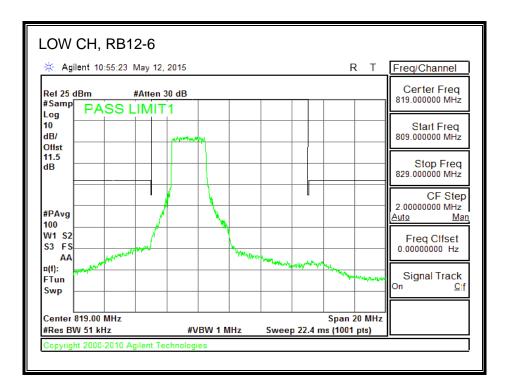




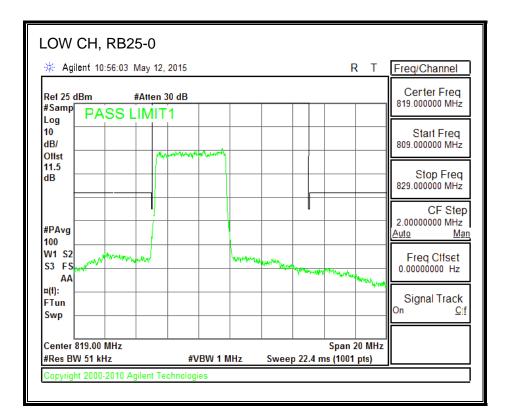
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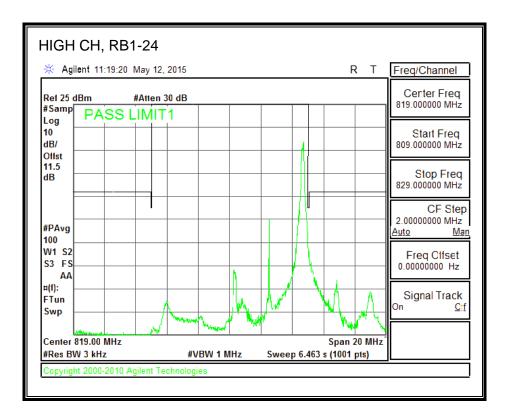
## 16QAM, (5.0 MHz BAND WIDTH)



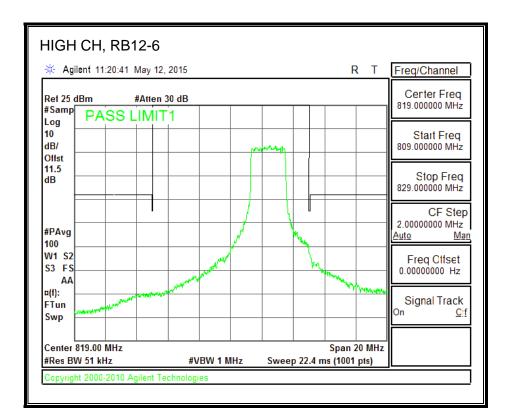


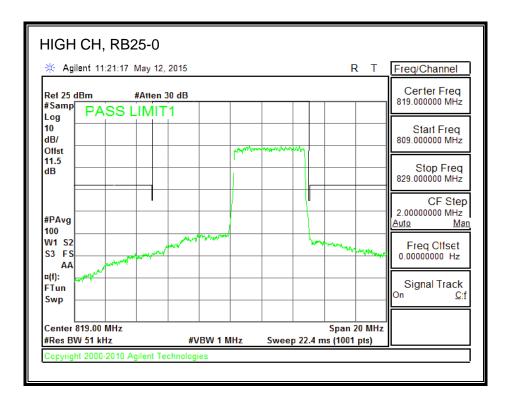
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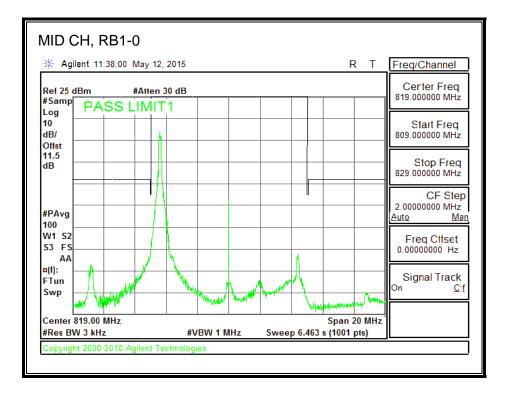
Page 646 of 1995

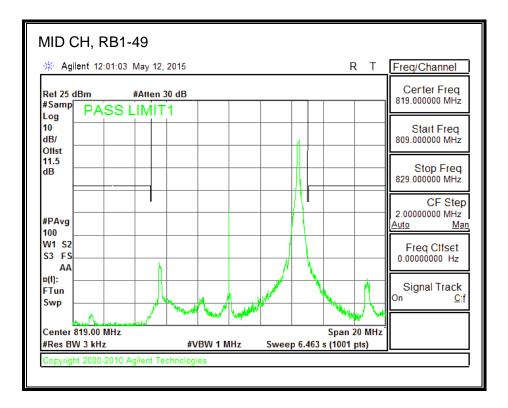




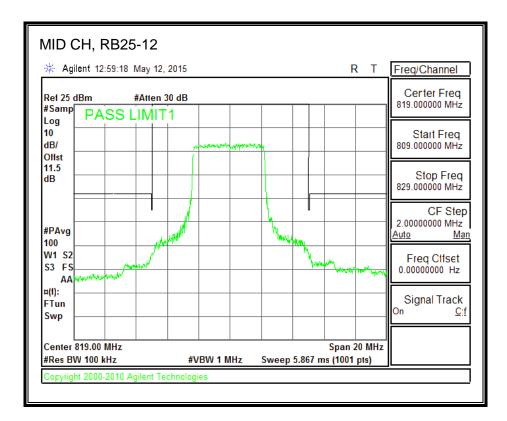
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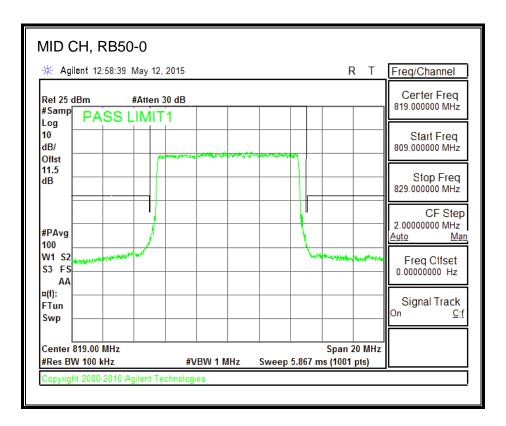
## QPSK, (10.0 MHz BAND WIDTH)





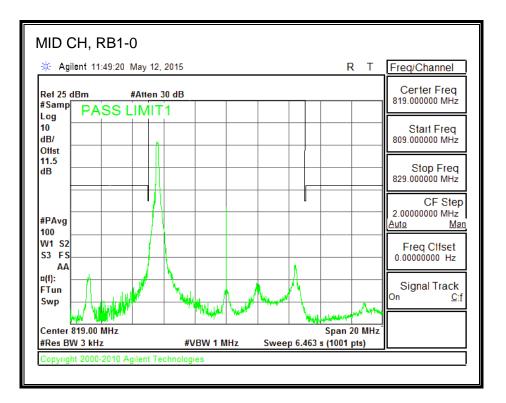
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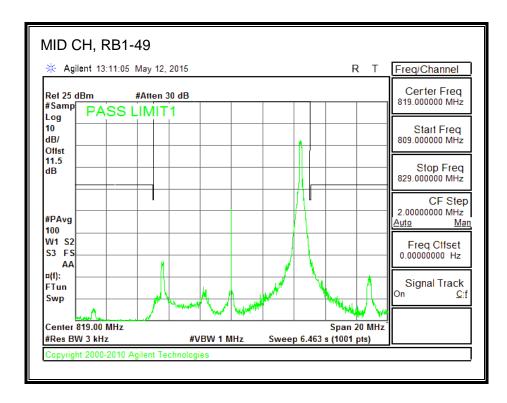




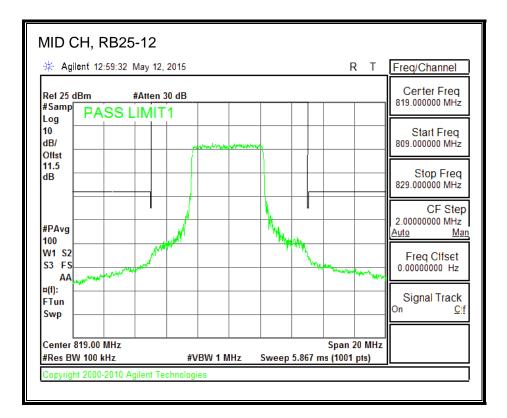
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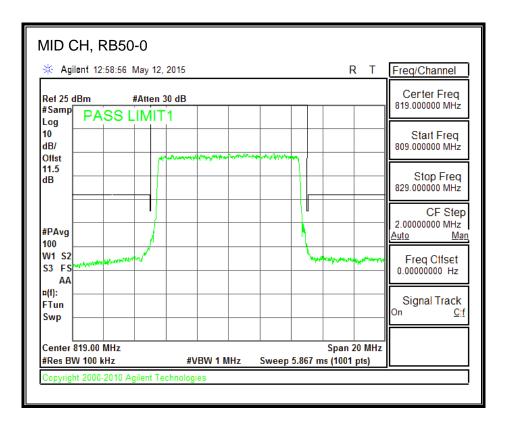
### 16QAM, (10.0 MHz BAND WIDTH)





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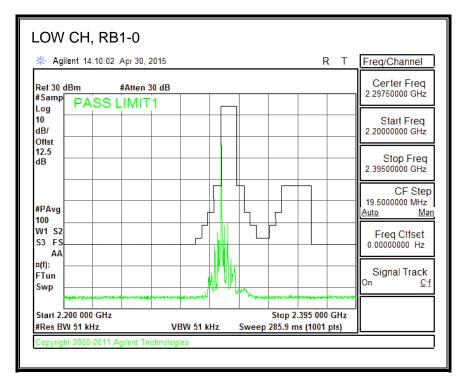


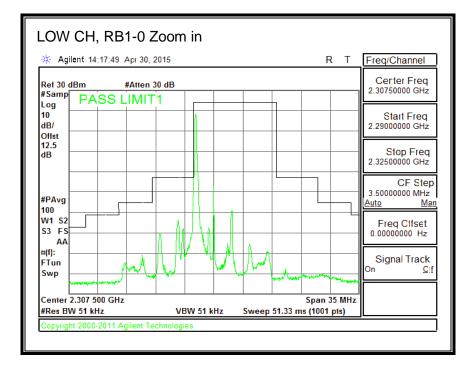


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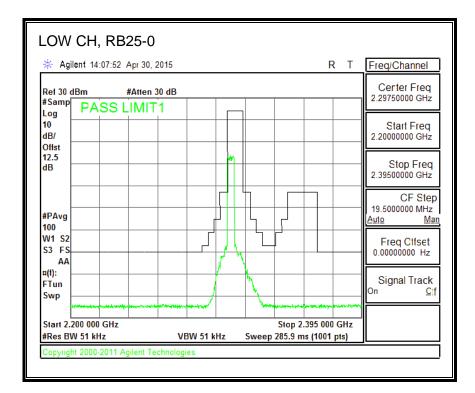
# 8.3.10. LTE BAND 30 EMISSION MASK

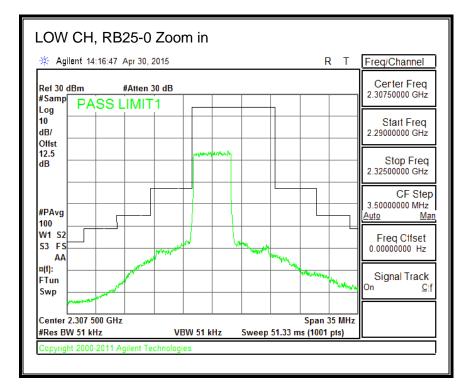
### QPSK, (5.0 MHz BAND WIDTH)





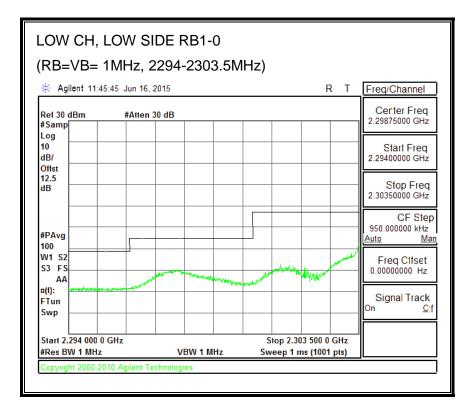
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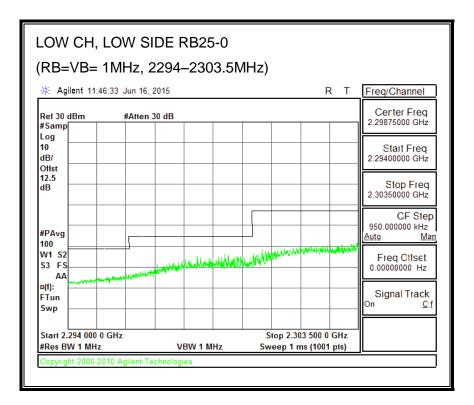
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LOW CH, LOW S (RB=VB= 1%EB		4MHz)		
🔆 Agilent 11:37:04 Jun 1	6, 2015		R T	Freq/Channel
Ch Freq 2. Channel Power	3035 GHz		Trig Free	Certer Freq 2.30350000 GHz
				Start Freq 2.30250000 GHz
#Samp f	an 30 dB			Stop Freq 2.30450000 GHz
10 dB/ Offst 12.5				CF Step 200.000000 kHz Auto Man
dB			Span 2 MHz	Freq Clfset 0.00000000 Hz
#Res BW 51 kHz Channel Power	VBW 51 kHz	Sweep 2.933 ms Power Spectral	<u> </u>	Signal Track <sup>On <u>C</u>if</sup>
-32.24 dBm / 1.0	000 MHz	-92.24 dl	Bm/Hz	
Copyright 2000-2010 Agilent	Technologies			

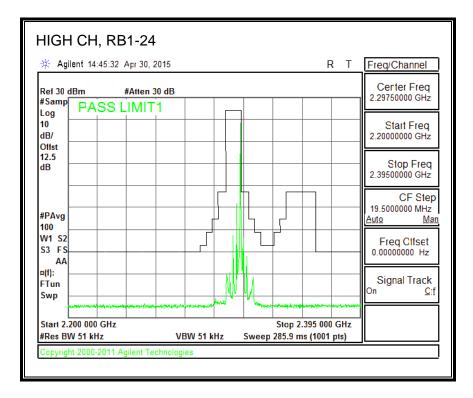


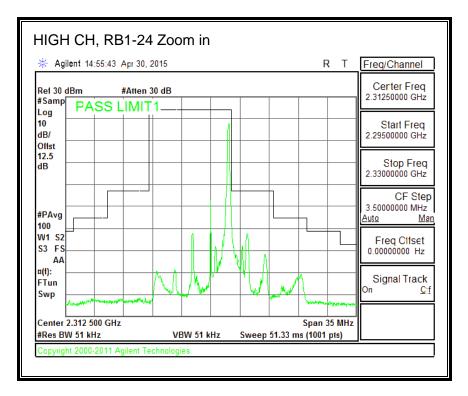
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LOW CH, LOW SIDE RB25-0 (RB=VB= 1%EBW, 2303–2304MHz)			
* Agilent 11:37:59 Jun 16, 2015 R T	Freq/Channel		
Ch Freq 2.3035 GHz Trig Fre Channel Power	Certer Freq 2.30350000 GHz		
	Start Freq 2.30250000 GHz		
Ref 30 dBm         #Atten 30 dB           #Samp	Stop Freq 2.30450000 GHz		
10	CF Step 200.000000 kHz <u>Auto Man</u>		
dB Center 2.303 500 GHz Span 2 M	Freq Clfset 0.00000000 Hz		
#Res BW 51 kHz         VBW 51 kHz         Sweep 2.933 ms (1001 pts)           Channel Power         Power Spectral Density	Signal Track <sup>On <u>C</u>!f</sup>		
-30.63 dBm / 1.0000 MHz -90.63 dBm/Hz			
Copyright 2000-2010 Agilent Technologies			

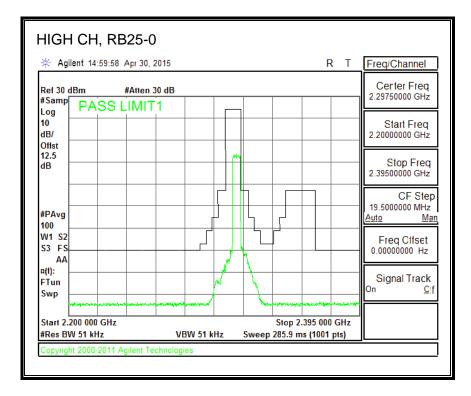


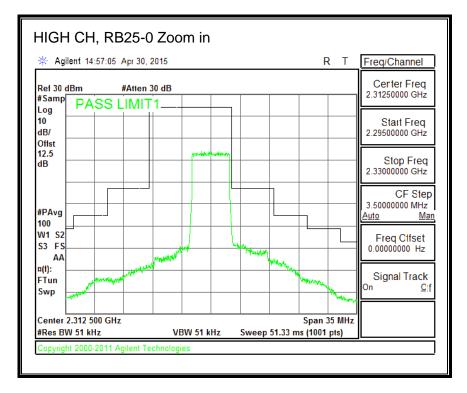
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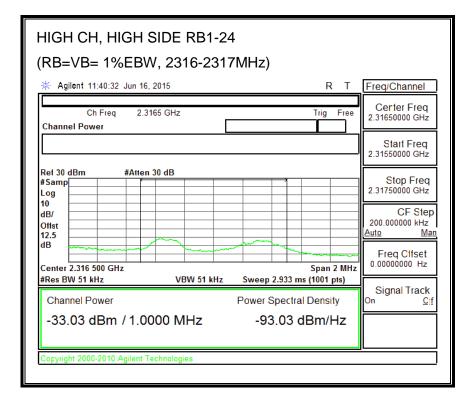


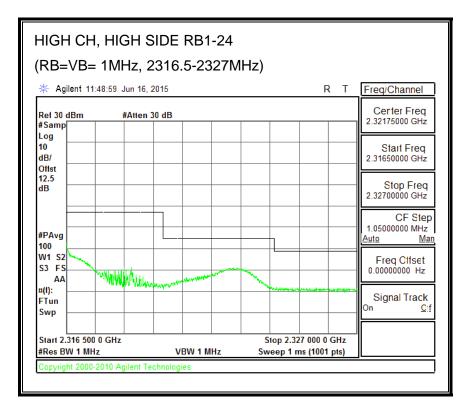
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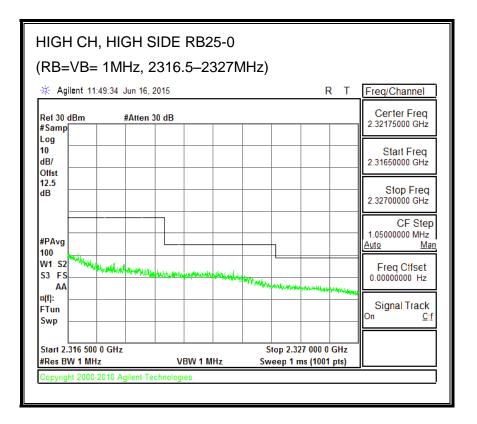
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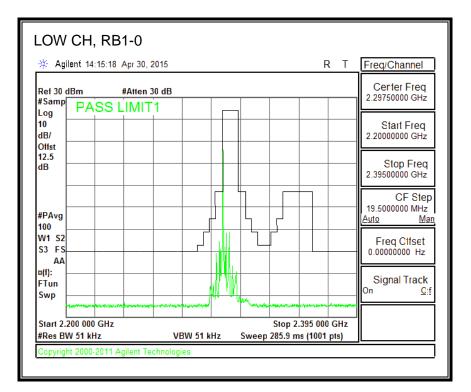
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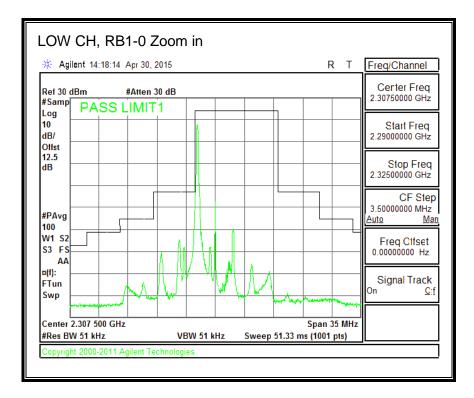
HIGH CH, HIGH SIDE RB25-0 (RB=VB= 1%EBW, 2316-2317MHz)			
🔆 Agilent 11:41:26 Jun 16, 2015	R T Freq/Channel		
Ch Freq 2.3165 GHz Channel Power	Trig Free Certer Freq 2.31650000 GHz		
	Start Freq 2.31550000 GHz		
Ref 30 dBm #Atten 30 dB #Samp	Stop Freq 2.31750000 GHz		
10 dB/ Offst 12.5	CF Step 200.00000 kHz <u>Auto Man</u>		
dB Center 2.316 500 GHz #Res BW 51 kHz VBW 51 kHz Sweep 2.5	Span 2 MHz 933 ms (1001 pts)		
Channel Power Power Sp	Signal Track On <u>Qif</u>		
-32.33 dBm / 1.0000 MHz -92.33 dBm/Hz			
Copyright 2000-2010 Agilent Technologies			



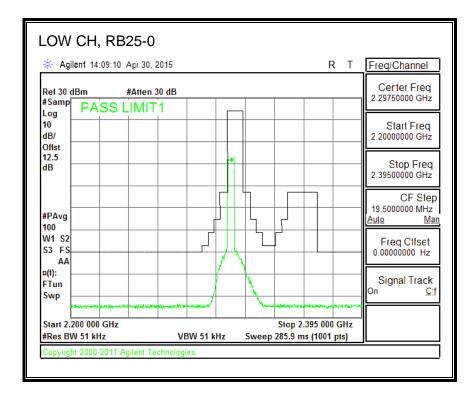
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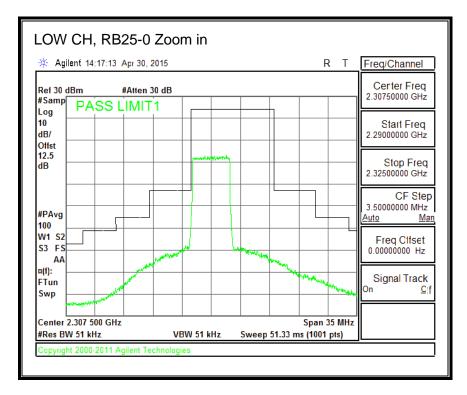
### 16QAM, (5.0 MHz BAND WIDTH)





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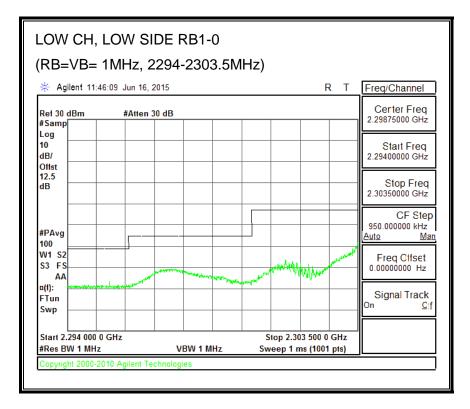




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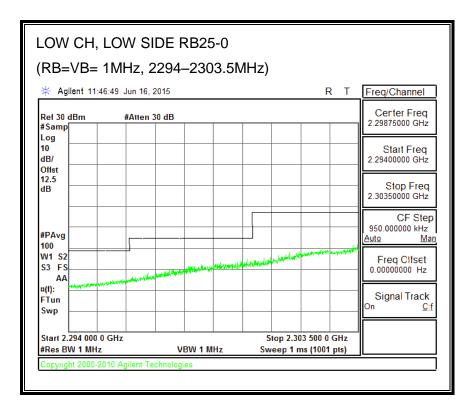
#### REPORT NO: 15U20164-E9V5 EUT: CELLULAR PHONE WITH BLUETOOTH AND WLAN RADIOS

LOW CH, LOW SIDE RB1-0 (RB=VB= 1%EBW, 2303–2304MHz)		
₩ Agilent 11:37:33 Jun 16, 2015 R	Т	Freq/Channel
Ch Freq 2.3035 GHz Trig	Free	Certer Freq 2.30350000 GHz
		Start Freq 2.30250000 GHz
Ref 30 dBm         #Atten 30 dB           #Samp		Stop Freq 2.30450000 GHz CF Step 200.000000 KHz <u>Auto Man</u> Freq Ctfset
Center 2.303 500 GHz Span #Res BW 51 kHz VBW 51 kHz Sweep 2.933 ms (1001 p	2 MHz pts)	0.00000000 Hz
Channel Power Power Spectral Densit -33.24 dBm / 1.0000 MHz -93.24 dBm/H	· .	Signal Track <sup>On <u>C</u>:f</sup>
Copyright 2000-2010 Agilent Technologies		

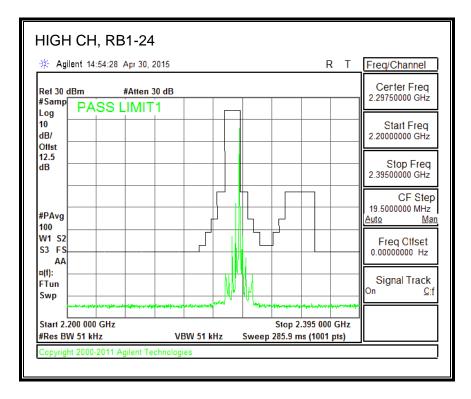


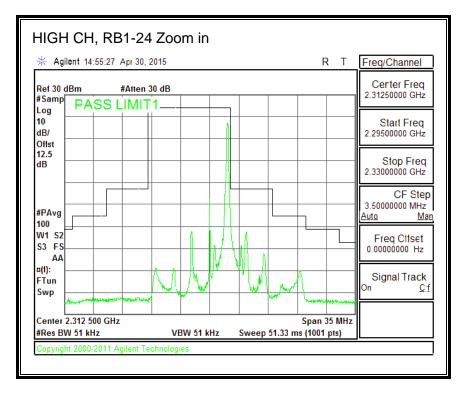
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LOW CH, LOW S (RB=VB= 1%EBV		4MHz)			
<ul> <li>Agilent 11:38:19 Jun 16</li> </ul>		, R	т	Freq/Cha	nnel
Ch Freq 2.3 Channel Power	035 GHz	Trig	Free	Center 2.3035000	
				Start 2.3025000	
#Samp	1 30 dB			Stop 2.3045000	Freq 0 GHz
10 dB/ Offst 12.5				CI 200.00000 <u>Auto</u>	F Step 10 kHz <u>Man</u>
dB			2 MHz	Freq C 0.0000000	
#Res BW 51 kHz Channel Power -31.15 dBm / 1.0	000 MHz	Sweep 2.933 ms (1001 Power Spectral Densi -91.15 dBm/	ty	Signal <sup>-</sup> <sup>On</sup>	Track <u>C:f</u>
Copyright 2000-2010 Agilent T	echnologies				

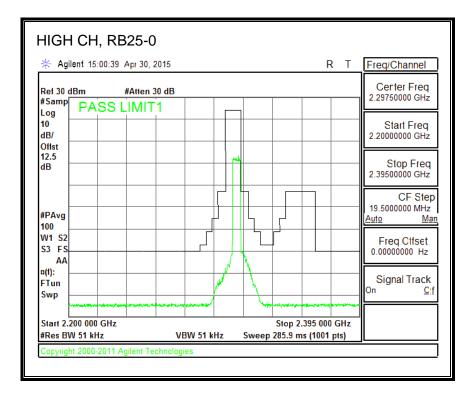


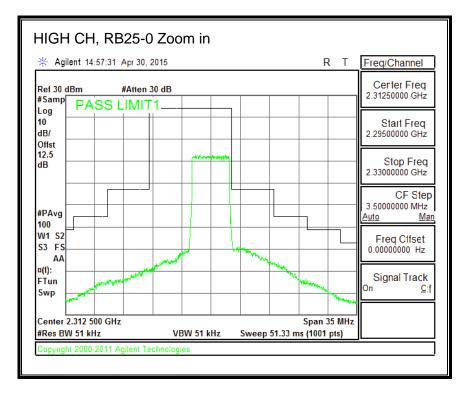
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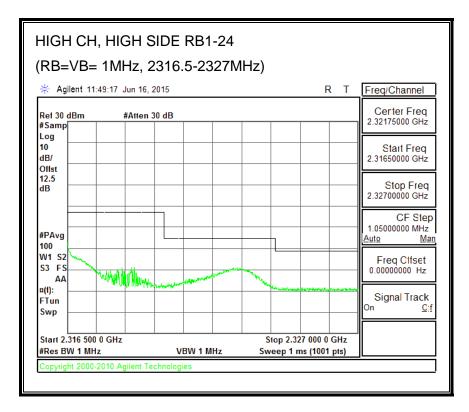
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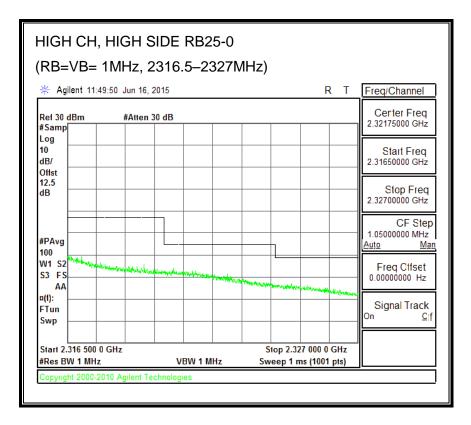
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HIGH CH, HIGH S (RB=VB= 1%EBW				
🔆 Agilent 11:40:57 Jun 16,	2015		RΤ	Freq/Channel
Ch Freq 2.31 Channel Power	65 GHz		Trig Free	Certer Freq 2.31650000 GHz
				Start Freq 2.31550000 GHz
Ref 30 dBm #Atten # #Samp Log	30 dB			Stop Freq 2.31750000 GHz
10 dB/ db				CF Step 200.000000 kHz Auto Man
dB Center 2.316 500 GHz #Res BW 51 kHz	VBW 51 kHz	Sweep 2.933 ms	Span 2 MHz	Freq Offset 0.00000000 Hz
Channel Power -34.55 dBm / 1.00		Power Spectral -94.55 d	Density	Sign <mark>al Track</mark> On <u>Cif</u>
Copyright 2000-2010 Agilent Te	chnologies			



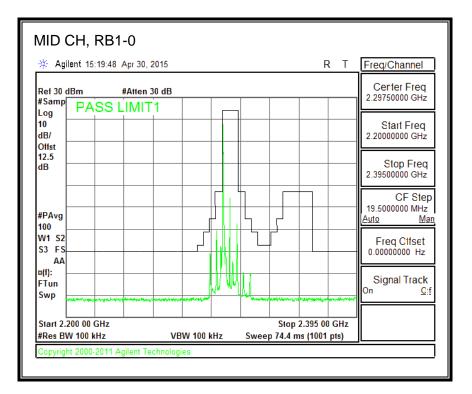
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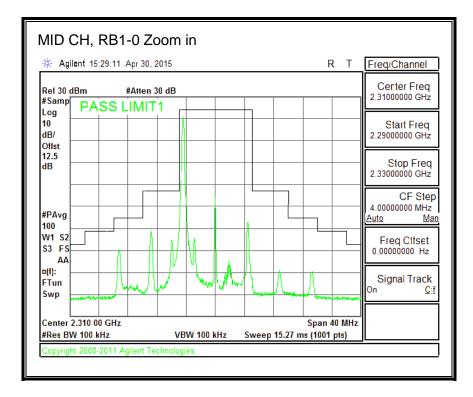
HIGH CH, HIGH SIDE RB25-0 (RB=VB= 1%EBW, 2316-2317MHz)			
券 Agilen€ 11:41:45 Jun 16, 2015 R T	Freq/Channel		
Ch Freq 2.3165 GHz Trig Free Channel Power	Certer Freq 2.31650000 GHz		
	Start Freq 2.31550000 GHz		
Ref 30 dBm         #Atten 30 dB           #Samp         1           Log         1	Stop Freq 2.31750000 GHz		
10 dB/ Offst 12.5	CF Step 200.000000 kHz <u>Auto Man</u>		
dB Center 2.316 500 GHz Span 2 MHz	Freq Cliset 0.00000000 Hz		
#Res BW 51 kHz         VBW 51 kHz         Sweep 2.933 ms (1001 pts)           Channel Power         Power Spectral Density	Signal Track On <u>Cif</u>		
-33.01 dBm / 1.0000 MHz -93.01 dBm/Hz			
Copyright 2000-2010 Agilent Technologies			



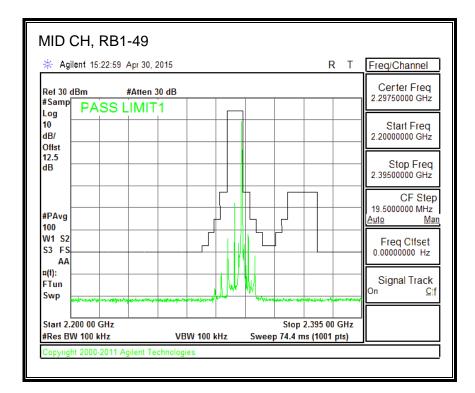
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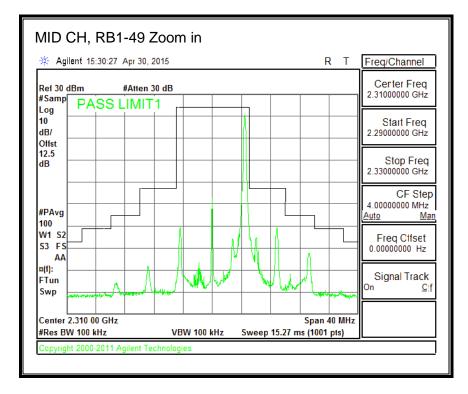
### QPSK, (10.0 MHz BAND WIDTH)



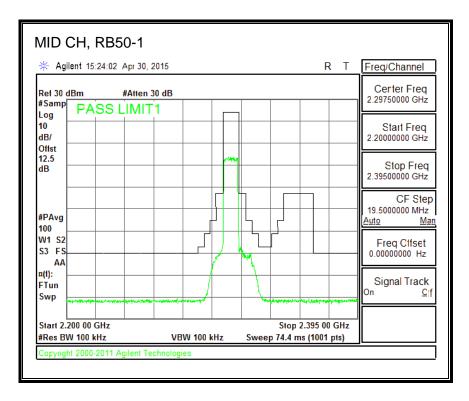


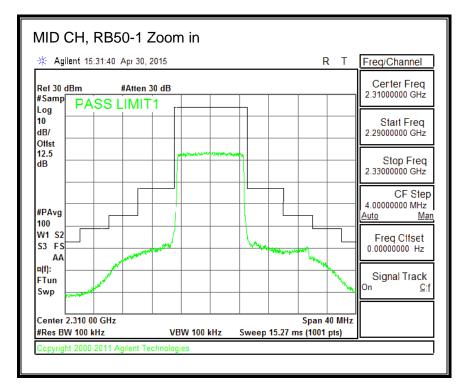
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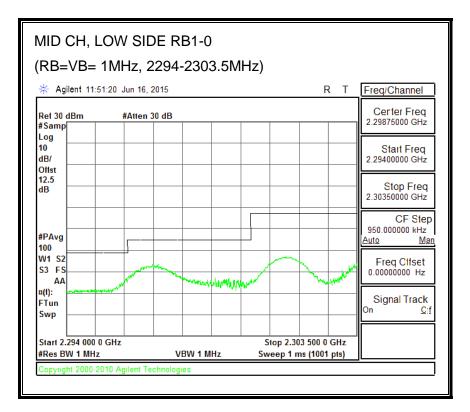
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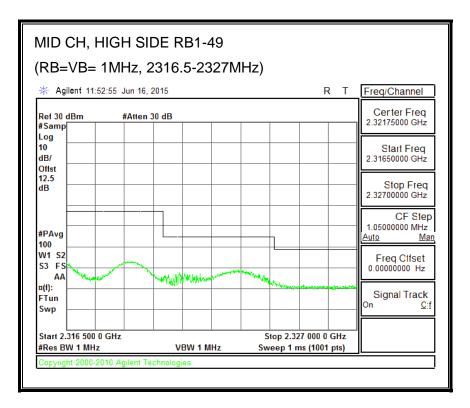
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MID CH, LOW S (RB=VB= 1%EE		4MHz)		
🔆 Agilent 11:30:03 Jun	16, 2015	RT	Freq/Channel	
Ch Freq 2 Channel Power	2.3035 GHz	Trig Free	Certer Freq 2.30350000 GHz	
			Start Freq 2.30250000 GHz	
#Samp	en 30 dB		Stop Freq 2.30450000 GHz	
10 dB/ 0ffst 12.5			CF Step 200.000000 kHz <u>Auto Man</u>	
dB Center 2.303 500 GHz #Res BW 100 kHz	VBW 100 kHz	Span 2 MHz Sweep 1 ms (1001 pts)	Freq Clfset 0.00000000 Hz	
Channel Power	VBW 100 KHZ	Power Spectral Density	Signal Track <sup>On <u>Cif</u></sup>	
-41.20 dBm / 1.	-41.20 dBm / 1.0000 MHz -101.20 dBm/Hz			
Copyright 2000-2010 Agiler	t Technologies		<u></u>	

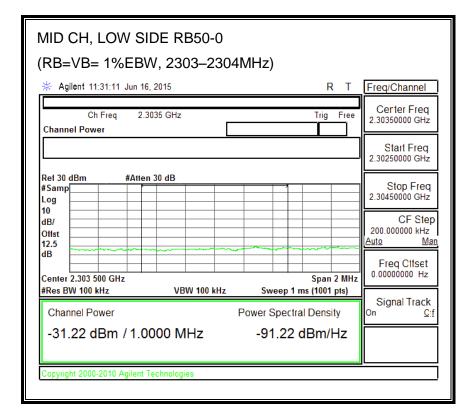


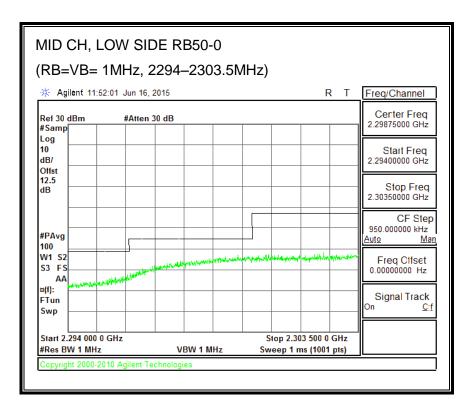
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MID CH, HIGH SIDE RB1-49 (RB=VB= 1%EBW, 2316–2317MHz)	
* Agilent 11:33:25 Jun 16, 2015 R	T Freq/Channel
Ch Freq 2.3165 GHz Trig	Free Certer Freq 2.31650000 GHz
	Start Freq 2.31550000 GHz
Ref 30 dBm #Atten 30 dB #Samp	Stop Freq 2.31750000 GHz
10 dB/ Offst 12.5	CF Step 200.000000 kHz <u>Auto Man</u>
dB Center 2.316 500 GHz Span 2	
#Res BW 100 kHz         VBW 100 kHz         Sweep 1 ms (1001 p           Channel Power         Power Spectral Density	y On <u>Cif</u>
-38.20 dBm / 1.0000 MHz -98.20 dBm/H	łz
Copyright 2000-2010 Agilent Technologies	



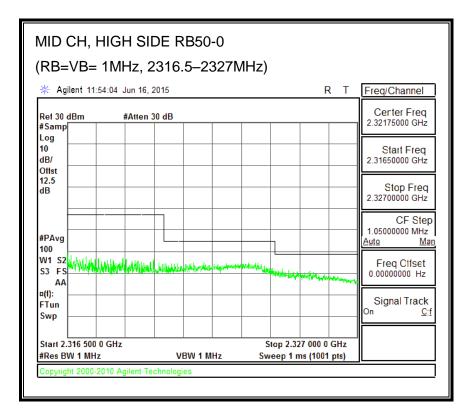
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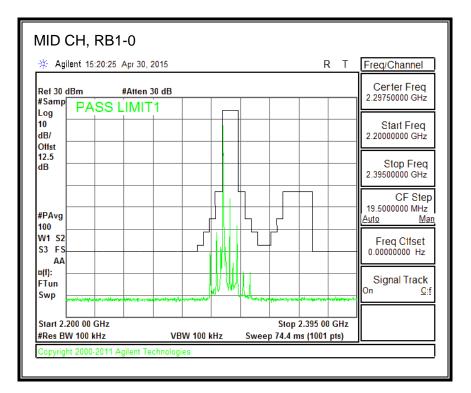
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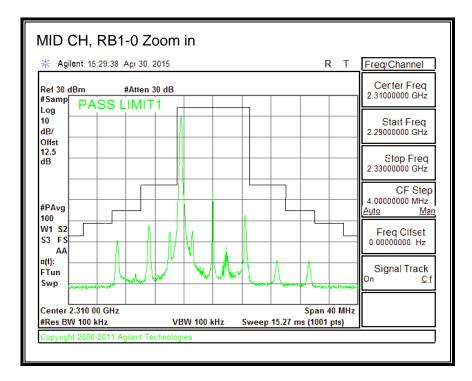
MID CH, HIGH (RB=VB= 1%EE		MHz)	
🔆 Agilent 11:34:06 Jun	16, 2015	R T	Freq/Channel
Ch Freq 2 Channel Power	2.3165 GHz	Trig Free	Certer Freq 2.31650000 GHz
			Start Freq 2.31550000 GHz
#Samp	en 30 dB		Stop Freq 2.31750000 GHz
10 dB/ Offst 12.5			CF Step 200.000000 kHz <u>Auto Man</u>
dB		Span 2 MHz	Freq Clfset 0.00000000 Hz
#Res BW 100 kHz Channel Power	VBW 100 kHz	Sweep 1 ms (1001 pts) Power Spectral Density	Signal Track <sup>On <u>Cif</u></sup>
-35.70 dBm / 1.	0000 MHz	-95.70 dBm/Hz	
Copyright 2000-2010 Agiler	t Technologies		



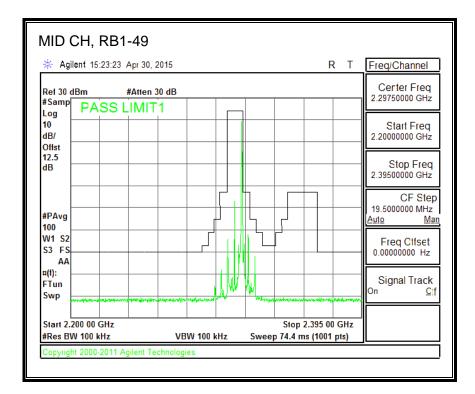
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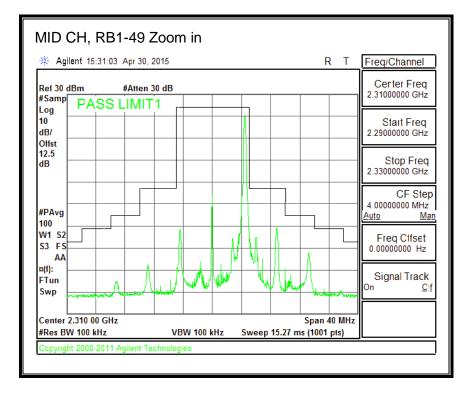
## 16QAM, (10.0 MHz BAND WIDTH)



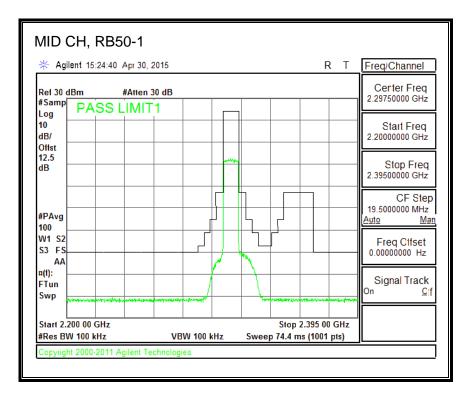


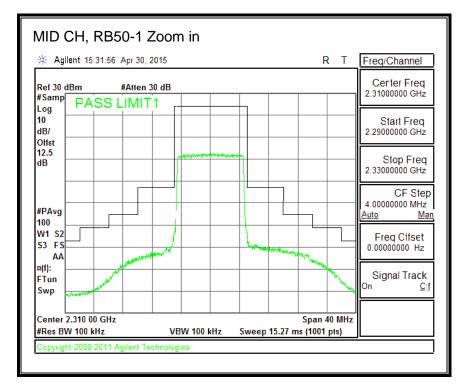
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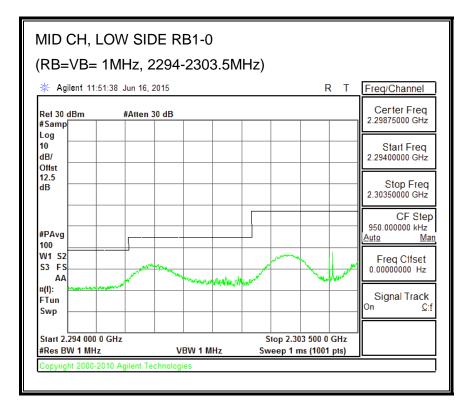
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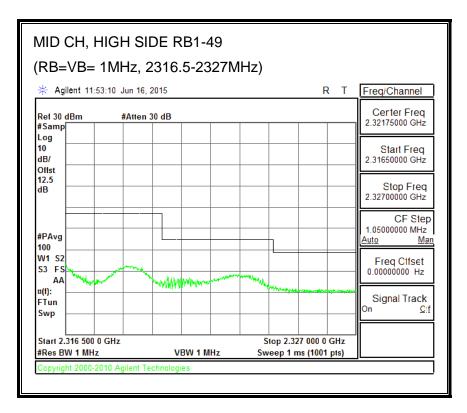
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MID CH, LOW S (RB=VB= 1%EB		MHz)	
🔆 Agilent 11:30:42 Jun 1	6, 2015	RT	Freq/Channel
Ch Freq 2. Channel Power	3035 GHz	Trig Free	Certer Freq 2.30350000 GHz
			Start Freq 2.30250000 GHz
#Samp* Log	en 30 dB		Stop Freq 2.30450000 GHz
10 dB/ Offst 12.5			CF Step 200.000000 kHz <u>Auto Man</u>
dB		Span 2 MHz	Freq Clfset 0.00000000 Hz
#Res BW 100 kHz Channel Power -42.98 dBm / 1.0		Sweep 1 ms (1001 pts) Power Spectral Density -102.98 dBm/Hz	Signal Track <sup>On <u>C</u>:f</sup>
Copyright 2000-2010 Agilent	Technologies		



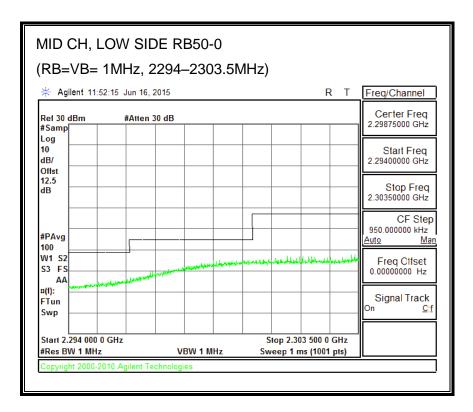
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MID CH, HIGH SI (RB=VB= 1%EBV		MHz)	
🔆 Agilent 11:33:45 Jun 16,	2015	RT	Freq/Channel
Ch Freq 2.3 Channel Power	165 GHz	Trig Fre	Certer Freq 2.31650000 GHz
			Start Freq 2.31550000 GHz
Ref 30 dBm #Atten #Samp Log	30 dB		Stop Freq 2.31750000 GHz
10 dB/ Offst 12.5			CF Step 200.000000 kHz Auto Man
dB		Span 2 MH	Freq Ctfset
#Res BW 100 kHz	VBW 100 kHz	Sweep 1 ms (1001 pts)	
Channel Power	F	Power Spectral Density	Signal Track <sup>On <u>C</u>!f</sup>
-39.13 dBm / 1.00	000 MHz	-99.13 dBm/Hz	
Copyright 2000-2010 Agilent T	echnologies		



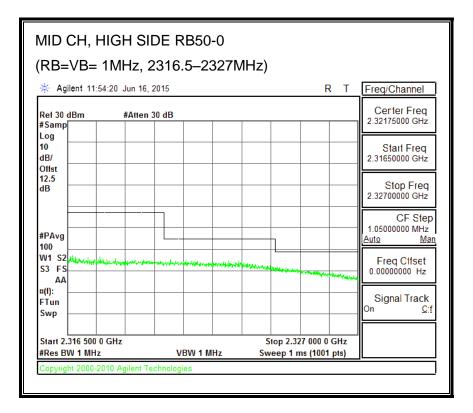
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MID CH, LOW S (RB=VB= 1%EB		MHz)	
` - ∰ Agilent 11:31:32 Jun 1		, R T	Freq/Channel
Ch Freq 2 Channel Power	.3035 GHz	Trig Free	Certer Freq 2.30350000 GHz
			Start Freq 2.30250000 GHz
#Samp	en 30 dB		Stop Freq 2.30450000 GHz
10 dB/ Offst 12.5			CF Step 200.000000 kHz Auto Man
dB	VBW 100 kHz	Span 2 MHz	Freq Clfset 0.00000000 Hz
Channel Power		Sweep 1 ms (1001 pts) Power Spectral Density	Signal Track <sup>On <u>C</u>!f</sup>
-32.29 dBm / 1.0	0000 MHz	-92.29 dBm/Hz	
Copyright 2000-2010 Agilent	Technologies		



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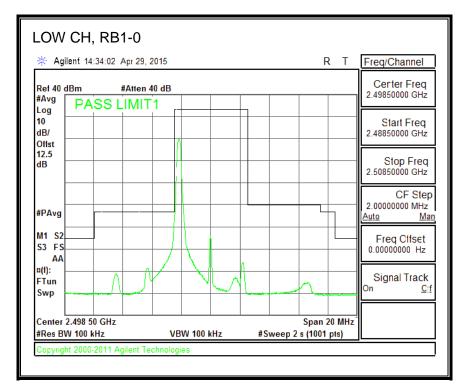
MID CH, HIGH S (RB=VB= 1%EB		ИНz)	
🔆 Agilent 11:34:37 Jun 1	5, 2015	R T	Freq/Channel
Ch Freq 2. Channel Power	3165 GHz	Trig Free	Certer Freq 2.31650000 GHz
			Start Freq 2.31550000 GHz
#SampF	n 30 dB		Stop Freq 2.31750000 GHz
10 dB/ Offst 12.5			CF Step 200.000000 kHz Auto Man
dB	VBW 100 kHz	Span 2 MHz	Freq Cifset 0.00000000 Hz
Channel Power -36.37 dBm / 1.0	F	Sweep 1 ms (1001 pts) Power Spectral Density -96.37 dBm/Hz	Signal Track <sup>On <u>C</u>!f</sup>
Copyright 2000-2010 Agilent	Technologies		

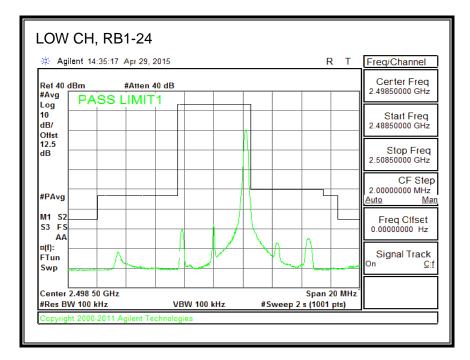


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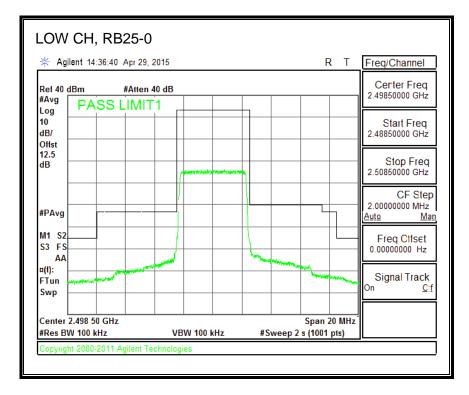
# 8.3.11. LTE BAND 41 EMISSION MASK

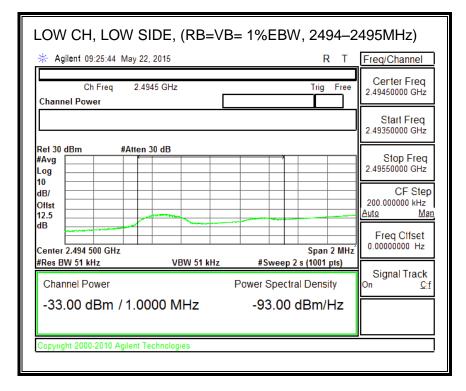
#### QPSK, (5.0 MHz BAND WIDTH)



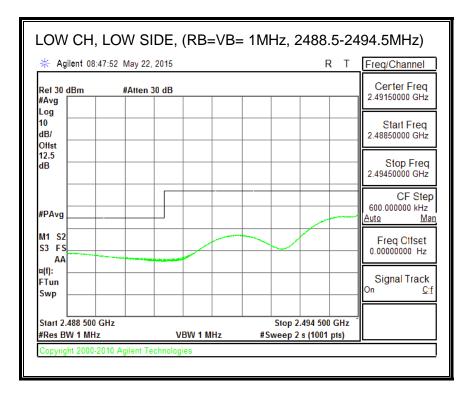


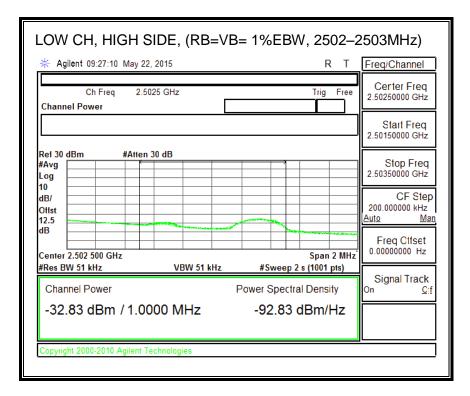
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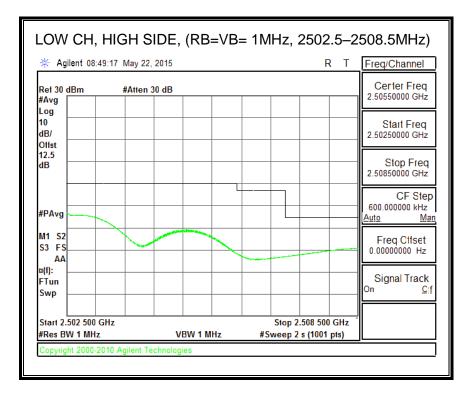


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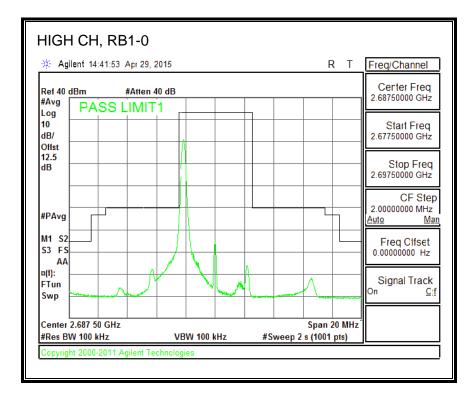


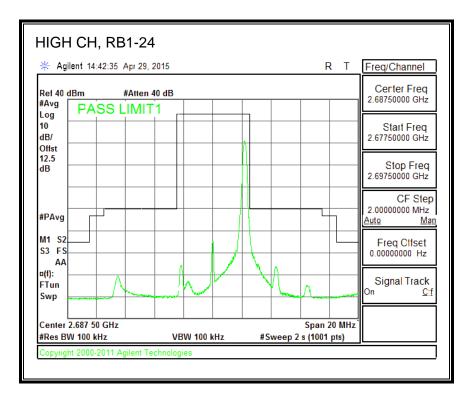


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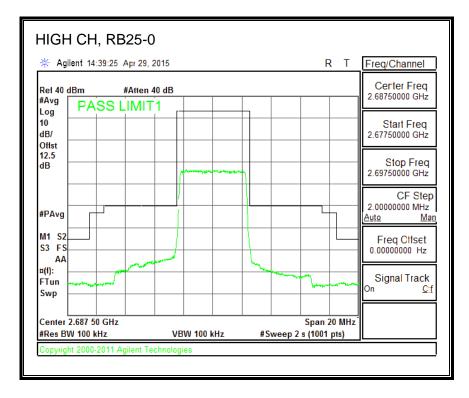


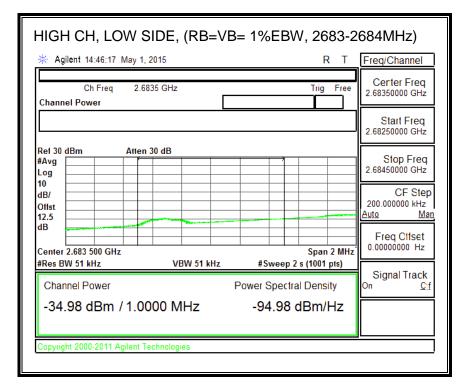
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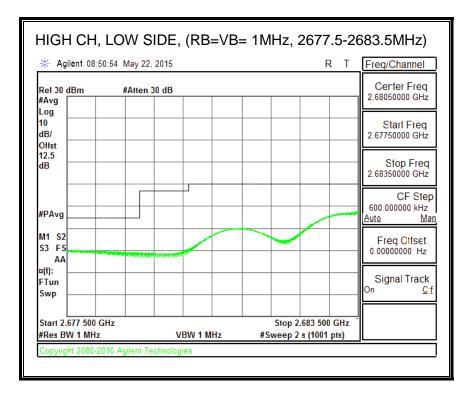


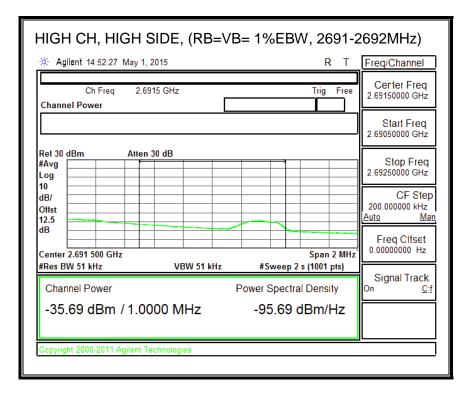
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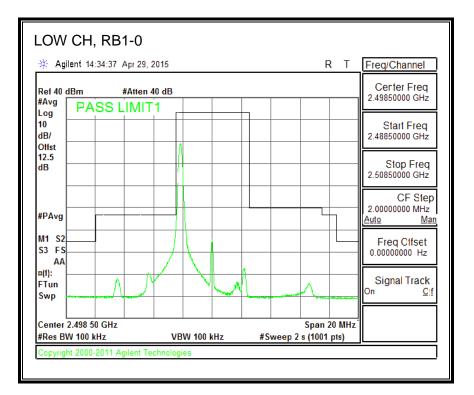


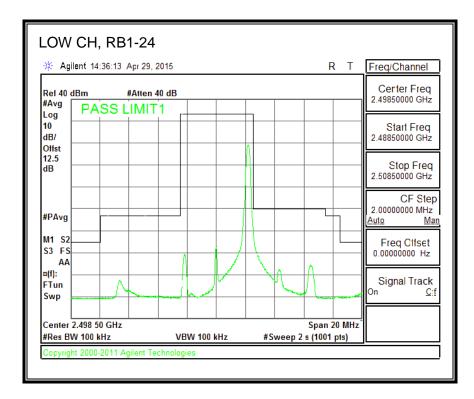
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Agilent 08:	55:08 May 3	22, 2015					R	Т	Freq/Channel
et 30 dBm Avg	#Atte	n 30 dB							Certer Freq 2.69450000 GHz
og 0 B/									Start Freq 2.69150000 GHz
2.5 B									Stop Freq 2.69750000 GHz
PAvg									CF Ste 600.000000 kHz Auto M
11 S2 3 FS AA		-							Freq Clfset 0.00000000 Hz
(f): Tun wp									Signal Track On <u>C</u>
tart 2.691 500 ( Res BW 1 MHz		v	BW 1 M	Hz	#5	Stop 2 weep 2	.697 500 s (1001		

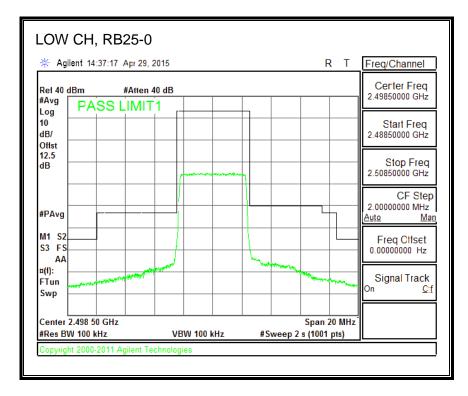
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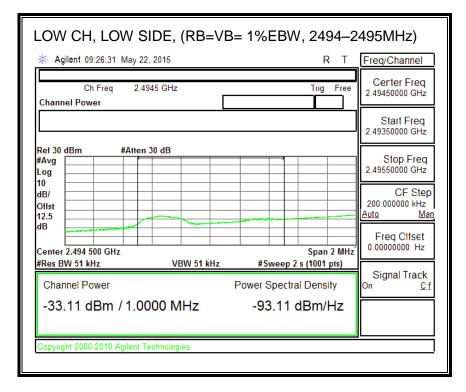
### 16QAM, (5.0 MHz BAND WIDTH)



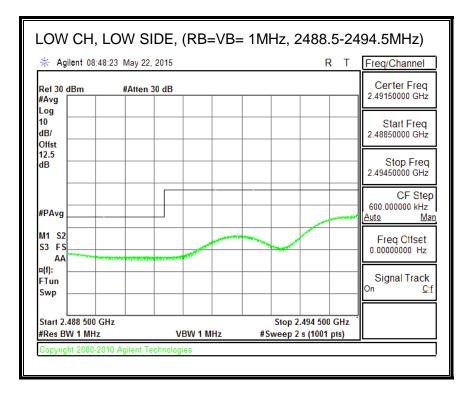


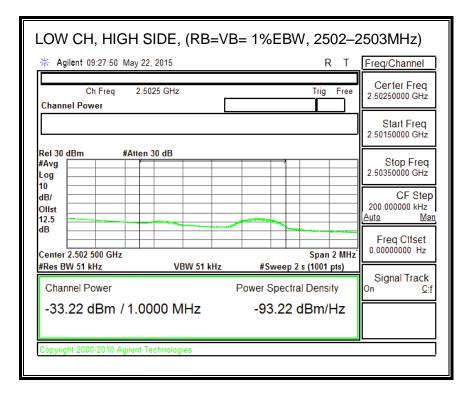
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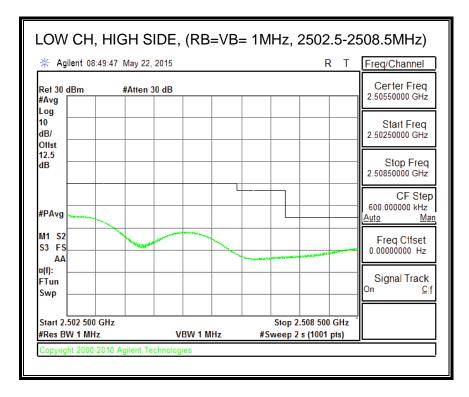


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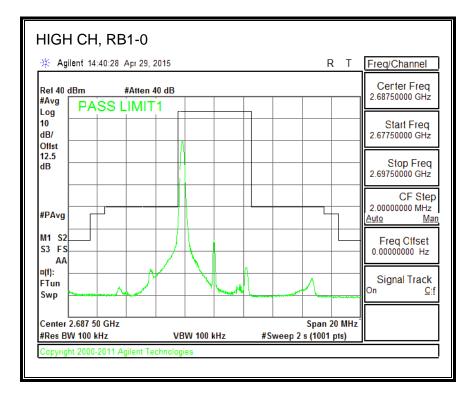


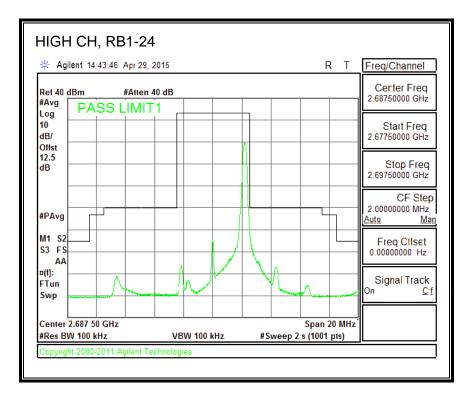


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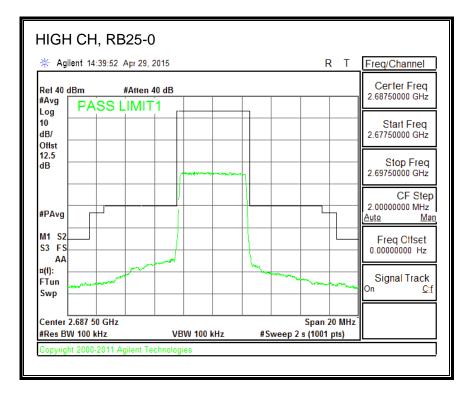


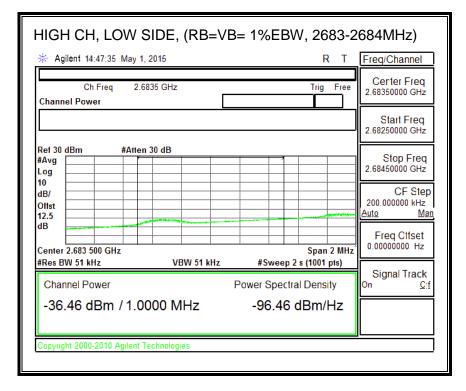
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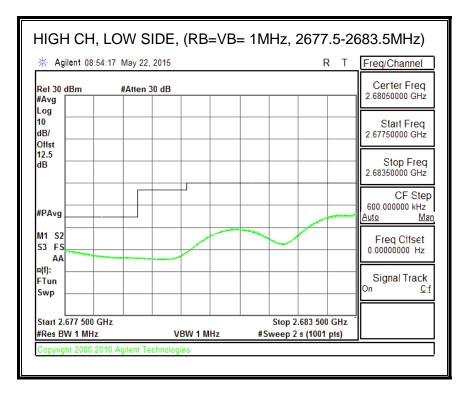


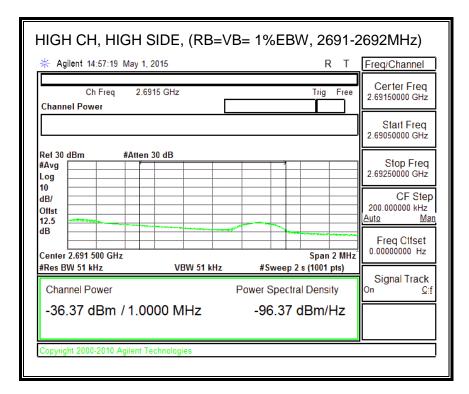
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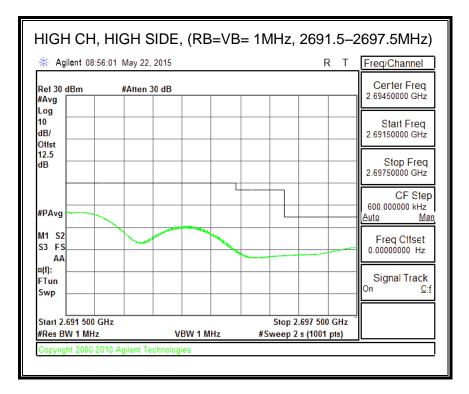


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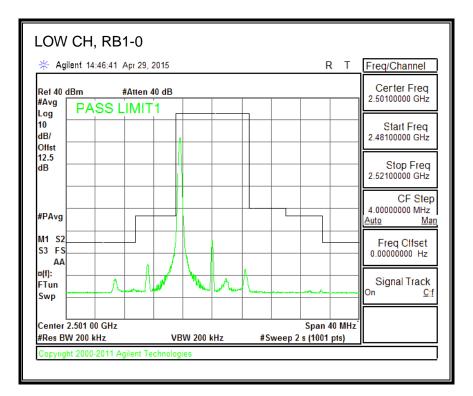


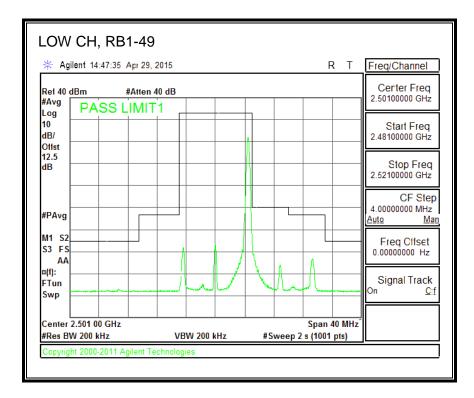
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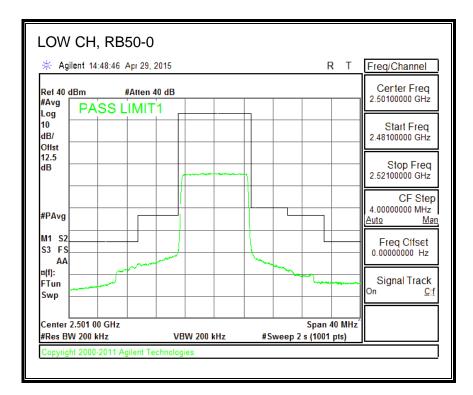
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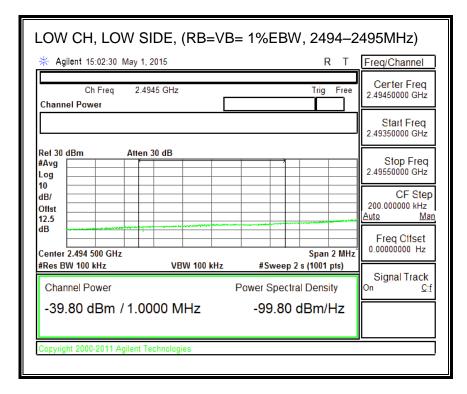
## QPSK, (10.0 MHz BAND WIDTH)



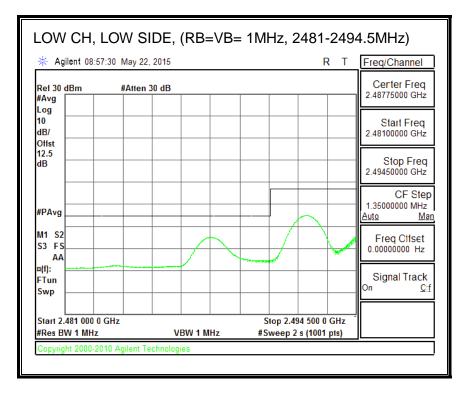


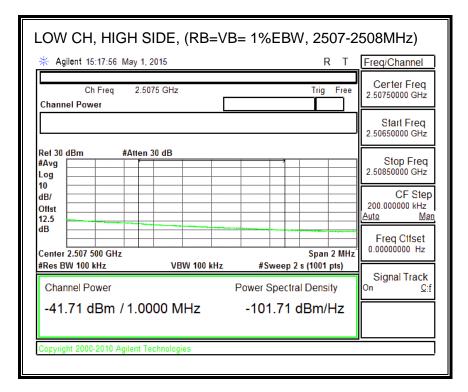
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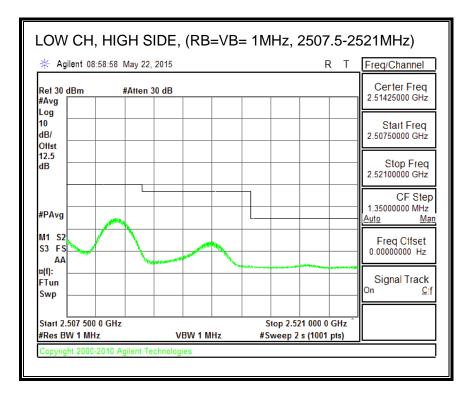


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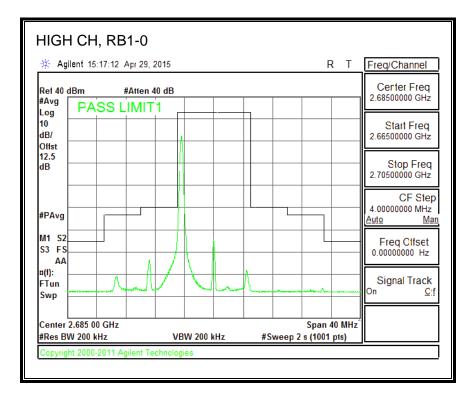




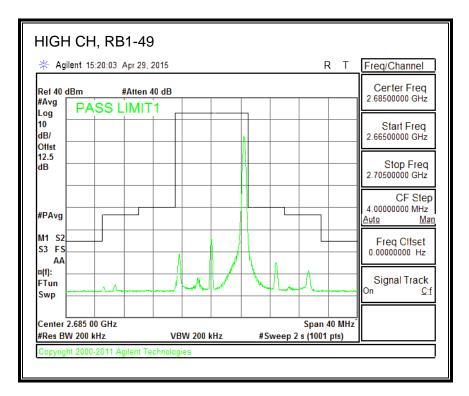
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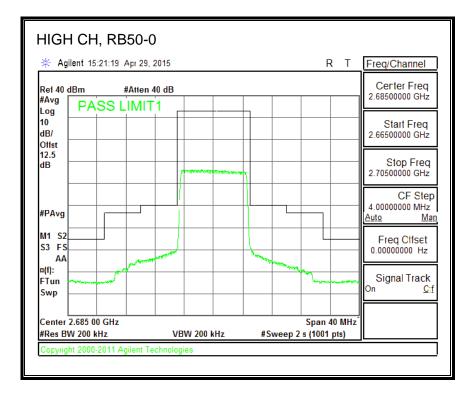
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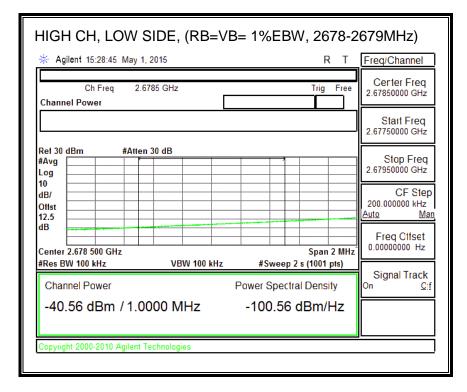


REPORT NO: 15U20164-E9V5

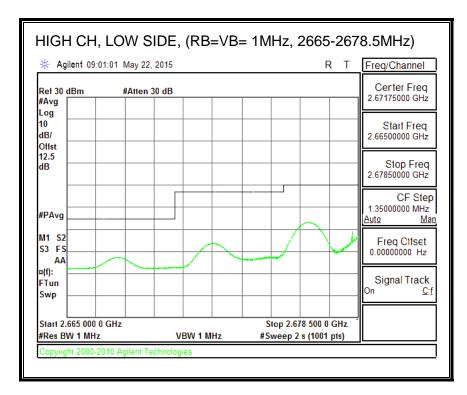


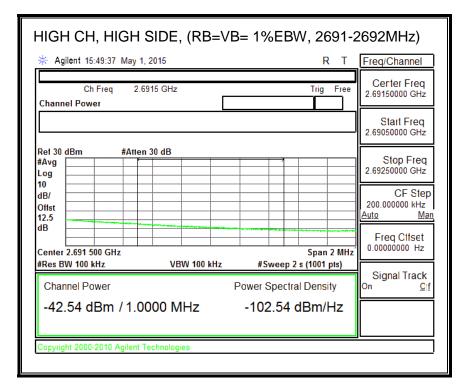
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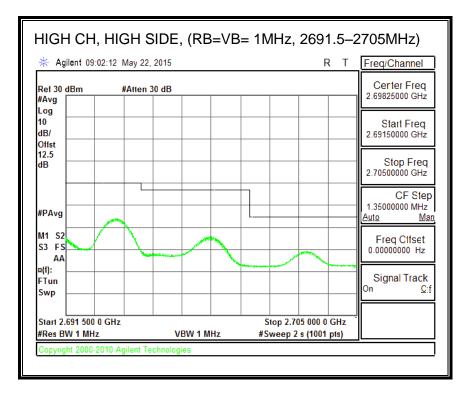


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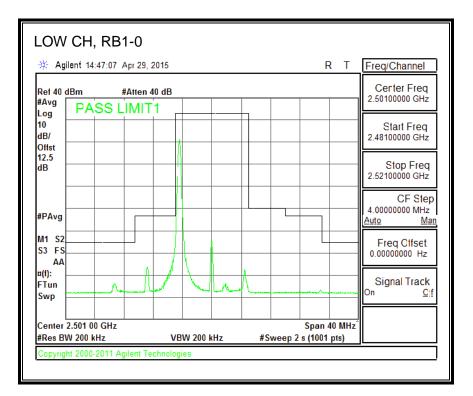


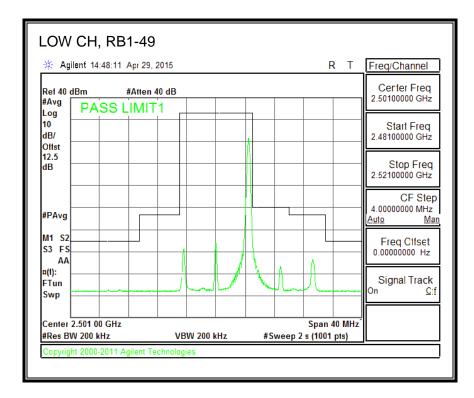
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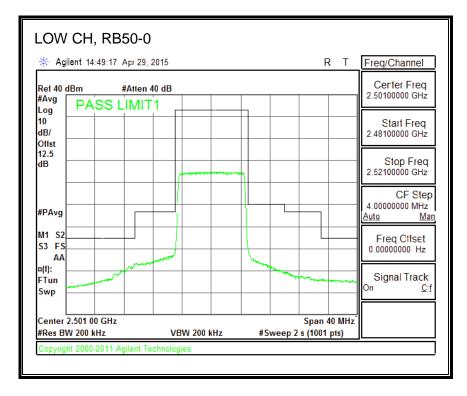
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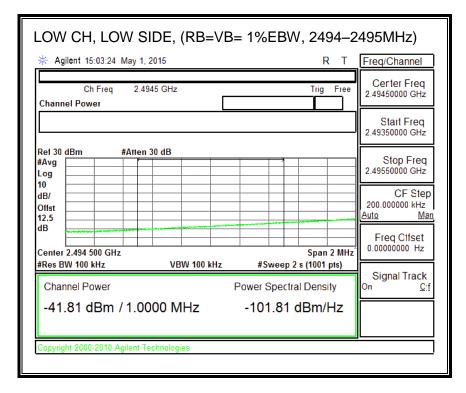
## 16QAM, (10.0 MHz BAND WIDTH)



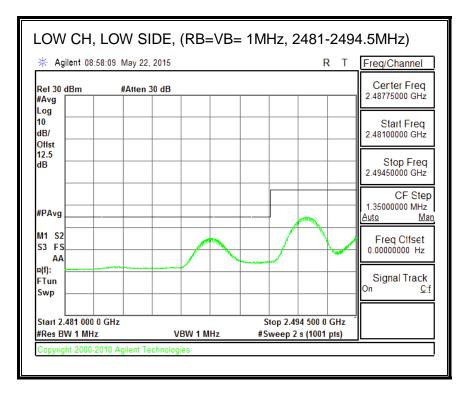


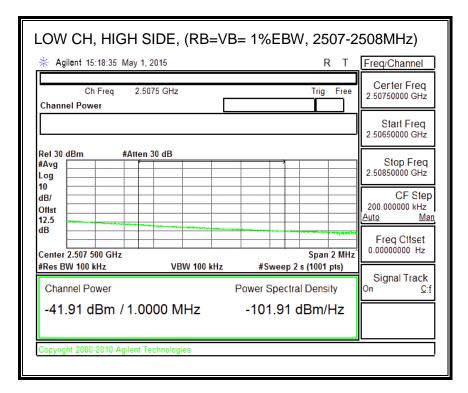
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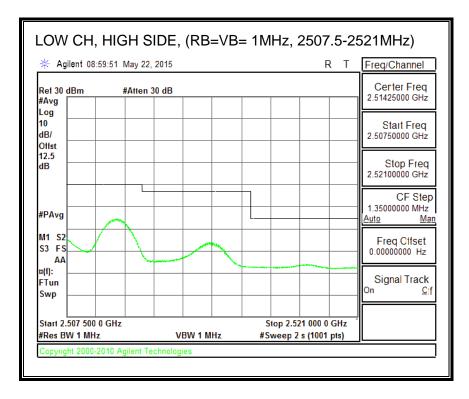


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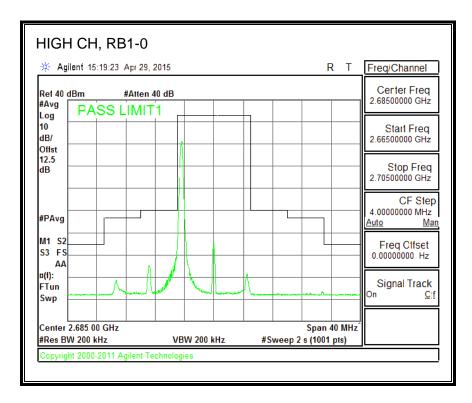


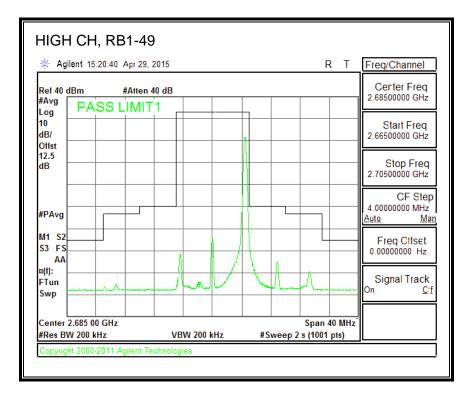


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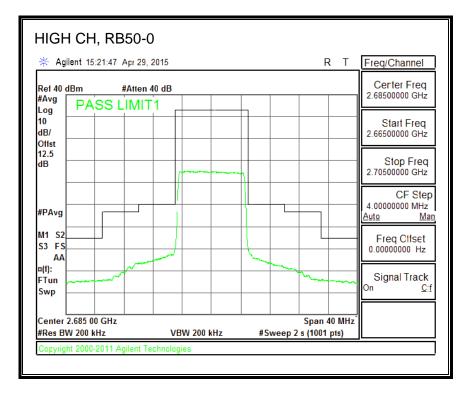


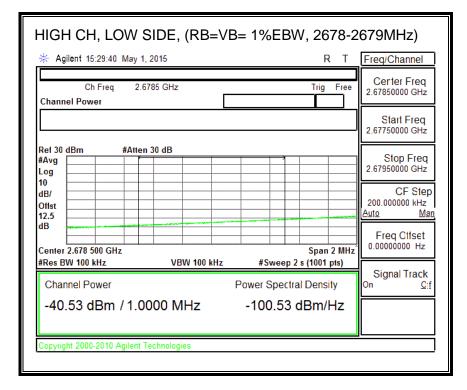
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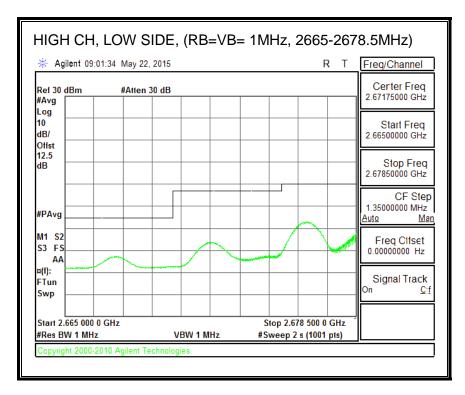


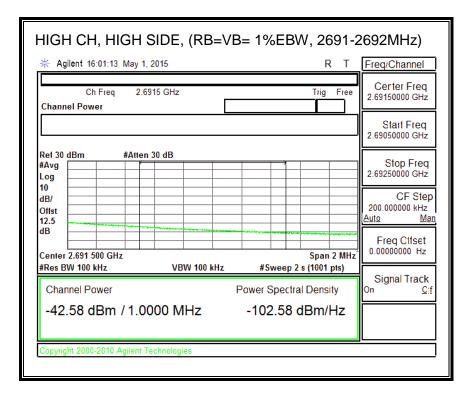
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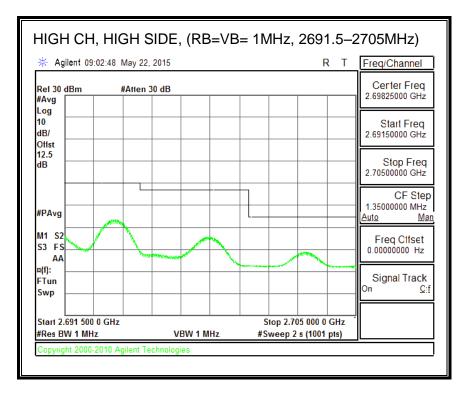


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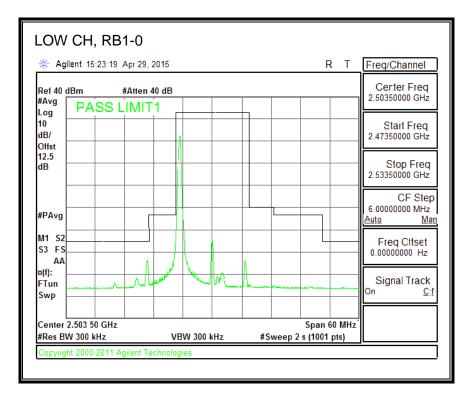


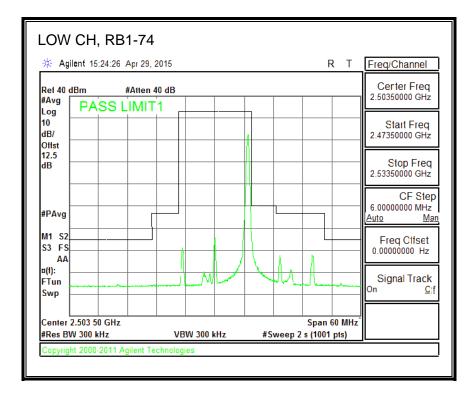
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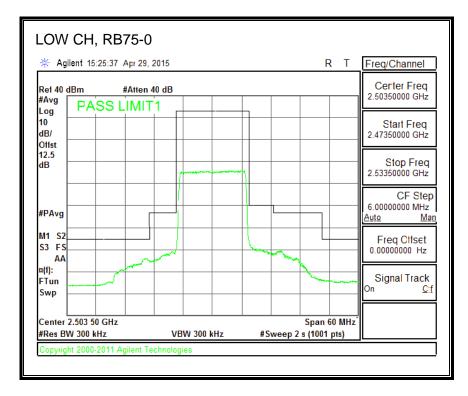
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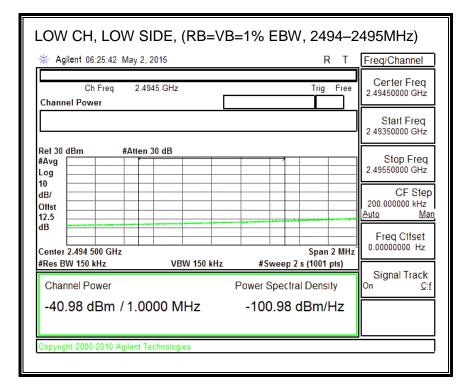
## QPSK, (15.0 MHz BAND WIDTH)



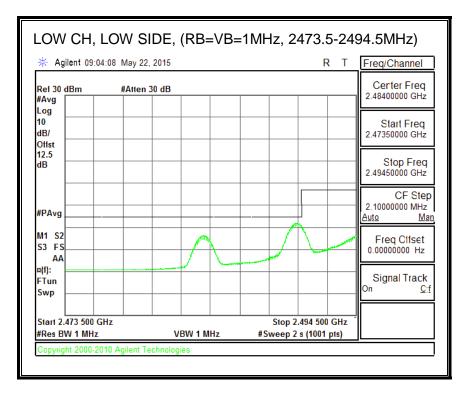


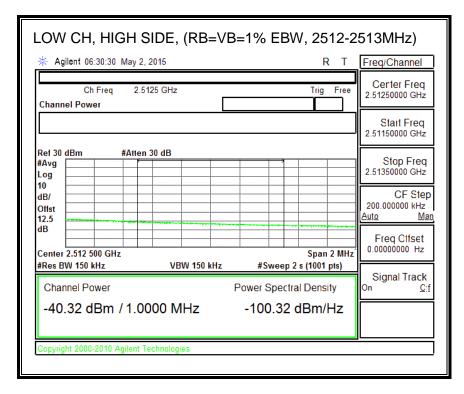
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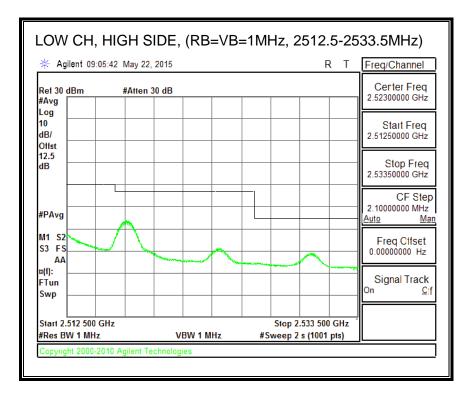


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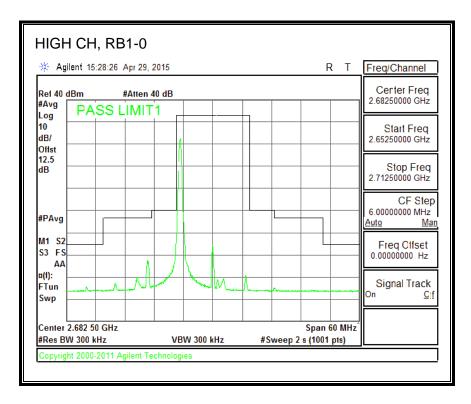


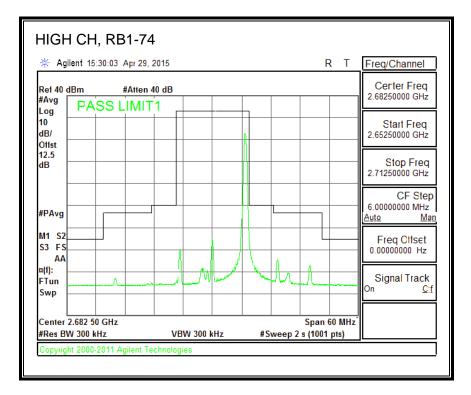


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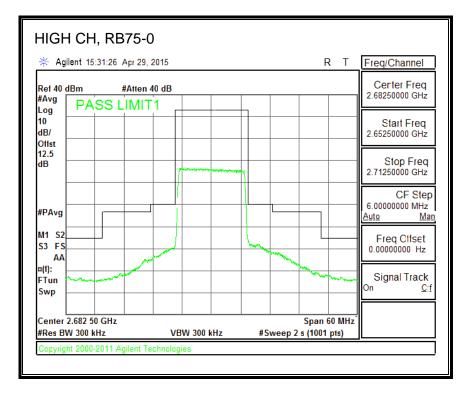


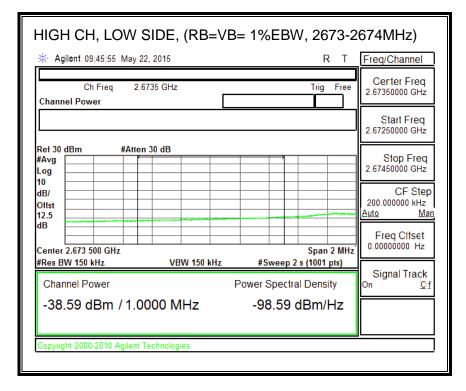
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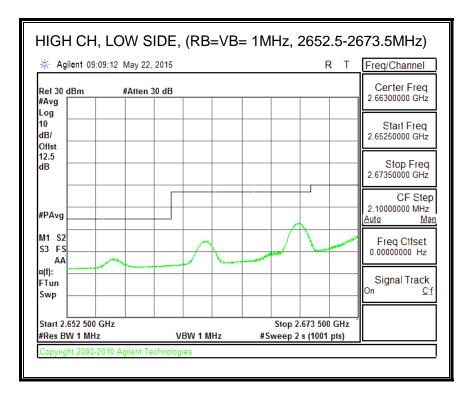


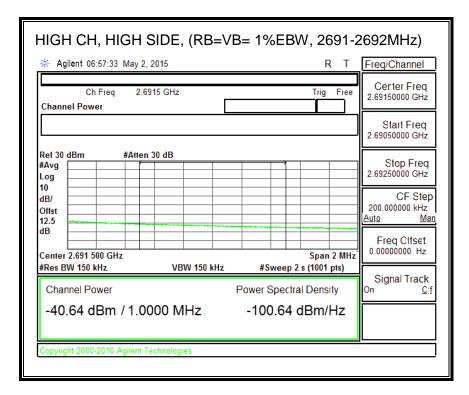
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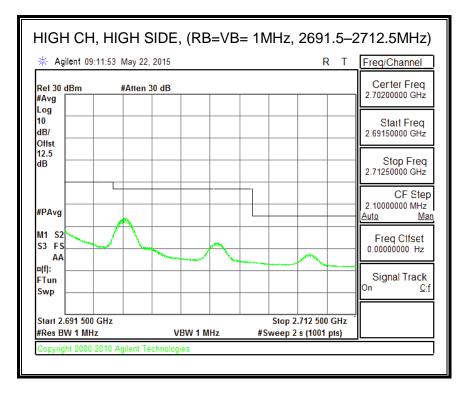


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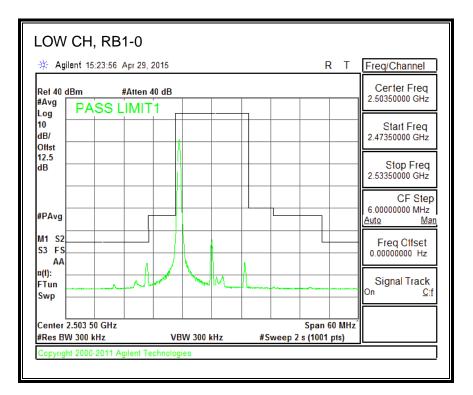


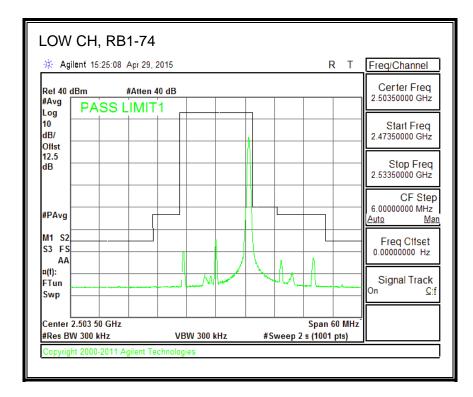
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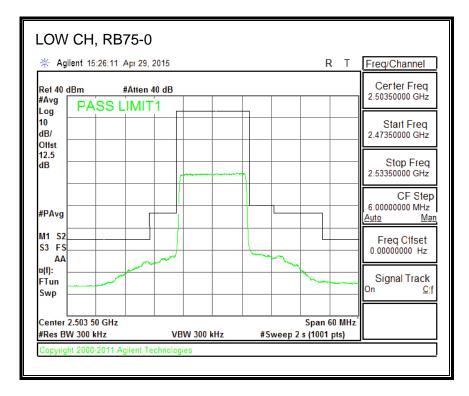
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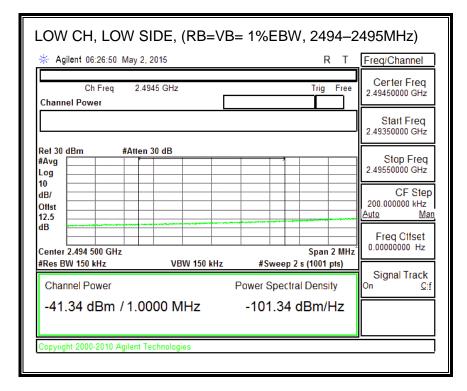
## 16QAM, (15.0 MHz BAND WIDTH)



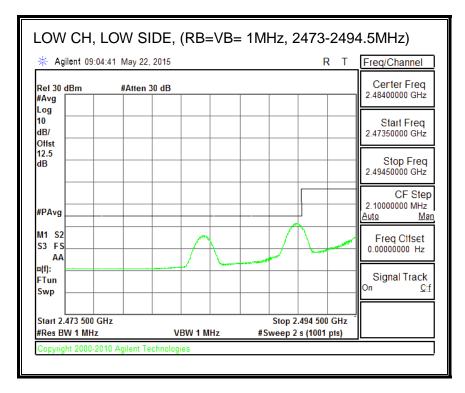


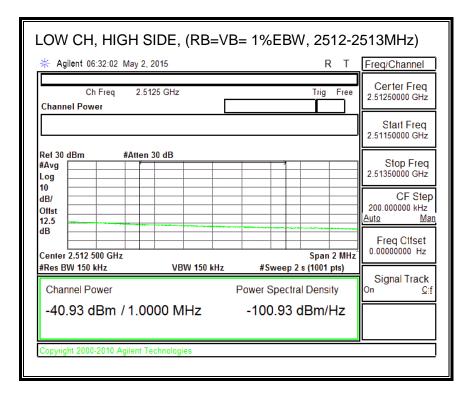
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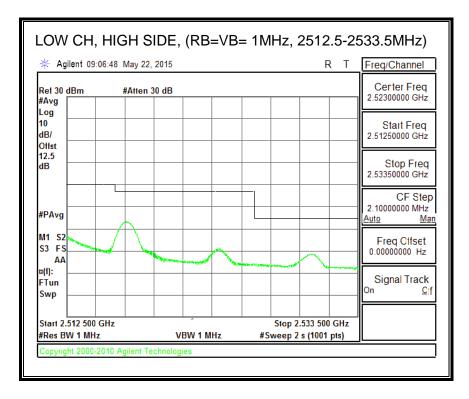


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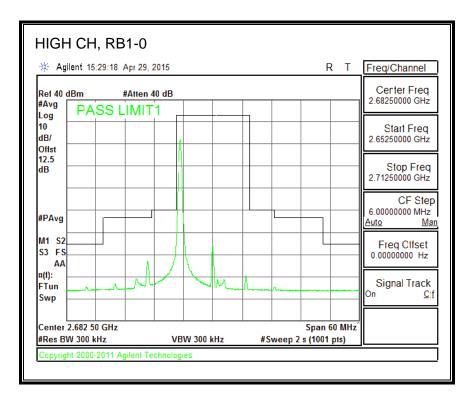


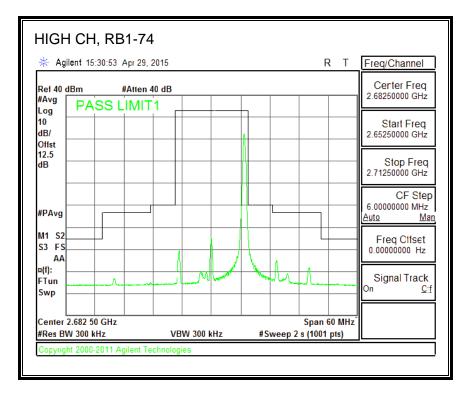


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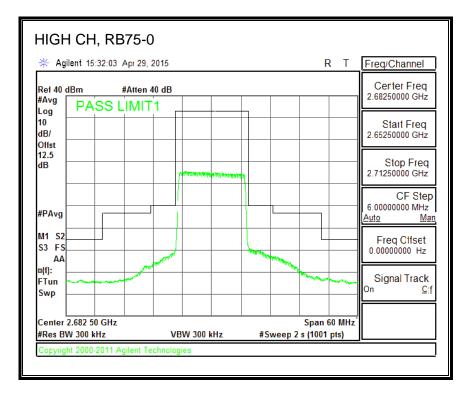


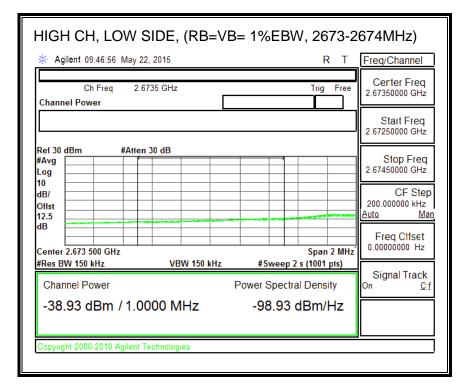
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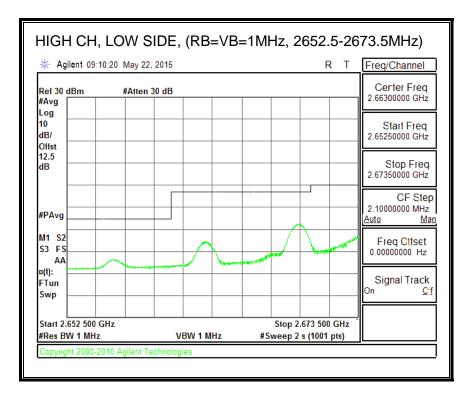


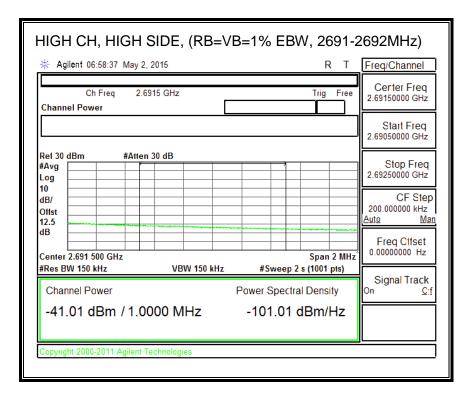
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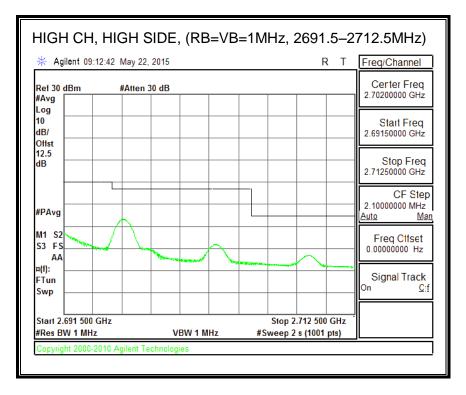


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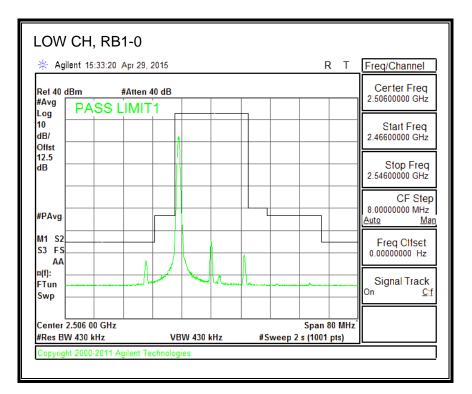


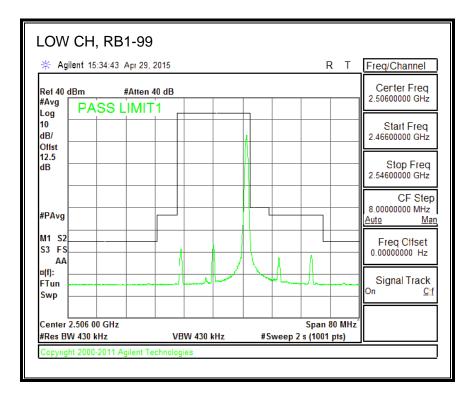
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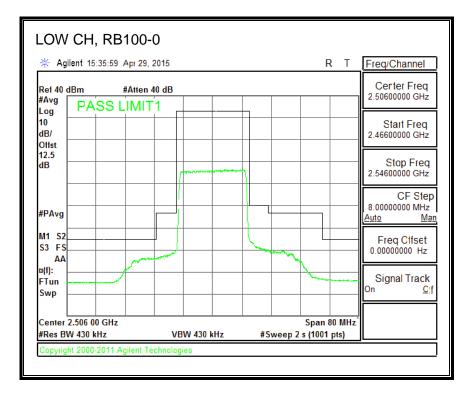
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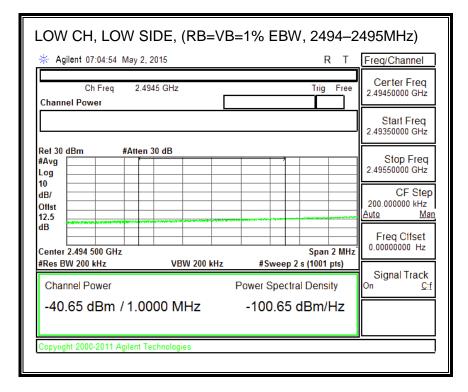
## QPSK, (20.0 MHz BAND WIDTH)



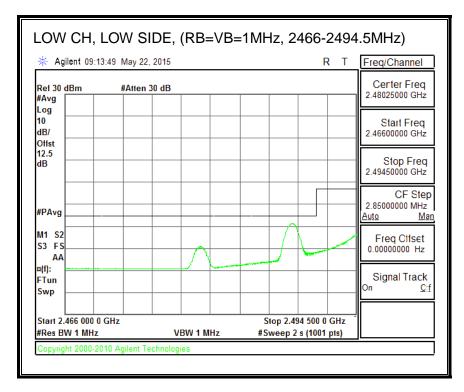


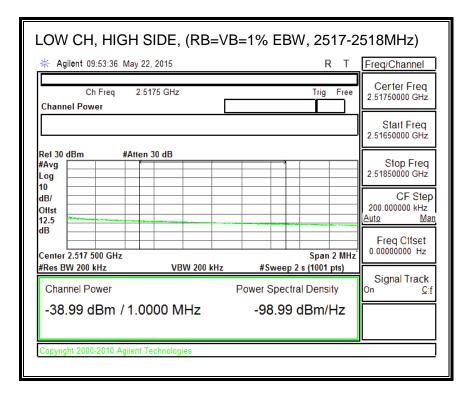
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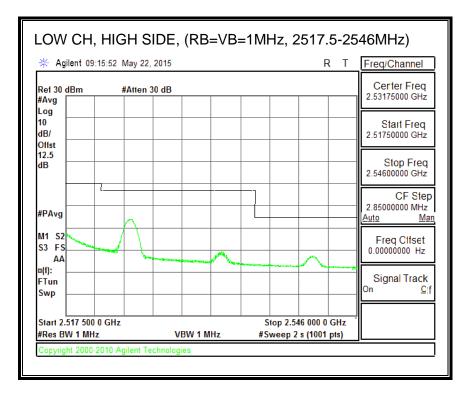


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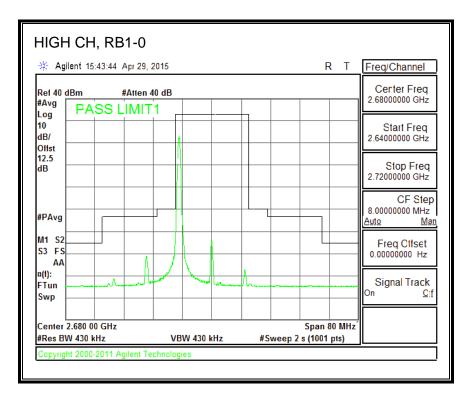


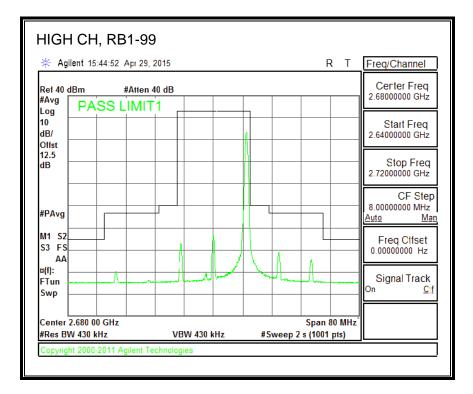


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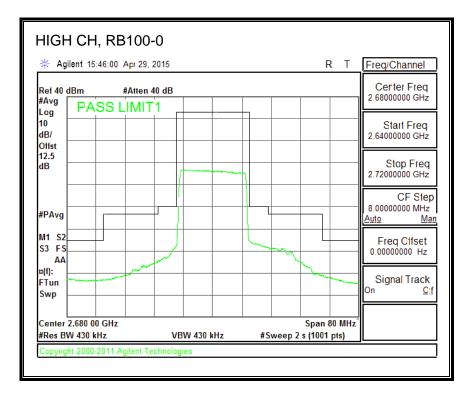


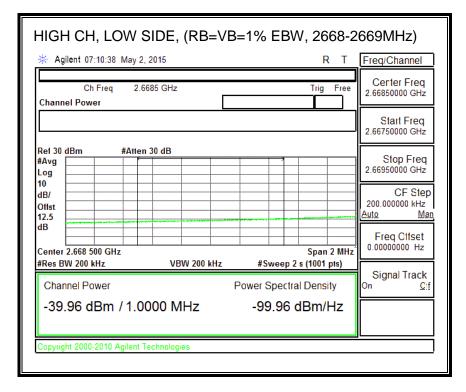
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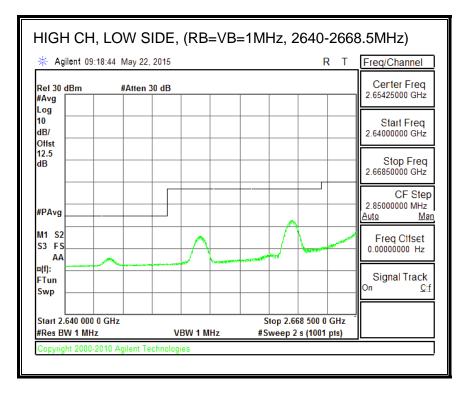


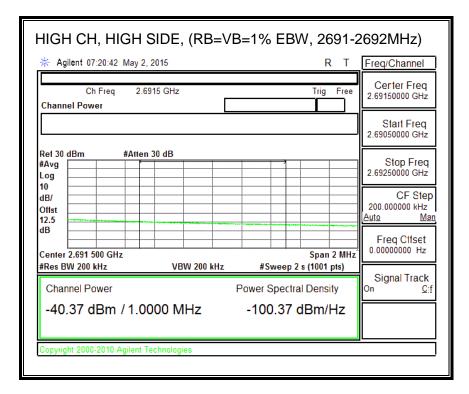
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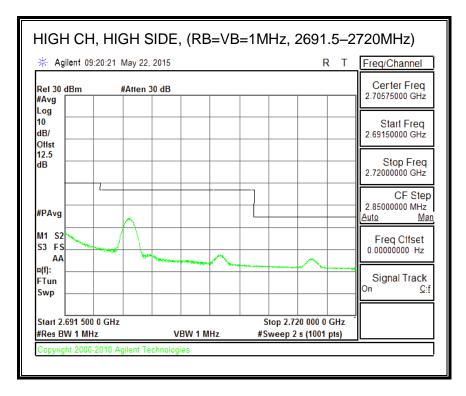


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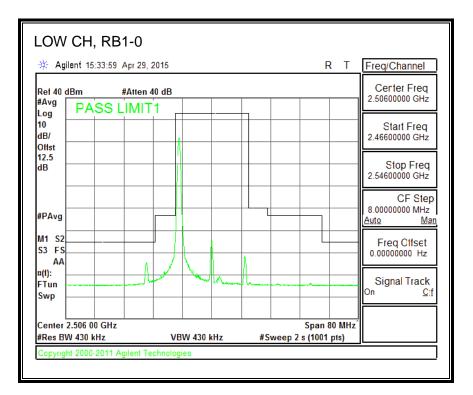


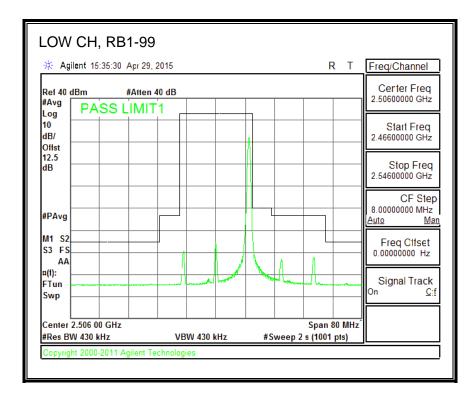
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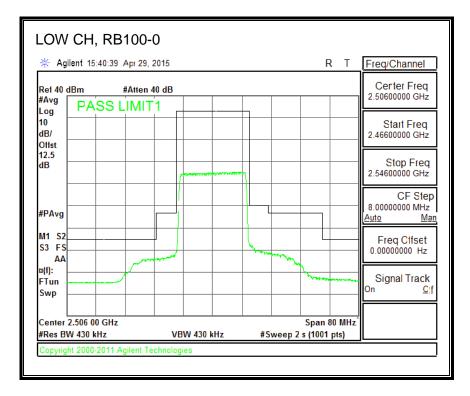
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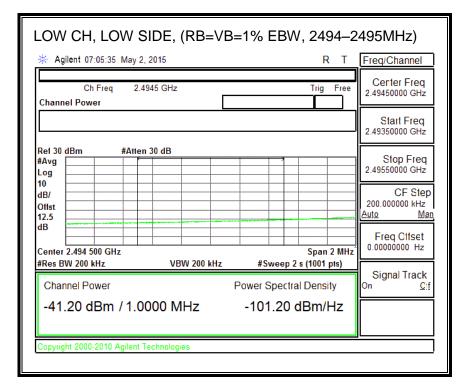
## 16QAM, (20.0 MHz BAND WIDTH)



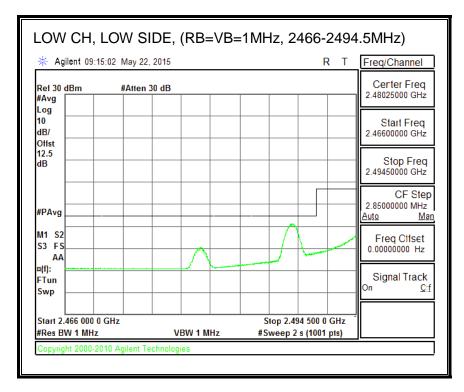


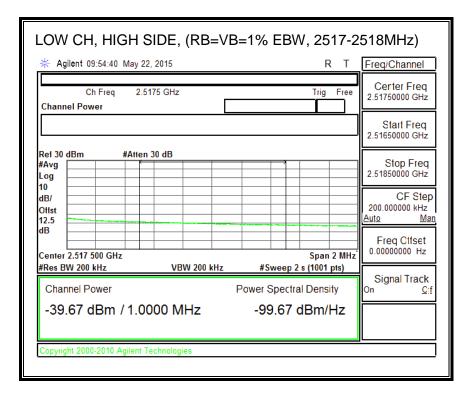
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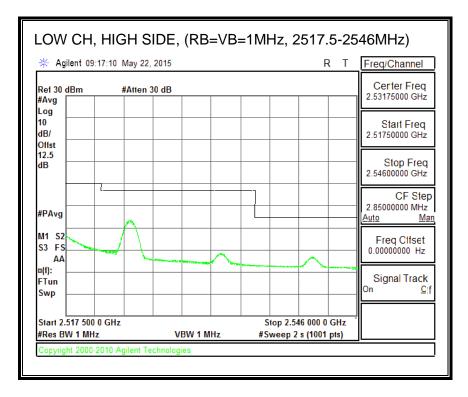


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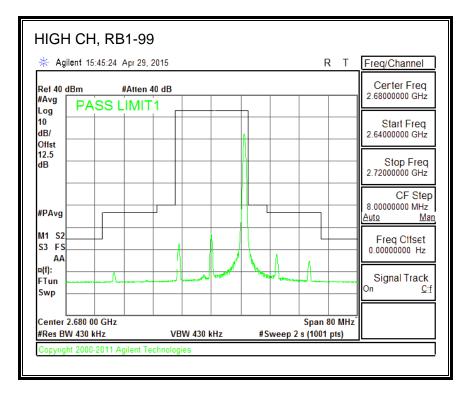


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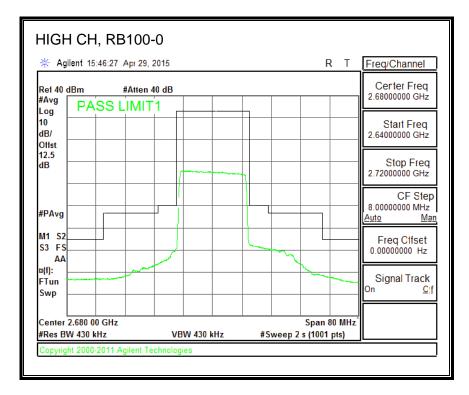


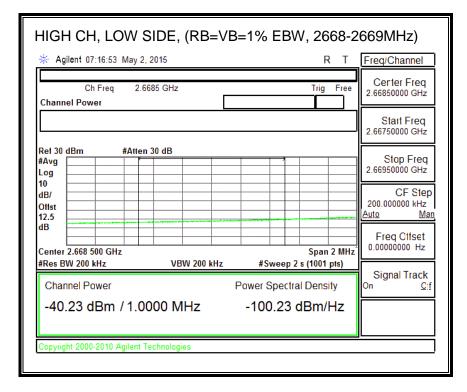
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HIGH CH, RB1-0		_	_	
⅔ Agilent 15:44:23 Apr 29, 2015				Freq/Channel
Ref 40 dBm #Atten 40 #Avg PASS LIMIT			_	Certer Freq 2.68000000 GHz
Log 10 10 dB/ Offst	· · · · · · · · · · · · · · · · · · ·			Start Freq 2.64000000 GHz
dB				Stop Freq 2.72000000 GHz
#PAvg				CF Step 8.0000000 MHz Auto Man
M1 S2			_	Freq Ctfset 0.00000000 Hz
a(1): FTun Swp		h		Signal Track <sup>On <u>Cif</u></sup>
Center 2.680 00 GHz #Res BW 430 kHz	VBW 430 kHz	Span 80 #Sweep 2 s (1001 pt		
Copyright 2000-2011 Agilent Tec	hnologies			

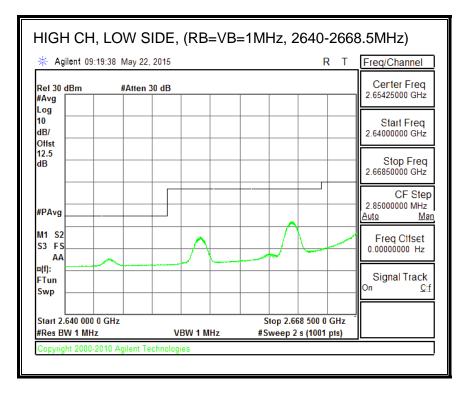


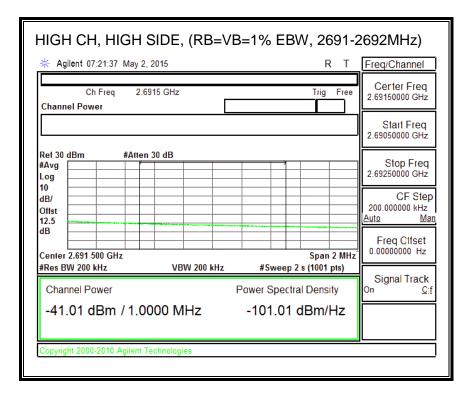
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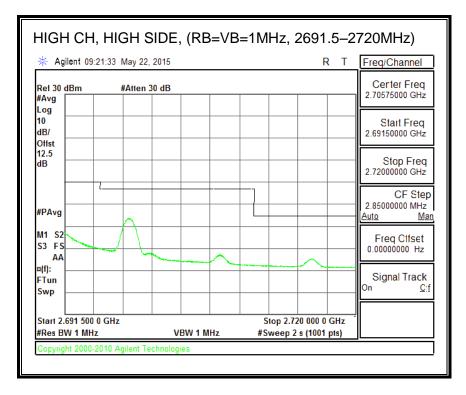


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# 8.4. BANDEDGE AND EMISSION MASK (MODEL: A1688)

## RULE PART(S)

FCC: §2.1051, §22.901, §22.917, §24.238, §27.53, and §90.691

## LIMITS

FCC: §24.238, §27.53

The power of any emission outside of the authorized operating frequency ranges must be attenuated below the transmitting power (P) by a factor of at least 43 + 10 log (P) dB.

## FCC: §90.210, and §90.691 (LTE BAND 26)

(a)(1)For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log10 (f/6.1) decibels or 50 + 10 Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz. (a)(2)For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz,

the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz. (NOTE: Use 100 kHz reference bandwidth.)

## FCC: §27.53

(c) On any frequency outside the 776–788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;
(1) On any frequency outside the 746-758 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;
(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;
(2) On any frequency outside the 776-788 MHz band, the power of any emission shall be attenuated outside the band below the transmitter power (P) by at least 43 + 10 log (P) dB;
(4) On all frequencies between 763-775 MHz and 793-805 MHz, by a factor not less than 65 + 10 log (P) dB in a 6.25 kHz band segment, for mobile and portable stations;

(5) Compliance with the provisions of paragraphs (c)(1) and (c)(2) of this section is based on the use of measurement instrumentation employing a resolution bandwidth of 100 kHz or greater. However, in the 100 kHz bands immediately outside and adjacent to the frequency block, a resolution bandwidth of at least 30 kHz may be employed;

(6) Compliance with the provisions of paragraphs (c)(3) and (c)(4) of this section is based on the use of measurement instrumentation such that the reading taken with any resolution bandwidth setting should be adjusted to indicate spectral energy in a 6.25 kHz segment.

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## FCC: §27.53 (LTE BAND 41)

(m)(6) Measurement procedure. Compliance with these rules is based on the use of measurement instrumentation employing a resolution bandwidth of 1 megahertz or greater. However, in the 1 MHz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least one percent of the emission bandwidth of the fundamental emission of the transmitter may be employed; for mobile digital stations, in the 1 megahertz bands immediately outside and adjacent to the frequency block a resolution bandwidth of at least two percent may be employed, except when the 1 megahertz band is 2495-2496 MHz, in which case a resolution bandwidth of at least one percent may be employed. A narrower resolution bandwidth is permitted in all cases to improve measurement accuracy provided the measured power is integrated over the full required measurement bandwidth (i.e. 1 megahertz or 1 percent of emission bandwidth, as specified; or 1 megahertz or 2 percent for mobile digital stations, except in the band 2495-2496 MHz). The emission bandwidth is defined as the width of the signal between two points, one below the carrier center frequency and one above the carrier center frequency, outside of which all emissions are attenuated at least 26 dB below the transmitter power. With respect to television operations, measurements must be made of the separate visual and aural operating powers at sufficiently frequent intervals to ensure compliance with the rules.

(m)(4) For mobile digital stations, 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 as defined in paragraph (m)(6) of this section. 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. Mobile Satellite Service licensees operating on frequencies below 2495 MHz may also submit a documented interference complaint against BRS licensees operating on channel BRS Channel 1 on the same terms and conditions as adjacent channel BRS or EBS licensees.Show citation box.

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## FCC: §90.210, and §90.691

(a)(1)For any frequency removed from the EA licensee's frequency block by up to and including 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 116 Log10(f/6.1) decibels or 50 + 10 Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 12.5 kHz.

(a)(2)For any frequency removed from the EA licensee's frequency block greater than 37.5 kHz, the power of any emission shall be attenuated below the transmitter power (P) in watts by at least 43 + 10Log10(P) decibels or 80 decibels, whichever is the lesser attenuation, where f is the frequency removed from the center of the outer channel in the block in kilohertz and where f is greater than 37.5 kHz. {NOTE: Use 100 kHz reference bandwidth.}

## TEST PROCEDURE

The transmitter output was connected to a CMW500Test Set and configured to operate at maximum power. The band edge emissions were measured at the required operating frequencies in each band on the Spectrum Analyzer.

For each band edge measurement:

Set the spectrum analyzer span to include the block edge frequency (704, 716, 824, 849, 1710 and 1755, 1850 and 1910MHz)

Set a marker to point the corresponding band edge frequency in each test case.

Set display line at -13 dBm

Set resolution bandwidth to at least 1% of emission bandwidth.

### MODES TESTED

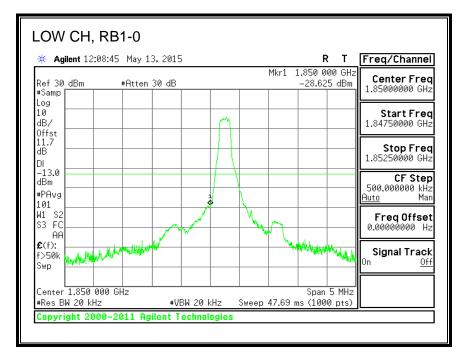
- LTE Band 2
- LTE Band 4
- LTE Band 5
- LTE Band 7
- LTE Band 12
- LTE Band 13
- LTE Band 17
- LTE Band 25
- LTE Band 26
- LTE Band 41

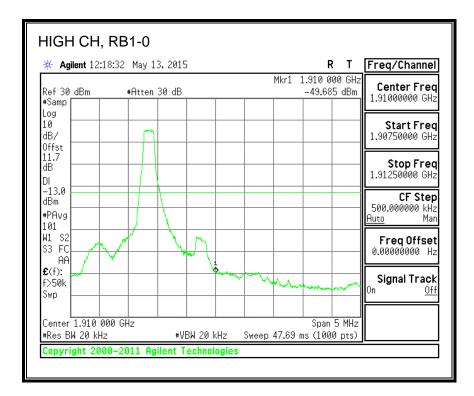
### **RESULTS**

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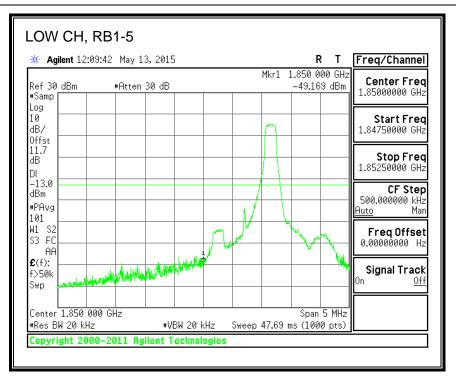
## 8.4.1. LTE BAND 2 BANDEDGE

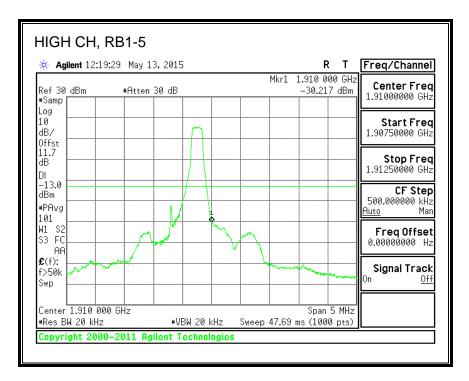
#### QPSK, (1.4 MHz BAND WIDTH)



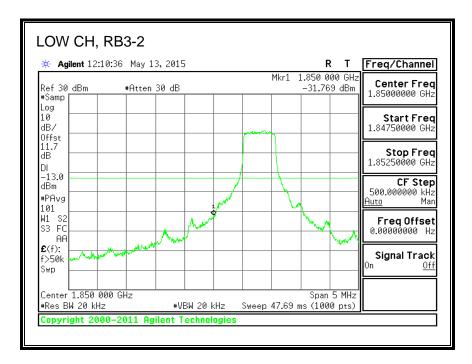


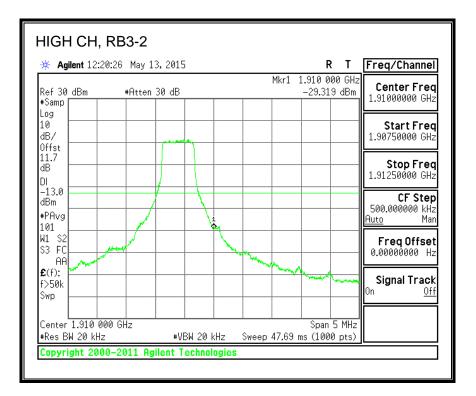
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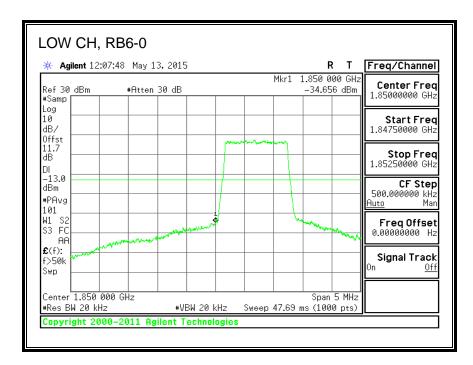


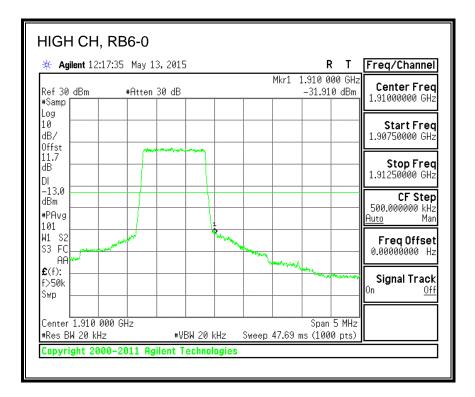
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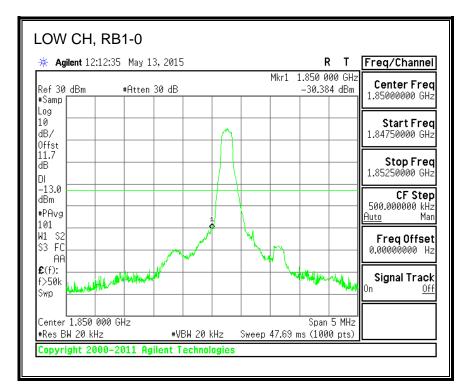
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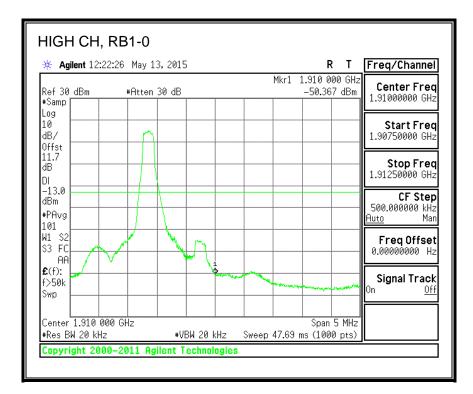




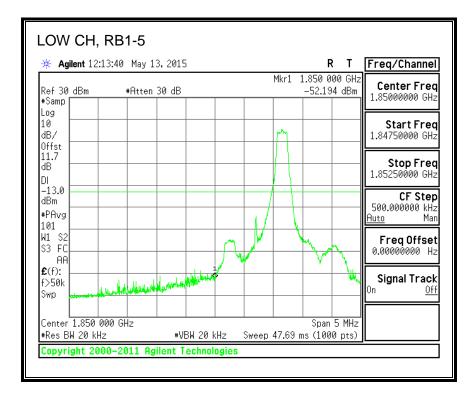
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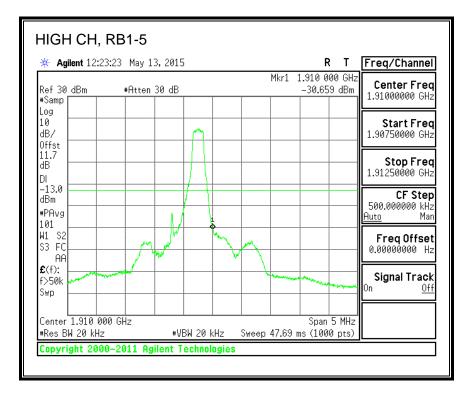
### 16QAM, (1.4 MHz BAND WIDTH)



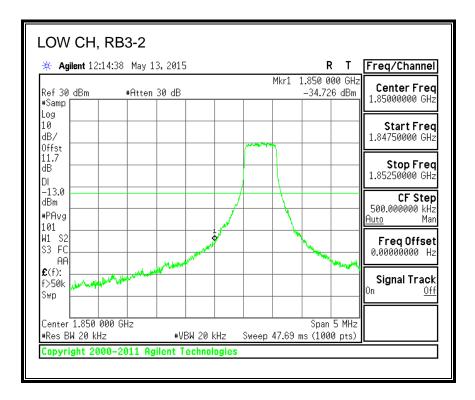


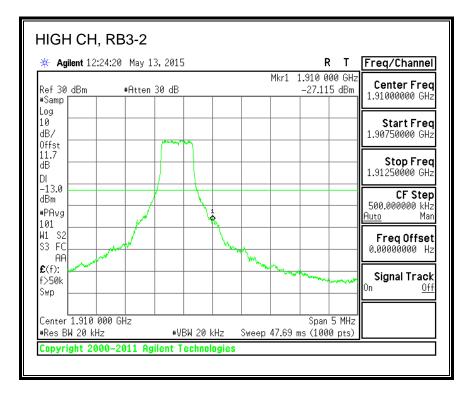
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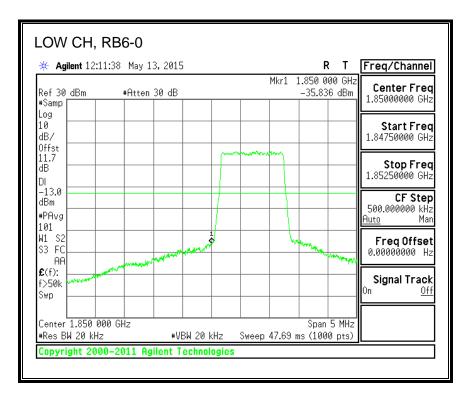


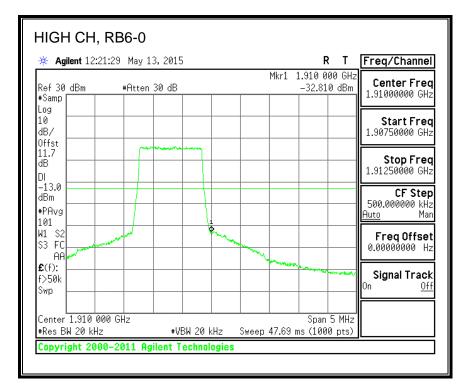
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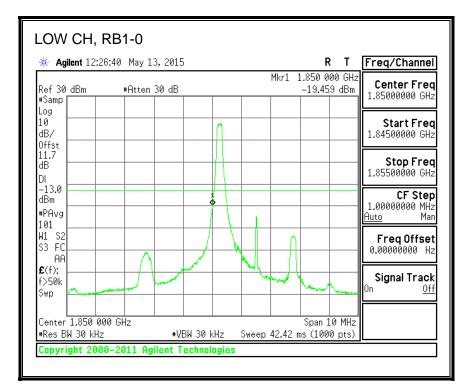
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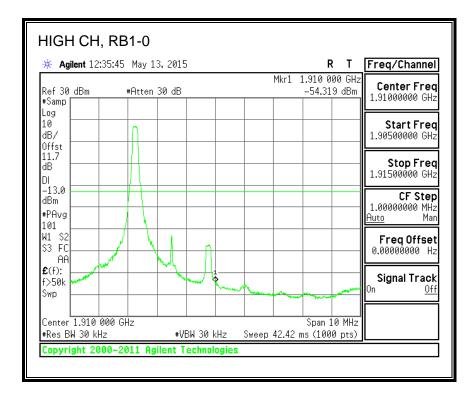




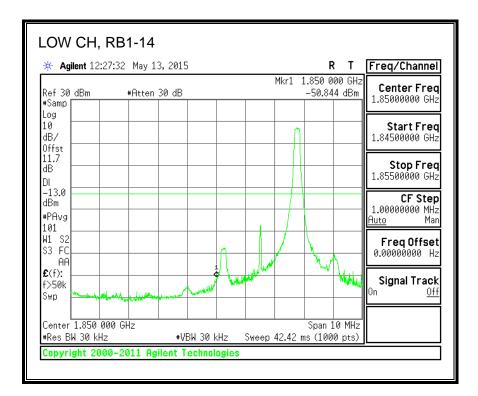
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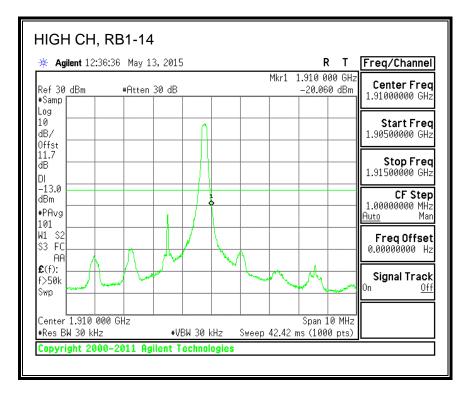
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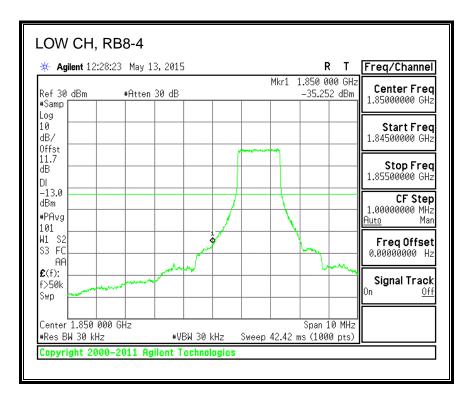


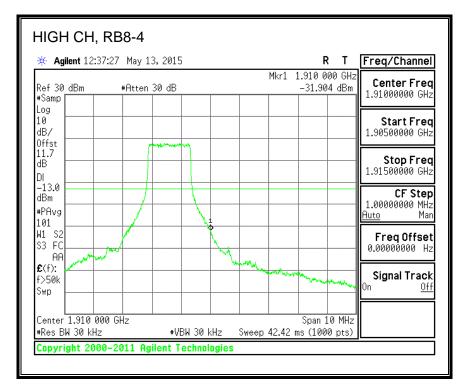
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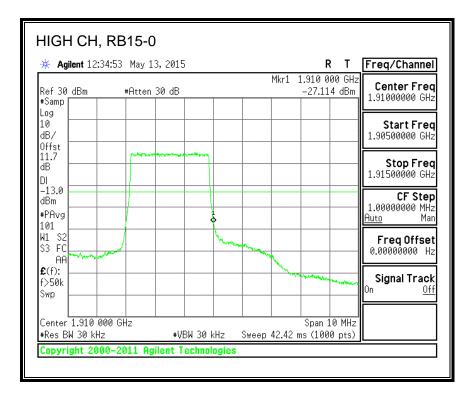
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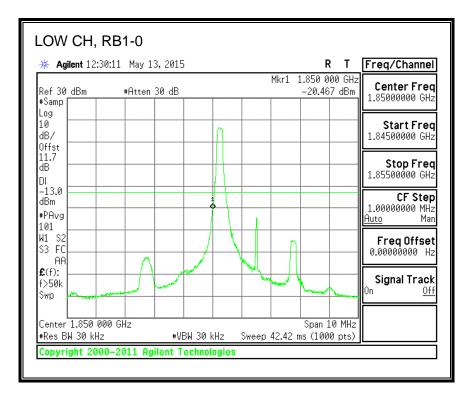
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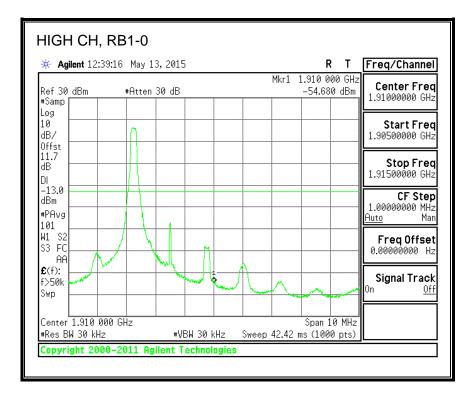
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Ref 30 dBm #Samp	#Atten	30 dB			M	lkr1 1	.850 0 -26.52	00 GHz 6 dBm	Center Fred 1.85000000 GHz
Log 10 dB/ 0ffst									Start Fred 1.84500000 GHz
11.7 dB DI									Stop Fred 1.85500000 GHz
-13.0 dBm #PAvg 101			1	5					<b>CF Step</b> 1.00000000 MHz <u>Auto</u> Mar
W1 S2 S3 FC AA	anna that a star	a paper a sur a	~				La.	et anna	Freq Offset 0.00000000 Hz
£(f): f>50k Swp									Signal Track <sup>On <u>Of</u>i</sup>
Center 1.850 0 #Res BW 30 kHz		#VBI	   30 k	H7	Sweep 4	2.42 m		.0 MHz 0 nts)	



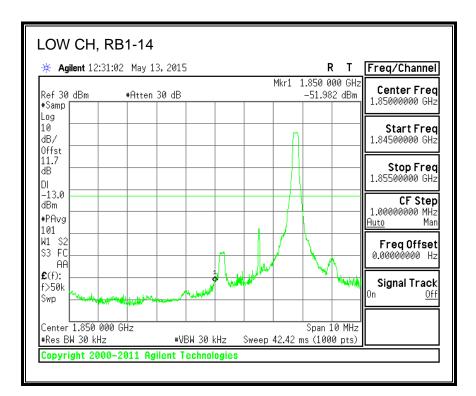
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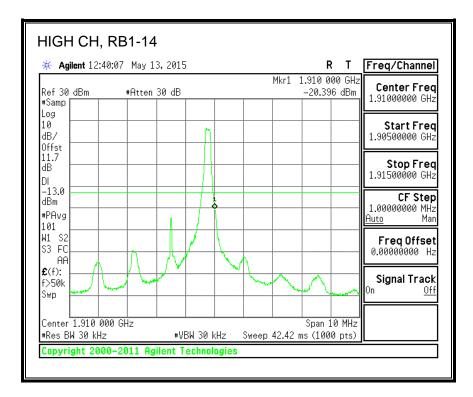
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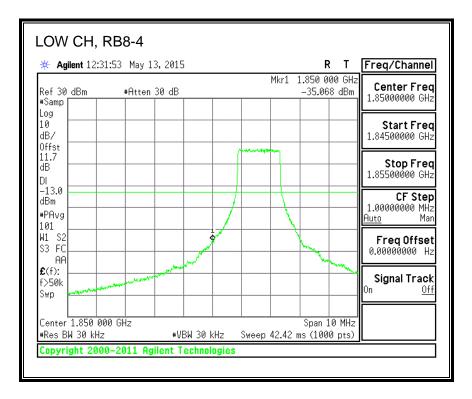


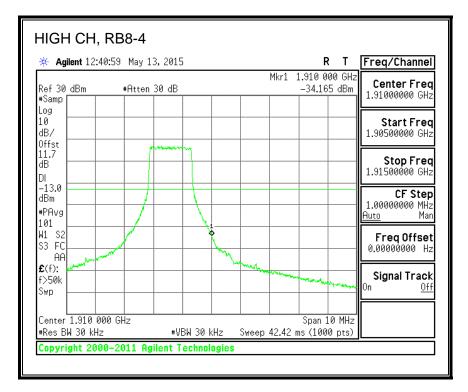
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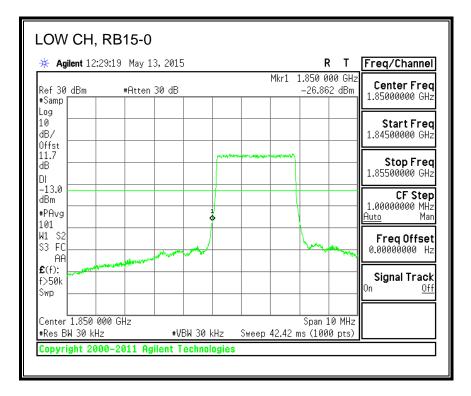


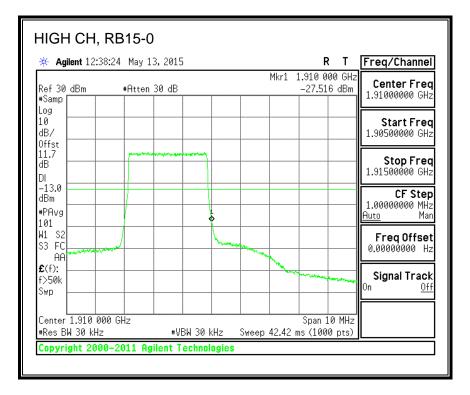
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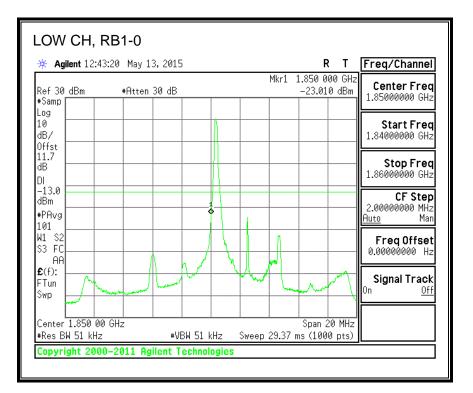
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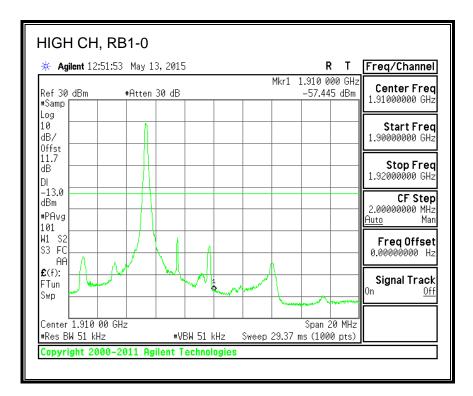




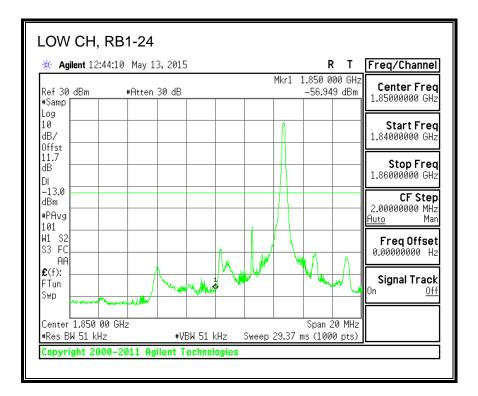
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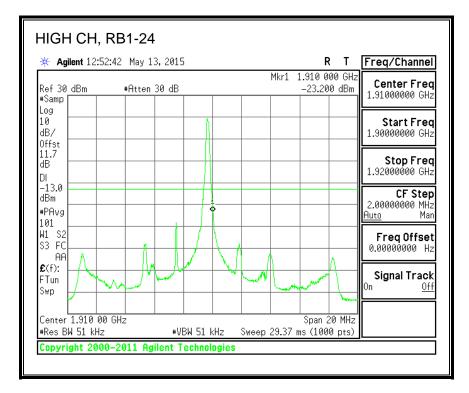
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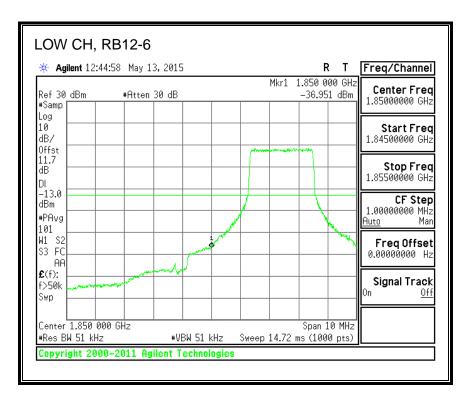


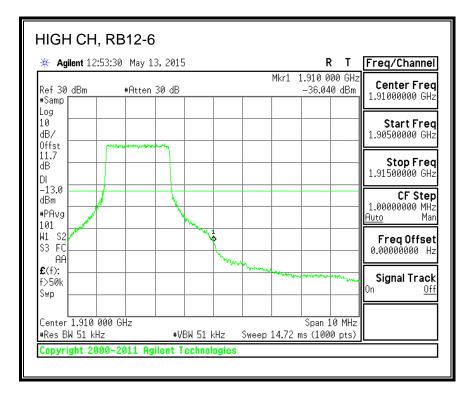
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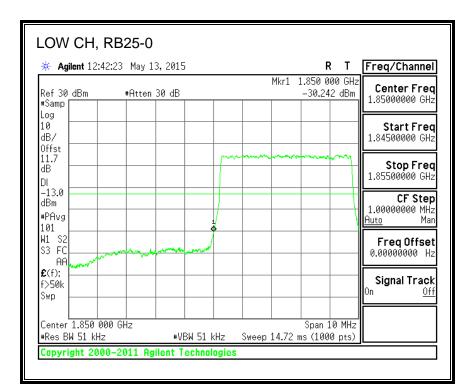


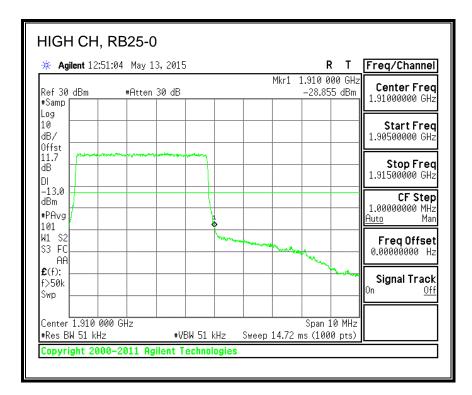
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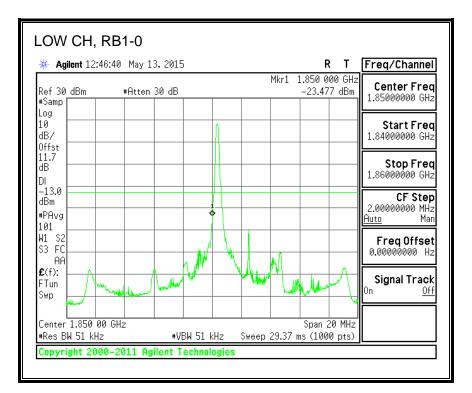
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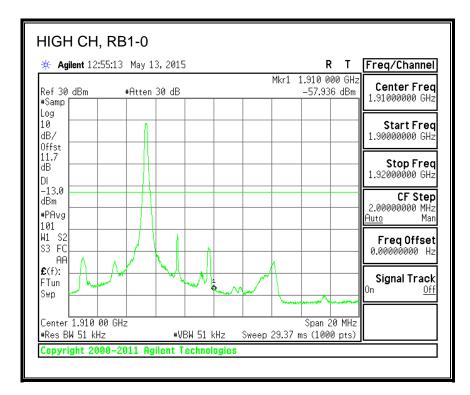




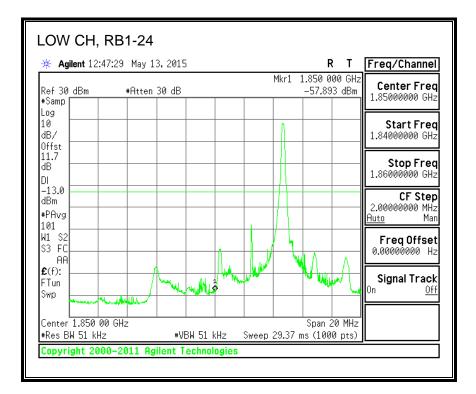
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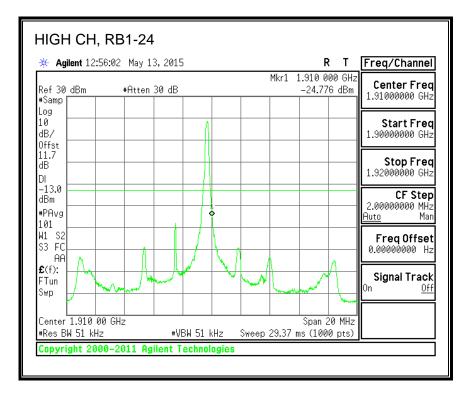
### 16QAM, (5.0 MHz BAND WIDTH)



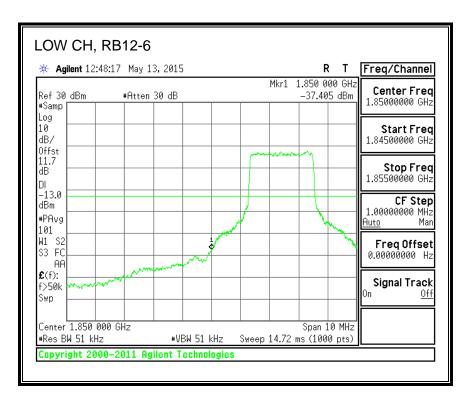


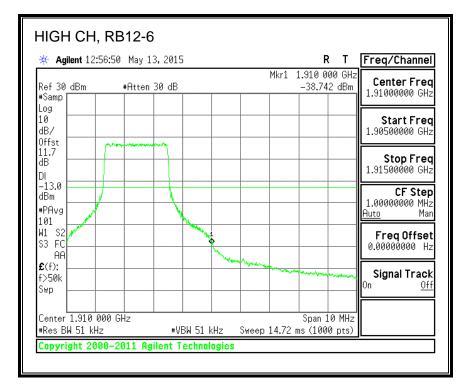
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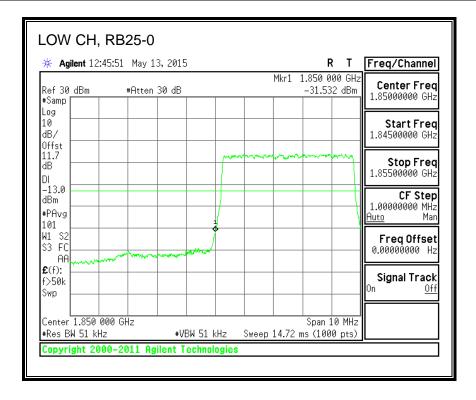


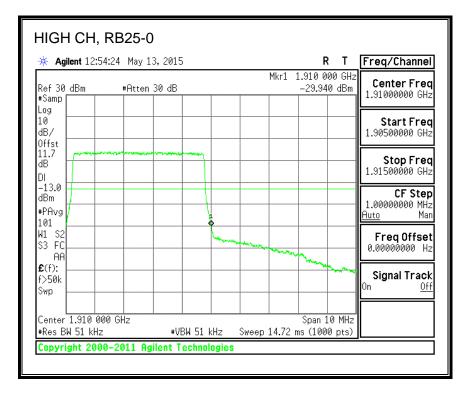
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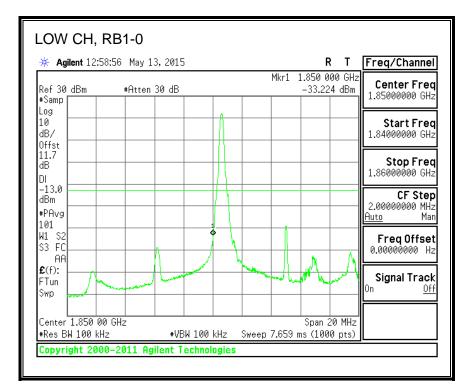
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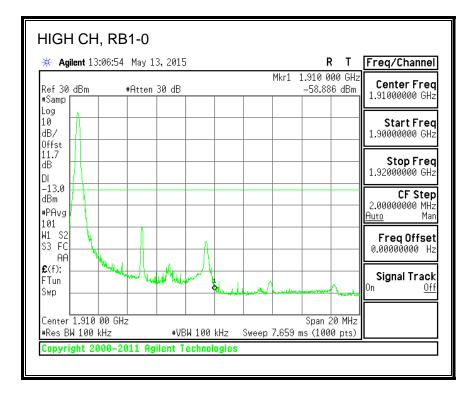




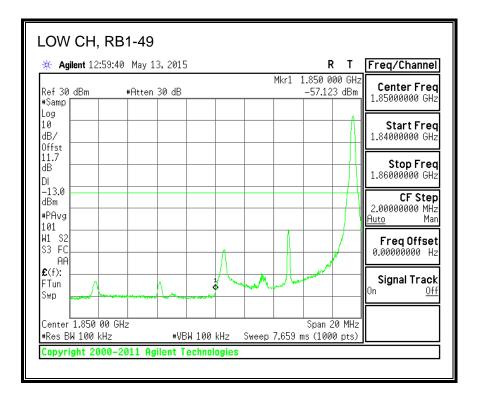
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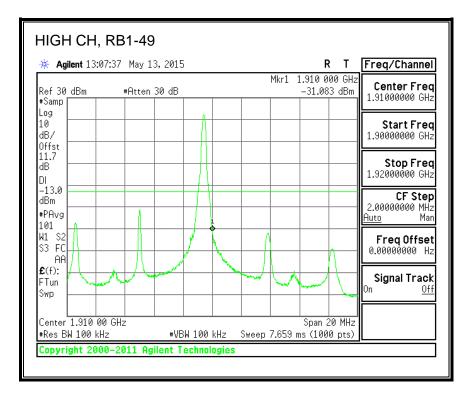
### QPSK, (10.0 MHz BAND WIDTH)



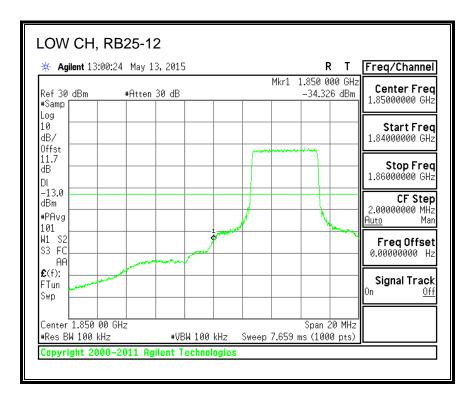


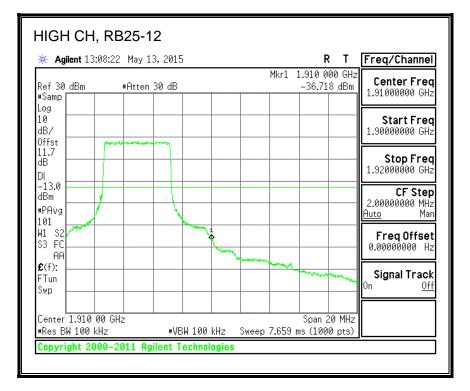
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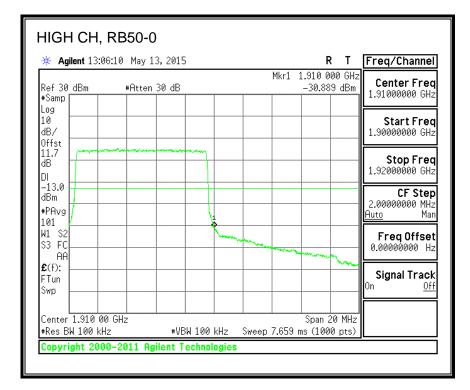
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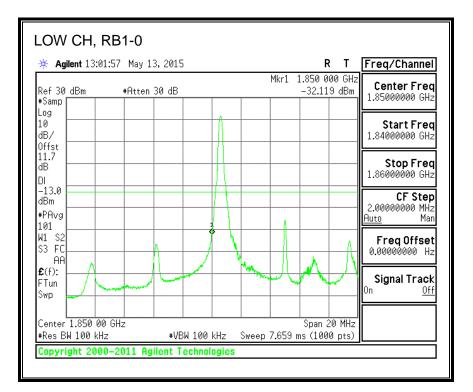
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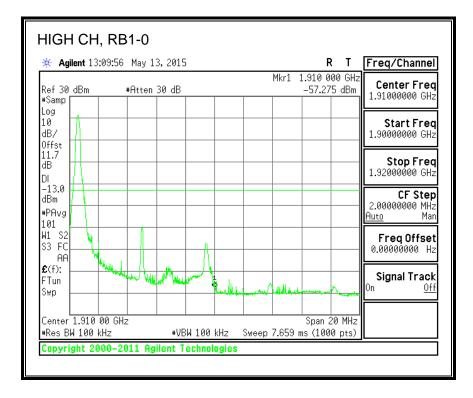
🔆 Agilent 12:5	8:11 May 13, 2	015			R		Freq/Channel
Ref 30 dBm #Samp	#Atten 30	dB		Mkr1	1.850 000 -31.107		Center Fred 1.85000000 GHz
Log 10 dB/							Start Fred 1.84000000 GHz
Offst 11.7 dB				a		~	Stop Frec
DI -13.0 dBm #PAvg							CF Step 2.00000000 MHz
101 W1 S2 S3 FC							Auto Mar
AA £(f): FTun							0.00000000 Hz
Swp							0n <u>0f1</u>
Center 1.850 00 #Res BW 100 kH		*VBW 100	kHz S	Sweep 7.659	Span 20 ms (1000		



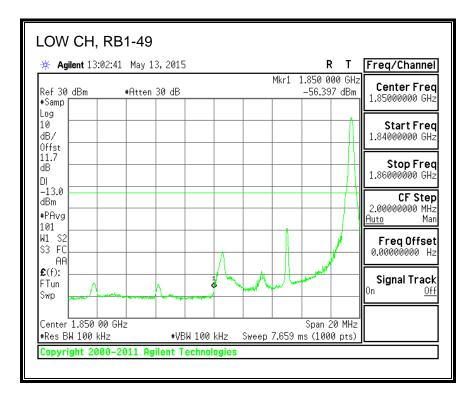
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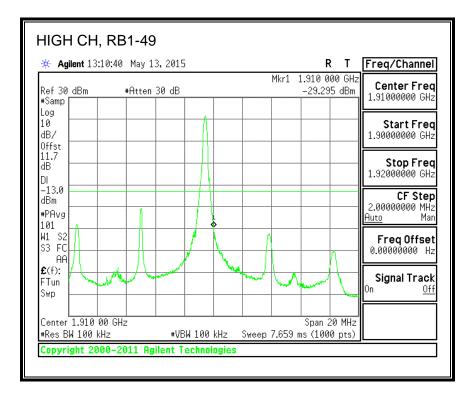
### 16QAM, (10.0 MHz BAND WIDTH)



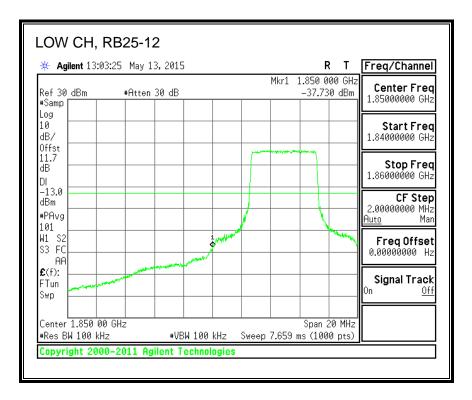


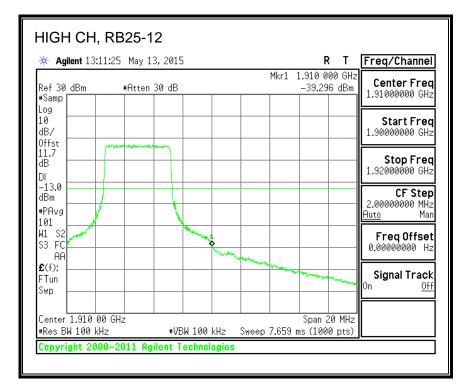
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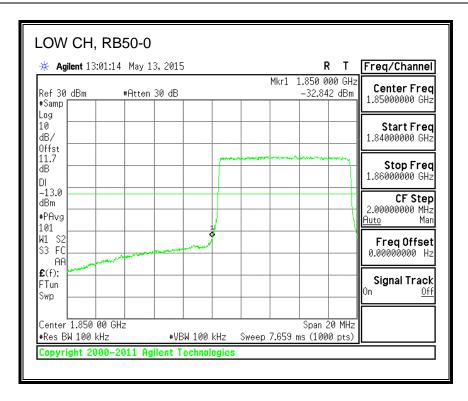


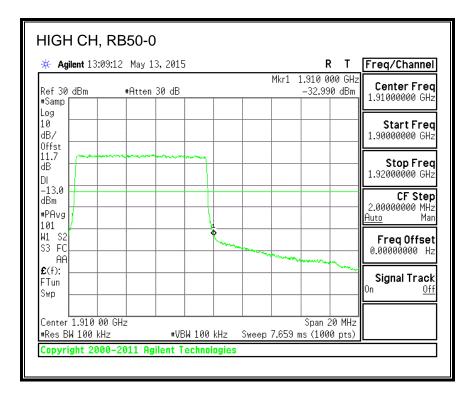
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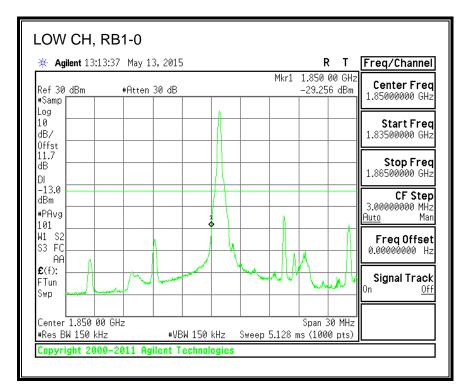
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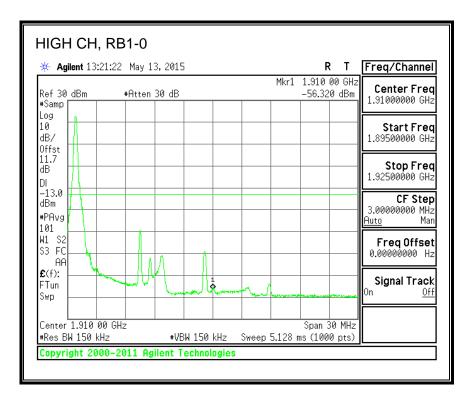




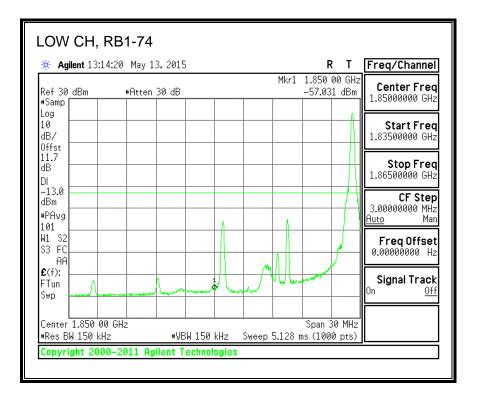
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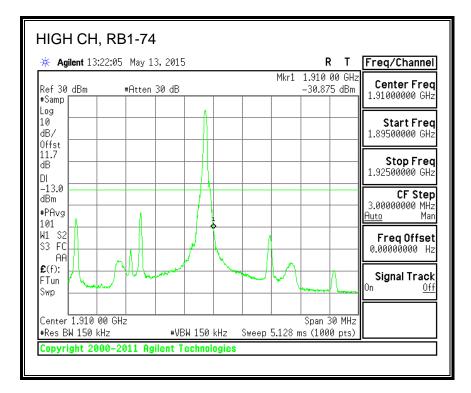
## QPSK, (15.0 MHz BAND WIDTH)



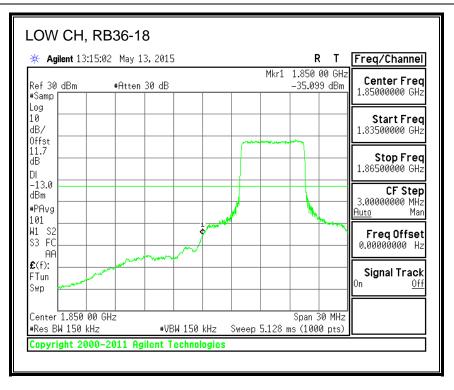


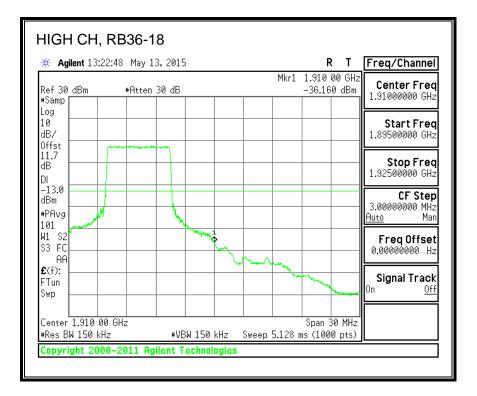
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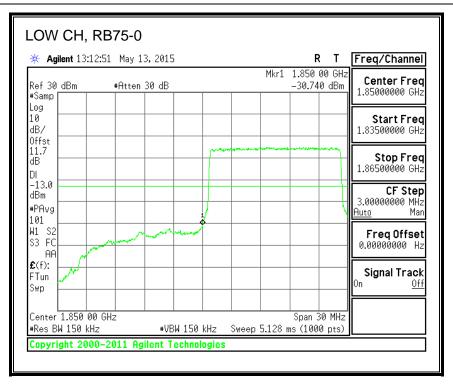


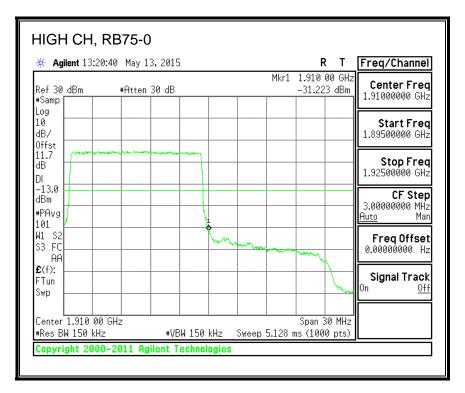
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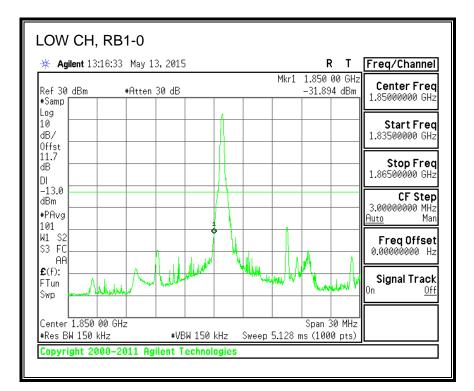
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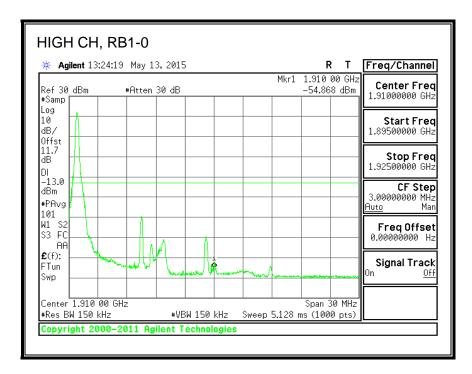




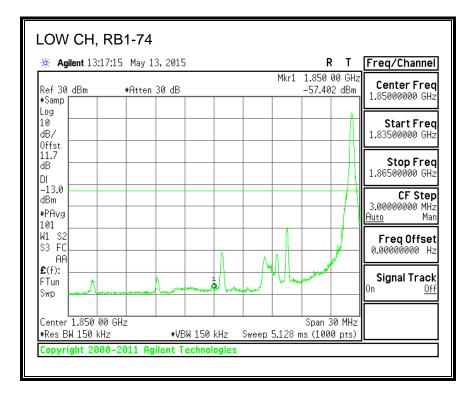
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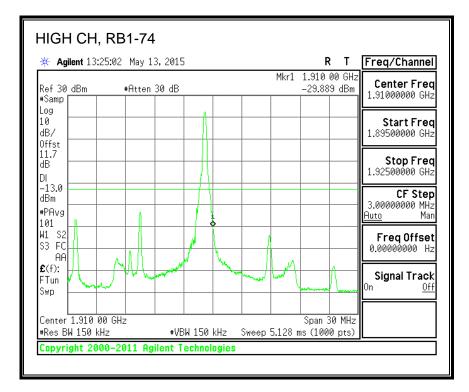
### 16QAM, (15.0 MHz BAND WIDTH)



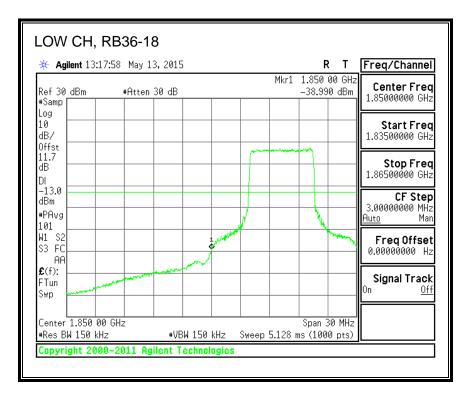


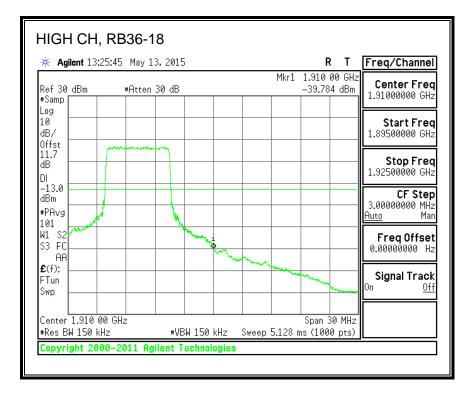
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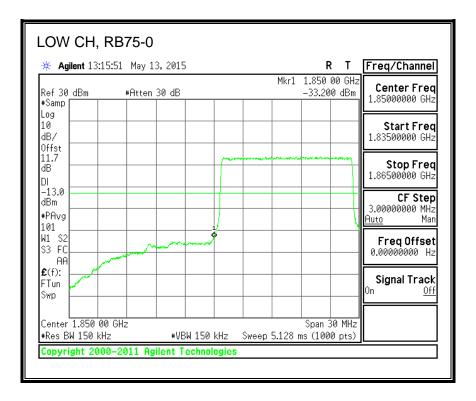


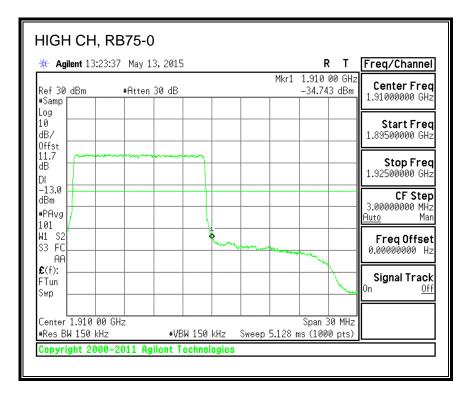
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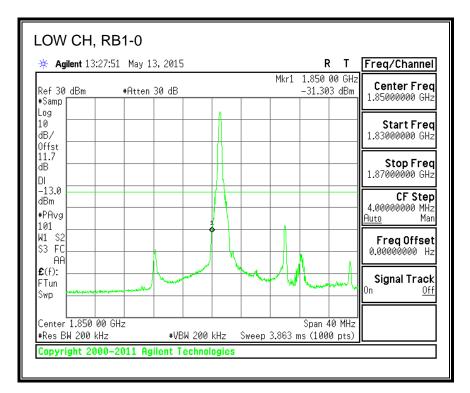
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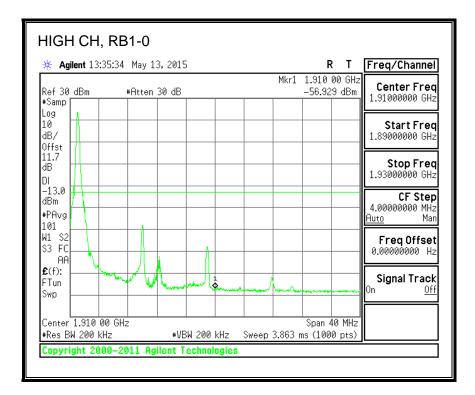




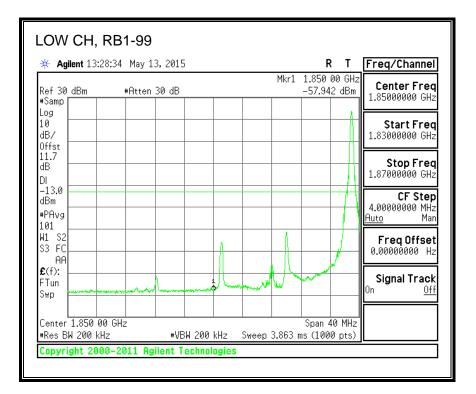
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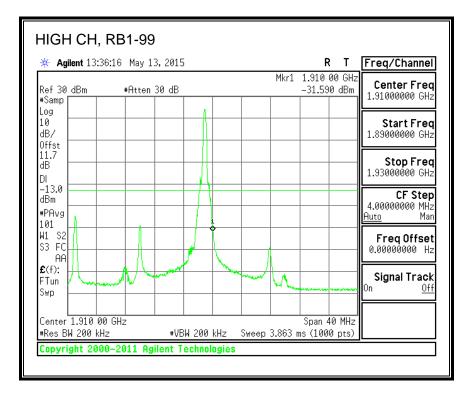
#### QPSK, (20.0 MHz BAND WIDTH)



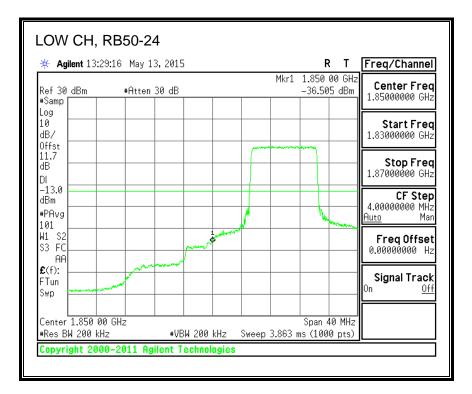


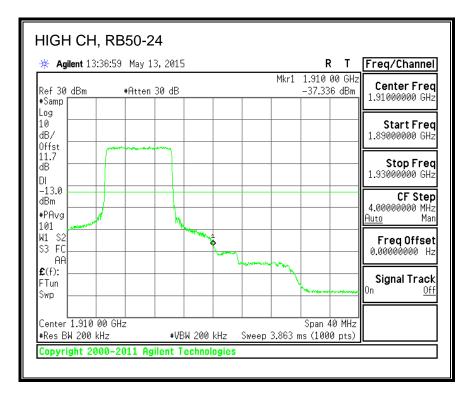
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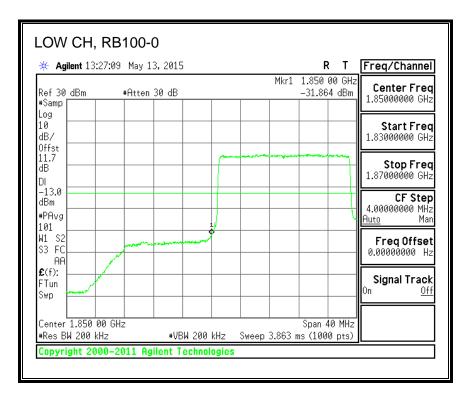


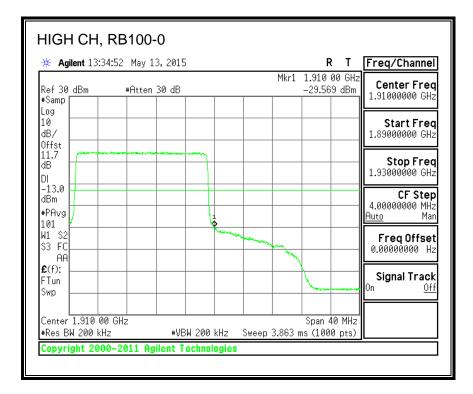
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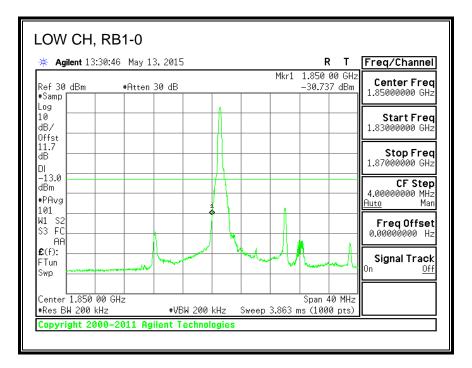
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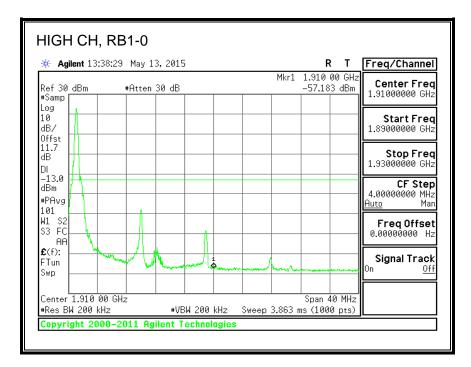




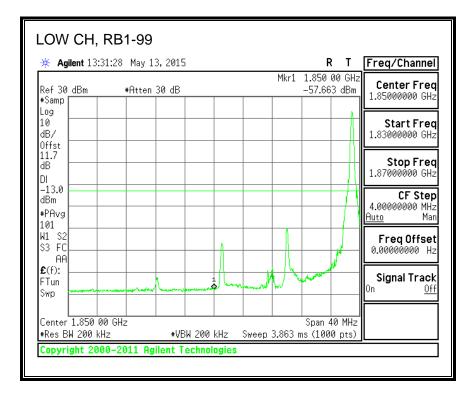
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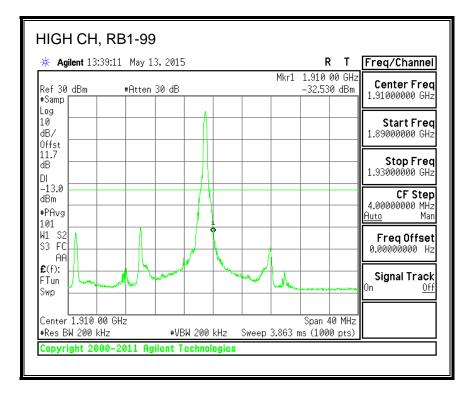
### 16QAM, (20.0 MHz BAND WIDTH)



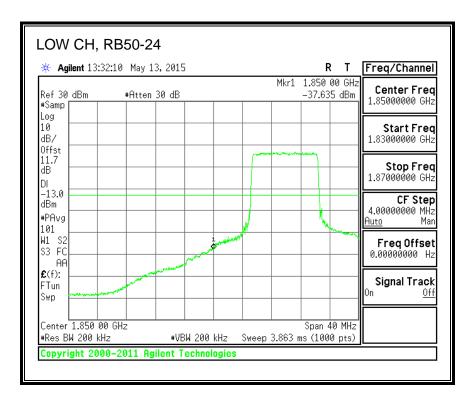


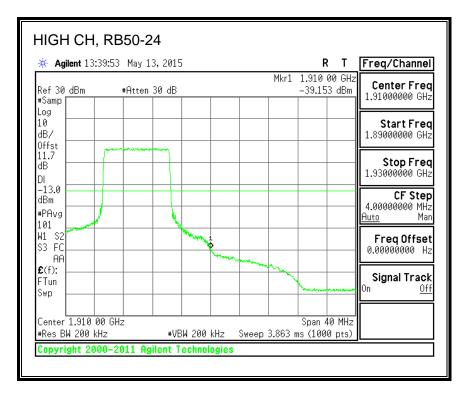
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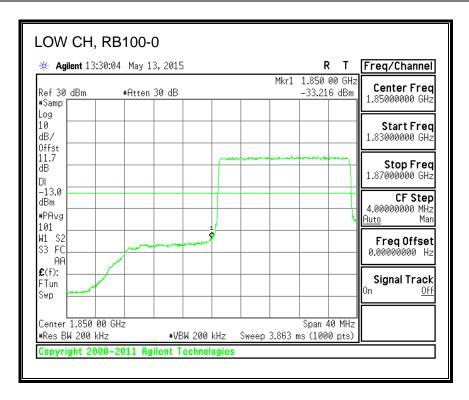


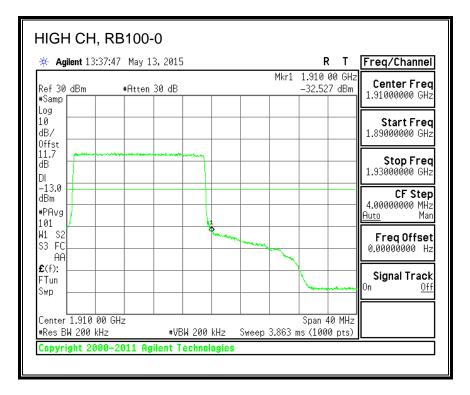
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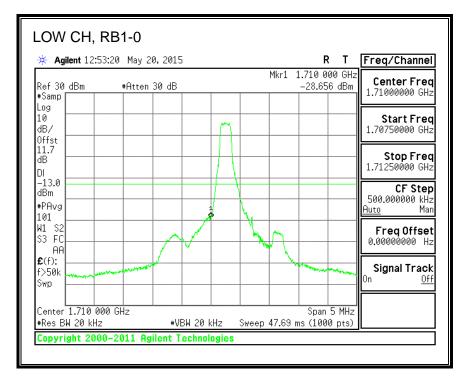


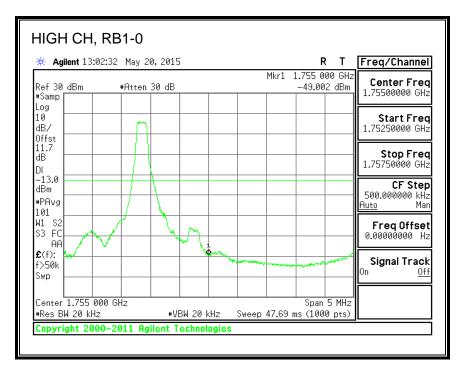


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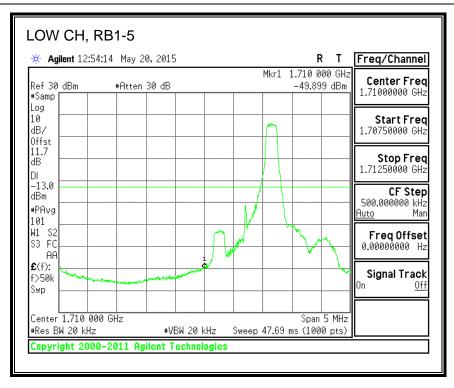
# 8.4.2. LTE BAND 4 BANDEDGE

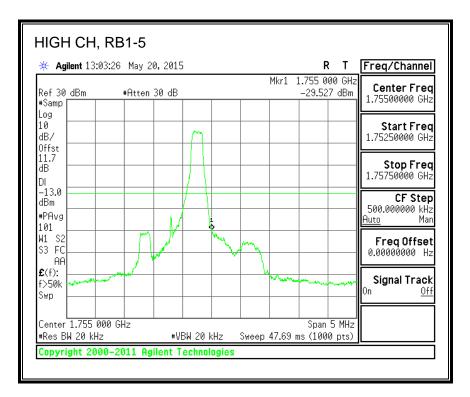
#### **QPSK, (1.4 MHz BAND WIDTH)**



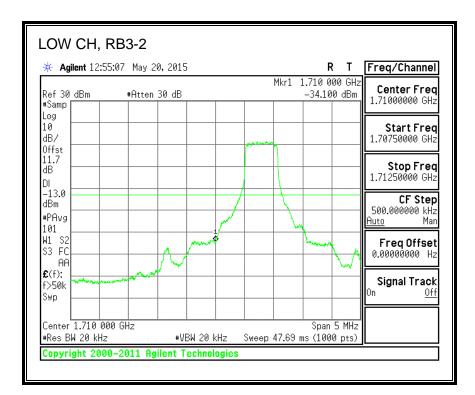


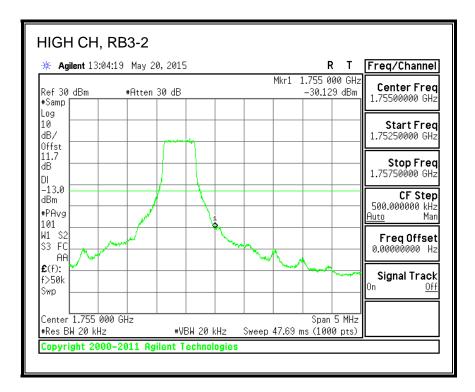
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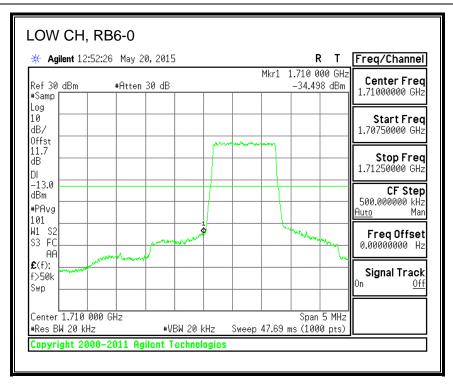


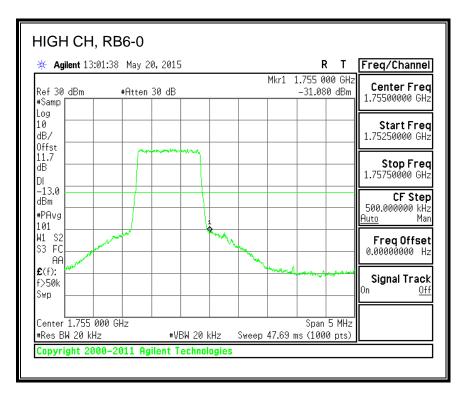
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