FCC CFR47 PART 22H, 24E, 27 AND 90S

CERTIFICATION TEST REPORT

FOR

TABLET DEVICE

MODEL NUMBER: A1652

FCC ID: BCGA1652

REPORT NUMBER: 14U19185-E13V3

ISSUE DATE: SEPTEMBER 14, 2015

Prepared for
APPLE, INC.
1 INFINITE LOOP
CUPERTINO, CA 95014, U.S.A.

Prepared by
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NVLAP LAB CODE 200065-0

Revision History

Rev.	Issue Date	Revisions	Revised By
V1	09/03/2015	Initial Review	M. Mekuria
V2	09/10/2015	Addressed TCB Questions	M. Mekuria
V3	09/14/2015	Removed band 7 from Section 5.5	T. Chu

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1. ATTESTATION OF TEST RESULTS

COMPANY NAME: APPLE
1 INFINITE LOOP
CUPERTINO, CA 95014, U.S.A.

EUT DESCRIPTION: TABLET DEVICE

MODEL: A1652

SERIAL NUMBER: DLXQ2057GPD2 (CONDUCTED);
DLXQ102WGPD3 (RADIATED)

DATE TESTED: JULY 20 – AUGUST 13, 2015

APPLICABLE STANDARDS	
STANDARD	**TEST RESULTS**
FCC CFR47 PART 22H, 24E, 27 and 90S	Pass

UL Verification Services Inc. tested the above equipment in accordance with the requirements set forth in the above standards. All indications of Pass/Fail in this report are opinions expressed by UL Verification Services Inc. based on interpretations and/or observations of test results. Measurement Uncertainties were not taken into account and are published for informational purposes only. The test results show that the equipment tested is capable of demonstrating compliance with the requirements as documented in this report.

Note: The results documented in this report apply only to the tested sample, under the conditions and modes of operation as described herein. This document may not be altered or revised in any way unless done so by UL Verification Services Inc. and all revisions are duly noted in the revisions section. Any alteration of this document not carried out by UL Verification Services Inc. will constitute fraud and shall nullify the document. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, any agency of the Federal Government, or any agency of any government.

Approved & Released For
UL Verification Services Inc. By:

Mengistu Mekuria

MENGISTU MEKURIA
SENIOR ENGINEER
UL VERIFICATION SERVICES INC.

Tested By:

TINA CHU
LAB ENGINEER
UL VERIFICATION SERVICES INC.

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2. TEST METHODOLOGY

The tests documented in this report were performed in accordance with TIA-603-D, FCC CFR 47 Part 2, FCC KDB 971168 D01 v02r02, Part 22, Part 24, Part 27 and Part 90.

3. FACILITIES AND ACCREDITATION

The test sites and measurement facilities used to collect data are located at 47173 and 47266 Benicia Street, Fremont, California, USA. Line conducted emissions are measured only at the 47173 address. The following table identifies which facilities were utilized for radiated emission measurements documented in this report. Specific facilities are also identified in the test results sections.

47173 Benicia Street	47266 Benicia Street
☐ Chamber A	☐ Chamber D
☐ Chamber B	☐ Chamber E
☐ Chamber C	☐ Chamber F
	☒ Chamber G
	☒ Chamber H

The above test sites and facilities are covered under FCC Test Firm Registration # 208313.

UL Verification Services Inc. is accredited by NVLAP, Laboratory Code 200065-0. The full scope of accreditation can be viewed at http://ts.nist.gov/standards/scopes/2000650.htm.

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4. CALIBRATION AND UNCERTAINTY

4.1. MEASURING INSTRUMENT CALIBRATION

The measuring equipment utilized to perform the tests documented in this report has been calibrated in accordance with the manufacturer's recommendations, and is traceable to recognized national standards.

4.2. SAMPLE CALCULATION

Where relevant, the following sample calculation is provided:

Field Strength (dBuV/m) = Measured Voltage (dBuV) + Antenna Factor (dB/m) + Cable Loss (dB) – Preamp Gain (dB)

36.5 dBuV + 18.7 dB/m + 0.6 dB – 26.9 dB = 28.9 dBuV/m

4.3. MEASUREMENT UNCERTAINTY

Where relevant, the following measurement uncertainty levels have been estimated for tests performed on the apparatus:

PARAMETER	UNCERTAINTY
Conducted Disturbance, 0.15 to 30 MHz	± 3.52 dB
Radiated Disturbance, 30 to 1000 MHz	± 4.94 dB
Radiated Disturbance, 1 to 6 GHz	± 3.86 dB
Radiated Disturbance, 6 to 18 GHz	± 4.23 dB
Radiated Disturbance, 18 to 26 GHz	± 5.30 dB
Radiated Disturbance, 26 to 40 GHz	± 5.23 dB

Uncertainty figures are valid to a confidence level of 95%.

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5. EQUIPMENT UNDER TEST

5.1. DESCRIPTION OF EUT

The EUT is a tablet with multimedia functions (music, application support, and video), Cellular GSM/GPRS/EGPRS/CDMA2000 1xRTT/1x Advanced/EVDO Rev.A/EVDO Rev.B /WCDMA /HSPA+/DC-HSDPA/LTE FDD & Carrier Aggregation/TDD/TD-SCDMA radio, IEEE 802.11a/b/g/n/ac radio and Bluetooth radio. The rechargeable battery is not user accessible

5.2. MAXIMUM OUTPUT POWER

The transmitter has a maximum conducted and ERP / EIRP output powers as follows:

OUTPUT POWER FOR LTE BAND 2

Part 24 / RSS 133 LTE Band 2						
Bandwidth (MHz)	Frequency Range	Modulation	Conducted (Average)		EIRP (Average)	
			dBm	mW	dBm	mW
1.4	1850 - 1910	QPSK	**23.75**	237.1	**27.54**	567.5
		16QAM	22.79	190.1	26.51	447.7
3		QPSK	23.72	235.5	26.71	468.8
		16QAM	22.75	188.4	25.81	381.1
5		QPSK	23.74	236.6	26.74	472.1
		16QAM	22.76	188.8	25.74	375.0
10		QPSK	23.67	232.8	26.55	451.9
		16QAM	22.74	187.9	25.51	355.6
15		QPSK	23.70	234.4	27.18	522.4
		16QAM	22.77	189.2	26.21	417.8
20		QPSK	**23.75**	237.1	26.25	421.7
		16QAM	22.78	189.7	25.21	331.9

OUTPUT POWER FOR LTE BAND 4

Part 27 / RSS 139 LTE Band 4						
Bandwidth (MHz)	Frequency Range	Modulation	Conducted (Average)		EIRP(Average)	
			dBm	mW	dBm	mW
1.4	1710 - 1755	QPSK	**24.00**	251.2	25.60	363.1
		16QAM	23.02	200.4	24.61	289.1
3		QPSK	23.97	249.5	25.53	357.3
		16QAM	22.93	196.3	24.51	282.5
5		QPSK	23.99	250.6	25.59	362.2
		16QAM	22.92	195.9	24.61	289.1
10		QPSK	23.97	249.5	**25.98**	396.3
		16QAM	22.99	199.1	25.11	324.3
15		QPSK	23.96	248.9	25.85	384.6
		16QAM	23.03	200.9	24.91	309.7
20		QPSK	23.99	250.6	25.54	358.1
		16QAM	22.94	196.8	24.54	284.4

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OUTPUT POWER FOR LTE BAND 5

Part 22 / RSS 132 LTE Band 5								
Bandwidth (MHz)	Frequency Range	Modulation	Conducted (Average)		ERP (Average)		EIRP (Average)	
			dBm	mW	dBm	mW	dBm	mW
1.4	824 - 849	QPSK	24.48	280.5	21.24	133.0	23.39	218.3
		16QAM	23.50	223.9	20.19	104.5	22.34	171.4
3		QPSK	**24.50**	281.8	21.53	142.2	23.68	233.3
		16QAM	23.49	223.4	20.52	112.7	22.67	184.9
5		QPSK	24.45	278.6	**22.19**	165.6	**24.34**	271.6
		16QAM	23.49	223.4	21.49	140.9	23.64	231.2
10		QPSK	**24.50**	281.8	21.92	155.6	24.07	255.3
		16QAM	23.50	223.9	21.02	126.5	23.17	207.5

OUTPUT POWER FOR LTE BAND 13

Part 27 / RSS 130 LTE Band 13								
Bandwidth (MHz)	Frequency Range	Modulation	Conducted (Average)		ERP (Average)		EIRP (Average)	
			dBm	mW	dBm	mW	dBm	mW
5	777 - 787	QPSK	**23.99**	250.6	20.83	121.1	22.98	198.6
		16QAM	23.03	200.9	19.98	99.5	22.13	163.3
10		QPSK	23.98	250.0	**21.43**	139.0	**23.58**	228.0
		16QAM	22.95	197.2	20.53	113.0	22.68	185.4

OUTPUT POWER FOR LTE BAND 17

Part 27 / RSS 130 LTE Band 17								
Bandwidth (MHz)	Frequency Range	Modulation	Conducted (Average)		ERP (Average)		EIRP (Average)	
			dBm	mW	dBm	mW	dBm	mW
5	704-716	QPSK	**24.00**	251.2	**19.98**	99.5	**22.13**	163.3
		16QAM	23.07	202.8	19.18	82.8	21.33	135.8
10		QPSK	23.98	250.0	19.89	97.5	22.04	160.0
		16QAM	23.00	199.5	18.89	77.4	21.04	127.1

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OUTPUT POWER FOR LTE BAND 25

Part 24 / RSS 133 LTE Band 25						
Bandwidth (MHz)	Frequency Range	Modulation	Conducted (Average)		EIRP (Average)	
			dBm	mW	dBm	mW
1.4	1850 - 1915	QPSK	**23.75**	237.1	25.62	364.8
		16QAM	22.84	192.3	24.76	299.2
3		QPSK	**23.75**	237.1	25.65	367.3
		16QAM	22.68	185.4	24.76	299.2
5		QPSK	23.71	235.0	25.89	388.2
		16QAM	22.72	187.1	24.96	313.3
10		QPSK	23.71	235.0	26.00	398.1
		16QAM	22.80	190.5	24.96	313.3
15		QPSK	23.74	236.6	**26.11**	408.3
		16QAM	22.75	188.4	25.06	320.6
20		QPSK	23.74	236.6	26.05	402.7
		16QAM	22.74	187.9	25.01	317.0

OUTPUT POWER FOR LTE BAND 26

Part 90 LTE Band 26								
Bandwidth (MHz)	Frequency Range	Modulation	Conducted (Average)		ERP (Average)		EIRP (Average)	
			dBm	mW	dBm	mW	dBm	mW
1.4	814-824	QPSK	23.99	250.6	23.98	250.0	26.13	410.2
		16QAM	23.07	202.8	23.00	199.5	25.15	327.3
3		QPSK	23.99	250.6	**24.03**	252.9	**26.18**	415.0
		16QAM	22.93	196.3	23.20	208.9	25.35	342.8
5		QPSK	**24.00**	251.2	23.96	248.9	26.11	408.3
		16QAM	22.92	195.9	23.00	199.5	25.15	327.3
10		QPSK	23.94	247.7	23.17	207.5	25.32	340.4
		16QAM	22.90	195.0	22.37	172.6	24.52	283.1

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OUTPUT POWER FOR LTE BAND 41

Part 27 LTE Band 41						
Bandwidth (MHz)	Frequency Range	Modulation	Conducted (Peak)		EIRP (Peak)	
			dBm	mW	dBm	mW
5	2496-2690	QPSK	27.96	625.2	30.34	1081.4
		16QAM	27.43	553.4	29.54	899.5
10		QPSK	**28.46**	701.5	30.52	1127.2
		16QAM	27.81	603.9	29.72	937.6
15		QPSK	28.43	696.6	30.74	1185.8
		16QAM	27.87	612.4	29.99	997.7
20		QPSK	28.20	660.7	**31.23**	1327.4
		16QAM	27.75	595.7	30.55	1135.0

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5.3. SOFTWARE AND FIRMWARE

The EUT firmware installed during testing was software version 13B72, Baseband firmware 3.14.000.

The EUT is linked with CMW500 and Agilent 8960 Communication Test Sets.

5.4. MAXIMUM ANTENNA GAIN

Please see table below:

LTE BANDS	Antenna Gain (dBi)
LTE Band 2, 1850 – 1910 MHz	2.31
LTE Band 4, 1710 – 1755 MHz	1.86
LTE Band 5, 824 – 849 MHz	-0.85
LTE Band 13, 777 – 787 MHz	-2.26
LTE Band 17, 704 – 716 MHz	-2.49
LTE Band 25, 1850 – 1915 MHz	2.31
LTE Band 26, 814 – 824 MHz	-1.18
LTE Band 41, 2496 – 2690 MHz	1.84

5.5. WORST-CASE CONFIGURATION AND MODE

The worst-case scenario for all measurements is based on the investigation results.

The device has LTE Bands of:
Band 2, Band 4, Band 5, Band 13, Band 17, Band 25, Band 26, and Band 41.

The RB Size was selected to measure for peak or average ERP and EIRP, which was based on the conducted power verification baseline data.

The fundamental of the EUT was investigated in three orthogonal orientations X/Y/Z, it was determined that X-flatbed orientation was worst-case orientation for cell bands without AC/DC adapter and headset; Y-landscape orientation was worst-case orientation for pcs bands without AC/DC adapter and headset; X-flatbed orientation was worst orientation for Band 41 without AC/DC adapter and headset.

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5.6. DESCRIPTION OF TEST SETUP

SUPPORT EQUIPMENT

Support Equipment List			
Description	**Manufacturer**	**Model**	**Serial Number**
AC/DC adapter	Dell	Latitude D630	N/A
Laptop	Dell	PA-1900-02D	N/A
DC power supply	Lambda	LA300	LAAA301032676

I/O CABLES (RF Conducted Test)

I/O Cable List						
Cable No	**Port**	**# of identical ports**	**Connector Type**	**Cable Type**	**Cable Length (m)**	**Remarks**
1	AC	1	US 115V	Un-shielded	2m	N/A
2	DC	1	DC	Un-shielded	1.4m	N/A
3	RF In/Out	1	EUT	Un-shielded	0.1m	N/A
4	RF In/Out	1	Barrel	N/A	N/A	N/A
5	RF In/Out	1	Communication Test Set	Un-shielded	1m	N/A

I/O CABLES (RF Radiated Test)

Cable No	Port	# of identical ports	Connector Type	Cable Type	Cable Length (m)	Remarks
1	RF In/Out	1	Antenna	Un-shielded	5m	NA

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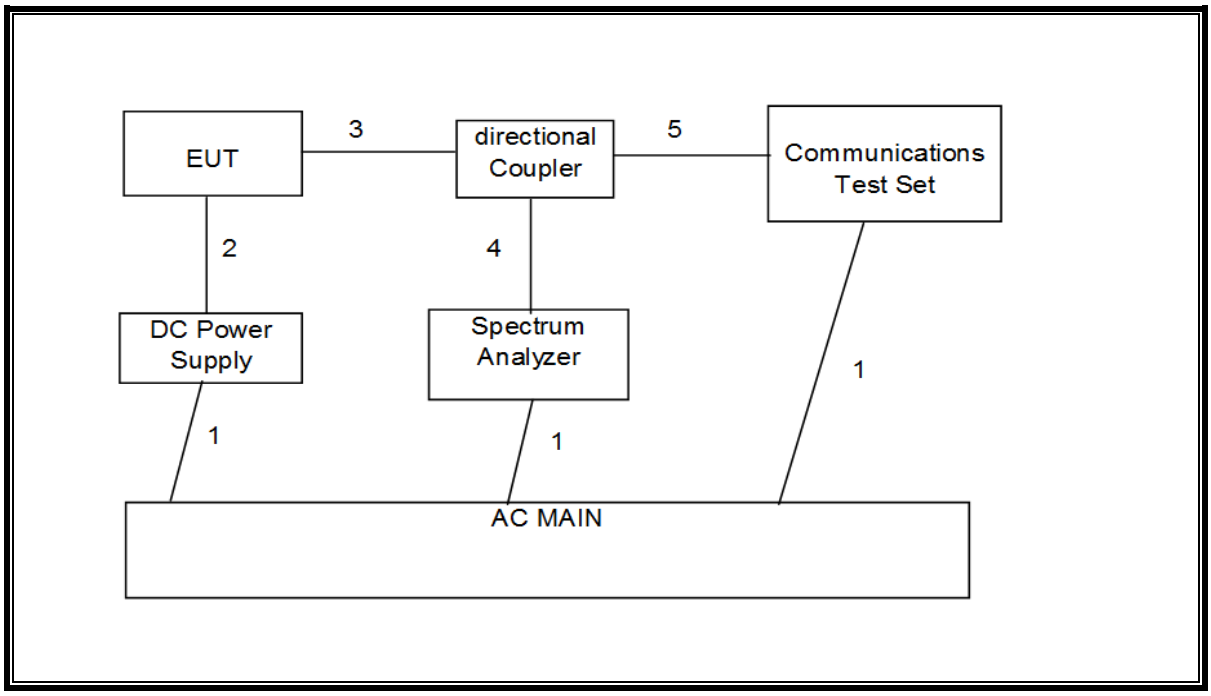
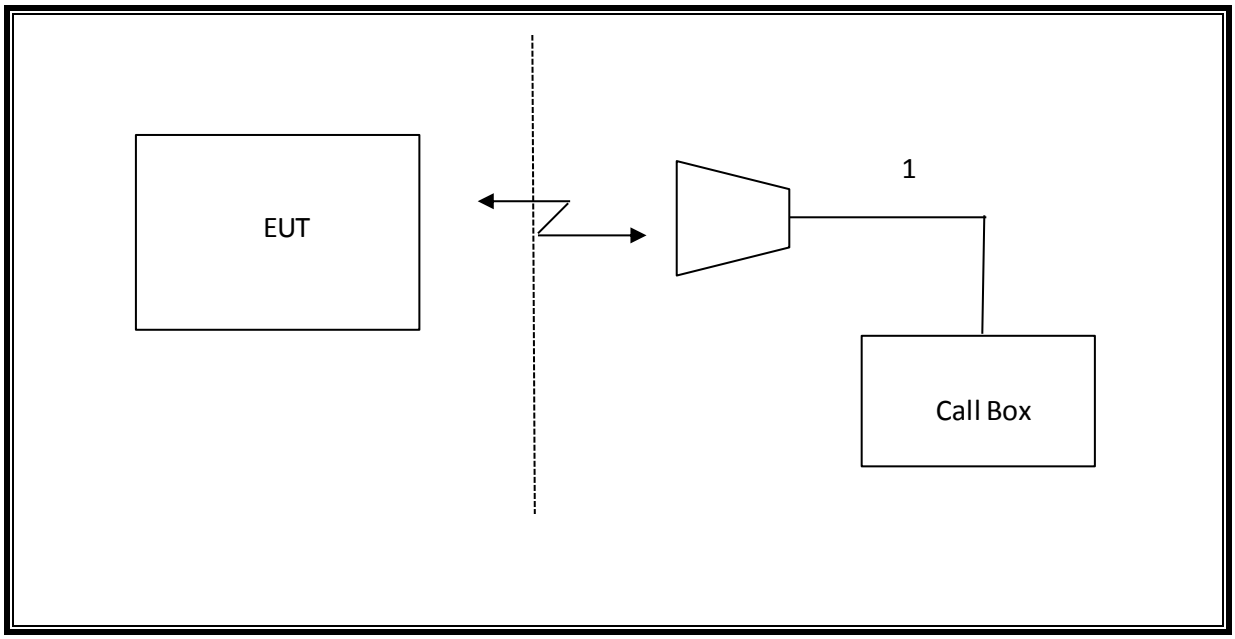
SETUP DIAGRAM FOR TESTS

CONDUCTED SETUP



RADIATED SETUP



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6. TEST AND MEASUREMENT EQUIPMENT

The following test and measurement equipment was utilized for the tests documented in this report:

TEST EQUIPMENT LIST				
Description	Manufacturer	Model	T No.	Cal Due
Spectrum Analyzer, PSA, 3Hz to 26.5GHz	Keysight	E4440A	T189	04/22/16
Spectrum Analyzer, PSA, 3Hz to 44GHz	Keysight	E4446A	T177	03/07/16
Wideband Communication Test Set, Call Box	Rohde & Schwarz	CMW500	T949	02/19/16
Directional Coupler	Krytar	152610	T923	06/10/16
Directional Coupler, 10dB SMA, 0.5GHz to 26.5GHz	Krytar	152610	T922	06/10/16
Power Meter, P-series single channel	Keysight	N1911A	T1244	04/02/16
Power Sensor, P - series, 50MHz to 18GHz, Wideband	Keysight	N1921A	T1226	05/06/16
Chamber, Environmental	Cincinnati Sub Zero	ZPHS-8-3.5-SCT/WC	T754	09/30/15
Wideband Communication Test Set, Call Box	Rohde & Schwarz	CMW500	T703	02/11/16
Wireless Communications Test Set, 8960 Series 10	Keysight	E5515C	T211	11/25/15
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight	N9030A	T905	05/26/16
Antenna, Horn 1-18GHz	ETS Lindgren	3117	T862	04/10/16
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences	JB3	T899	04/30/16
Amplifier, 10KHz to 1GHz, 32dB	Sonoma	310N	T834	06/08/16
Amplifier, 1 - 18GHz	Miteq	AFS42-00101800-25-S-42	T491	04/25/16
Wideband Communication Test Set, Call Box	Rohde & Schwarz	CMW500	T260	07/10/16
Spectrum Analyzer, PXA, 3Hz to 44GHz	Keysight	N9030A	T906	06/11/16
Antenna, Broadband Hybrid, 30MHz to 2000MHz	Sunol Sciences	JB3	T900	04/10/16
Antenna, Horn 1-18GHz	ETS Lindgren	3117	T863	04/10/16
Amplifier, 10KHz to 1GHz, 32dB	Sonoma	310N	T835	06/09/16
Amplifier, 1 - 18GHz	Miteq	AFS42-00101800-25-S-42	1818462	06/17/16
Filter, Highpass 4.0GHz	Micro-Tronics	HPM13351	T1239	06/24/16
Filter, HPF 1.2GHz	Wainwright Instruments	WHKX1.2/15G-6ST	T1182	04/24/16
Filter, HPF 3.0GHz	Micro-Tronics	HPM17543	T897	06/16/16

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7. RF POWER OUTPUT VERIFICATION

LTE Measurement Procedure:

All LTE bands conducted power peak and average are obtained from the CMW500 telecommunication test set.

The following tests were conducted according to the test requirements outlined in section 6.2 of the 3GPP TS36.101 specification.

UE Power Class: 3 (23 +/- 2dBm). The allowed Maximum Power Reduction (MPR) for the maximum output power due to higher order modulation and transmit bandwidth configuration (resource blocks) is specified in Table 6.2.3-1 of the 3GPP TS36.101.

Table 6.2.3-1: Maximum Power Reduction (MPR) for Power Class 3

Modulation	Channel bandwidth / Transmission bandwidth (RB)						MPR (dB)
	1.4 MHz	3.0 MHz	5 MHz	10 MHz	15 MHz	20 MHz	
QPSK	> 5	> 4	> 8	> 12	> 16	> 18	≤ 1
16 QAM	≤ 5	≤ 4	≤ 8	≤ 12	≤ 16	≤ 18	≤ 1
16 QAM	> 5	> 4	> 8	> 12	> 16	> 18	≤ 2

The allowed A-MPR values specified below in Table 6.2.4.-1 of 3GPP TS36.101 are in addition to the allowed MPR requirements. All the measurements below were performed with A-MPR disabled, by using Network Signaling Value of “NS_01”.3

Table 6.2.4-1: Additional Maximum Power Reduction (A-MPR)

Network Signalling value	Requirements (sub-clause)	E-UTRA Band	Channel bandwidth (MHz)	Resources Blocks (N_{RB})	A-MPR (dB)
NS_01	6.6.2.1.1	Table 5.5-1	1.4, 3, 5, 10, 15, 20	Table 5.6-1	NA
NS_03	6.6.2.2.1	2, 4,10, 23, 25, 35, 36	3	>5	≤ 1
			5	>6	≤ 1
			10	>6	≤ 1
			15	>8	≤ 1
			20	>10	≤ 1
NS_04	6.6.2.2.2	41	5	>6	≤ 1
			10, 15, 20	See Table 6.2.4-4	
NS_05	6.6.3.3.1	1	10,15,20	≥ 50	≤ 1
NS_06	6.6.2.2.3	12, 13, 14, 17	1.4, 3, 5, 10	Table 5.6-1	n/a
NS_07	6.6.2.2.3 6.6.3.3.2	13	10	Table 6.2.4-2	Table 6.2.4-2
NS_08	6.6.3.3.3	19	10, 15	> 44	≤ 3
NS_09	6.6.3.3.4	21	10, 15	> 40	≤ 1
				> 55	≤ 2
NS_10		20	15, 20	Table 6.2.4-3	Table 6.2.4-3
NS_11	6.6.2.2.1	23[1]	1.4, 3, 5, 10	Table 6.2.4-5	Table 6.2.4-5
..					
NS_32	-	-	-	-	-
Note 1: Applies to the lower block of Band 23, i.e. a carrier placed in the 2000-2010 MHz region.					

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7.1. LTE BAND 2

OUTPUT POWER FOR LTE BAND 2 (1.4MHz)

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)
1.4	18607	1850.7	QPSK	1	0	**23.75**	**28.73**
				1	2	23.70	28.57
				1	5	23.74	28.63
				3	0	23.73	28.70
				3	1	23.72	28.68
				3	2	23.70	28.73
				6	0	22.72	28.35
			16QAM	1	0	22.72	28.38
				1	2	22.71	28.29
				1	5	22.75	28.43
				3	0	22.72	28.66
				3	1	22.75	28.65
				3	2	22.73	**28.67**
				6	0	21.69	28.43
1.4	18900	1880.0	QPSK	1	0	23.68	27.75
				1	2	23.65	27.72
				1	5	23.72	27.79
				3	0	23.71	28.08
				3	1	23.69	27.97
				3	2	23.69	28.00
				6	0	22.65	28.13
			16QAM	1	0	22.75	28.17
				1	2	22.74	27.73
				1	5	22.76	28.01
				3	0	22.75	27.98
				3	1	22.73	27.87
				3	2	22.77	27.91
				6	0	21.71	28.10
1.4	19193	1909.3	QPSK	1	0	23.72	28.16
				1	2	23.65	28.05
				1	5	23.65	27.98
				3	0	23.70	28.32
				3	1	23.72	28.23
				3	2	23.68	28.21
				6	0	22.68	28.24
			16QAM	1	0	**22.79**	28.17
				1	2	22.76	28.06
				1	5	22.70	28.00
				3	0	22.76	28.24
				3	1	22.75	28.14
				3	2	22.72	28.17
				6	0	21.73	28.28

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OUTPUT POWER FOR LTE BAND 2 (3.0 MHz)

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)
3.0	18615	1851.5	QPSK	1	0	23.70	28.53
				1	7	23.66	27.50
				1	14	23.67	27.53
				8	0	22.69	28.04
				8	4	22.67	27.70
				8	7	22.67	27.56
				15	0	22.74	**28.60**
			16QAM	1	0	22.70	27.22
				1	7	22.69	27.24
				1	14	22.70	27.53
				8	0	21.68	27.46
				8	4	21.65	27.48
				8	7	21.76	27.53
				15	0	21.77	**28.50**
3.0	18900	1880.0	QPSK	1	0	23.67	27.60
				1	7	23.68	27.69
				1	14	23.66	27.91
				8	0	22.67	27.83
				8	4	22.69	27.88
				8	7	22.70	27.90
				15	0	22.72	28.05
			16QAM	1	0	22.72	27.60
				1	7	22.71	27.72
				1	14	22.69	27.94
				8	0	21.76	27.70
				8	4	21.70	27.68
				8	7	21.72	27.78
				15	0	21.75	28.22
3.0	19185	1908.5	QPSK	1	0	**23.72**	28.38
				1	7	23.71	28.12
				1	14	23.69	27.98
				8	0	22.68	27.99
				8	4	22.66	28.00
				8	7	22.65	27.86
				15	0	22.68	28.35
			16QAM	1	0	**22.75**	28.37
				1	7	22.65	28.10
				1	14	22.75	28.01
				8	0	21.69	27.79
				8	4	21.67	27.73
				8	7	21.69	27.80
				15	0	21.77	28.41

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OUTPUT POWER FOR LTE BAND 2 (5.0 MHz)

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak(dBm)
5.0	18625	1852.5	QPSK	1	0	**23.74**	28.60
				1	12	23.65	27.45
				1	24	23.71	27.76
				12	0	22.71	28.06
				12	6	22.70	27.55
				12	11	22.66	27.65
				25	0	22.69	28.02
			16QAM	1	0	**22.76**	27.24
				1	12	22.75	27.45
				1	24	22.75	27.75
				12	0	21.68	28.05
				12	6	21.74	27.61
				12	11	21.73	27.65
				25	0	21.73	27.90
5.0	18900	1880.0	QPSK	1	0	23.74	**28.82**
				1	12	23.74	27.70
				1	24	23.69	28.02
				12	0	22.73	27.71
				12	6	22.66	27.81
				12	11	22.66	27.93
				25	0	22.64	28.26
			16QAM	1	0	22.73	27.45
				1	12	22.75	27.73
				1	24	22.71	28.05
				12	0	21.72	27.68
				12	6	21.75	27.79
				12	11	21.73	27.90
				25	0	21.75	28.21
5.0	19175	1907.5	QPSK	1	0	23.67	28.39
				1	12	23.66	28.28
				1	24	23.72	28.02
				12	0	22.63	27.98
				12	6	22.75	27.92
				12	11	22.67	27.93
				25	0	22.72	28.29
			16QAM	1	0	22.70	28.38
				1	12	22.75	28.30
				1	24	22.71	28.07
				12	0	21.77	28.05
				12	6	21.74	27.85
				12	11	21.71	27.82
				25	0	21.72	**28.43**

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OUTPUT POWER FOR LTE BAND 2 (10.0 MHz)

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)
10.0	18650	1855.0	QPSK	1	0	**23.67**	27.40
				1	24	23.66	27.66
				1	49	23.67	28.17
				25	0	22.75	27.67
				25	12	22.74	27.78
				25	24	22.71	27.94
				50	0	22.70	28.13
			16QAM	1	0	22.74	27.22
				1	24	22.71	27.66
				1	49	22.74	28.18
				25	0	21.72	27.60
				25	12	21.72	27.77
				25	24	21.69	27.94
				50	0	21.66	28.17
10.0	18900	1880.0	QPSK	1	0	23.57	27.79
				1	24	23.61	27.66
				1	49	23.59	28.28
				25	0	22.64	27.71
				25	12	22.62	27.80
				25	24	22.55	27.94
				50	0	22.57	28.15
			16QAM	1	0	22.69	27.35
				1	24	22.72	27.67
				1	49	22.69	28.31
				25	0	21.74	27.59
				25	12	21.74	27.76
				25	24	21.66	28.04
				50	0	21.74	28.01
10.0	19150	1905.0	QPSK	1	0	23.57	28.07
				1	24	23.57	28.25
				1	49	23.58	28.03
				25	0	22.67	28.03
				25	12	22.68	28.19
				25	24	22.70	27.93
				50	0	22.66	**28.39**
			16QAM	1	0	**22.74**	28.09
				1	24	22.70	28.15
				1	49	22.66	28.09
				25	0	21.74	28.08
				25	12	21.74	27.99
				25	24	21.70	28.00
				50	0	21.68	**28.46**

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OUTPUT POWER FOR LTE BAND 2 (15.0 MHz)

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)
15.0	18675	1857.5	QPSK	1	0	23.66	28.49
				1	37	23.68	27.95
				1	74	23.68	27.78
				36	0	22.74	27.77
				36	16	22.66	27.94
				36	35	22.69	27.97
				75	0	22.68	28.25
			16-QAM	1	0	22.71	27.22
				1	37	22.67	27.96
				1	74	22.74	27.82
				36	0	21.73	27.73
				36	16	21.72	27.95
				36	35	21.74	27.98
				75	0	21.73	28.22
15.0	18900	1880.0	QPSK	1	0	23.68	28.49
				1	37	23.65	27.68
				1	74	23.65	28.29
				36	0	22.78	28.40
				36	16	22.68	27.78
				36	35	22.71	28.05
				75	0	22.71	28.28
			16-QAM	1	0	22.75	27.12
				1	37	22.71	27.70
				1	74	22.71	28.31
				36	0	21.77	28.26
				36	16	21.73	27.80
				36	35	21.76	28.03
				75	0	21.74	28.19
15.0	19125	1902.5	QPSK	1	0	**23.70**	27.99
				1	37	23.70	28.15
				1	74	23.64	28.01
				36	0	22.70	28.15
				36	16	22.68	28.03
				36	35	22.65	28.03
				75	0	22.67	**28.52**
			16-QAM	1	0	**22.77**	27.98
				1	37	22.69	28.11
				1	74	22.66	28.06
				36	0	21.67	28.12
				36	16	21.74	28.02
				36	35	21.72	28.03
				75	0	21.72	**28.37**

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OUTPUT POWER FOR LTE BAND 2 (20.0 MHz)

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)
20.0	18700	1860.0	QPSK	1	0	23.72	28.51
				1	49	23.68	28.10
				1	99	23.72	28.50
				50	0	22.70	27.85
				50	24	22.66	27.98
				50	49	22.72	27.86
				100	0	22.74	28.04
			16-QAM	1	0	22.75	28.42
				1	49	22.69	28.10
				1	99	22.72	27.46
				50	0	21.75	27.83
				50	24	21.77	27.95
				50	49	21.76	27.93
				100	0	21.73	28.02
20.0	18900	1880.0	QPSK	1	0	**23.75**	28.46
				1	49	23.72	27.70
				1	99	23.68	28.26
				50	0	22.76	28.45
				50	24	22.71	27.79
				50	49	22.73	28.05
				100	0	22.68	28.14
			16-QAM	1	0	22.77	27.80
				1	49	22.73	27.71
				1	99	22.67	28.30
				50	0	21.70	28.33
				50	24	21.76	27.85
				50	49	21.72	28.09
				100	0	21.73	28.15
20.0	19100	1900.0	QPSK	1	0	23.74	28.21
				1	49	23.72	27.96
				1	99	23.69	27.94
				50	0	22.71	28.07
				50	24	22.72	28.11
				50	49	22.73	28.13
				100	0	22.74	**28.56**
			16-QAM	1	0	**22.78**	28.18
				1	49	22.76	27.94
				1	99	22.68	27.99
				50	0	21.74	28.11
				50	24	21.71	28.14
				50	49	21.75	28.15
				100	0	21.76	**28.41**

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7.2. LTE BAND 4

OUTPUT POWER FOR LTE BAND 4 (1.4MHz)

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)
1.4	19957	1710.7	QPSK	1	0	**24.00**	29.05
				1	2	23.92	28.88
				1	5	23.99	29.05
				3	0	23.91	29.23
				3	1	23.92	29.20
				3	2	23.92	29.21
				6	0	23.01	28.73
			16QAM	1	0	**23.02**	28.90
				1	2	22.99	28.85
				1	5	23.00	28.87
				3	0	23.01	29.28
				3	1	22.95	29.12
				3	2	22.97	29.12
				6	0	22.04	28.75
1.4	20175	1732.5	QPSK	1	0	23.95	29.11
				1	2	23.88	28.90
				1	5	23.93	29.07
				3	0	23.91	**29.31**
				3	1	23.97	29.21
				3	2	23.98	29.24
				6	0	22.94	28.72
			16QAM	1	0	22.92	28.92
				1	2	22.93	28.88
				1	5	22.95	28.94
				3	0	22.99	**29.32**
				3	1	22.97	29.20
				3	2	22.92	29.16
				6	0	22.02	28.79
1.4	20393	1754.3	QPSK	1	0	23.98	29.07
				1	2	23.96	28.92
				1	5	23.91	29.08
				3	0	23.92	29.26
				3	1	23.94	29.22
				3	2	23.93	29.26
				6	0	22.96	28.73
			16QAM	1	0	22.94	28.93
				1	2	22.96	28.86
				1	5	22.96	28.90
				3	0	22.91	29.22
				3	1	22.94	29.12
				3	2	22.96	29.15
				6	0	22.03	28.68

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OUTPUT POWER FOR LTE BAND 4 (3.0 MHz)

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)
3.0	19965	1711.5	QPSK	1	0	23.96	29.03
				1	7	23.88	28.79
				1	14	23.91	29.00
				8	0	23.04	28.45
				8	4	22.99	28.32
				8	7	23.04	28.44
				15	0	23.05	28.78
			16QAM	1	0	22.87	28.56
				1	7	22.88	28.43
				1	14	22.82	28.45
				8	0	22.05	28.03
				8	4	22.01	27.94
				8	7	22.05	28.15
				15	0	22.05	28.80
3.0	20175	1732.5	QPSK	1	0	23.90	29.02
				1	7	23.87	28.85
				1	14	23.91	29.07
				8	0	23.01	28.47
				8	4	22.98	28.38
				8	7	23.01	28.41
				15	0	23.00	28.80
			16QAM	1	0	**22.93**	28.53
				1	7	22.90	28.48
				1	14	22.87	28.66
				8	0	22.02	28.13
				8	4	22.01	28.11
				8	7	22.00	28.08
				15	0	22.03	**28.97**
3.0	20385	1753.5	QPSK	1	0	**23.97**	29.02
				1	7	23.84	28.75
				1	14	23.91	**29.13**
				8	0	22.95	28.53
				8	4	22.92	28.34
				8	7	22.89	28.36
				15	0	22.84	28.66
			16QAM	1	0	22.85	28.70
				1	7	22.90	28.46
				1	14	22.89	28.63
				8	0	22.10	28.19
				8	4	22.01	28.06
				8	7	22.00	28.12
				15	0	21.98	28.64

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OUTPUT POWER FOR LTE BAND 4 (5.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
5.0	19975	1712.5	QPSK	1	0	23.96	28.96
				1	12	23.96	28.88
				1	24	23.96	29.01
				12	0	23.04	28.45
				12	6	22.99	28.23
				12	11	23.02	28.29
				25	0	22.98	28.83
			16QAM	1	0	22.85	28.77
				1	12	22.83	28.61
				1	24	22.88	28.84
				12	0	22.04	28.32
				12	6	21.99	28.13
				12	11	22.03	28.25
				25	0	21.95	28.86
5.0	20175	1732.5	QPSK	1	0	23.91	28.97
				1	12	23.88	28.87
				1	24	23.90	29.02
				12	0	23.02	28.46
				12	6	22.96	28.28
				12	11	22.95	28.36
				25	0	22.98	28.93
			16QAM	1	0	22.87	28.74
				1	12	22.87	28.64
				1	24	22.91	28.80
				12	0	21.98	28.33
				12	6	21.96	28.18
				12	11	21.96	28.22
				25	0	21.96	**29.06**
5.0	20375	1752.5	QPSK	1	0	**23.99**	**29.09**
				1	12	23.91	28.94
				1	24	23.89	29.04
				12	0	22.95	28.31
				12	6	22.99	28.22
				12	11	22.90	28.21
				25	0	23.02	28.90
			16QAM	1	0	**22.92**	28.81
				1	12	22.92	28.63
				1	24	22.87	28.81
				12	0	22.06	28.35
				12	6	22.01	28.24
				12	11	21.95	28.10
				25	0	22.01	28.82

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OUTPUT POWER FOR LTE BAND 4 (10.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
10.0	20000	1715.0	QPSK	1	0	23.93	28.92
				1	24	23.90	28.90
				1	49	23.90	28.90
				25	0	22.97	28.50
				25	12	23.02	28.54
				25	24	22.95	28.54
				50	0	22.98	29.24
			16QAM	1	0	22.85	28.57
				1	24	22.91	28.34
				1	49	22.89	28.43
				25	0	22.05	28.39
				25	12	22.02	28.31
				25	24	22.02	28.39
				50	0	22.01	**29.29**
10.0	20175	1732.5	QPSK	1	0	23.87	28.92
				1	24	23.84	28.85
				1	49	23.90	29.00
				25	0	23.01	28.53
				25	12	23.00	28.55
				25	24	23.01	28.56
				50	0	23.02	**29.49**
			16QAM	1	0	**22.99**	28.46
				1	24	22.94	28.47
				1	49	22.86	28.64
				25	0	21.99	28.37
				25	12	21.97	28.26
				25	24	21.99	28.35
				50	0	21.98	28.73
10.0	20350	1750.0	QPSK	1	0	**23.97**	28.96
				1	24	23.93	28.91
				1	49	23.90	28.93
				25	0	23.05	28.53
				25	12	23.02	28.32
				25	24	22.95	28.41
				50	0	23.01	29.37
			16QAM	1	0	22.93	28.59
				1	24	22.88	28.53
				1	49	22.91	28.51
				25	0	22.08	28.40
				25	12	22.01	28.30
				25	24	22.02	28.29
				50	0	22.00	29.01

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OUTPUT POWER FOR LTE BAND 4 (15.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
15.0	20025	1717.5	QPSK	1	0	**23.96**	28.99
				1	37	23.91	28.86
				1	74	23.82	28.86
				36	0	22.94	28.62
				36	16	23.03	28.40
				36	35	22.97	28.44
				75	0	23.01	**29.34**
			16-QAM	1	0	22.88	28.51
				1	37	22.91	28.32
				1	74	22.92	28.36
				36	0	22.08	28.50
				36	16	22.03	28.31
				36	35	22.03	28.38
				75	0	22.02	28.95
15.0	20175	1732.5	QPSK	1	0	23.83	28.90
				1	37	23.83	28.82
				1	74	23.82	28.89
				36	0	22.97	28.48
				36	16	22.94	28.42
				36	35	22.99	28.42
				75	0	23.00	29.27
			16-QAM	1	0	22.89	28.42
				1	37	22.89	28.48
				1	74	22.85	28.53
				36	0	22.02	28.44
				36	16	22.02	28.35
				36	35	22.03	28.42
				75	0	22.06	28.95
15.0	20325	1747.5	QPSK	1	0	23.88	28.95
				1	37	23.96	28.88
				1	74	23.95	28.95
				36	0	23.02	28.52
				36	16	22.93	28.36
				36	35	22.94	28.38
				75	0	23.03	29.02
			16-QAM	1	0	**23.03**	28.57
				1	37	22.86	28.53
				1	74	22.88	28.52
				36	0	22.02	28.44
				36	16	22.06	28.32
				36	35	22.10	28.36
				75	0	22.06	**29.08**

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OUTPUT POWER FOR LTE BAND 4 (20.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
20.0	20050	1720.0	QPSK	1	0	23.97	29.10
				1	49	23.94	29.00
				1	99	23.95	29.02
				50	0	22.99	28.65
				50	24	22.98	28.54
				50	49	22.94	28.53
				100	0	22.93	28.63
			16-QAM	1	0	22.82	28.69
				1	49	22.89	28.50
				1	99	22.88	28.56
				50	0	22.07	28.46
				50	24	22.03	28.35
				50	49	22.05	28.45
				100	0	22.10	28.62
20.0	20175	1732.5	QPSK	1	0	23.94	29.03
				1	49	23.96	28.96
				1	99	23.98	29.07
				50	0	23.02	28.59
				50	24	23.02	28.48
				50	49	22.97	28.60
				100	0	23.01	29.01
			16-QAM	1	0	22.91	28.60
				1	49	22.89	28.50
				1	99	22.86	**28.79**
				50	0	21.96	28.39
				50	24	21.96	28.34
				50	49	21.98	28.42
				100	0	22.08	28.63
20.0	20300	1745.0	QPSK	1	0	**23.99**	**29.14**
				1	49	23.95	29.03
				1	99	23.94	29.08
				50	0	22.99	28.53
				50	24	22.99	28.37
				50	49	22.96	28.49
				100	0	23.03	28.86
			16-QAM	1	0	**22.94**	28.70
				1	49	22.87	28.64
				1	99	22.86	28.55
				50	0	21.99	28.39
				50	24	21.99	28.28
				50	49	21.98	28.33
				100	0	22.00	28.70

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7.3. LTE BAND 5

OUTPUT POWER FOR LTE BAND 5 (1.4MHZz)

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)
1.4	20407	824.7	QPSK	1	0	24.42	29.02
				1	2	24.39	28.90
				1	5	24.43	29.01
				3	0	24.44	29.25
				3	1	24.41	29.19
				3	2	24.45	29.26
				6	0	23.56	29.21
			16QAM	1	0	23.45	29.46
				1	2	23.41	29.40
				1	5	23.46	29.52
				3	0	23.49	29.67
				3	1	23.47	29.62
				3	2	23.43	29.62
				6	0	22.51	29.20
1.4	20525	836.5	QPSK	1	0	24.47	29.09
				1	2	24.38	28.94
				1	5	24.40	29.06
				3	0	24.45	29.26
				3	1	24.42	29.27
				3	2	24.40	29.22
				6	0	23.54	**29.38**
			16QAM	1	0	**23.50**	29.32
				1	2	23.42	29.25
				1	5	23.47	29.41
				3	0	23.48	**29.84**
				3	1	23.43	29.72
				3	2	23.46	29.72
				6	0	22.59	29.16
1.4	20643	848.3	QPSK	1	0	**24.48**	28.99
				1	2	24.36	28.89
				1	5	24.42	28.95
				3	0	24.46	29.11
				3	1	24.48	29.12
				3	2	24.46	29.16
				6	0	23.46	28.92
			16QAM	1	0	23.48	28.96
				1	2	23.37	29.05
				1	5	23.40	29.02
				3	0	23.47	29.16
				3	1	23.43	29.15
				3	2	23.44	29.17
				6	0	22.57	28.94

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OUTPUT POWER FOR LTE BAND 5 (3.0 MHz)

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)
3.0	20415	825.5	QPSK	1	0	24.36	28.96
				1	7	24.47	28.70
				1	14	24.40	29.03
				8	0	23.41	28.83
				8	4	23.44	28.82
				8	7	23.41	28.92
				15	0	23.43	**29.31**
			16QAM	1	0	23.47	29.10
				1	7	23.42	28.95
				1	14	23.43	29.21
				8	0	22.50	28.61
				8	4	22.48	28.55
				8	7	22.58	28.65
				15	0	22.46	29.23
3.0	20525	836.5	QPSK	1	0	**24.50**	28.98
				1	7	24.39	28.79
				1	14	24.37	29.10
				8	0	23.51	29.11
				8	4	23.47	28.87
				8	7	23.41	28.89
				15	0	23.43	29.09
			16QAM	1	0	**23.49**	29.14
				1	7	23.42	28.86
				1	14	23.40	**29.26**
				8	0	22.53	28.73
				8	4	22.49	28.66
				8	7	22.52	28.73
				15	0	22.47	29.19
3.0	20635	847.5	QPSK	1	0	24.42	28.90
				1	7	24.36	28.84
				1	14	24.44	28.98
				8	0	23.55	28.64
				8	4	23.54	28.63
				8	7	23.45	28.69
				15	0	23.54	28.87
			16QAM	1	0	23.45	28.92
				1	7	23.47	28.88
				1	14	23.46	28.99
				8	0	22.47	28.43
				8	4	22.43	28.37
				8	7	22.44	28.49
				15	0	22.49	28.89

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OUTPUT POWER FOR LTE BAND 5 (5.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
5.0	20425	826.5	QPSK	1	0	24.37	29.00
				1	12	24.44	28.92
				1	24	24.44	29.03
				12	0	23.42	28.92
				12	6	23.41	28.88
				12	11	23.44	28.89
				25	0	23.42	29.31
			16QAM	1	0	**23.49**	29.34
				1	12	23.43	29.16
				1	24	23.42	29.34
				12	0	22.52	28.94
				12	6	22.56	28.77
				12	11	22.56	28.86
				25	0	22.49	29.43
5.0	20525	836.5	QPSK	1	0	24.35	28.87
				1	12	24.35	28.87
				1	24	24.40	29.16
				12	0	23.47	28.85
				12	6	23.45	28.86
				12	11	23.41	28.86
				25	0	23.40	**29.51**
			16QAM	1	0	23.46	29.31
				1	12	23.48	29.14
				1	24	23.41	29.46
				12	0	22.50	28.86
				12	6	22.49	28.77
				12	11	22.50	28.93
				25	0	22.42	**29.61**
5.0	20625	846.5	QPSK	1	0	**24.45**	29.05
				1	12	24.39	28.89
				1	24	24.41	29.02
				12	0	23.50	28.76
				12	6	23.43	28.60
				12	11	23.41	28.58
				25	0	23.49	29.15
			16QAM	1	0	23.42	29.22
				1	12	23.48	28.92
				1	24	23.43	29.07
				12	0	22.41	28.84
				12	6	22.43	28.60
				12	11	22.40	28.60
				25	0	22.44	29.13

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OUTPUT POWER FOR LTE BAND 5 (10.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
10.0	20450	829.0	QPSK	1	0	**24.50**	28.75
				1	24	24.34	28.81
				1	49	24.34	28.72
				25	0	23.49	28.94
				25	12	23.41	29.03
				25	24	23.49	28.94
				50	0	23.48	29.73
			16QAM	1	0	**23.50**	29.04
				1	24	23.47	29.05
				1	49	23.44	28.77
				25	0	22.50	28.74
				25	12	22.52	28.82
				25	24	22.50	28.71
				50	0	22.49	28.94
10.0	20525	836.5	QPSK	1	0	24.39	28.79
				1	24	24.47	28.82
				1	49	24.40	29.04
				25	0	23.48	28.93
				25	12	23.50	29.06
				25	24	23.47	29.08
				50	0	23.43	29.74
			16QAM	1	0	23.48	28.96
				1	24	23.50	28.87
				1	49	23.42	29.14
				25	0	22.44	28.67
				25	12	22.42	28.70
				25	24	22.44	28.85
				50	0	22.48	29.04
10.0	20600	844.0	QPSK	1	0	24.41	28.93
				1	24	24.34	28.92
				1	49	24.35	28.81
				25	0	23.40	29.09
				25	12	23.40	28.95
				25	24	23.42	28.96
				50	0	23.43	**29.77**
			16QAM	1	0	23.45	29.02
				1	24	23.44	29.11
				1	49	23.45	29.01
				25	0	22.48	28.97
				25	12	22.50	28.86
				25	24	22.45	28.85
				50	0	22.50	**29.47**

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7.4. LTE BAND 13

OUTPUT POWER FOR LTE BAND 13 (5.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
5.0	23207	779.5	QPSK	1	0	**23.99**	**28.89**
				1	12	23.90	28.78
				1	24	23.91	28.85
				12	0	22.93	28.27
				12	6	22.94	28.23
				12	11	22.92	28.24
				25	0	22.96	28.86
			16QAM	1	0	**23.03**	28.67
				1	12	22.97	28.43
				1	24	23.02	28.66
				12	0	22.04	28.28
				12	6	22.02	28.13
				12	11	22.02	28.26
				25	0	22.01	28.84
5.0	23230	782.0	QPSK	1	0	23.89	28.77
				1	12	23.85	28.73
				1	24	23.85	28.81
				12	0	22.91	28.27
				12	6	22.89	28.20
				12	11	22.91	28.25
				25	0	22.84	28.68
			16QAM	1	0	22.98	28.53
				1	12	22.96	28.42
				1	24	22.99	28.63
				12	0	22.01	28.24
				12	6	22.02	28.19
				12	11	22.04	28.16
				25	0	22.03	**28.99**
5.0	23255	784.5	QPSK	1	0	23.86	28.74
				1	12	23.84	28.73
				1	24	23.83	28.76
				12	0	22.90	28.28
				12	6	22.87	28.18
				12	11	22.87	28.18
				25	0	22.85	28.75
			16QAM	1	0	22.96	28.55
				1	12	22.91	28.44
				1	24	22.97	28.58
				12	0	21.99	28.28
				12	6	21.96	28.11
				12	11	21.96	28.17
				25	0	22.00	28.91

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OUTPUT POWER FOR LTE BAND 13 (10.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
10.0	23230	782.0	QPSK	1	0	**23.98**	28.84
				1	24	23.81	28.71
				1	49	23.93	28.67
				25	0	23.00	28.35
				25	12	22.88	28.23
				25	24	22.90	28.32
				50	0	23.01	**28.93**
			16QAM	1	0	**22.95**	28.31
				1	24	22.88	28.24
				1	49	22.89	28.40
				25	0	21.99	28.28
				25	12	21.96	28.24
				25	24	21.97	28.33
				50	0	22.02	**29.17**

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7.5. LTE BAND 17

OUTPUT POWER FOR LTE BAND 17 (5.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
5.0	23755	706.5	QPSK	1	0	**24.00**	28.36
				1	12	23.92	28.50
				1	24	23.96	28.29
				12	0	23.02	28.21
				12	6	23.01	28.18
				12	11	23.02	28.17
				25	0	22.99	**28.72**
			16QAM	1	0	**23.07**	28.48
				1	12	22.95	28.27
				1	24	23.00	28.43
				12	0	22.03	28.26
				12	6	22.02	28.09
				12	11	22.06	28.26
				25	0	22.08	**28.71**
5.0	23790	710.0	QPSK	1	0	23.94	28.42
				1	12	23.87	28.31
				1	24	23.97	27.89
				12	0	23.03	28.29
				12	6	22.81	27.98
				12	11	23.02	27.92
				25	0	22.87	28.66
			16QAM	1	0	22.94	28.36
				1	12	22.95	28.32
				1	24	22.89	27.97
				12	0	22.01	28.36
				12	6	22.00	28.03
				12	11	22.01	28.02
				25	0	21.99	28.26
5.0	23825	713.5	QPSK	1	0	23.92	28.03
				1	12	23.84	27.70
				1	24	22.84	26.98
				12	0	22.81	27.92
				12	6	23.00	27.47
				12	11	22.94	27.23
				25	0	22.83	28.15
			16QAM	1	0	22.90	27.99
				1	12	22.91	27.79
				1	24	22.89	27.08
				12	0	21.88	27.97
				12	6	21.89	27.47
				12	11	21.94	27.38
				25	0	21.99	28.12

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OUTPUT POWER FOR LTE BAND 17 (10.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
10.0	23780	709.0	QPSK	1	0	23.92	28.60
				1	24	23.86	28.36
				1	49	23.96	27.76
				25	0	23.01	28.34
				25	12	22.95	28.24
				25	24	22.82	28.11
				50	0	22.96	28.55
			16QAM	1	0	22.93	28.26
				1	24	22.88	28.19
				1	49	22.93	27.87
				25	0	22.00	28.24
				25	12	22.00	28.18
				25	24	22.08	28.12
				50	0	22.01	**28.90**
10.0	23790	710.0	QPSK	1	0	23.89	28.43
				1	24	23.86	28.30
				1	49	23.92	27.43
				25	0	22.99	28.30
				25	12	22.87	28.20
				25	24	22.89	27.90
				50	0	22.93	28.64
			16QAM	1	0	**23.00**	28.31
				1	24	22.89	28.21
				1	49	22.96	27.55
				25	0	21.99	28.30
				25	12	22.02	28.05
				25	24	21.96	27.80
				50	0	22.02	28.50
10.0	23800	711.0	QPSK	1	0	**23.98**	28.57
				1	24	23.94	27.96
				1	49	23.96	27.26
				25	0	23.02	28.43
				25	12	22.82	28.06
				25	24	22.82	27.77
				50	0	22.92	**28.81**
			16QAM	1	0	22.94	28.26
				1	24	22.86	27.98
				1	49	22.97	27.32
				25	0	22.01	28.27
				25	12	22.02	28.12
				25	24	21.93	27.79
				50	0	21.95	28.39

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7.6. LTE BAND 25

OUTPUT POWER FOR LTE BAND 25 (1.4MHz)

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)
1.4	26047	1850.7	QPSK	1	0	23.71	28.65
				1	2	23.75	28.63
				1	5	23.73	28.69
				3	0	23.73	28.77
				3	1	23.75	28.74
				3	2	23.71	**28.81**
				6	0	22.68	28.38
			16QAM	1	0	22.73	28.41
				1	2	22.69	28.36
				1	5	22.70	28.42
				3	0	22.74	**28.72**
				3	1	22.70	28.71
				3	2	22.72	28.62
				6	0	21.76	28.51
1.4	26365	1882.5	QPSK	1	0	23.72	28.13
				1	2	23.75	28.07
				1	5	23.73	28.15
				3	0	23.71	28.34
				3	1	23.71	28.30
				3	2	23.74	28.31
				6	0	22.79	28.33
			16QAM	1	0	**22.84**	28.13
				1	2	22.83	28.08
				1	5	22.76	28.15
				3	0	22.76	28.21
				3	1	22.78	28.17
				3	2	22.81	28.23
				6	0	21.80	28.37
1.4	26683	1914.3	QPSK	1	0	**23.75**	28.64
				1	2	23.68	28.39
				1	5	23.67	28.68
				3	0	23.75	28.75
				3	1	23.71	28.71
				3	2	23.73	28.44
				6	0	22.62	27.90
			16QAM	1	0	22.71	28.38
				1	2	22.71	28.25
				1	5	22.74	28.44
				3	0	22.71	28.70
				3	1	22.67	27.99
				3	2	22.70	27.91
				6	0	21.80	28.17

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OUTPUT POWER FOR LTE BAND 25 (3.0 MHz)

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)
3.0	26055	1851.5	QPSK	1	0	23.65	**28.63**
				1	7	23.68	27.31
				1	14	23.70	27.67
				8	0	22.65	28.07
				8	4	22.62	27.59
				8	7	22.60	27.64
				15	0	22.65	28.08
			16QAM	1	0	**22.68**	27.33
				1	7	22.66	27.35
				1	14	22.61	27.66
				8	0	21.80	27.47
				8	4	21.76	27.54
				8	7	21.73	27.60
				15	0	21.73	28.06
3.0	26365	1882.5	QPSK	1	0	**23.75**	28.00
				1	7	23.70	28.01
				1	14	23.68	28.23
				8	0	22.75	28.06
				8	4	22.69	28.03
				8	7	22.67	28.01
				15	0	22.68	28.37
			16QAM	1	0	22.65	27.98
				1	7	22.63	28.05
				1	14	22.66	**28.22**
				8	0	21.78	27.92
				8	4	21.79	27.86
				8	7	21.84	27.96
				15	0	21.85	28.17
3.0	26675	1913.5	QPSK	1	0	23.62	27.57
				1	7	23.63	27.24
				1	14	23.69	28.46
				8	0	22.58	27.57
				8	4	22.58	27.48
				8	7	22.61	27.51
				15	0	22.59	27.93
			16QAM	1	0	22.64	27.57
				1	7	22.63	27.28
				1	14	22.62	27.41
				8	0	21.71	27.49
				8	4	21.69	27.38
				8	7	21.72	27.49
				15	0	21.71	28.07

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OUTPUT POWER FOR LTE BAND 25 (5.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
5.0	26065	1852.5	QPSK	1	0	23.64	**28.42**
				1	12	23.57	27.52
				1	24	23.57	27.85
				12	0	22.64	27.52
				12	6	22.63	27.61
				12	11	22.62	27.70
				25	0	22.68	28.08
			16QAM	1	0	22.60	27.30
				1	12	22.68	27.52
				1	24	22.61	27.89
				12	0	21.76	27.51
				12	6	21.70	27.66
				12	11	21.70	27.71
				25	0	21.72	28.11
5.0	26365	1882.5	QPSK	1	0	**23.71**	27.88
				1	12	23.71	28.01
				1	24	23.66	28.38
				12	0	22.76	27.97
				12	6	22.68	27.94
				12	11	22.66	28.05
				25	0	22.68	28.39
			16QAM	1	0	22.70	27.89
				1	12	22.60	28.04
				1	24	22.61	**28.39**
				12	0	21.79	27.99
				12	6	21.83	27.95
				12	11	21.79	27.96
				25	0	21.84	28.19
5.0	26665	1912.5	QPSK	1	0	23.65	27.93
				1	12	23.70	27.42
				1	24	23.65	28.20
				12	0	22.58	27.73
				12	6	22.64	27.56
				12	11	22.58	27.50
				25	0	22.70	28.07
			16QAM	1	0	**22.72**	27.92
				1	12	22.67	27.45
				1	24	22.59	27.38
				12	0	21.74	27.77
				12	6	21.74	27.60
				12	11	21.65	27.47
				25	0	21.62	27.88

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OUTPUT POWER FOR LTE BAND 25 (10.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
10.0	26090	1855.0	QPSK	1	0	23.59	27.52
				1	24	23.67	27.81
				1	49	23.56	28.26
				25	0	22.65	27.77
				25	12	22.59	27.89
				25	24	22.64	28.10
				50	0	22.57	28.13
			16QAM	1	0	22.73	27.36
				1	24	22.70	27.81
				1	49	22.73	28.27
				25	0	21.76	27.69
				25	12	21.71	27.87
				25	24	21.65	28.00
				50	0	21.68	28.17
10.0	26365	1882.5	QPSK	1	0	**23.71**	27.73
				1	24	23.66	28.01
				1	49	23.63	28.46
				25	0	22.79	27.95
				25	12	22.72	28.05
				25	24	22.73	28.20
				50	0	22.71	28.27
			16QAM	1	0	**22.80**	27.56
				1	24	22.70	28.00
				1	49	22.59	**28.46**
				25	0	21.62	27.91
				25	12	21.75	28.03
				25	24	21.76	28.10
				50	0	21.83	28.19
10.0	26640	1910.0	QPSK	1	0	23.59	**28.52**
				1	24	23.65	27.86
				1	49	23.60	27.66
				25	0	22.62	28.06
				25	12	22.64	27.92
				25	24	22.59	27.62
				50	0	22.67	28.47
			16QAM	1	0	22.67	28.31
				1	24	22.73	27.86
				1	49	22.69	27.39
				25	0	21.77	28.15
				25	12	21.68	27.91
				25	24	21.68	27.73
				50	0	21.64	27.91

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OUTPUT POWER FOR LTE BAND 25 (15.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
15.0	26115	1857.5	QPSK	1	0	23.60	28.08
				1	37	23.69	28.03
				1	74	23.61	27.90
				36	0	22.62	27.83
				36	16	22.59	28.00
				36	35	22.69	28.07
				75	0	22.71	28.26
			16-QAM	1	0	22.67	27.33
				1	37	22.70	28.05
				1	74	22.74	27.96
				36	0	21.75	27.81
				36	16	21.73	28.02
				36	35	21.72	28.03
				75	0	21.82	28.28
15.0	26365	1882.5	QPSK	1	0	**23.74**	**28.75**
				1	37	23.70	28.01
				1	74	3.00	28.41
				36	0	22.81	27.87
				36	16	22.73	28.02
				36	35	22.65	28.11
				75	0	22.80	28.47
			16-QAM	1	0	**22.75**	27.38
				1	37	22.68	28.05
				1	74	22.67	**28.41**
				36	0	21.83	27.87
				36	16	21.78	28.05
				36	35	21.82	28.17
				75	0	21.83	28.35
15.0	26615	1907.5	QPSK	1	0	23.70	28.20
				1	37	23.55	28.33
				1	74	23.64	28.59
				36	0	22.63	28.18
				36	16	22.68	28.05
				36	35	22.59	27.88
				75	0	22.64	28.43
			16-QAM	1	0	22.57	28.17
				1	37	22.70	28.15
				1	74	22.68	27.29
				36	0	21.78	28.22
				36	16	21.72	27.97
				36	35	21.68	27.91
				75	0	21.81	28.38

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OUTPUT POWER FOR LTE BAND 25 (20.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
20.0	26140	1860.0	QPSK	1	0	**23.74**	28.62
				1	49	23.69	28.17
				1	99	23.73	**28.62**
				50	0	22.68	27.89
				50	24	22.66	28.03
				50	49	22.67	27.95
				100	0	22.70	27.99
			16-QAM	1	0	22.63	27.70
				1	49	22.66	28.16
				1	99	22.67	27.30
				50	0	21.77	27.93
				50	24	21.74	27.98
				50	49	21.77	28.01
				100	0	21.82	28.01
20.0	26365	1882.5	QPSK	1	0	23.72	28.52
				1	49	23.72	28.03
				1	99	23.73	28.27
				50	0	22.80	27.78
				50	24	22.77	28.07
				50	49	22.73	28.21
				100	0	22.69	28.13
			16-QAM	1	0	22.65	28.32
				1	49	22.60	28.03
				1	99	22.68	28.29
				50	0	21.79	27.78
				50	24	21.76	28.09
				50	49	21.81	28.23
				100	0	21.80	28.27
20.0	26590	1905.0	QPSK	1	0	23.74	28.01
				1	49	23.67	28.41
				1	99	23.73	28.53
				50	0	22.77	28.28
				50	24	22.69	28.10
				50	49	22.61	28.05
				100	0	22.64	28.59
			16-QAM	1	0	**22.74**	28.00
				1	49	22.66	28.30
				1	99	22.66	27.51
				50	0	21.77	28.36
				50	24	21.71	28.12
				50	49	21.62	28.05
				100	0	21.78	**28.72**

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7.7. LTE BAND 26

OUTPUT POWER FOR LTE BAND 26 (1.4 MHz)

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)
1.4	26697	814.7	QPSK	1	0	**23.99**	28.48
				1	2	23.92	28.60
				1	5	23.89	28.72
				3	0	23.82	28.71
				3	1	23.93	28.76
				3	2	23.92	28.88
				6	0	22.94	28.58
			16QAM	1	0	22.81	28.45
				1	2	23.02	28.59
				1	5	23.01	28.72
				3	0	22.94	28.64
				3	1	23.01	28.70
				3	2	23.03	28.75
				6	0	22.01	28.52
1.4	26740	819.0	QPSK	1	0	23.99	28.89
				1	2	23.93	28.80
				1	5	23.94	28.85
				3	0	23.99	29.05
				3	1	23.91	29.05
				3	2	23.92	29.06
				6	0	22.93	28.51
			16QAM	1	0	**23.07**	28.61
				1	2	23.03	28.53
				1	5	23.06	28.78
				3	0	23.03	29.07
				3	1	23.01	29.00
				3	2	23.04	29.00
				6	0	22.00	28.62
1.4	26783	823.3	QPSK	1	0	23.98	28.96
				1	2	23.89	28.88
				1	5	23.95	28.94
				3	0	23.93	**29.24**
				3	1	23.95	29.20
				3	2	23.96	29.19
				6	0	23.00	28.66
			16QAM	1	0	22.94	28.79
				1	2	22.91	28.78
				1	5	22.94	28.73
				3	0	22.94	**29.27**
				3	1	22.92	29.15
				3	2	22.95	29.14
				6	0	22.01	28.79

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OUTPUT POWER FOR LTE BAND 26 (3.0 MHz)

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)
3.0	26705	815.5	QPSK	1	0	**23.99**	28.97
				1	7	23.86	28.66
				1	14	23.93	28.97
				8	0	23.02	28.37
				8	4	22.97	28.29
				8	7	22.98	28.33
				15	0	23.01	28.79
			16QAM	1	0	22.89	28.62
				1	7	22.89	28.39
				1	14	22.84	28.60
				8	0	22.09	28.19
				8	4	22.07	28.11
				8	7	22.09	28.17
				15	0	22.09	28.66
3.0	26740	819.0	QPSK	1	0	23.92	29.00
				1	7	23.90	28.77
				1	14	23.95	**29.00**
				8	0	22.97	28.32
				8	4	22.99	28.41
				8	7	23.00	28.34
				15	0	23.01	28.44
			16QAM	1	0	22.86	28.55
				1	7	22.85	28.30
				1	14	22.82	28.63
				8	0	22.06	28.11
				8	4	22.06	28.08
				8	7	22.08	28.15
				15	0	22.02	28.73
3.0	26775	822.5	QPSK	1	0	23.93	28.97
				1	7	23.90	28.51
				1	14	23.92	28.95
				8	0	23.00	28.43
				8	4	23.02	28.26
				8	7	23.02	28.35
				15	0	23.01	28.73
			16QAM	1	0	**22.93**	28.40
				1	7	22.82	28.29
				1	14	22.84	28.36
				8	0	22.01	27.99
				8	4	22.07	27.85
				8	7	22.09	28.08
				15	0	22.07	**28.77**

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OUTPUT POWER FOR LTE BAND 26 (5.0 MH)

Bandwidth	UL Channel	Frequency	Modulation	RB Size	RB Offset	Average (dBm)	Peak (dBm)
5.0	26715	816.5	QPSK	1	0	23.90	28.51
				1	12	23.97	28.83
				1	24	23.97	28.92
				12	0	22.97	28.37
				12	6	23.02	28.31
				12	11	23.00	28.25
				25	0	22.91	28.62
			16QAM	1	0	**22.92**	28.45
				1	12	22.85	28.54
				1	24	22.82	28.76
				12	0	22.04	28.32
				12	6	22.06	28.23
				12	11	22.07	28.29
				25	0	21.97	28.99
5.0	26740	819.0	QPSK	1	0	**24.00**	28.90
				1	12	23.95	28.80
				1	24	23.95	28.95
				12	0	22.98	28.32
				12	6	22.97	28.21
				12	11	22.94	28.24
				25	0	22.97	28.77
			16QAM	1	0	22.84	28.71
				1	12	22.82	28.50
				1	24	22.84	28.72
				12	0	22.07	28.30
				12	6	22.07	28.22
				12	11	22.04	28.28
				25	0	22.00	29.07
5.0	26765	821.5	QPSK	1	0	23.97	28.93
				1	12	23.93	28.79
				1	24	23.98	**29.03**
				12	0	23.00	28.40
				12	6	22.97	28.33
				12	11	22.97	28.29
				25	0	22.91	28.82
			16QAM	1	0	22.81	28.68
				1	12	22.80	28.34
				1	24	22.83	28.83
				12	0	22.08	28.40
				12	6	22.06	28.26
				12	11	22.05	28.29
				25	0	21.98	**29.07**

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OUTPUT POWER FOR LTE BAND 26 (10.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
10.0	26740	819.0	QPSK	1	0	**23.94**	28.73
				1	24	23.82	28.71
				1	49	23.87	28.54
				25	0	22.94	28.26
				25	12	22.95	28.33
				25	24	22.95	28.39
				50	0	22.97	**29.13**
			16QAM	1	0	**22.90**	28.47
				1	24	22.80	28.47
				1	49	22.86	28.35
				25	0	22.03	28.29
				25	12	22.02	28.28
				25	24	22.03	28.32
				50	0	22.01	**29.12**

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7.8. LTE BAND 41

OUTPUT POWER FOR LTE BAND 41 (5.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
5.0	39675	2498.5	QPSK	1	0	**22.30**	27.59
				1	12	22.26	27.73
				1	24	22.27	27.94
				12	0	21.20	27.09
				12	6	21.30	27.57
				12	11	21.28	27.58
				25	0	21.25	27.67
			16QAM	1	0	21.32	26.30
				1	12	21.30	26.43
				1	24	21.29	26.64
				12	0	20.36	27.20
				12	6	20.36	27.30
				12	11	20.36	27.42
				25	0	20.23	**27.43**
5.0	40620	2593.0	QPSK	1	0	22.26	27.96
				1	12	22.20	27.84
				1	24	22.26	27.96
				12	0	21.14	27.15
				12	6	21.17	27.24
				12	11	21.19	27.32
				25	0	21.22	27.71
			16QAM	1	0	21.27	26.51
				1	12	21.29	26.47
				1	24	21.27	26.55
				12	0	20.24	27.10
				12	6	20.35	27.14
				12	11	20.38	27.14
				25	0	20.32	27.27
5.0	41565	2687.5	QPSK	1	0	22.25	27.94
				1	12	22.24	27.83
				1	24	22.23	27.87
				12	0	21.37	27.67
				12	6	21.37	27.80
				12	11	21.42	27.80
				25	0	21.36	**27.96**
			16QAM	1	0	**21.39**	26.41
				1	12	21.38	26.36
				1	24	21.37	26.38
				12	0	20.31	27.05
				12	6	20.33	27.09
				12	11	20.33	27.05
				25	0	20.34	27.36

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OUTPUT POWER FOR LTE BAND 41 (10.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
10.0	39700	2501.0	QPSK	1	0	22.25	27.95
				1	24	22.28	28.29
				1	49	22.23	28.16
				25	0	21.20	27.49
				25	12	21.21	27.60
				25	24	21.26	27.61
				50	0	21.21	27.59
			16QAM	1	0	21.29	27.28
				1	24	21.29	27.47
				1	49	21.21	27.04
				25	0	20.22	27.66
				25	12	20.28	27.24
				25	24	20.25	27.21
				50	0	20.30	**27.81**
10.0	40620	2593.0	QPSK	1	0	22.25	28.40
				1	24	22.17	28.34
				1	49	22.27	**28.46**
				25	0	21.19	27.64
				25	12	21.20	27.66
				25	24	21.17	27.78
				50	0	21.15	27.66
			16QAM	1	0	**21.31**	27.13
				1	24	21.21	26.95
				1	49	21.30	27.37
				25	0	20.32	27.33
				25	12	20.29	27.33
				25	24	20.37	27.39
				50	0	20.36	27.81
10.0	41540	2685.0	QPSK	1	0	**22.29**	28.22
				1	24	22.26	28.17
				1	49	22.24	28.13
				25	0	21.35	27.95
				25	12	21.30	27.76
				25	24	21.34	27.99
				50	0	21.29	27.92
			16QAM	1	0	21.24	26.95
				1	24	21.28	26.90
				1	49	21.31	27.00
				25	0	20.26	27.41
				25	12	20.27	27.38
				25	24	20.29	27.41
				50	0	20.31	27.76

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OUTPUT POWER FOR LTE BAND 41 (15.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
15.0	39725	2503.5	QPSK	1	0	22.24	28.02
				1	37	22.16	28.20
				1	74	22.14	27.82
				36	0	21.23	27.84
				36	16	21.26	27.90
				36	35	21.17	27.72
				75	0	21.23	27.68
			16-QAM	1	0	**21.35**	27.05
				1	37	21.28	27.08
				1	74	21.27	26.04
				36	0	20.27	27.59
				36	16	20.33	26.76
				36	35	20.33	26.64
				75	0	20.25	27.52
15.0	40620	2593.0	QPSK	1	0	22.24	**28.43**
				1	37	22.20	28.34
				1	74	22.29	28.42
				36	0	21.33	27.84
				36	16	21.27	27.86
				36	35	21.17	27.75
				75	0	21.24	27.93
			16-QAM	1	0	21.27	27.08
				1	37	21.28	27.01
				1	74	21.25	26.96
				36	0	20.28	27.34
				36	16	20.42	27.27
				36	35	20.36	27.31
				75	0	20.32	27.83
15.0	41515	2682.5	QPSK	1	0	**22.30**	28.26
				1	37	22.30	28.23
				1	74	22.07	28.17
				36	0	21.34	28.23
				36	16	21.34	28.07
				36	35	21.41	28.19
				75	0	21.39	28.10
			16-QAM	1	0	21.29	26.92
				1	37	21.29	26.88
				1	74	21.28	26.93
				36	0	20.25	27.33
				36	16	20.29	27.31
				36	35	20.27	27.32
				75	0	20.32	**27.87**

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OUTPUT POWER FOR LTE BAND 41 (20.0 MHz)

Bandwidth	UL Channel	Frequency	Mode	RB Size	RB Offset	Average (dBm)	Peak (dBm)
20.0	39750	2506.0	QPSK	1	0	22.17	27.50
				1	49	22.21	27.01
				1	99	22.26	27.25
				50	0	21.30	27.63
				50	24	21.12	27.54
				50	49	21.11	27.34
				100	0	21.21	27.56
			16-QAM	1	0	**21.39**	27.15
				1	49	21.36	26.49
				1	99	21.34	26.42
				50	0	20.30	27.58
				50	24	20.37	26.64
				50	49	20.33	26.39
				100	0	20.28	27.39
20.0	40620	2593.0	QPSK	1	0	**22.29**	27.70
				1	49	22.17	27.56
				1	99	22.15	27.66
				50	0	21.24	27.88
				50	24	21.31	27.90
				50	49	21.17	27.99
				100	0	21.17	27.98
			16-QAM	1	0	21.33	27.39
				1	49	21.28	26.85
				1	99	21.24	27.32
				50	0	20.21	27.30
				50	24	20.20	27.40
				50	49	20.33	27.25
				100	0	20.30	27.72
20.0	41490	2680.0	QPSK	1	0	22.21	27.63
				1	49	22.22	27.58
				1	99	22.27	27.55
				50	0	21.35	27.99
				50	24	21.29	27.80
				50	49	21.33	28.20
				100	0	21.38	**28.20**
			16-QAM	1	0	21.31	27.12
				1	49	21.22	26.46
				1	99	21.20	27.16
				50	0	20.21	27.26
				50	24	20.28	27.31
				50	49	20.26	27.34
				100	0	20.31	**27.75**

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8. CONDUCTED TEST RESULTS

8.1. OCCUPIED BANDWIDTH

RULE PART(S)

FCC: §2.1049

LIMITS

For reporting purposes only

TEST PROCEDURE

The transmitter output was connected to a calibrated coaxial cable and coupler, the other end of which was connected to a spectrum analyzer. The occupied bandwidth was measured with the spectrum analyzer at the low, middle and high channel in each band. The -26dB bandwidth was also measured and recorded.

MODES TESTED

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

RESULTS

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BAND	MODE	RB SIZE/ RB OFFSET	f (MHz)	99% BW (MHz)	- 26dB BW (MHz)
LTE BAND 2	1.4 MHz BAND QPSK	6/0	1880	1.0913	1.194
	1.4 MHz BAND 16QAM	6/0	1880	1.0755	1.124
	3.0 MHz BAND QPSK	15/0	1880	2.6689	2.791
	3.0 MHz BAND 16QAM	15/0	1880	2.672	2.879
	5.0 MHz BAND QPSK	25/0	1880	4.4129	4.605
	5.0 MHz BAND 16QAM	25/0	1880	4.3952	4.638
	10.0 MHz BAND QPSK	50/0	1880	8.8119	9.226
	10.0 MHz BAND 16QAM	50/0	1880	8.8671	9.175
	15.0 MHz BAND QPSK	75/0	1880	13.2774	13.749
	15.0 MHz BAND 16QAM	75/0	1880	13.2922	13.843
	20.0 MHz BAND QPSK	100/0	1880	17.5814	18.352
	20.0 MHz BAND 16QAM	100/0	1880	**17.9219**	**18.54**

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BAND	MODE	RB SIZE/ RB OFFSET	f (MHz)	99% BW (MHz)	- 26dB BW (MHz)
LTE BAND 4	1.4 MHz BAND QPSK	6/0	1732.5	1.0775	1.221
	1.4 MHz BAND 16QAM	6/0	1732.5	1.0791	1.198
	3.0 MHz BAND QPSK	15/0	1732.5	2.6755	2.864
	3.0 MHz BAND 16QAM	15/0	1732.5	2.6692	2.765
	5.0 MHz BAND QPSK	25/0	1732.5	4.4326	4.728
	5.0 MHz BAND 16QAM	25/0	1732.5	4.4509	4.865
	10.0 MHz BAND QPSK	50/0	1732.5	8.875	9.233
	10.0 MHz BAND 16QAM	50/0	1732.5	8.8959	9.162
	15.0 MHz BAND QPSK	75/0	1732.5	13.3445	13.777
	15.0 MHz BAND 16QAM	75/0	1732.5	13.3727	13.91
	20.0 MHz BAND QPSK	100/0	1732.5	17.323	18.287
	20.0 MHz BAND 16QAM	100/0	1732.5	**17.7648**	**18.369**

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BAND	MODE	RB SIZE/ RB OFFSET	f (MHz)	99% BW (MHz)	- 26dB BW (MHz)
LTE BAND 5	1.4 MHz BAND QPSK	6/0	836.5	1.0825	1.217
	1.4 MHz BAND 16QAM	6/0	836.5	1.0814	1.297
	3.0 MHz BAND QPSK	15/0	836.5	2.6673	2.774
	3.0 MHz BAND 16QAM	15/0	836.5	2.6574	2.802
	5.0 MHz BAND QPSK	25/0	836.5	4.4286	4.676
	5.0 MHz BAND 16QAM	25/0	836.5	4.4744	4.756
	10.0 MHz BAND QPSK	50/0	836.5	8.879	9.218
	10.0 MHz BAND 16QAM	50/0	836.5	**8.9514**	**9.442**

BAND	MODE	RB SIZE/ RB OFFSET	f (MHz)	99% BW (MHz)	- 26dB BW (MHz)
LTE BAND 13	5.0 MHz BAND QPSK	25/0	782	4.4545	4.684
	5.0 MHz BAND 16QAM	25/0	782	4.4467	4.695
	10.0 MHz BAND QPSK	50/0	782	**8.9238**	**9.326**
	10.0 MHz BAND 16QAM	50/0	782	8.848	9.171

BAND	MODE	RB SIZE/ RB OFFSET	f (MHz)	99% BW (MHz)	- 26dB BW (MHz)
LTE BAND 17	5.0 MHz BAND QPSK	25/0	710	4.4754	4.794
	5.0 MHz BAND 16QAM	25/0	710	4.4809	4.691
	10.0 MHz BAND QPSK	50/0	710	8.8427	**9.274**
	10.0 MHz BAND 16QAM	50/0	710	**8.8521**	9.154

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BAND	MODE	RB SIZE/ RB OFFSET	f (MHz)	99% BW (MHz)	- 26dB BW (MHz)
LTE BAND 25	1.4 MHz BAND QPSK	6/0	1882.5	1.0713	1.26
	1.4 MHz BAND 16QAM	6/0	1882.5	1.0791	1.242
	3.0 MHz BAND QPSK	15/0	1882.5	2.6695	2.841
	3.0 MHz BAND 16QAM	15/0	1882.5	2.661	2.896
	5.0 MHz BAND QPSK	25/0	1882.5	4.4596	4.859
	5.0 MHz BAND 16QAM	25/0	1882.5	4.4331	4.799
	10.0 MHz BAND QPSK	50/0	1882.5	8.8743	9.205
	10.0 MHz BAND 16QAM	50/0	1882.5	8.6823	9.216
	15.0 MHz BAND QPSK	75/0	1882.5	13.2804	13.769
	15.0 MHz BAND 16QAM	75/0	1882.5	13.249	14.032
	20.0 MHz BAND QPSK	100/0	1882.5	17.6724	**18.546**
	20.0 MHz BAND 16QAM	100/0	1882.5	**17.6909**	18.343

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BAND	MODE	RB SIZE/ RB OFFSET	f (MHz)	99% BW (MHz)	- 26dB BW (MHz)
LTE BAND 26	1.4 MHz BAND QPSK	6/0	819	1.0756	1.24
	1.4 MHz BAND 16QAM	6/0	819	1.0756	1.198
	3.0 MHz BAND QPSK	15/0	819	2.6823	2.777
	3.0 MHz BAND 16QAM	15/0	819	2.6742	2.79
	5.0 MHz BAND QPSK	25/0	819	4.4835	4.691
	5.0 MHz BAND 16QAM	25/0	819	4.4713	4.599
	10.0 MHz BAND QPSK	50/0	819	8.8608	**9.426**
	10.0 MHz BAND 16QAM	50/0	819	**8.8633**	9.21

BAND	MODE	RB SIZE/ RB OFFSET	f (MHz)	99% BW (MHz)	- 26dB BW (MHz)
LTE BAND 41	5.0 MHz BAND QPSK	25/0	2593	4.4578	4.813
	5.0 MHz BAND 16QAM	25/0	2593	4.4254	4.661
	10.0 MHz BAND QPSK	50/0	2593	8.8581	9.405
	10.0 MHz BAND 16QAM	50/0	2593	8.8867	9.298
	15.0 MHz BAND QPSK	75/0	2593	13.3678	13.863
	15.0 MHz BAND 16QAM	75/0	2593	13.3161	13.970
	20.0 MHz BAND QPSK	100/0	2593	17.8223	18.466
	20.0 MHz BAND 16QAM	100/0	2593	**17.9182**	**18.497**

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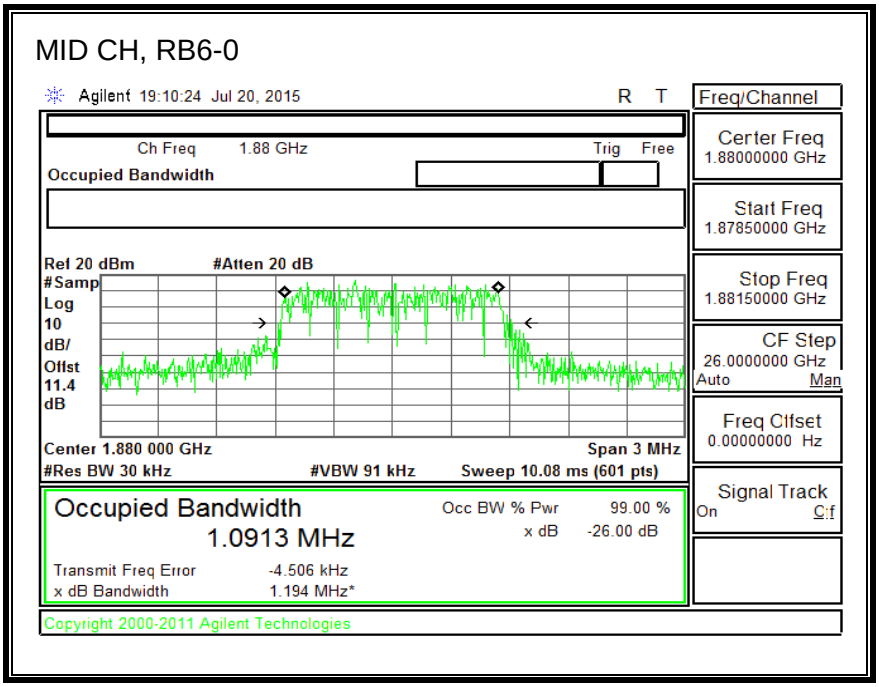
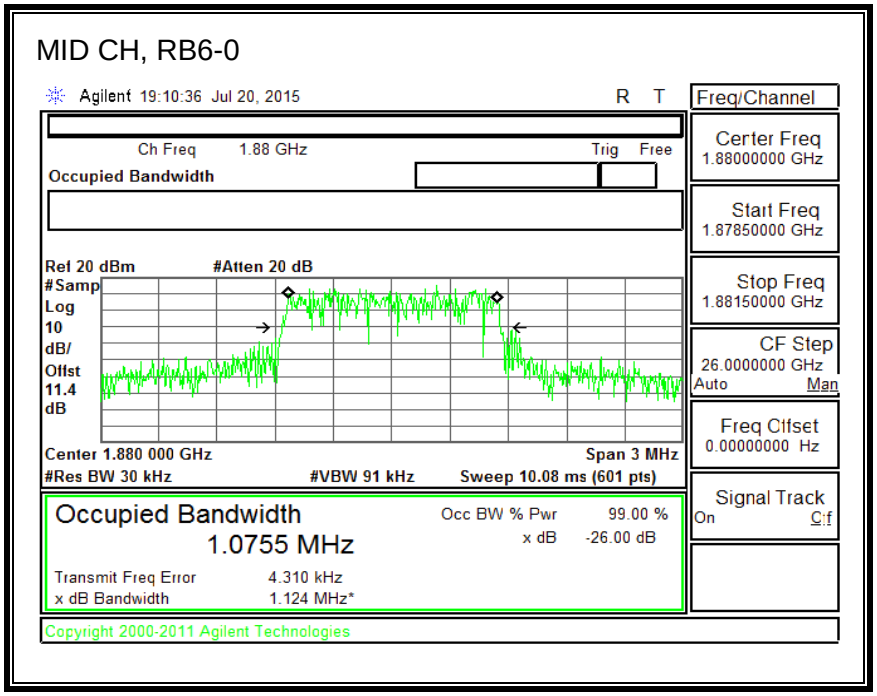
8.1.1. LTE BAND 2

QPSK, (1.4 MHz BAND WIDTH)



16QAM, (1.4 MHz BAND WIDTH)



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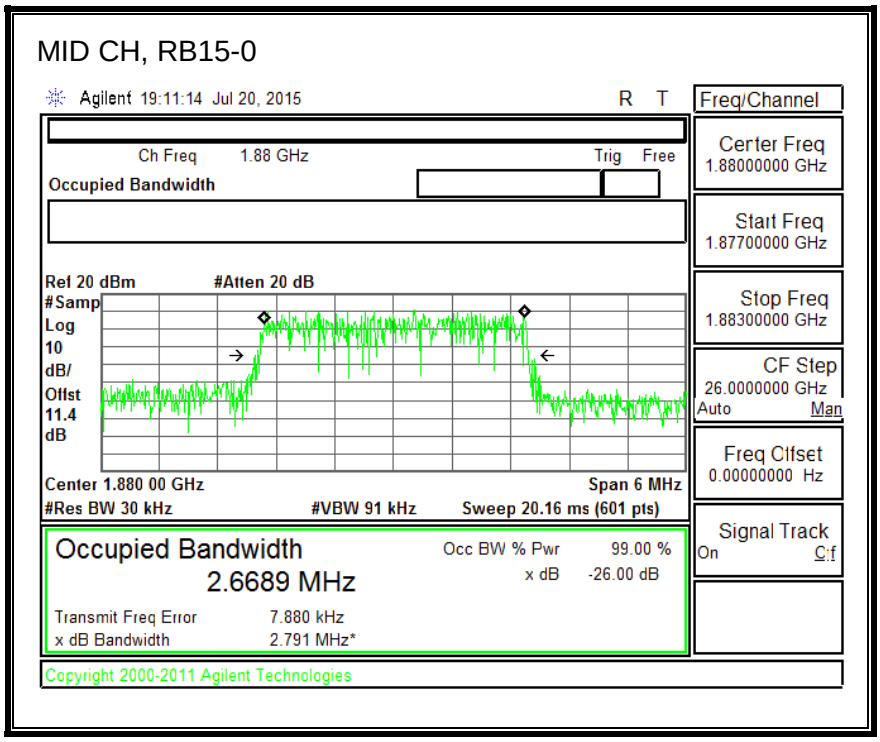
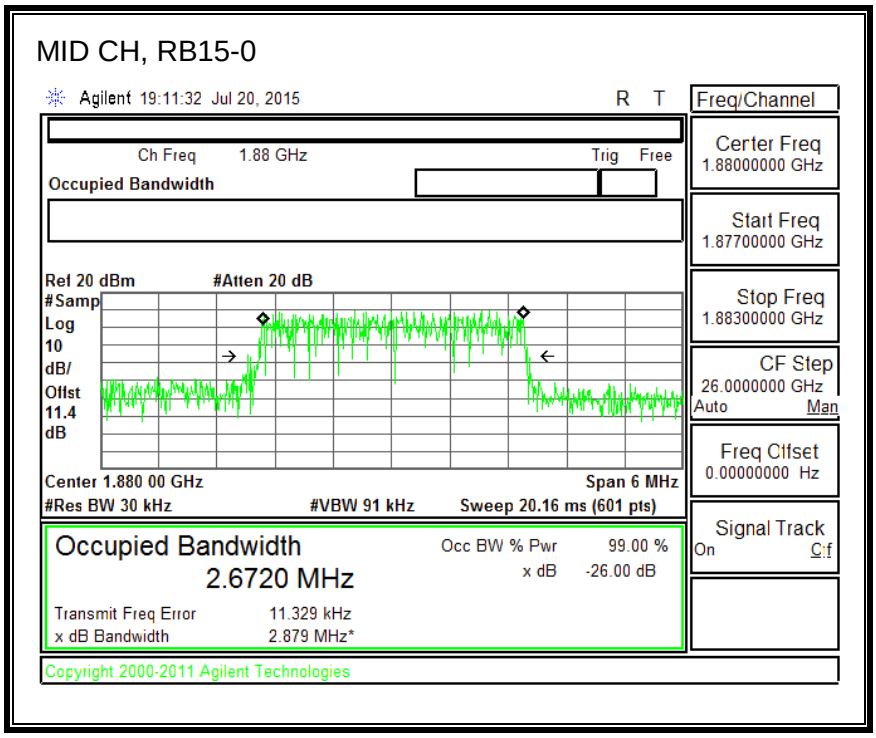
QPSK, (3.0 MHz BAND WIDTH)



16QAM, (3.0 MHz BAND WIDTH)



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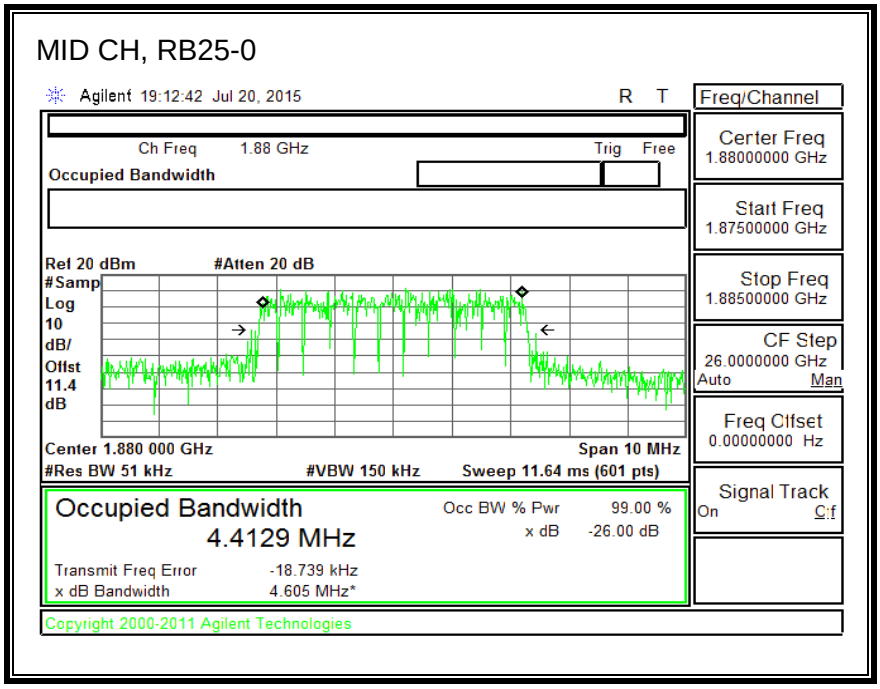
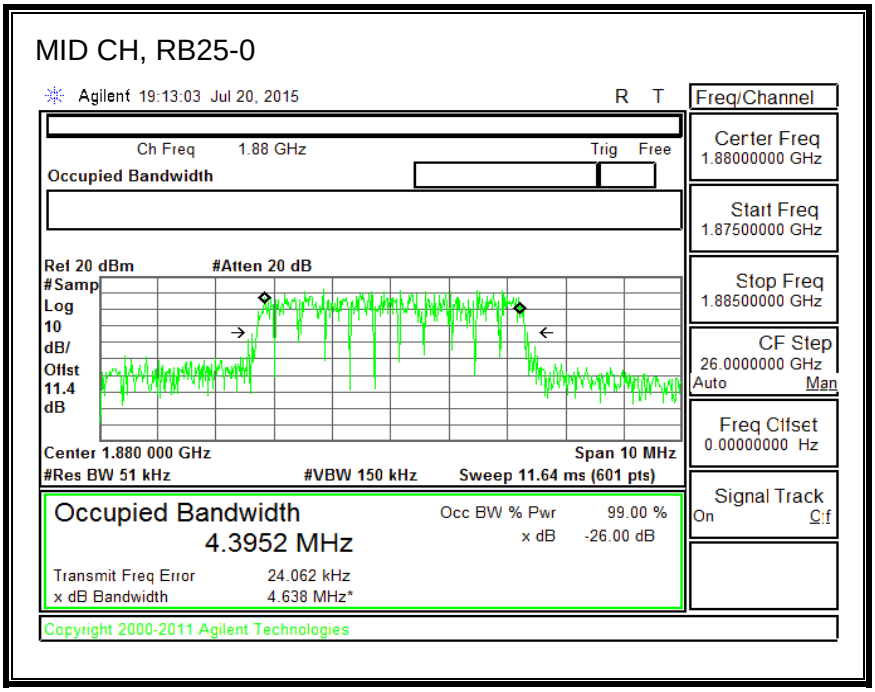
QPSK, (5.0 MHz BAND WIDTH)



16QAM, (5.0 MHz BAND WIDTH)



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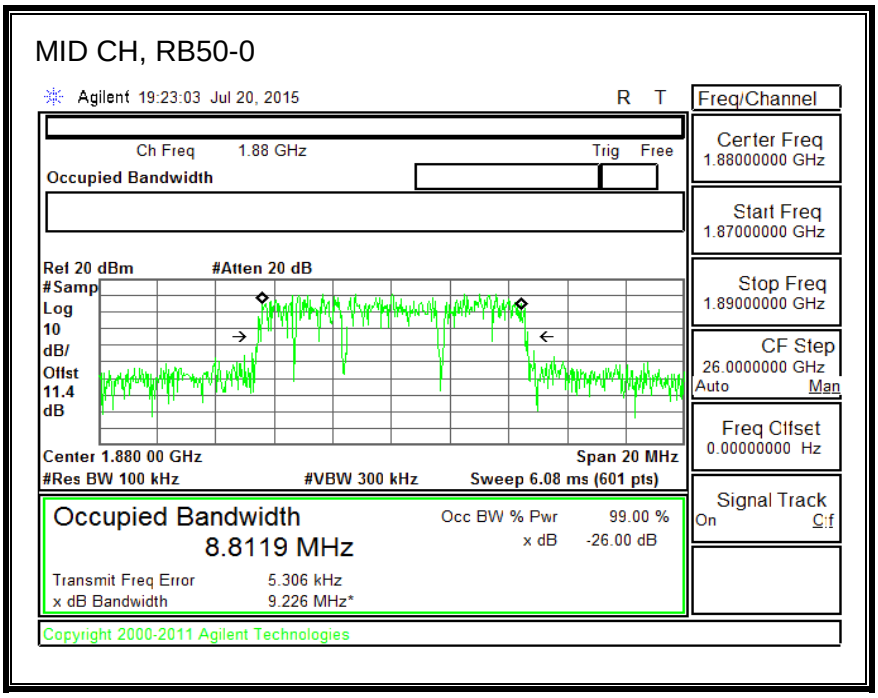
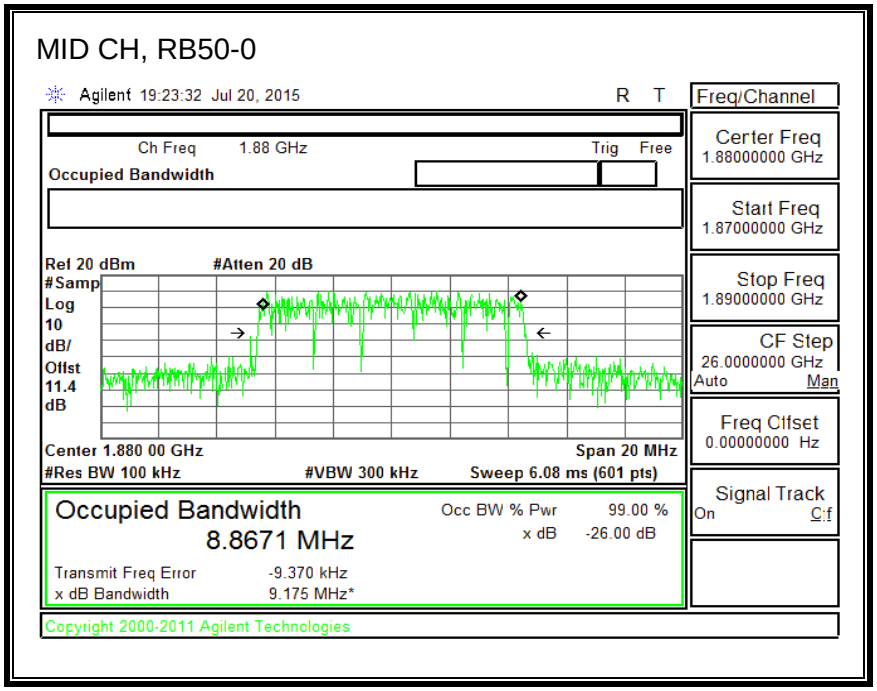
QPSK, (10.0 MHz BAND WIDTH)



16QAM, (10.0 MHz BAND WIDTH)



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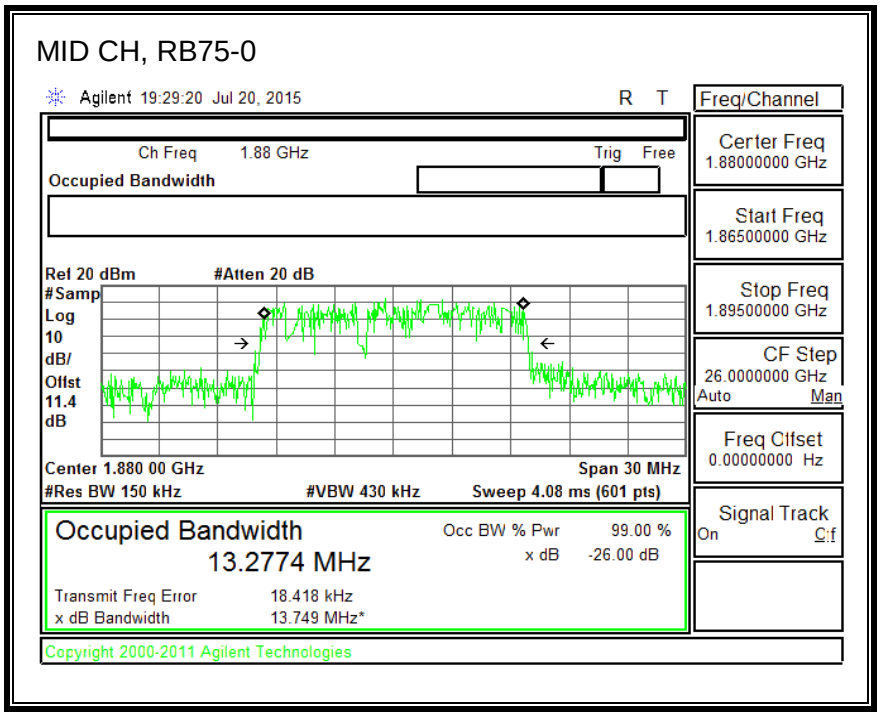
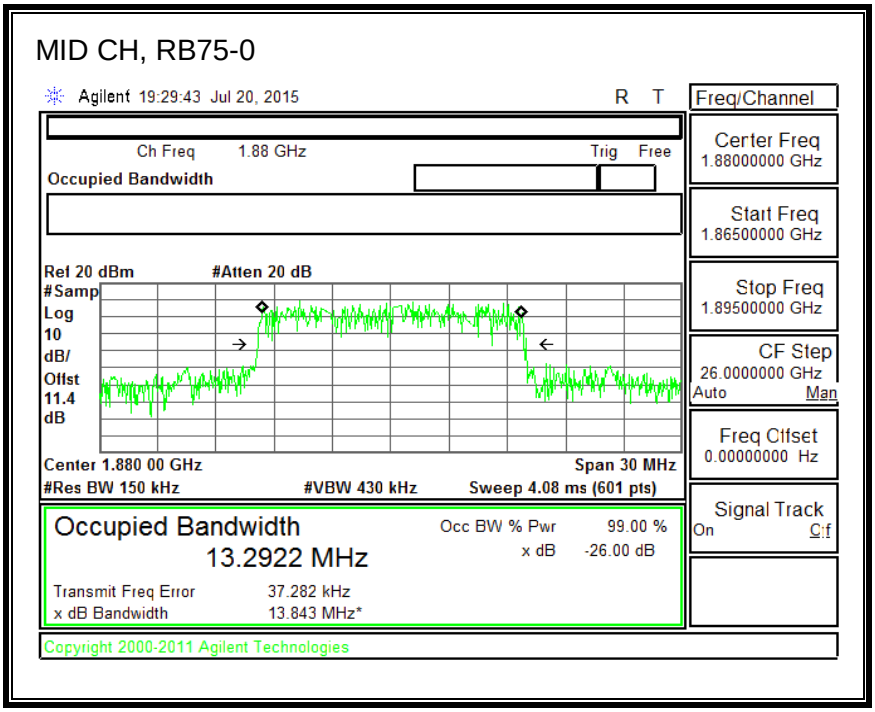
QPSK, (15.0 MHz BAND WIDTH)



16QAM, (15.0 MHz BAND WIDTH)



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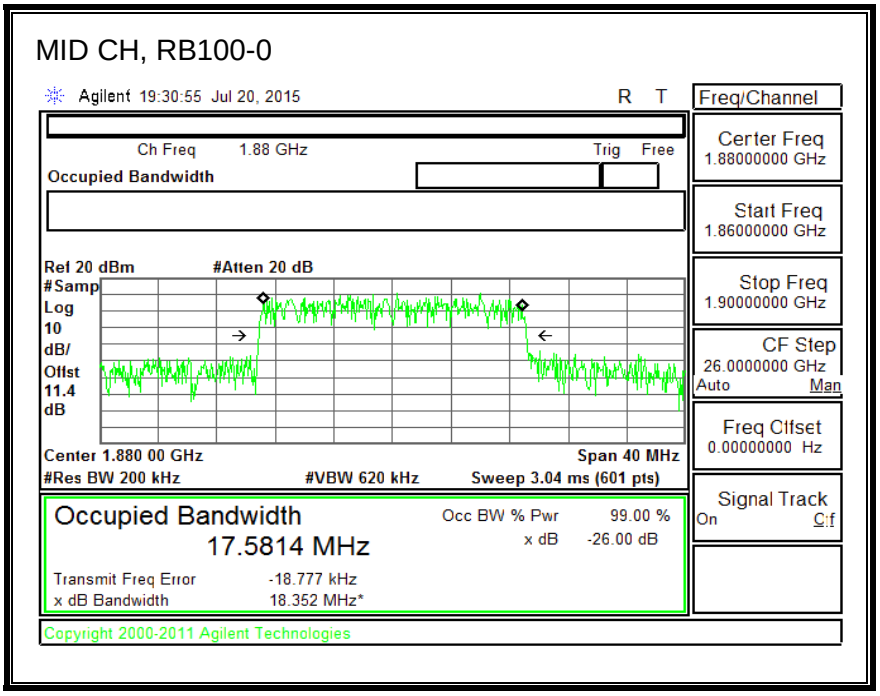
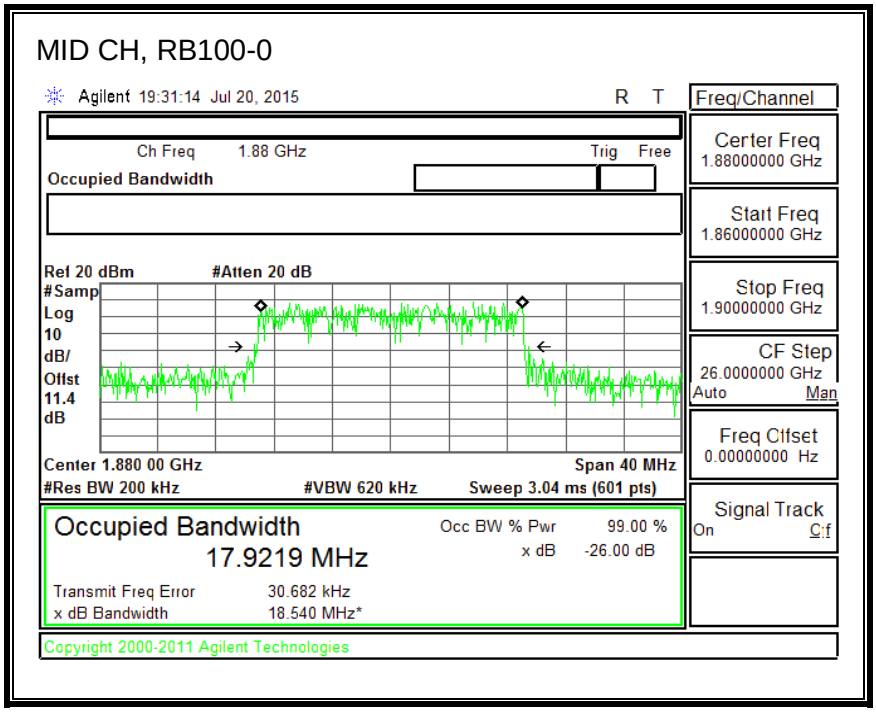
QPSK, (20.0 MHz BAND WIDTH)



16QAM, (20.0 MHz BAND WIDTH)



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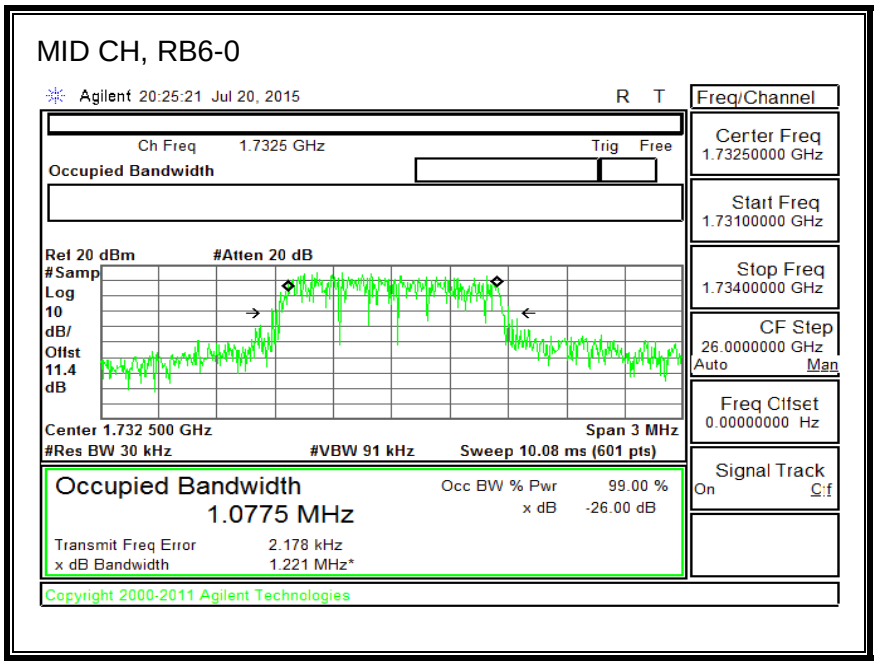
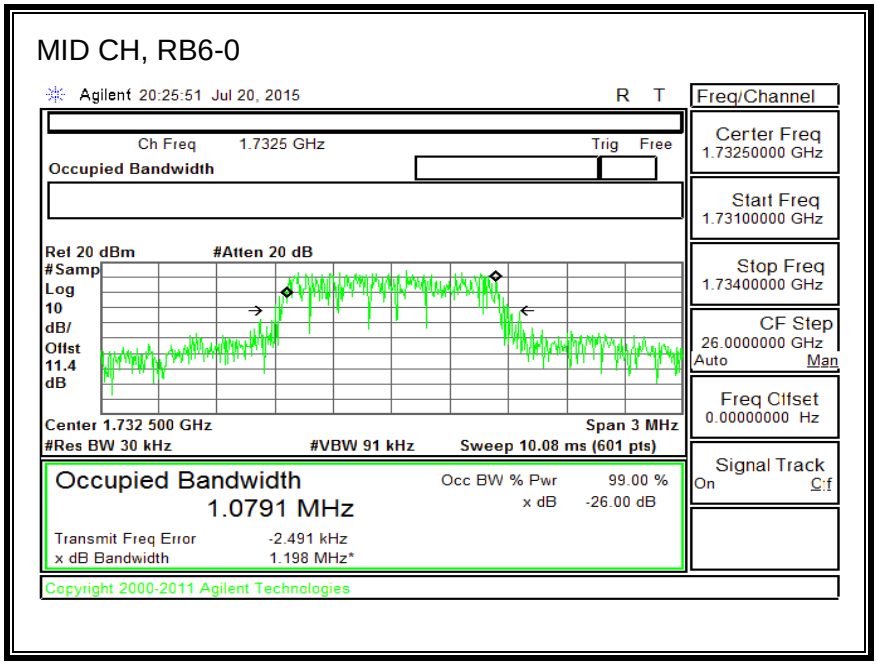
8.1.2. LTE BAND 4

QPSK, (1.4 MHz BAND WIDTH)



16QAM, (1.4 MHz BAND WIDTH)



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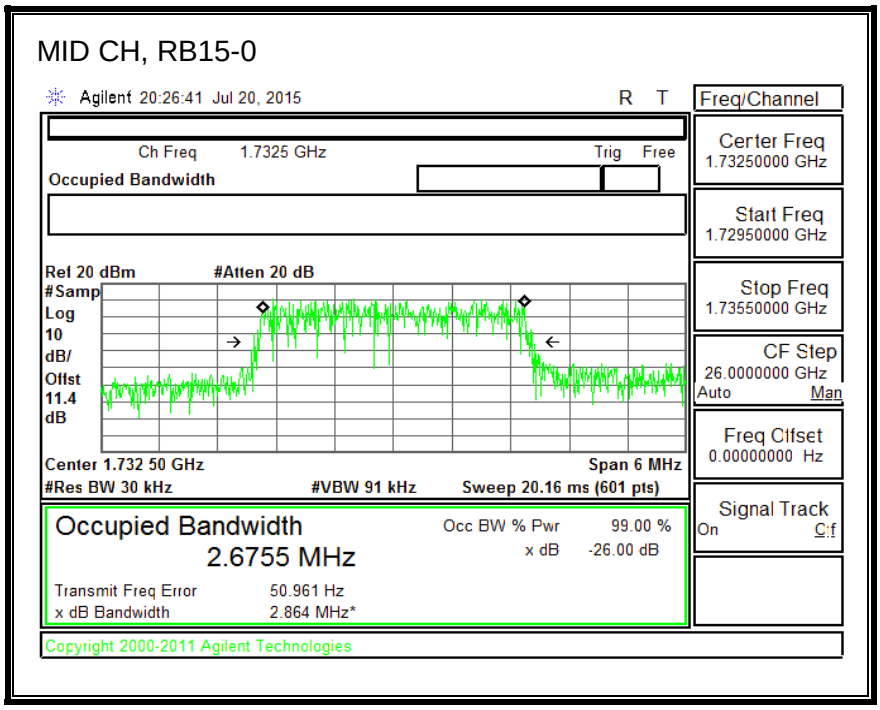
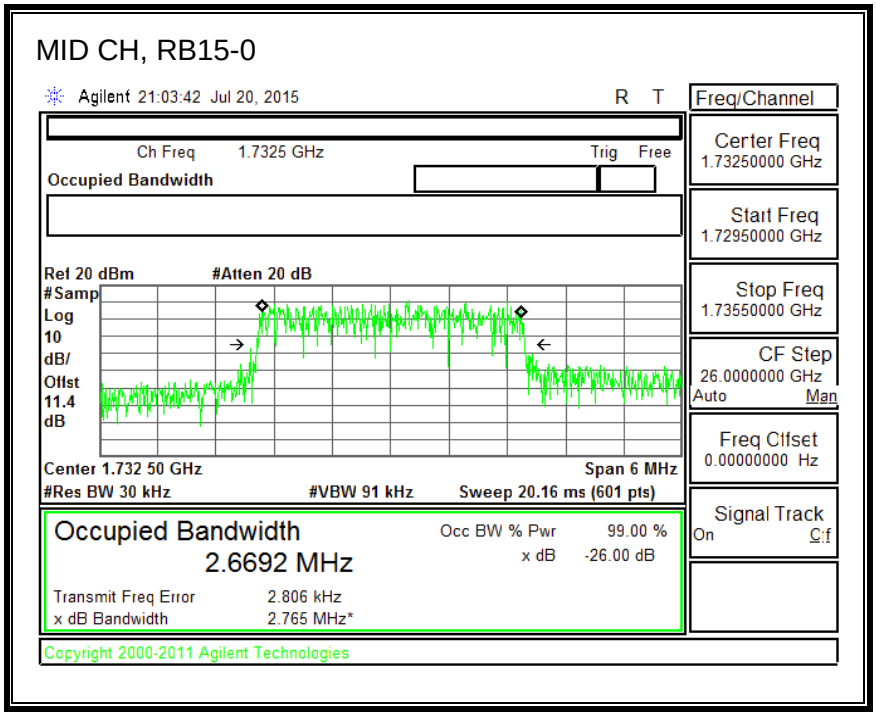
QPSK, (3.0 MHz BAND WIDTH)



16QAM, (3.0 MHz BAND WIDTH)



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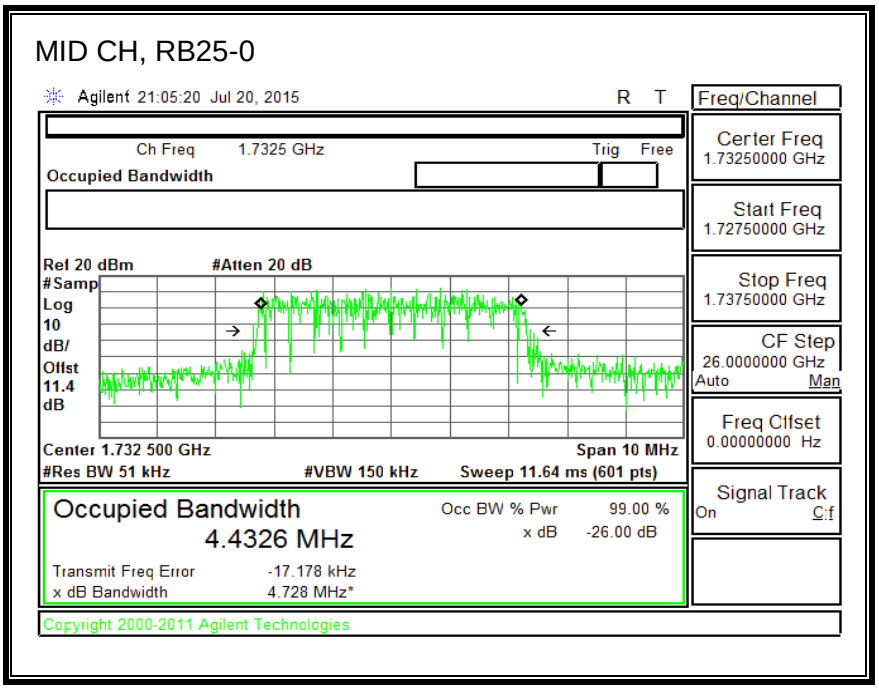
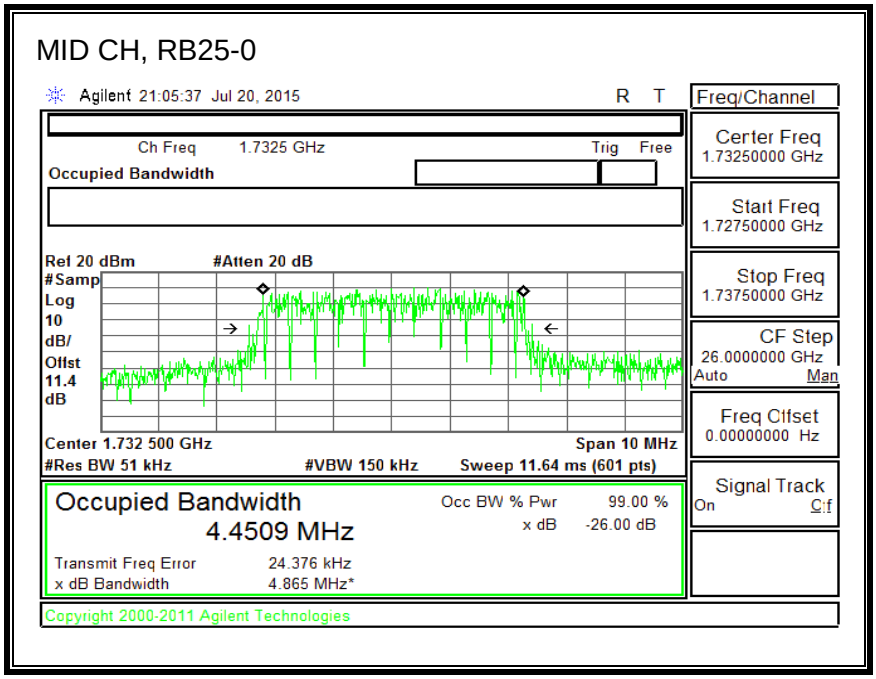
QPSK, (5.0 MHz BAND WIDTH)



16QAM, (5.0 MHz BAND WIDTH)



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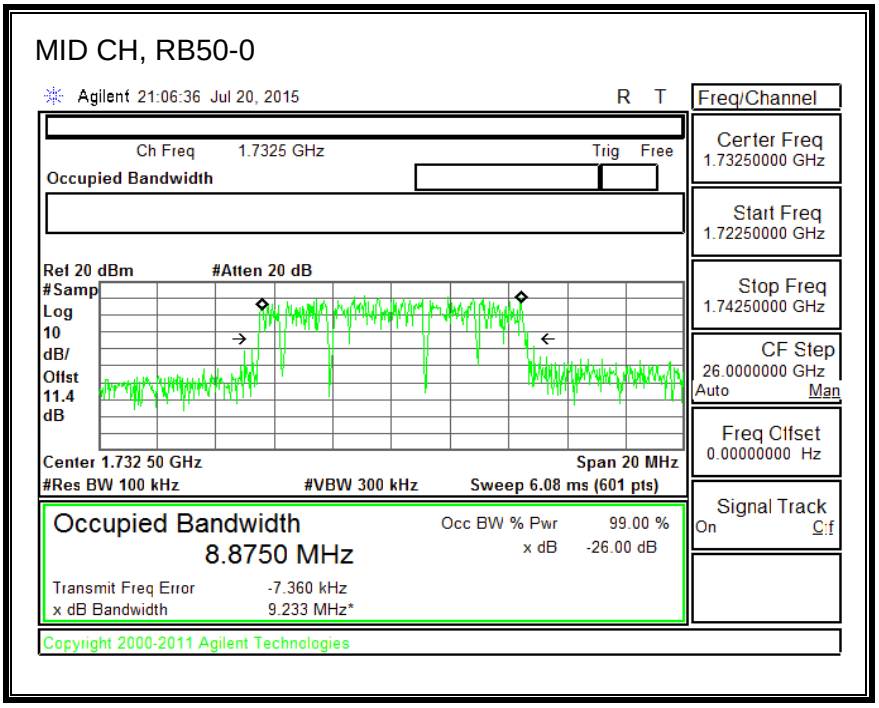
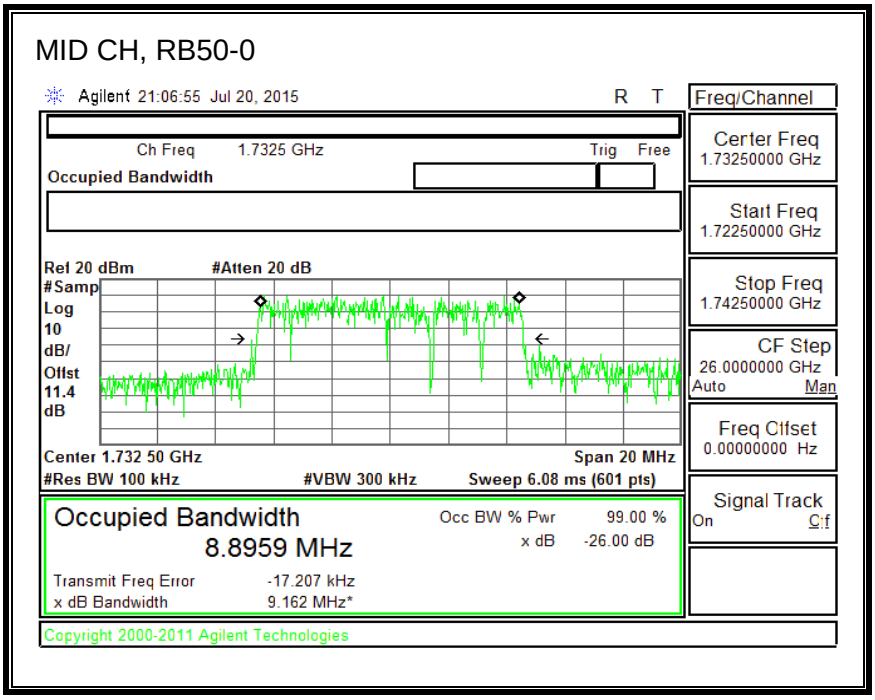
QPSK, (10.0 MHz BAND WIDTH)



16QAM, (10.0 MHz BAND WIDTH)



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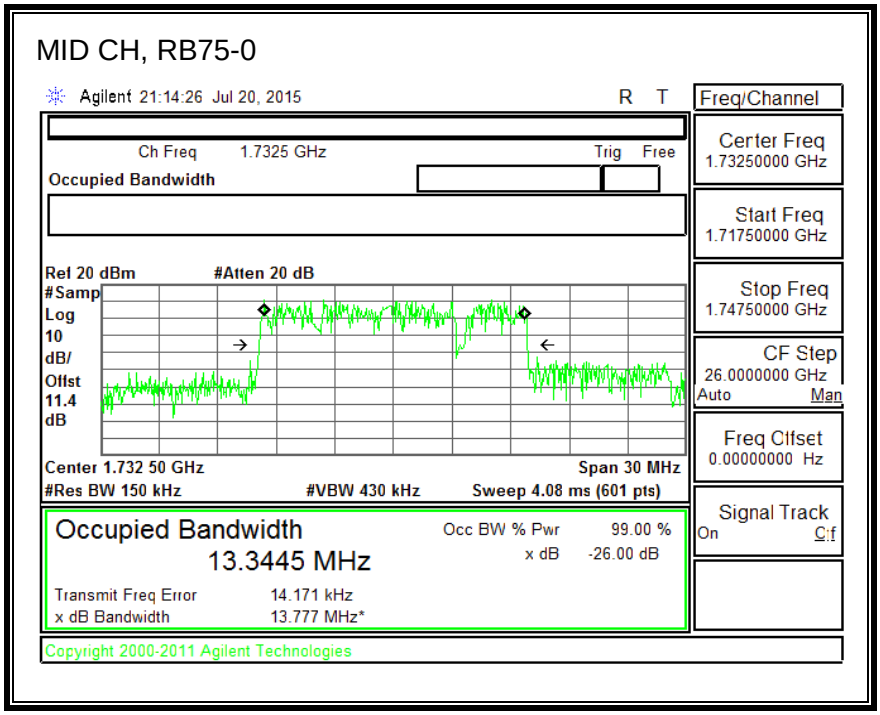
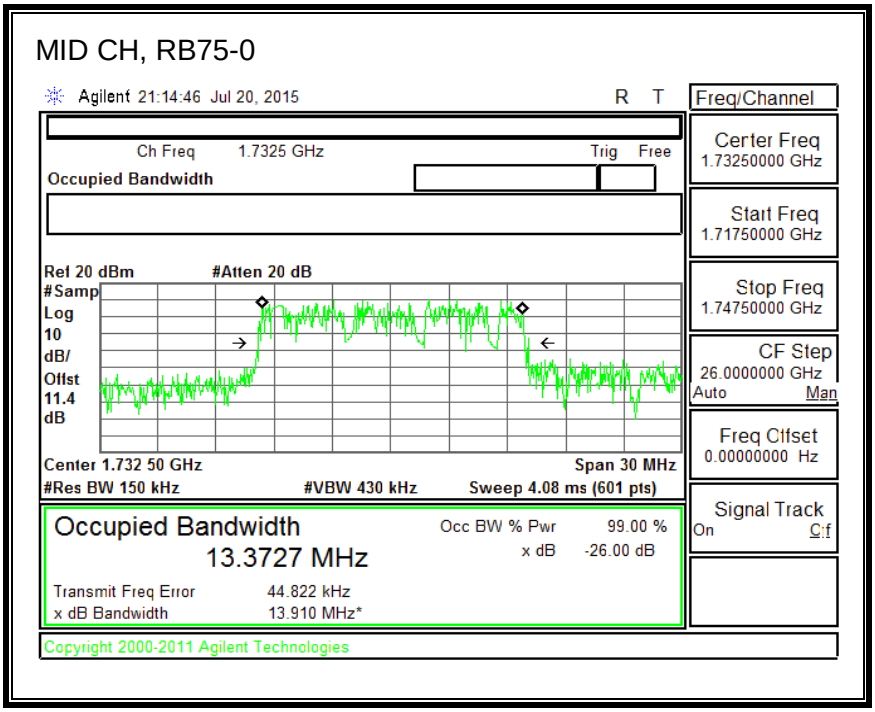
QPSK, (15.0 MHz BAND WIDTH)



16QAM, (15.0 MHz BAND WIDTH)



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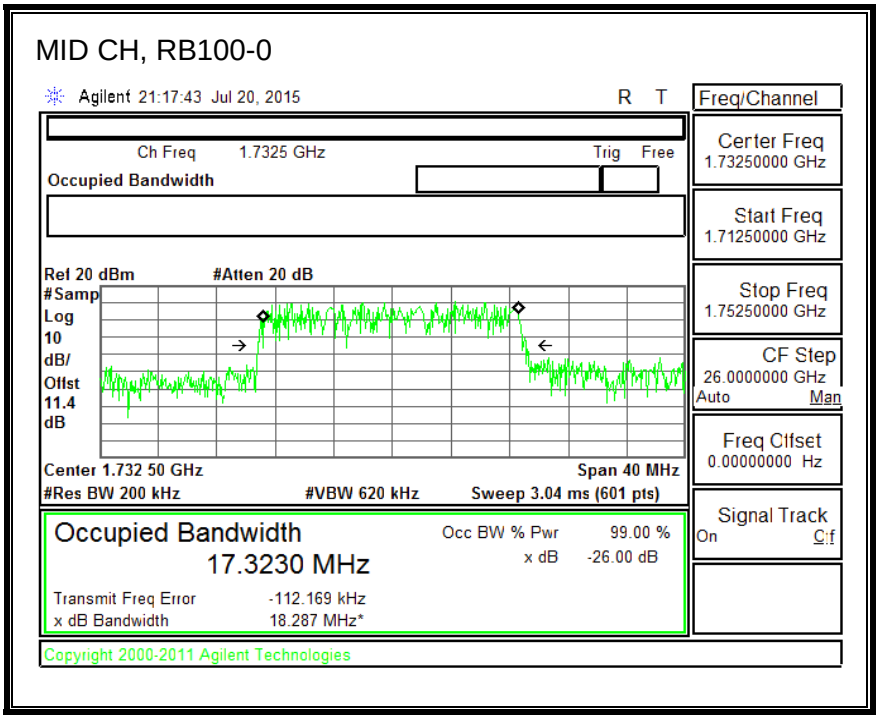
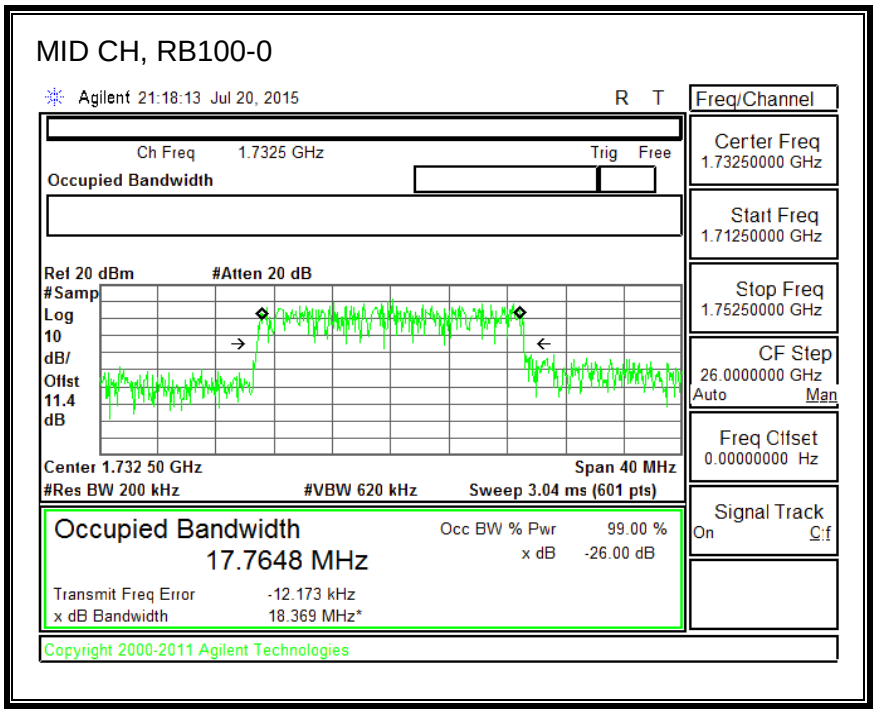
QPSK, (20.0 MHz BAND WIDTH)



16QAM, (20.0 MHz BAND WIDTH)



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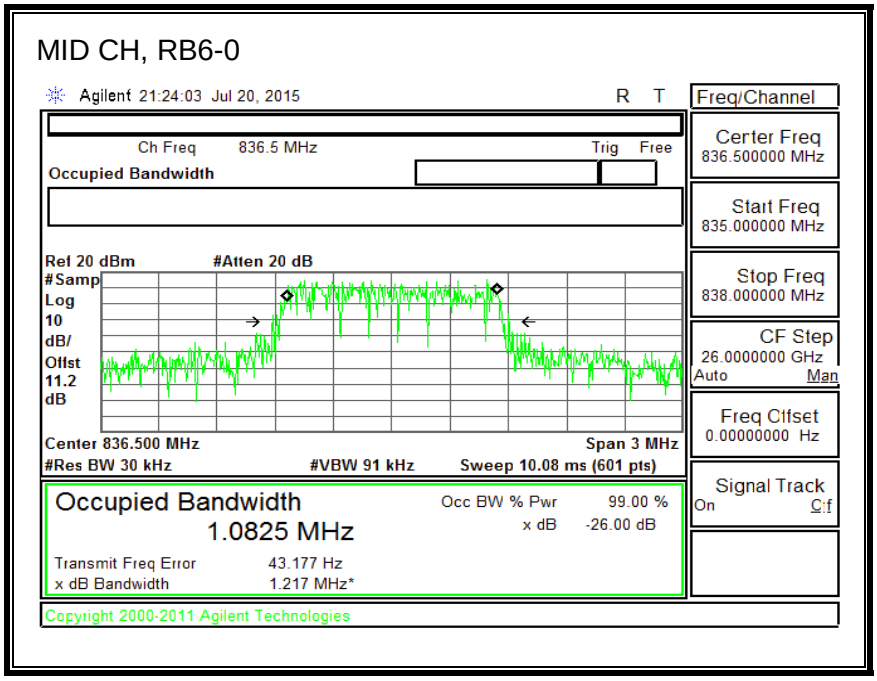
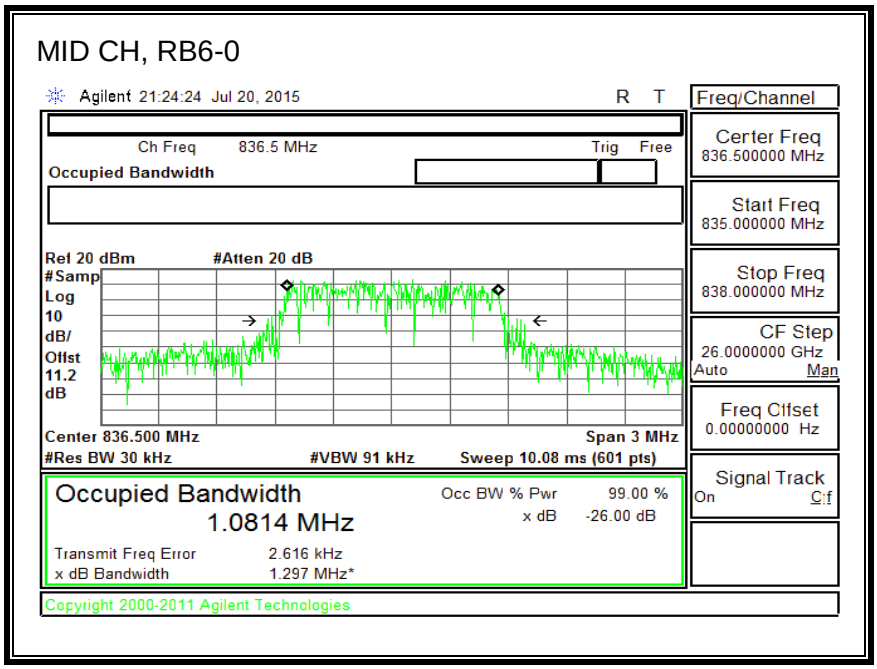
8.1.3. LTE BAND 5

QPSK, (1.4 MHz BAND WIDTH)



16QAM, (1.4 MHz BAND WIDTH)



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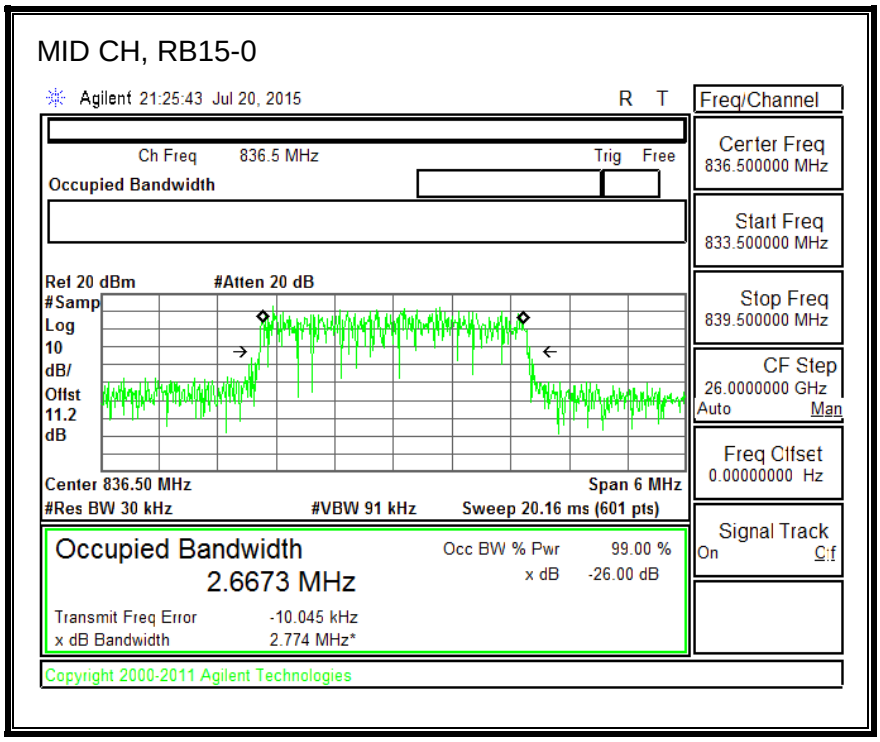
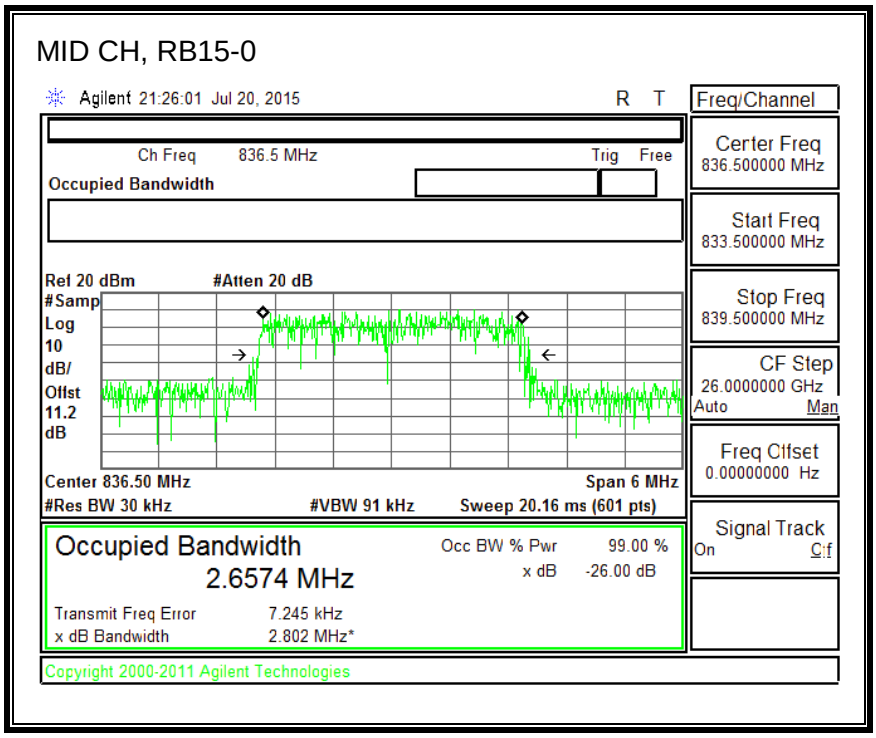
QPSK, (3.0 MHz BAND WIDTH)



16QAM, (3.0 MHz BAND WIDTH)



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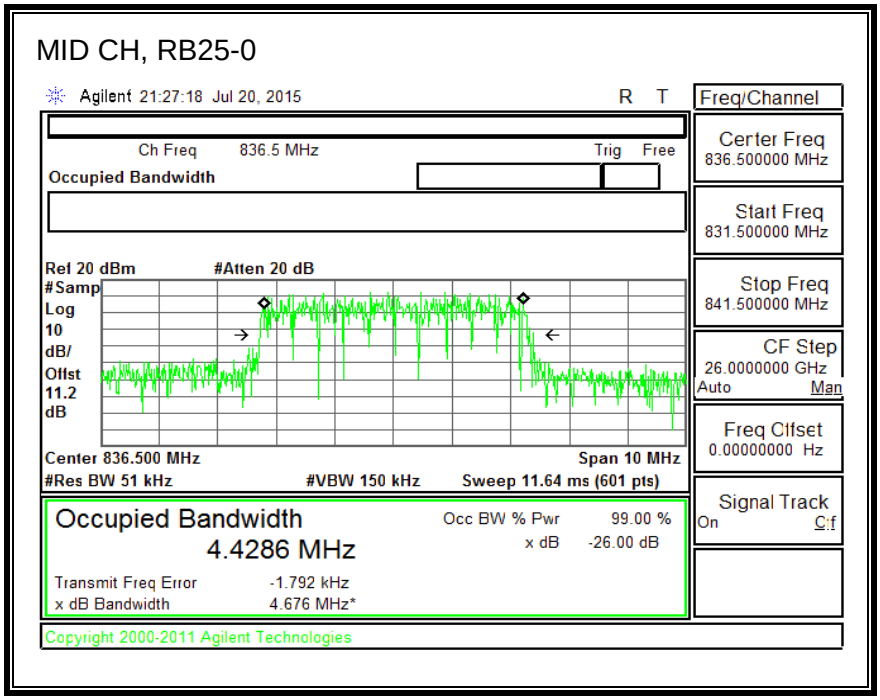
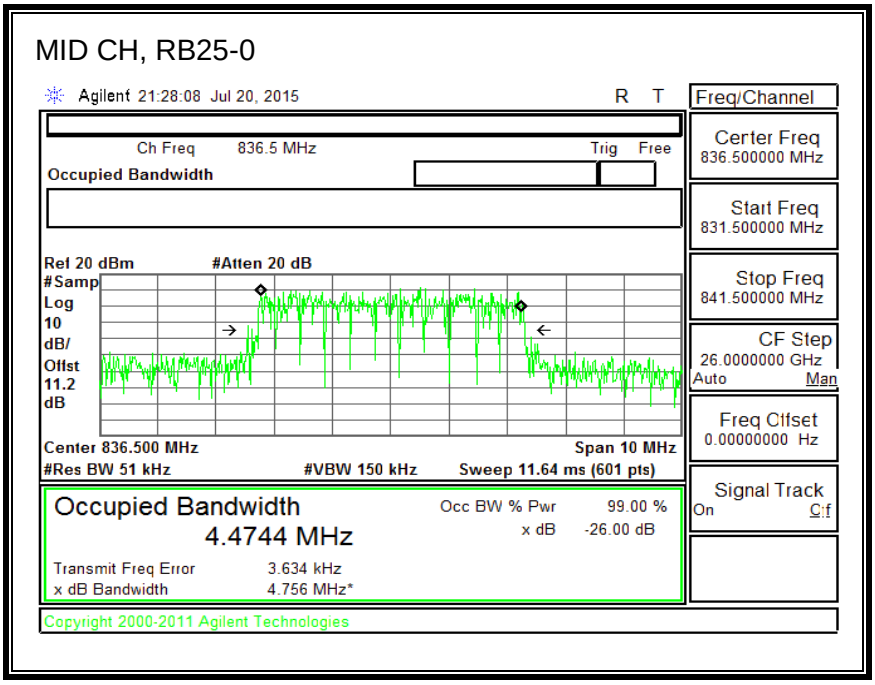
QPSK, (5.0 MHz BAND WIDTH)



16QAM, (5.0 MHz BAND WIDTH)



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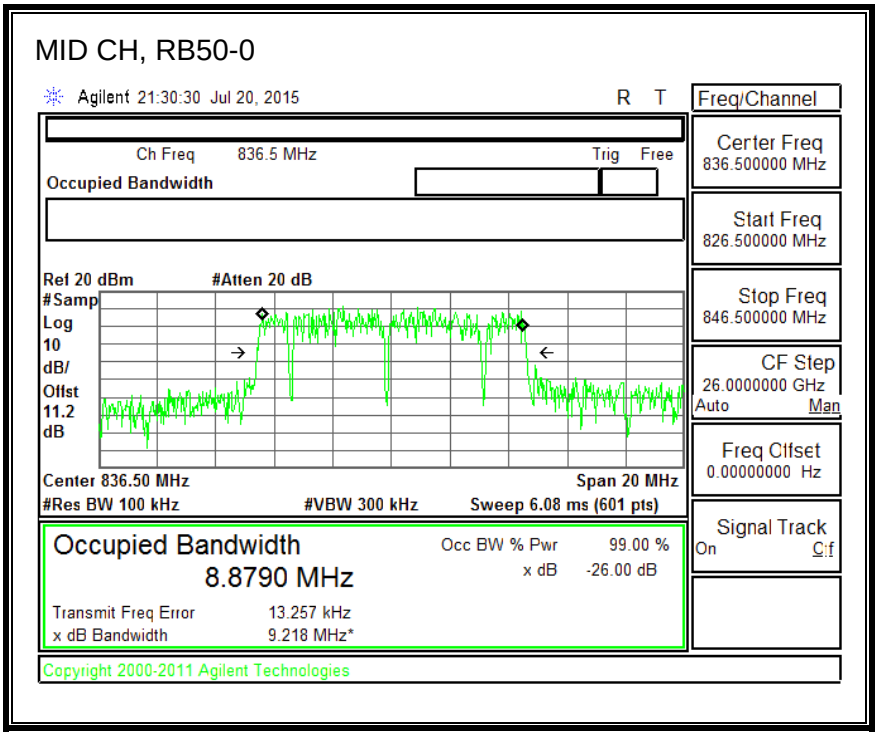
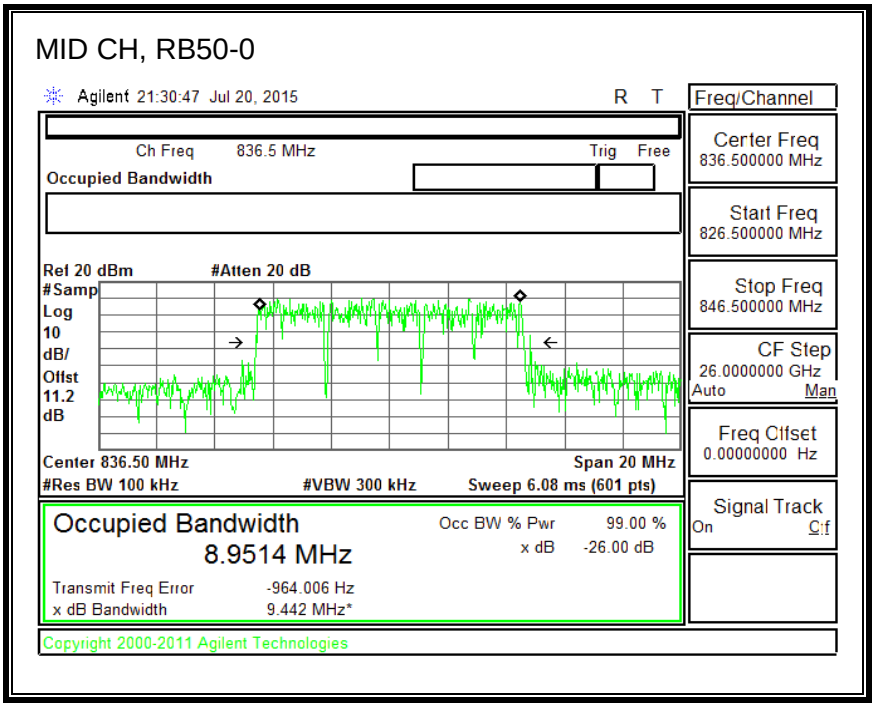
QPSK, (10.0 MHz BAND WIDTH)



16QAM, (10.0 MHz BAND WIDTH)



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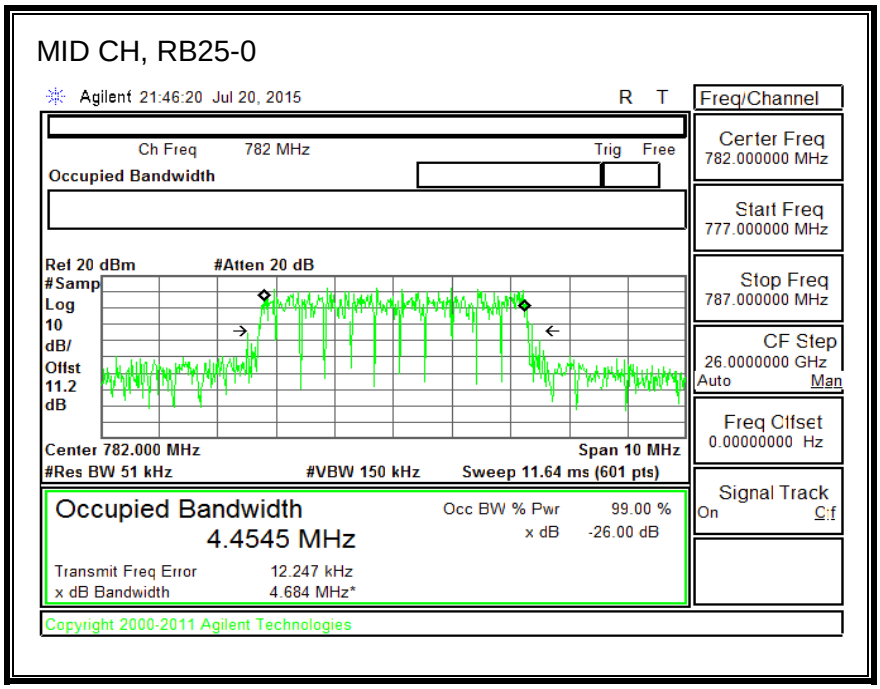
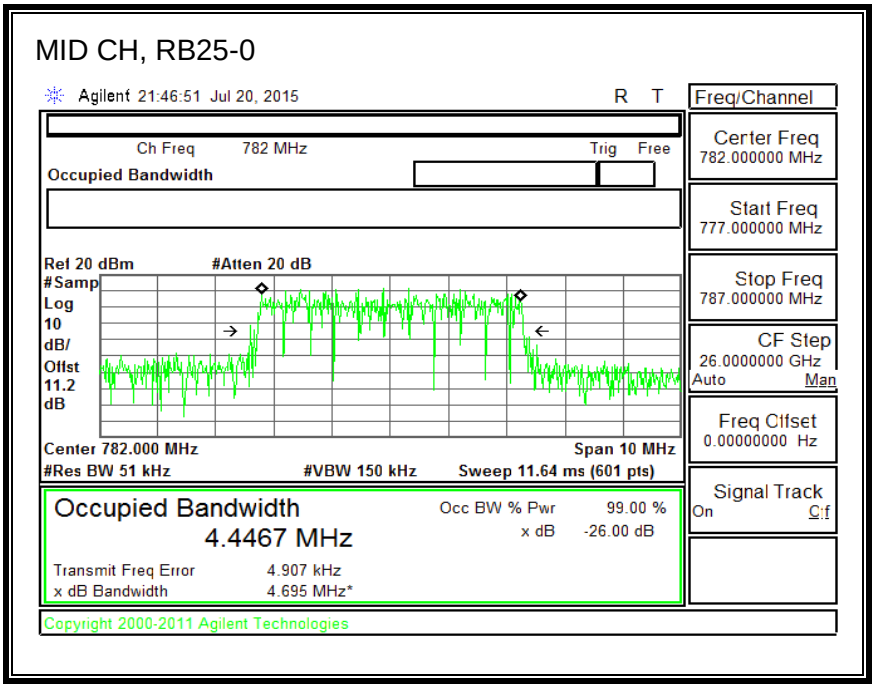
8.1.4. LTE BAND 13

QPSK, (5.0 MHz BAND WIDTH)



16QAM, (5.0 MHz BAND WIDTH)



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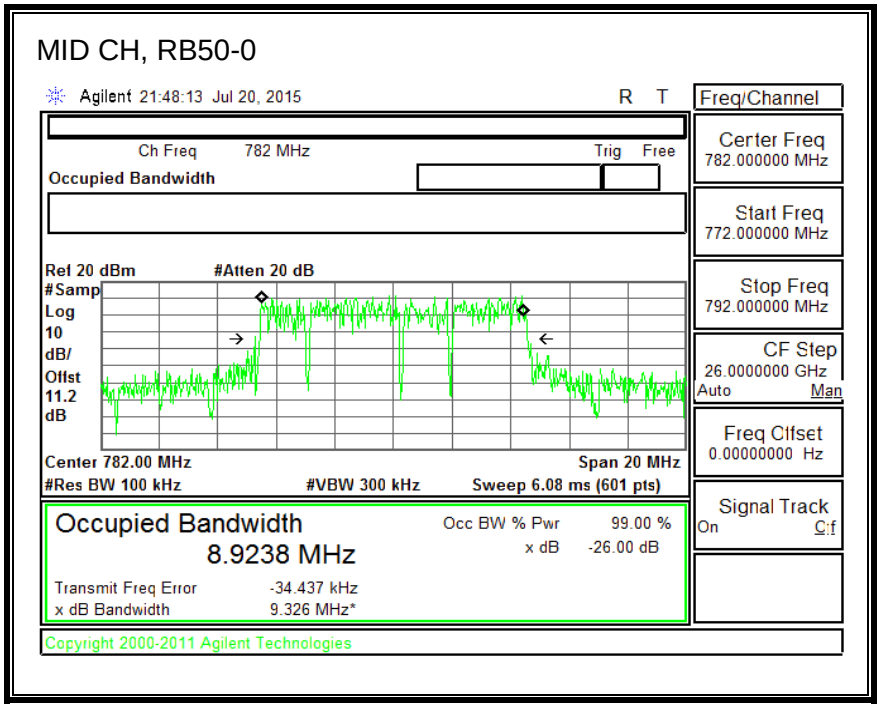
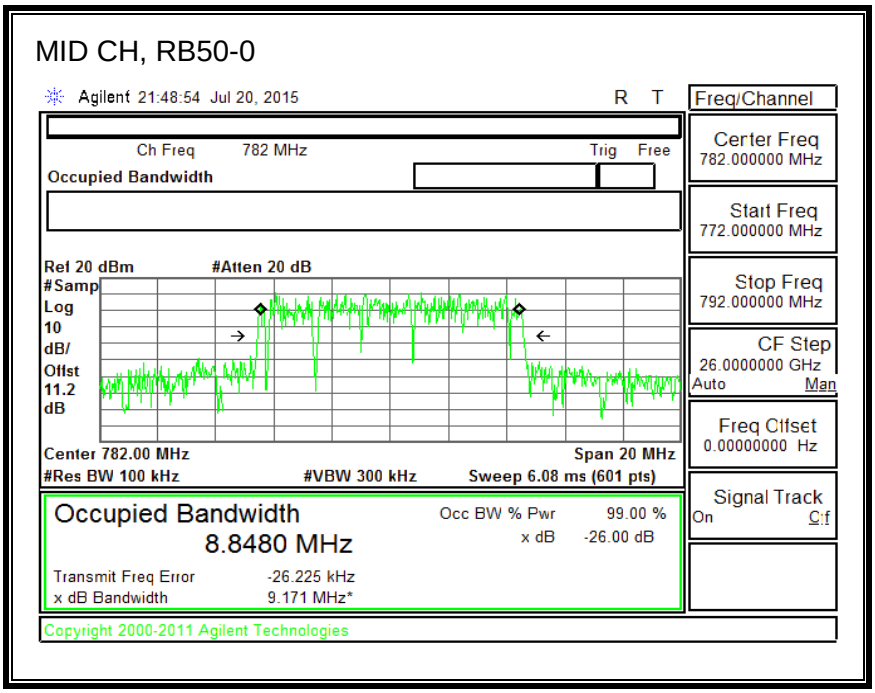
QPSK, (10.0 MHz BAND WIDTH)



16QAM, (10.0 MHz BAND WIDTH)



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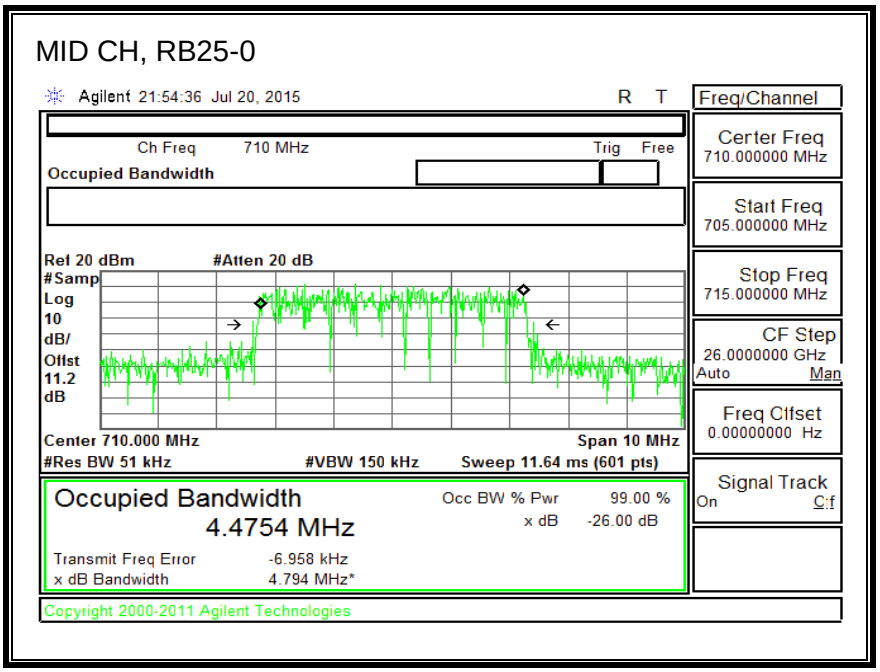
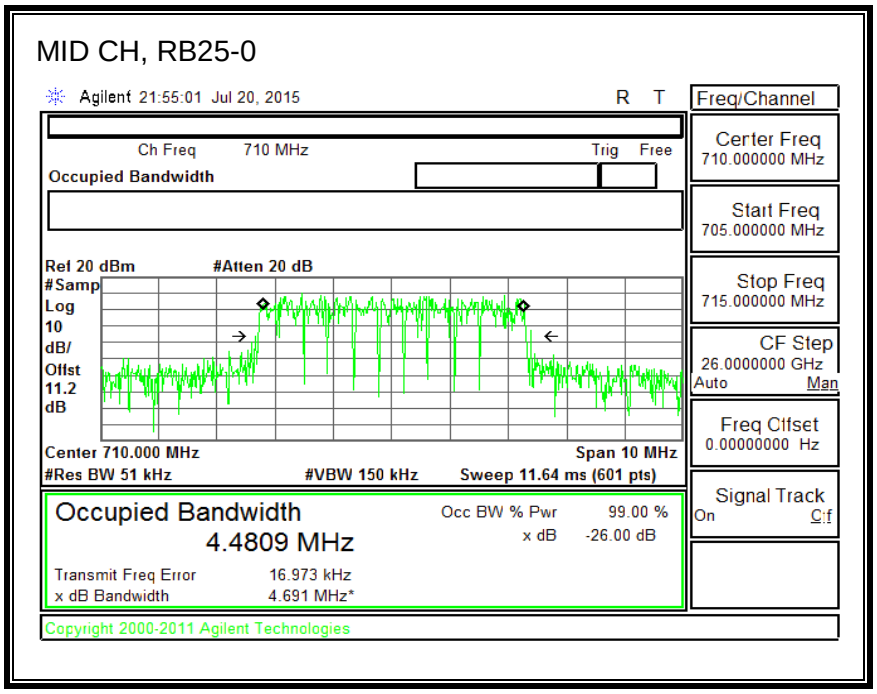
8.1.5. LTE BAND 17

QPSK, (5.0 MHz BAND WIDTH)



16QAM, (5.0 MHz BAND WIDTH)



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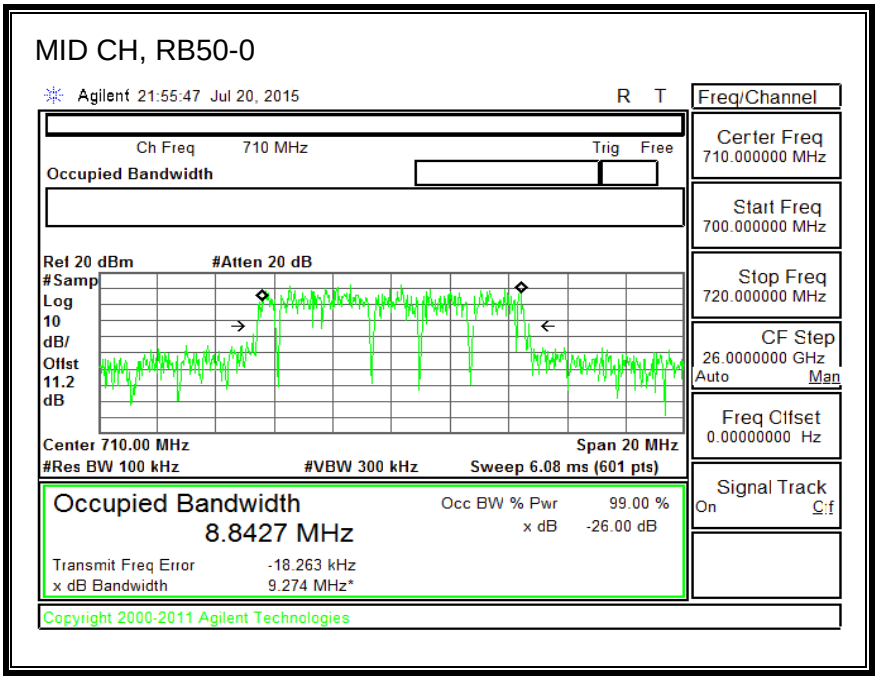
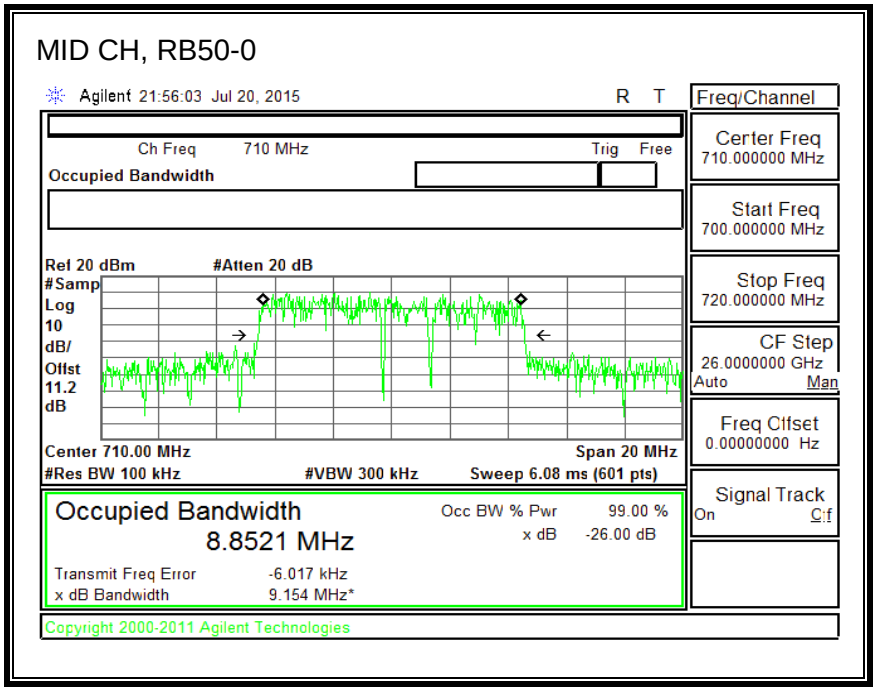
QPSK, (10.0 MHz BAND WIDTH)



16QAM, (10.0 MHz BAND WIDTH)



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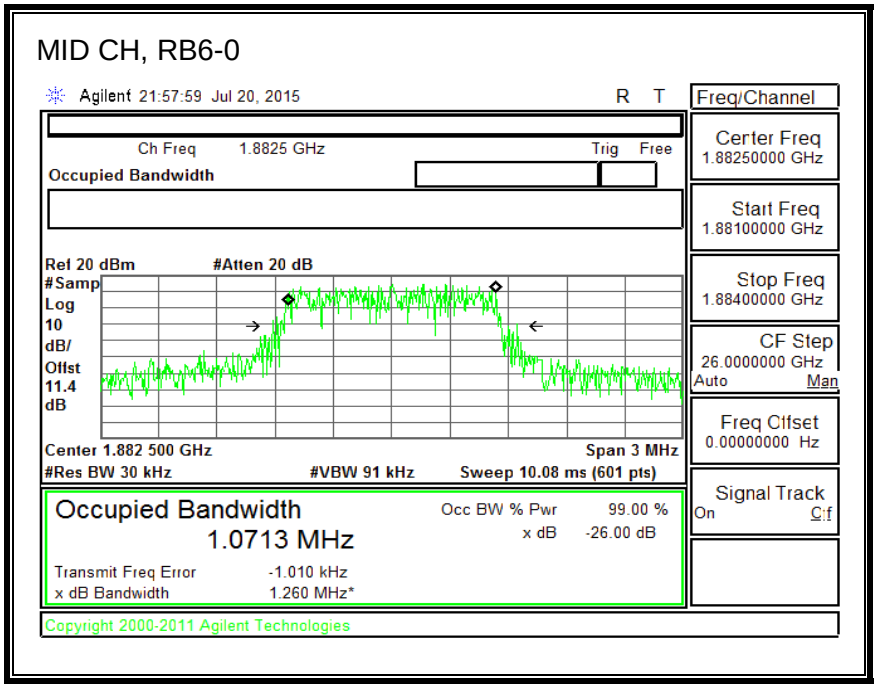
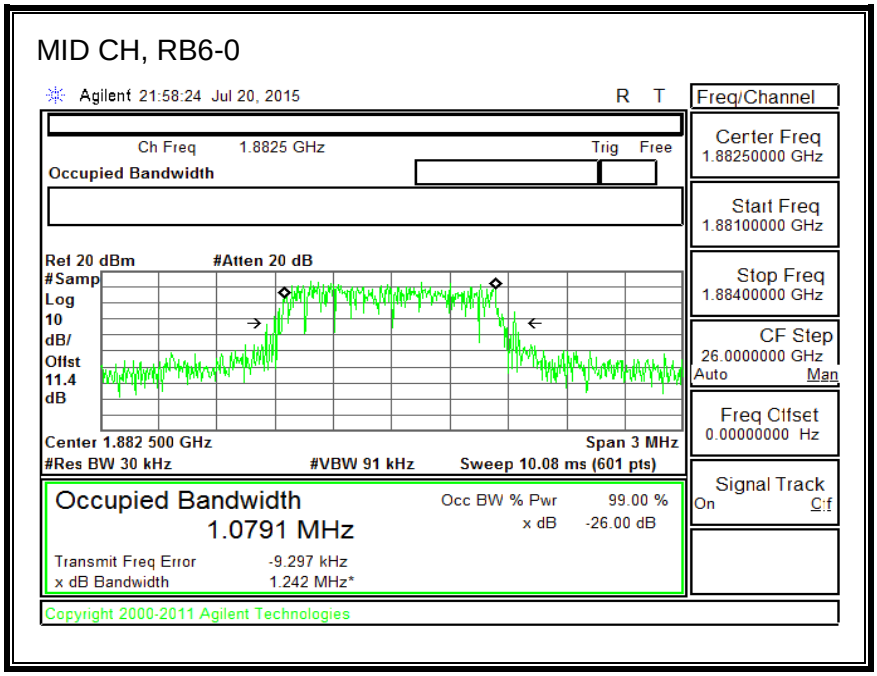
8.1.6. LTE BAND 25

QPSK, (1.4 MHz BAND WIDTH)



16QAM, (1.4 MHz BAND WIDTH)



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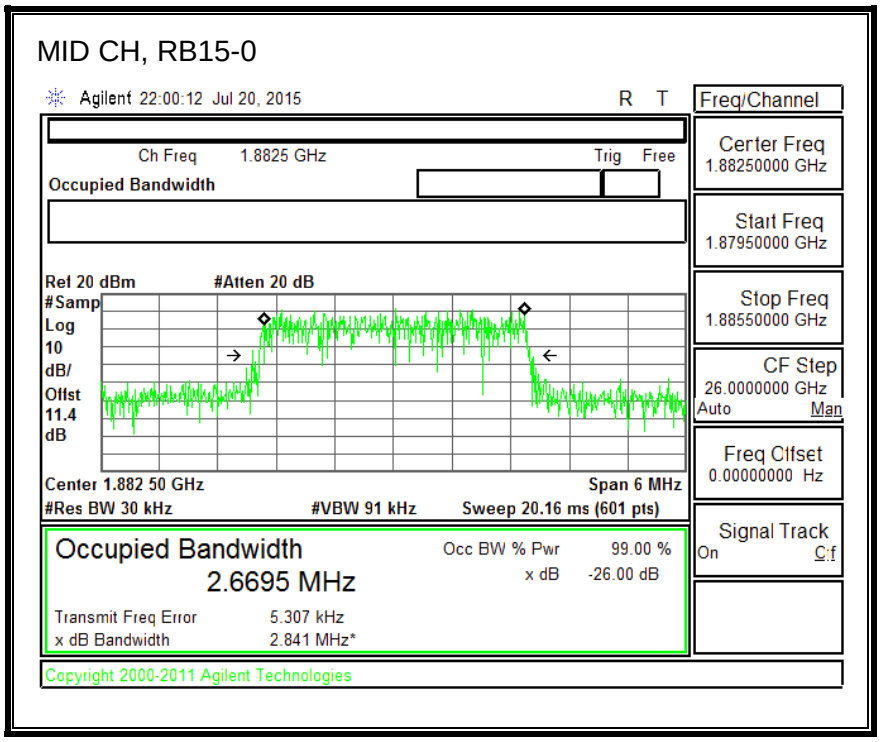
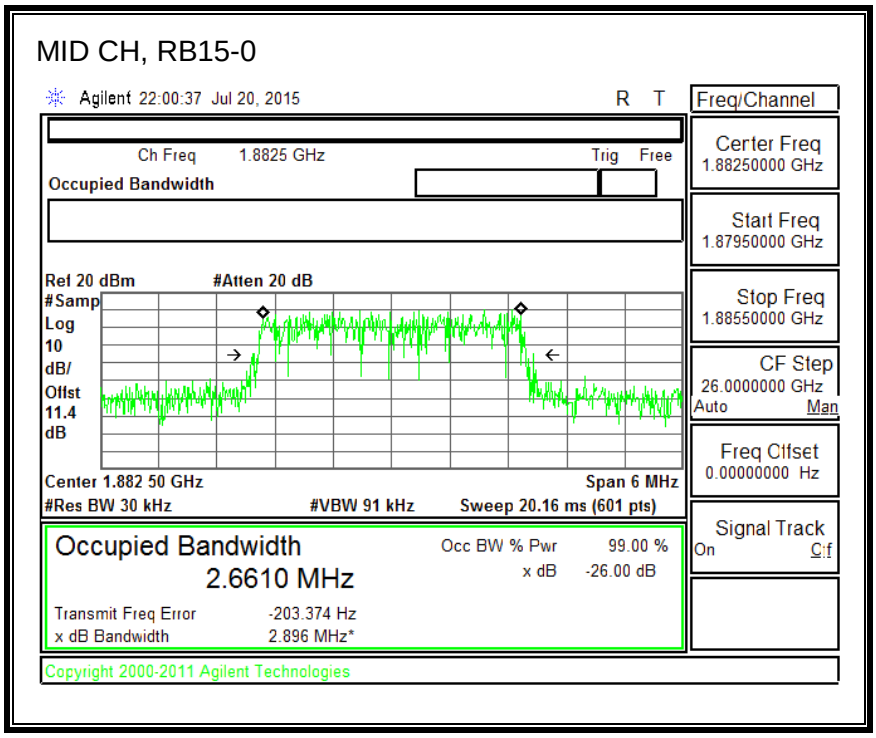
QPSK, (3.0 MHz BAND WIDTH)



16QAM, (3.0 MHz BAND WIDTH)



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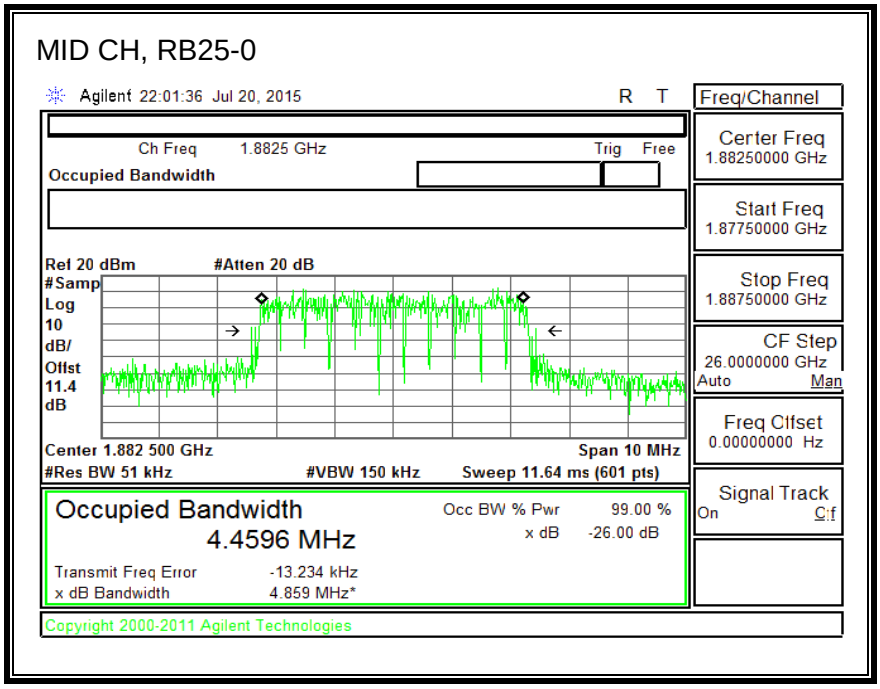
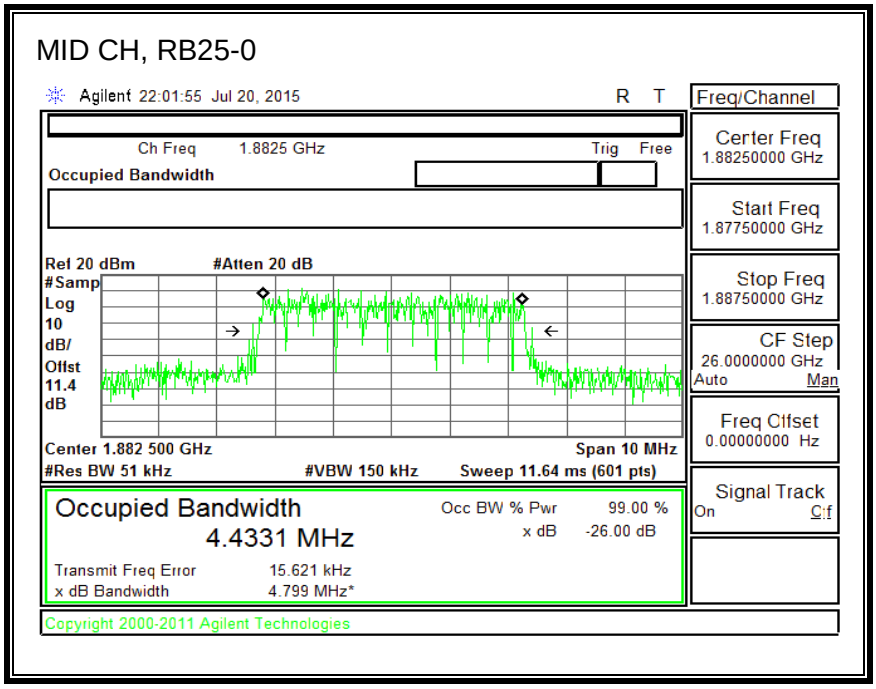
QPSK, (5.0 MHz BAND WIDTH)



16QAM, (5.0 MHz BAND WIDTH)



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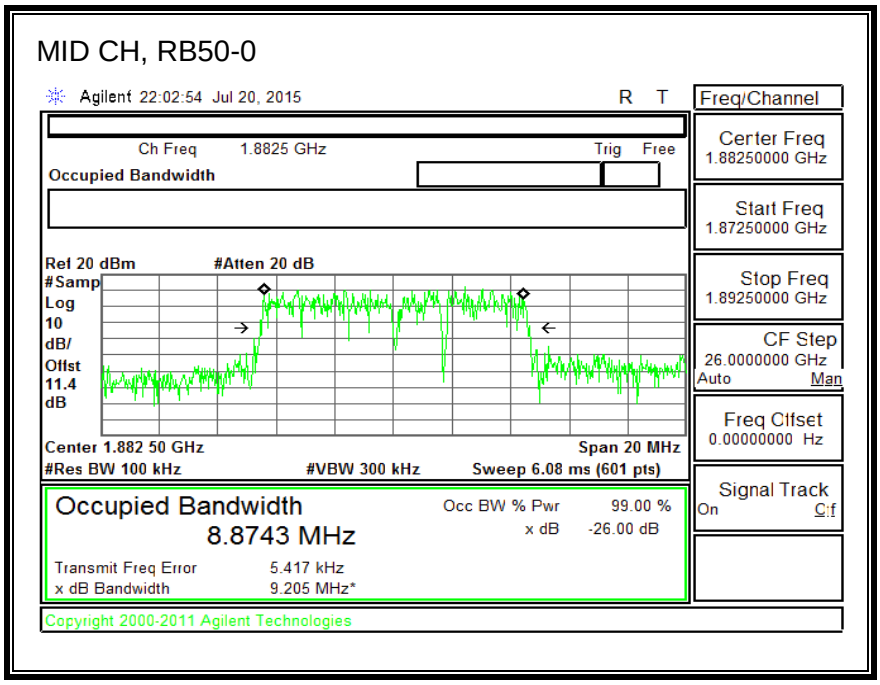
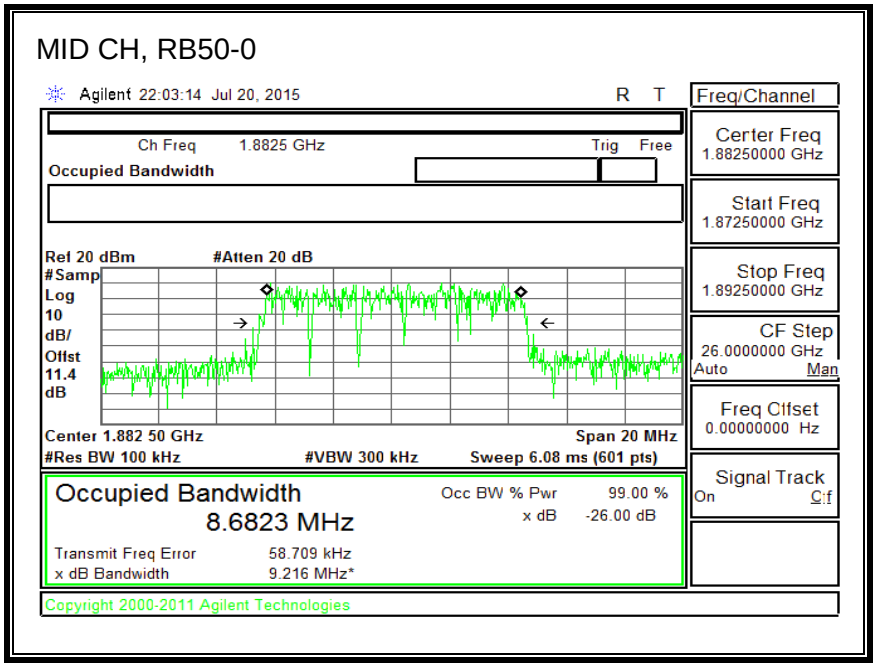
QPSK, (10.0 MHz BAND WIDTH)



16QAM, (10.0 MHz BAND WIDTH)



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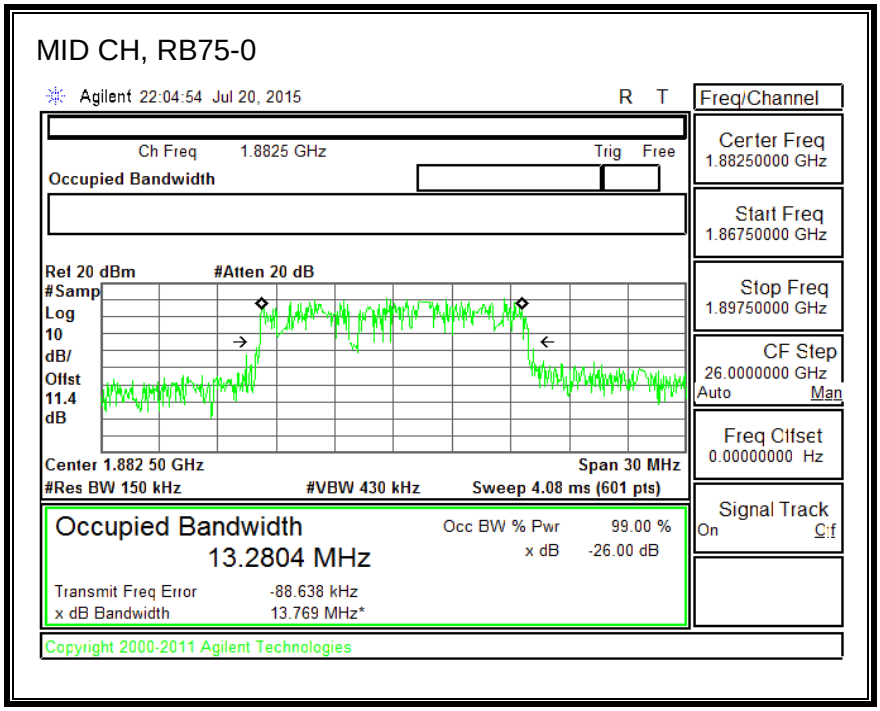
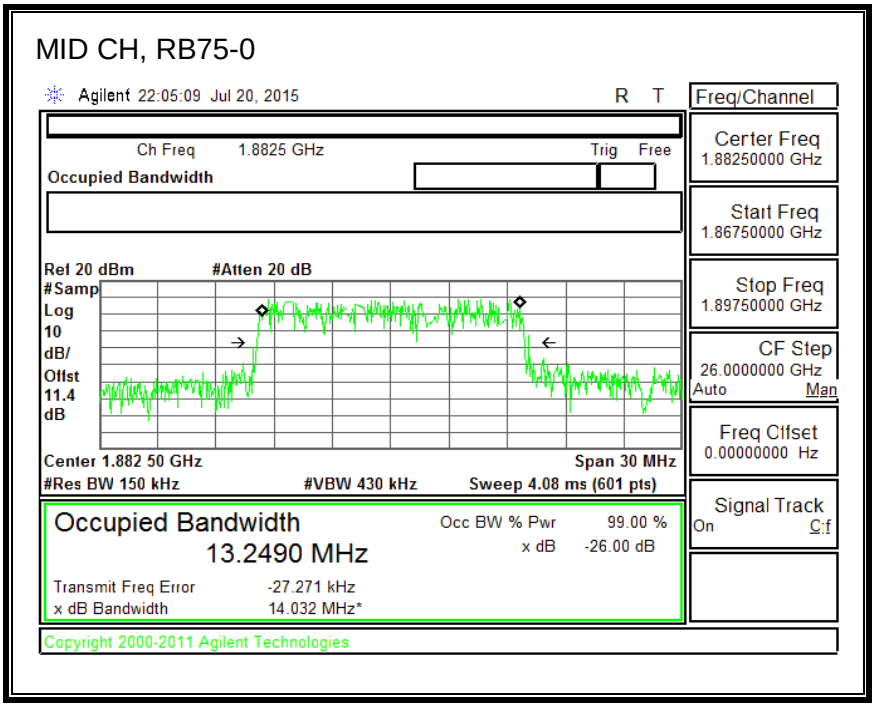
QPSK, (15.0 MHz BAND WIDTH)



16QAM, (15.0 MHz BAND WIDTH)



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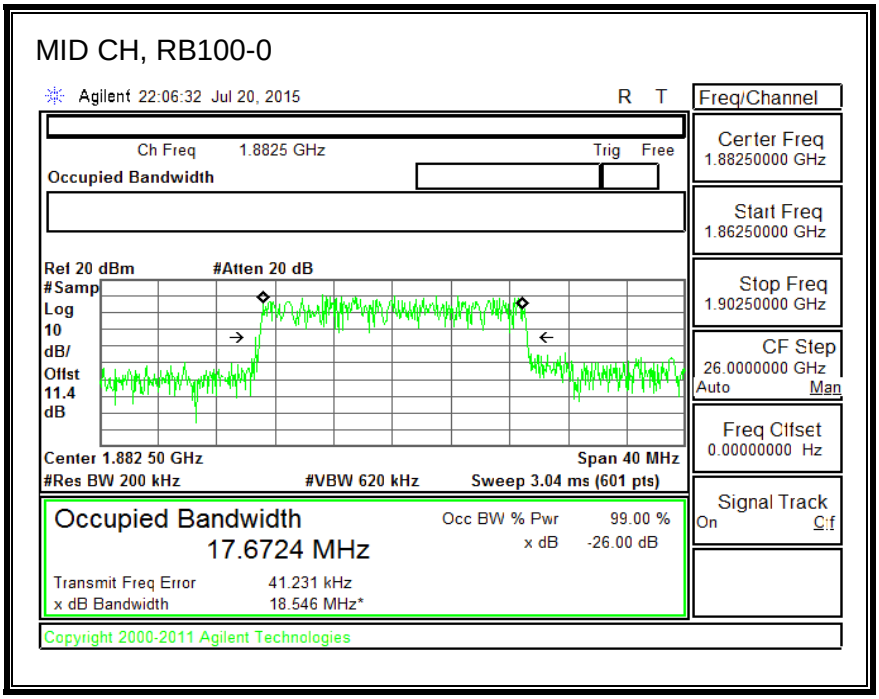
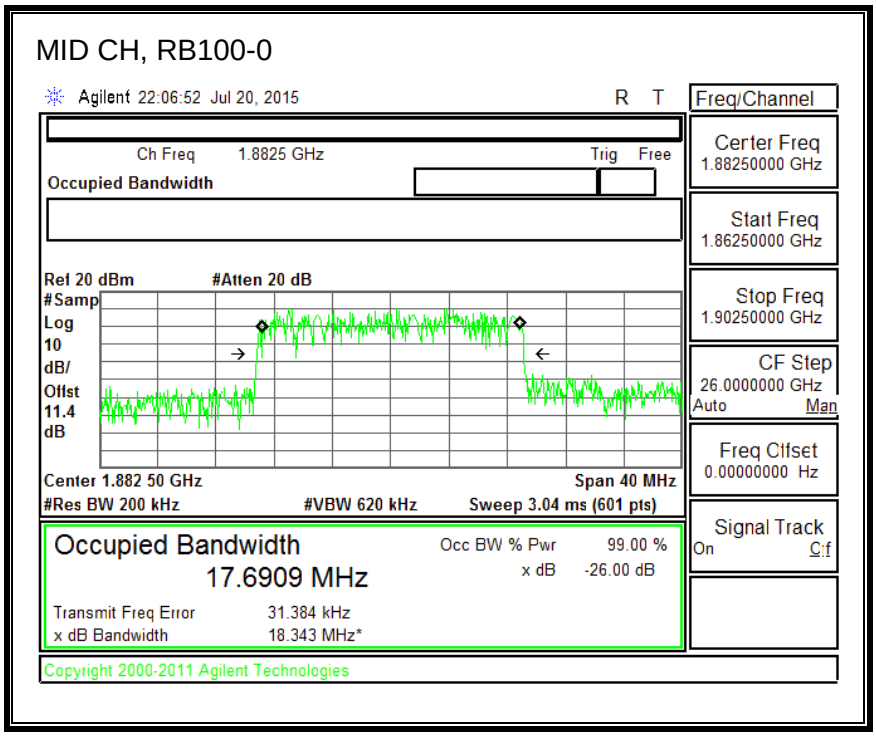
QPSK, (20.0 MHz BAND WIDTH)



16QAM, (20.0 MHz BAND WIDTH)



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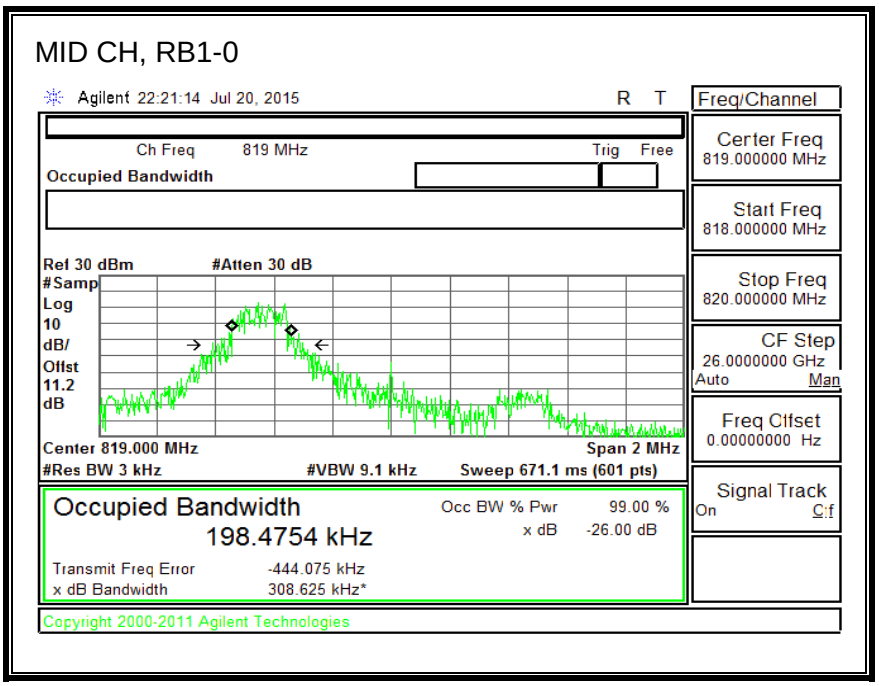
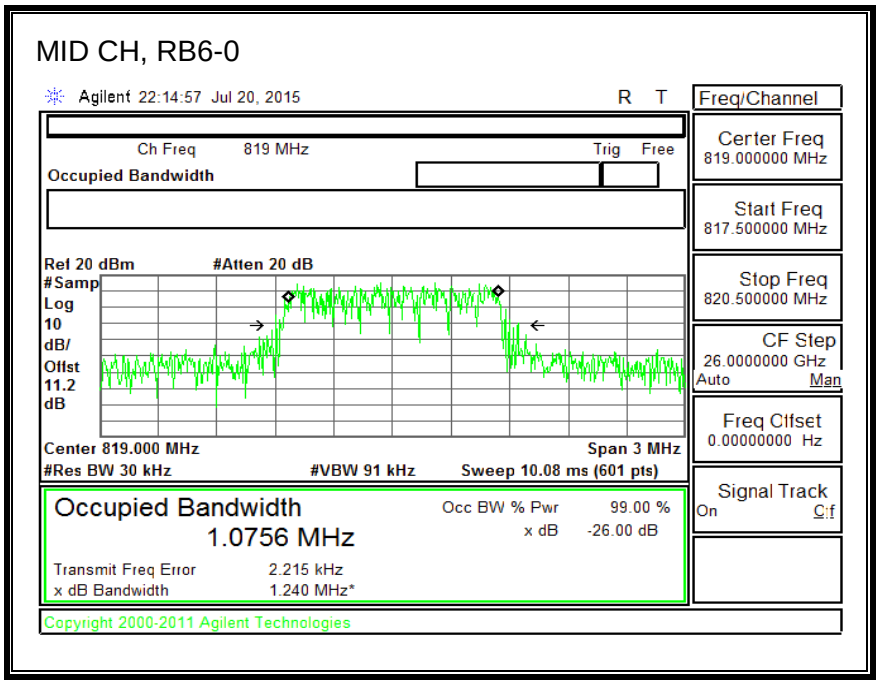
8.1.7. LTE BAND 26

QPSK, (1.4 MHz BAND WIDTH)





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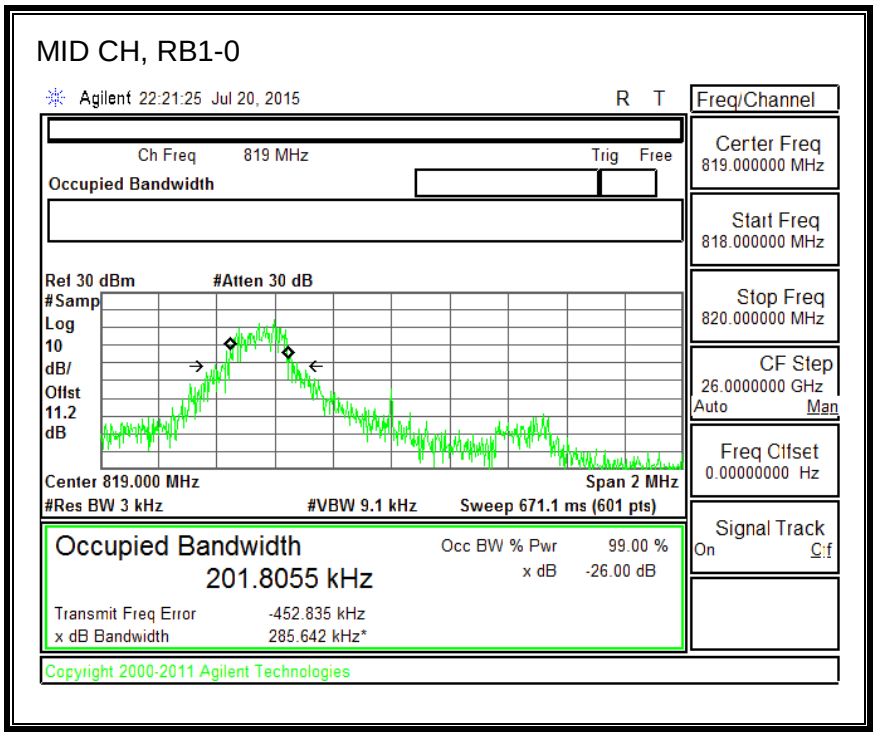
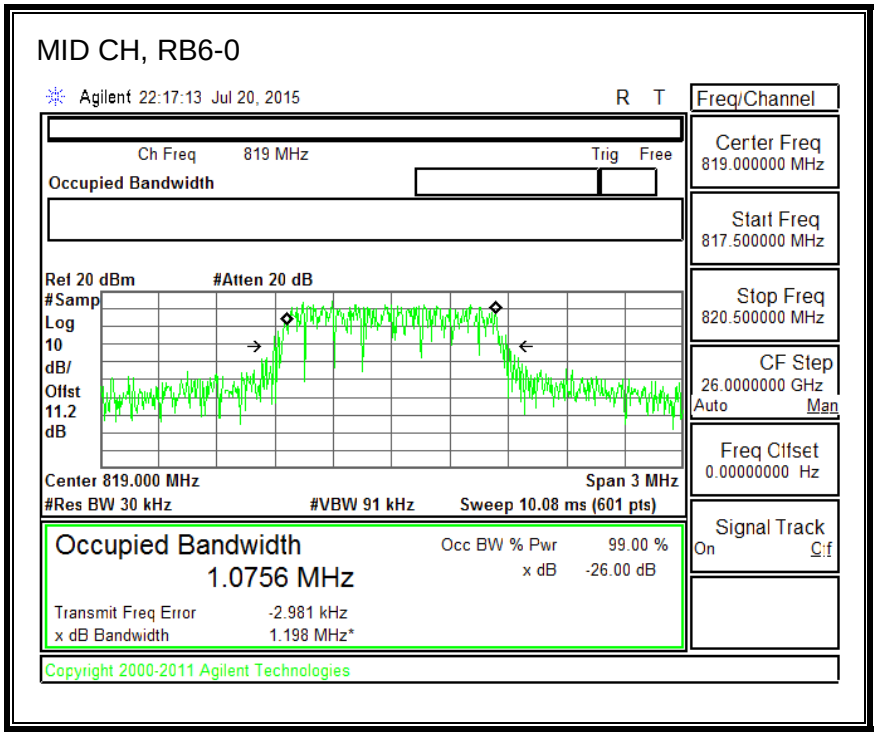
16QAM, (1.4 MHz BAND WIDTH)





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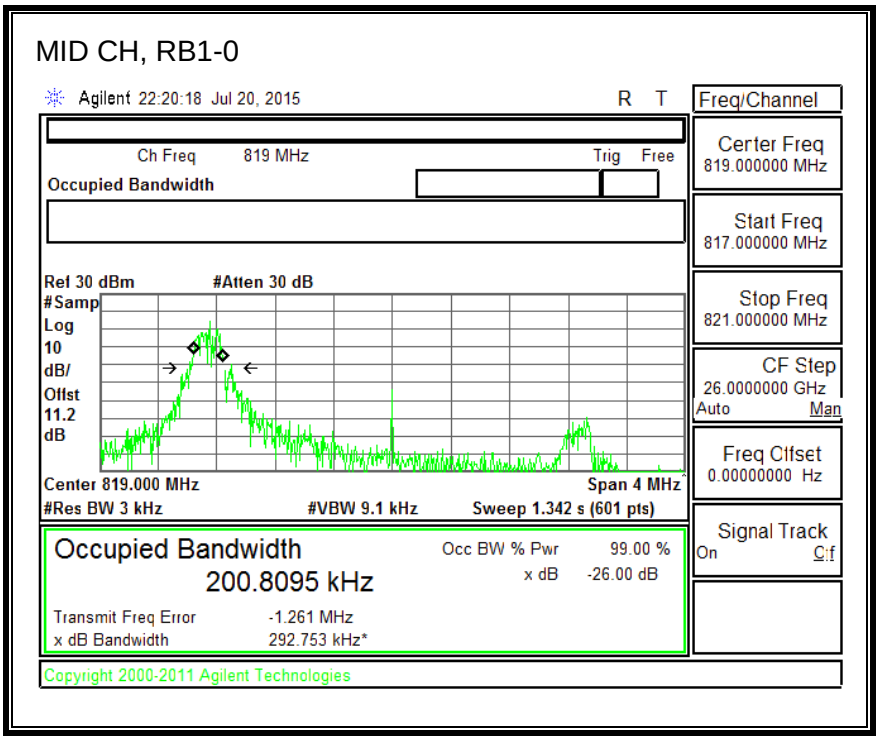
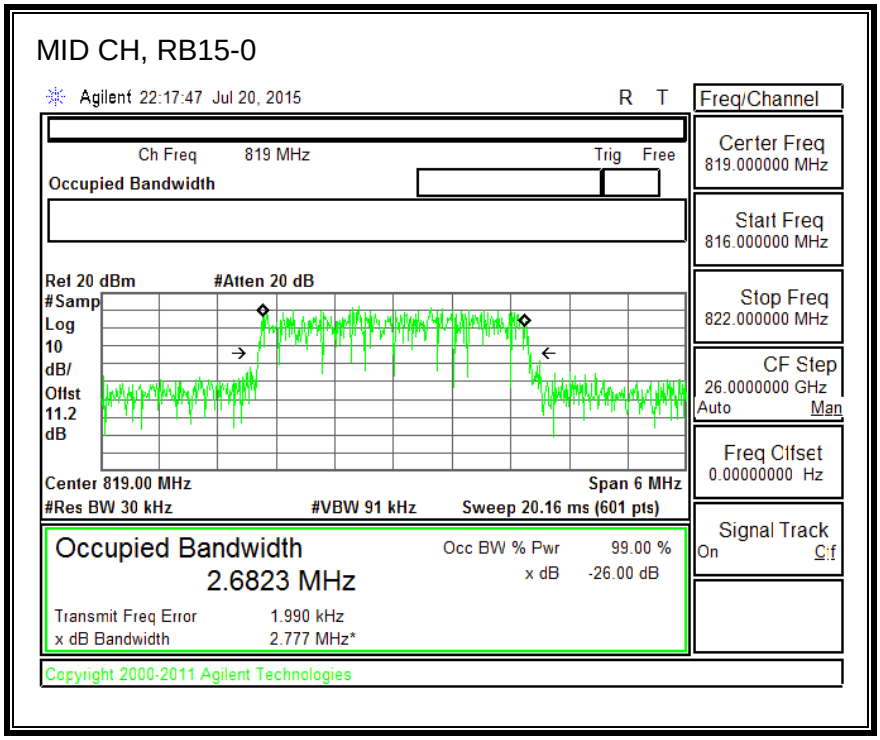
QPSK, (3.0 MHz BAND WIDTH)





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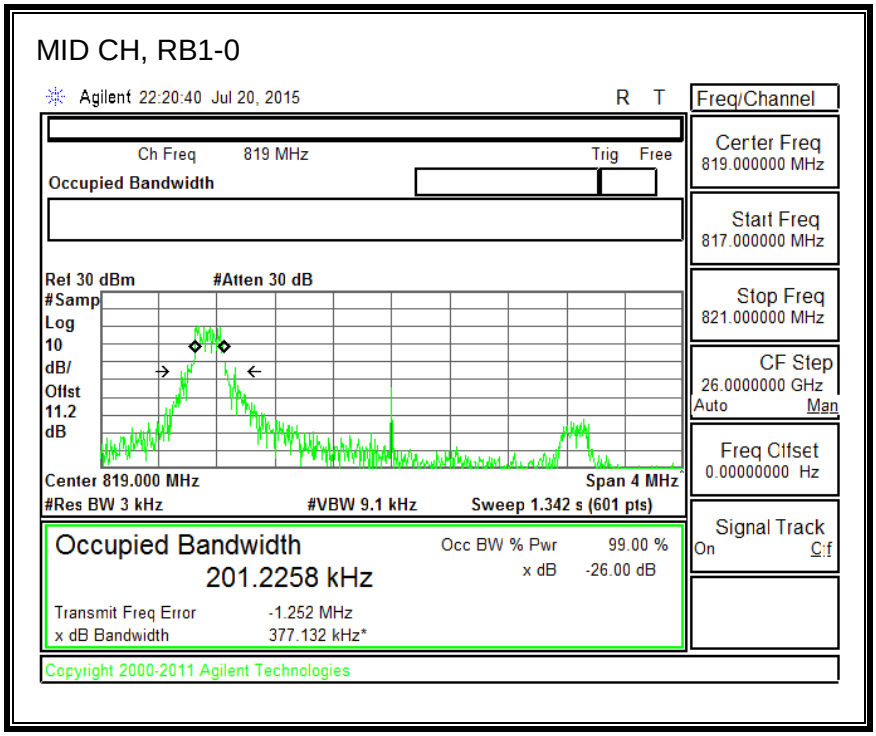
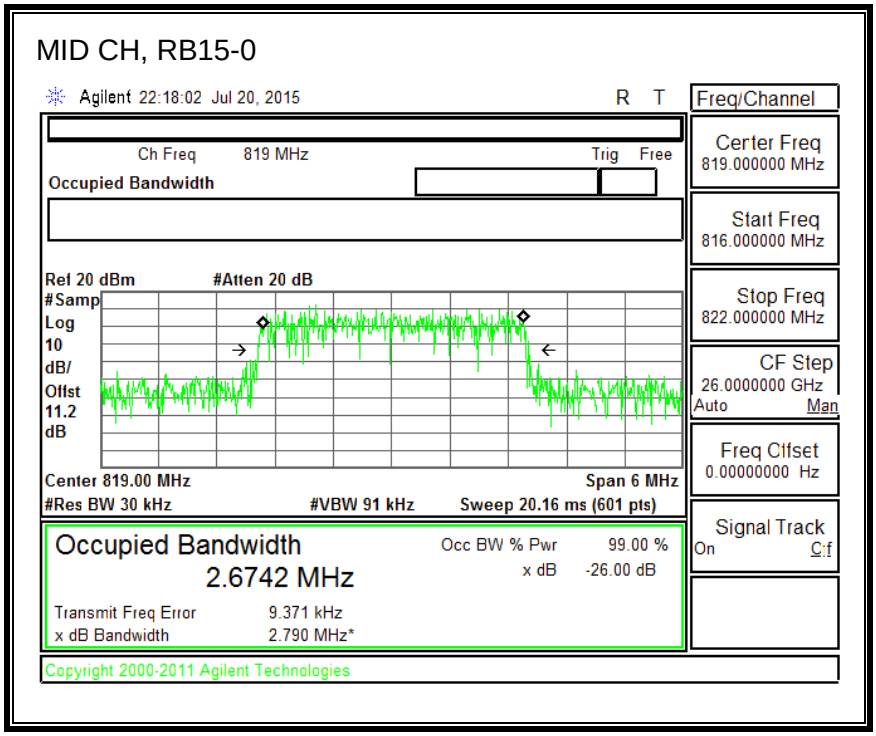
16QAM, (3.0 MHz BAND WIDTH)





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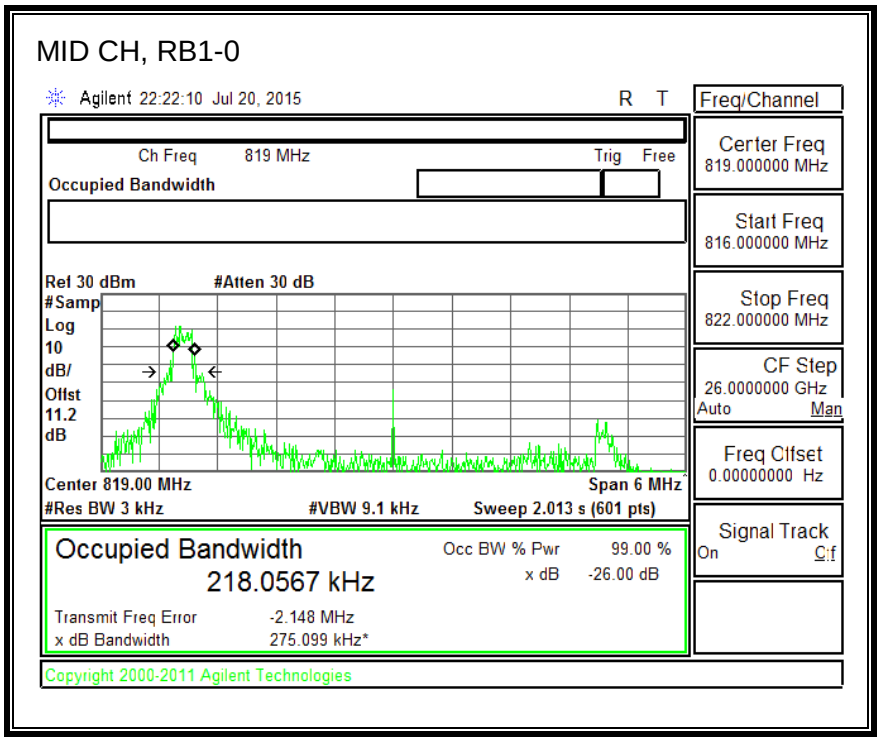
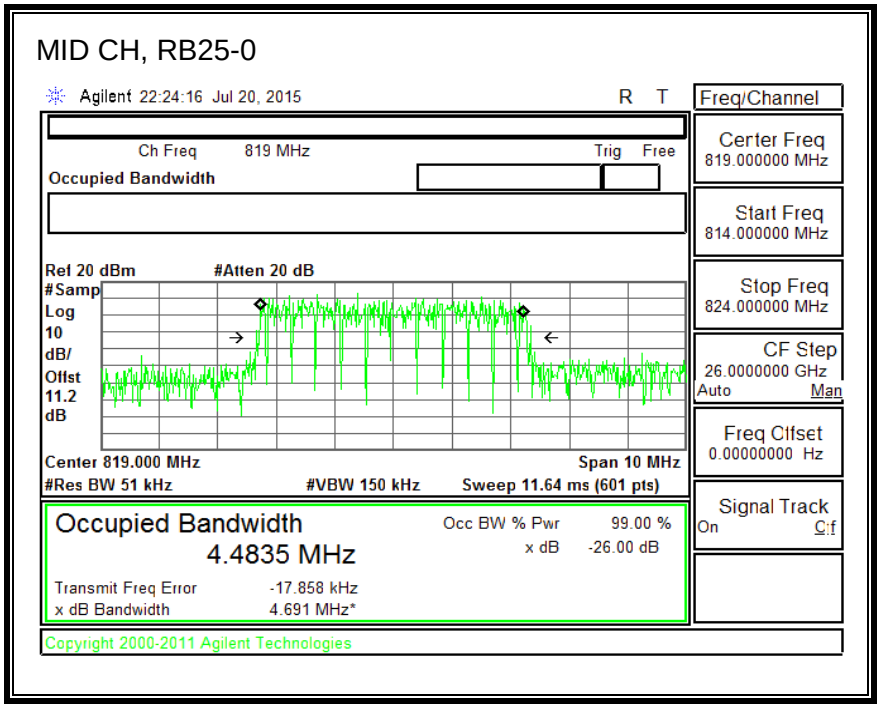
QPSK, (5.0 MHz BAND WIDTH)





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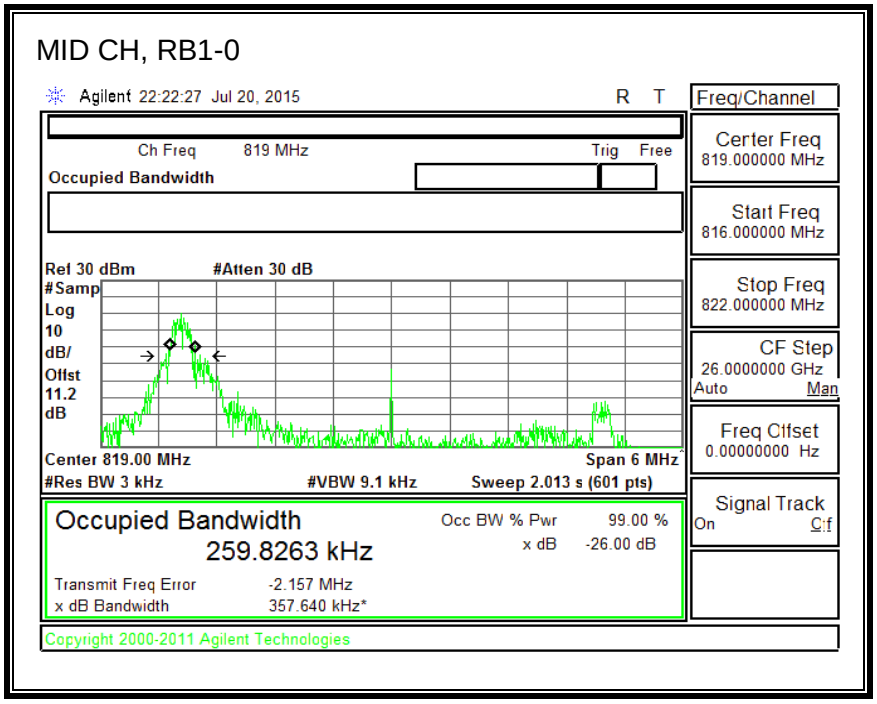
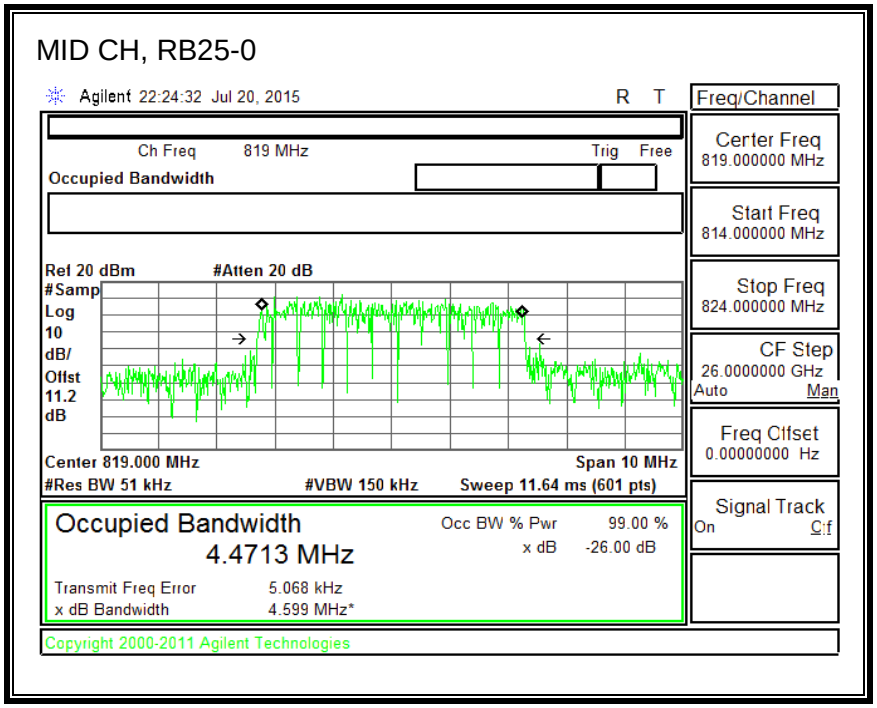
16QAM, (5.0 MHz BAND WIDTH)





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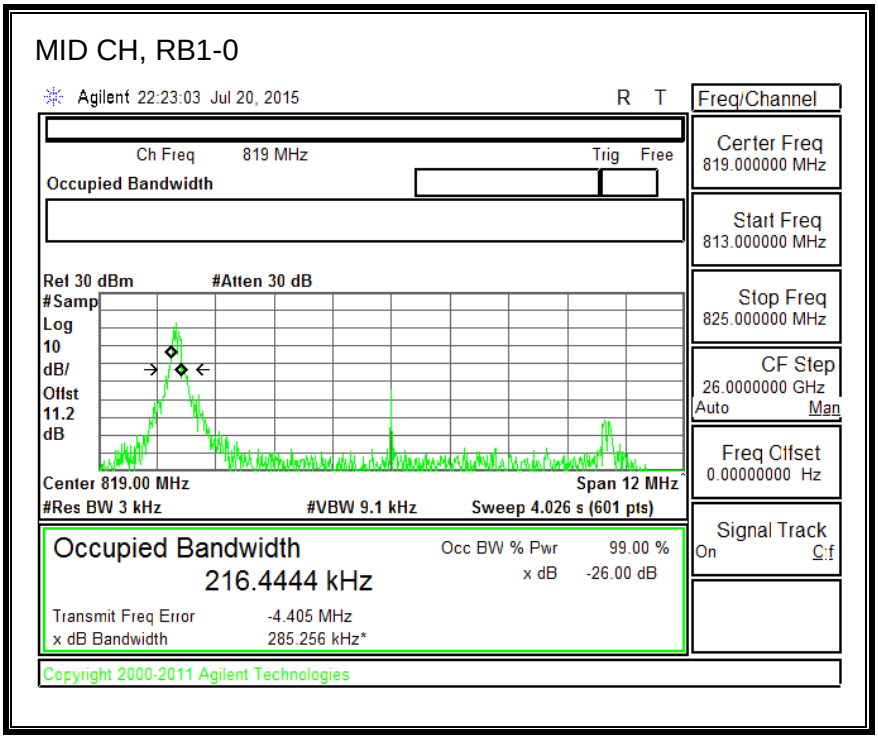
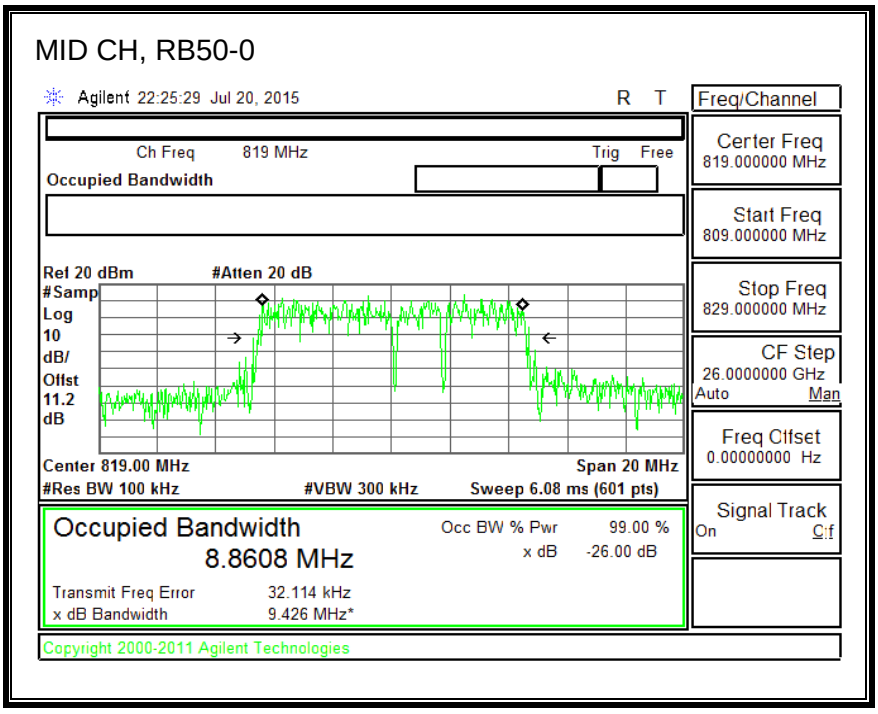
QPSK, (10.0 MHz BAND WIDTH)





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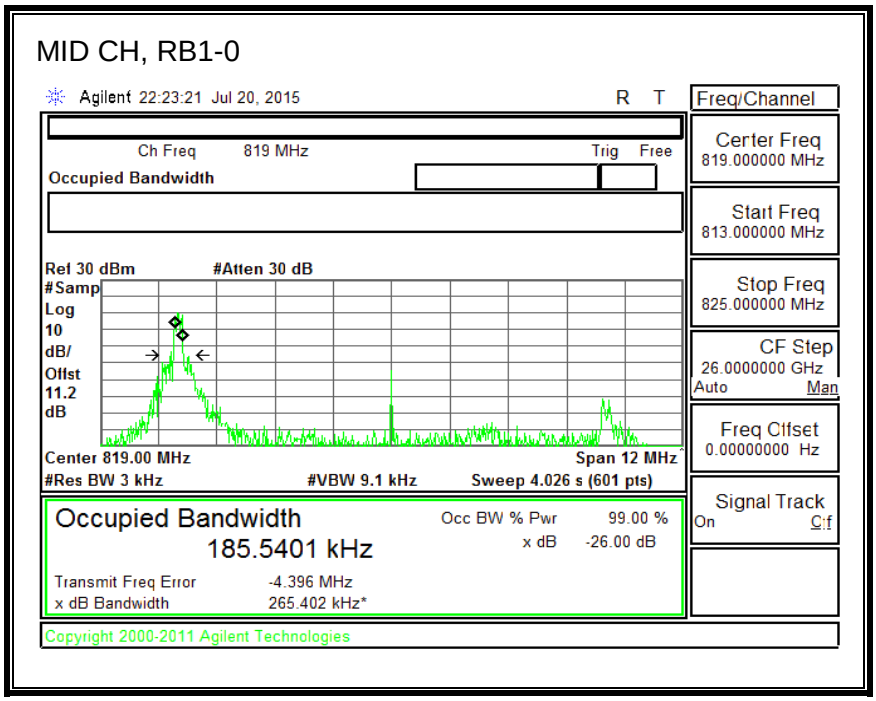
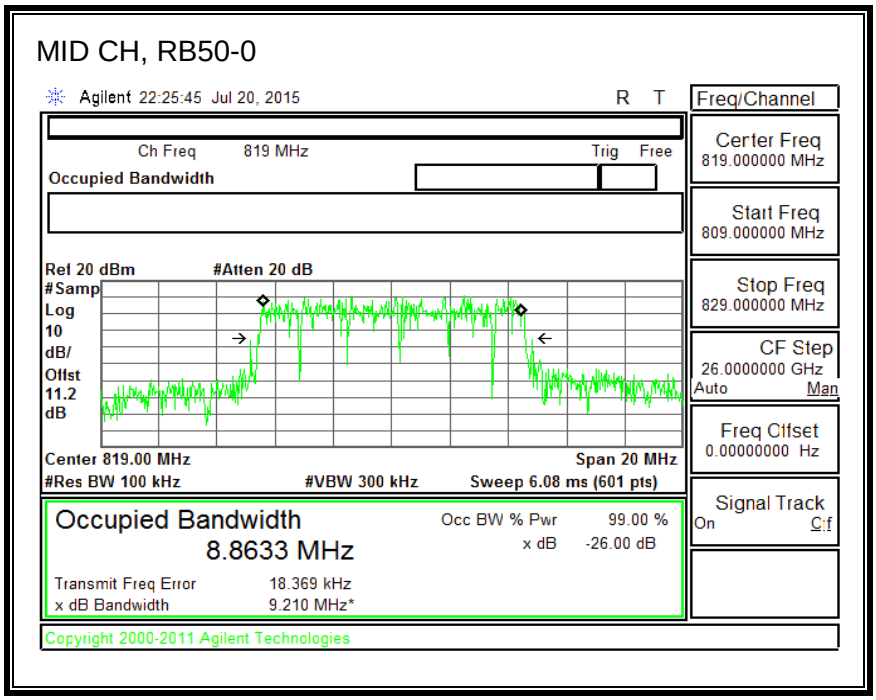
16QAM, (10.0 MHz BAND WIDTH)





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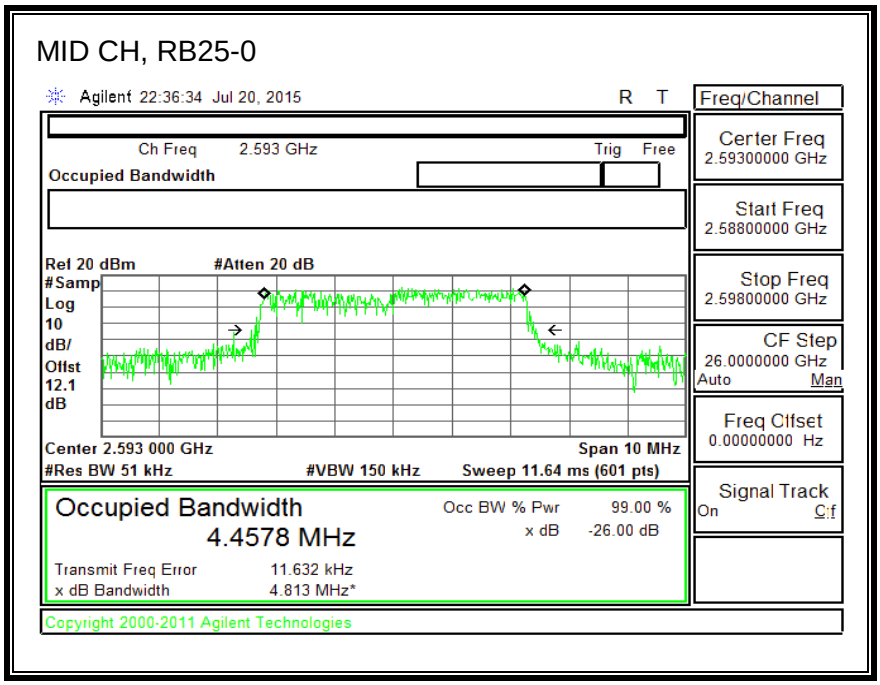
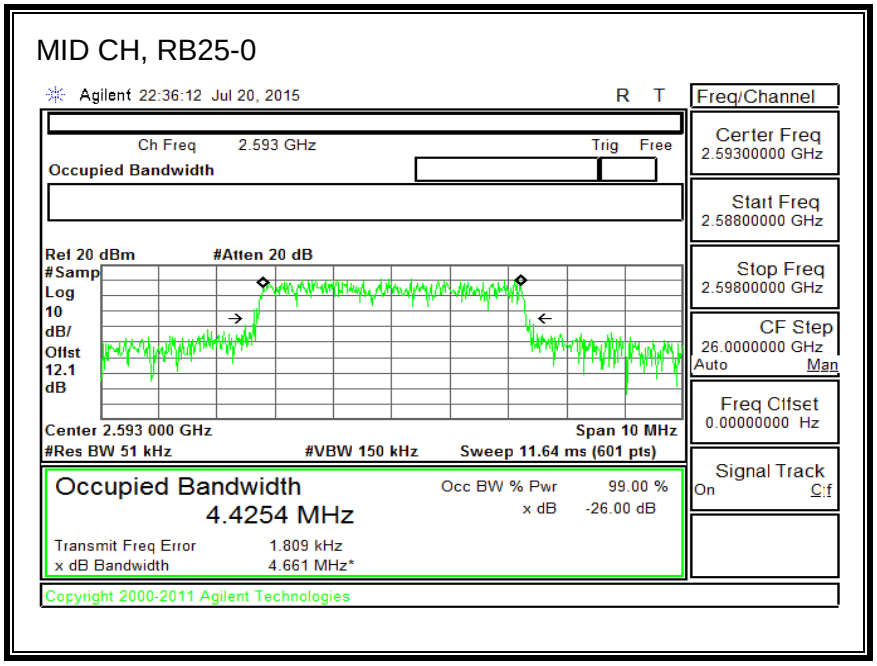
8.1.8. LTE BAND 41

QPSK, (5.0 MHz BAND WIDTH)



16QAM, (5.0 MHz BAND WIDTH)



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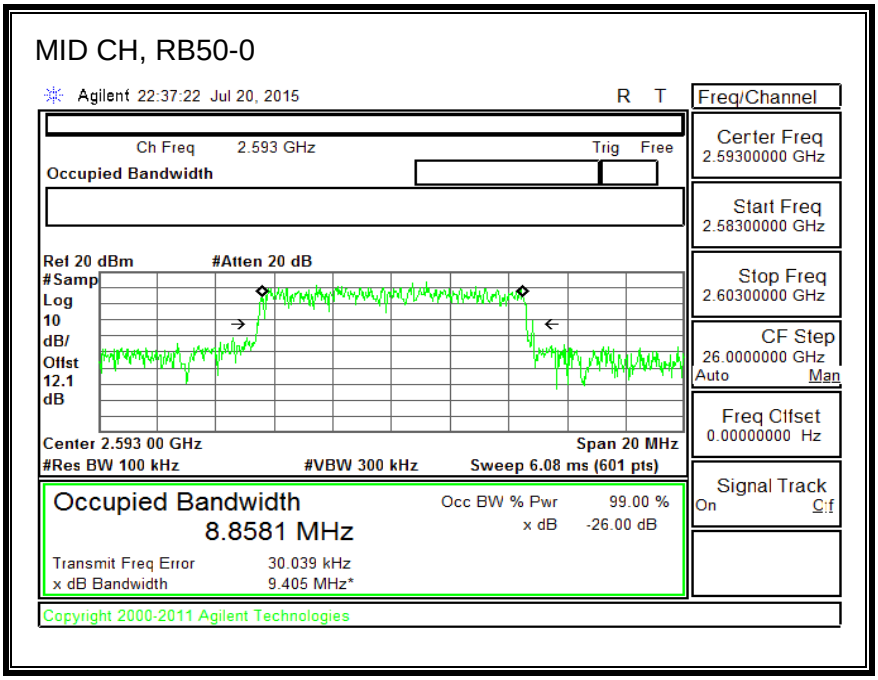
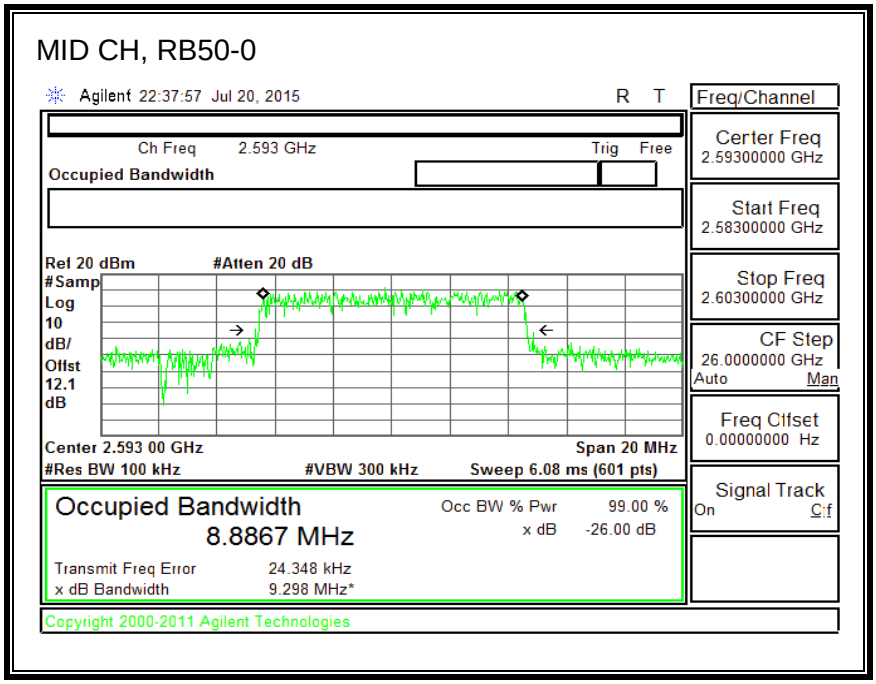
QPSK, (10.0 MHz BAND WIDTH)



16QAM, (10.0 MHz BAND WIDTH)



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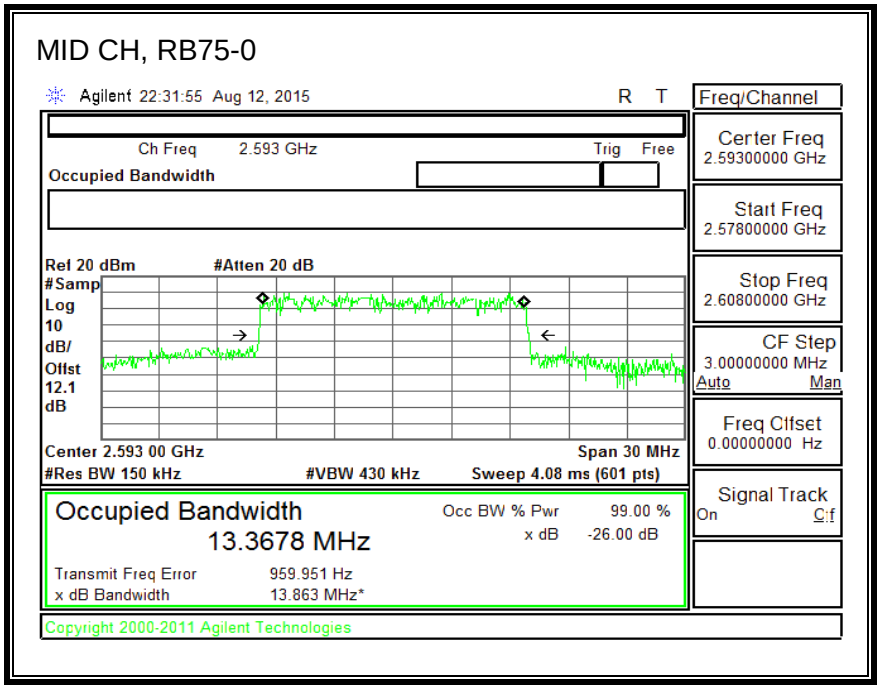
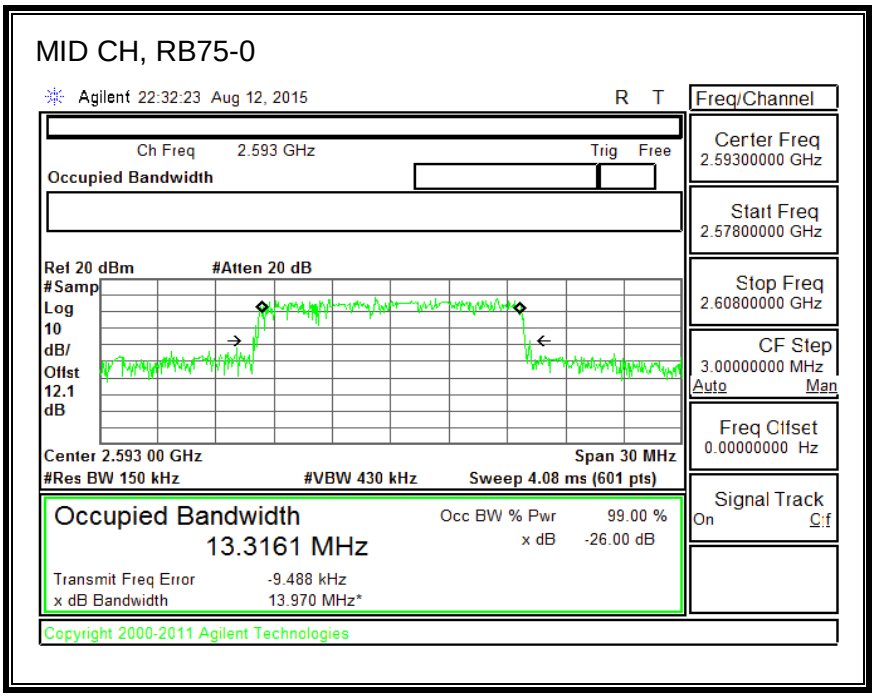
QPSK, (15.0 MHz BAND WIDTH)



16QAM, (15.0 MHz BAND WIDTH)



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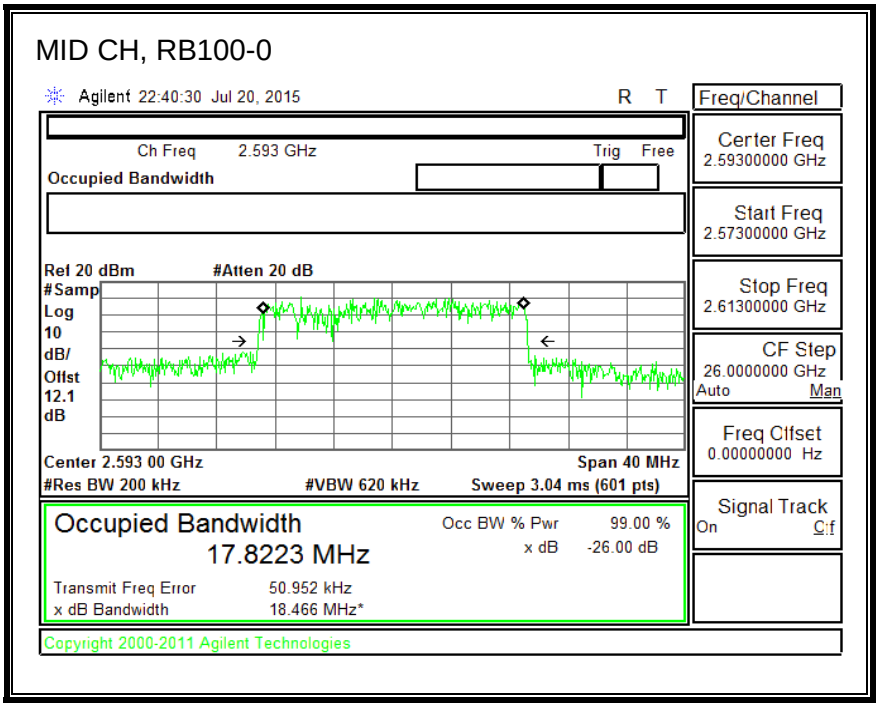
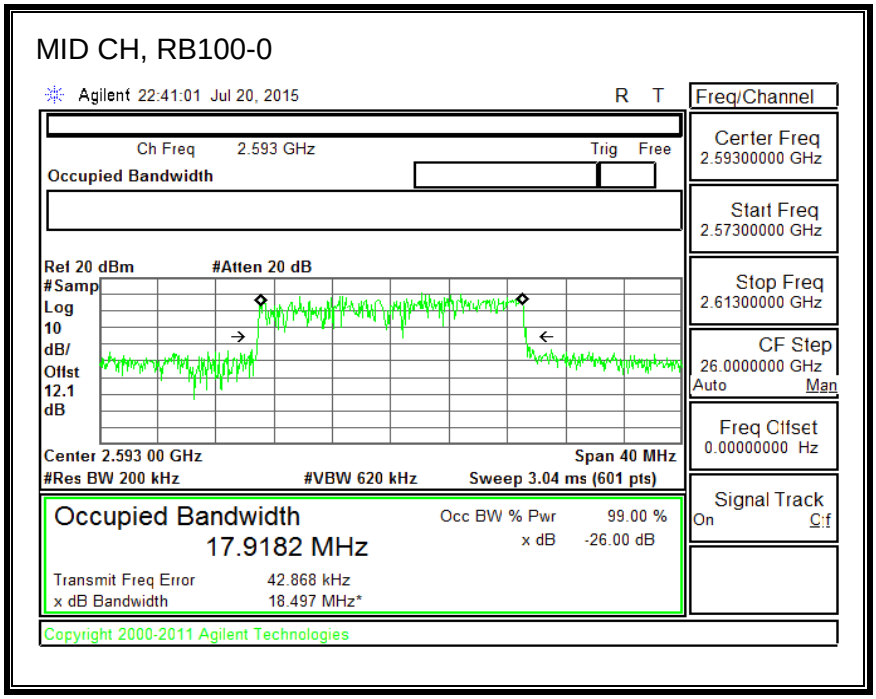
QPSK, (20.0 MHz BAND WIDTH)



16QAM, (20.0 MHz BAND WIDTH)



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8.2. BANDEDGE AND EMISSION MASK

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;
(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 13
- LTE Band 17
- LTE Band 25
- LTE Band 26
- LTE Band 41

RESULTS

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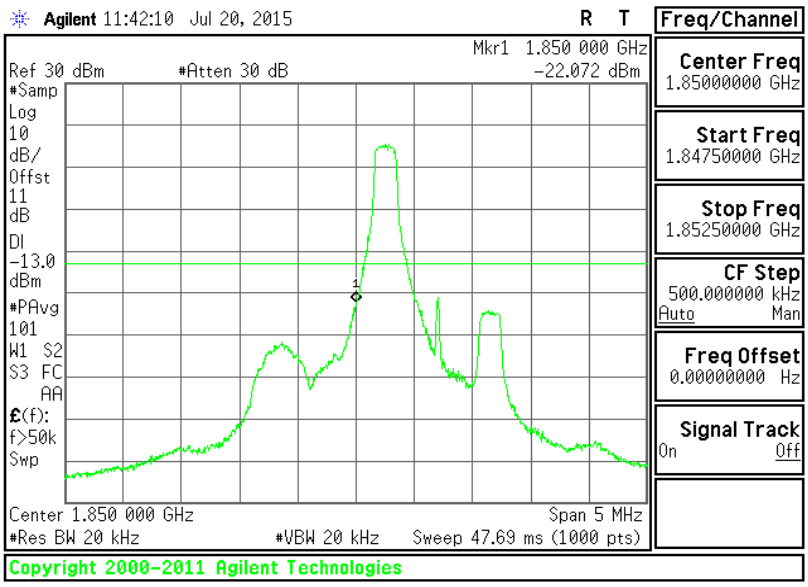
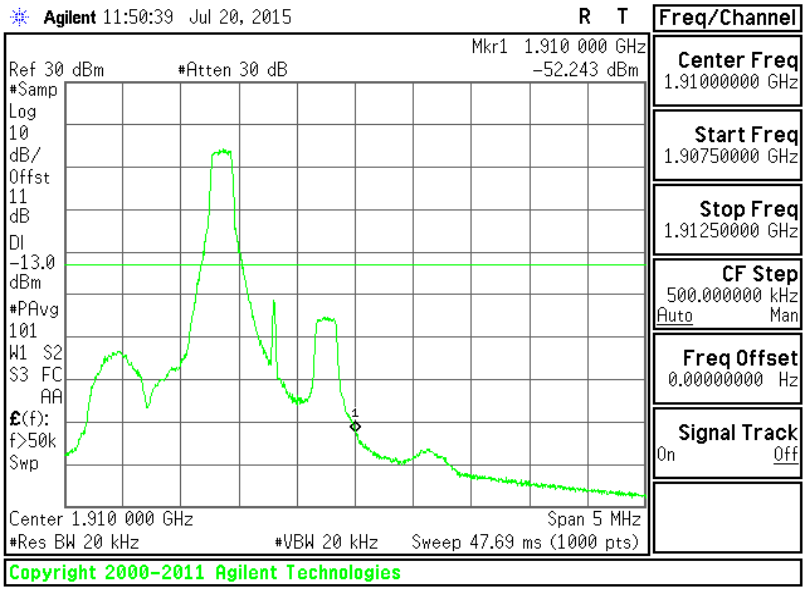
8.2.1. LTE BAND 2 BANDEDGE

QPSK, (1.4 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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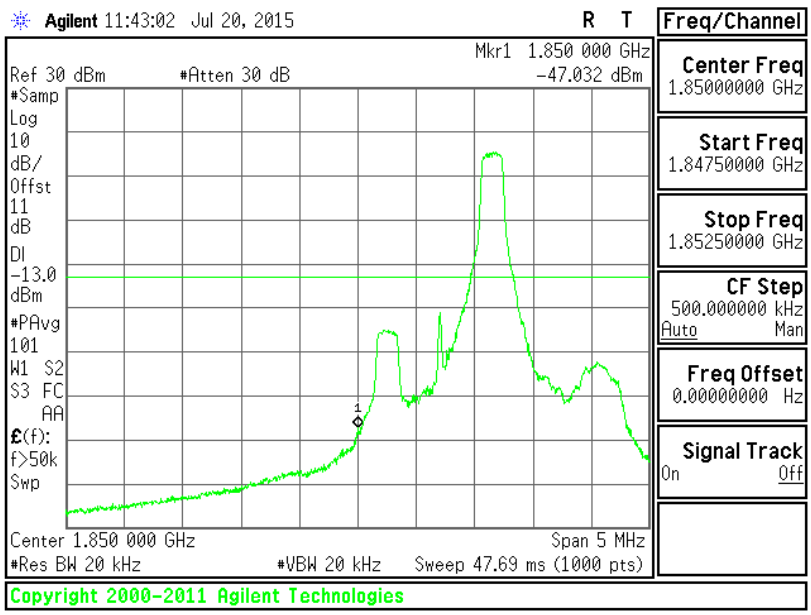
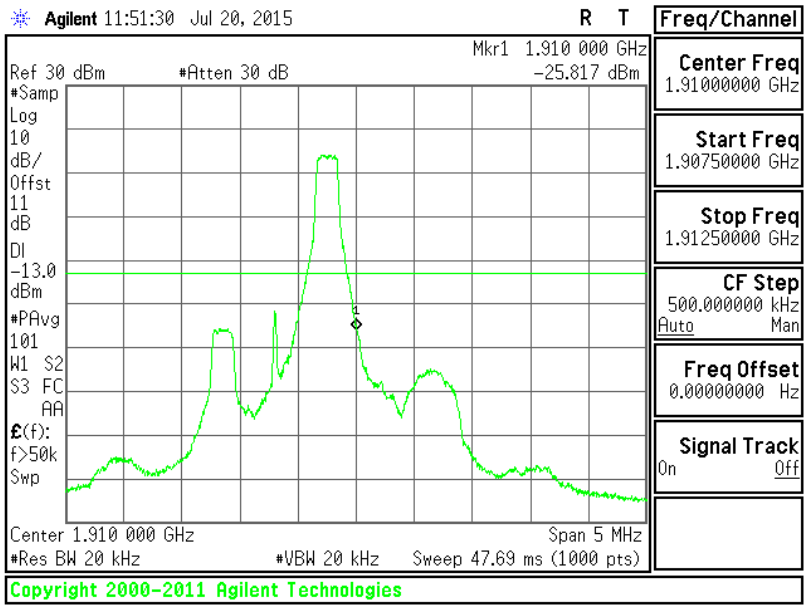
LOW CH, RB1-5



HIGH CH, RB1-5



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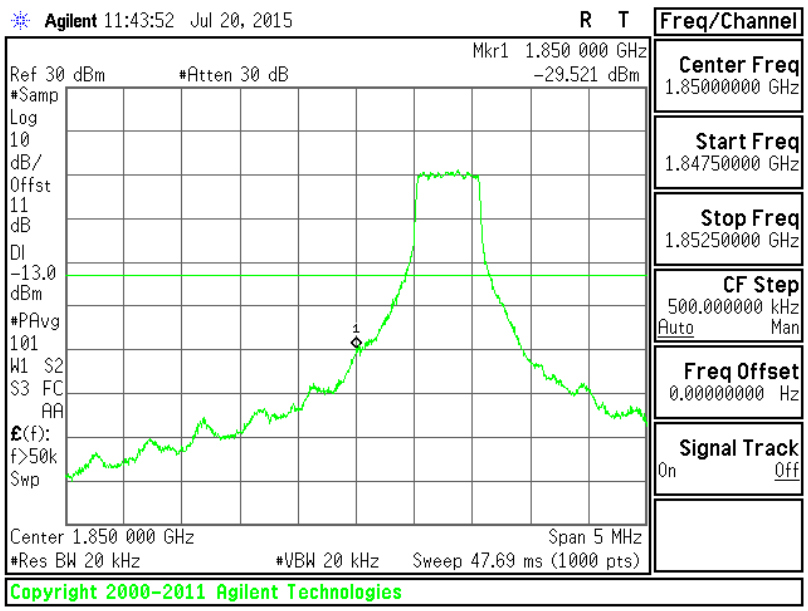
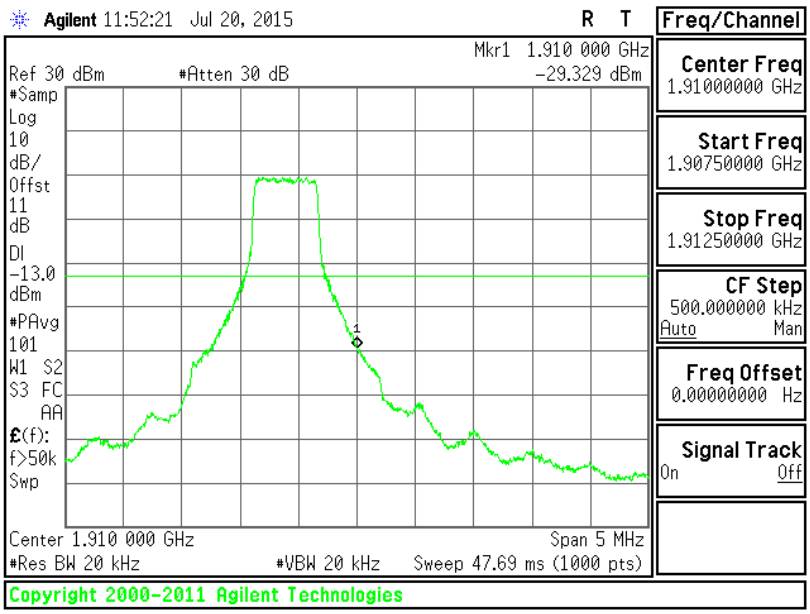
LOW CH, RB3-2



HIGH CH, RB3-2



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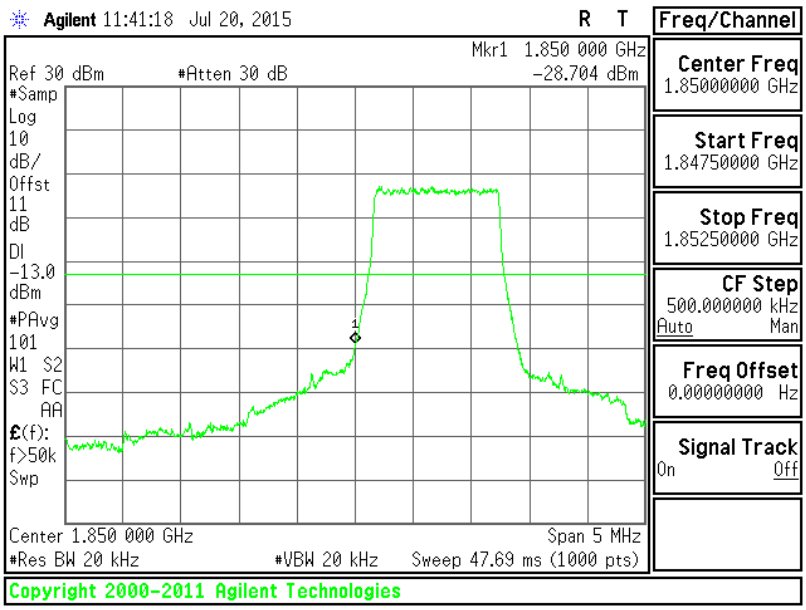
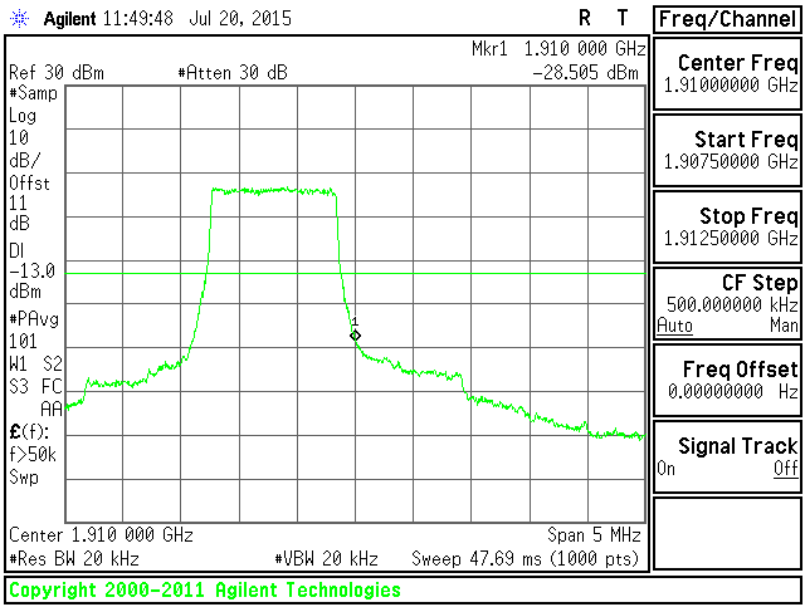
LOW CH, RB6-0



HIGH CH, RB6-0



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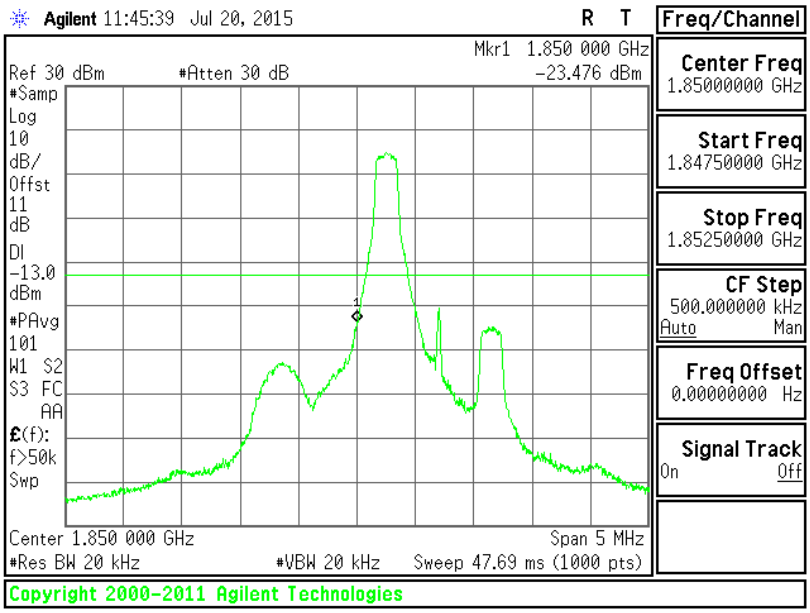
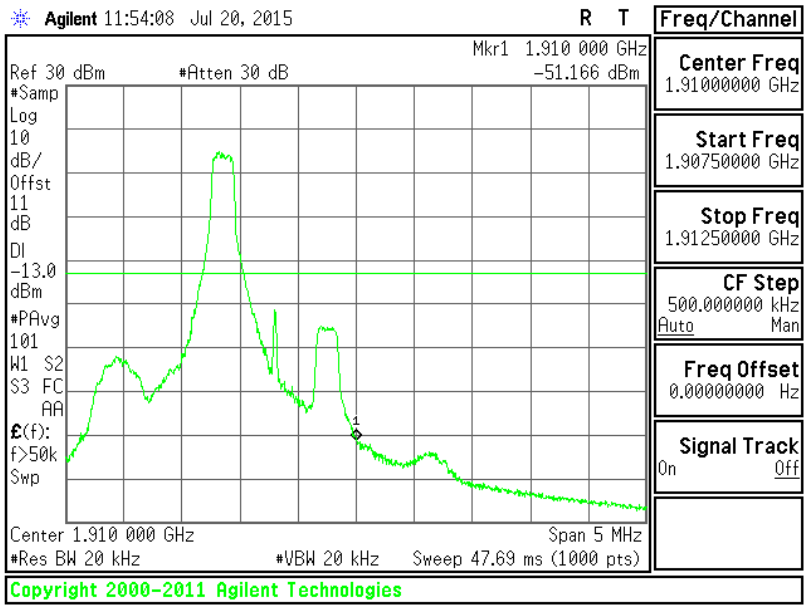
16QAM, (1.4 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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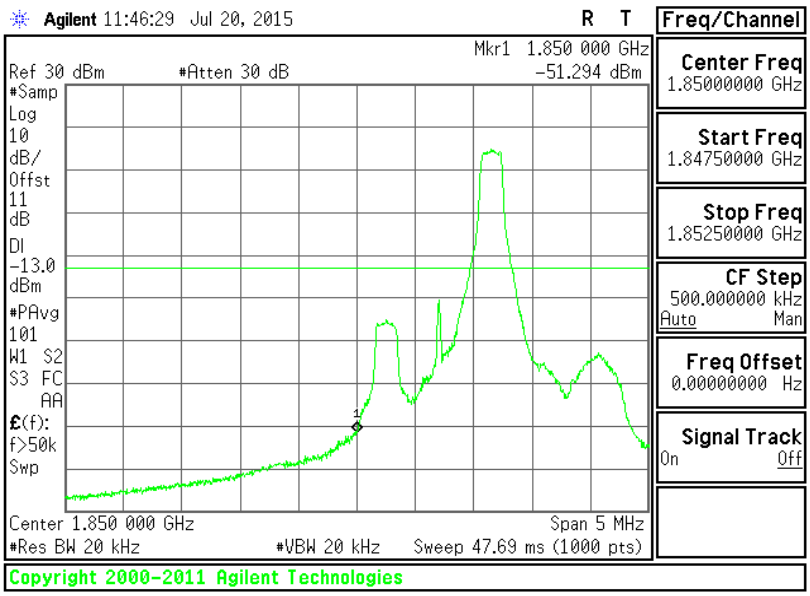
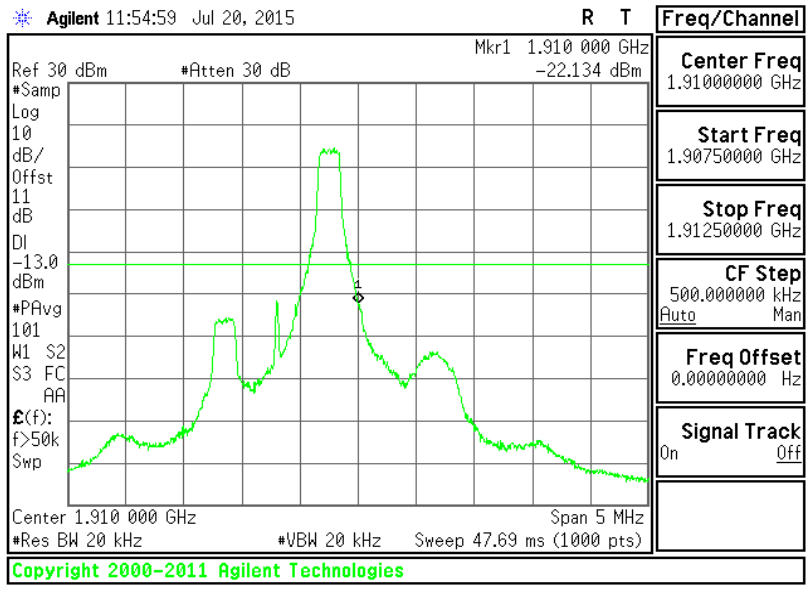
LOW CH, RB1-5



HIGH CH, RB1-5



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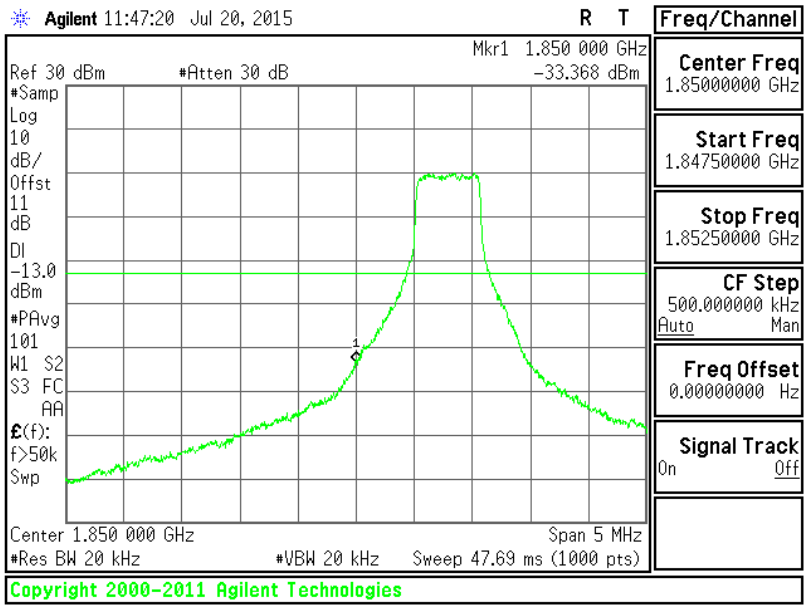
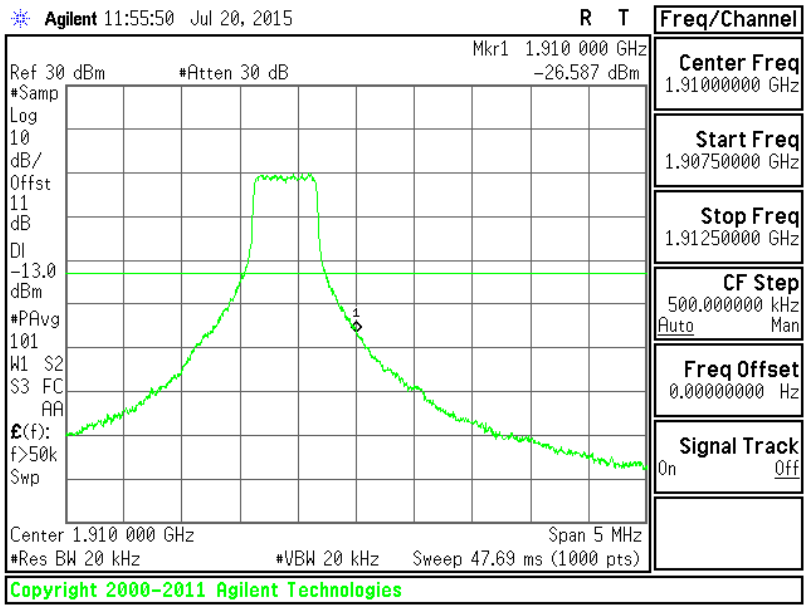
LOW CH, RB3-2



HIGH CH, RB3-2



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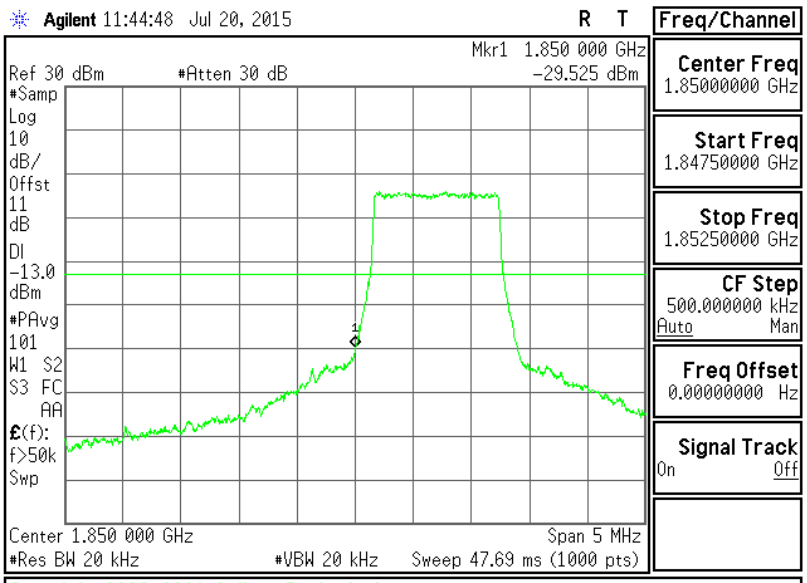
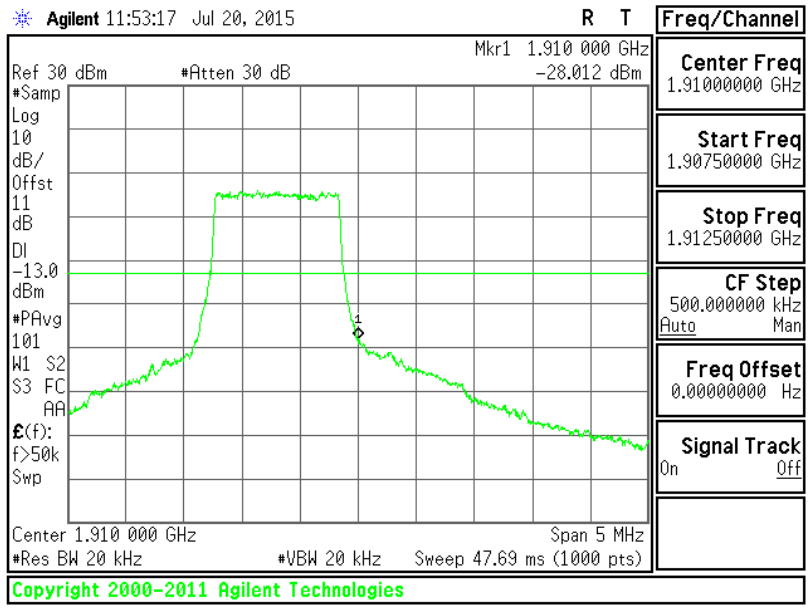
LOW CH, RB6-0



HIGH CH, RB6-0



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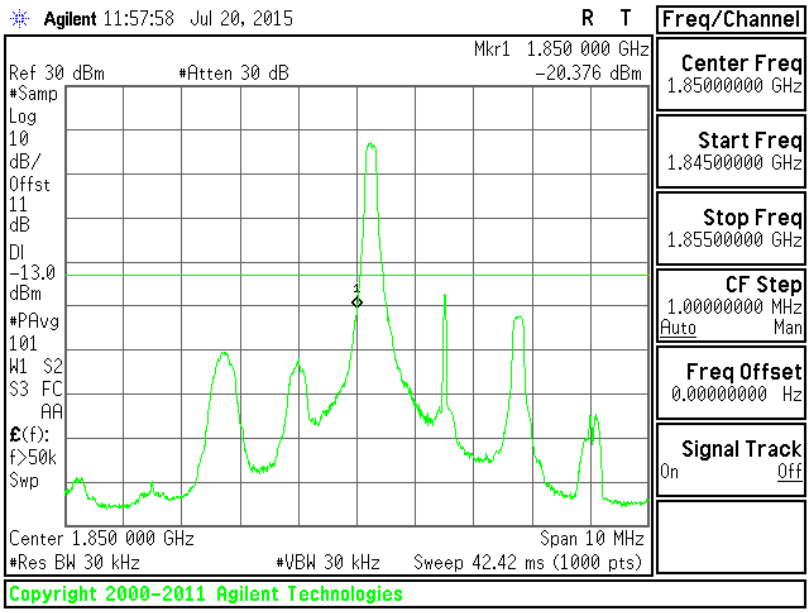
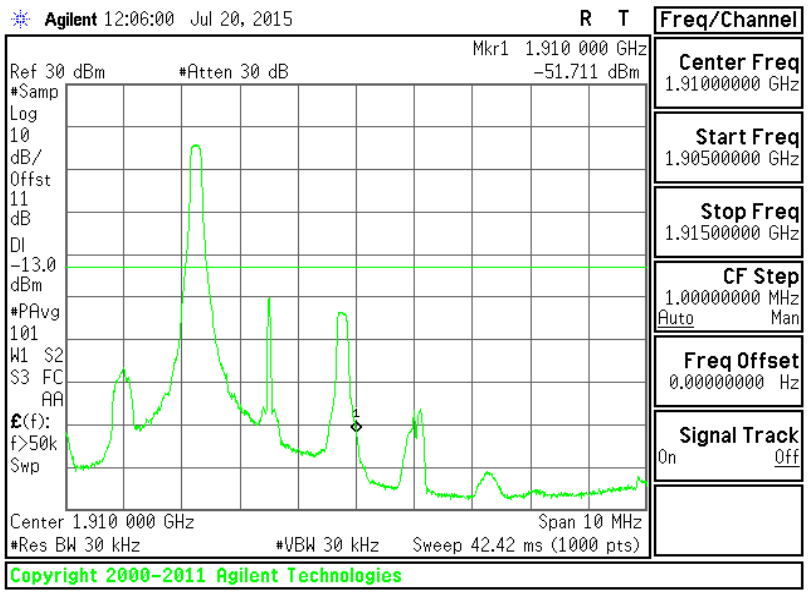
QPSK, (3.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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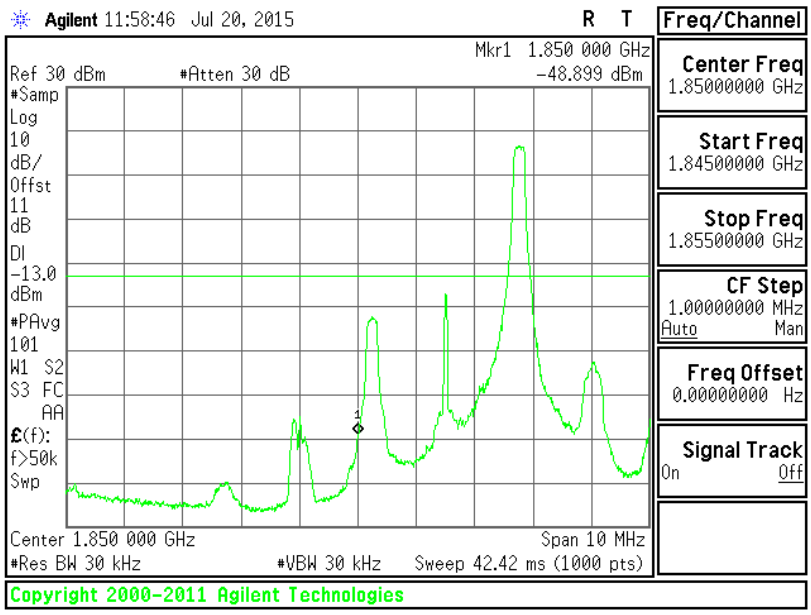
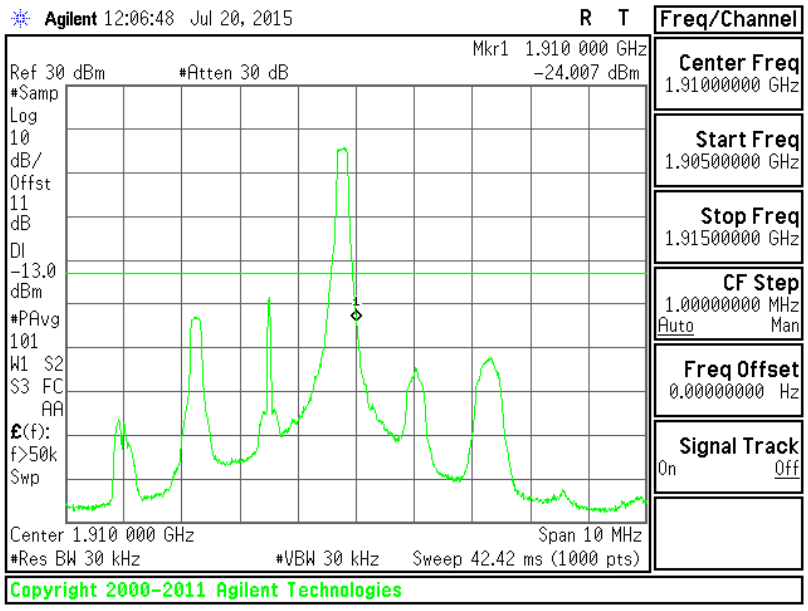
LOW CH, RB1-14



HIGH CH, RB1-14



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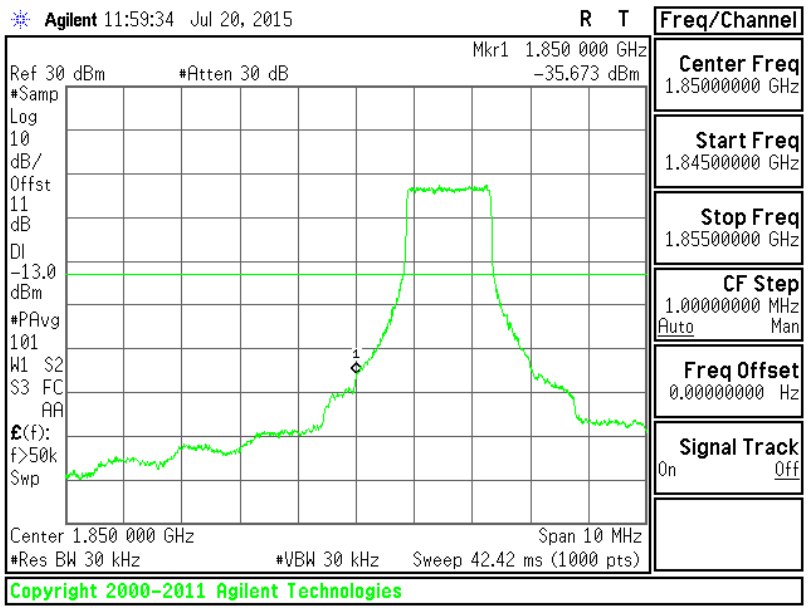
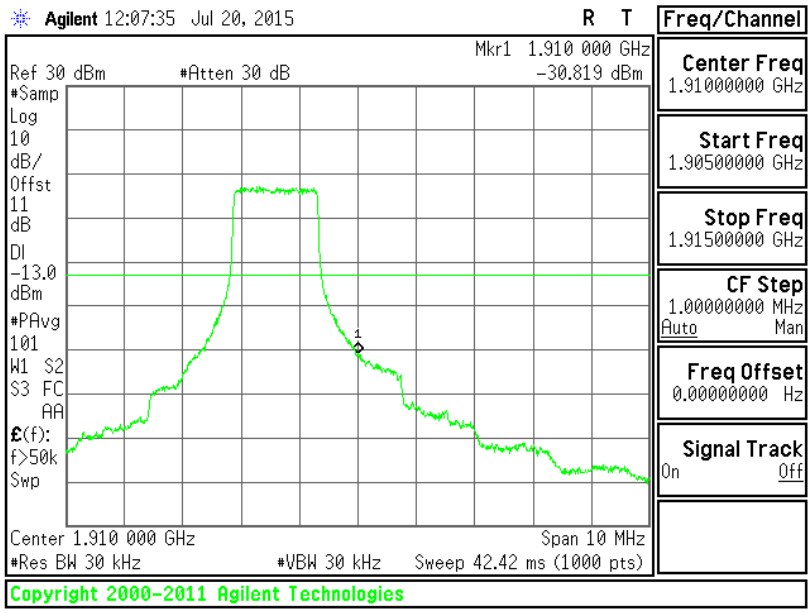
LOW CH, RB8-4



HIGH CH, RB8-4



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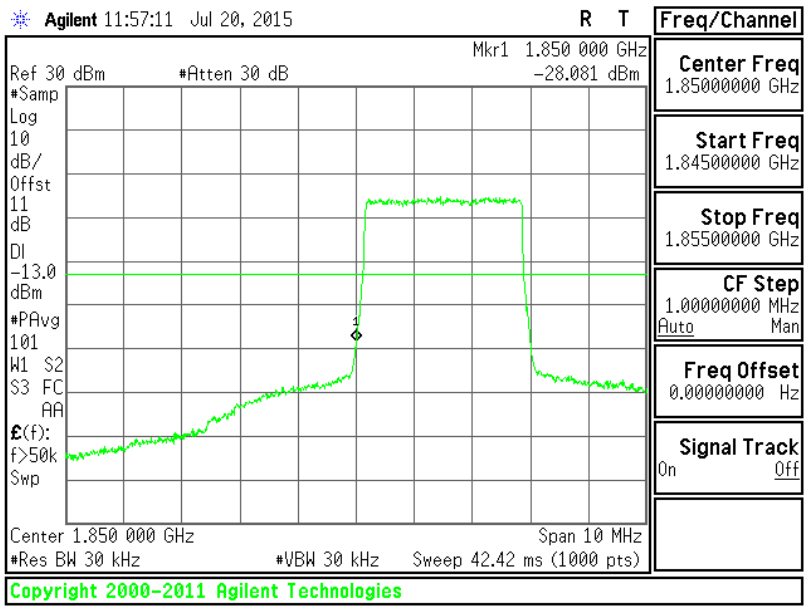
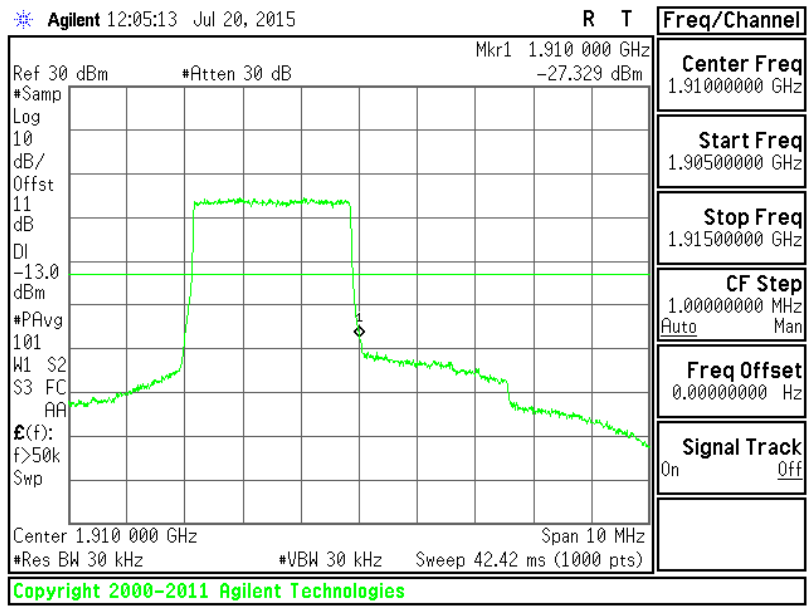
LOW CH, RB15-0



HIGH CH, RB15-0



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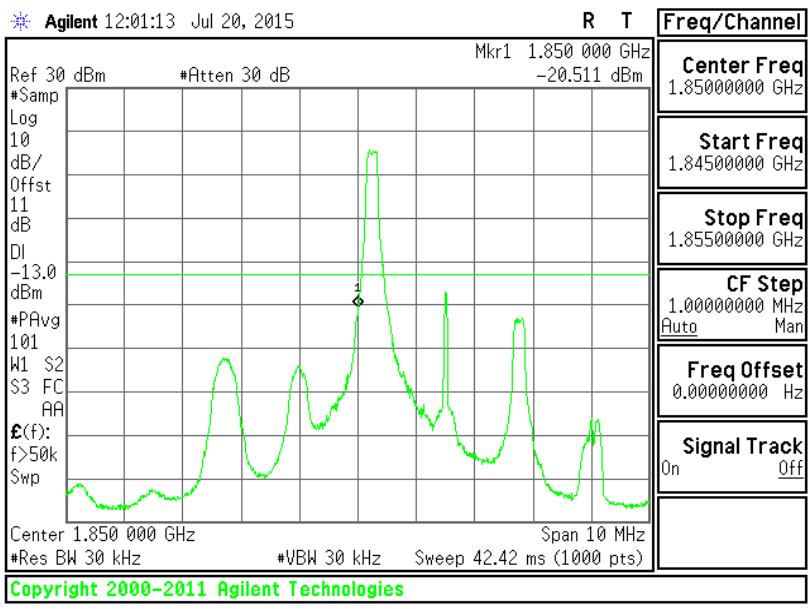
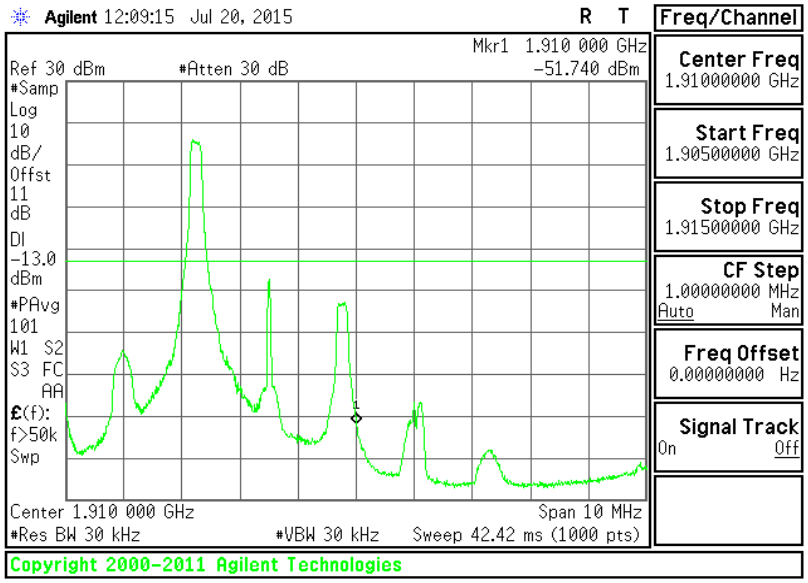
16QAM, (3.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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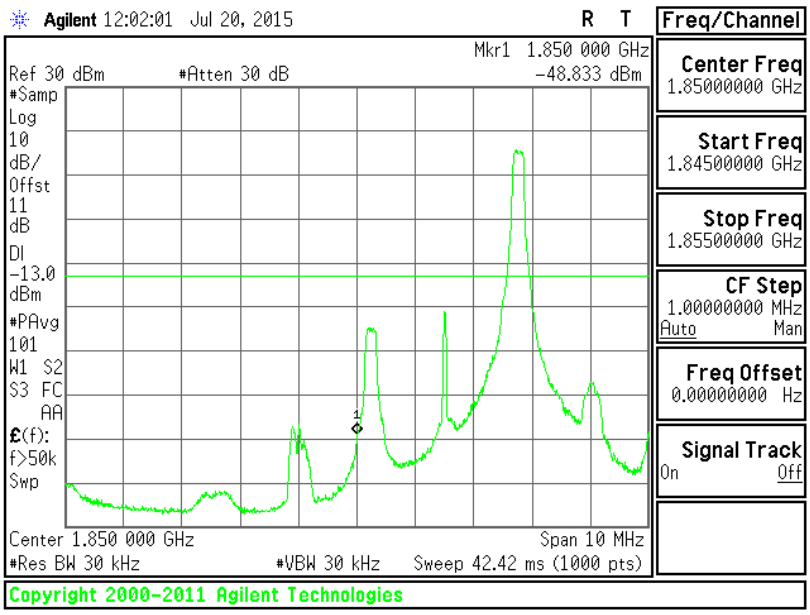
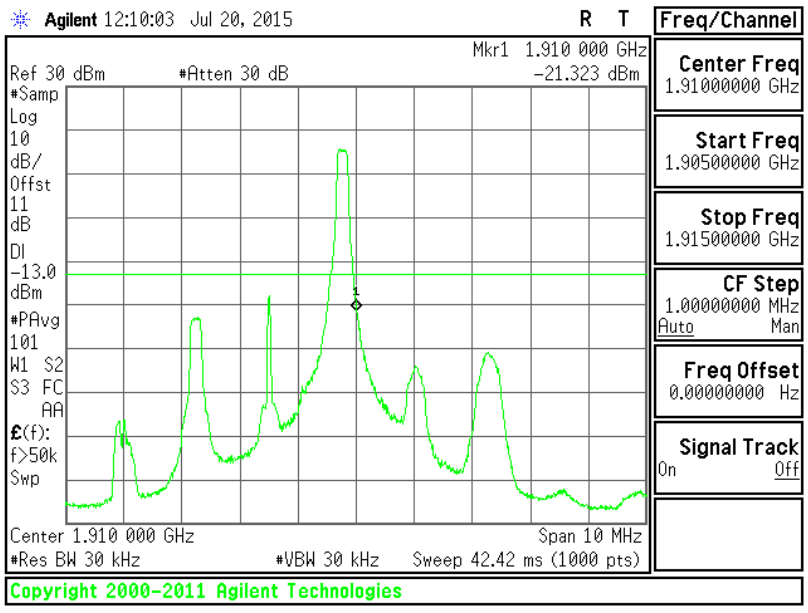
LOW CH, RB1-14



HIGH CH, RB1-14



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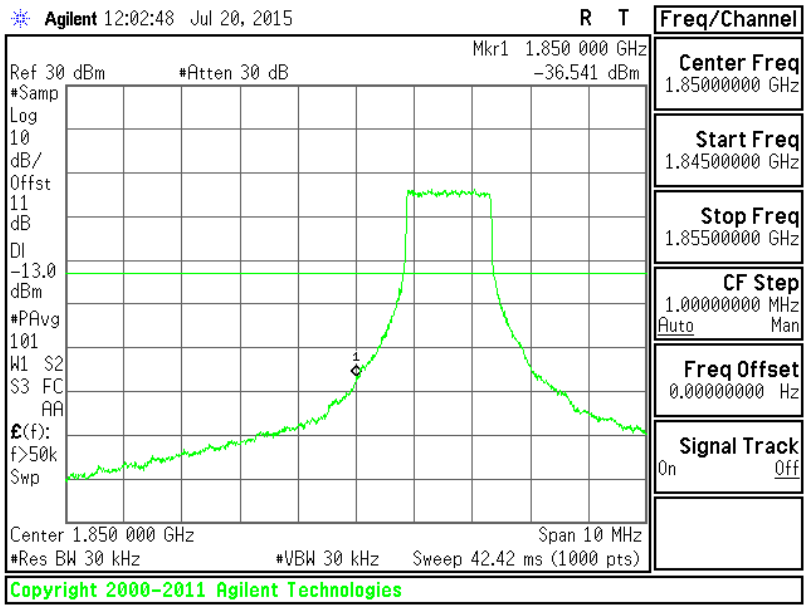
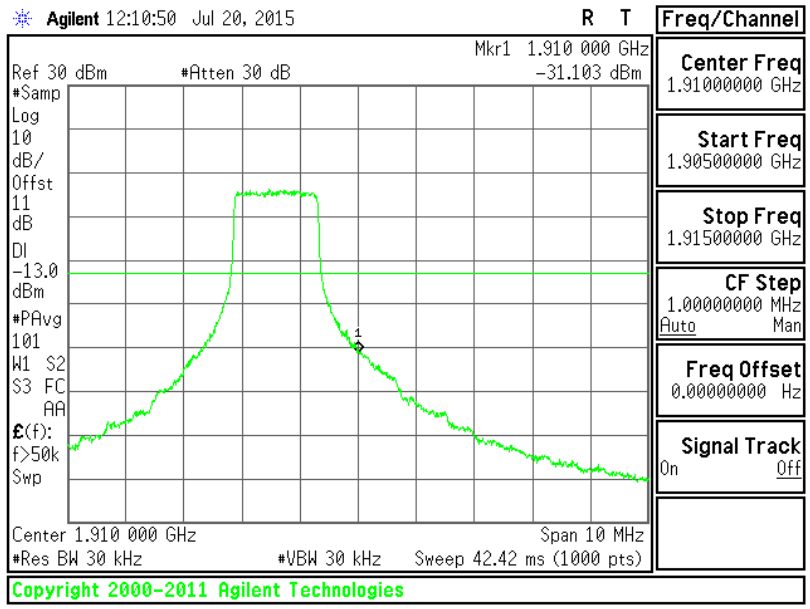
LOW CH, RB8-4



HIGH CH, RB8-4



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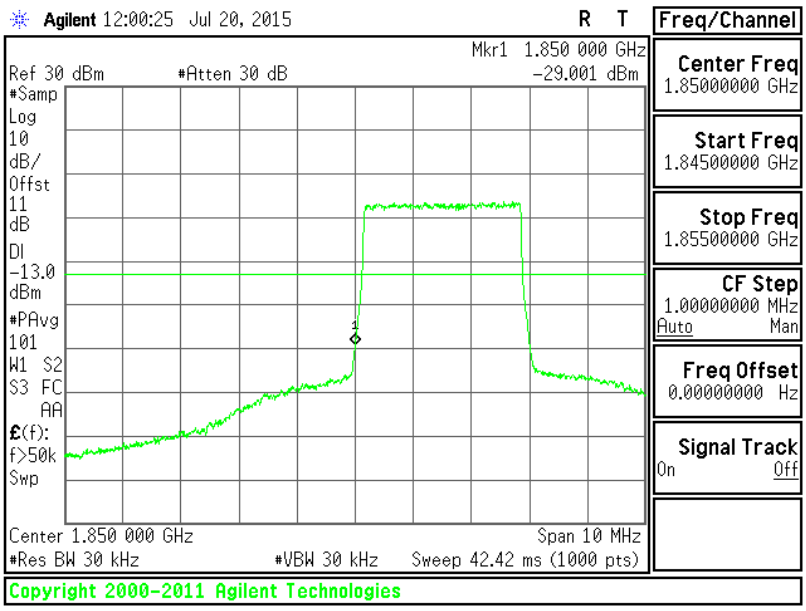
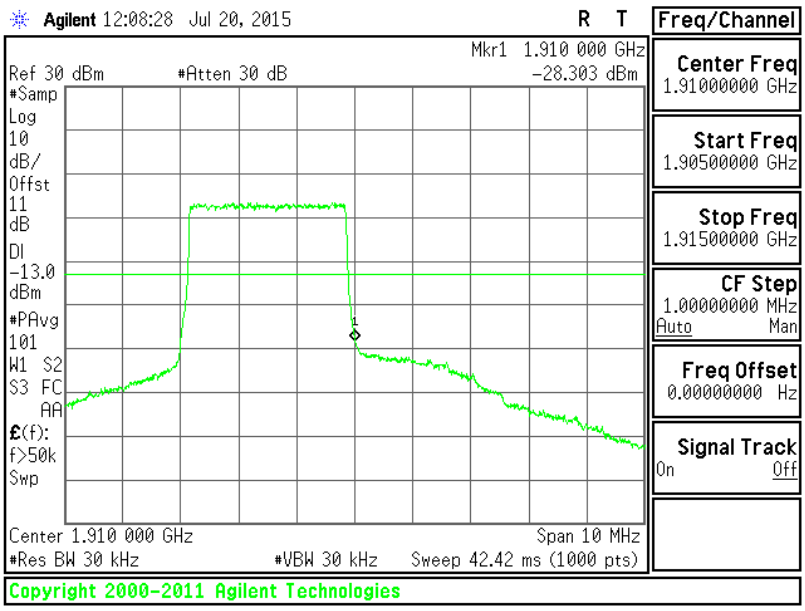
LOW CH, RB15-0



HIGH CH, RB15-0



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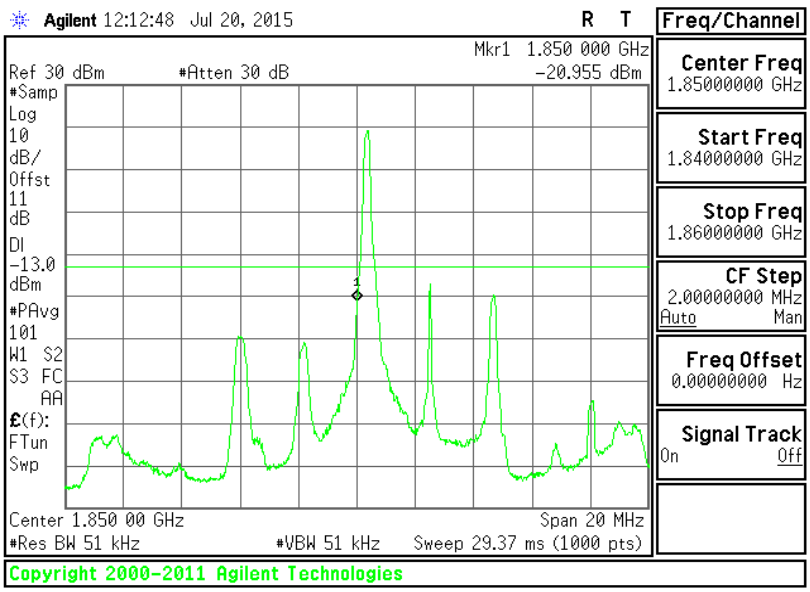
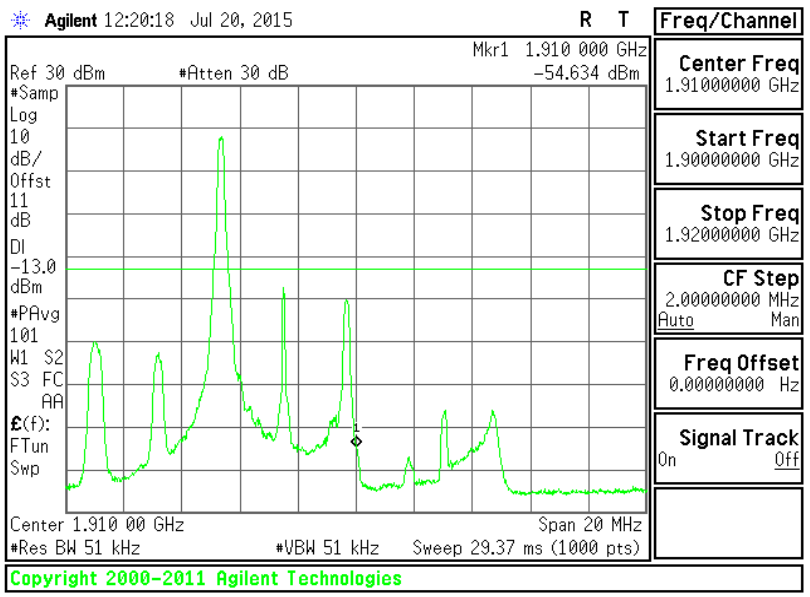
QPSK, (5.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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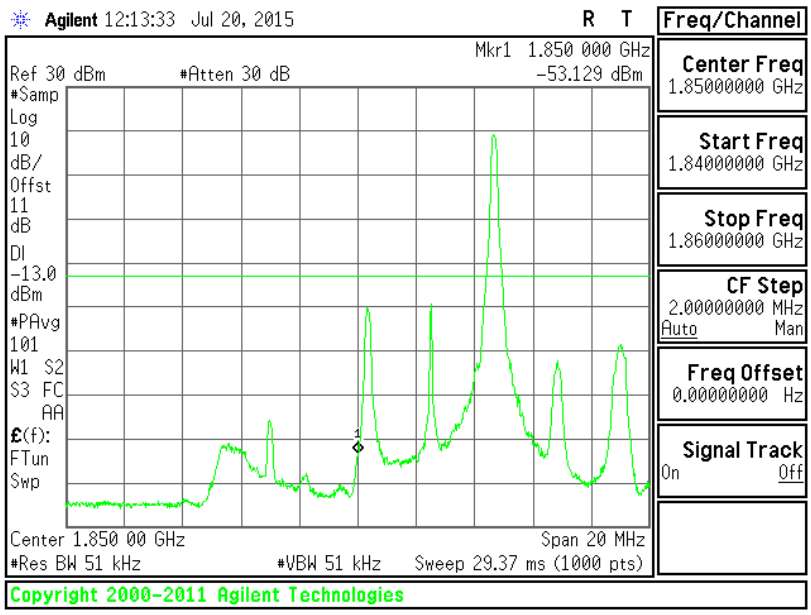
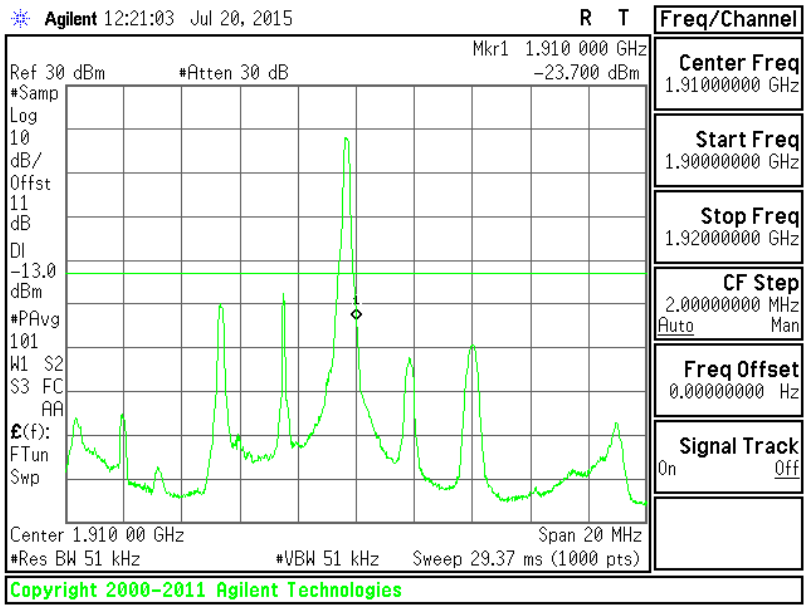
LOW CH, RB1-24



HIGH CH, RB1-24



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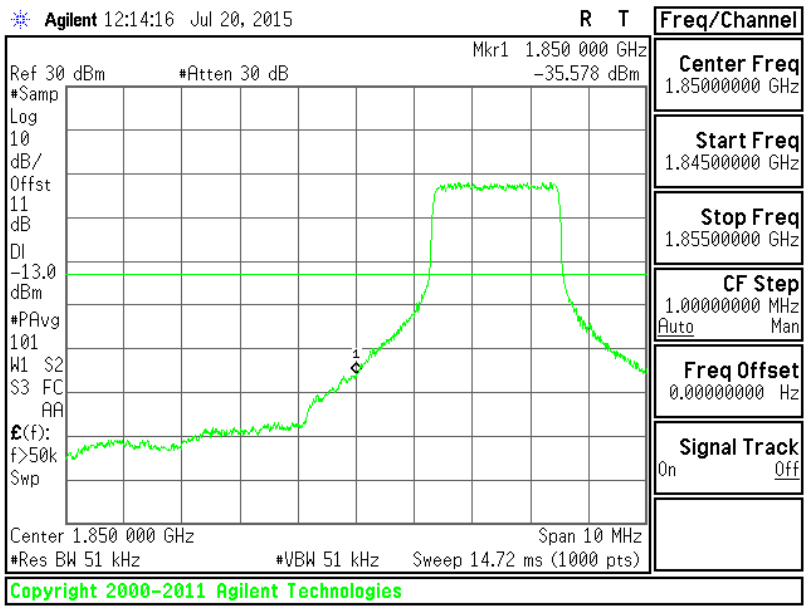
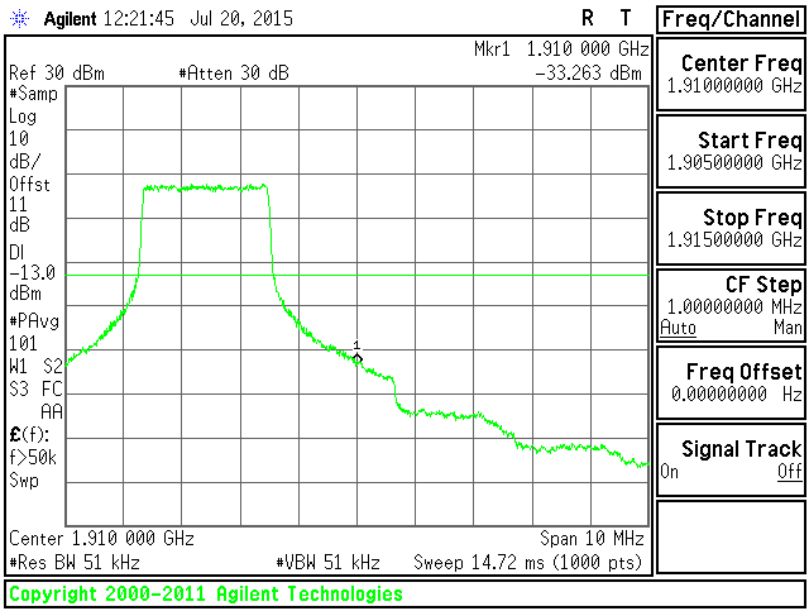
LOW CH, RB12-6



HIGH CH, RB12-6



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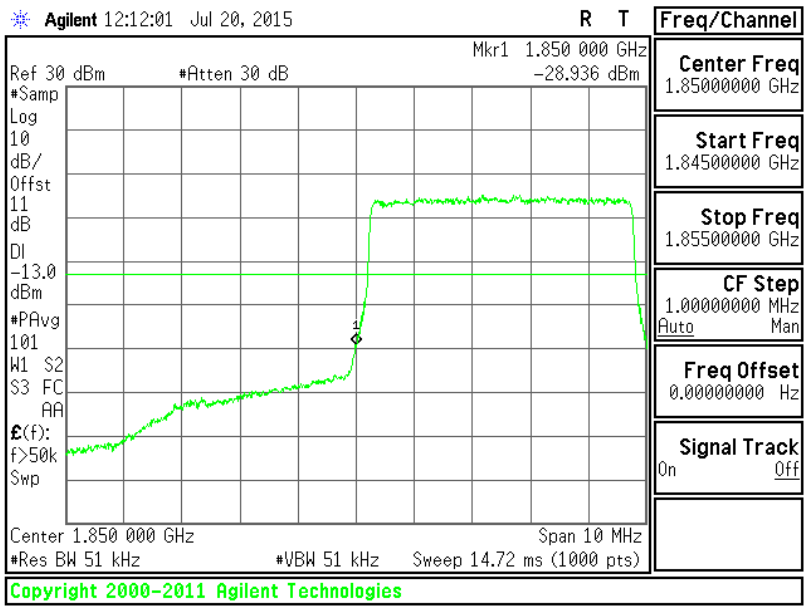
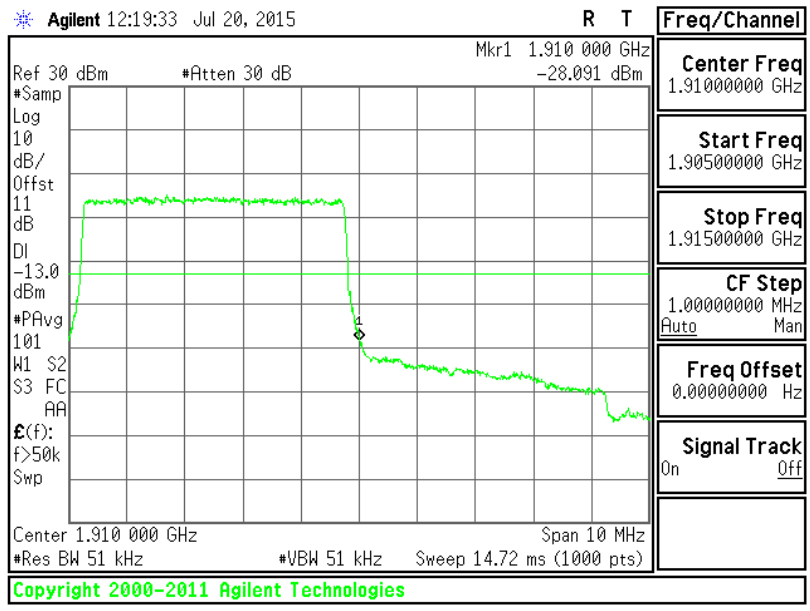
LOW CH, RB25-0



HIGH CH, RB25-0



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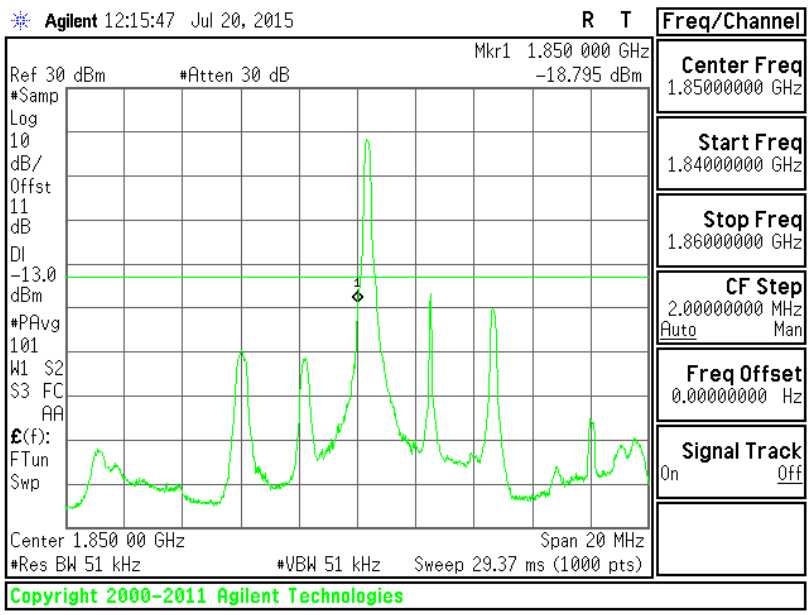
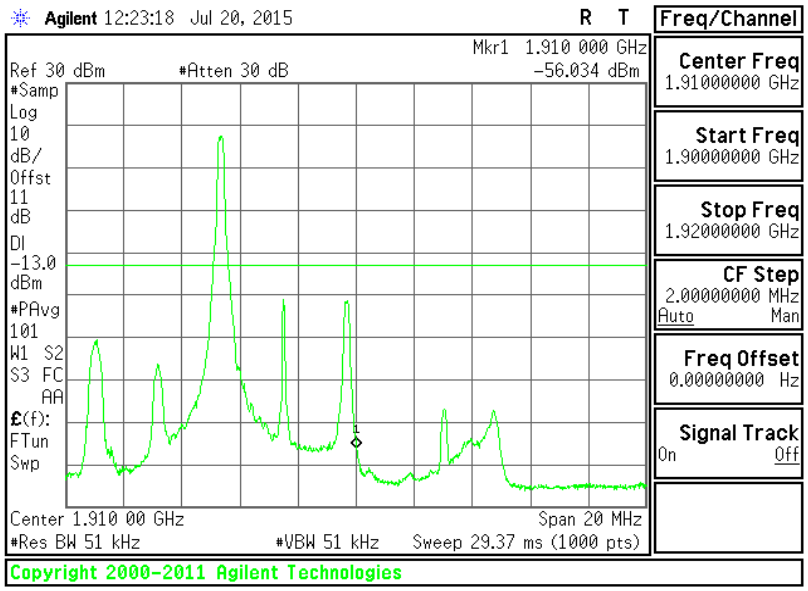
16QAM, (5.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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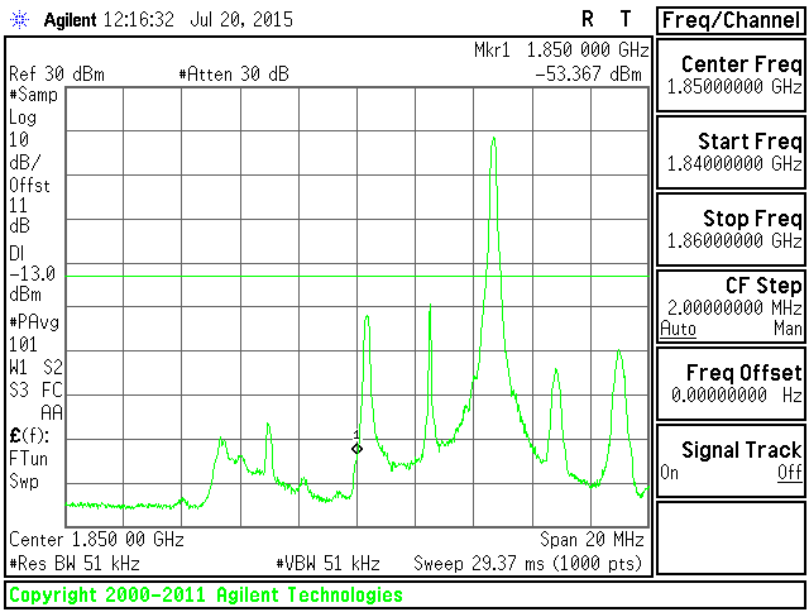
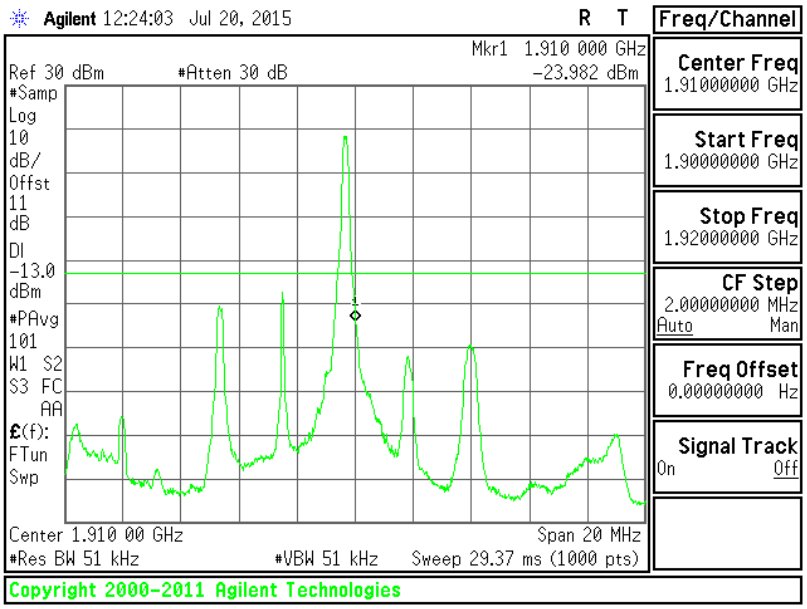
LOW CH, RB1-24



HIGH CH, RB1-24



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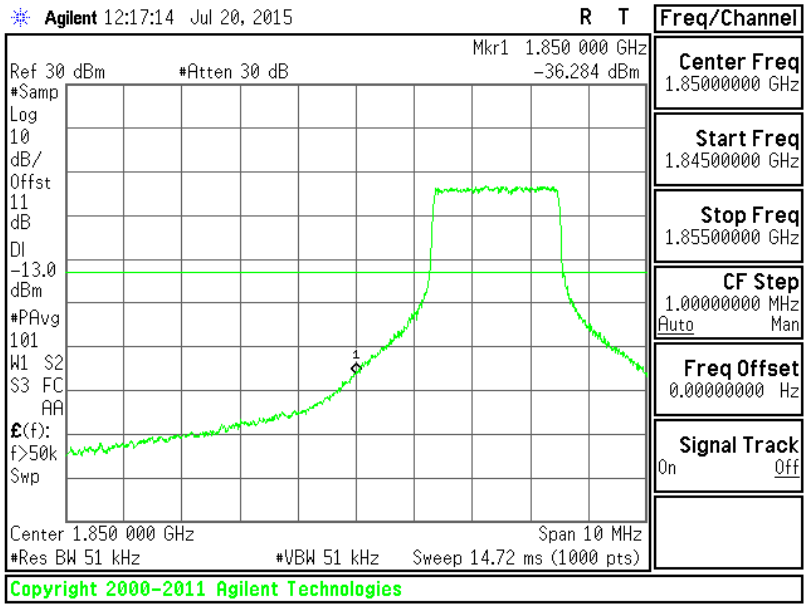
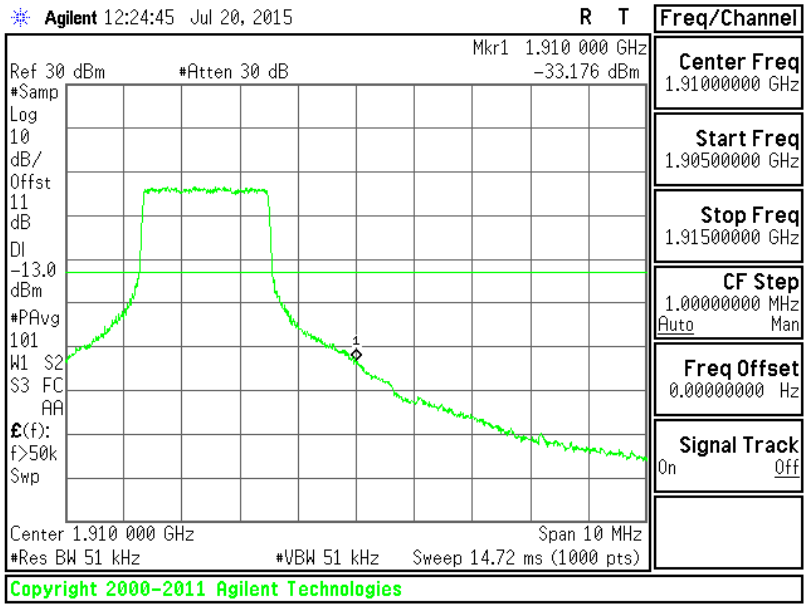
LOW CH, RB12-6



HIGH CH, RB12-6



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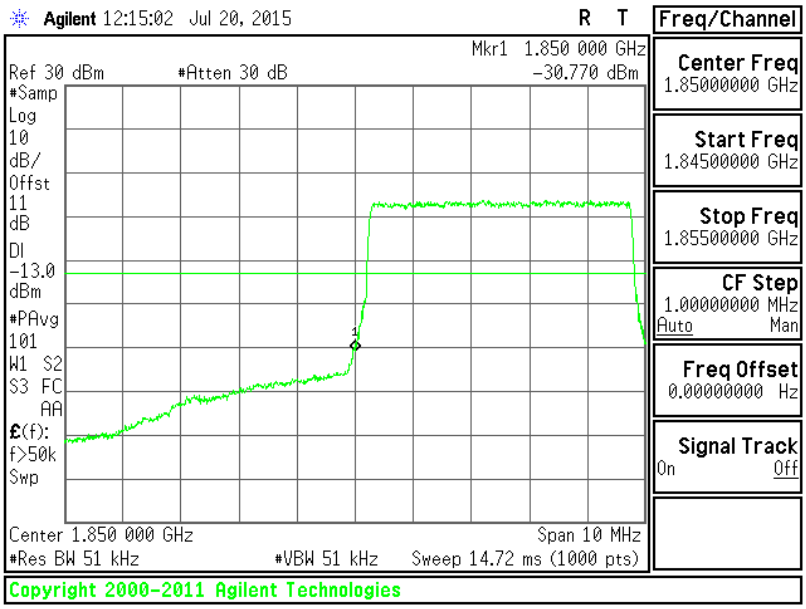
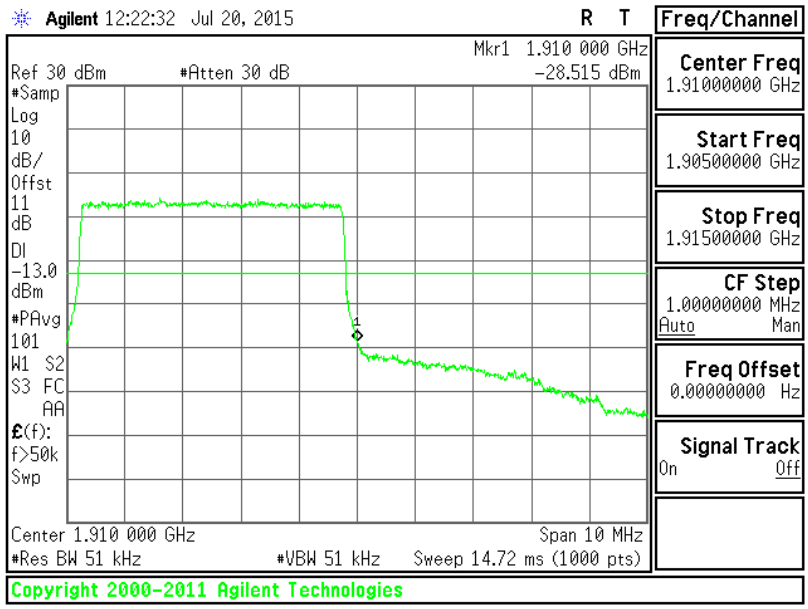
LOW CH, RB25-0



HIGH CH, RB25-0



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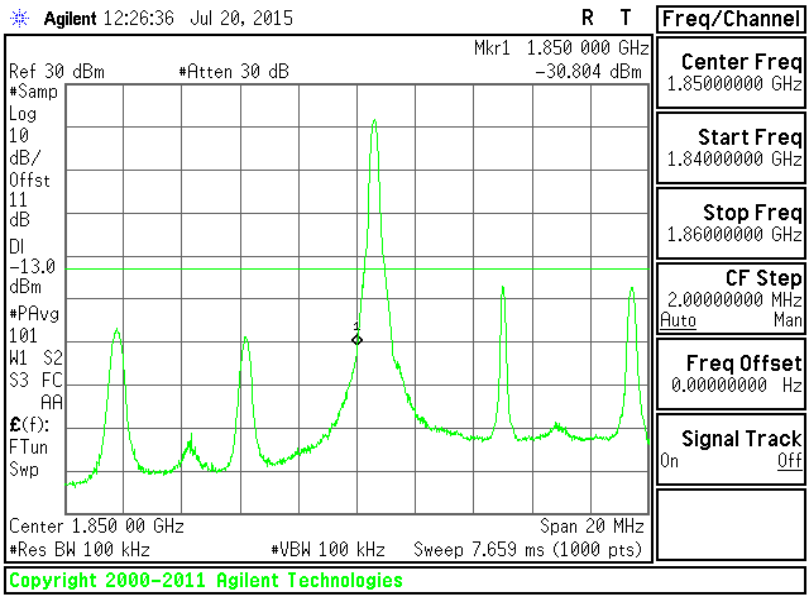
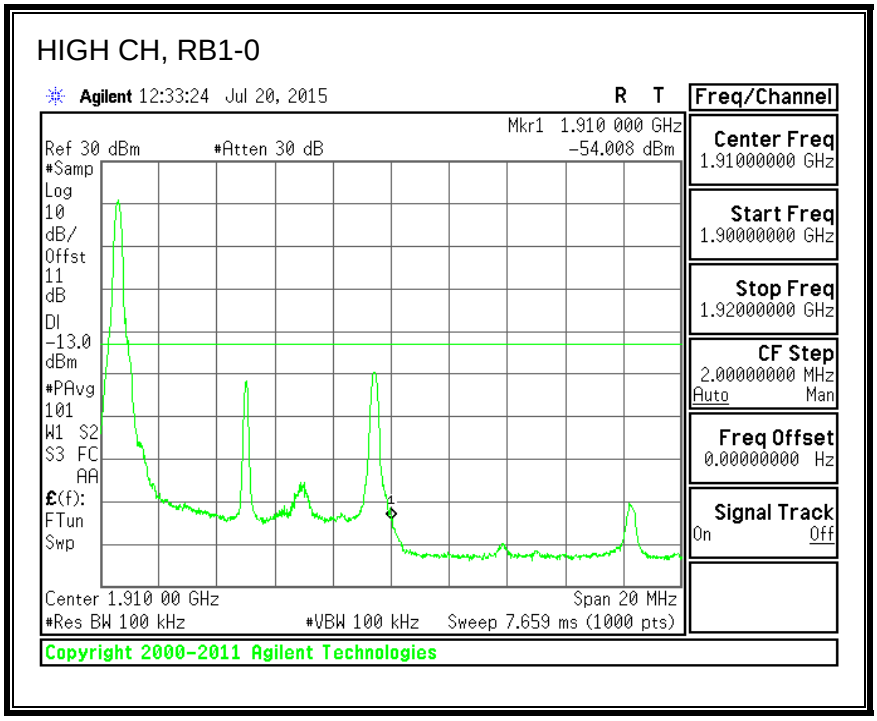
QPSK, (10.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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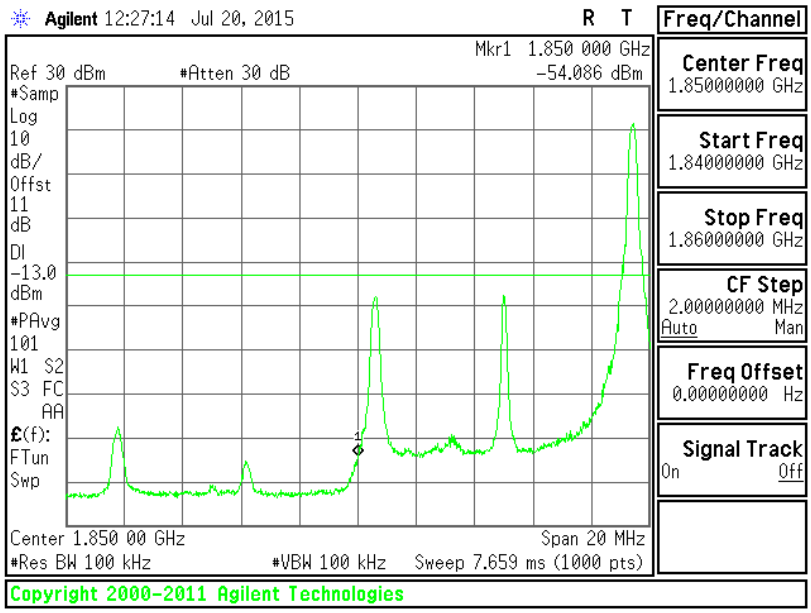
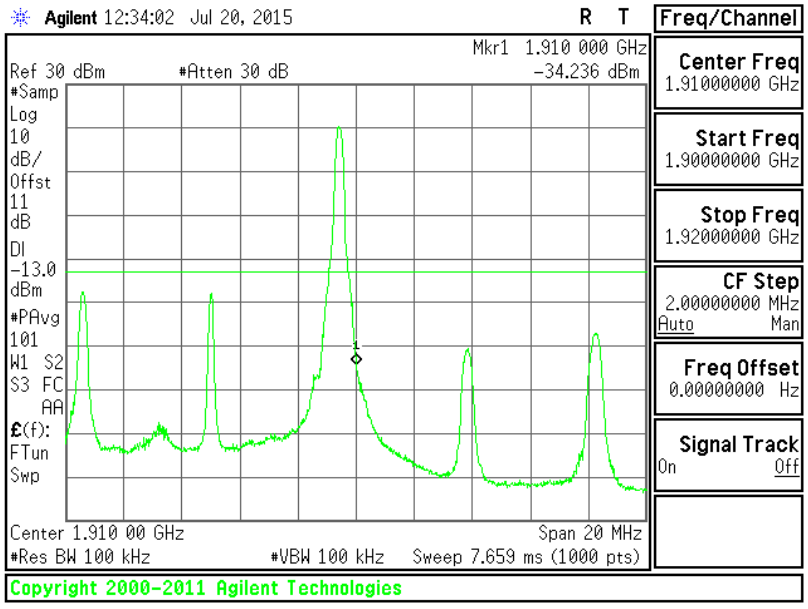
LOW CH, RB1-49



HIGH CH, RB1-49



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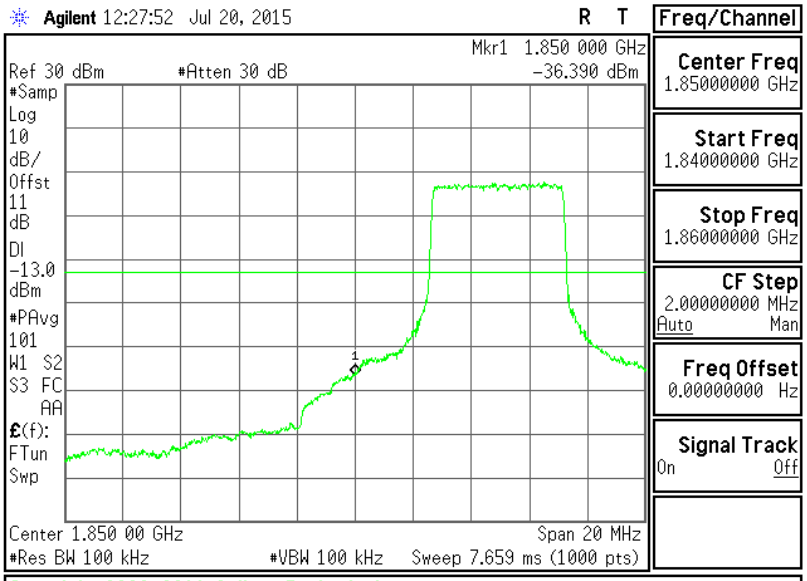
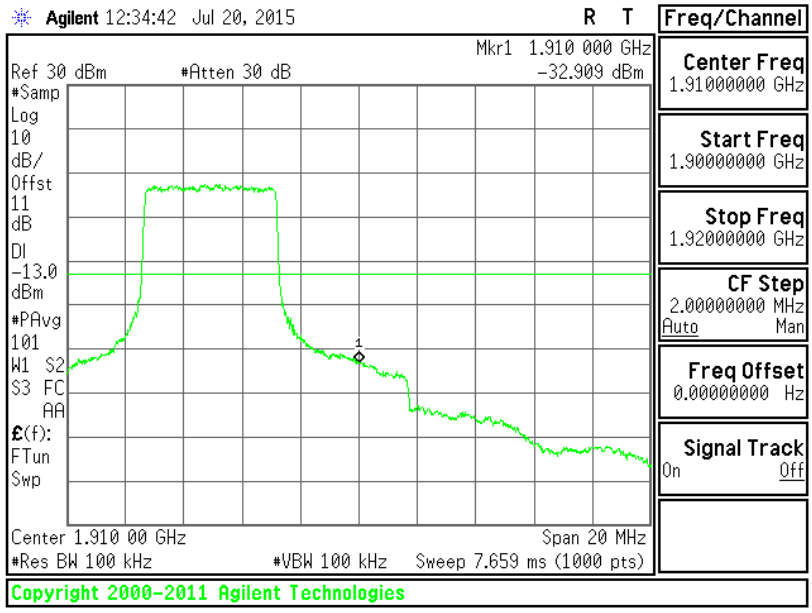
LOW CH, RB25-12



HIGH CH, RB25-12



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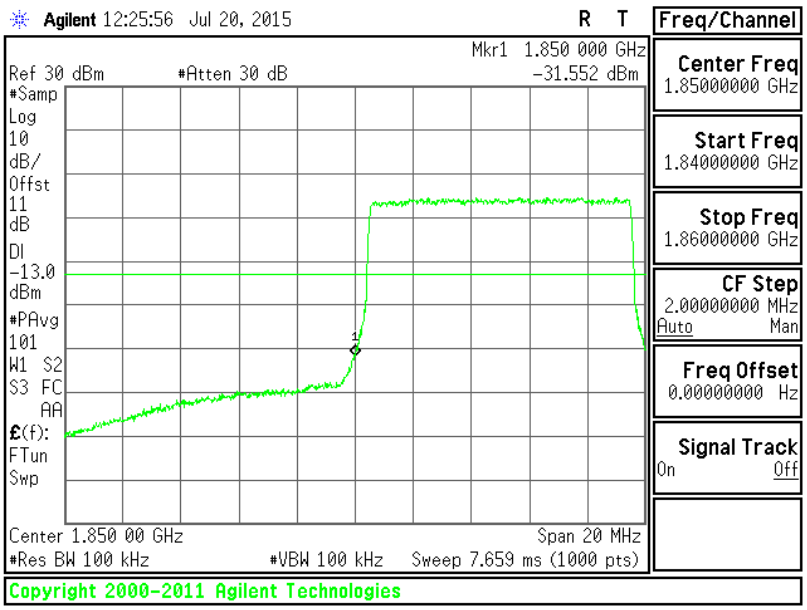
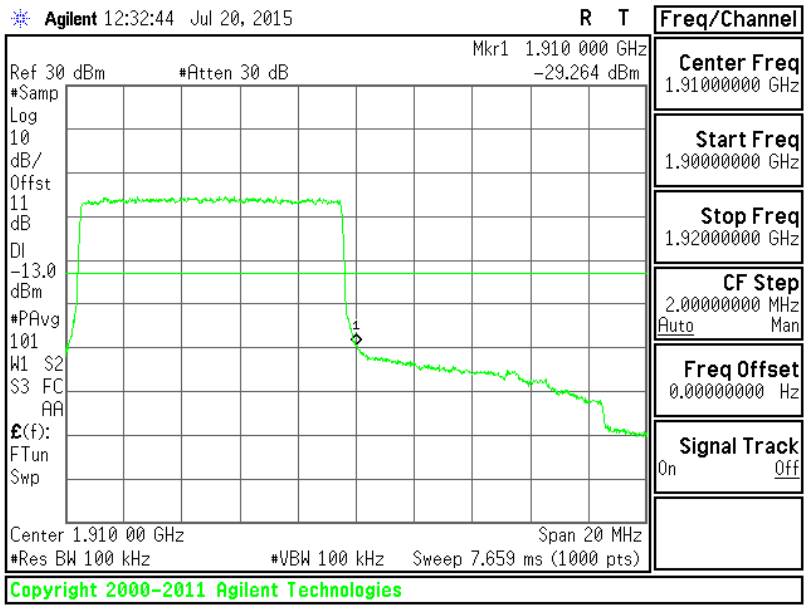
LOW CH, RB50-0



HIGH CH, RB50-0



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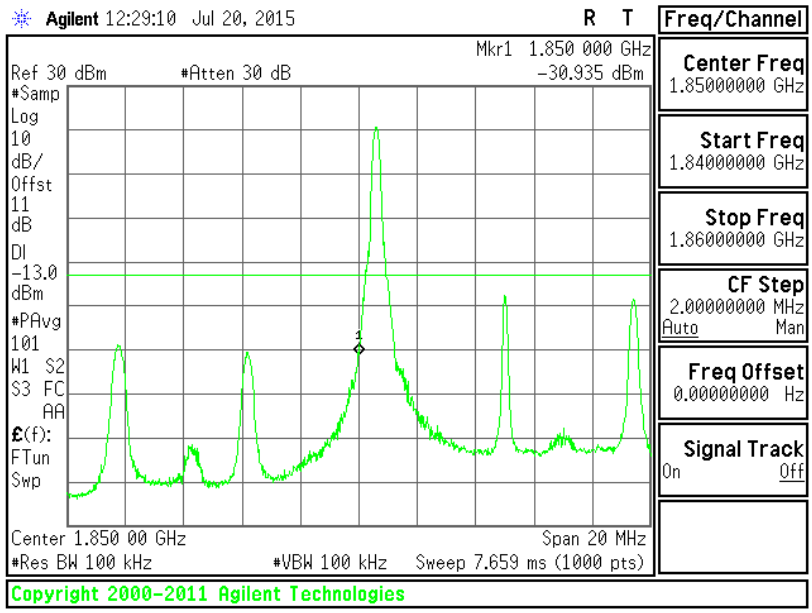
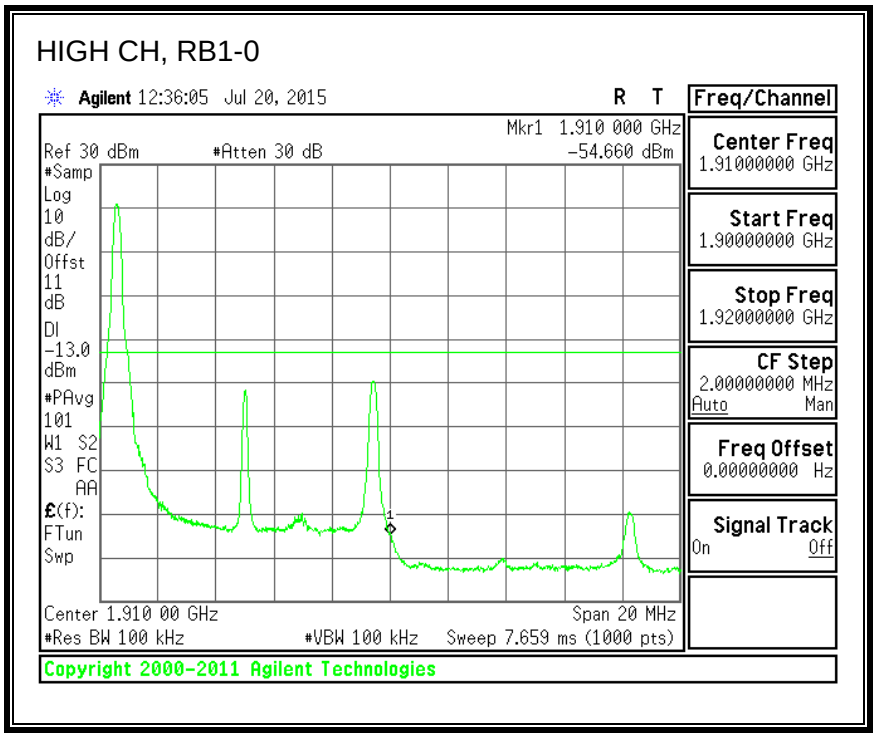
16QAM, (10.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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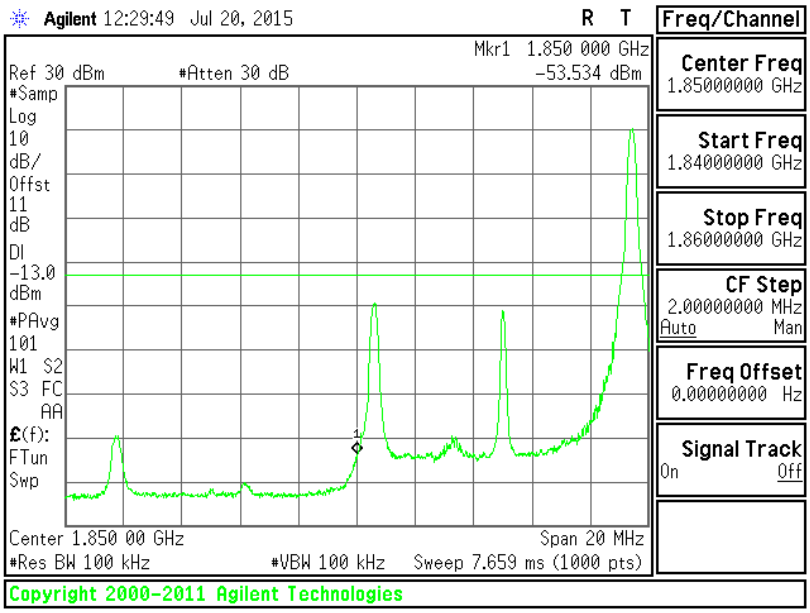
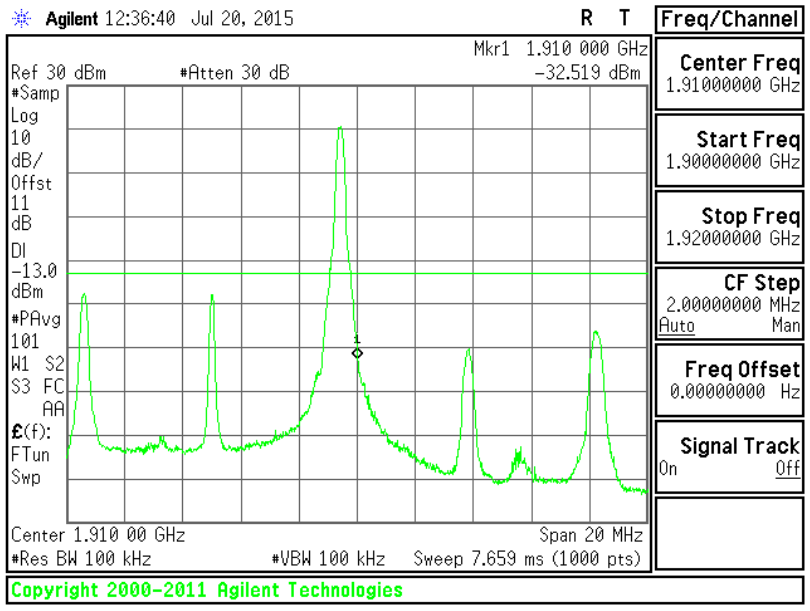
LOW CH, RB1-49



HIGH CH, RB1-49



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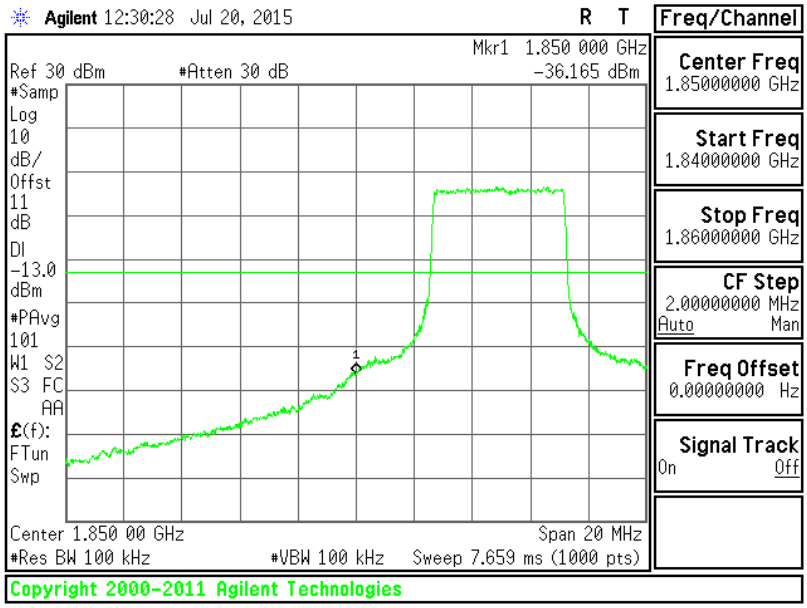
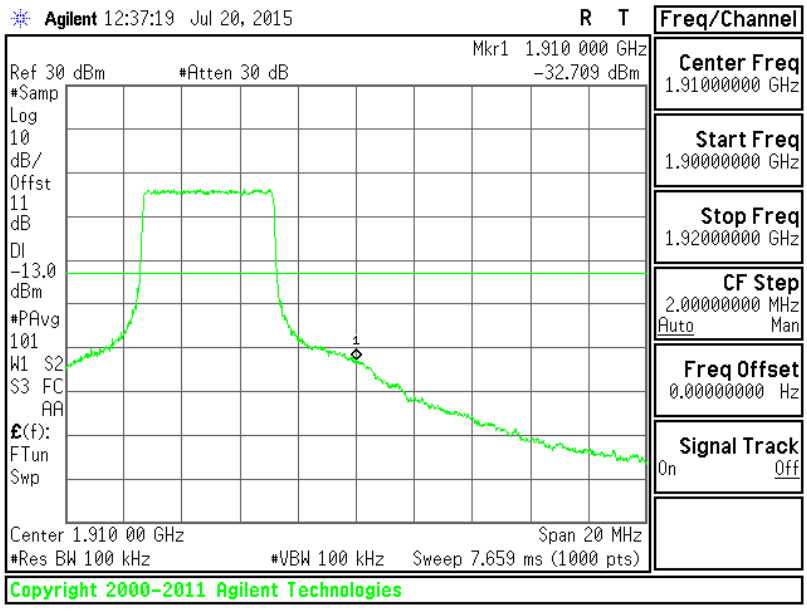
LOW CH, RB25-12



HIGH CH, RB25-12



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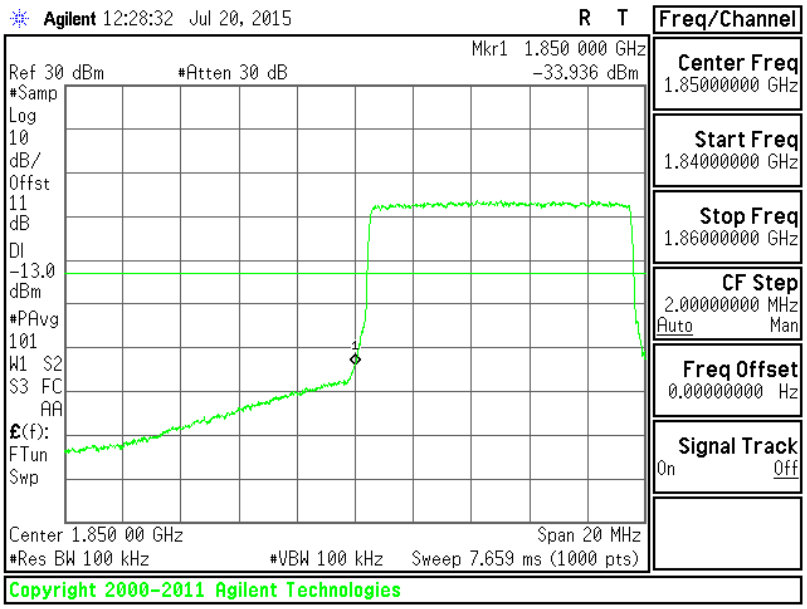
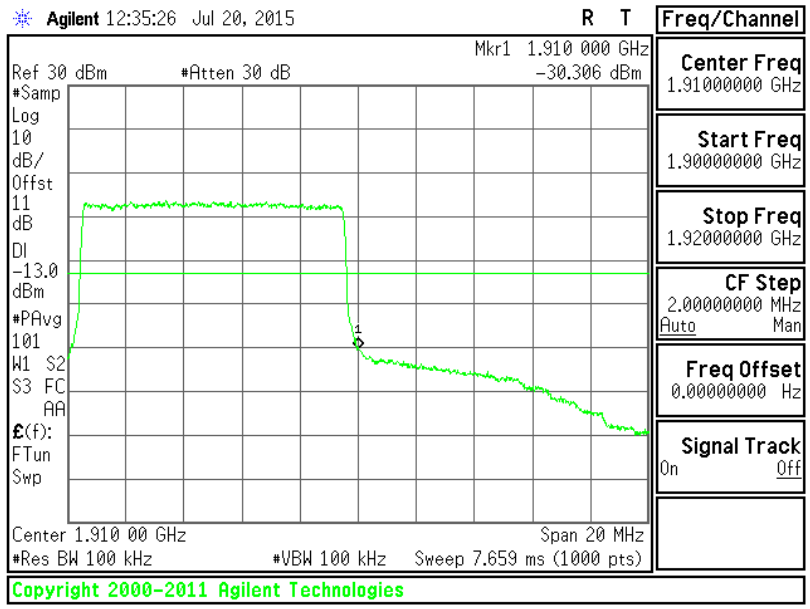
LOW CH, RB50-0



HIGH CH, RB50-0



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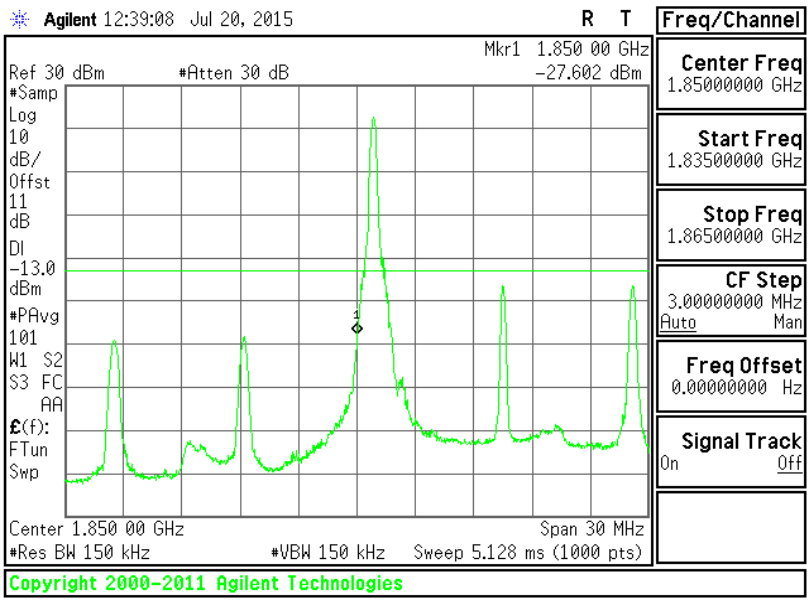
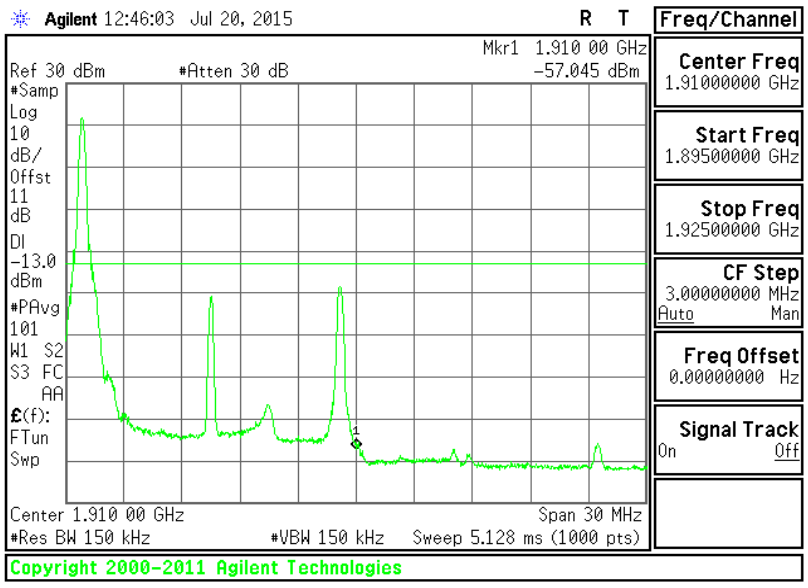
QPSK, (15.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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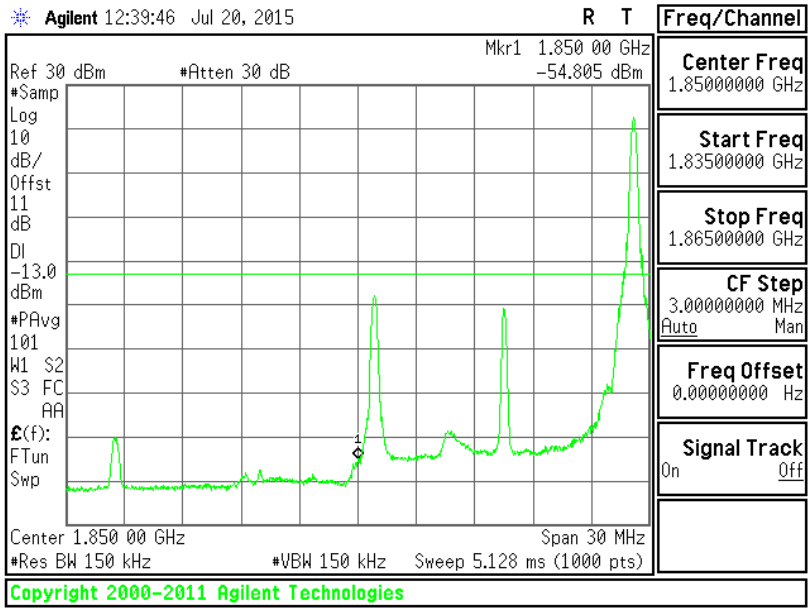
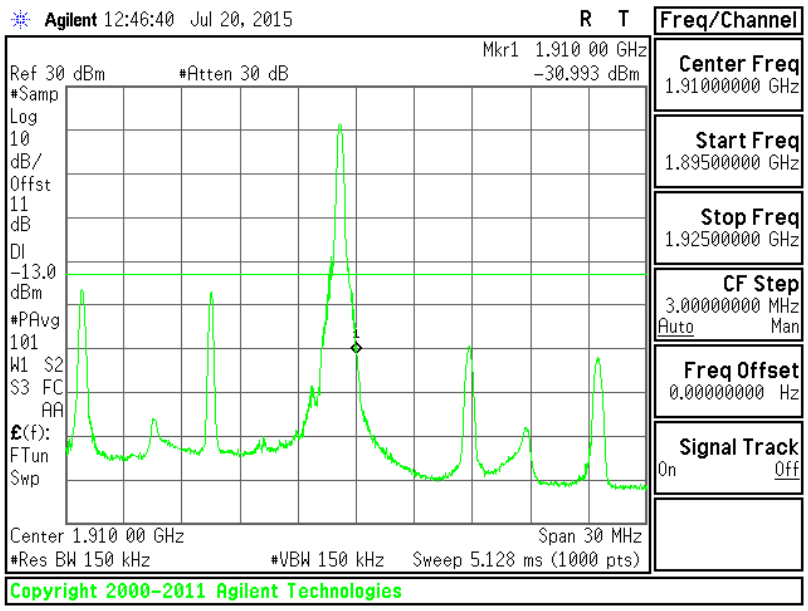
LOW CH, RB1-74



HIGH CH, RB1-74



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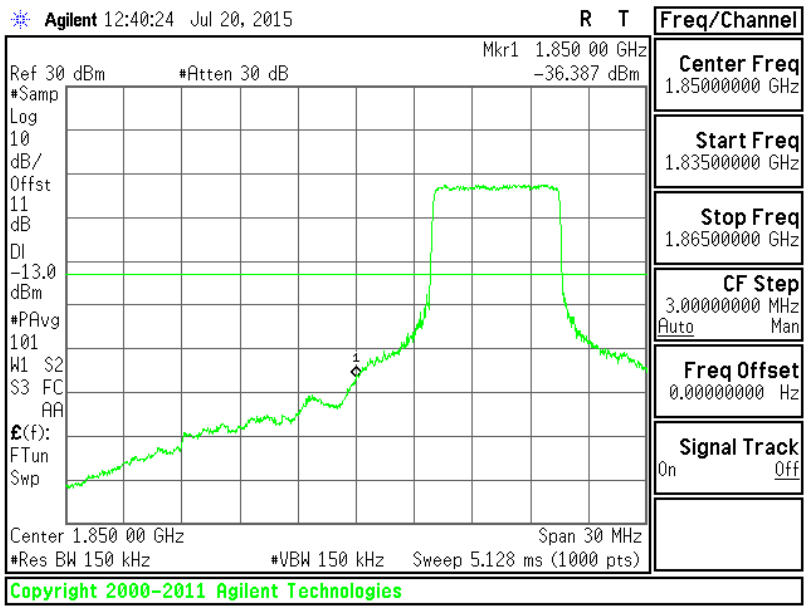
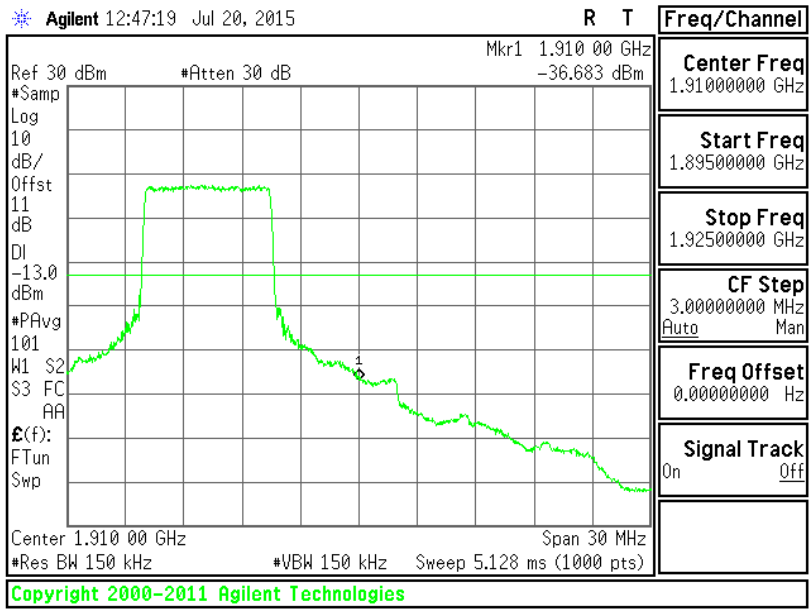
LOW CH, RB36-18



HIGH CH, RB36-18



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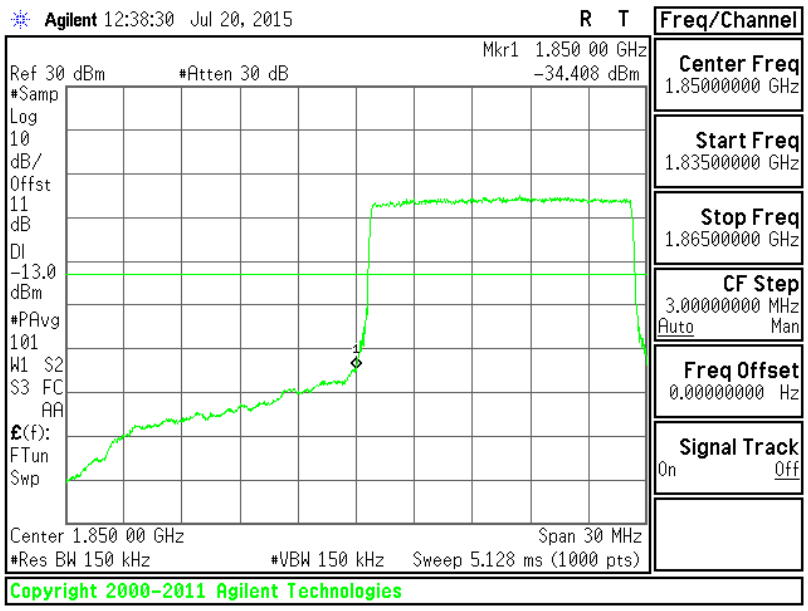
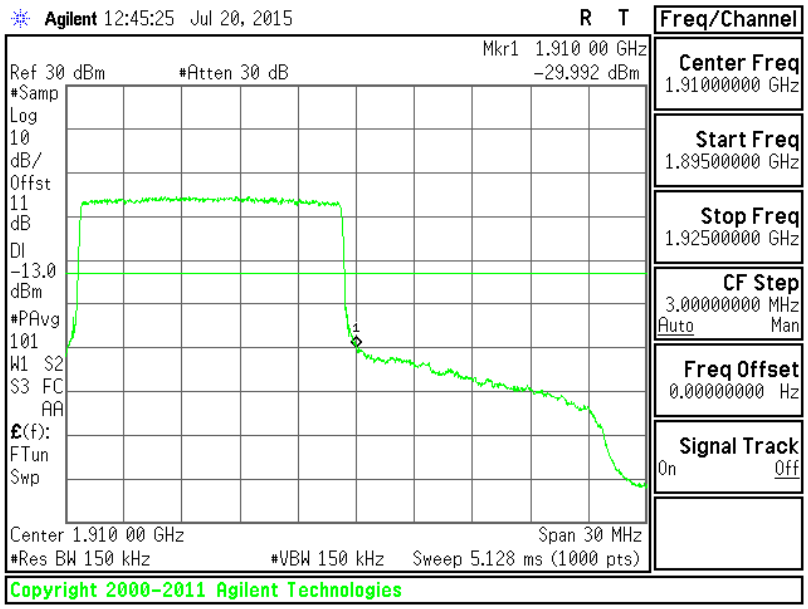
LOW CH, RB75-0



HIGH CH, RB75-0



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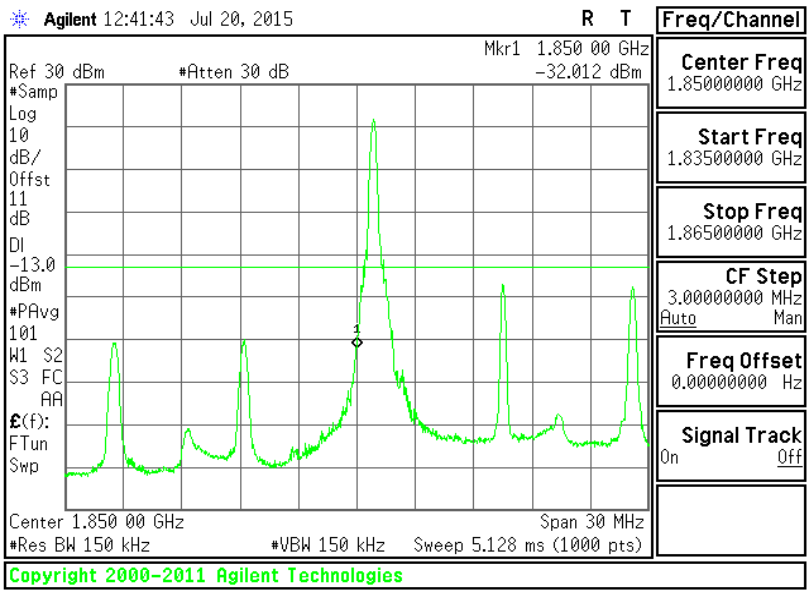
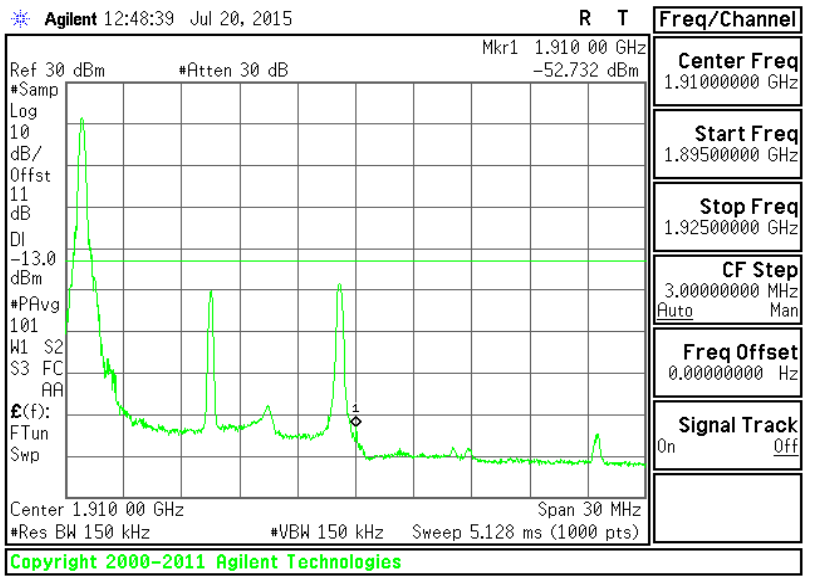
16QAM, (15.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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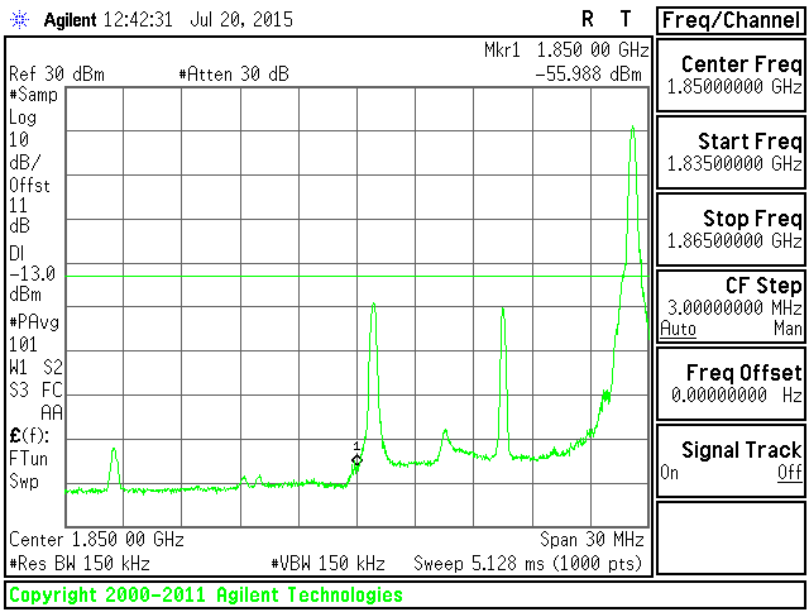
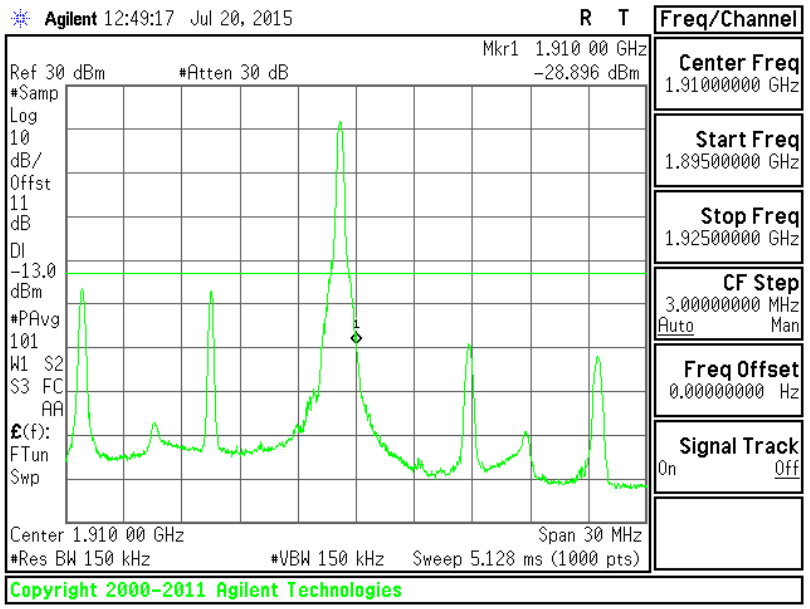
LOW CH, RB1-74



HIGH CH, RB1-74



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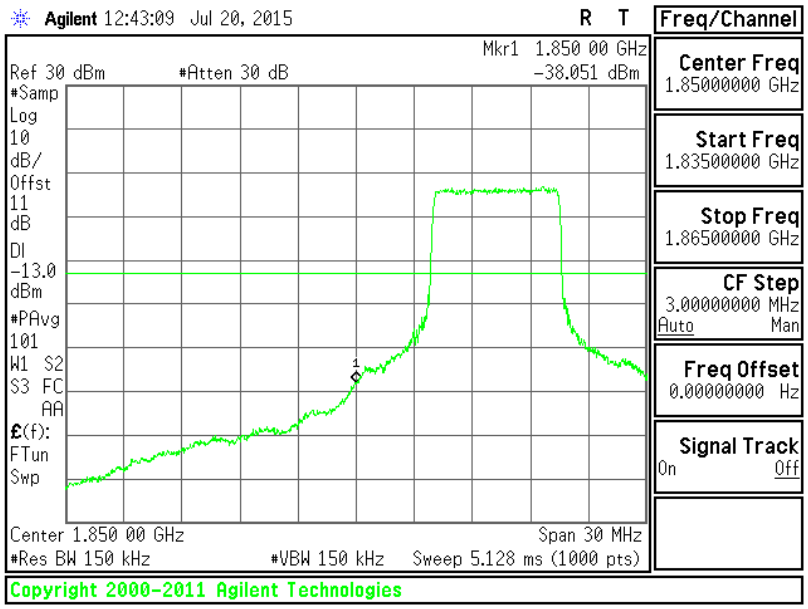
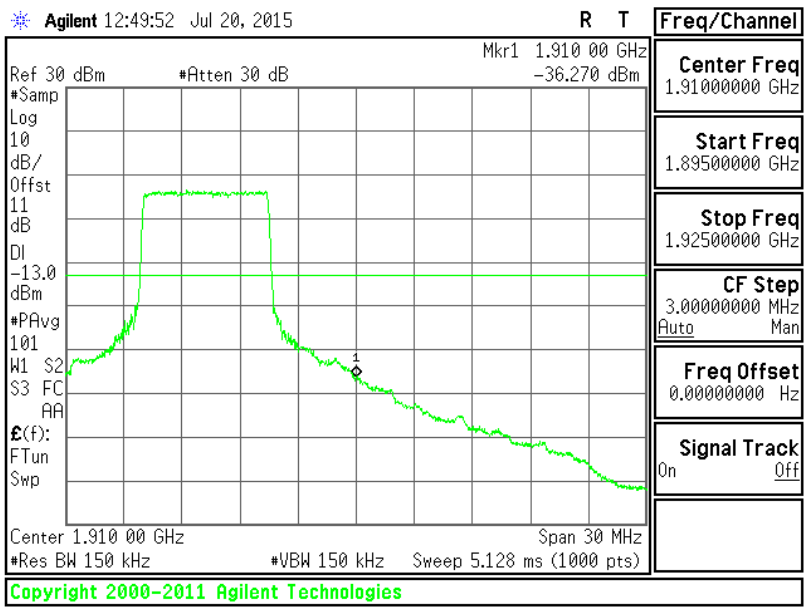
LOW CH, RB36-18



HIGH CH, RB36-18



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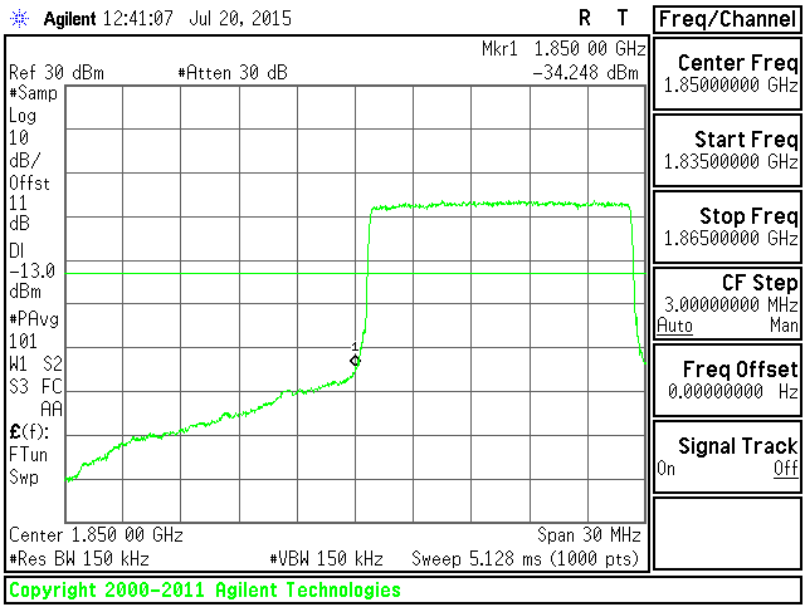
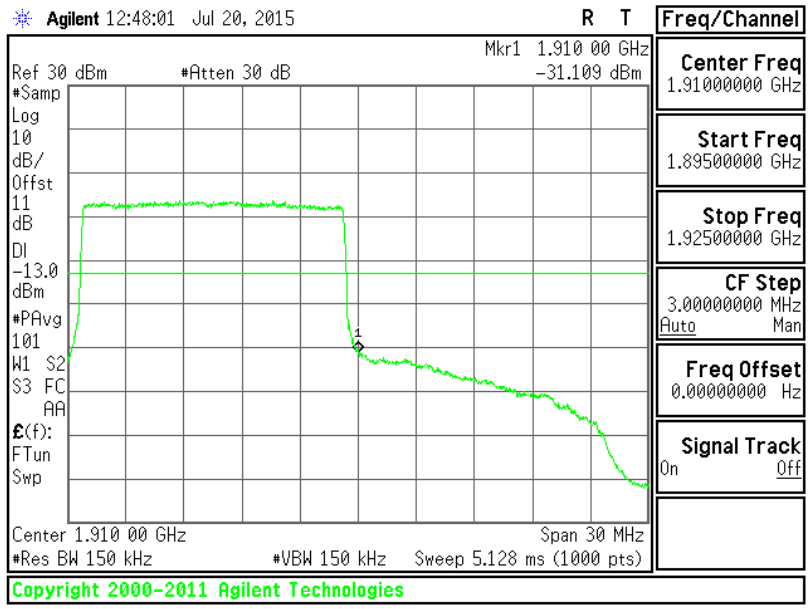
LOW CH, RB75-0



HIGH CH, RB75-0



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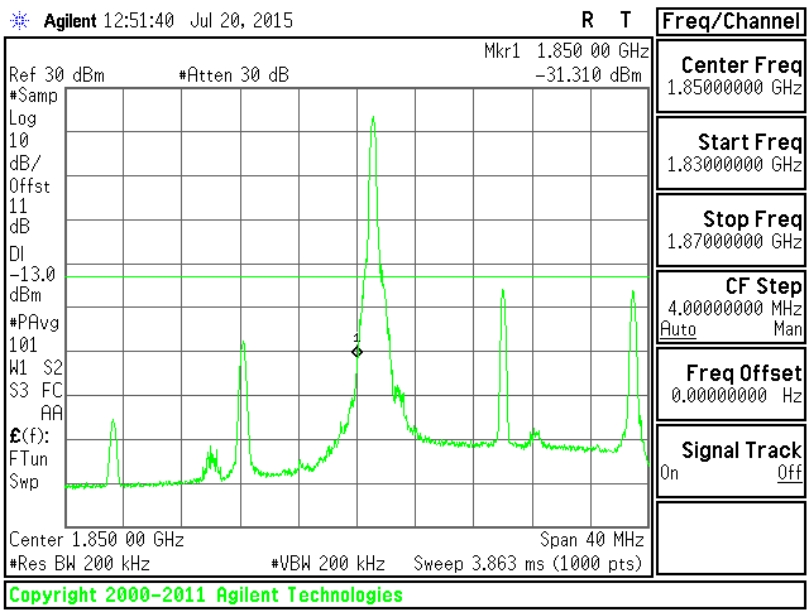
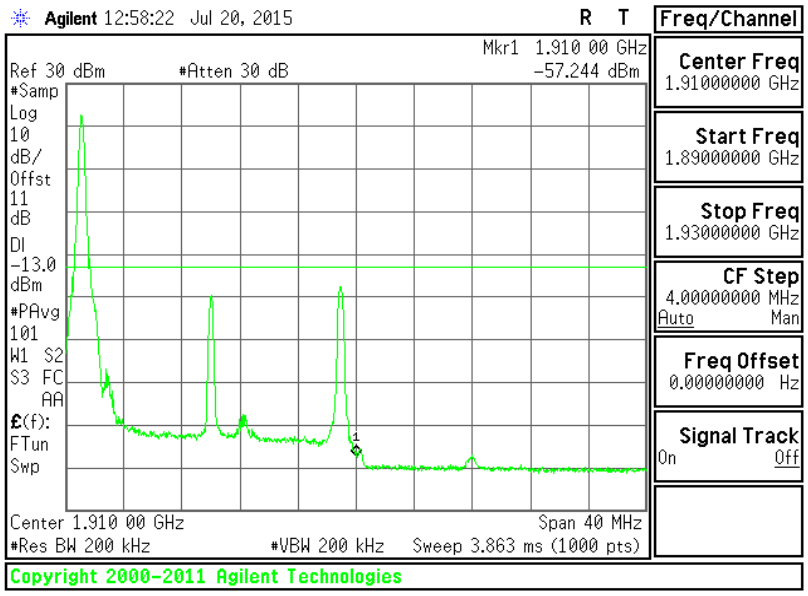
QPSK, (20.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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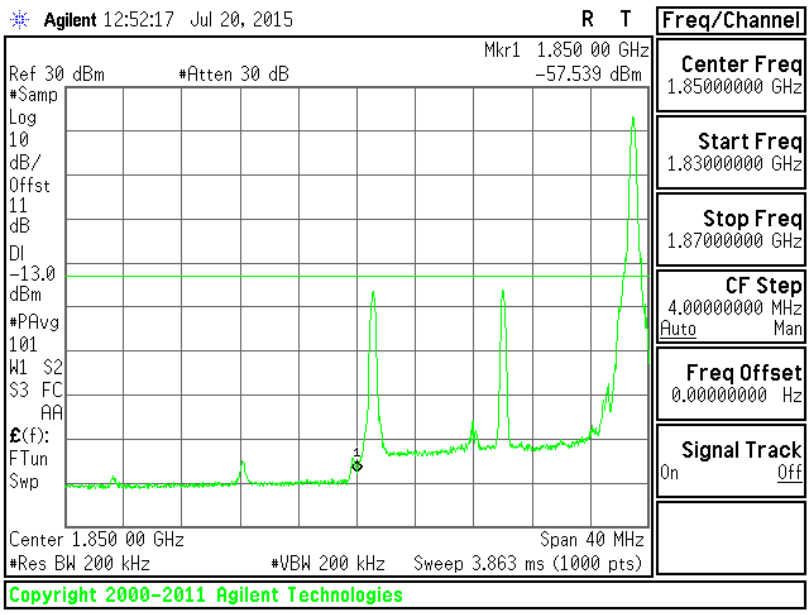
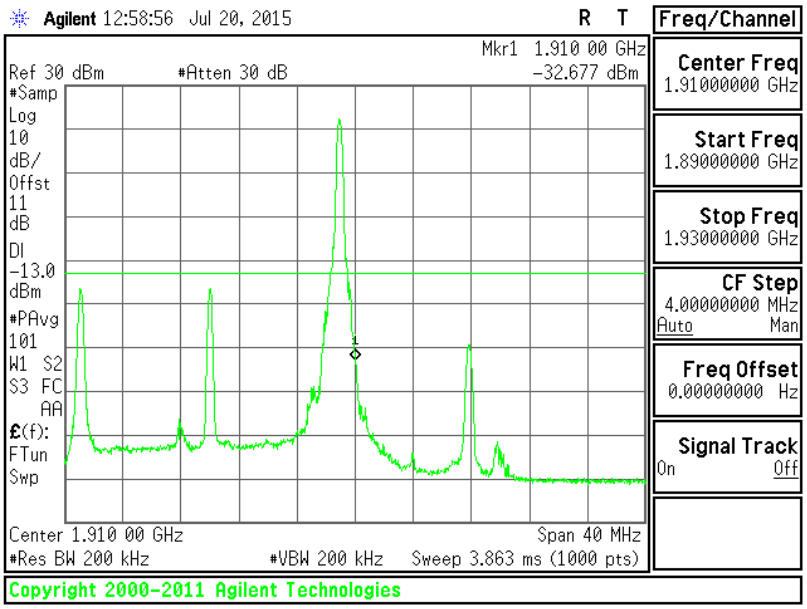
LOW CH, RB1-99



HIGH CH, RB1-99



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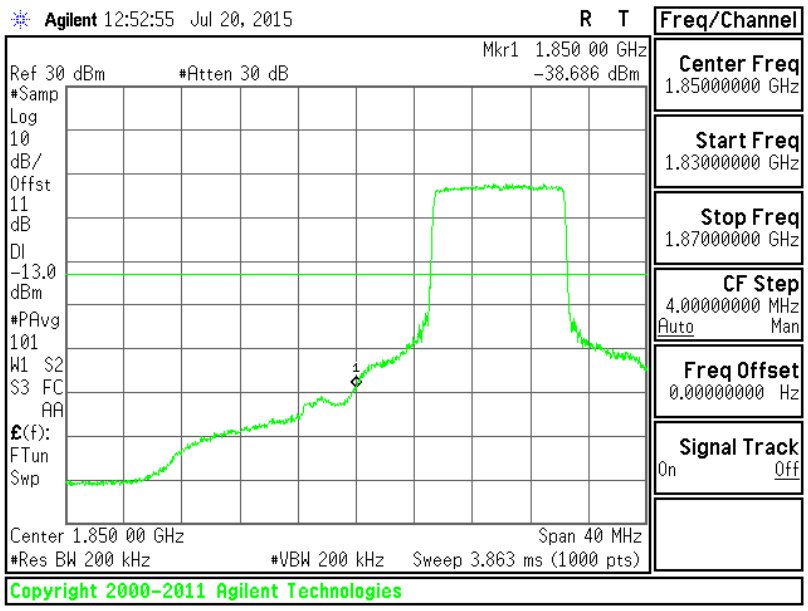
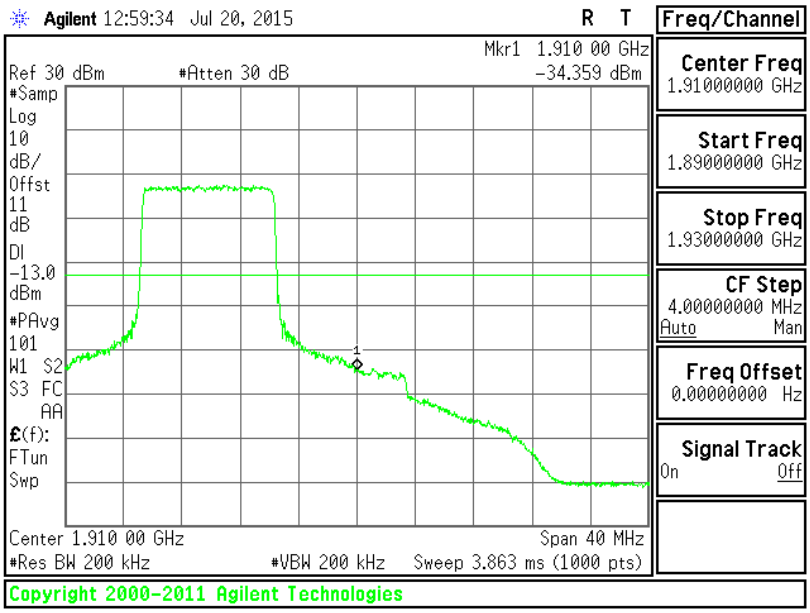
LOW CH, RB50-24



HIGH CH, RB50-24



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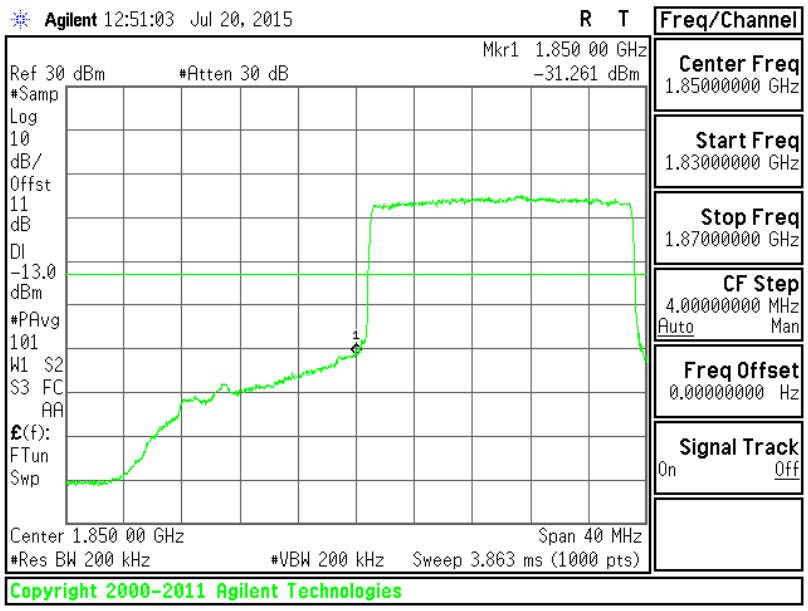
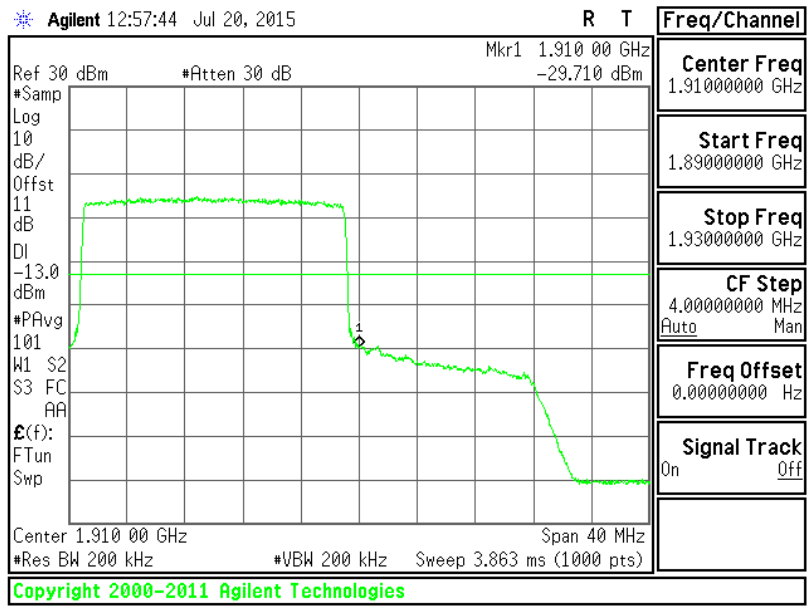
LOW CH, RB100-0



HIGH CH, RB100-0



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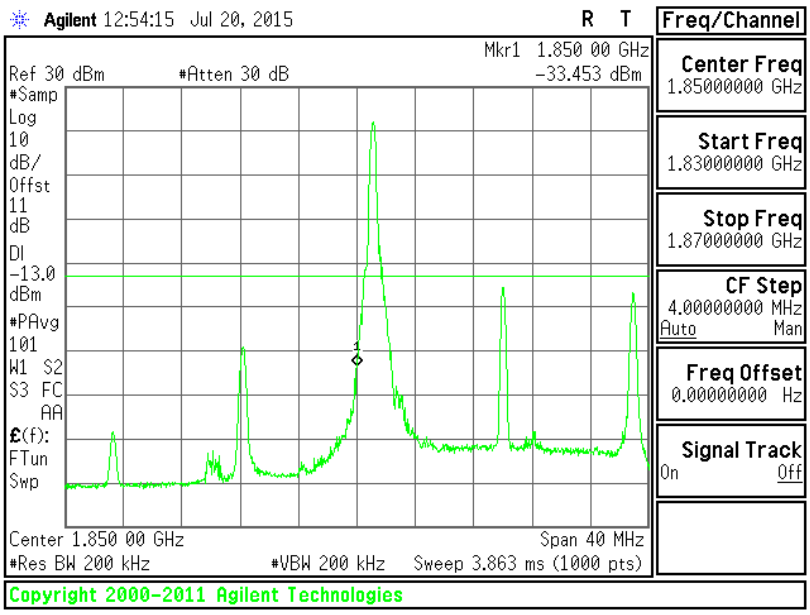
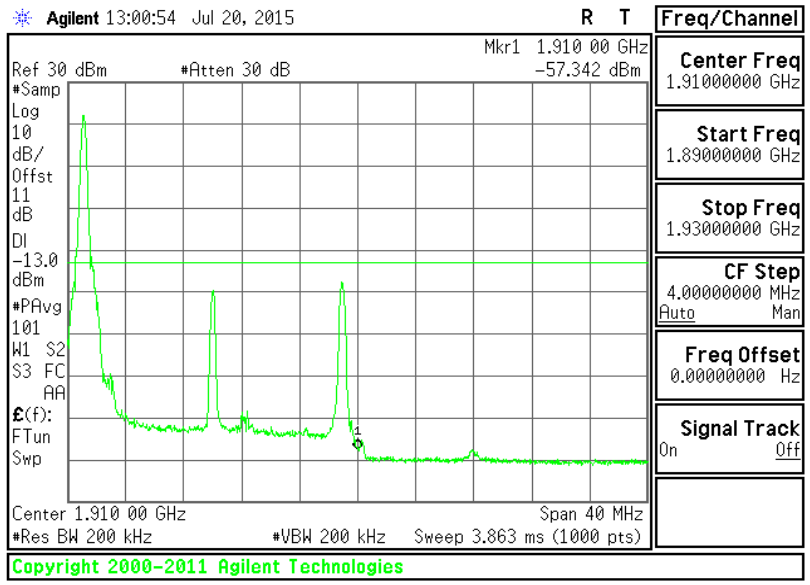
16QAM, (20.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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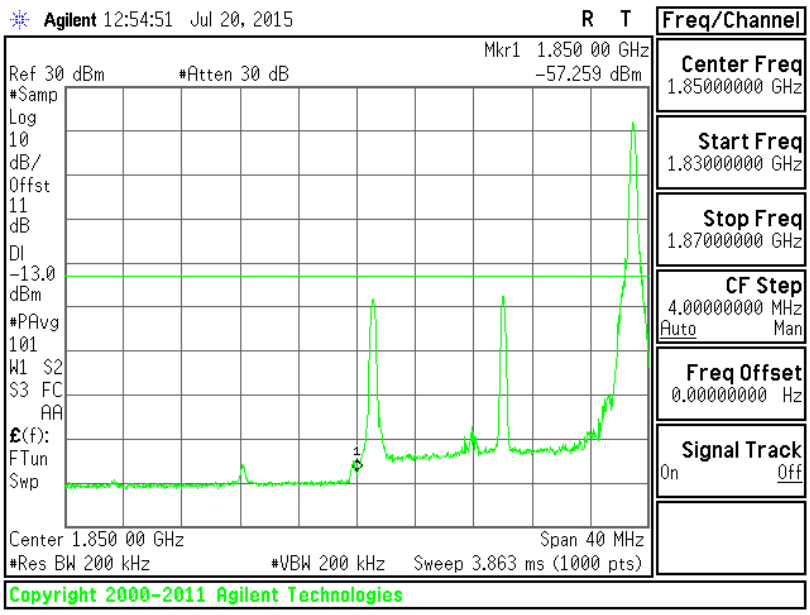
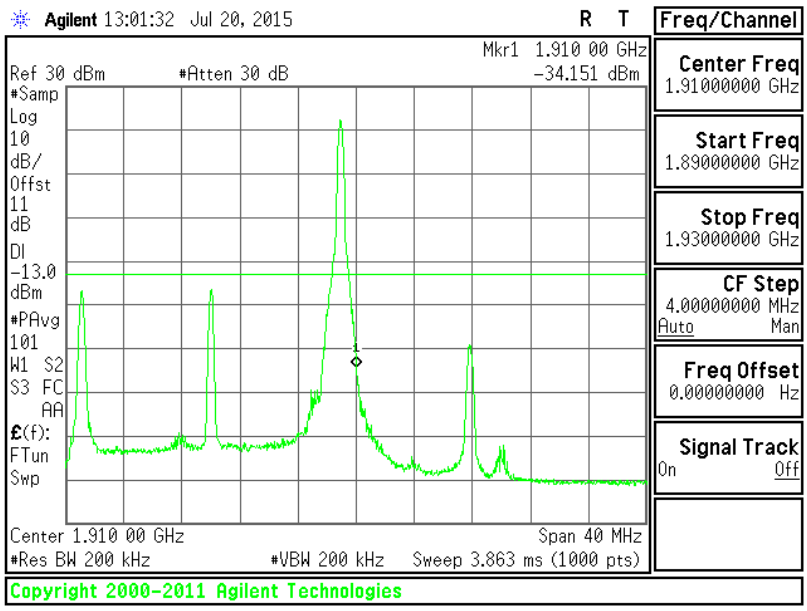
LOW CH, RB1-99



HIGH CH, RB1-99



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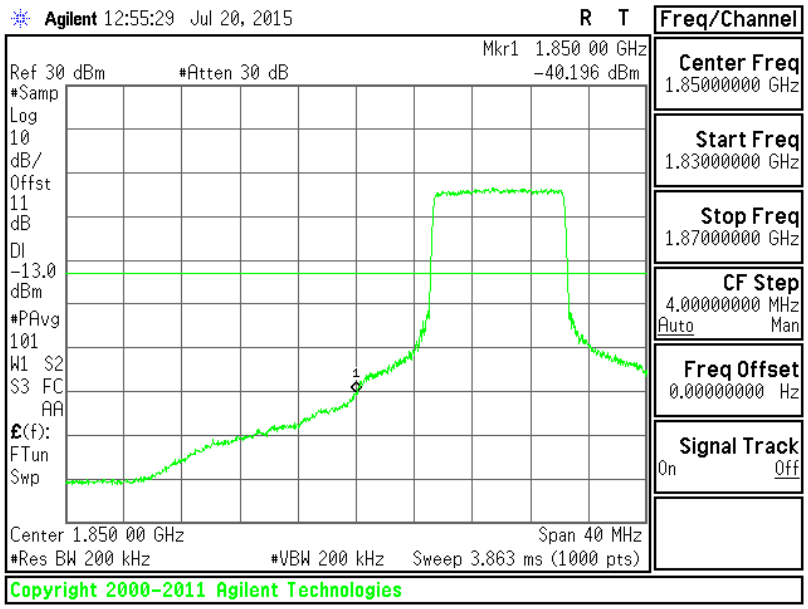
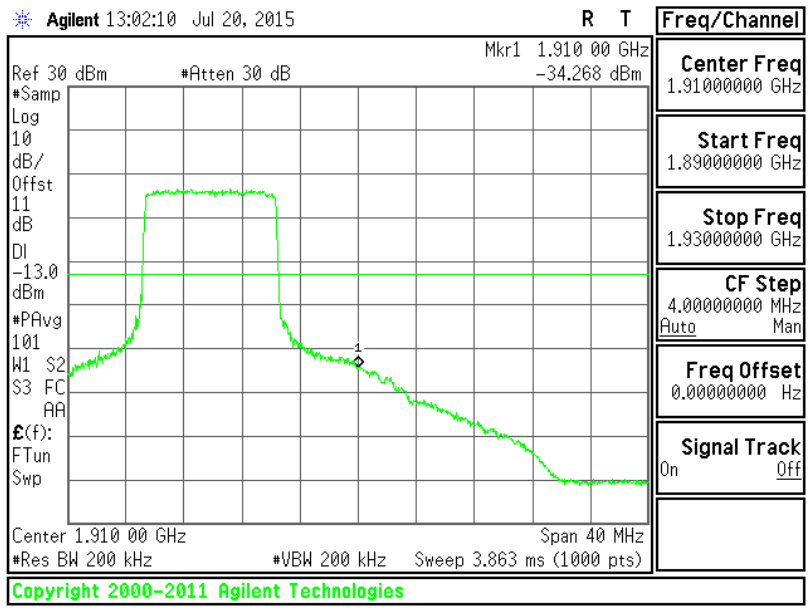
LOW CH, RB50-24



HIGH CH, RB50-24



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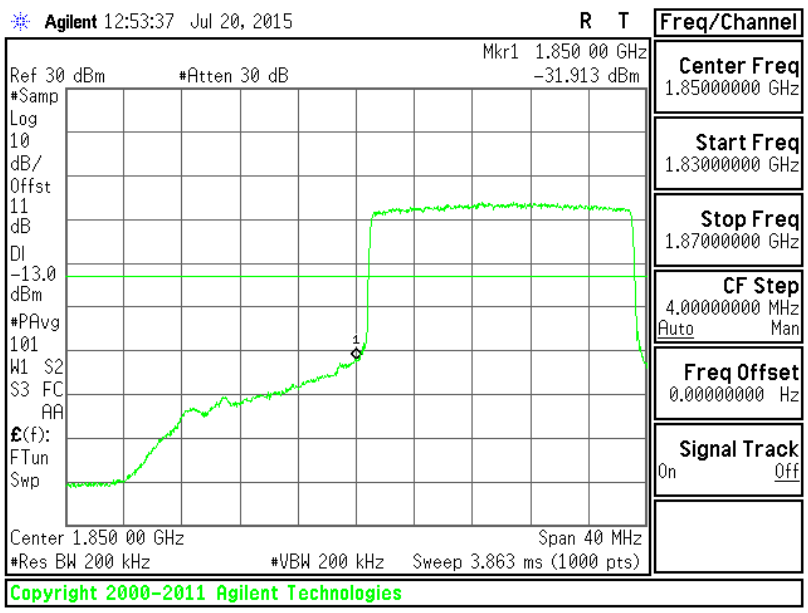
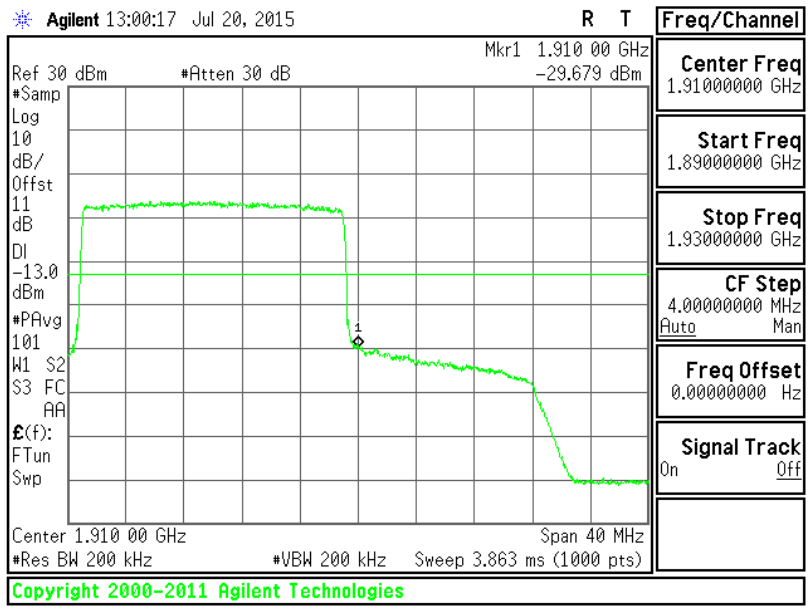
LOW CH, RB100-0



HIGH CH, RB100-0



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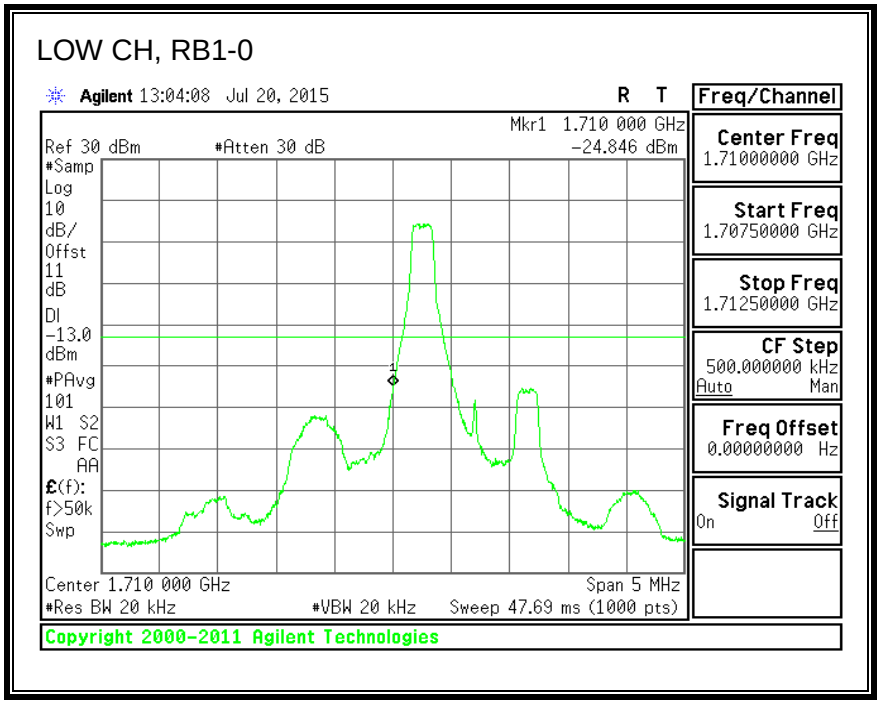
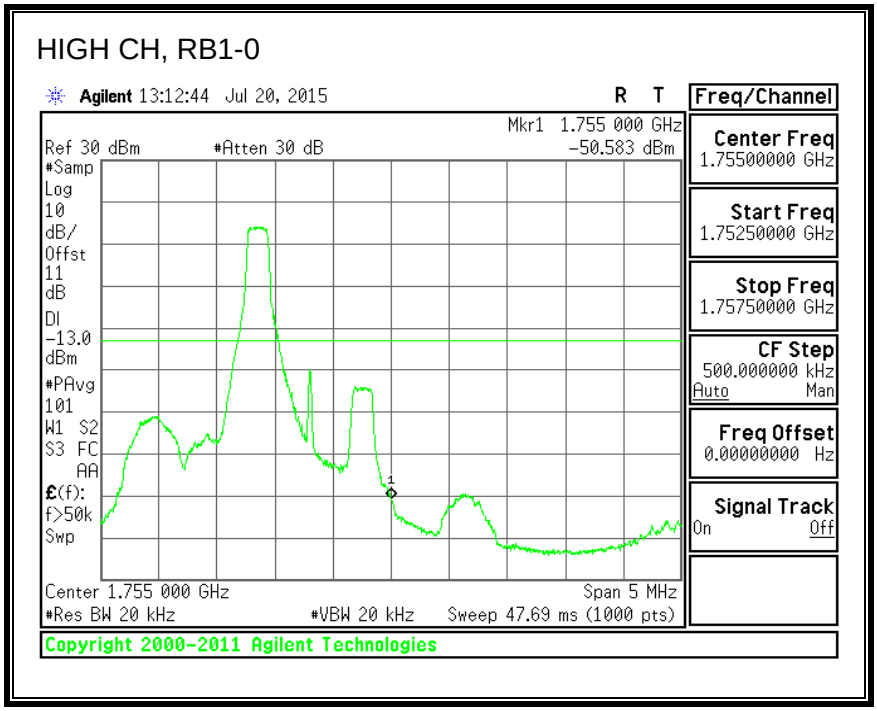
8.2.2. LTE BAND 4 BANDEDGE

QPSK, (1.4 MHz BAND WIDTH)





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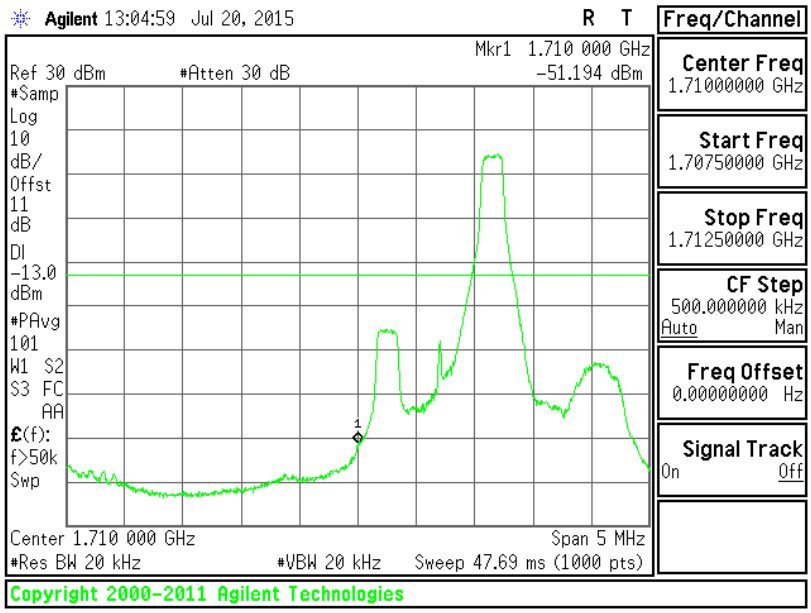
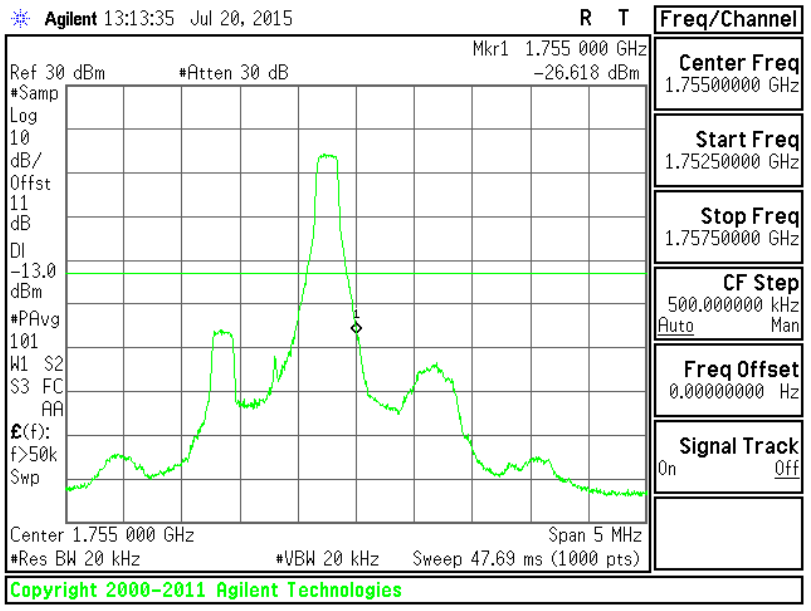
LOW CH, RB1-5



HIGH CH, RB1-5



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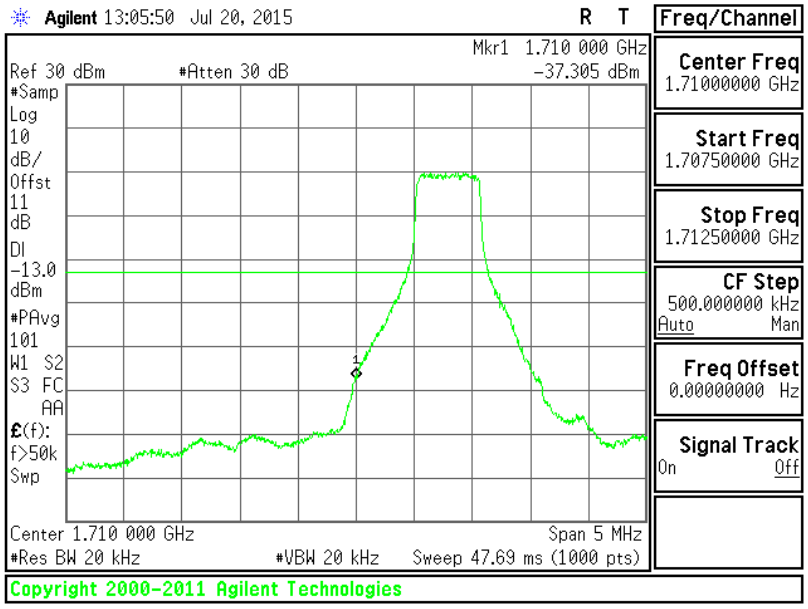
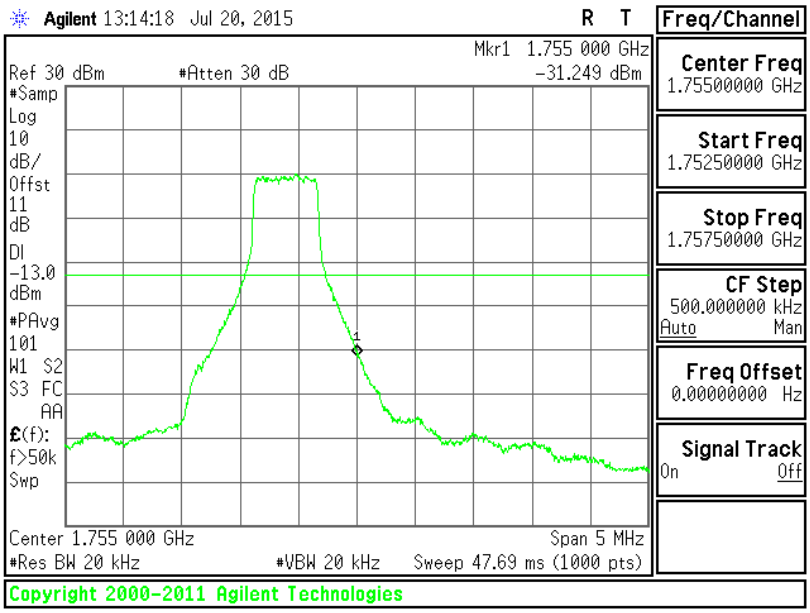
LOW CH, RB3-2



HIGH CH, RB3-2



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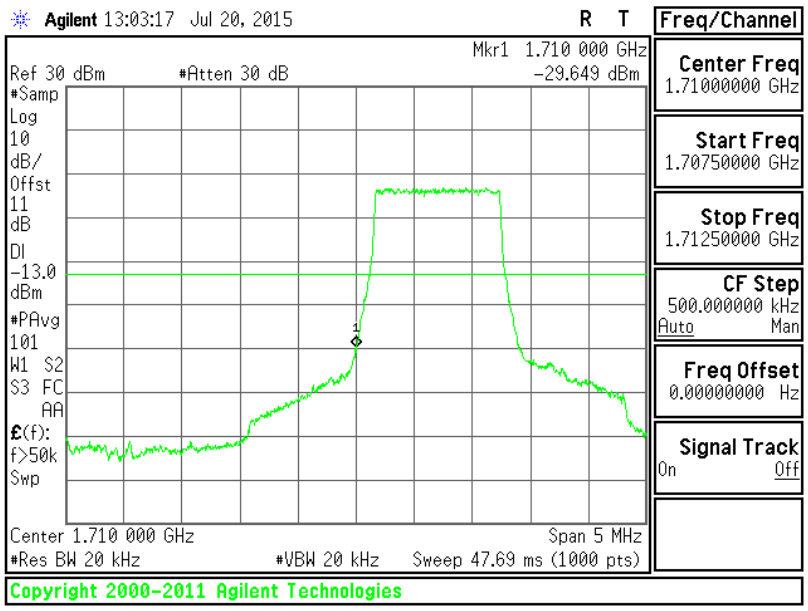
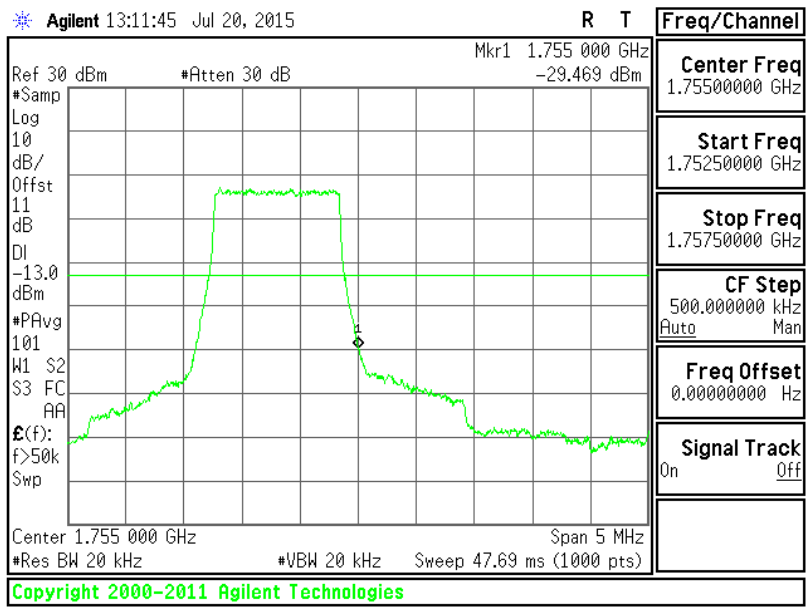
LOW CH, RB6-0



HIGH CH, RB6-0



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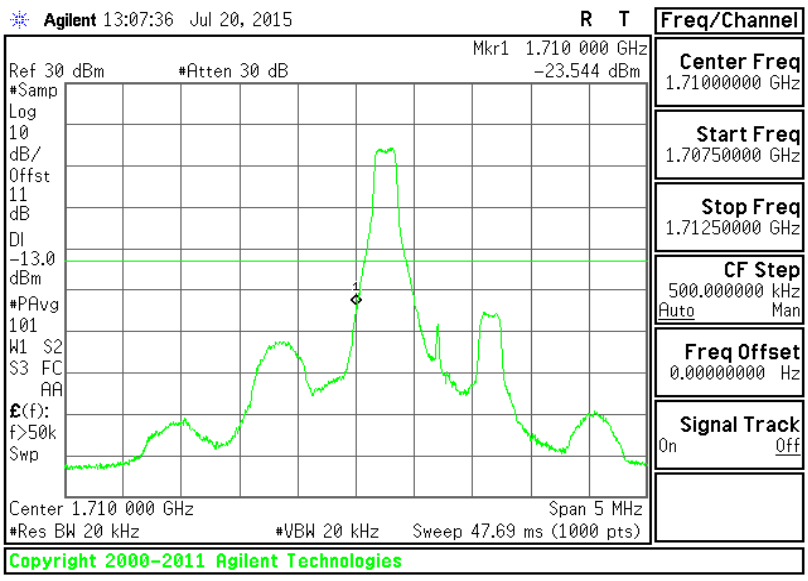
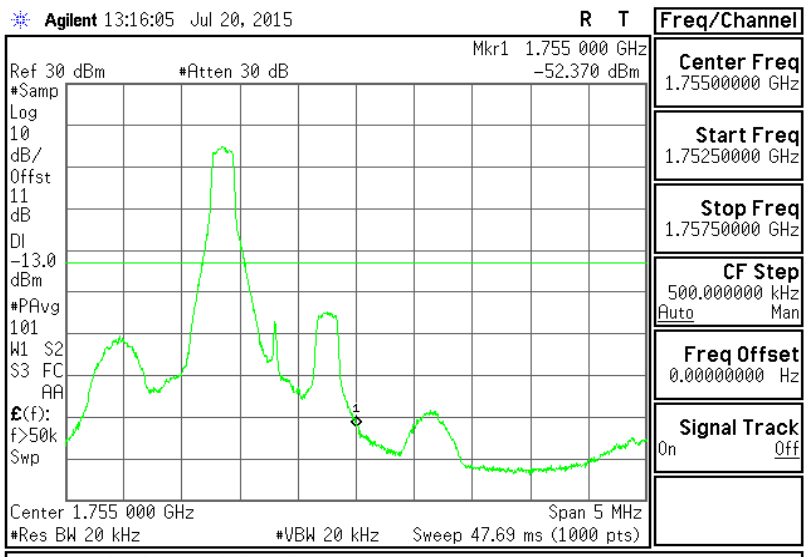
16QAM, (1.4 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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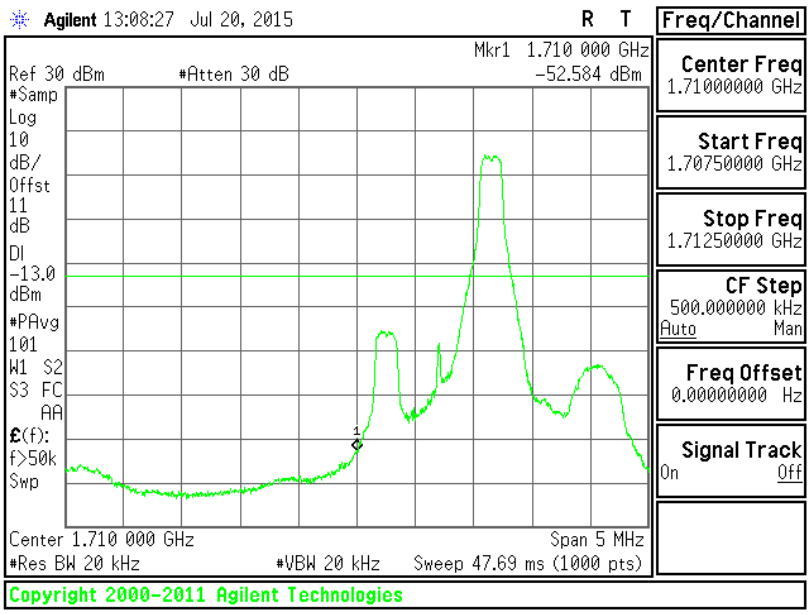
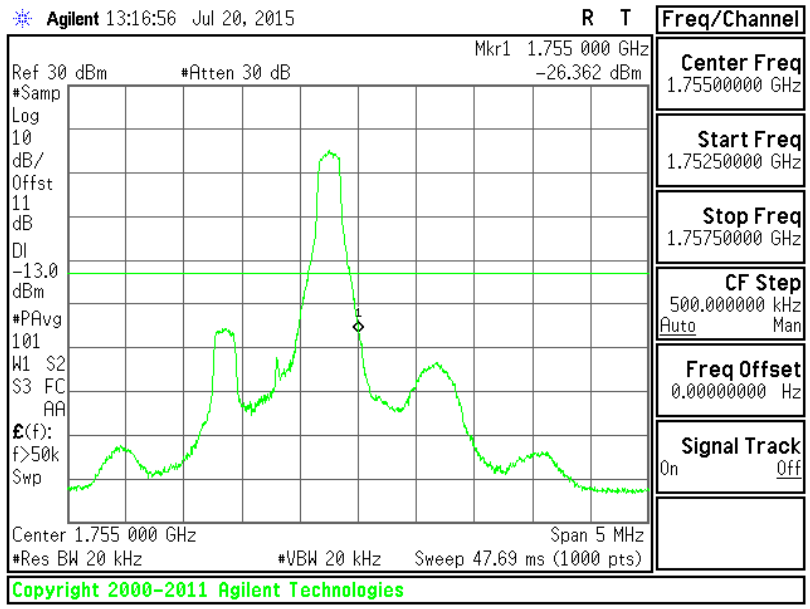
LOW CH, RB1-5



HIGH CH, RB1-5



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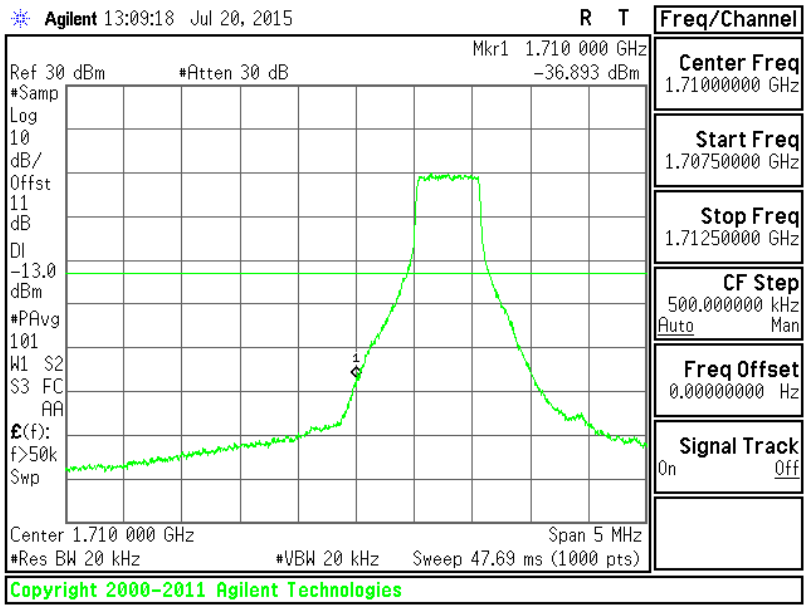
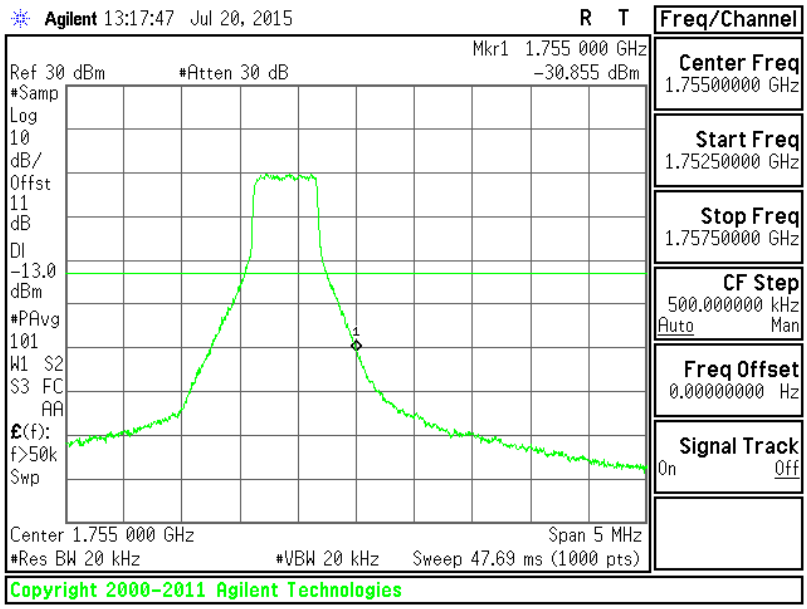
LOW CH, RB3-2



HIGH CH, RB3-2



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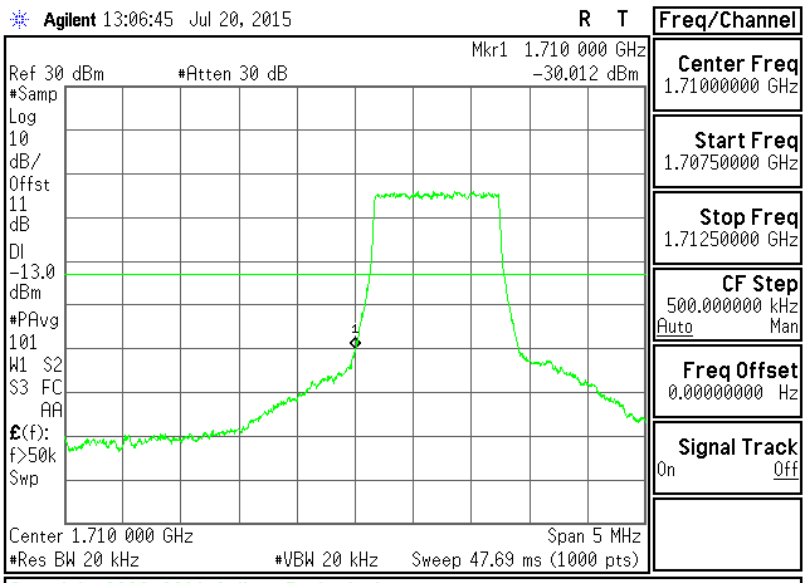
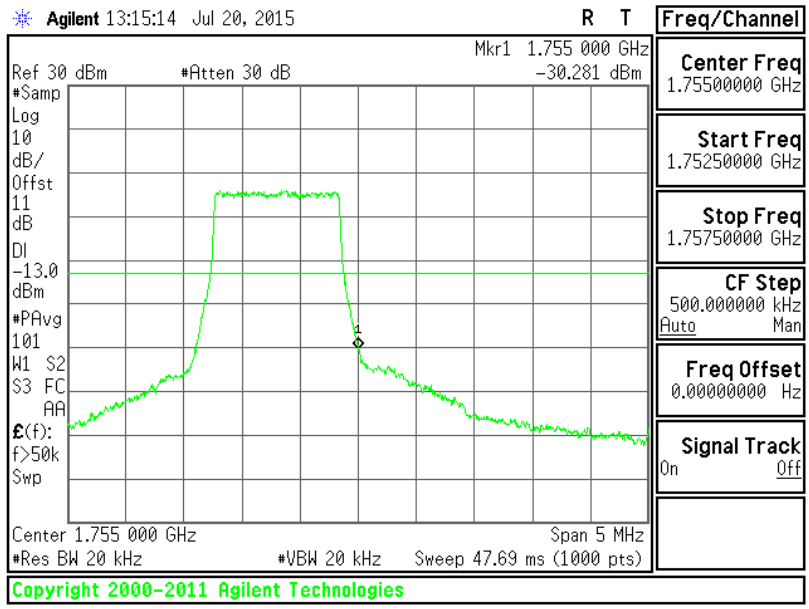
LOW CH, RB6-0



HIGH CH, RB6-0



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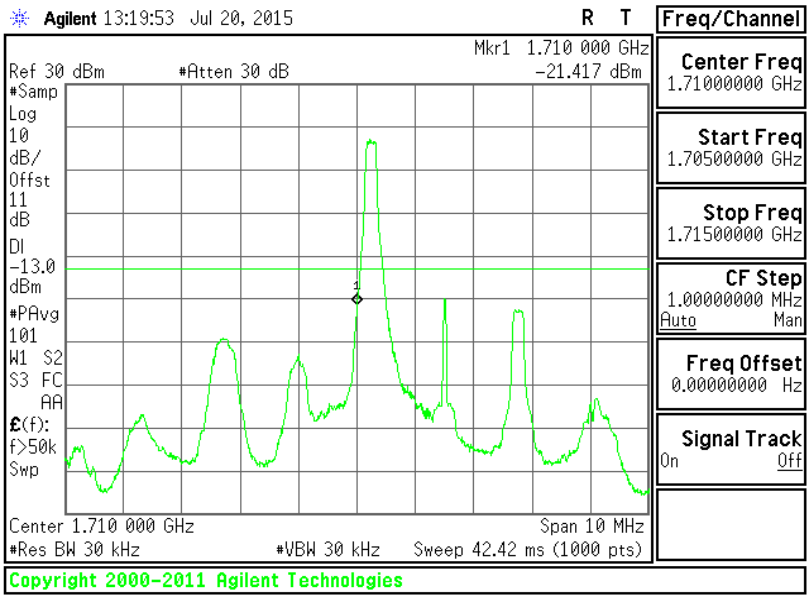
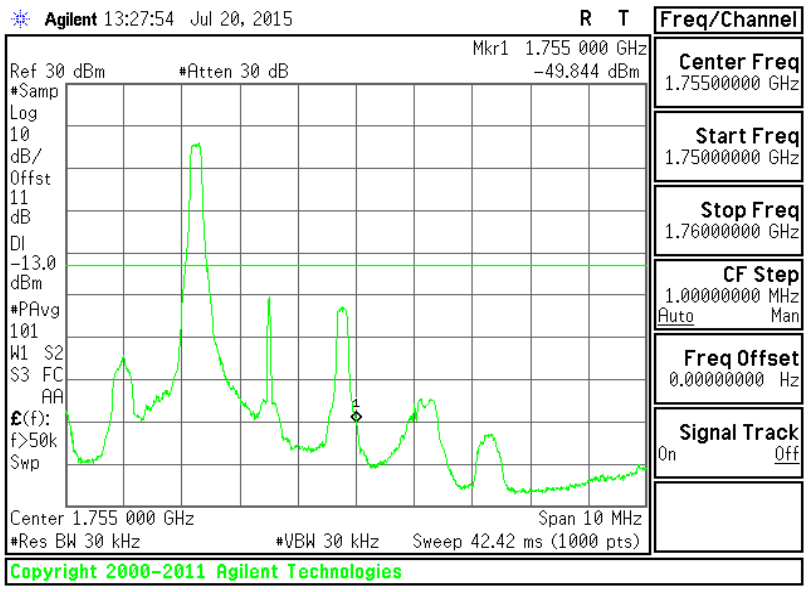
QPSK, (3.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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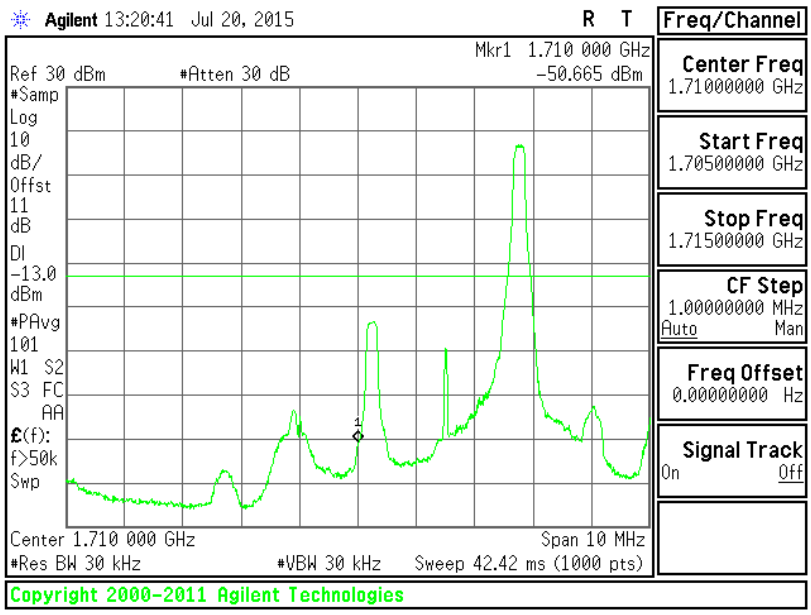
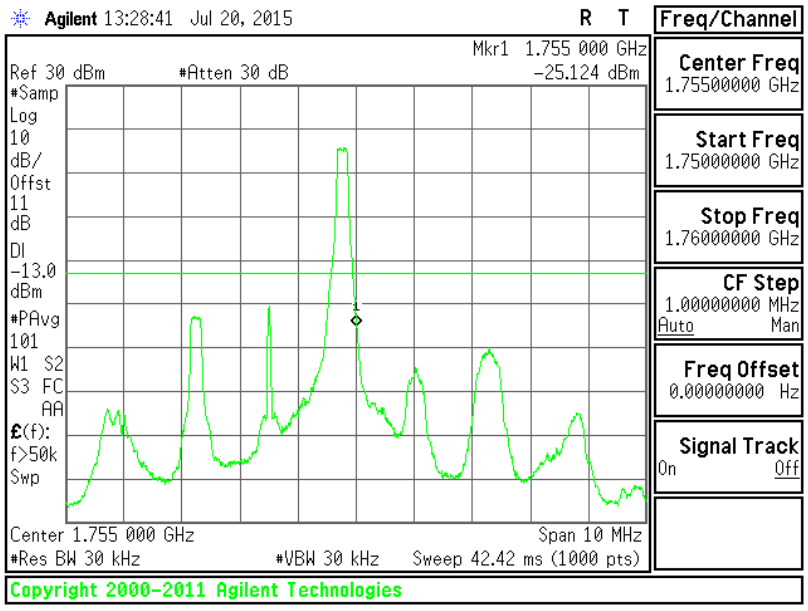
LOW CH, RB1-14



HIGH CH, RB1-14



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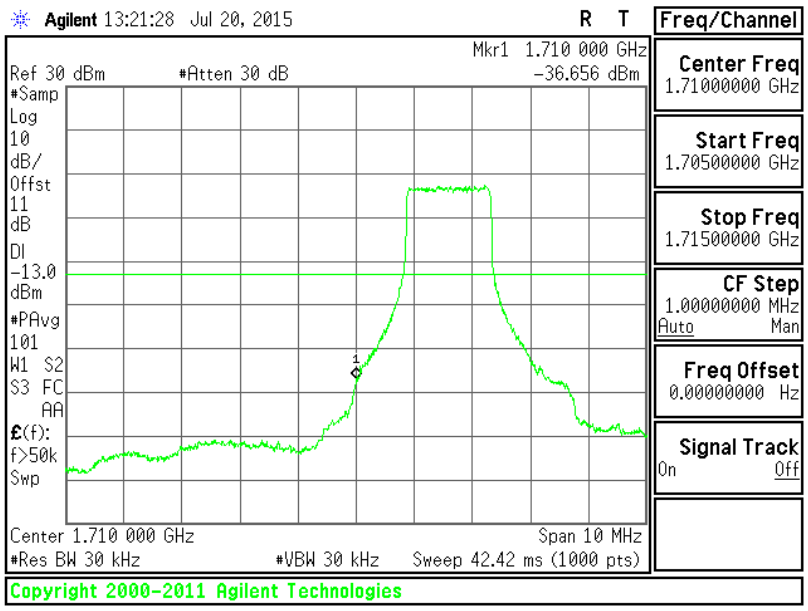
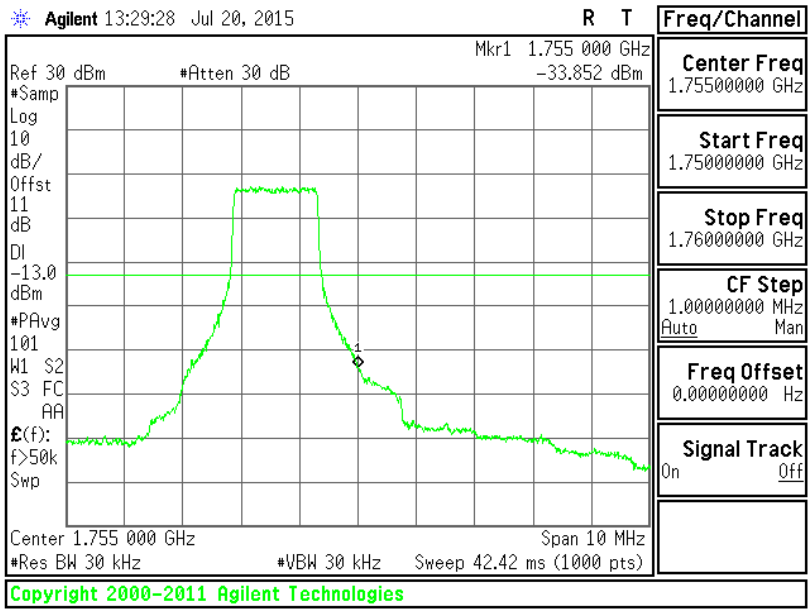
LOW CH, RB8-4



HIGH CH, RB8-4



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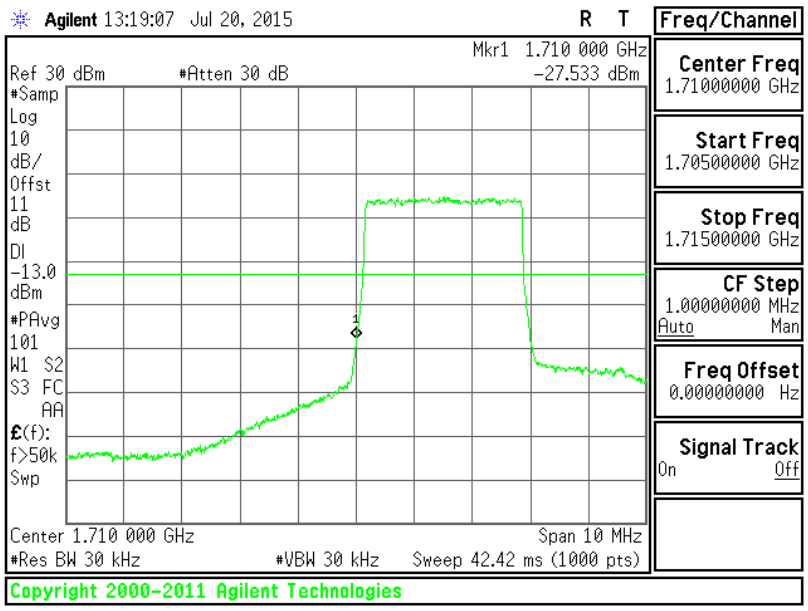
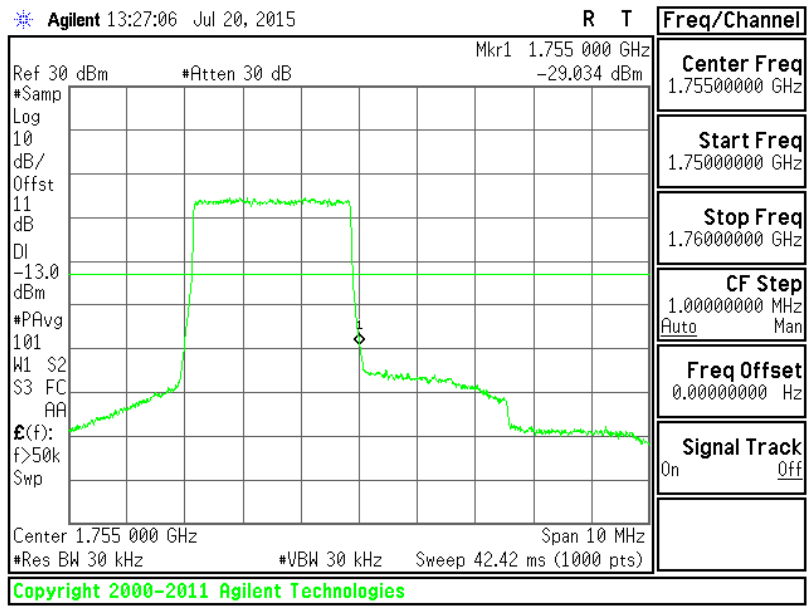
LOW CH, RB15-0



HIGH CH, RB15-0



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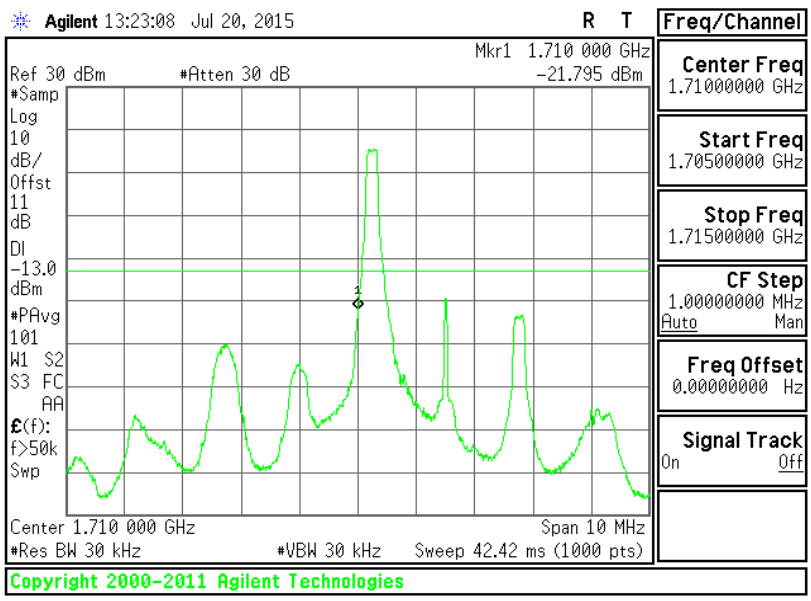
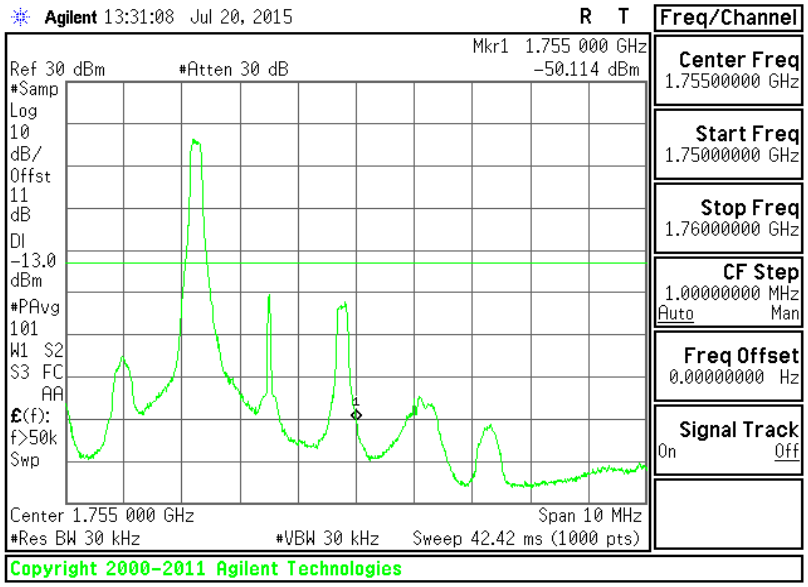
16QAM, (3.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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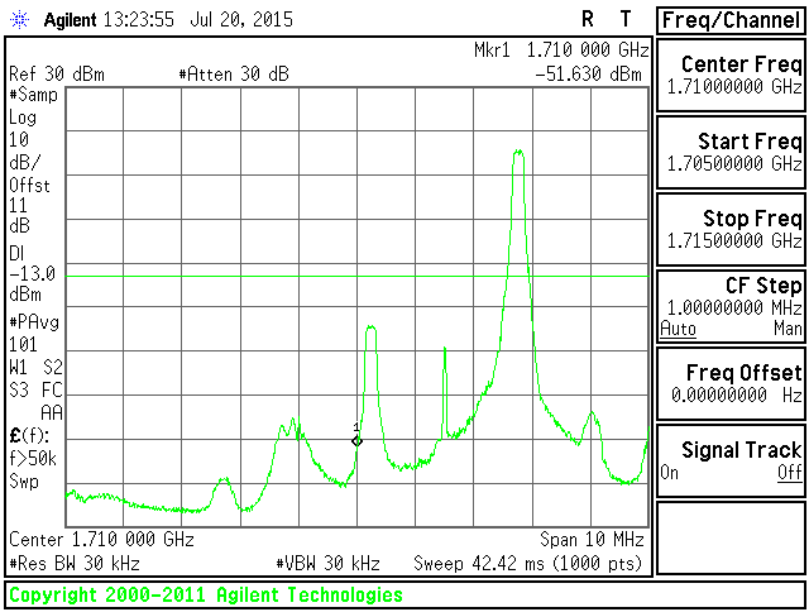
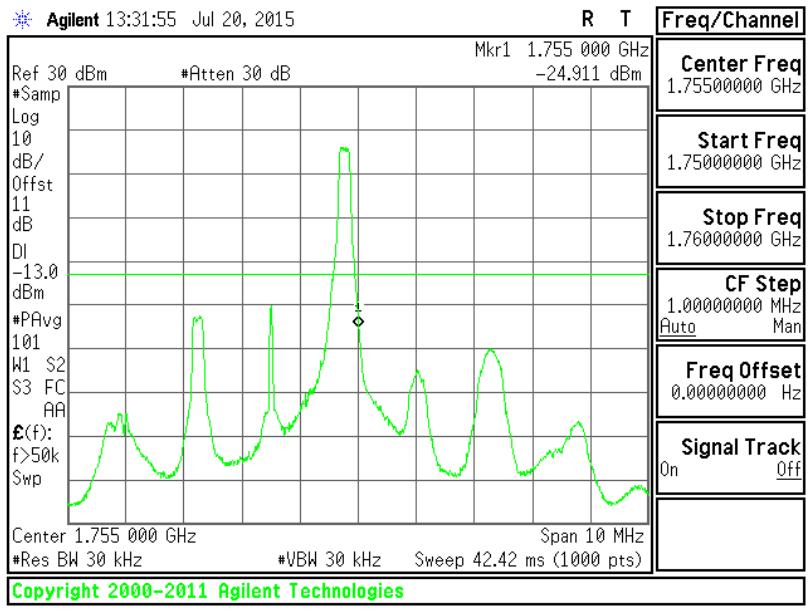
LOW CH, RB1-14



HIGH CH, RB1-14



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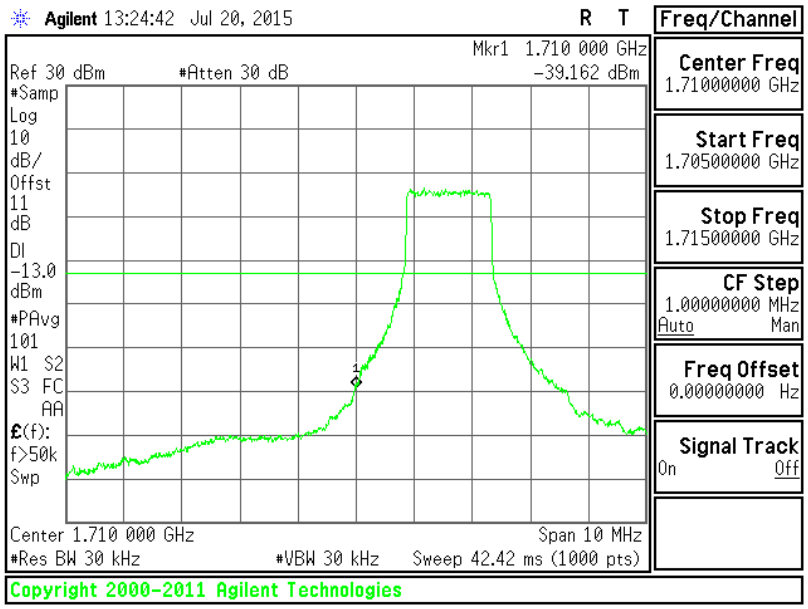
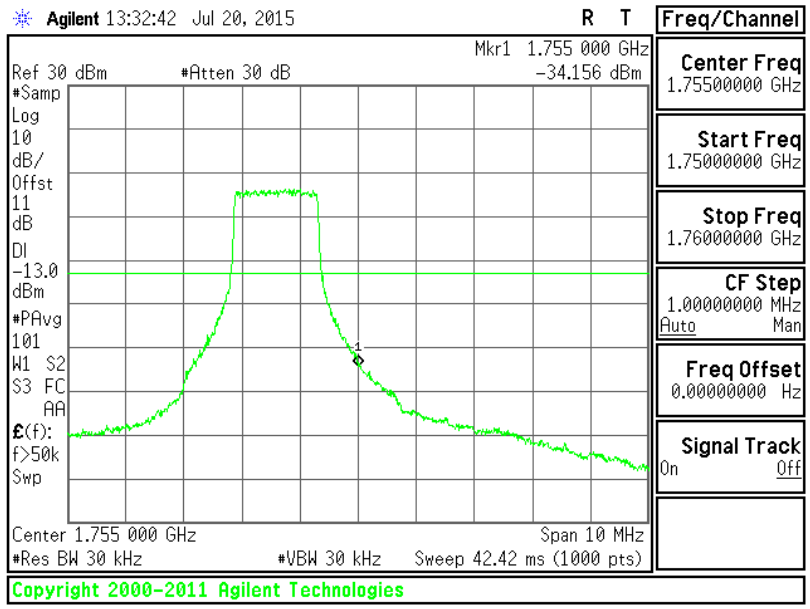
LOW CH, RB8-4



HIGH CH, RB8-4



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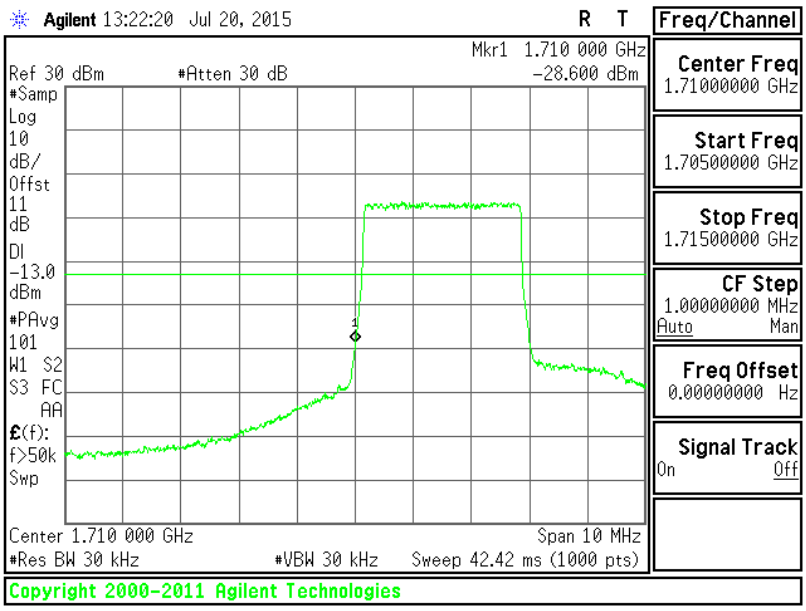
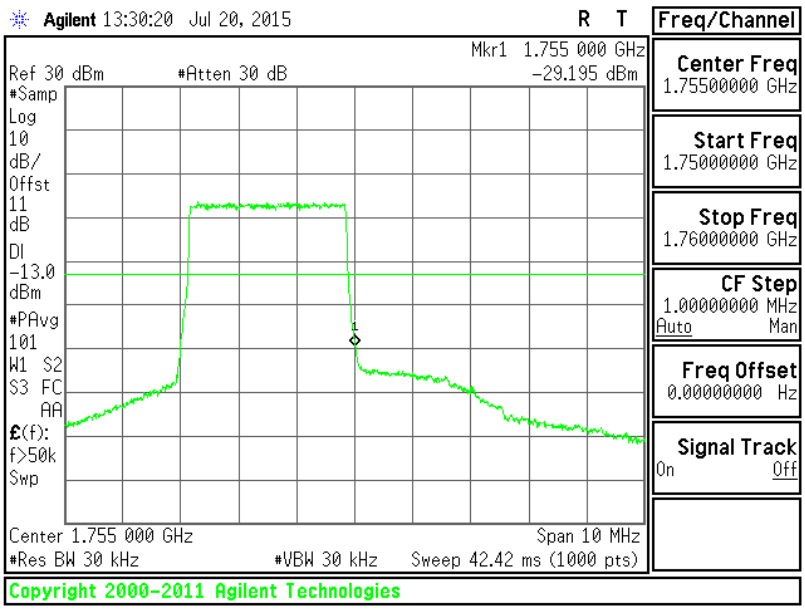
LOW CH, RB15-0



HIGH CH, RB15-0



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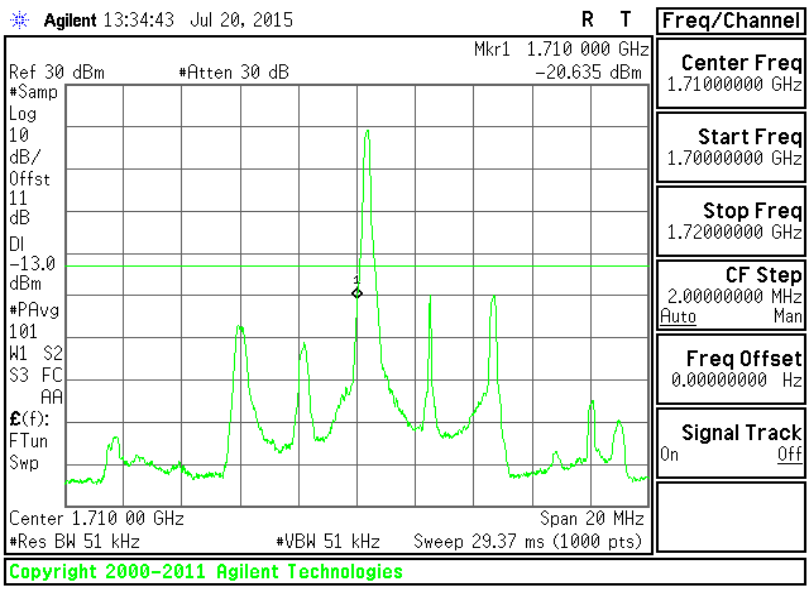
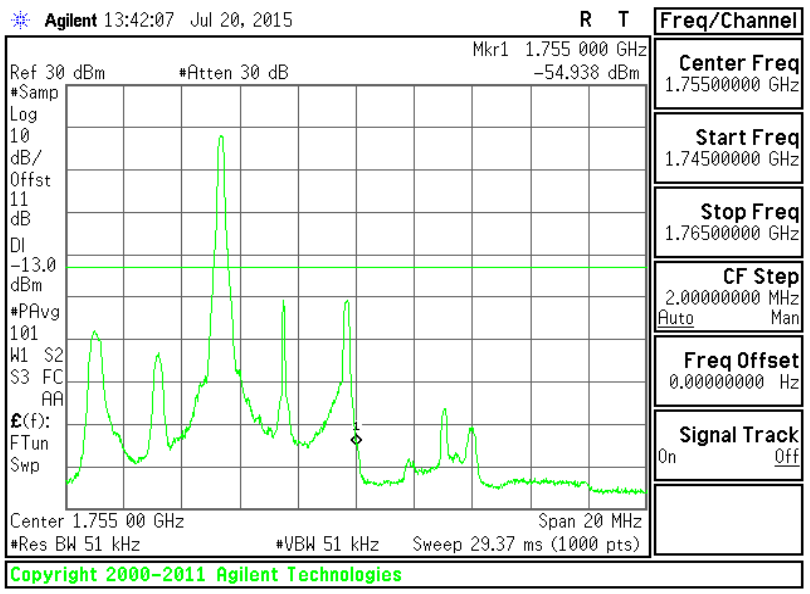
QPSK, (5.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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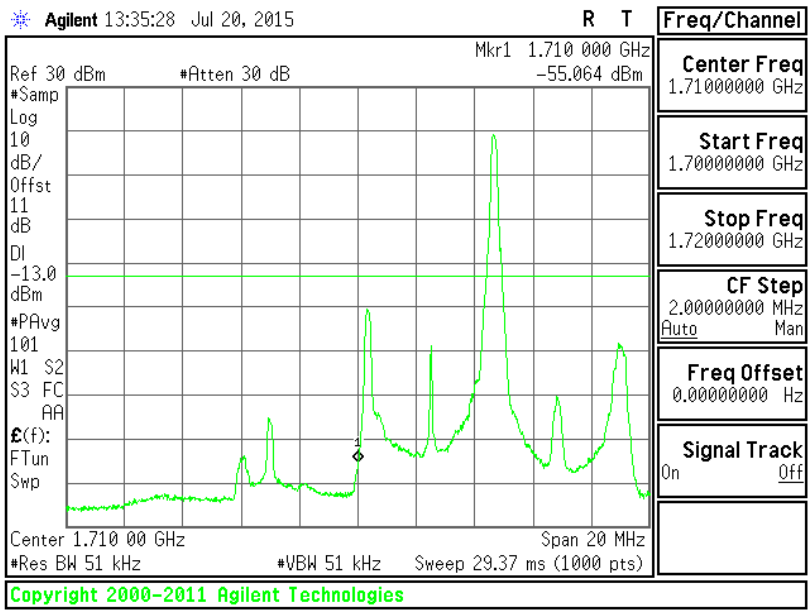
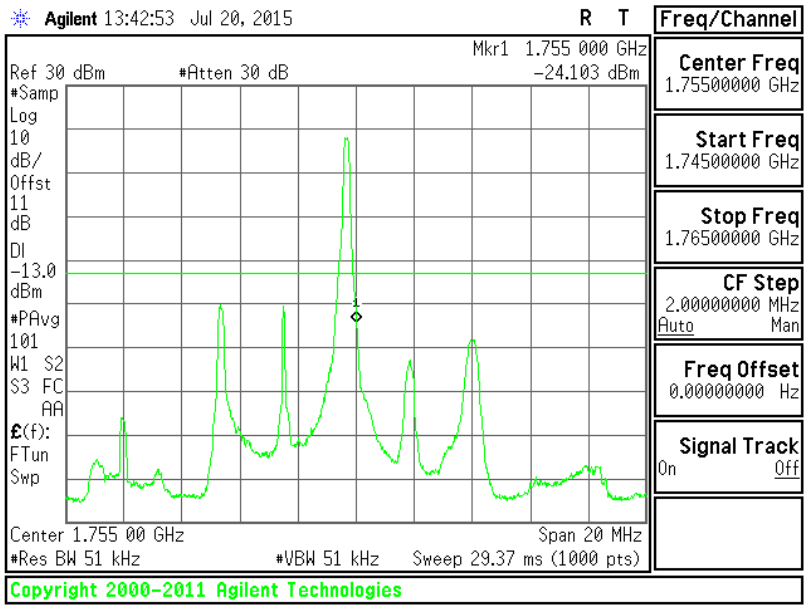
LOW CH, RB1-24



HIGH CH, RB1-24



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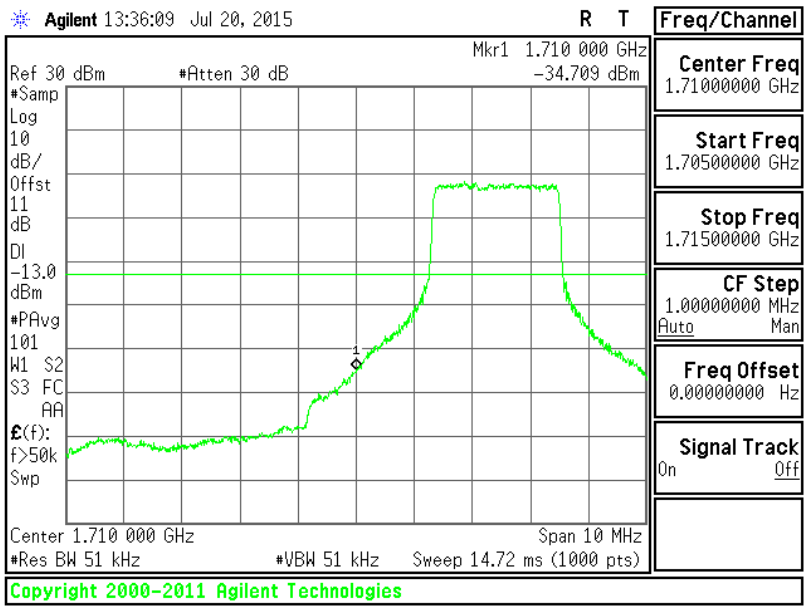
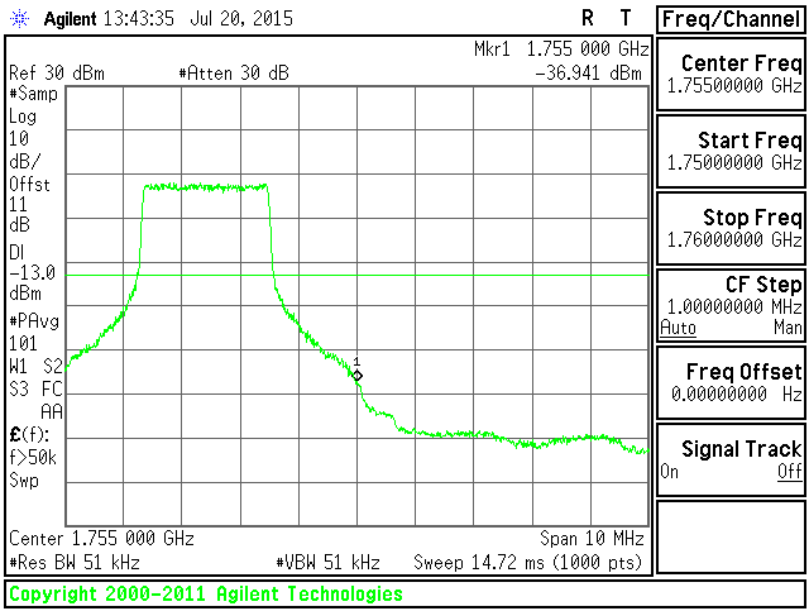
LOW CH, RB12-6



HIGH CH, RB12-6



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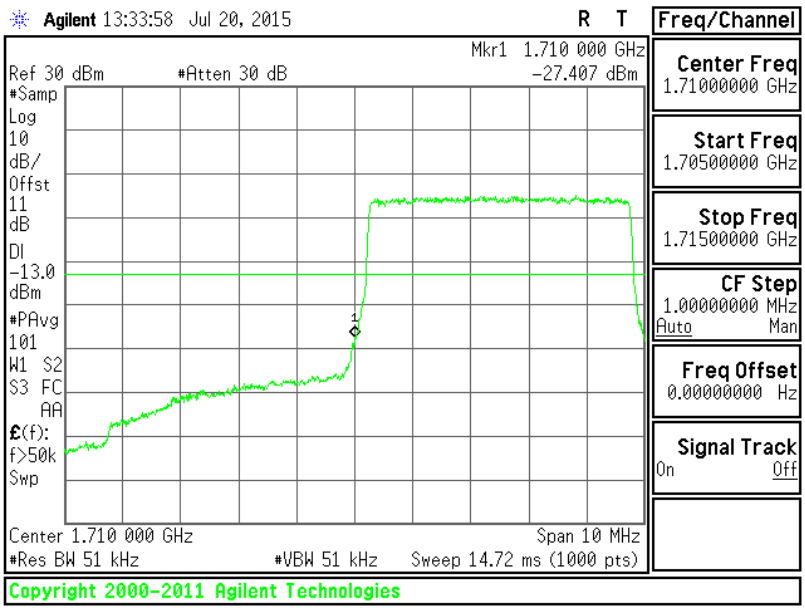
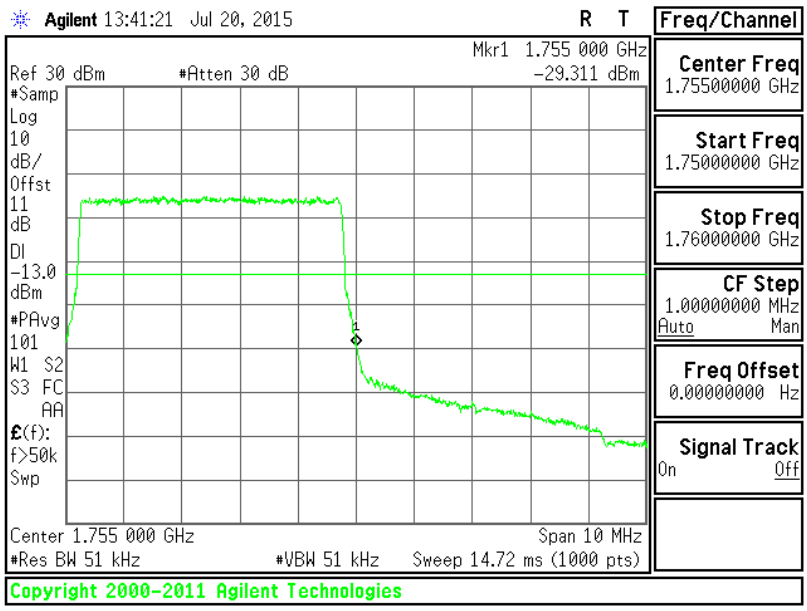
LOW CH, RB25-0



HIGH CH, RB25-0



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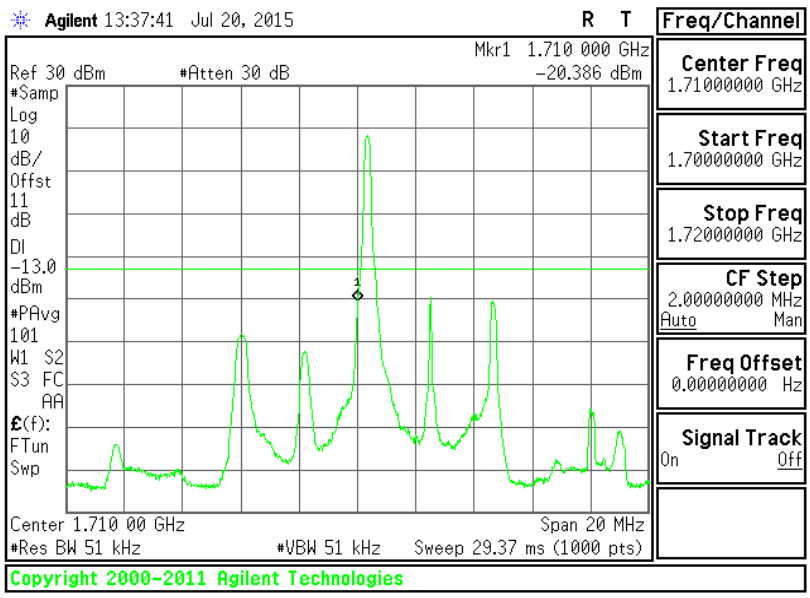
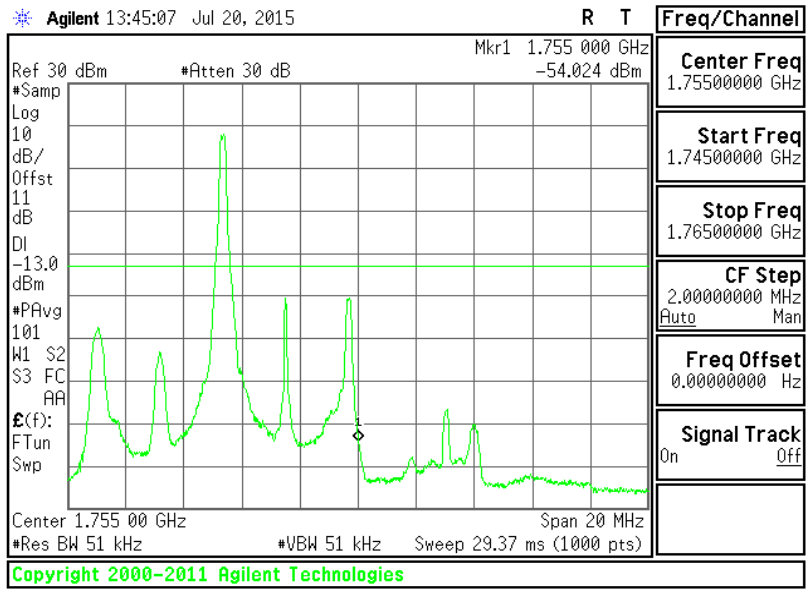
16QAM, (5.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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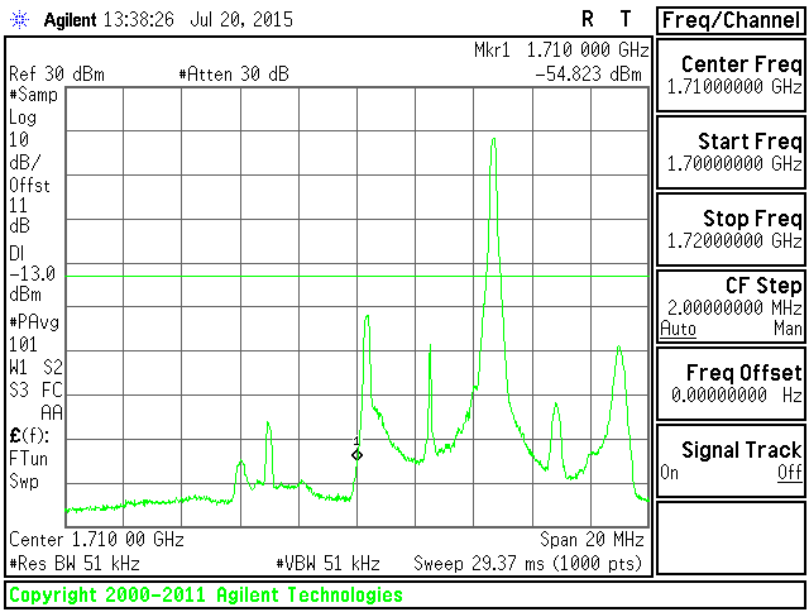
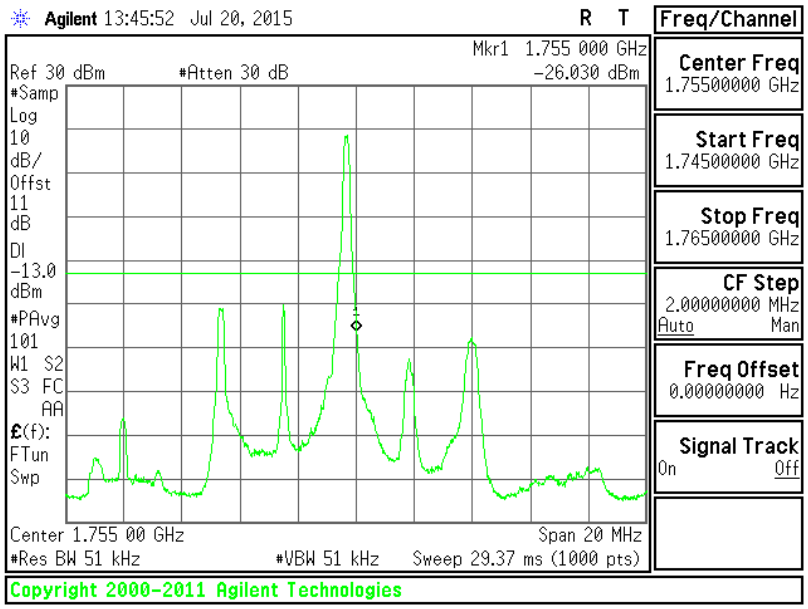
LOW CH, RB1-24



HIGH CH, RB1-24



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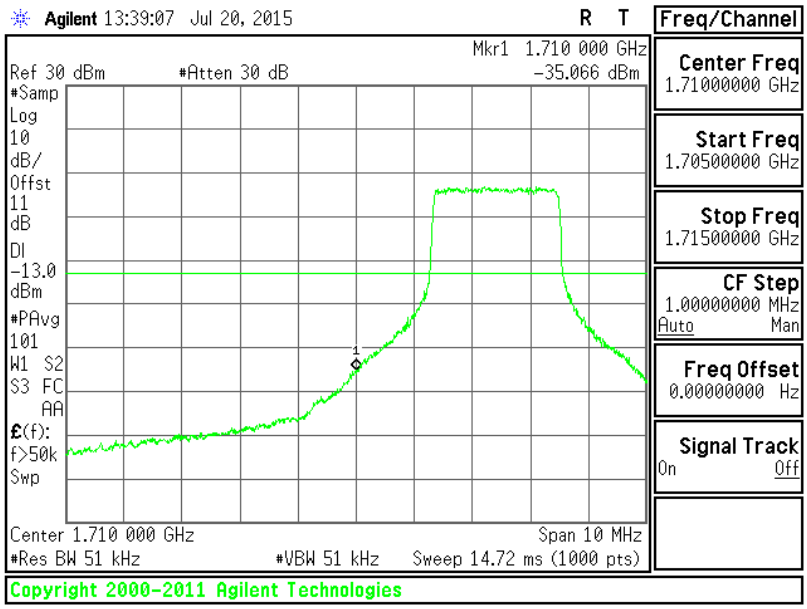
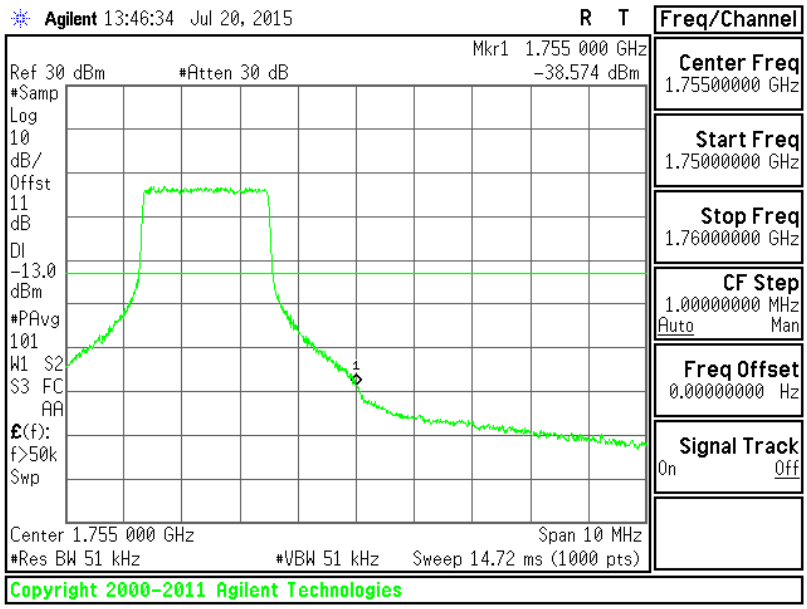
LOW CH, RB12-6



HIGH CH, RB12-6



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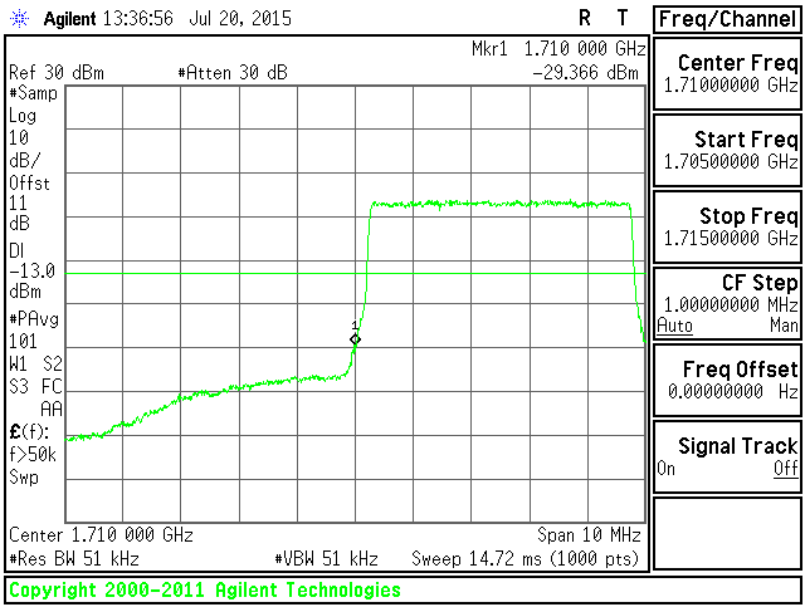
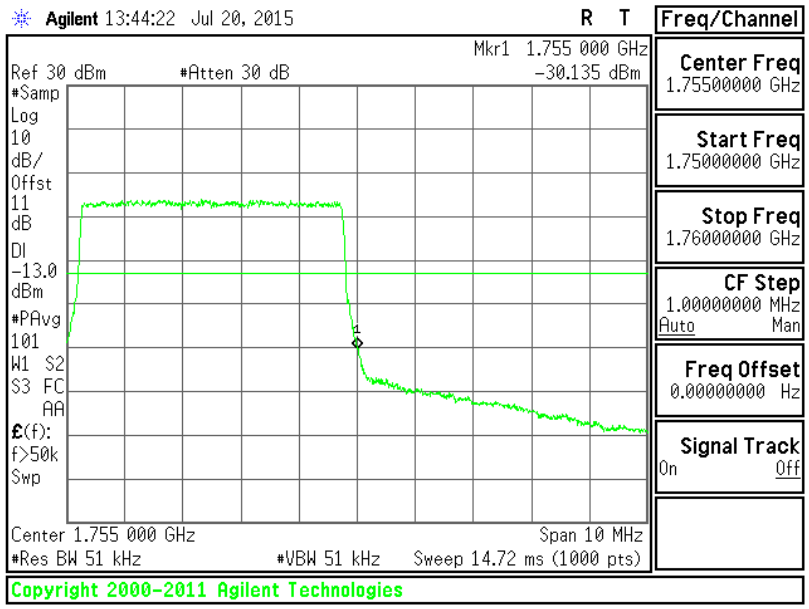
LOW CH, RB25-0



HIGH CH, RB25-0



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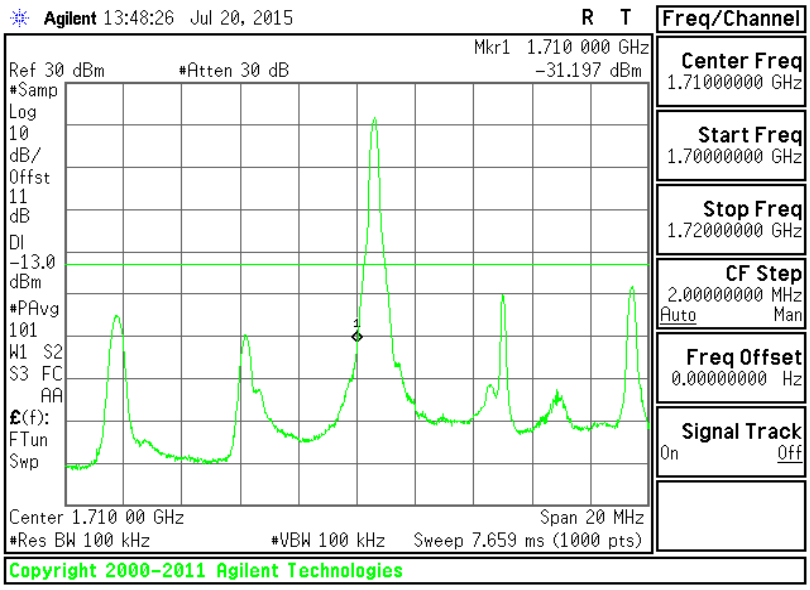
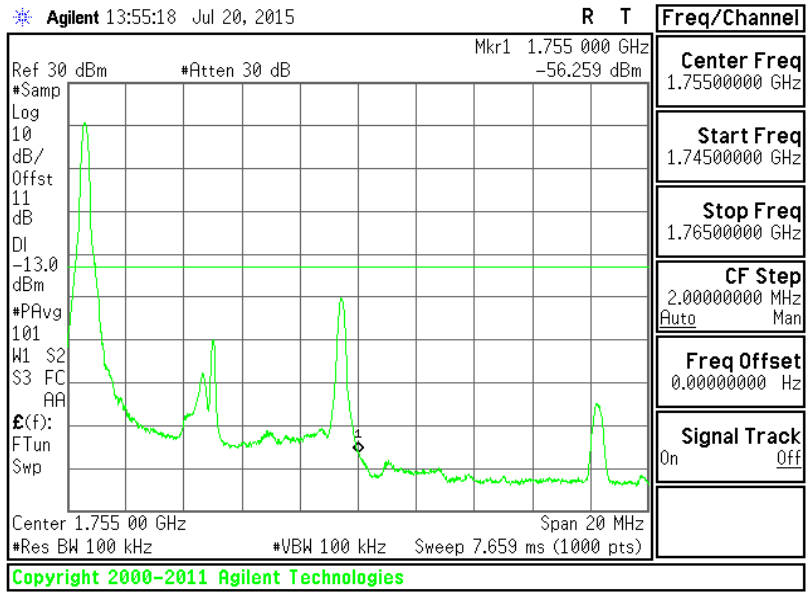
QPSK, (10.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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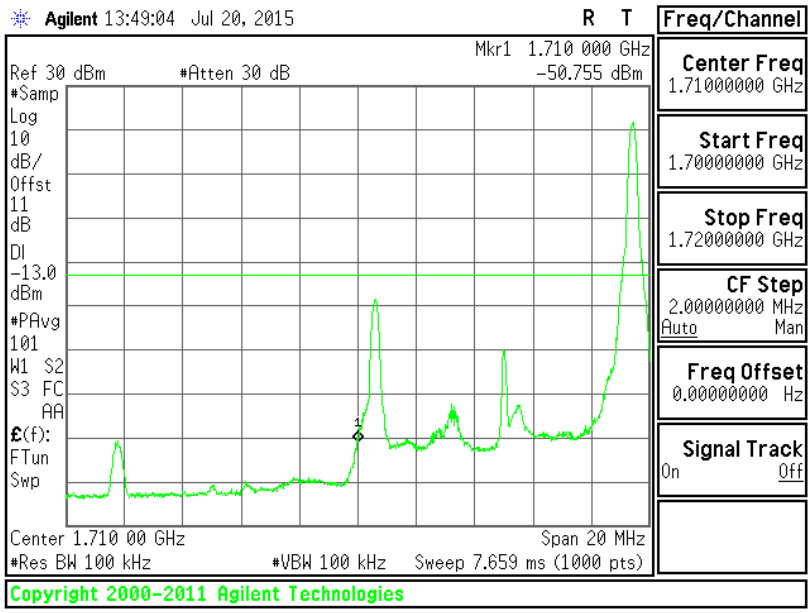
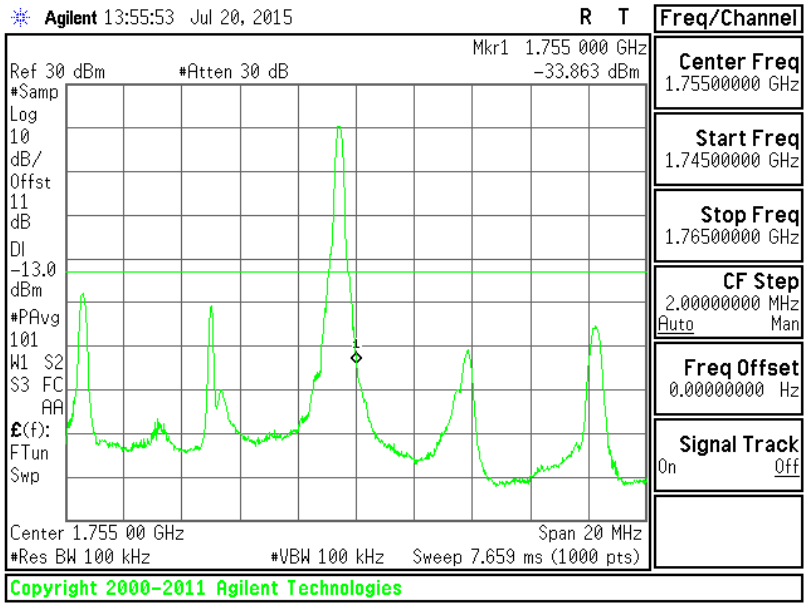
LOW CH, RB1-49



HIGH CH, RB1-49



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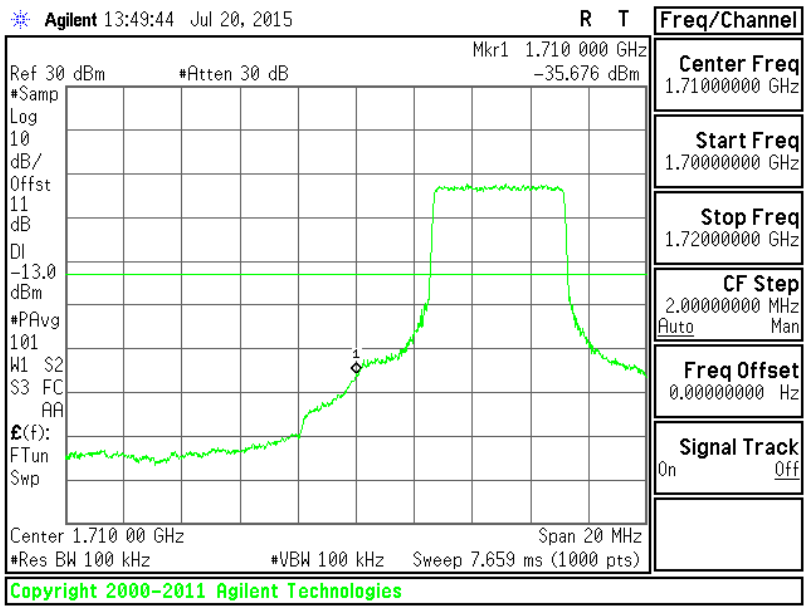
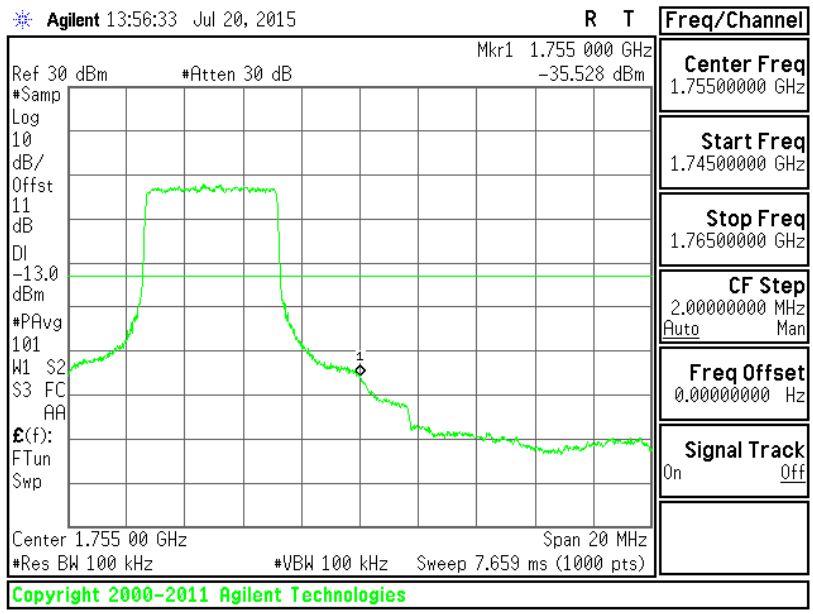
LOW CH, RB25-12



HIGH CH, RB25-12



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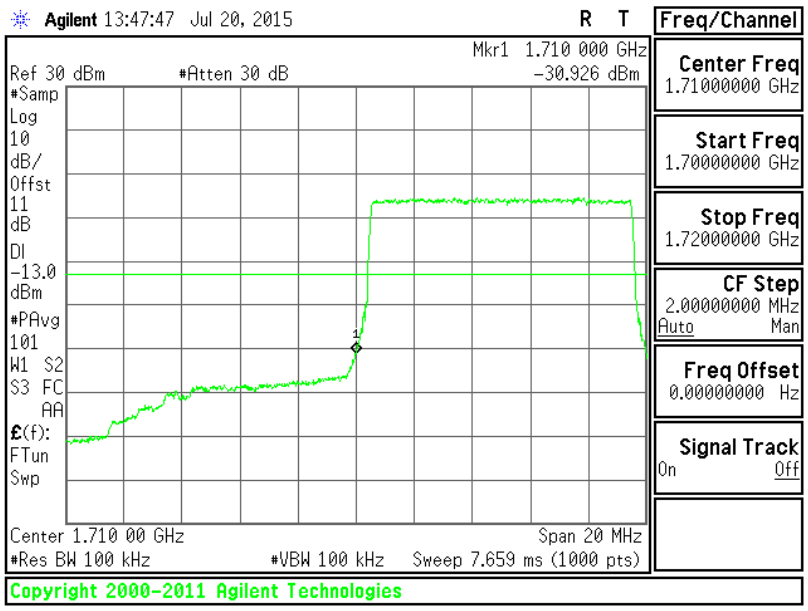
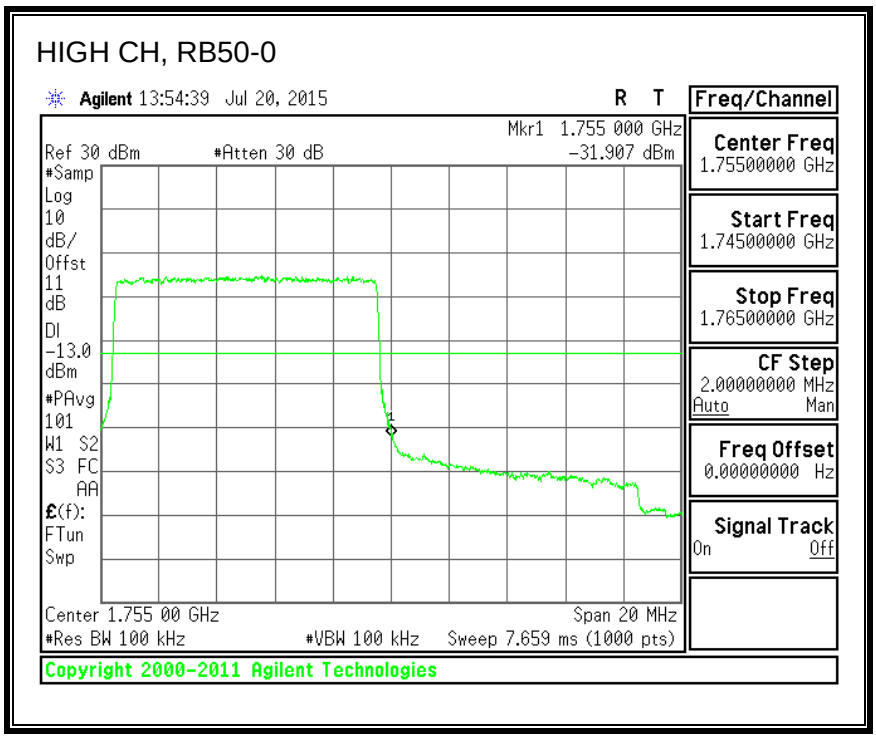
LOW CH, RB50-0



HIGH CH, RB50-0



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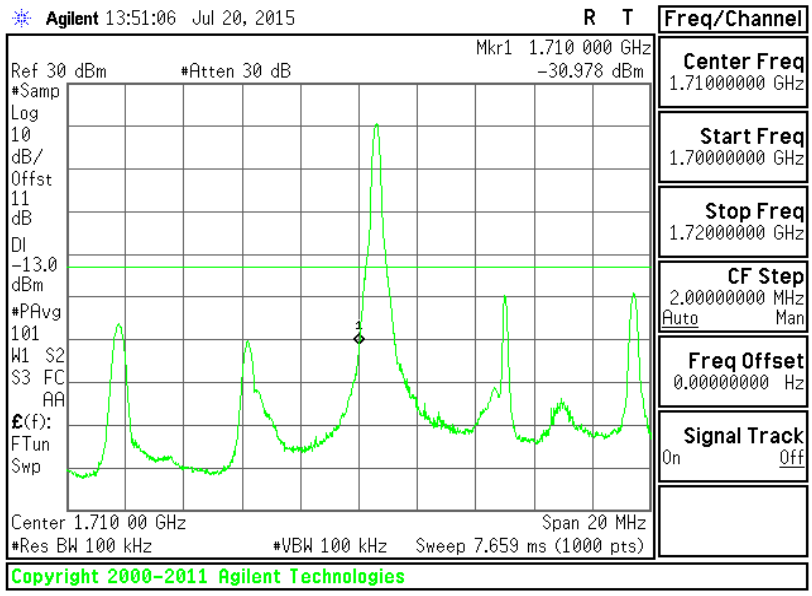
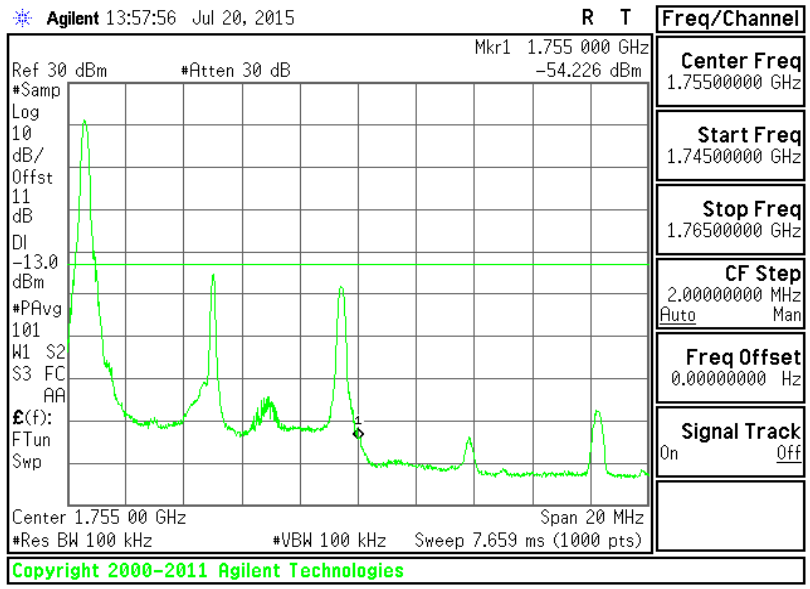
16QAM, (10.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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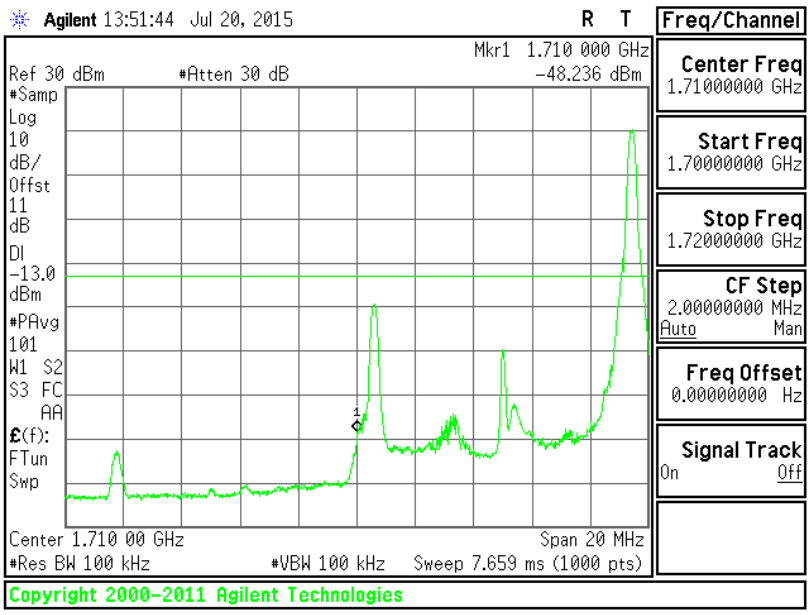
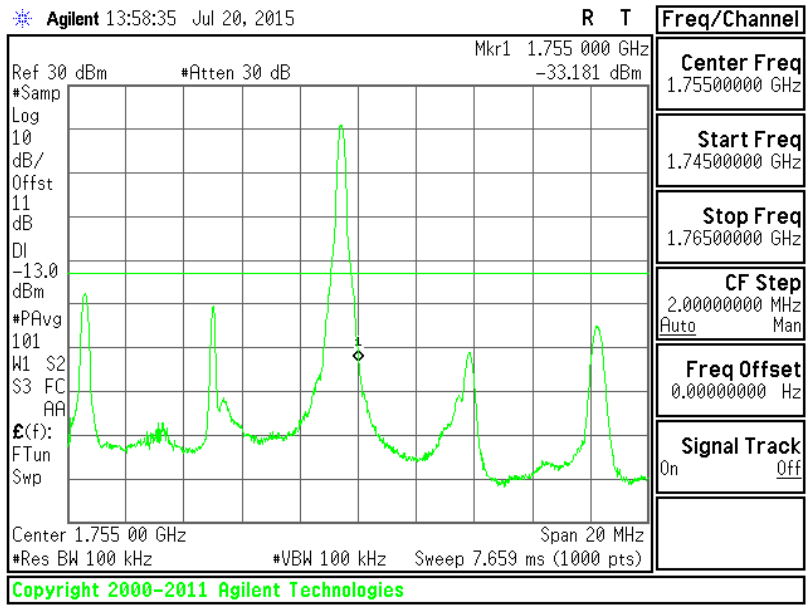
LOW CH, RB1-49



HIGH CH, RB1-49



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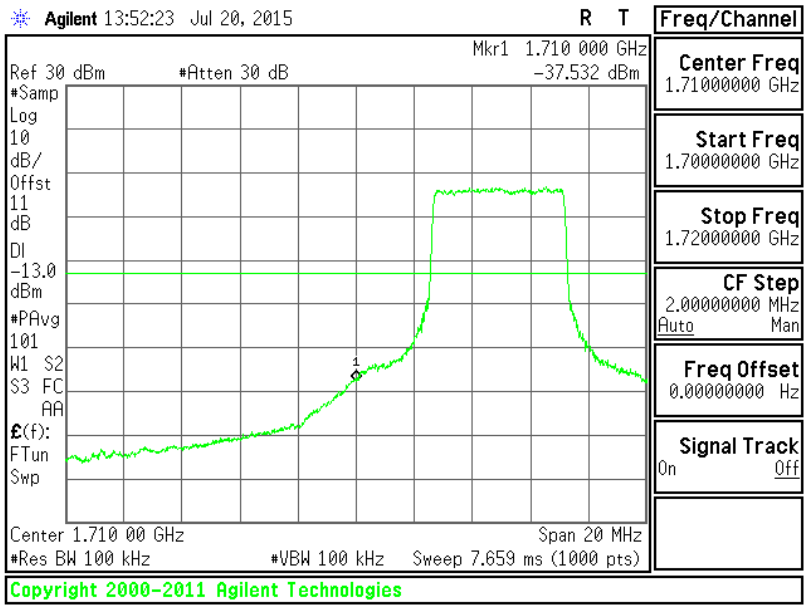
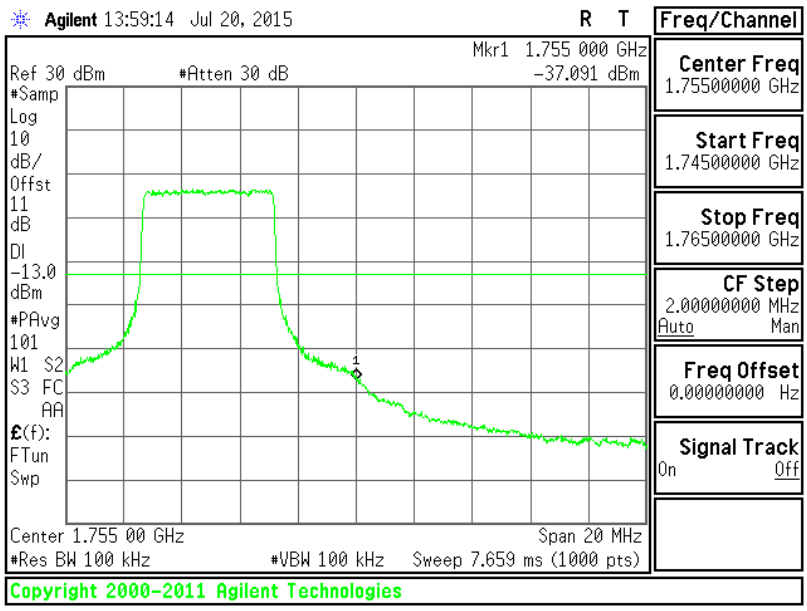
LOW CH, RB25-12



HIGH CH, RB25-12



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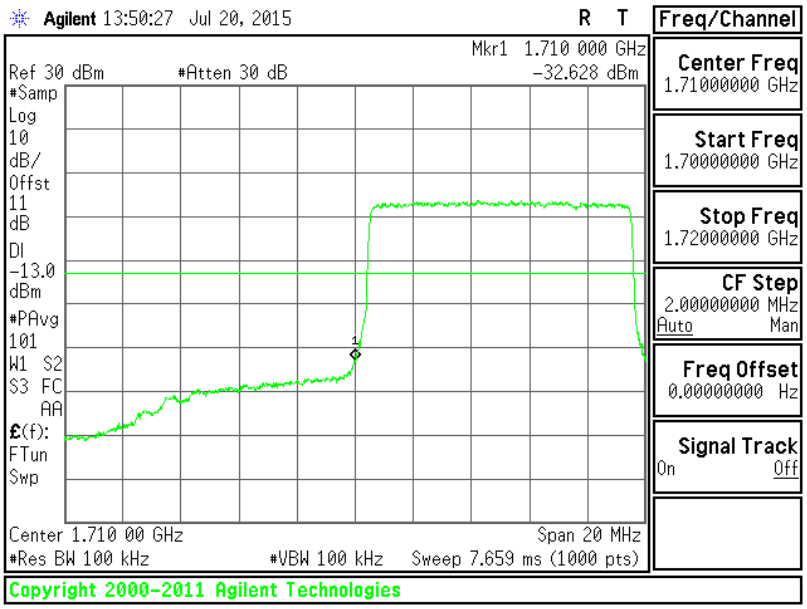
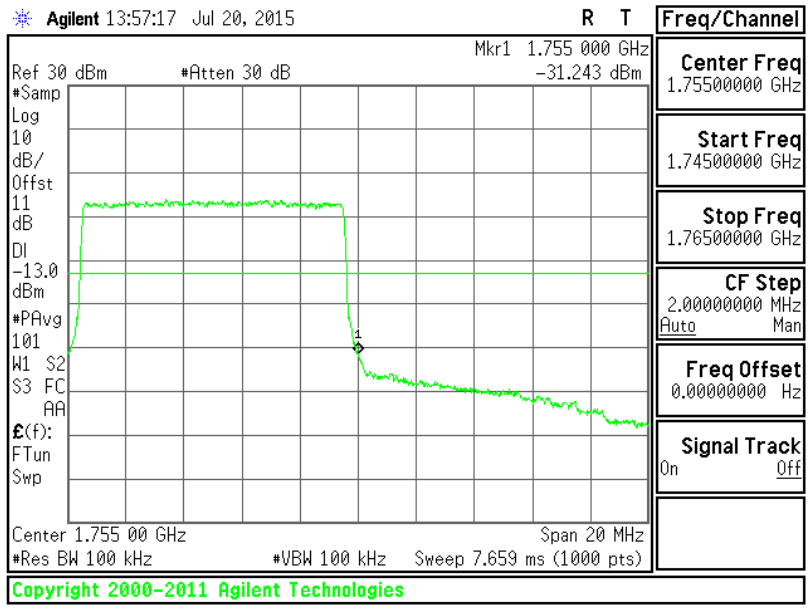
LOW CH, RB50-0



HIGH CH, RB50-0



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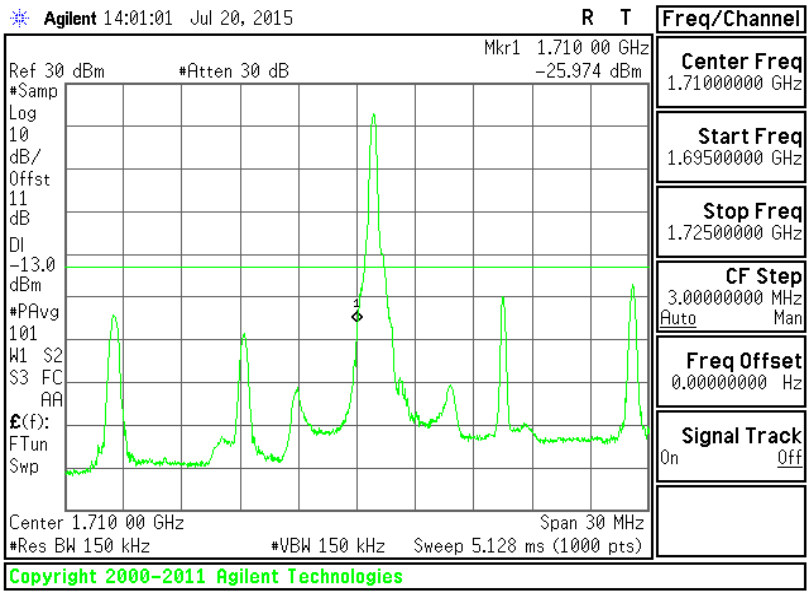
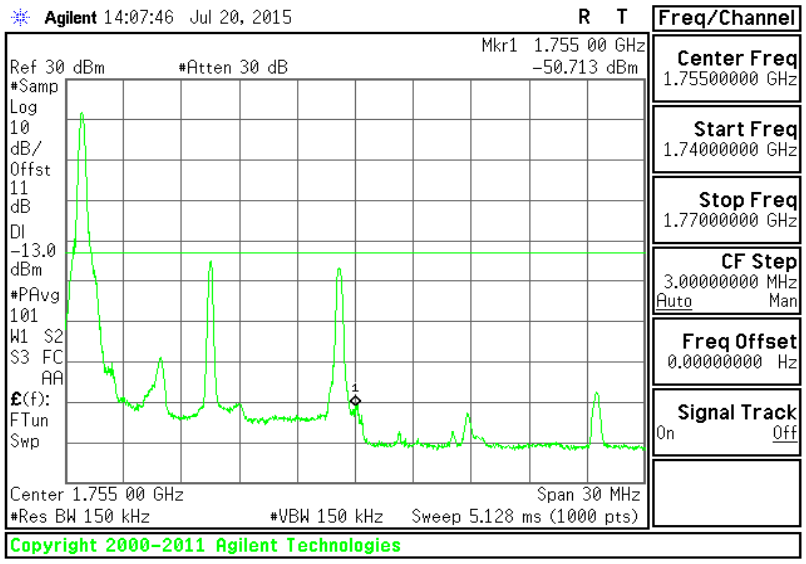
QPSK, (15.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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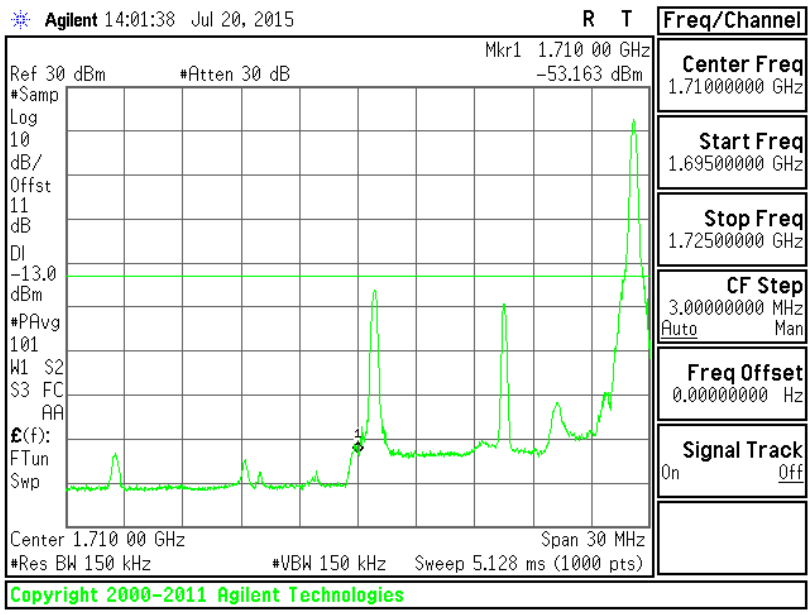
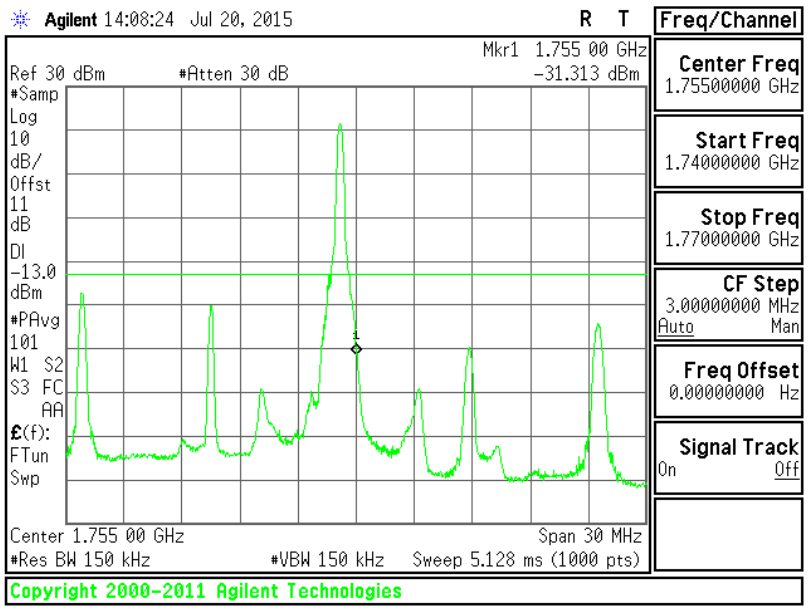
LOW CH, RB1-74



HIGH CH, RB1-74



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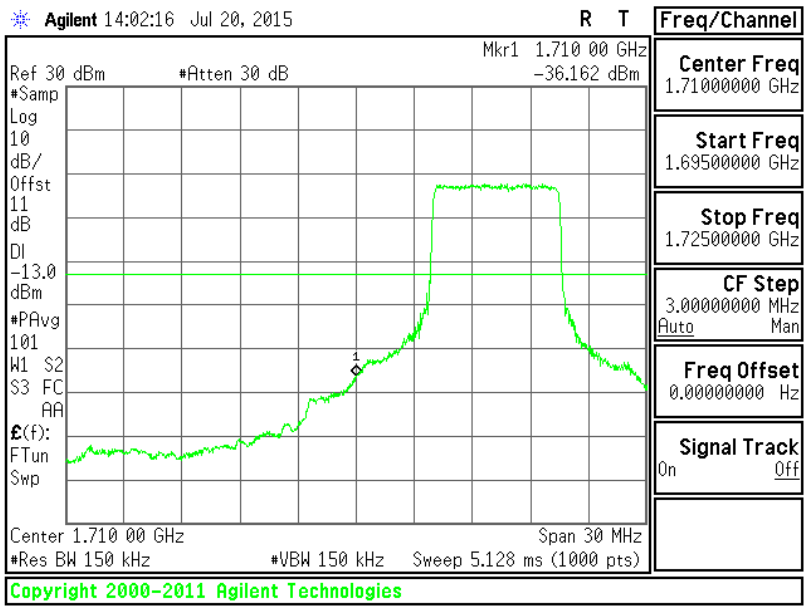
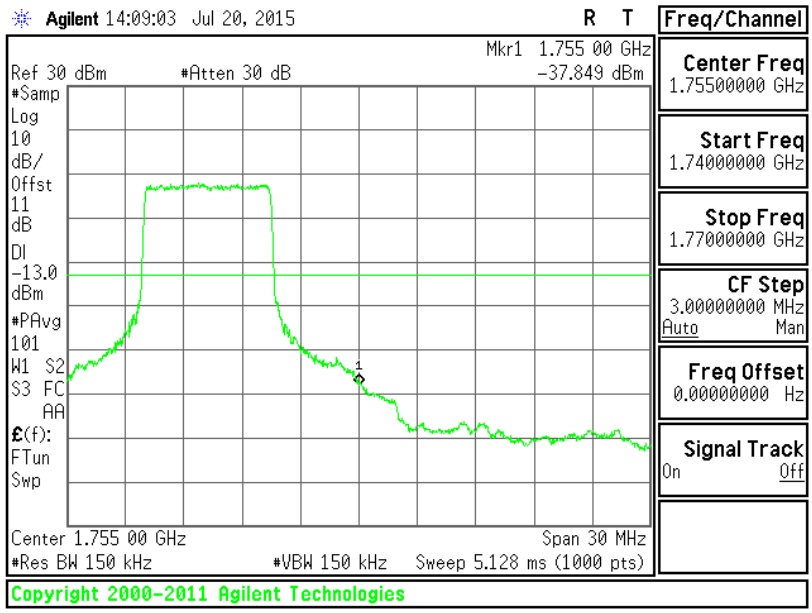
LOW CH, RB36-18



HIGH CH, RB36-18



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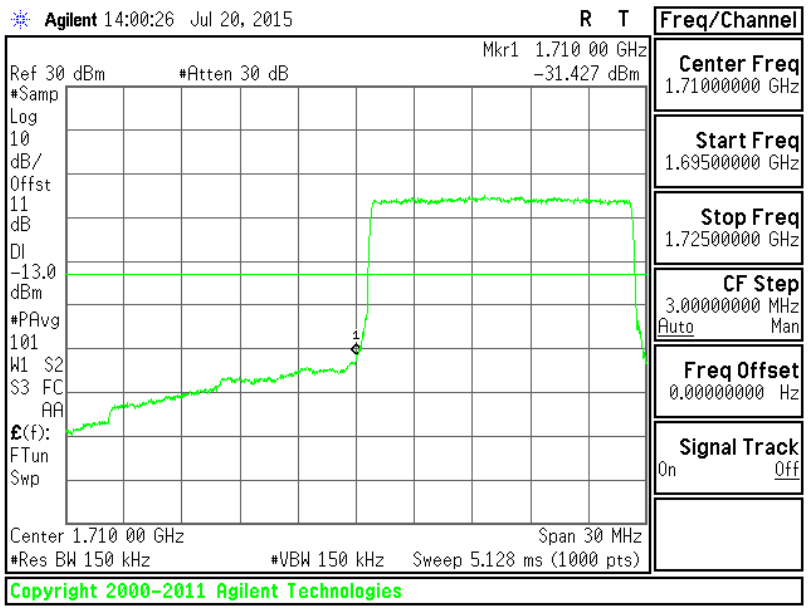
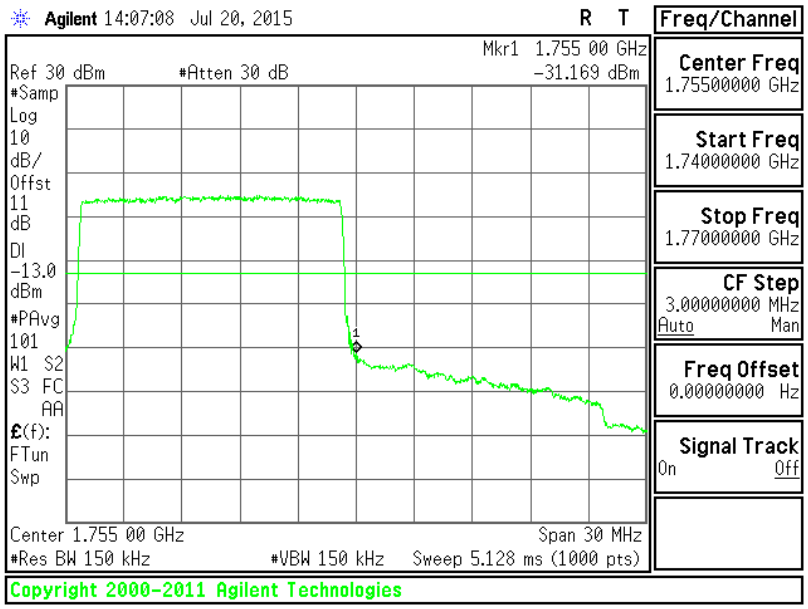
LOW CH, RB75-0



HIGH CH, RB75-0



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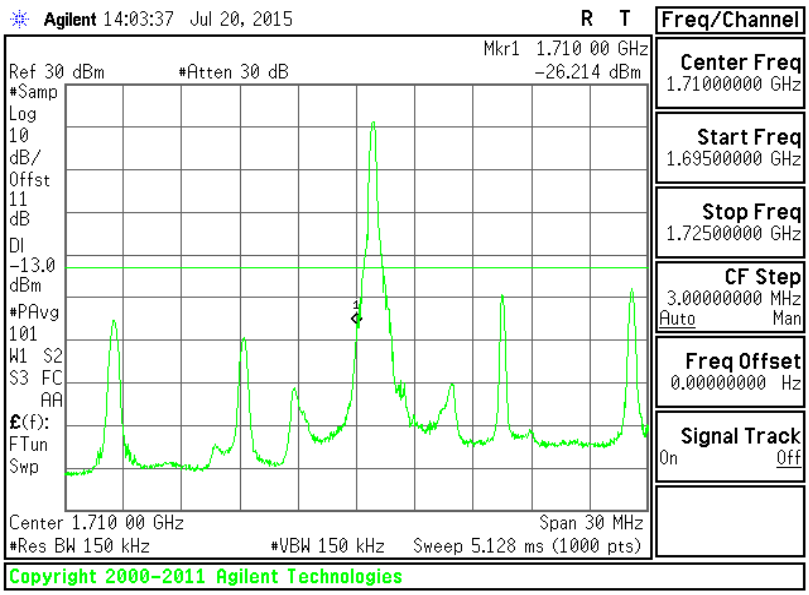
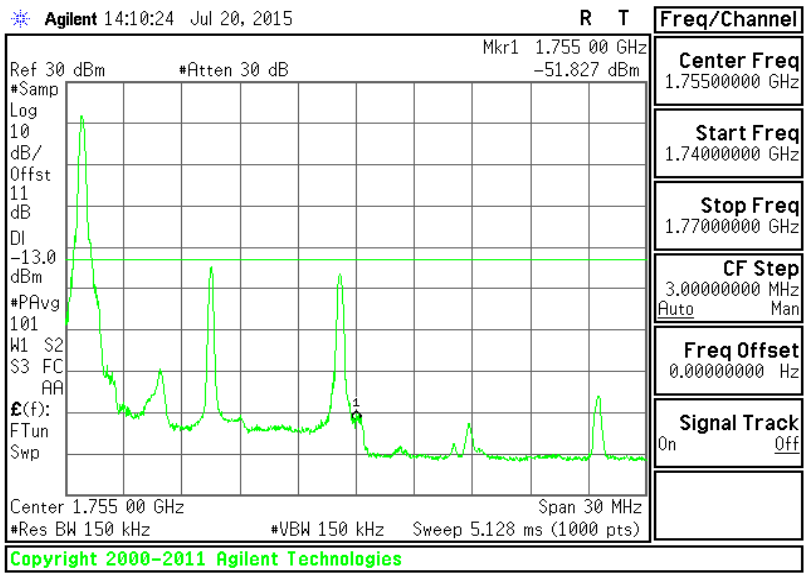
16QAM, (15.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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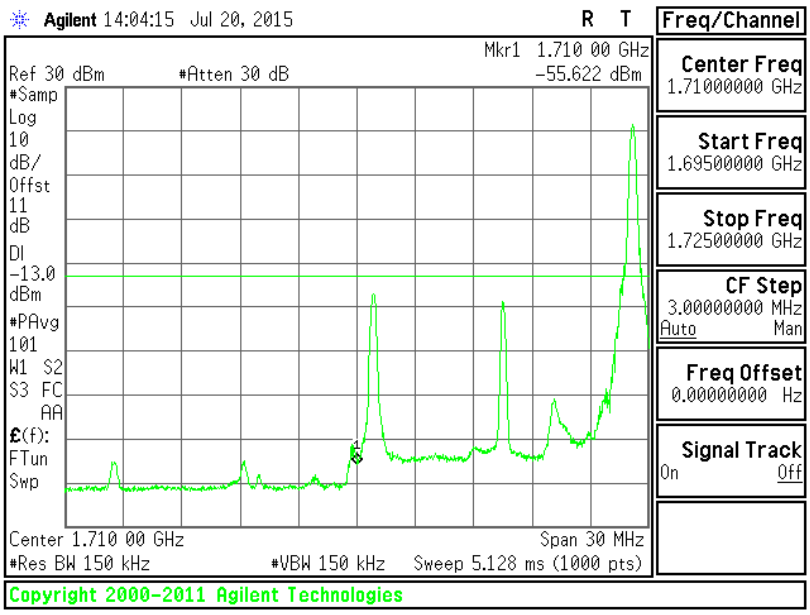
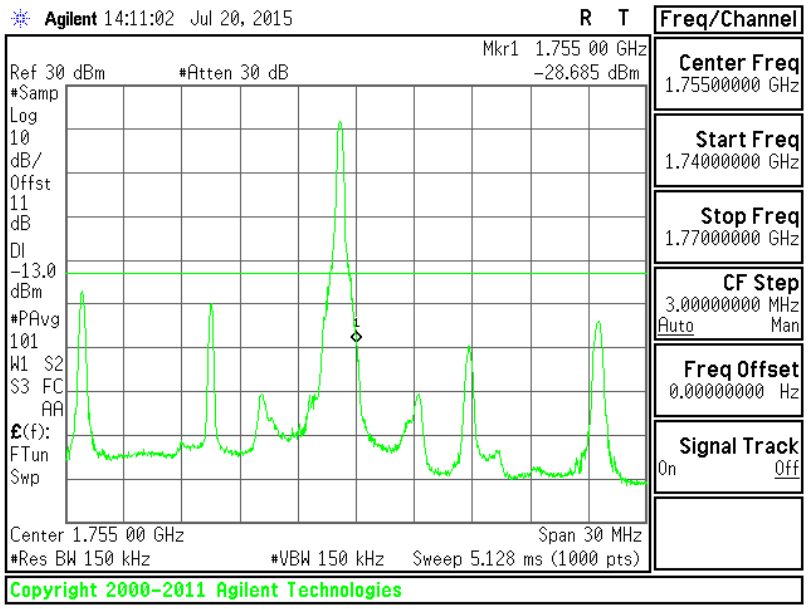
LOW CH, RB1-74



HIGH CH, RB1-74



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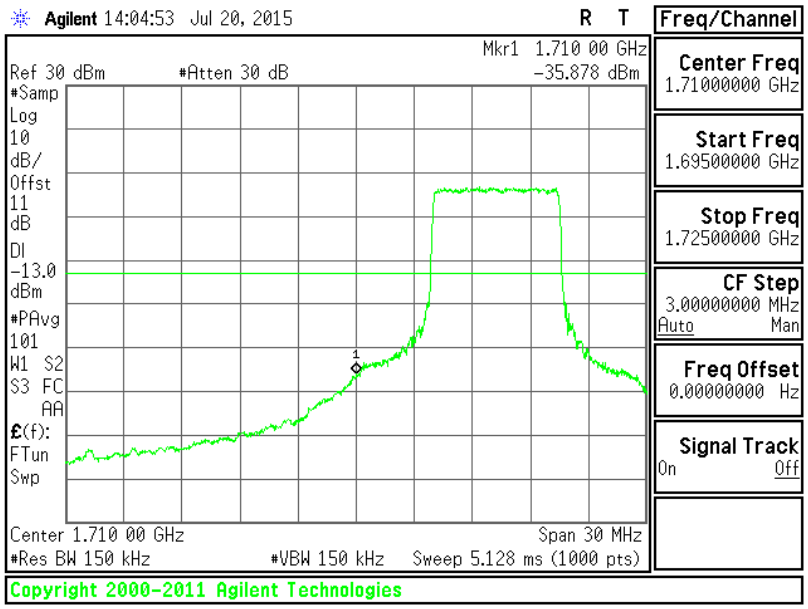
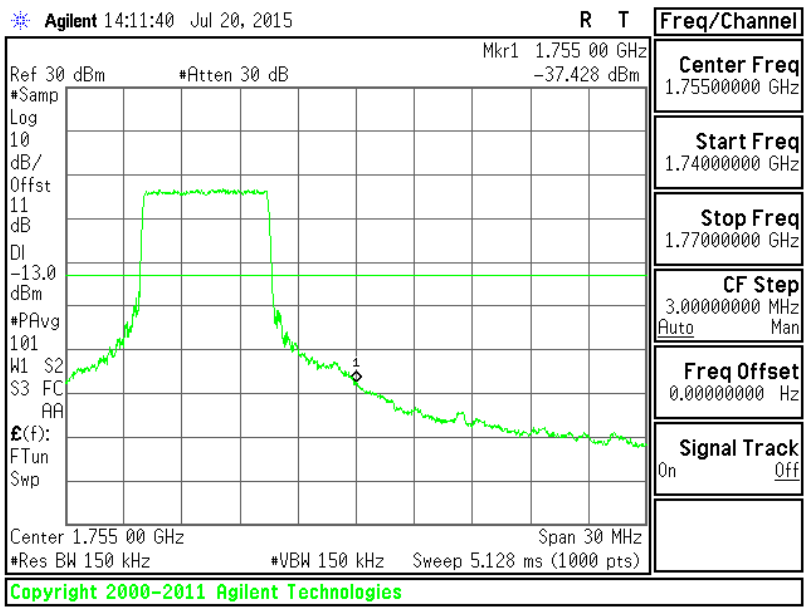
LOW CH, RB36-18



HIGH CH, RB36-18



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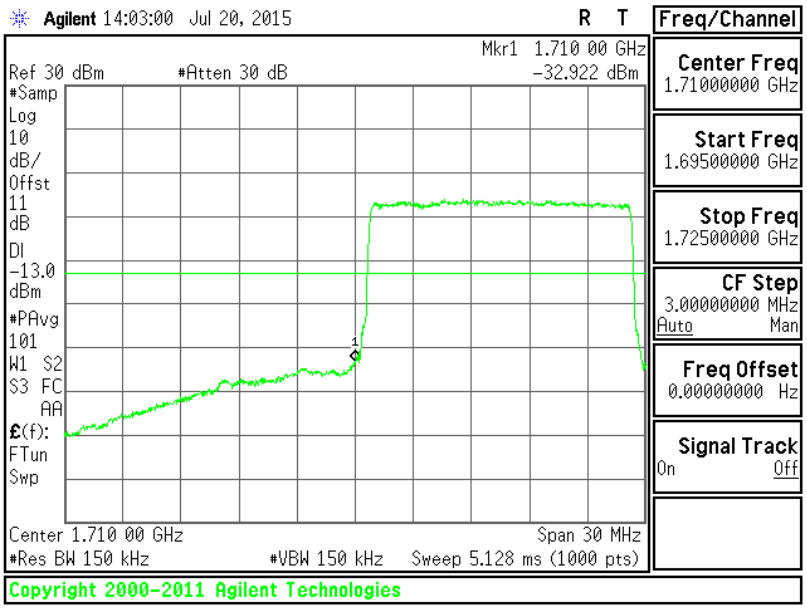
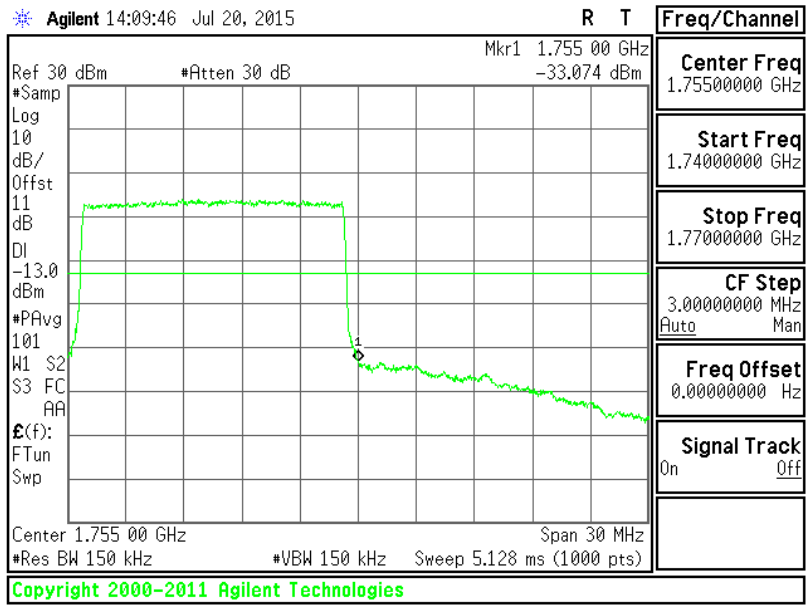
LOW CH, RB75-0



HIGH CH, RB75-0



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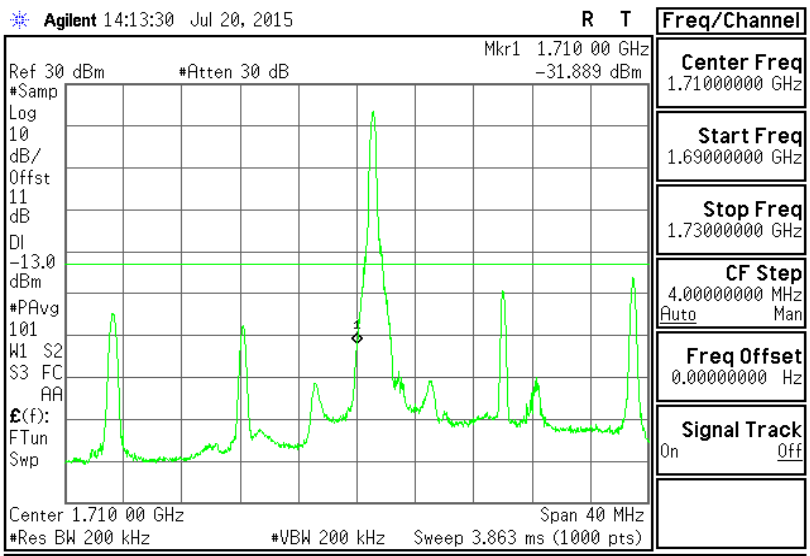
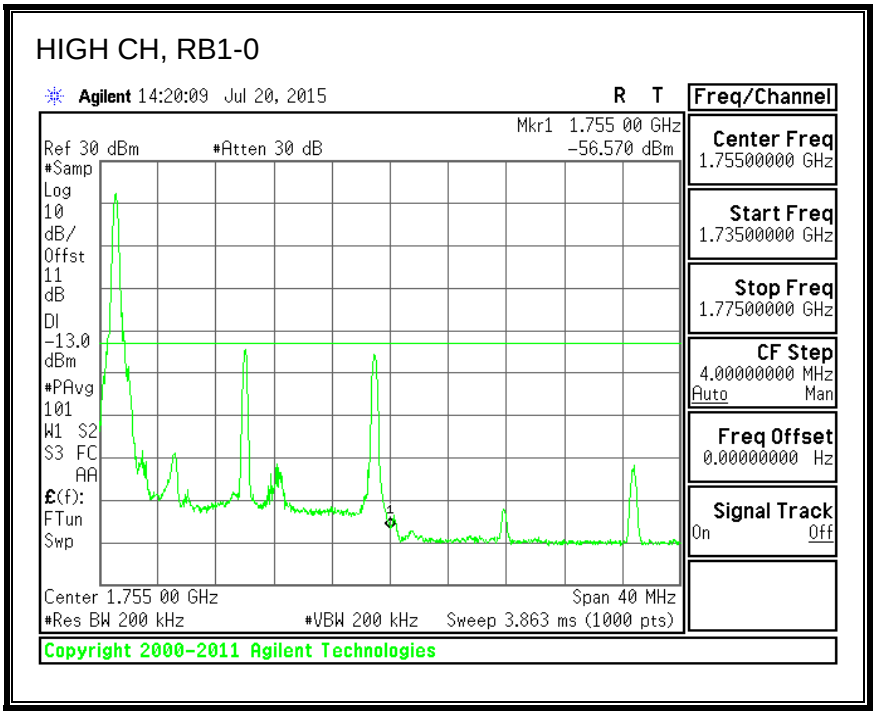
QPSK, (20.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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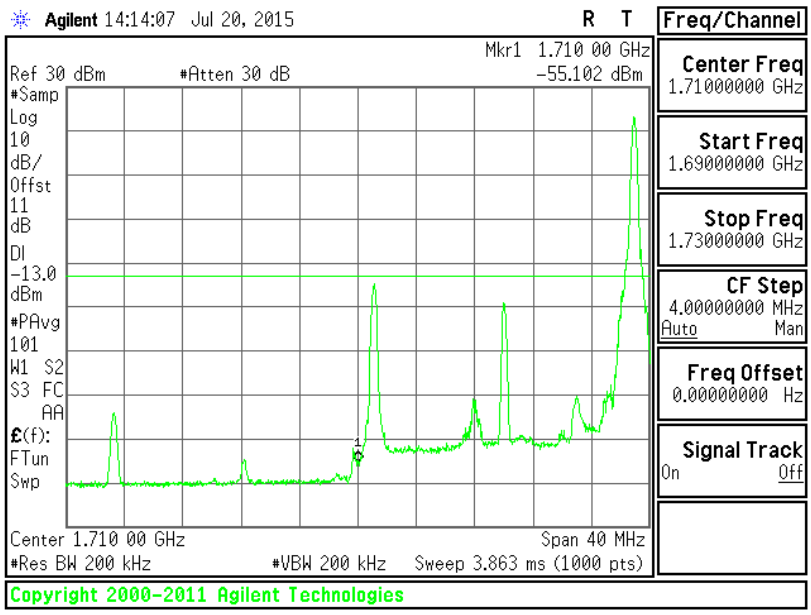
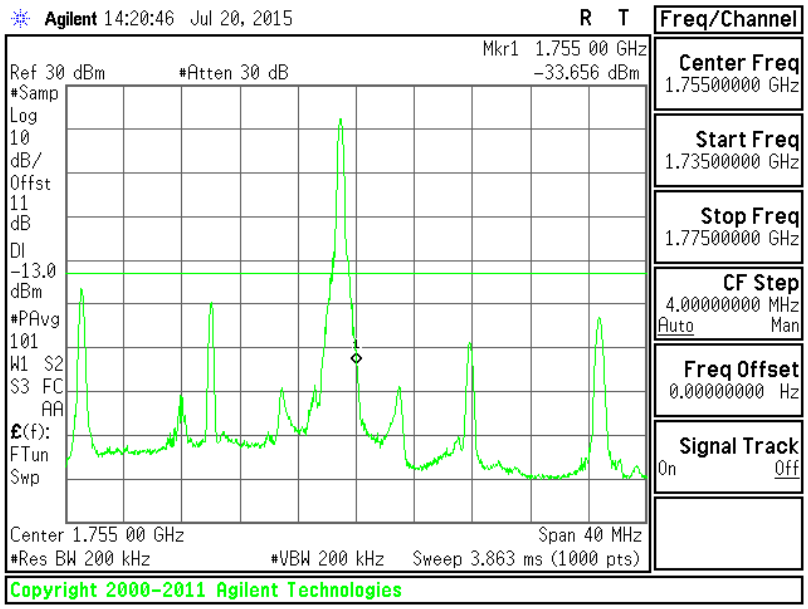
LOW CH, RB1-99



HIGH CH, RB1-99



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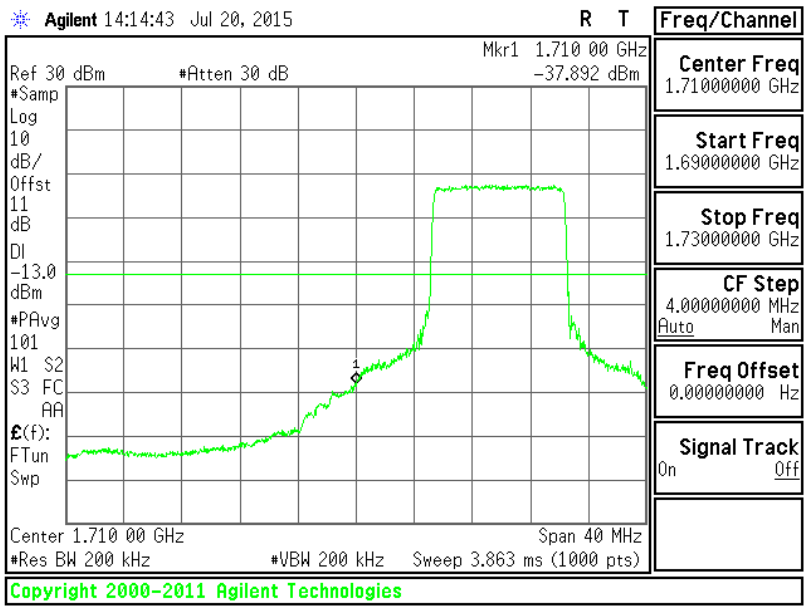
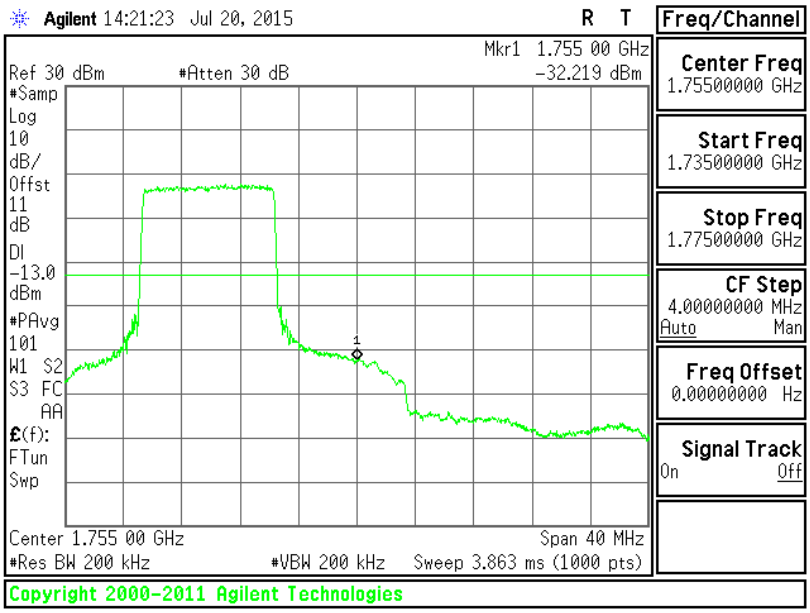
LOW CH, RB50-24



HIGH CH, RB50-24



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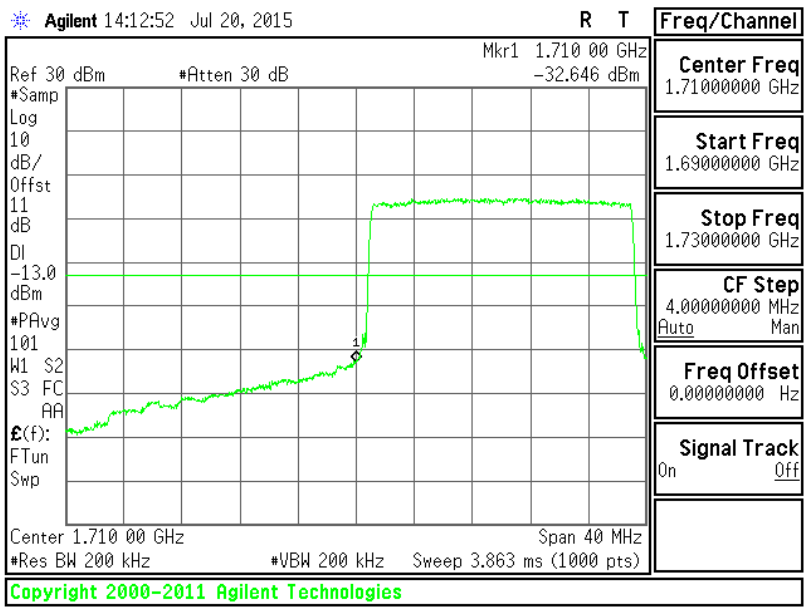
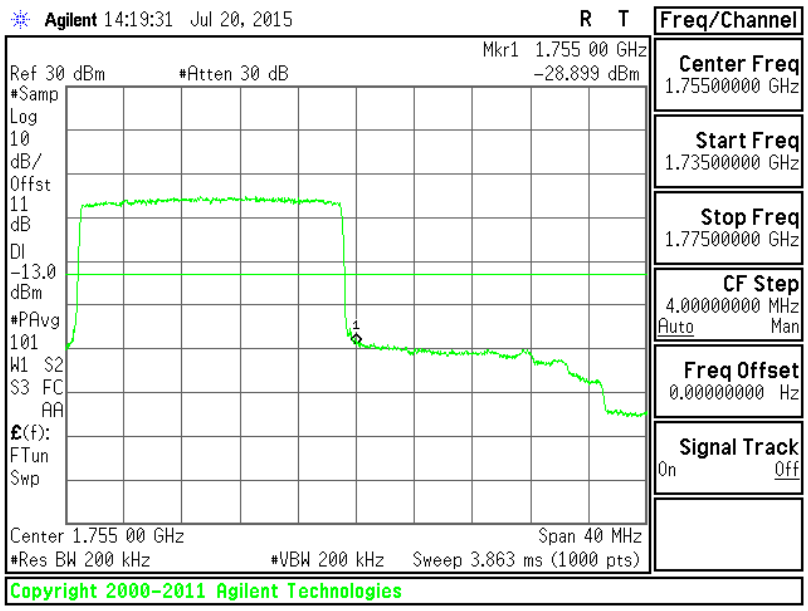
LOW CH, RB100-0



HIGH CH, RB100-0



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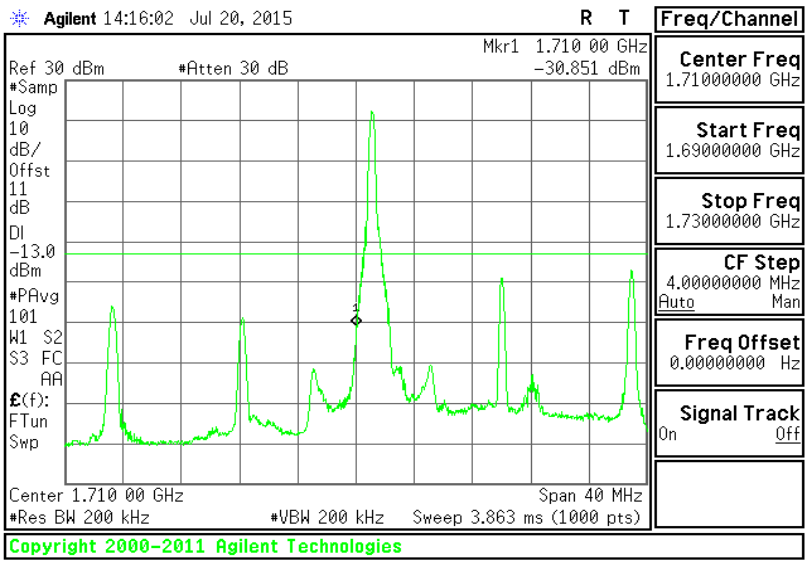
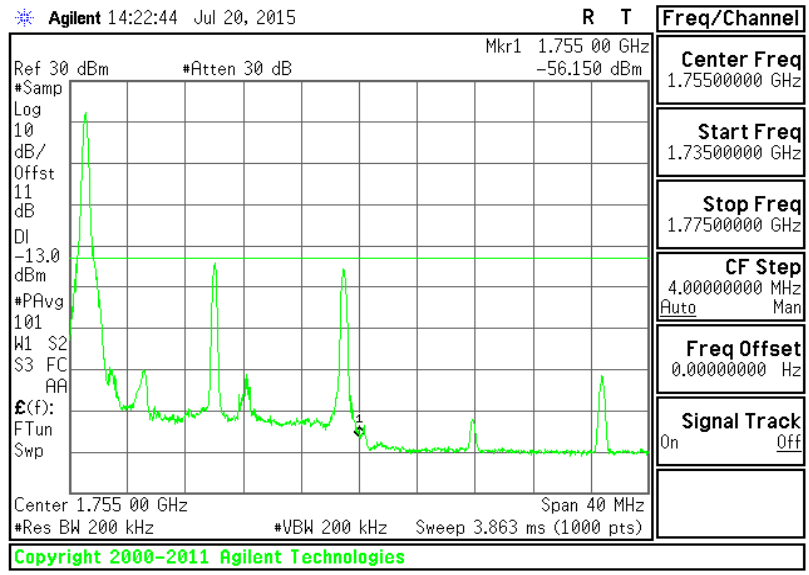
16QAM, (20.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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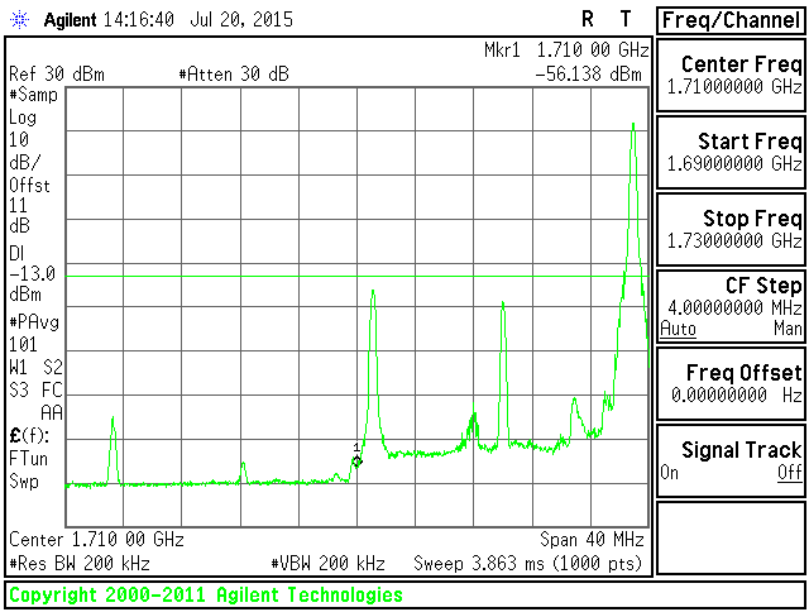
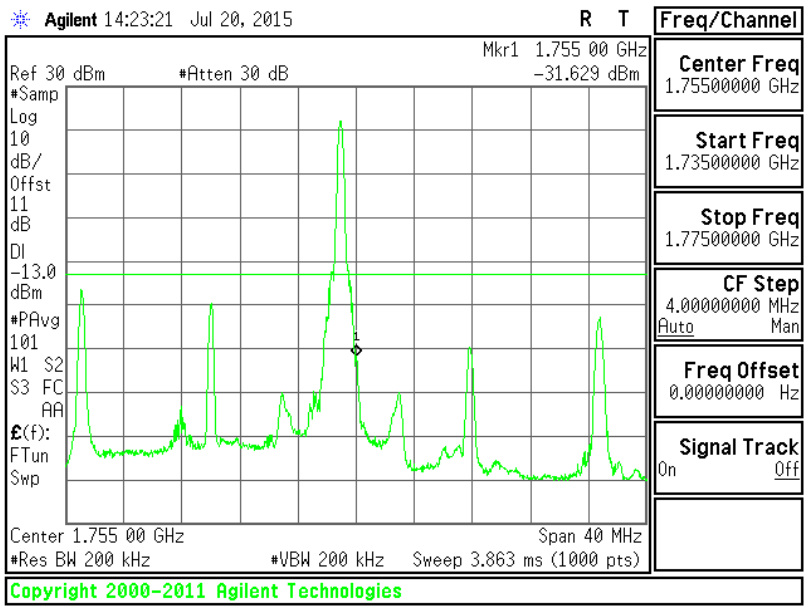
LOW CH, RB1-99



HIGH CH, RB1-99



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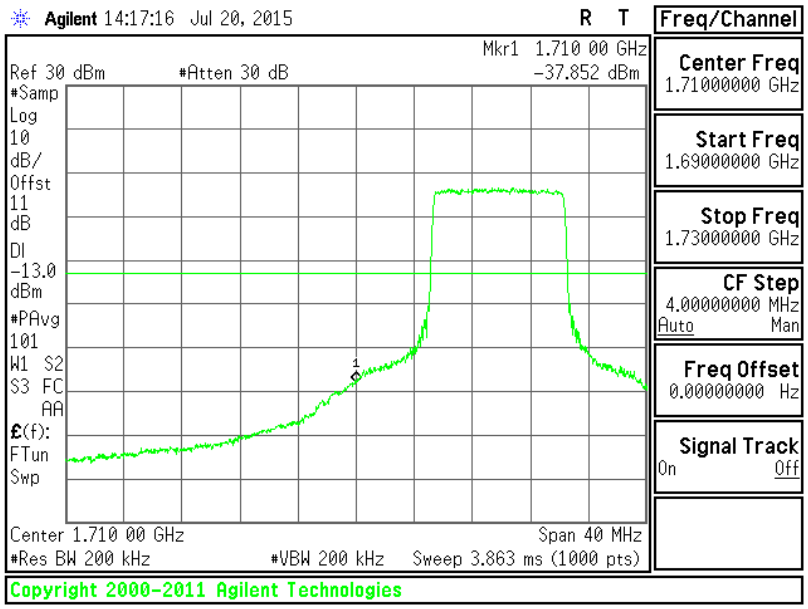
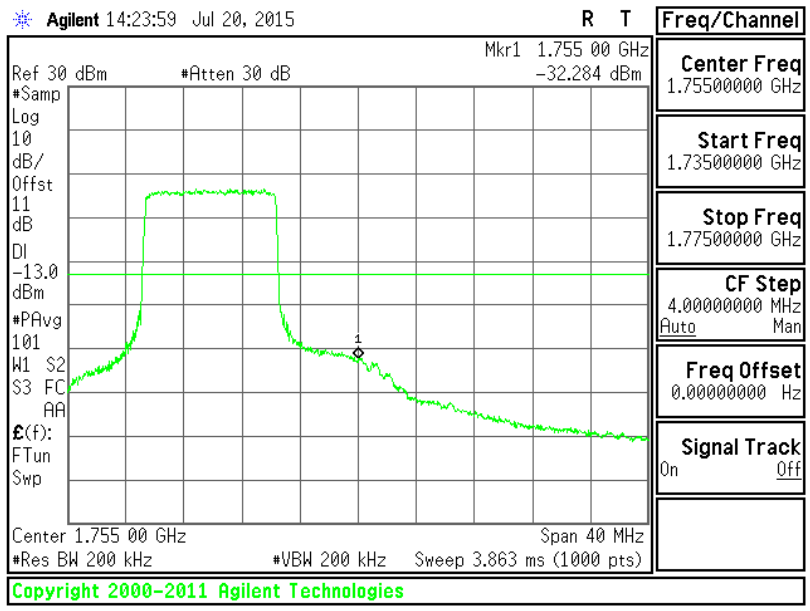
LOW CH, RB50-24



HIGH CH, RB50-24



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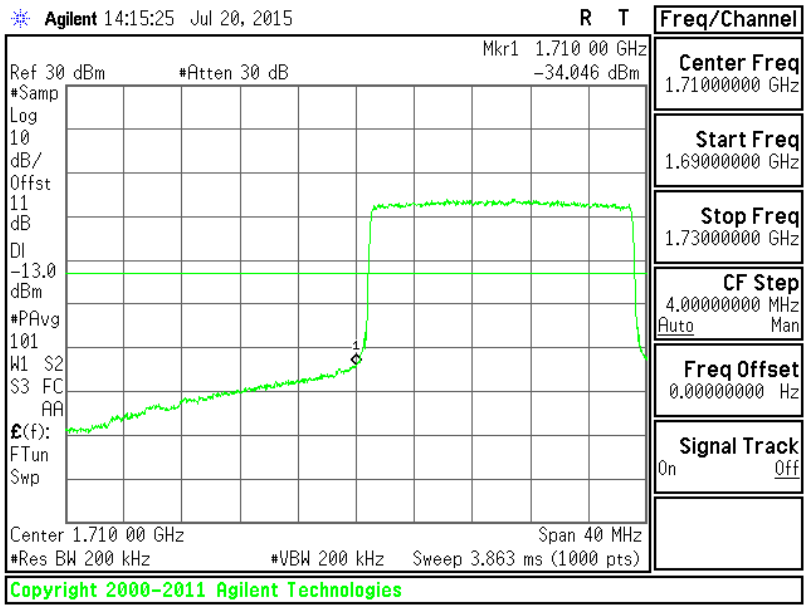
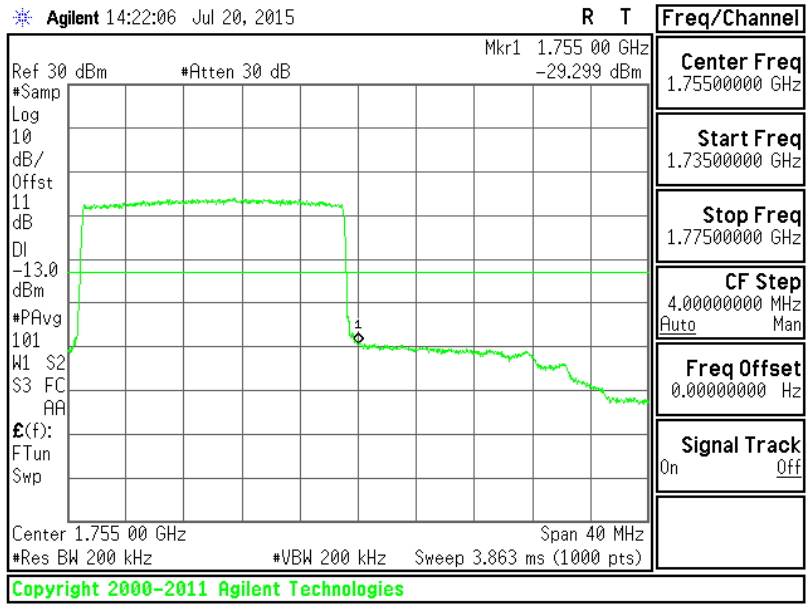
LOW CH, RB100-0



HIGH CH, RB100-0



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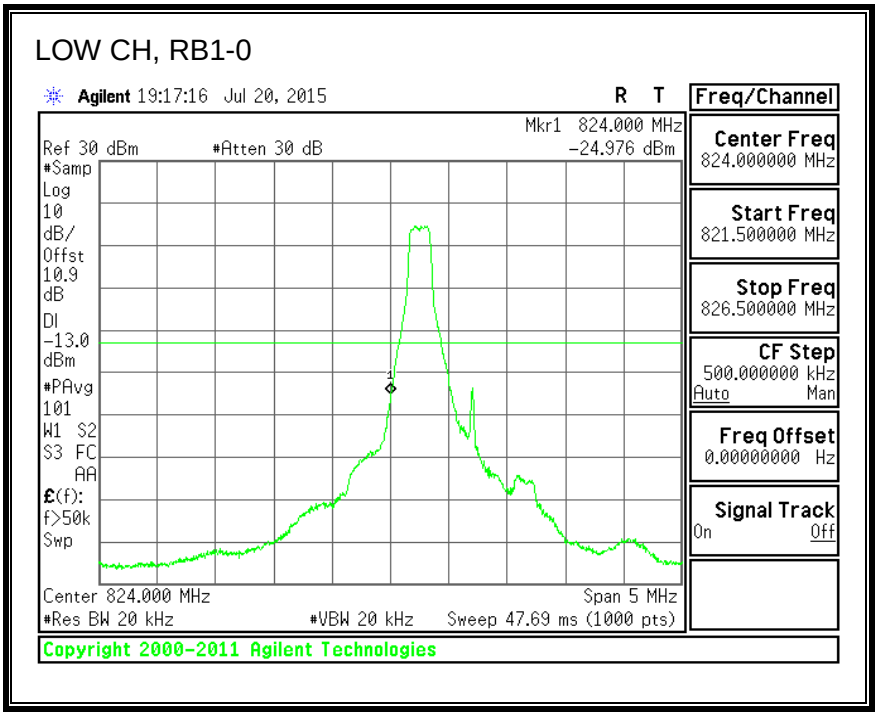
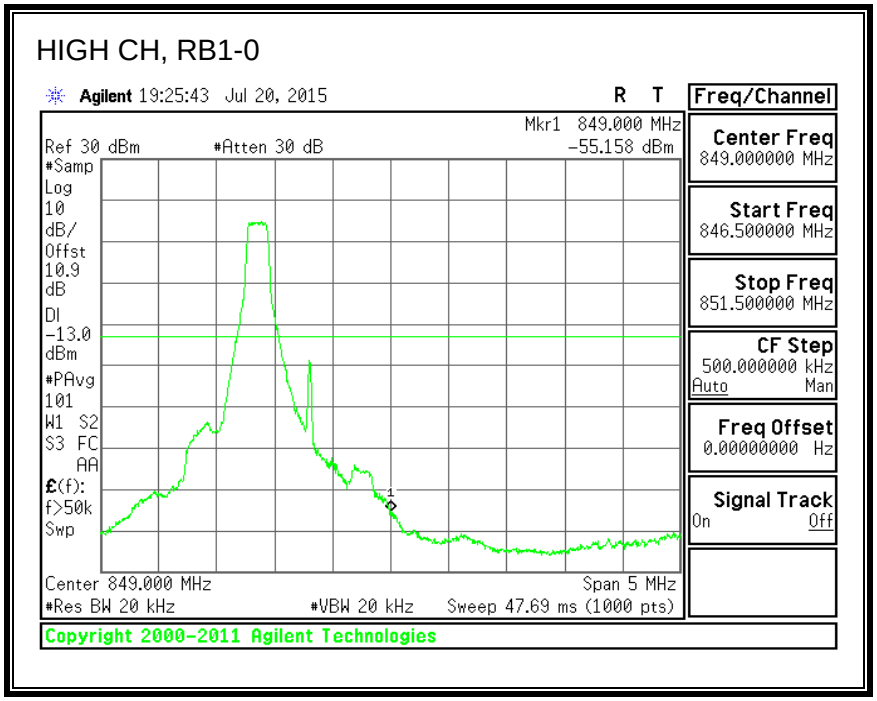
8.2.3. LTE BAND 5 BANDEDGE

QPSK, (1.4 MHz BAND WIDTH)





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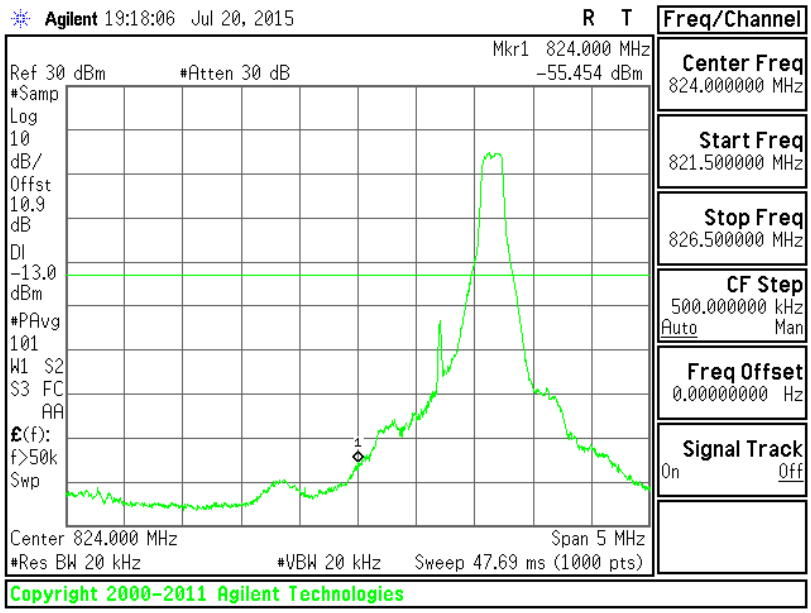
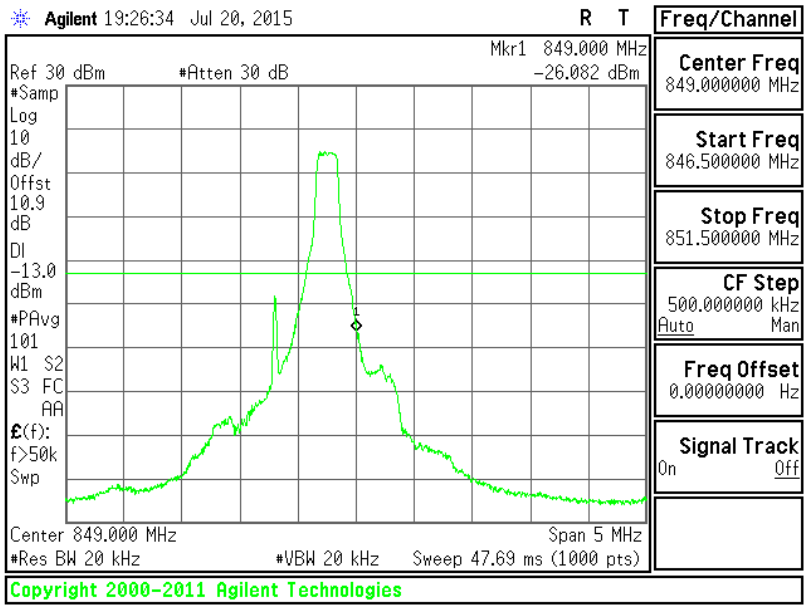
LOW CH, RB1-5



HIGH CH, RB1-5



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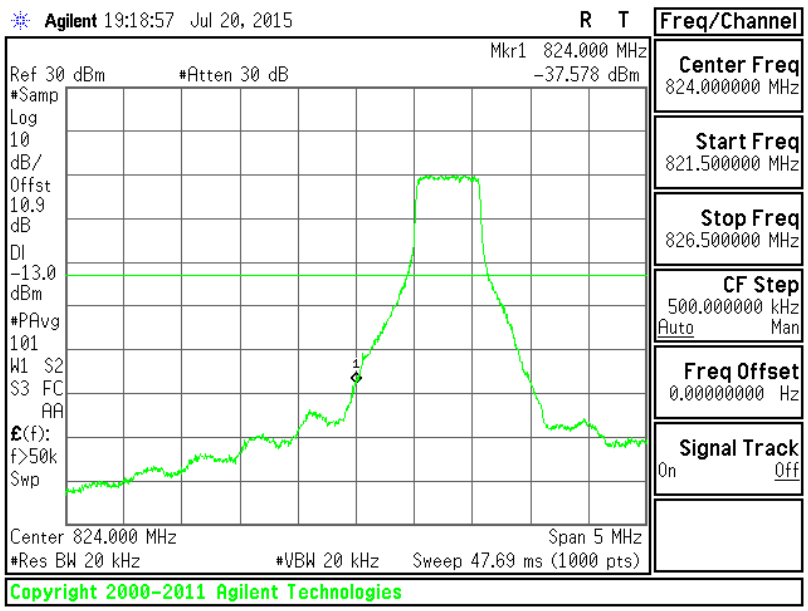
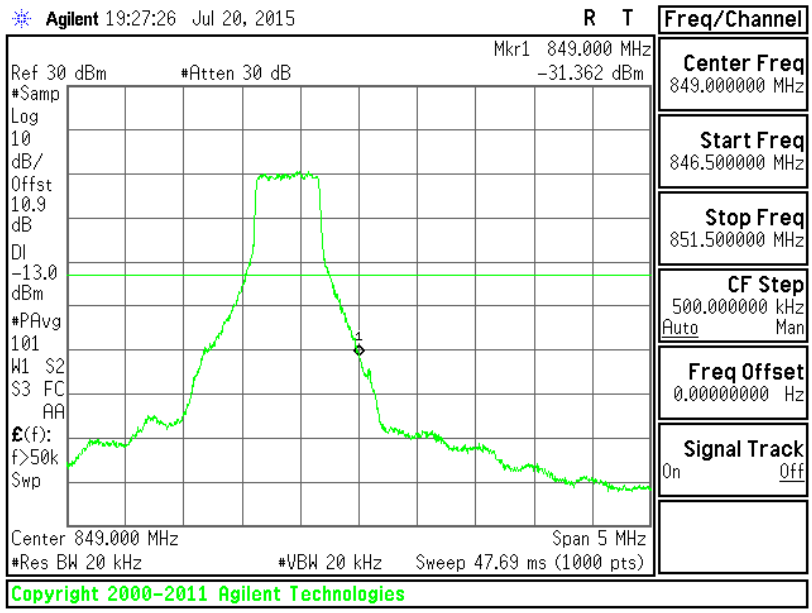
LOW CH, RB3-2



HIGH CH, RB3-2



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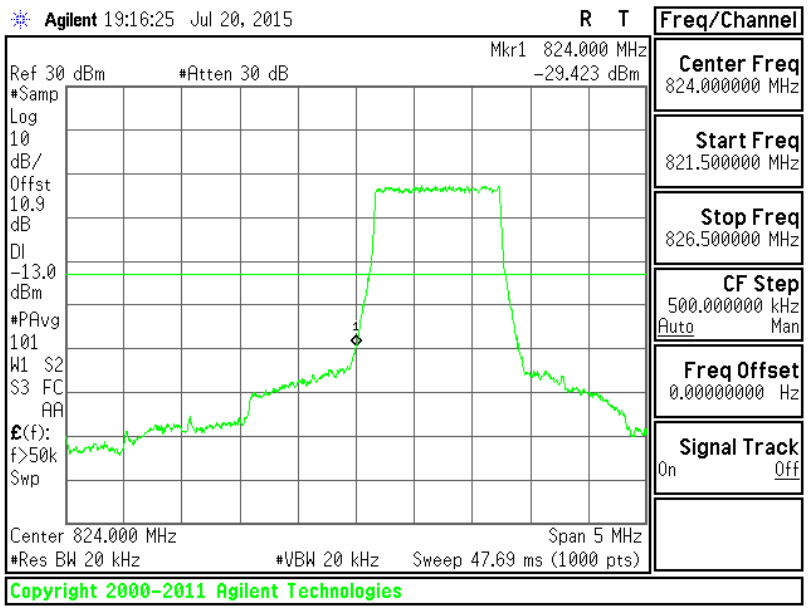
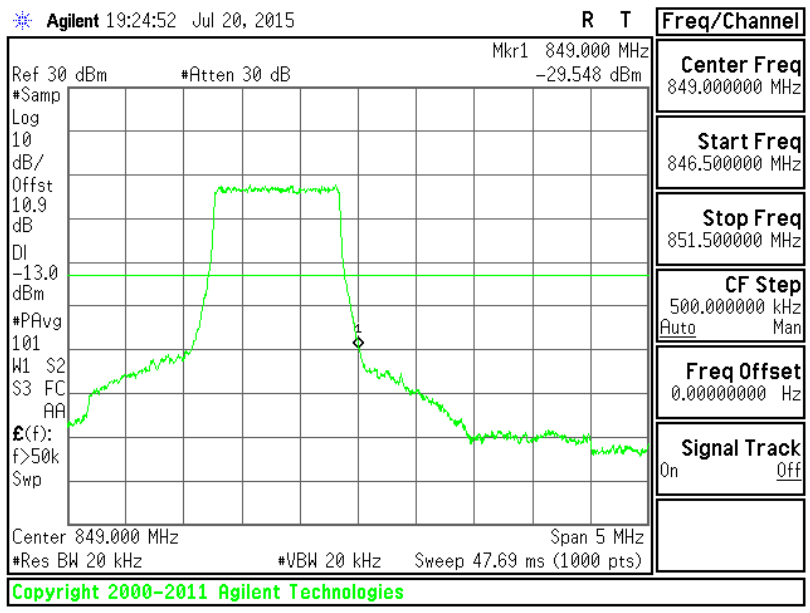
LOW CH, RB6-0



HIGH CH, RB6-0



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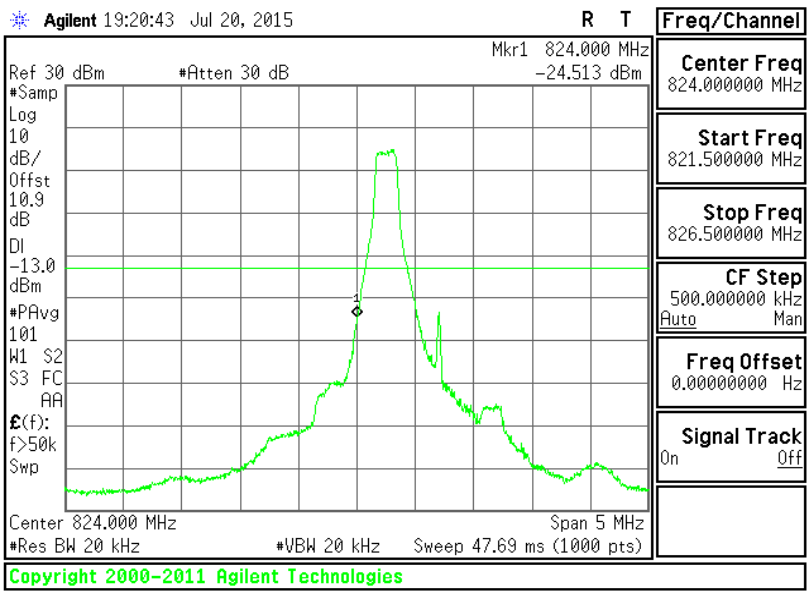
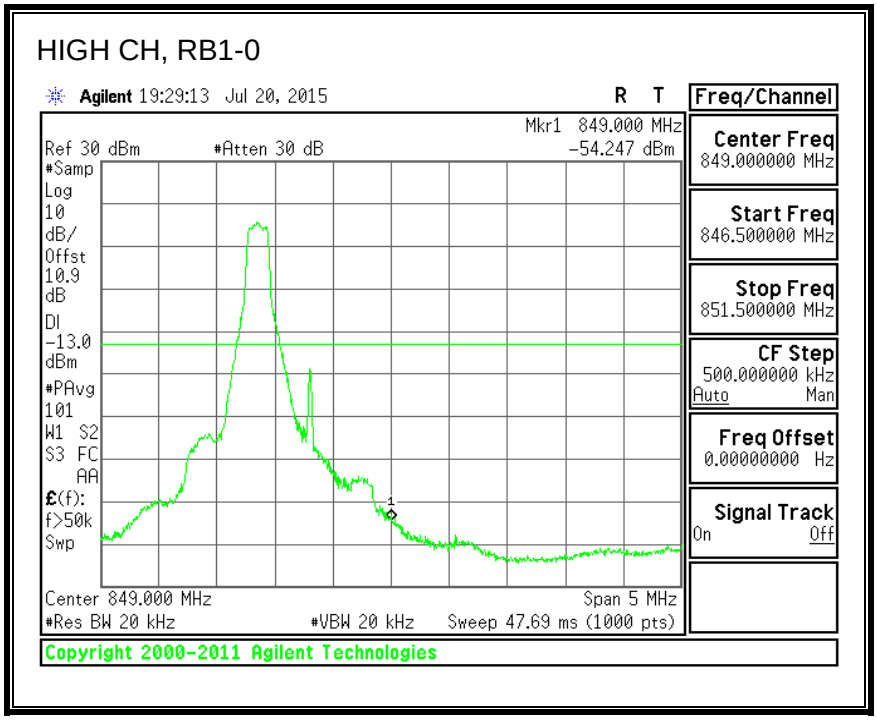
16QAM, (1.4 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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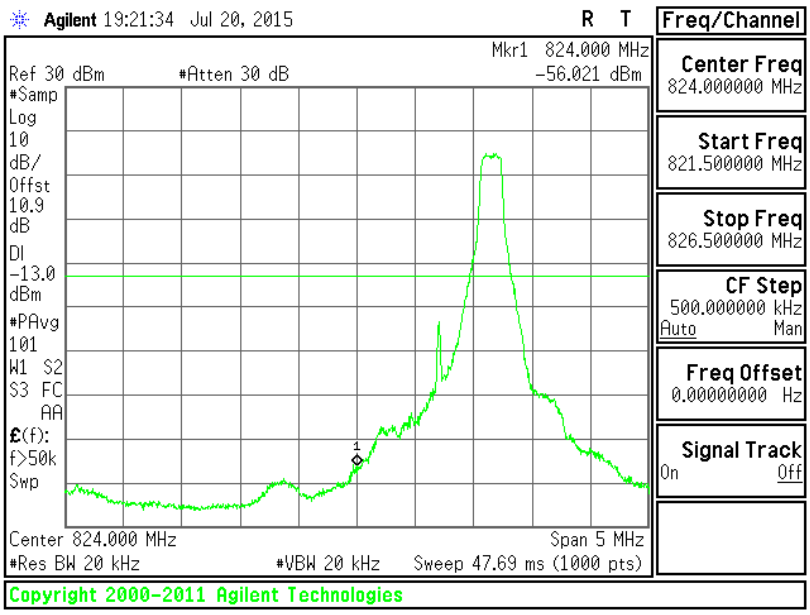
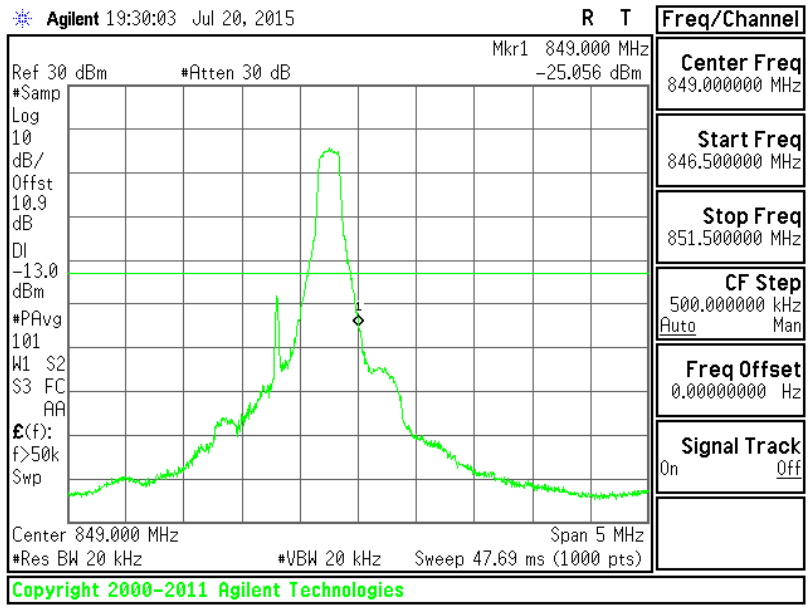
LOW CH, RB1-5



HIGH CH, RB1-5



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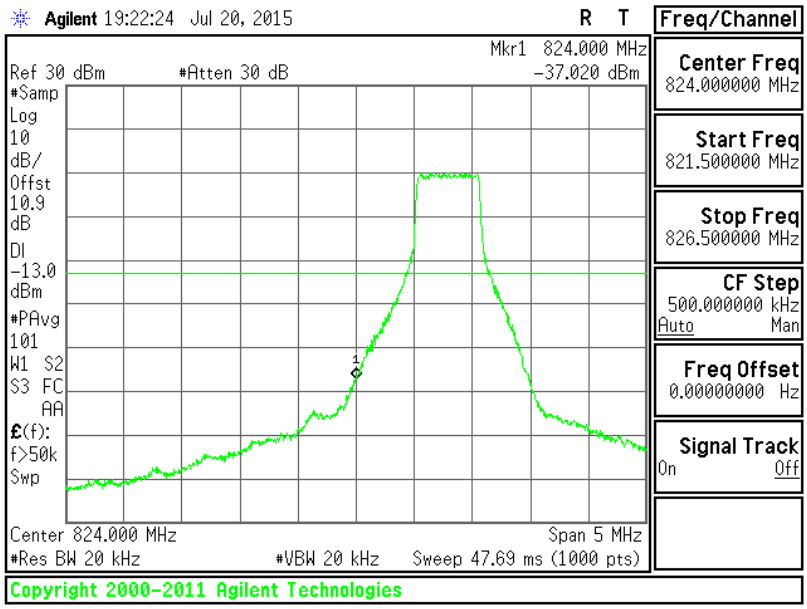
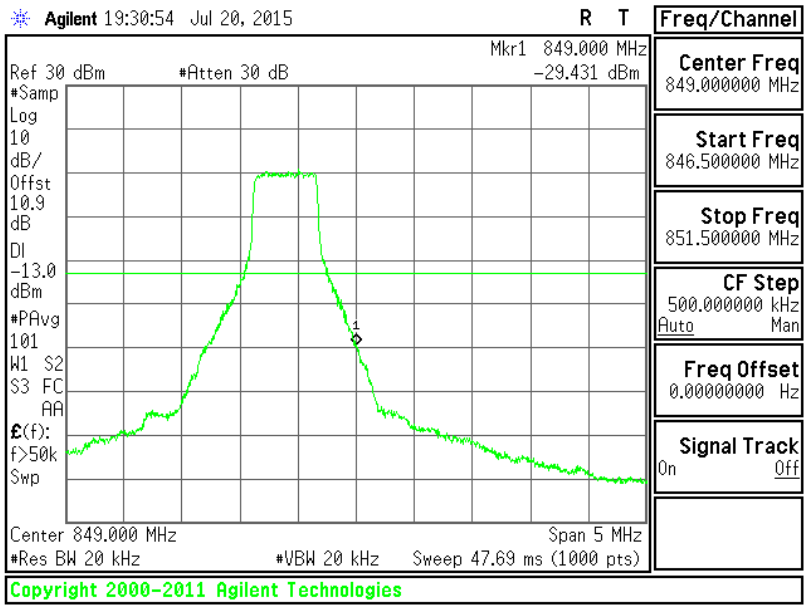
LOW CH, RB3-2



HIGH CH, RB3-2



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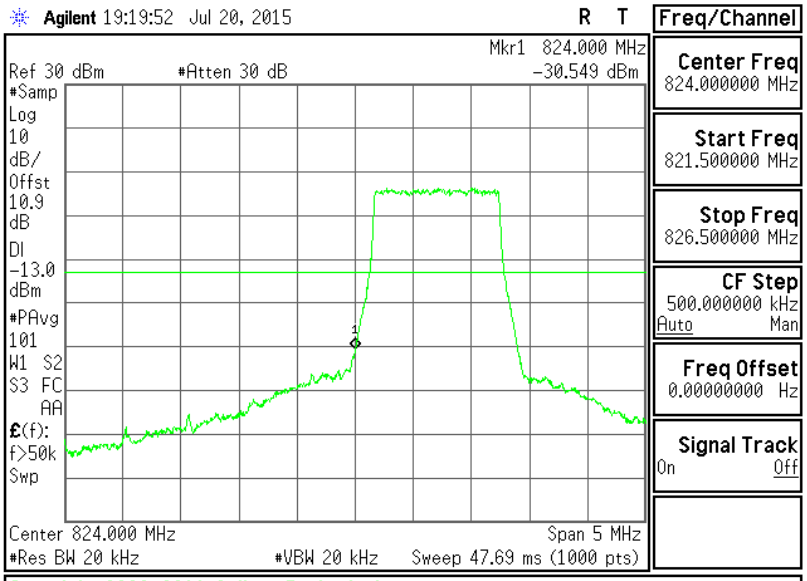
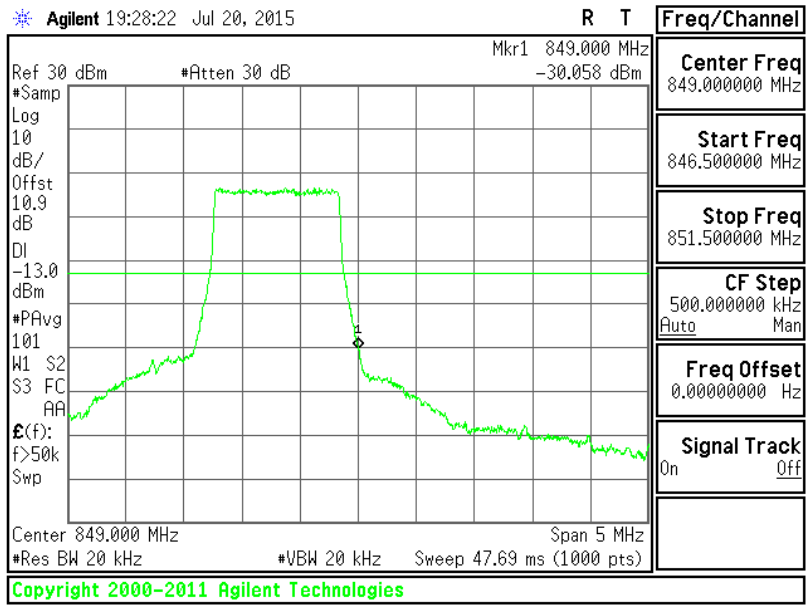
LOW CH, RB6-0



HIGH CH, RB6-0



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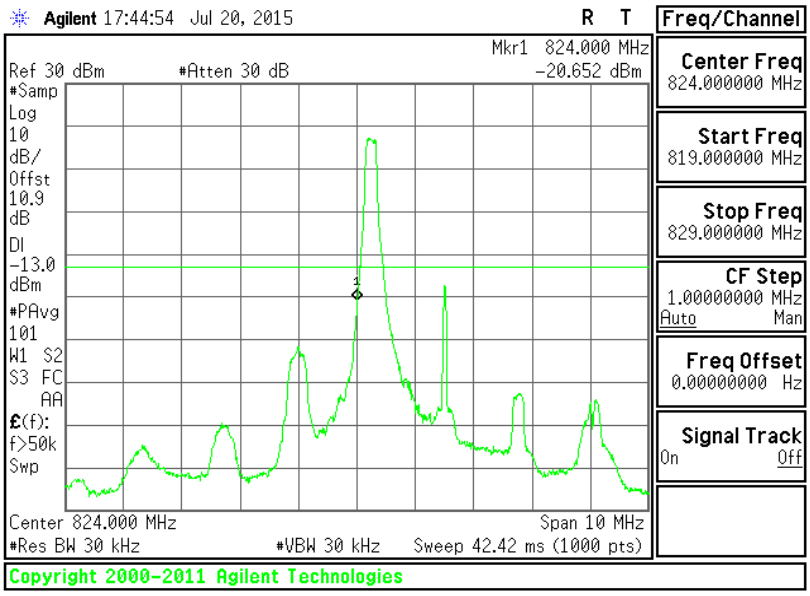
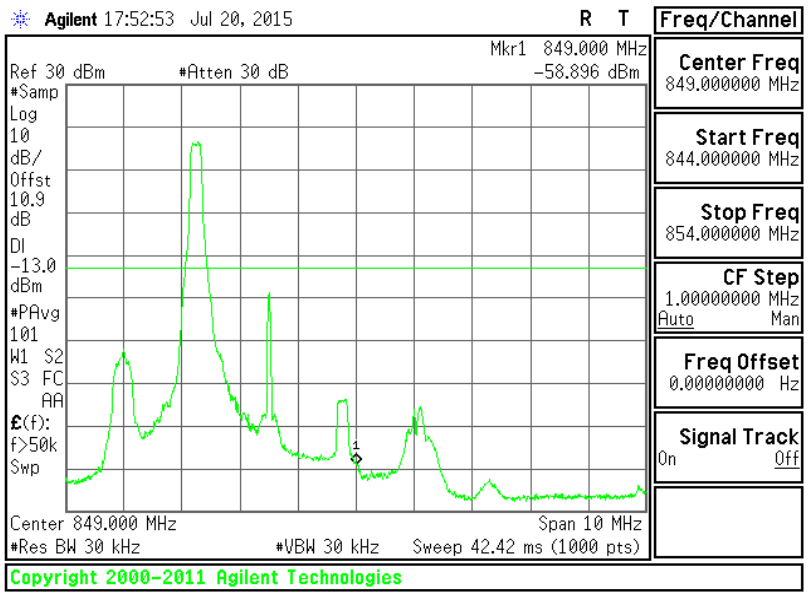
QPSK, (3.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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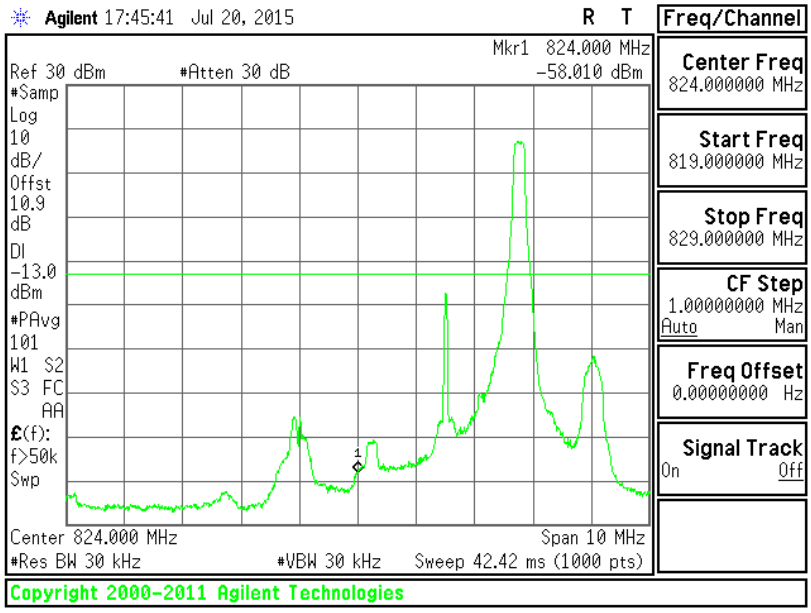
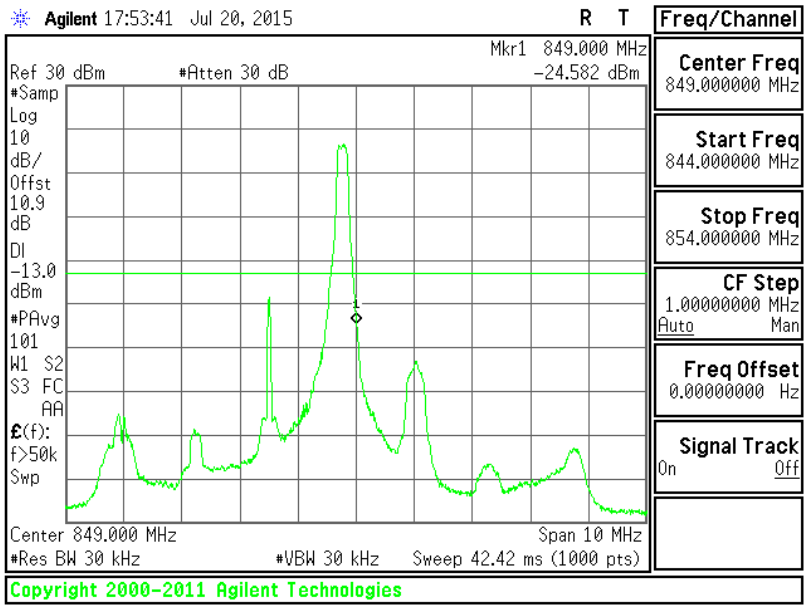
LOW CH, RB1-14



HIGH CH, RB1-14



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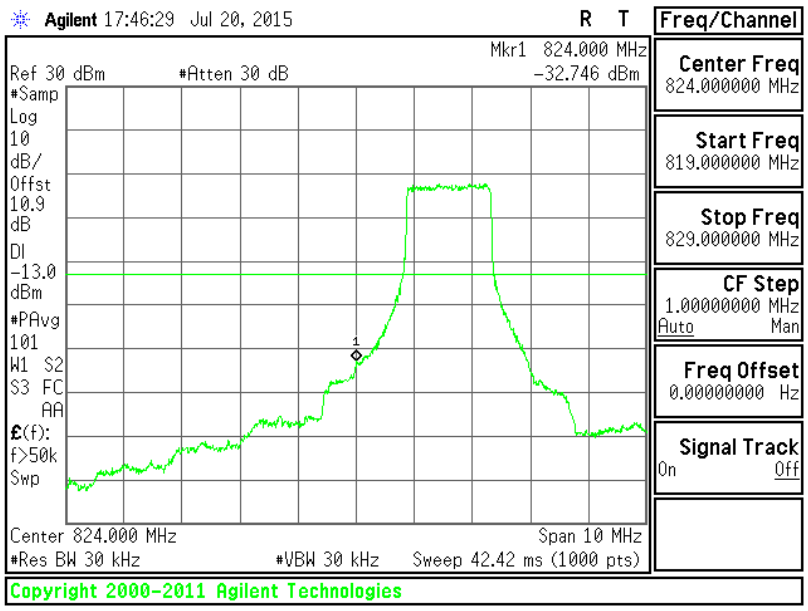
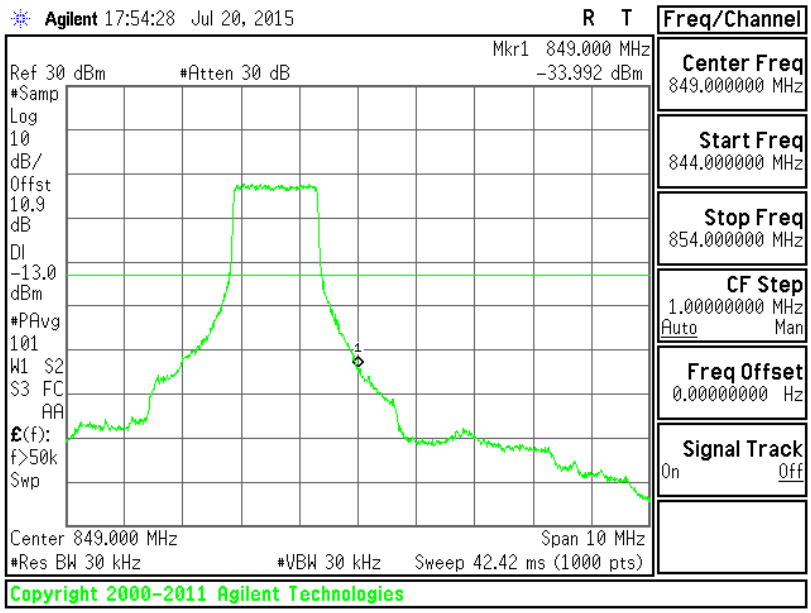
LOW CH, RB8-4



HIGH CH, RB8-4



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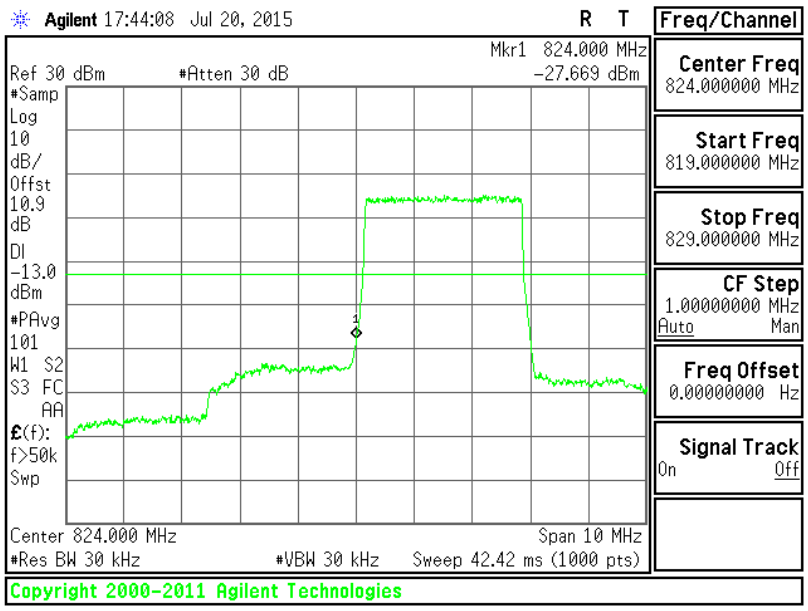
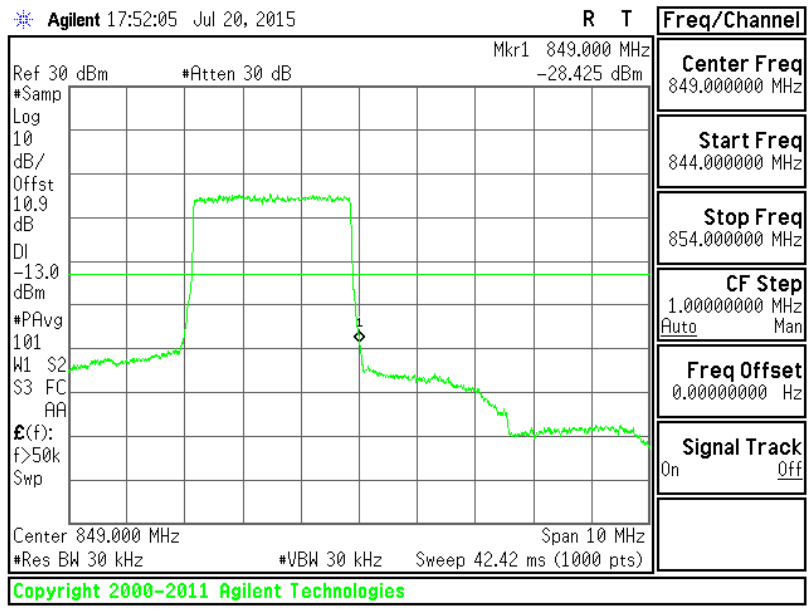
LOW CH, RB15-0



HIGH CH, RB15-0



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47173 BENICIA STREET, FREMONT, CA 94538, USA TEL: (510) 771-1000 FAX: (510) 661-0888
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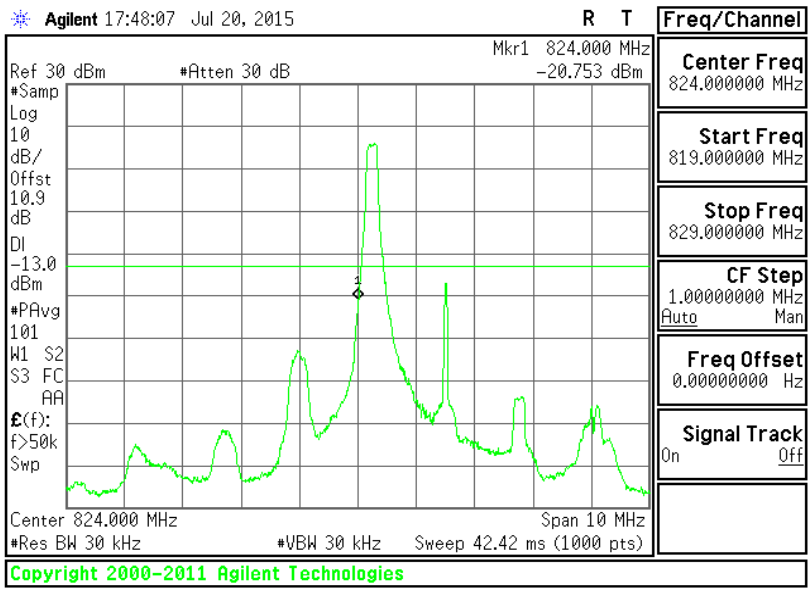
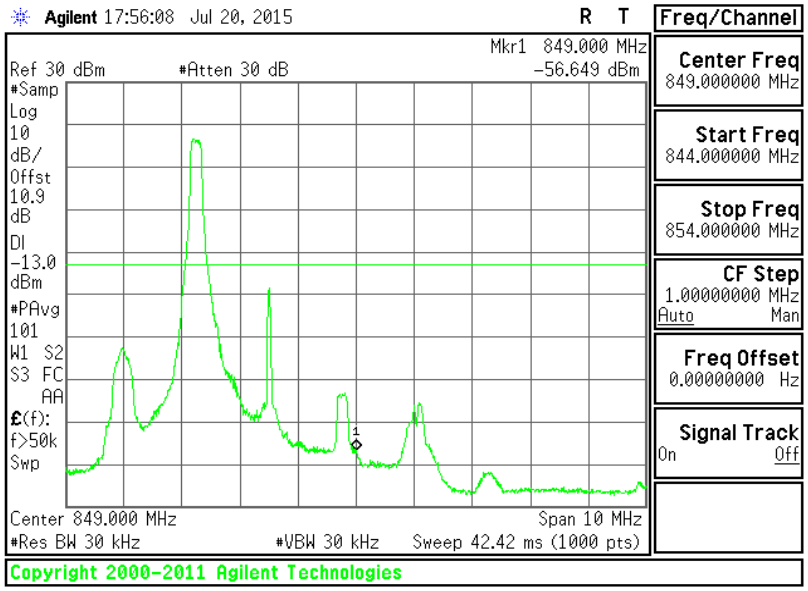
16QAM, (3.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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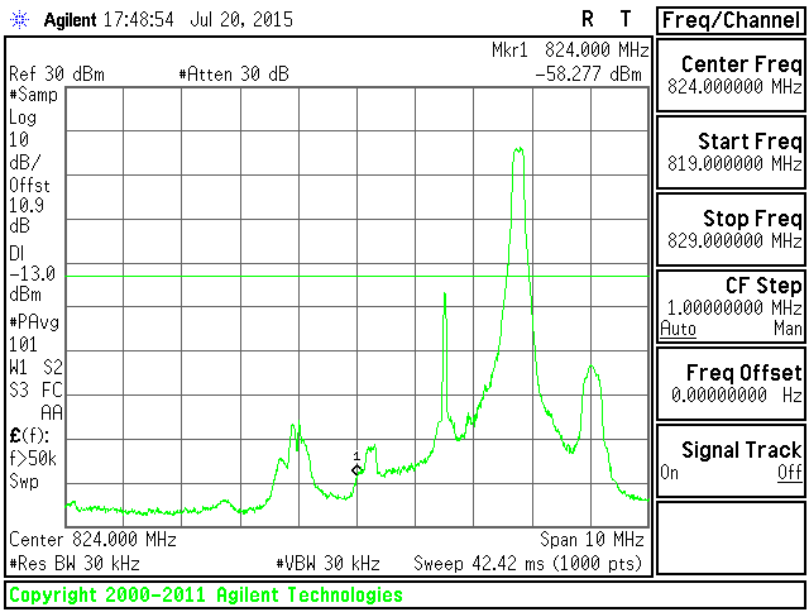
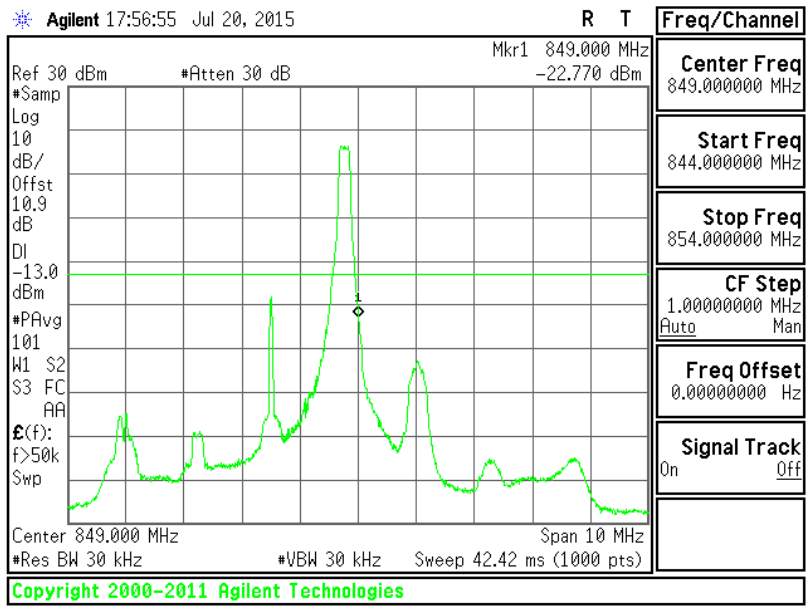
LOW CH, RB1-14



HIGH CH, RB1-14



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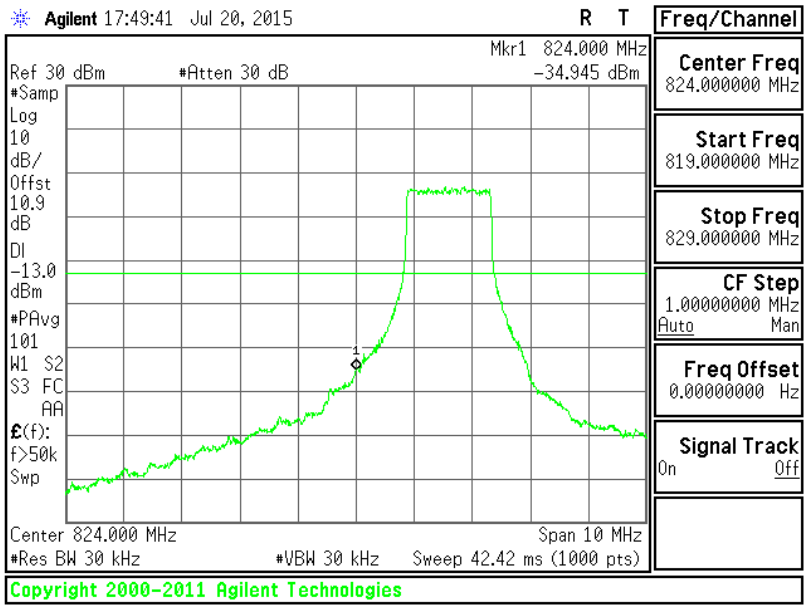
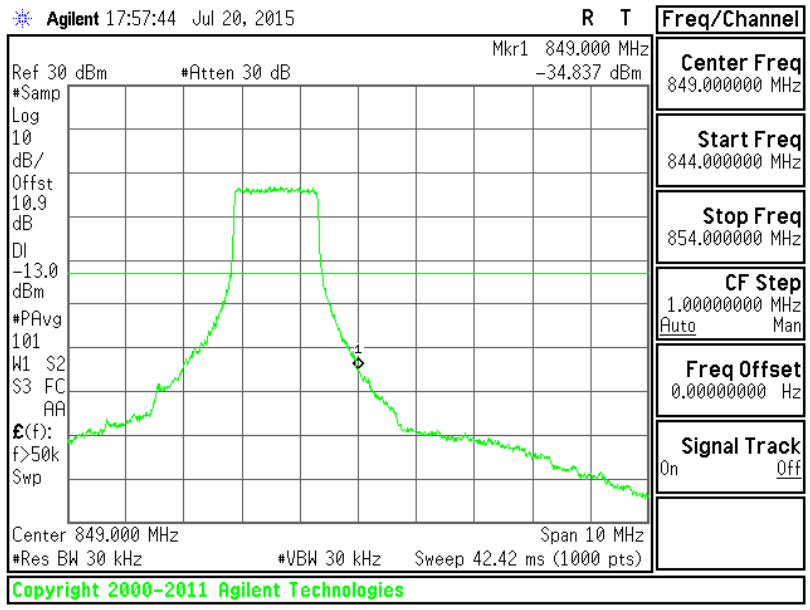
LOW CH, RB8-4



HIGH CH, RB8-4



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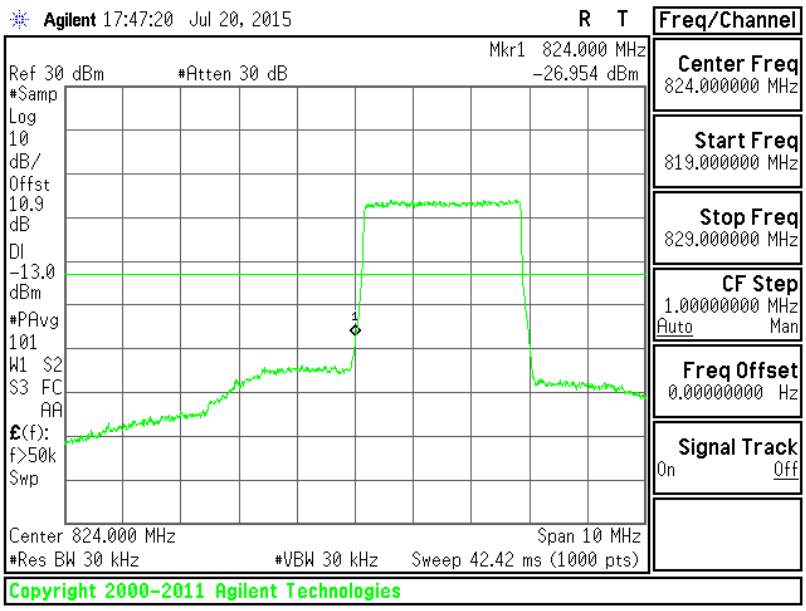
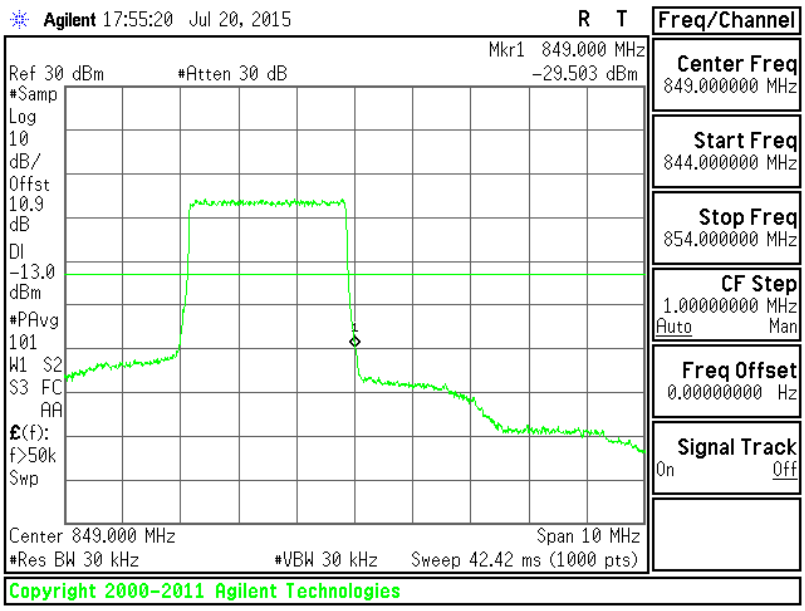
LOW CH, RB15-0



HIGH CH, RB15-0



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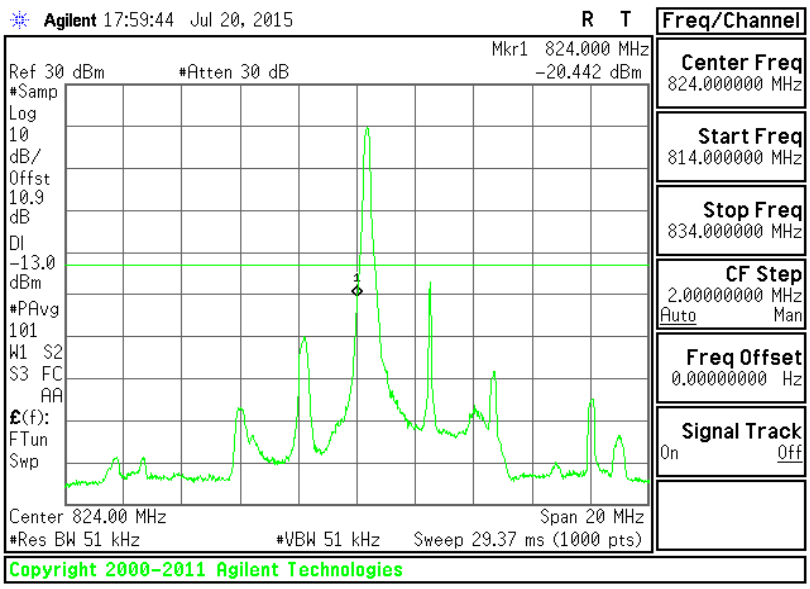
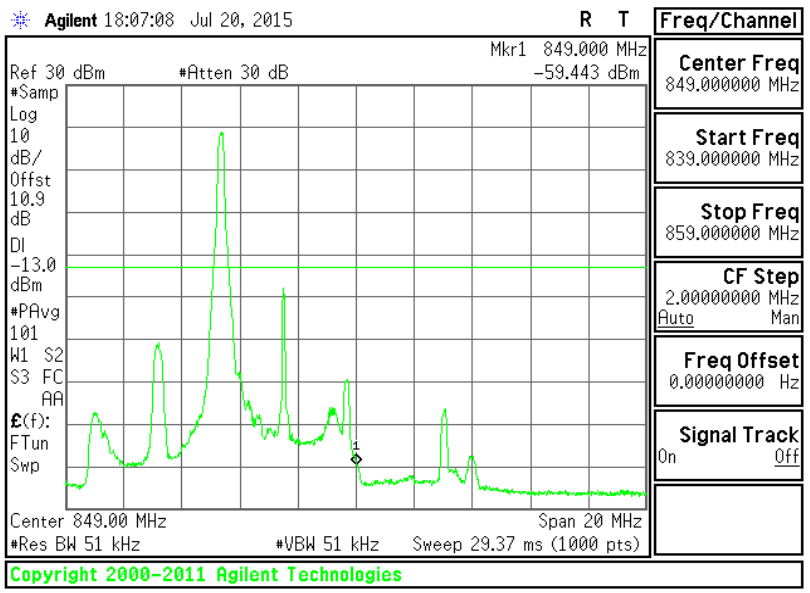
QPSK, (5.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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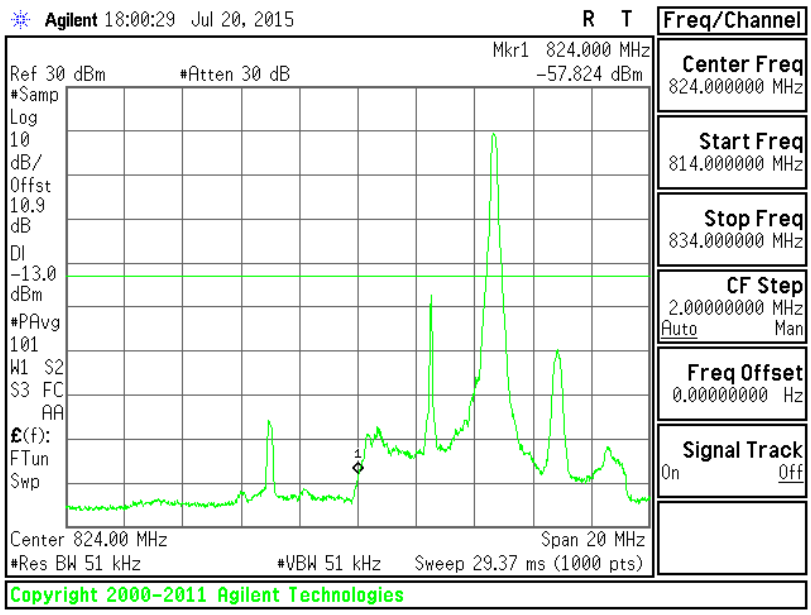
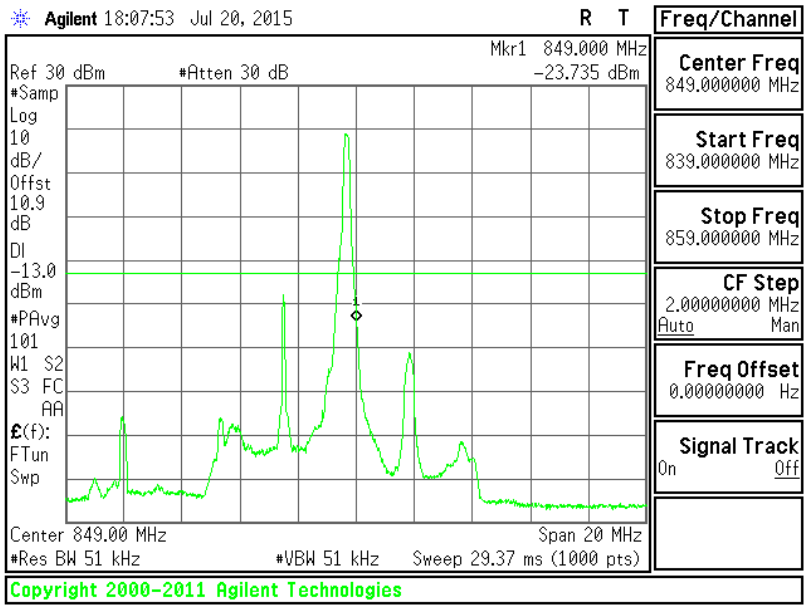
LOW CH, RB1-24



HIGH CH, RB1-24



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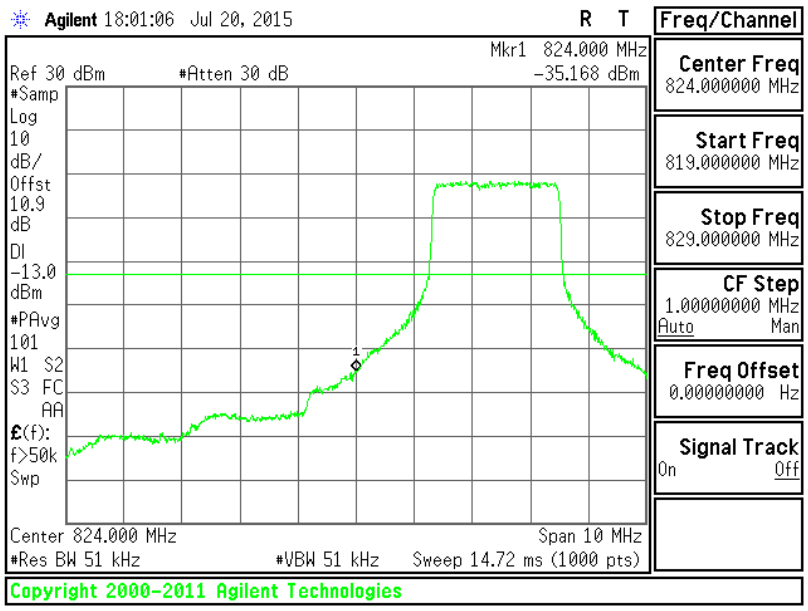
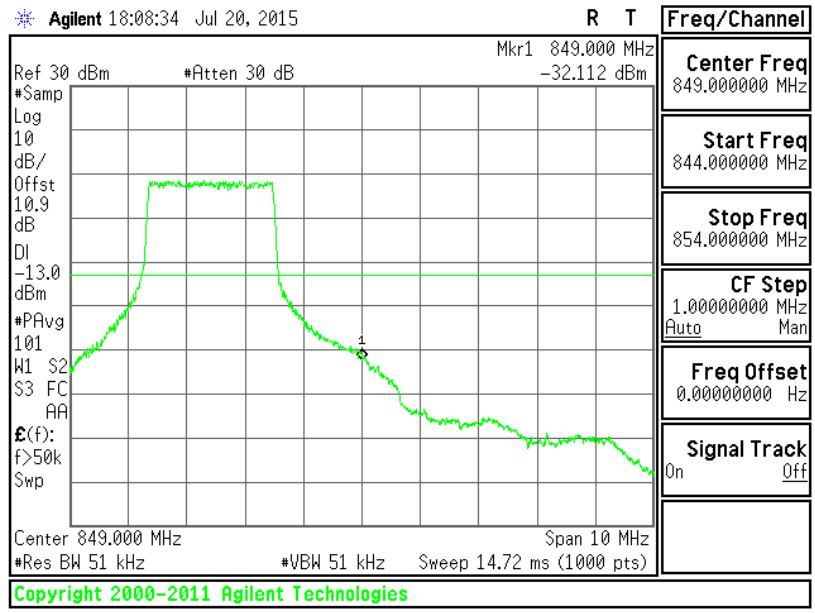
LOW CH, RB12-6



HIGH CH, RB12-6



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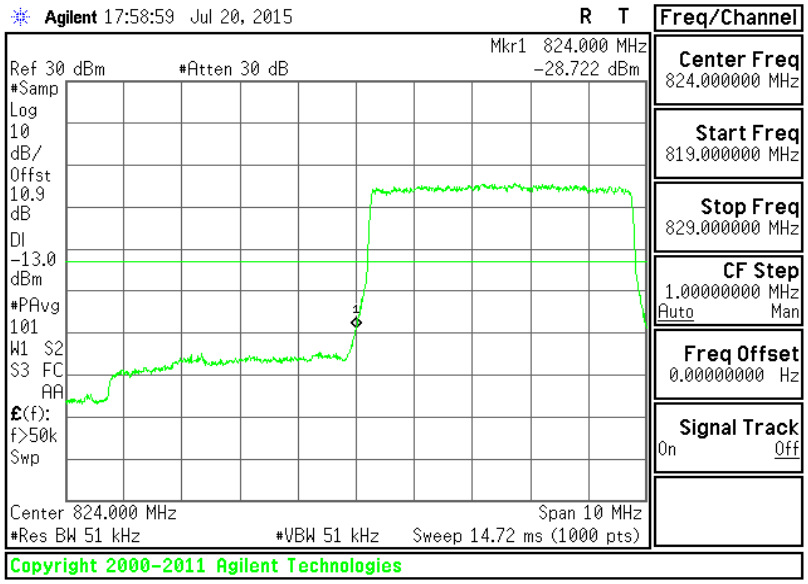
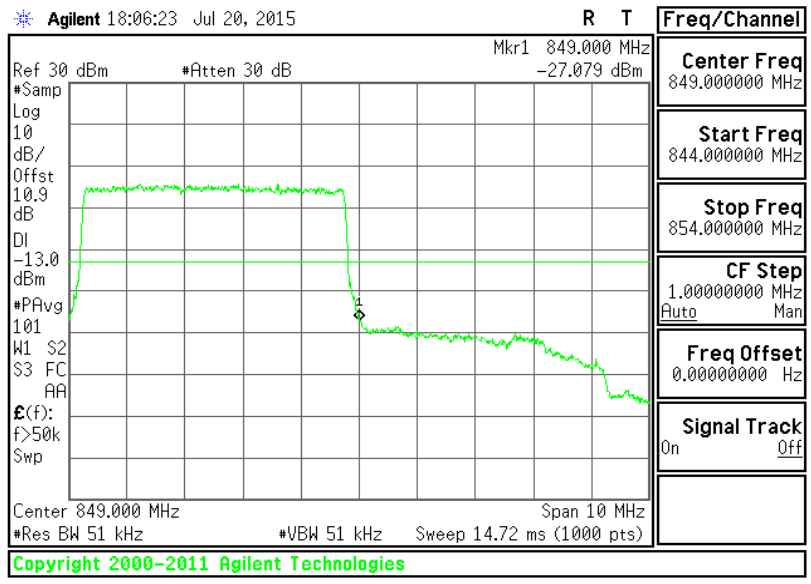
LOW CH, RB25-0



HIGH CH, RB25-0



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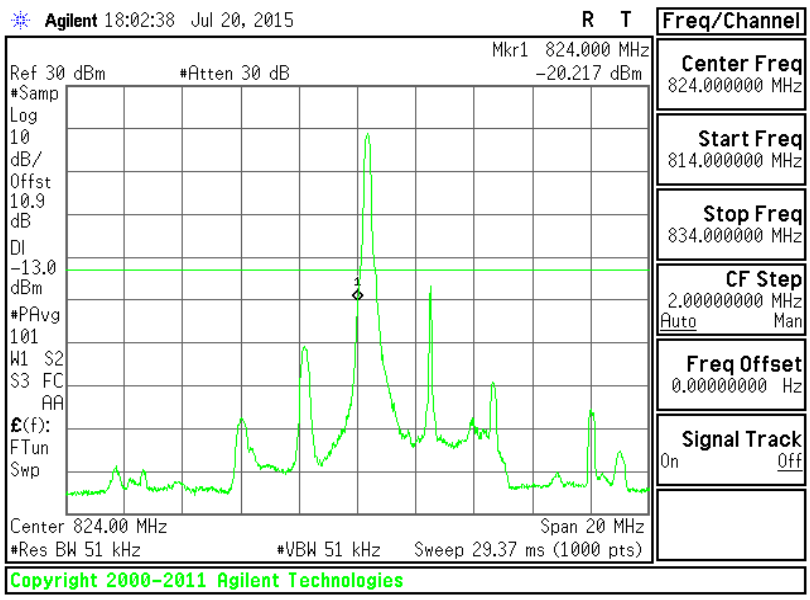
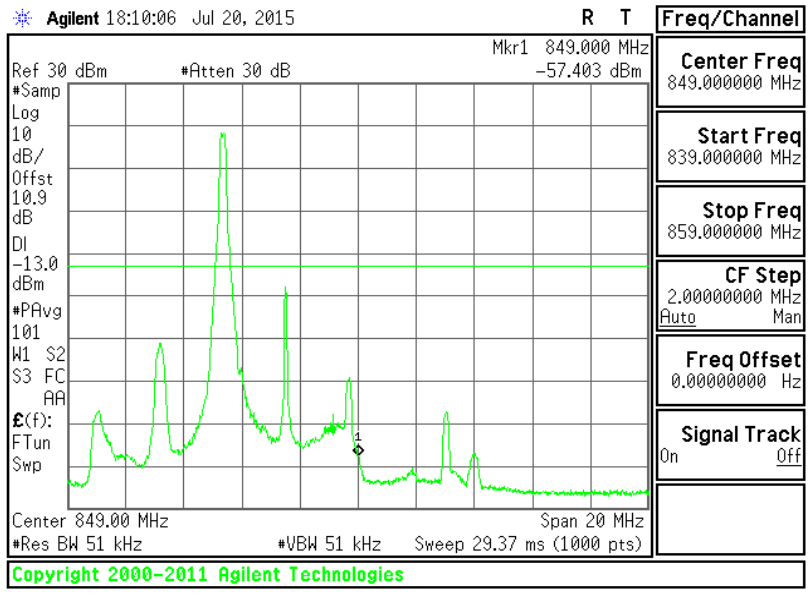
16QAM, (5.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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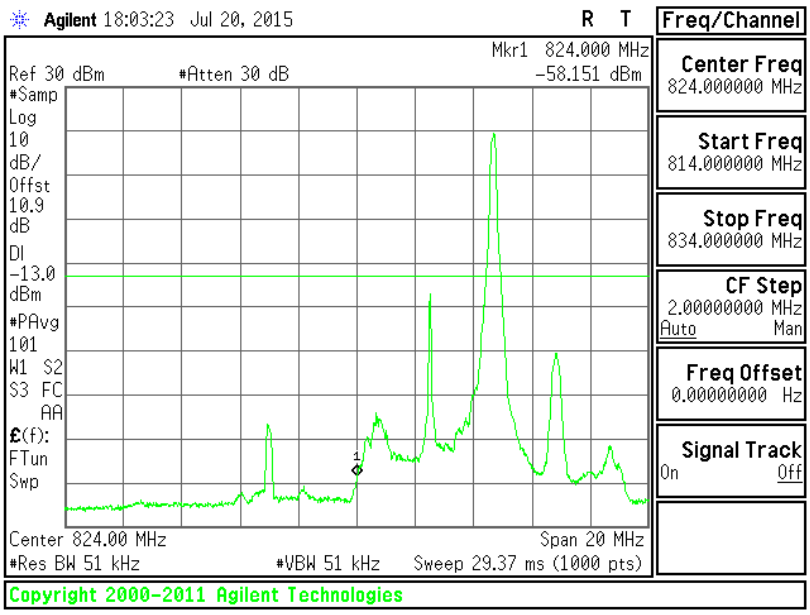
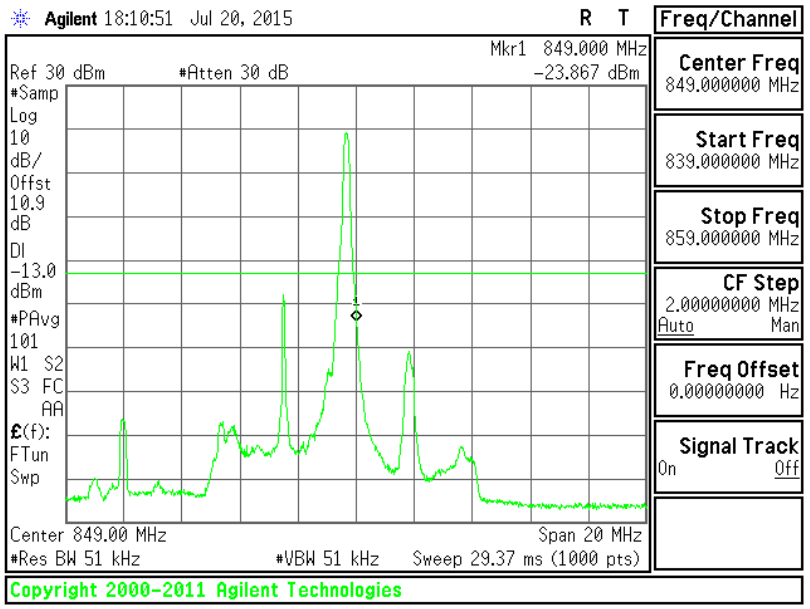
LOW CH, RB1-24



HIGH CH, RB1-24



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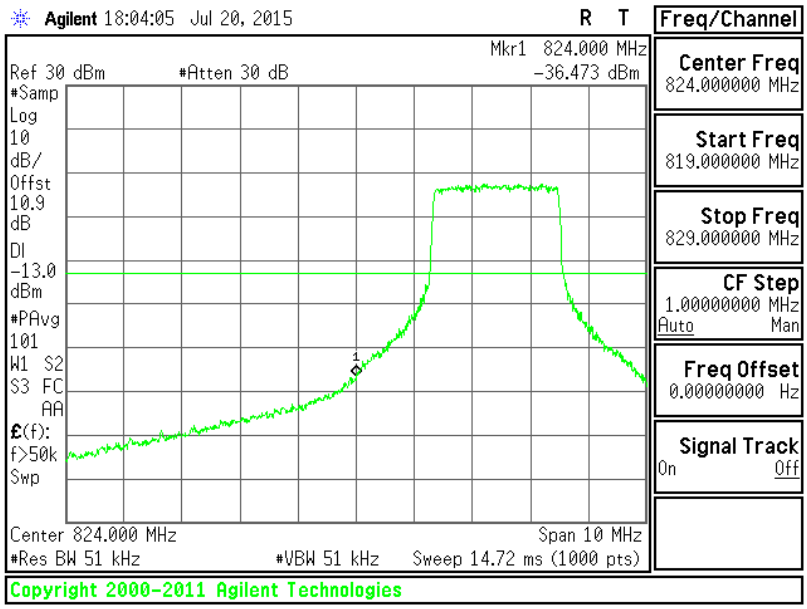
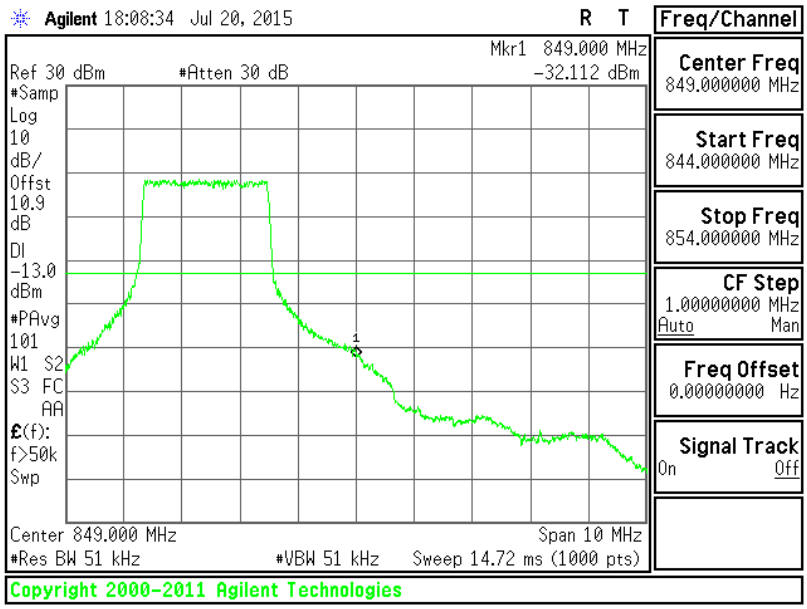
LOW CH, RB12-6



HIGH CH, RB12-6



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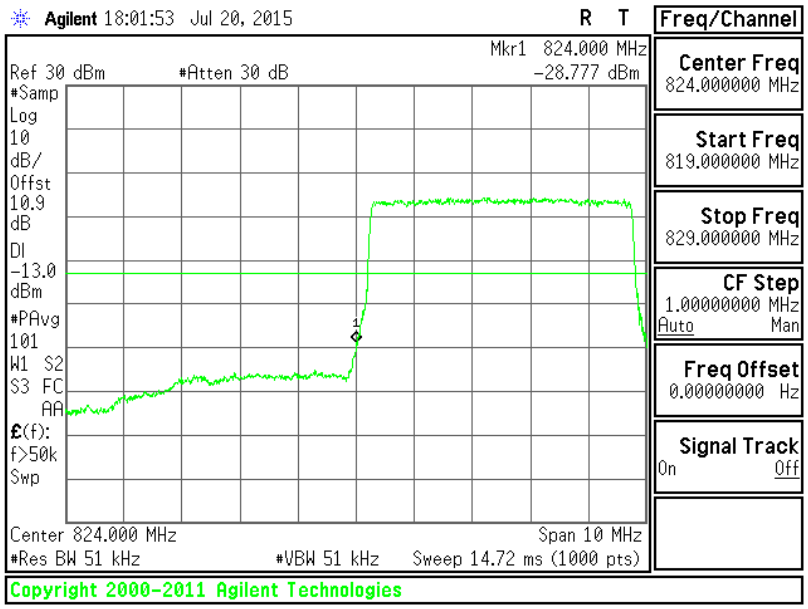
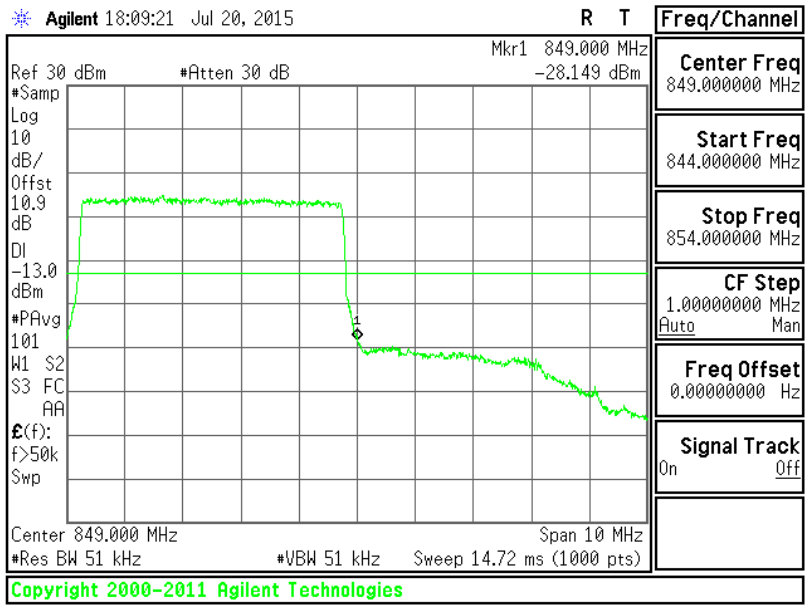
LOW CH, RB25-0



HIGH CH, RB25-0



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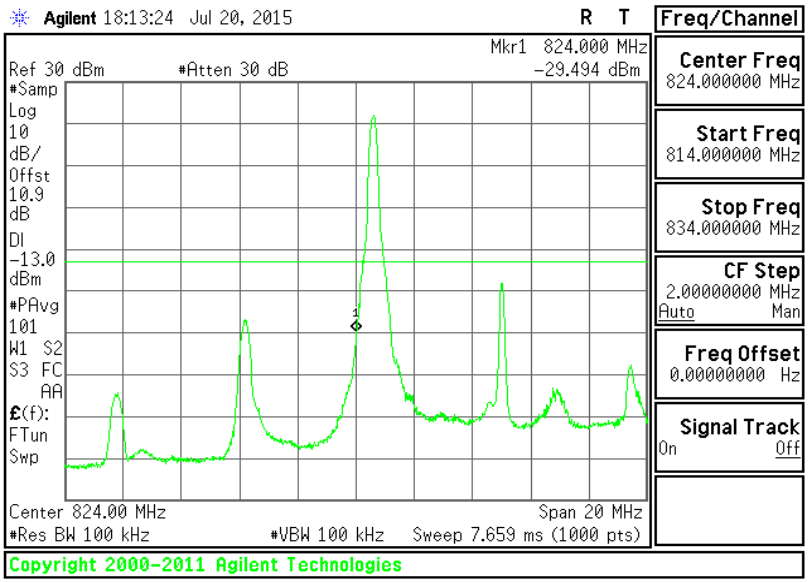
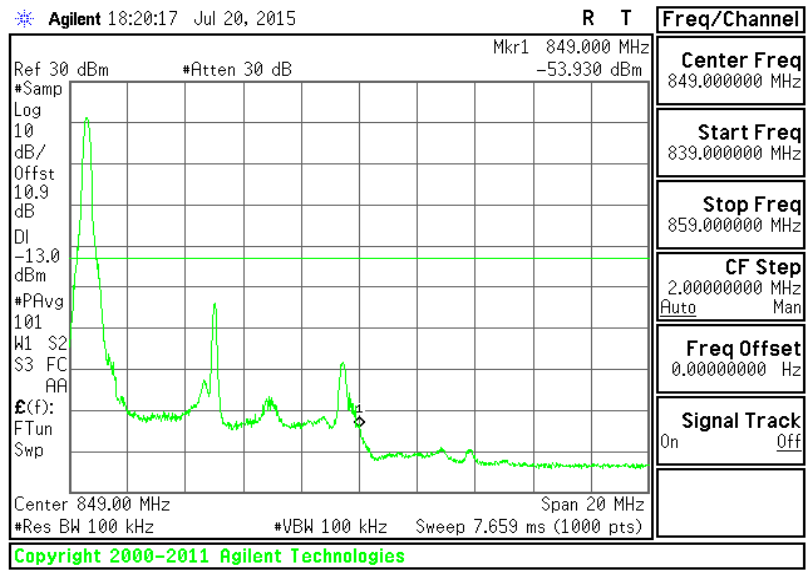
QPSK, (10.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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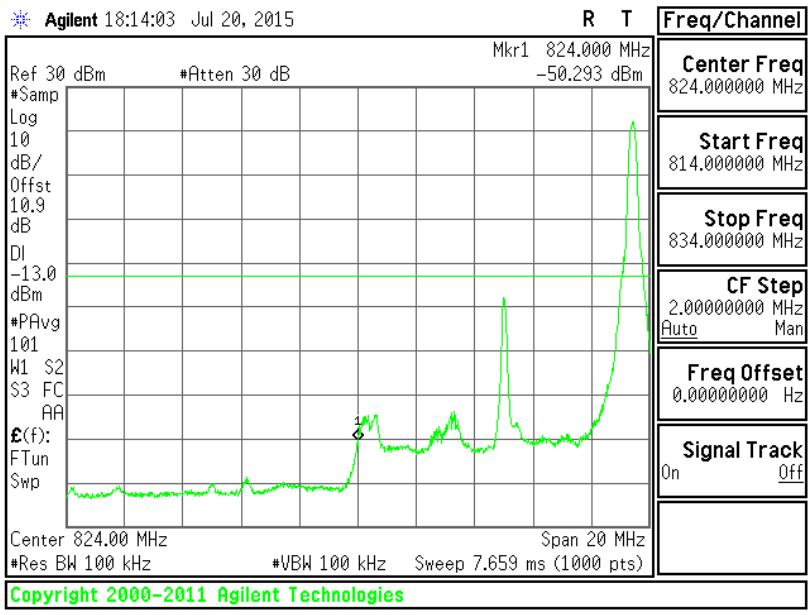
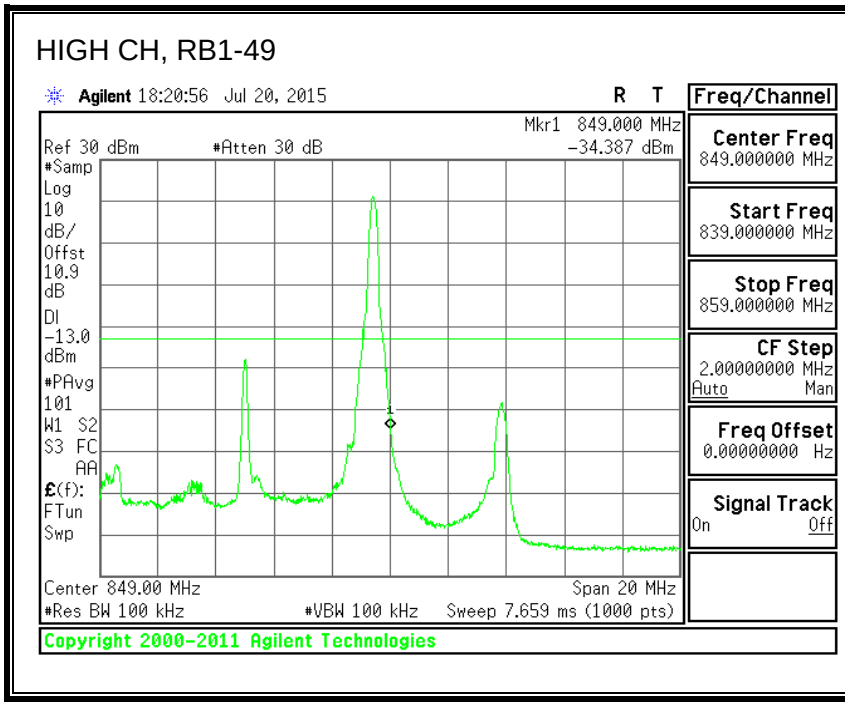
LOW CH, RB1-49



HIGH CH, RB1-49



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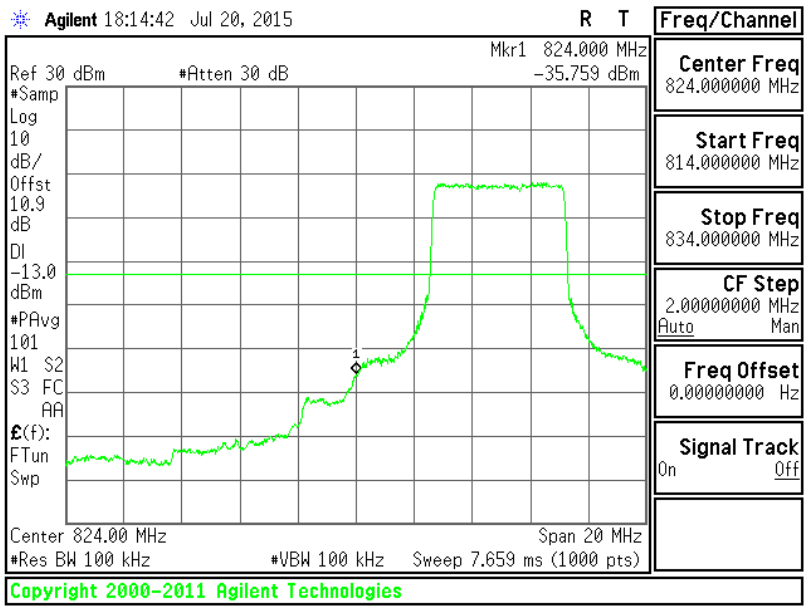
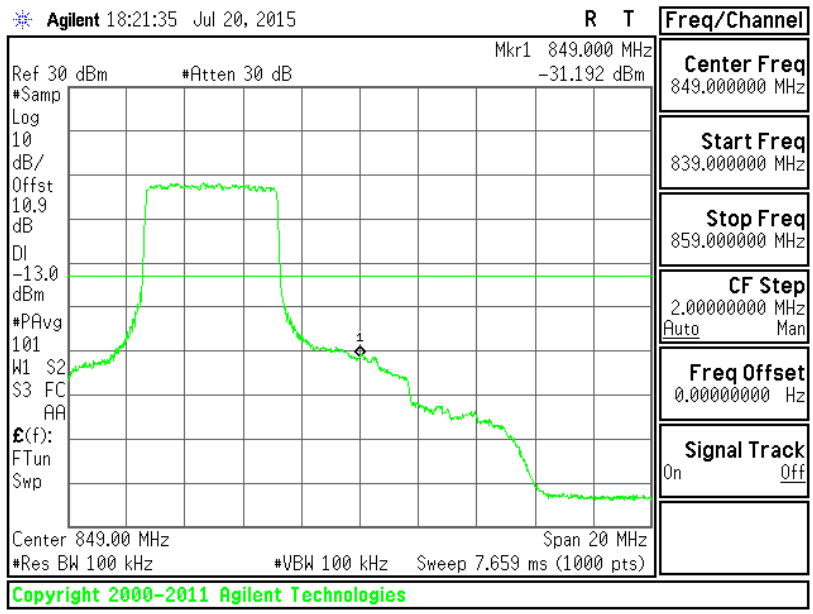
LOW CH, RB25-12



HIGH CH, RB25-12



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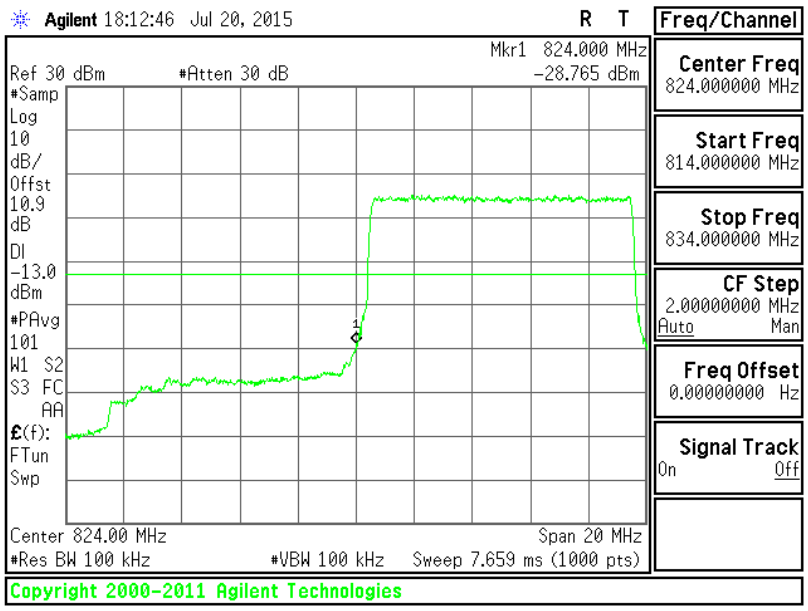
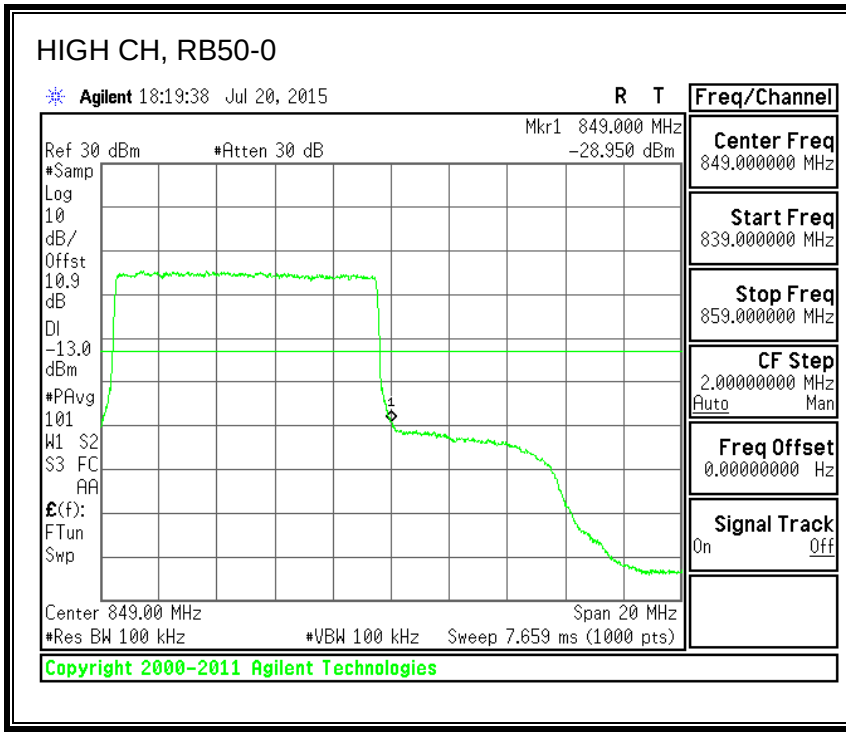
LOW CH, RB50-0



HIGH CH, RB50-0



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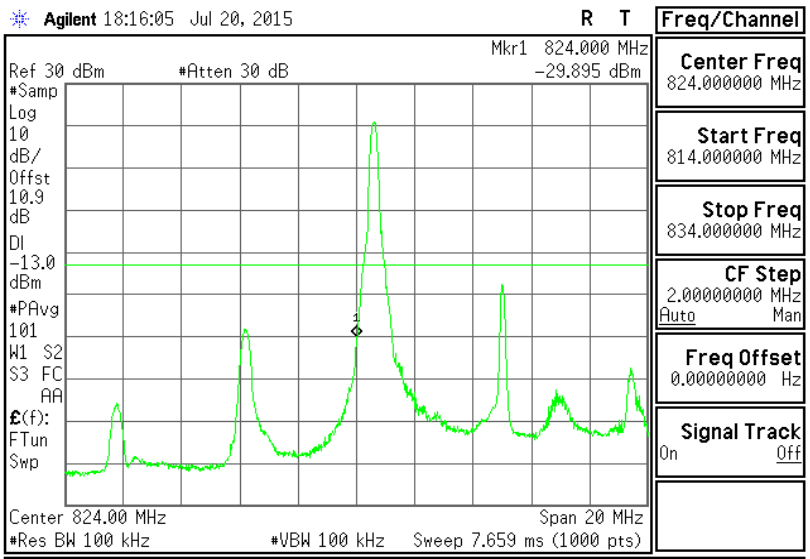
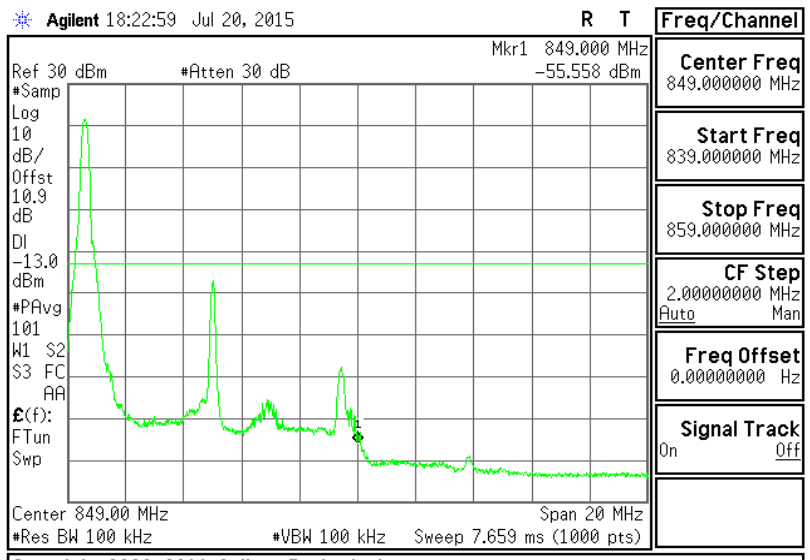
16QAM, (10.0 MHz BAND WIDTH)

LOW CH, RB1-0



HIGH CH, RB1-0



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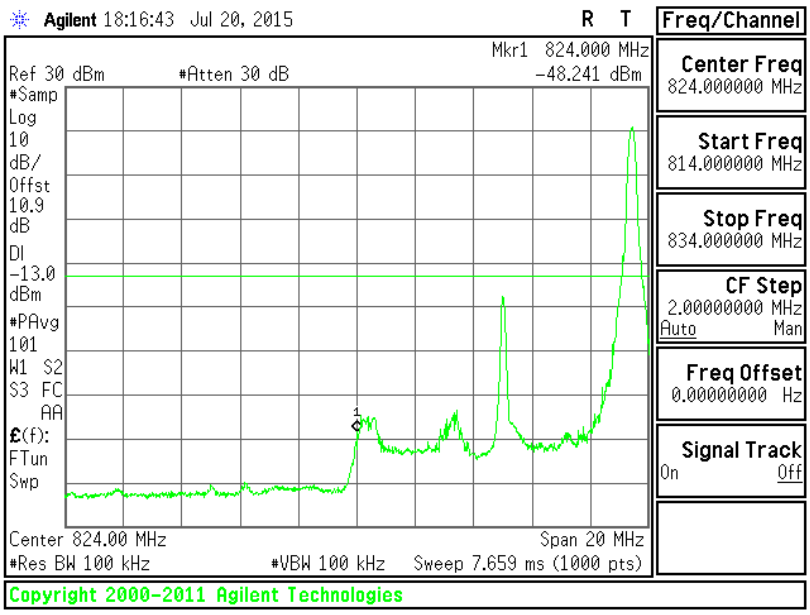
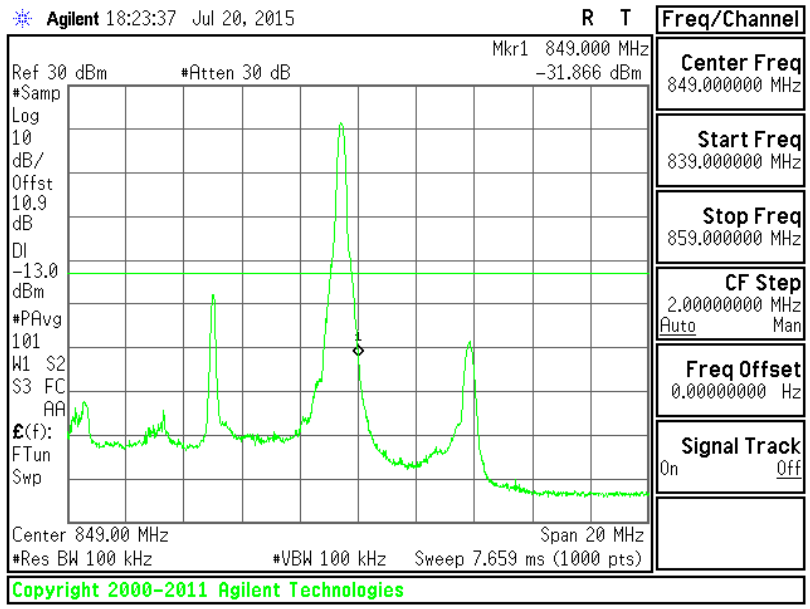
LOW CH, RB1-49



HIGH CH, RB1-49



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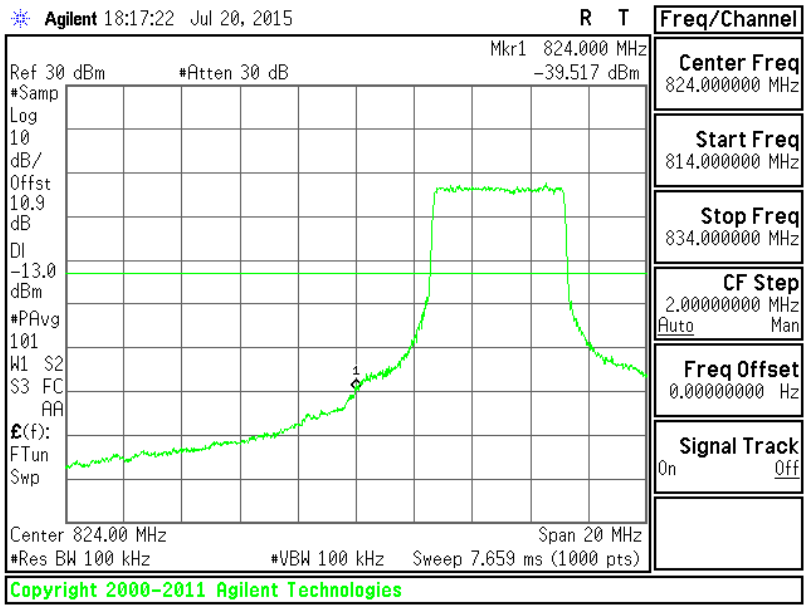
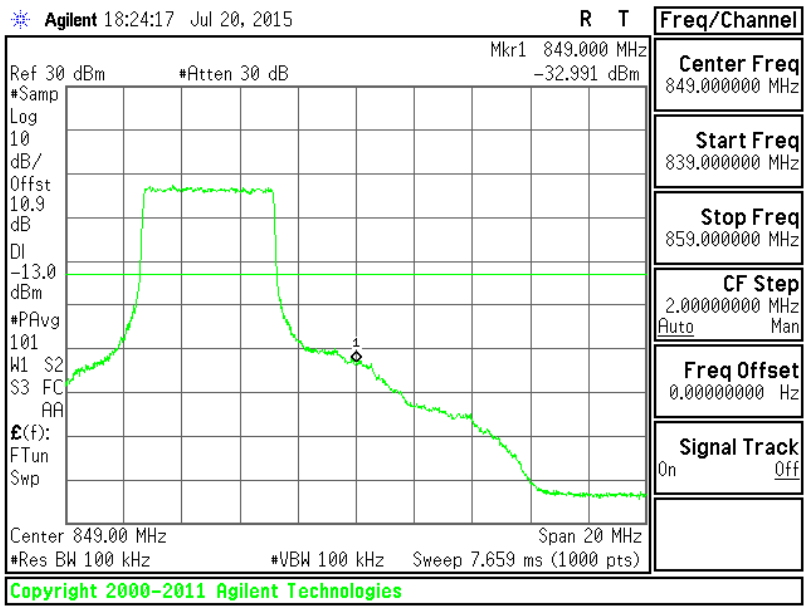
LOW CH, RB25-12



HIGH CH, RB25-12



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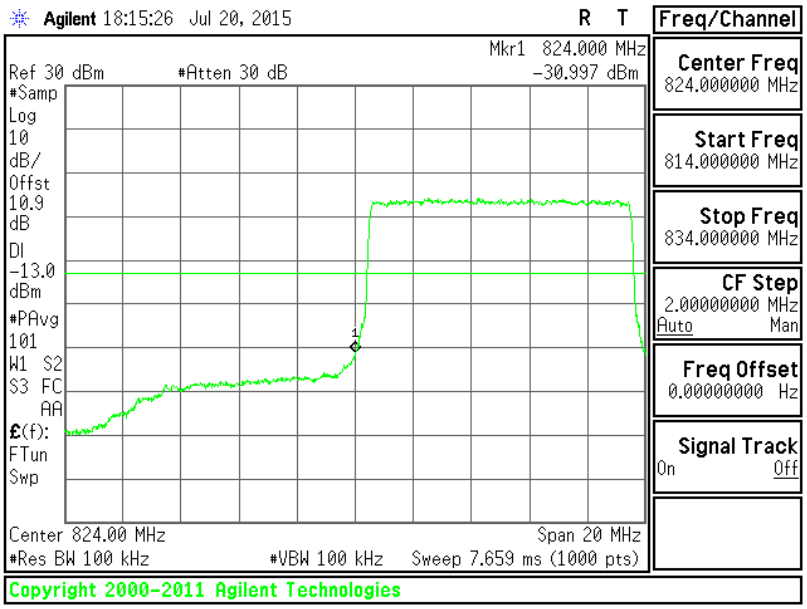
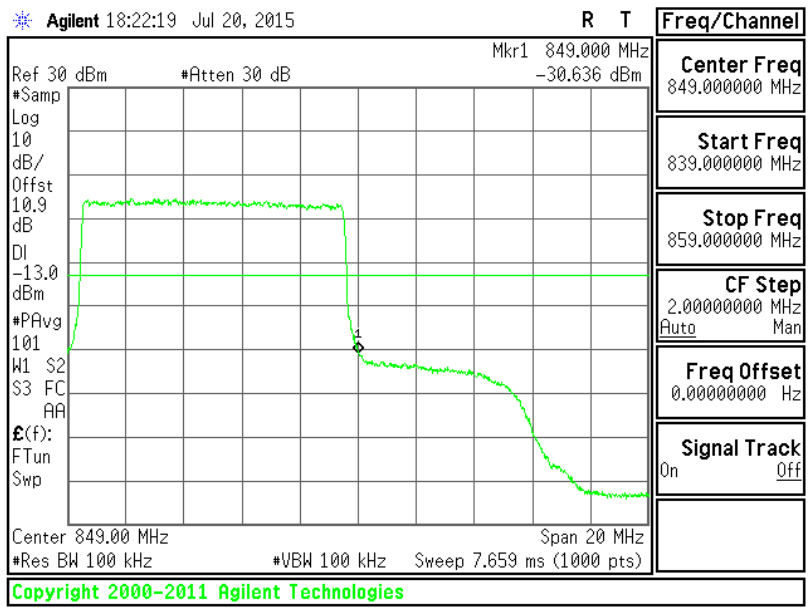
LOW CH, RB50-0



HIGH CH, RB50-0



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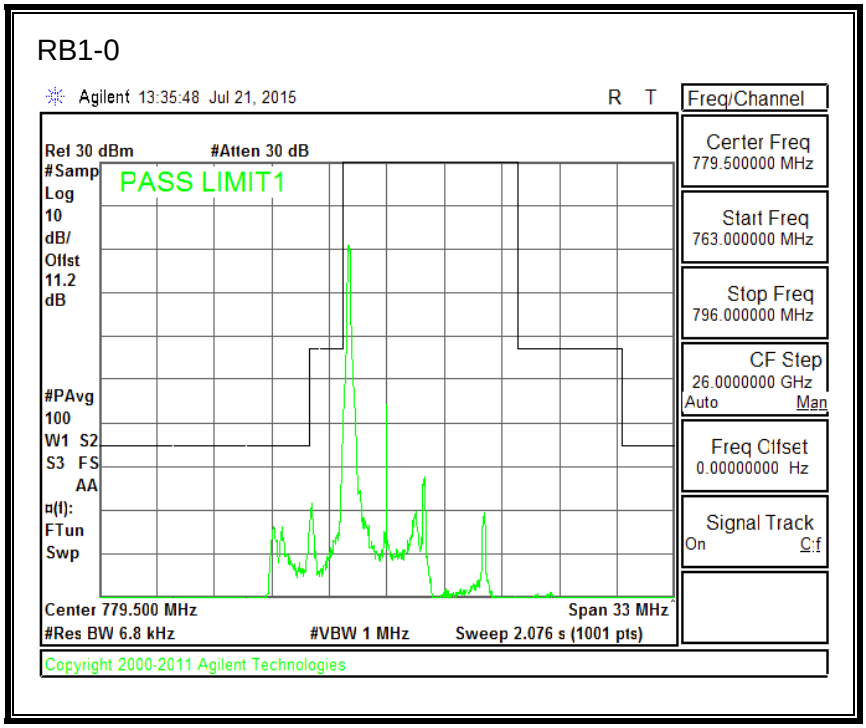
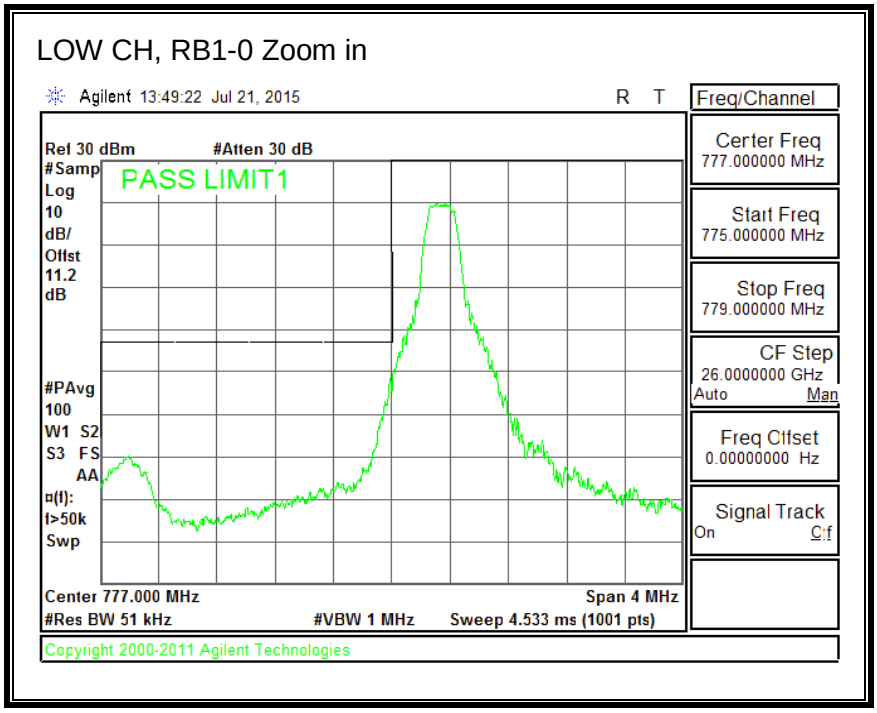
8.2.4. LTE BAND 13 EMISSION MASK

QPSK, (5.0 MHz BAND WIDTH)





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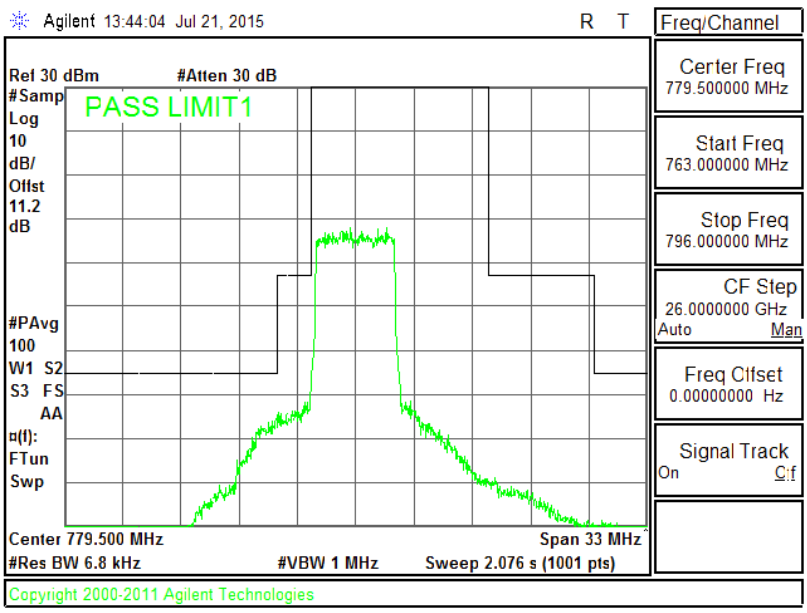
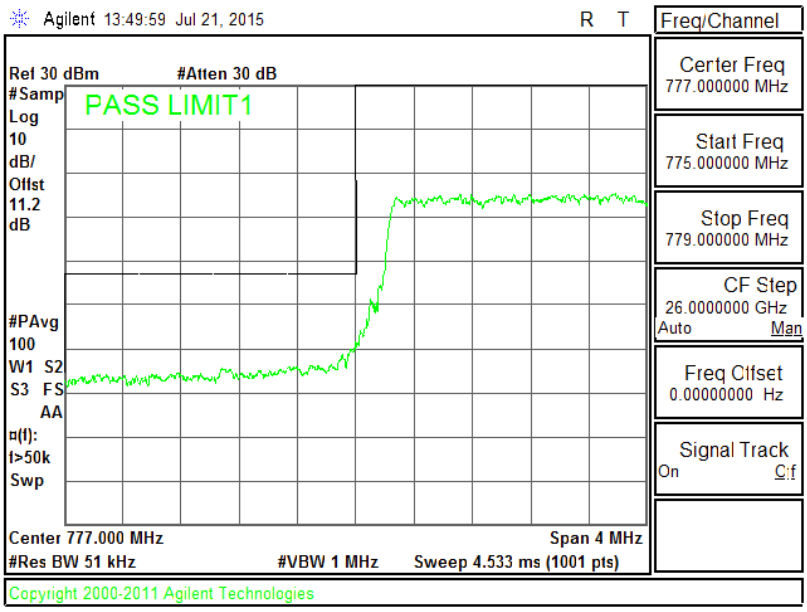
LOW CH, RB25-0



LOW CH, RB25-0 Zoom in



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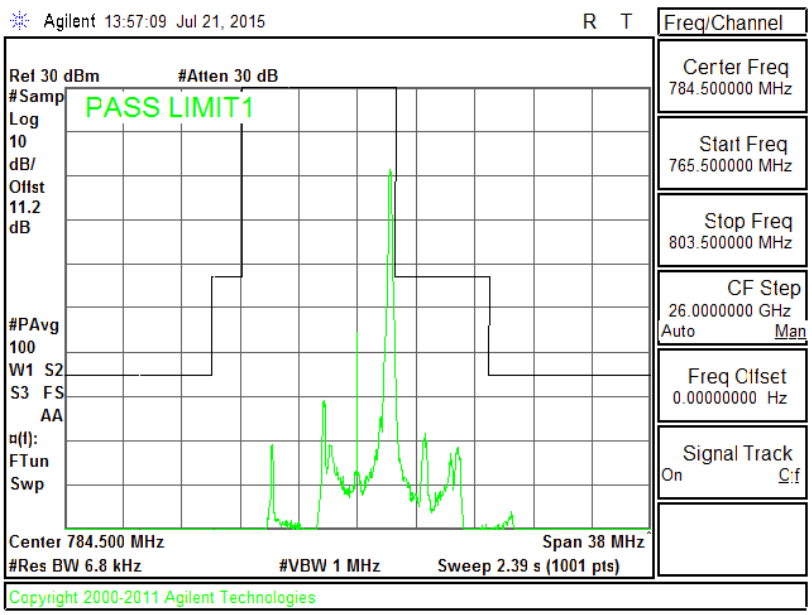
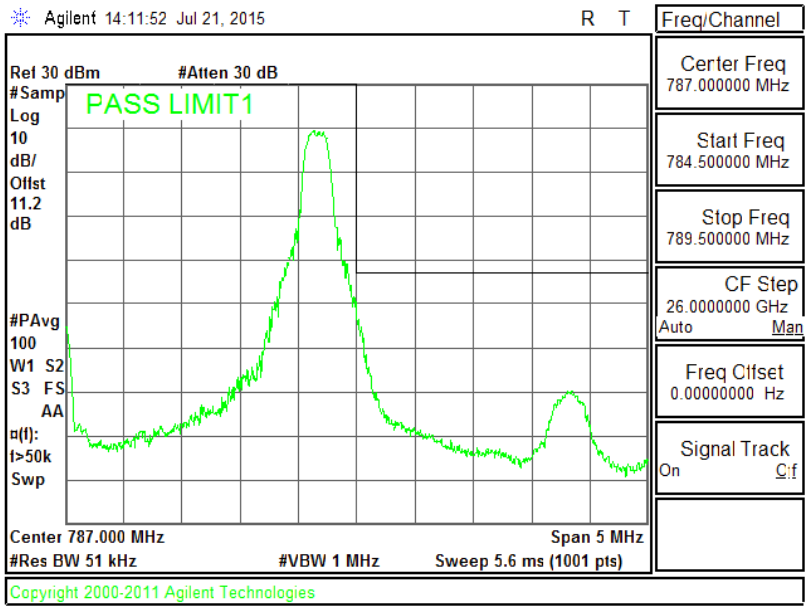
HIGH CH, RB1-24



HIGH CH, RB1-24 Zoom in



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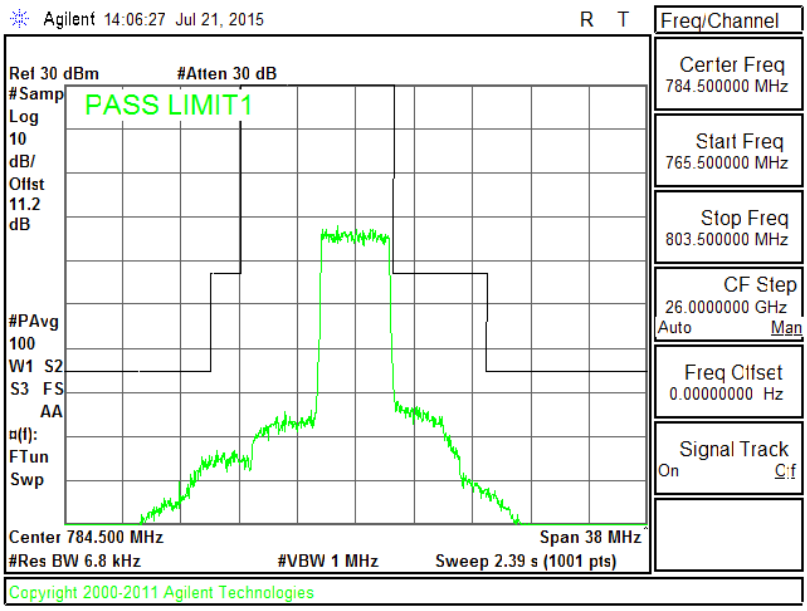
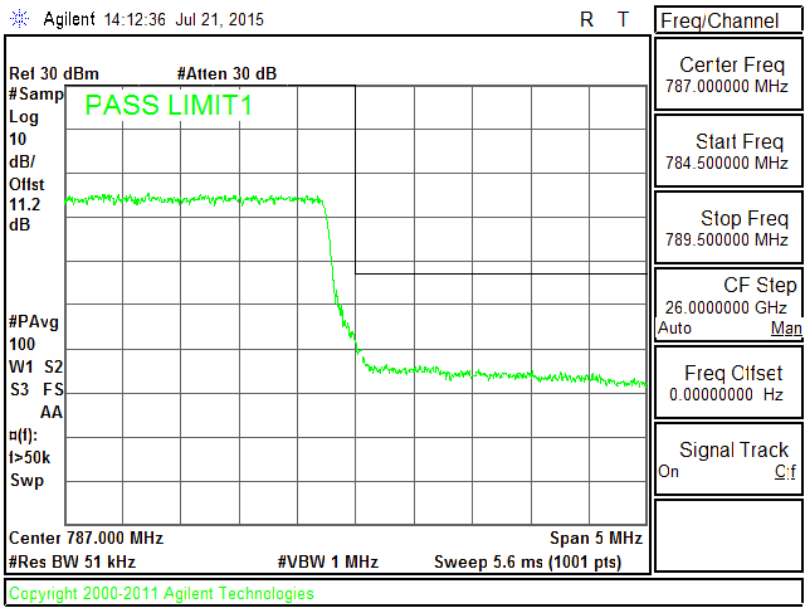
HIGH CH, RB25-0



HIGH CH, RB25-0 Zoom in



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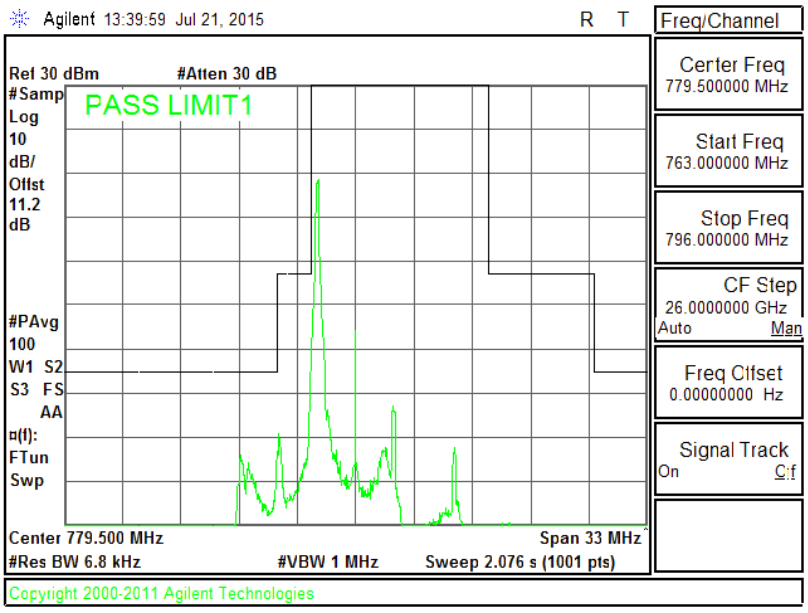
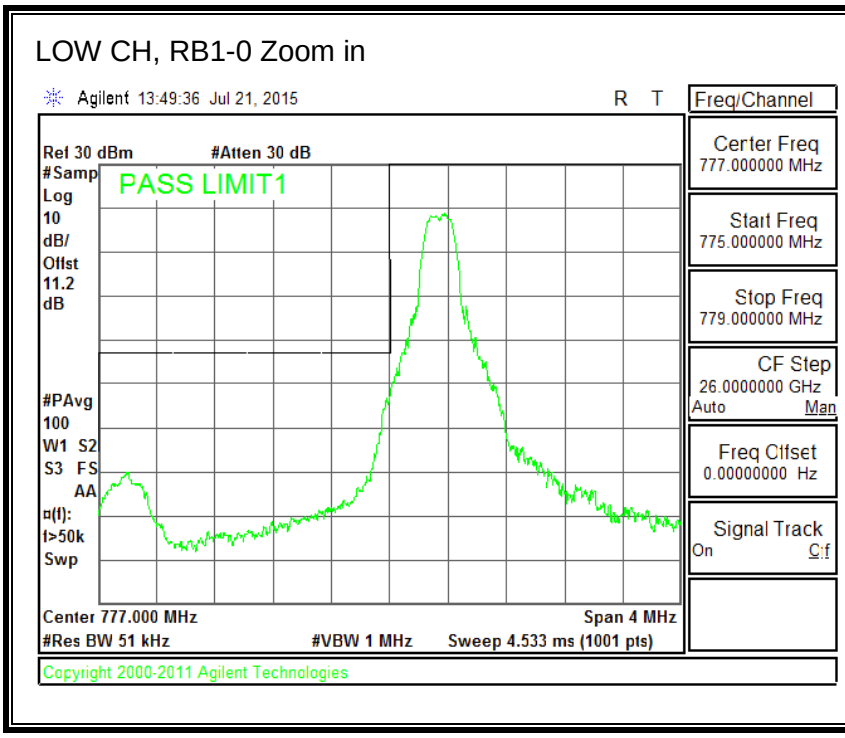
16QAM, (5.0 MHz BAND WIDTH)

LOW CH, RB1-0



LOW CH, RB1-0 Zoom in



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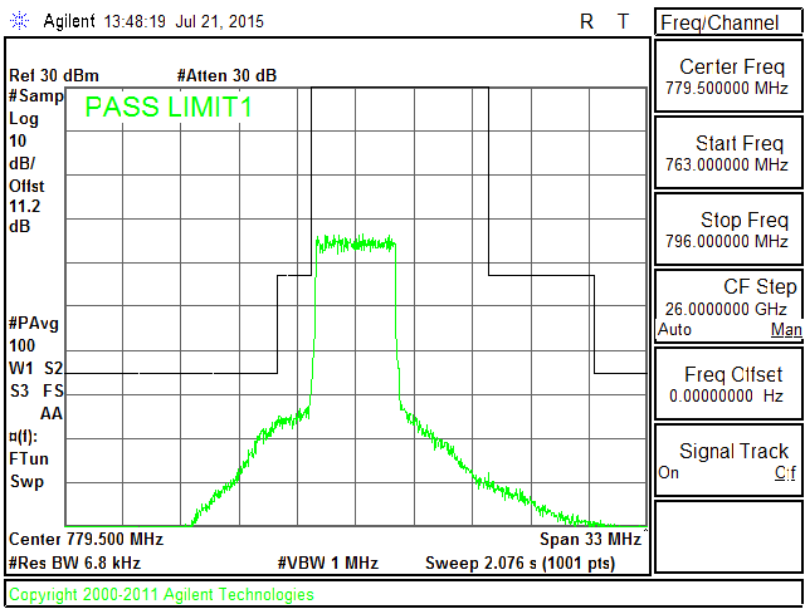
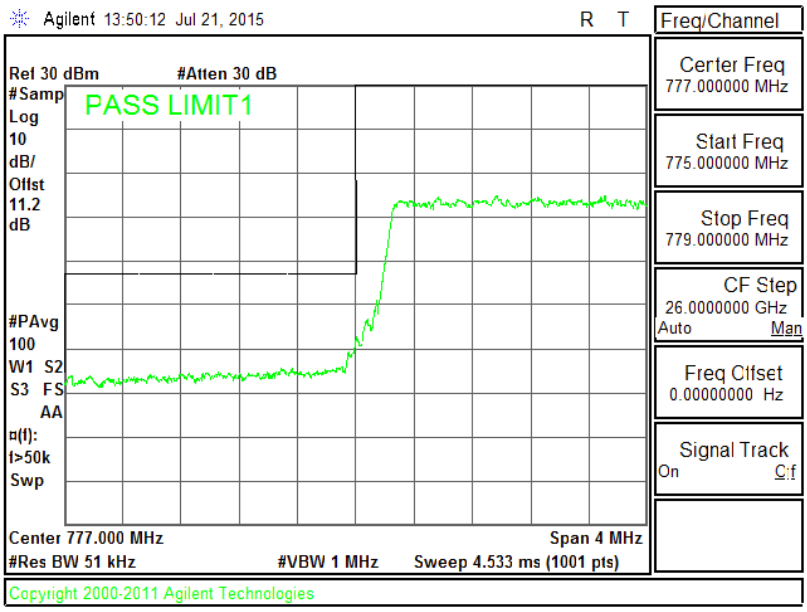
LOW CH, RB25-0



LOW CH, RB25-0 Zoom in



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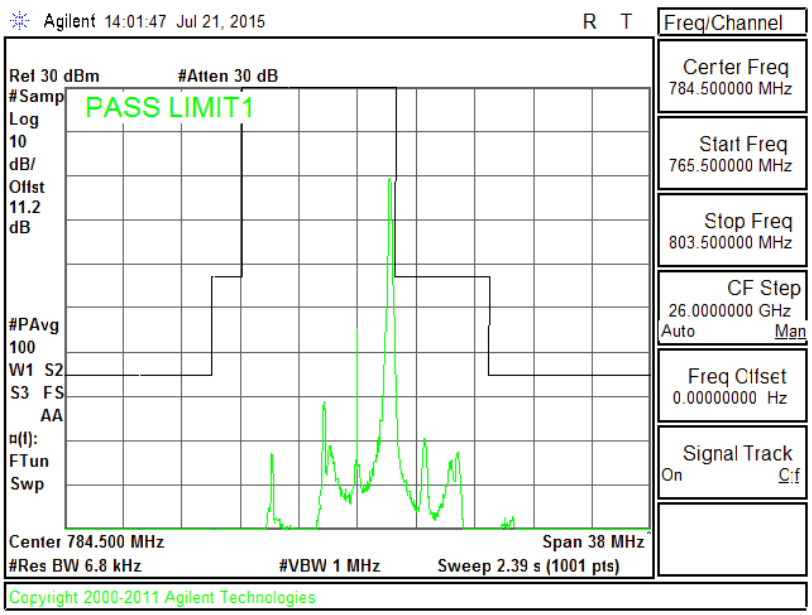
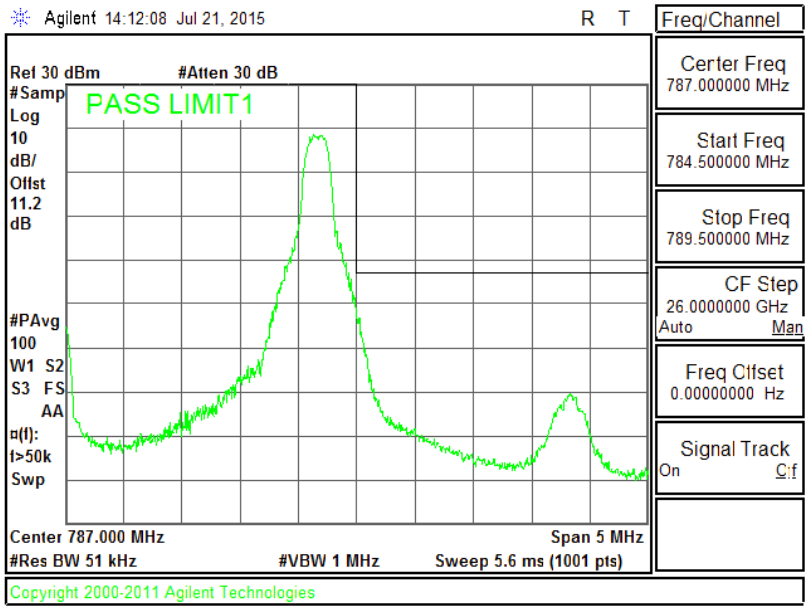
HIGH CH, RB1-24



HIGH CH, RB1-24 Zoom in



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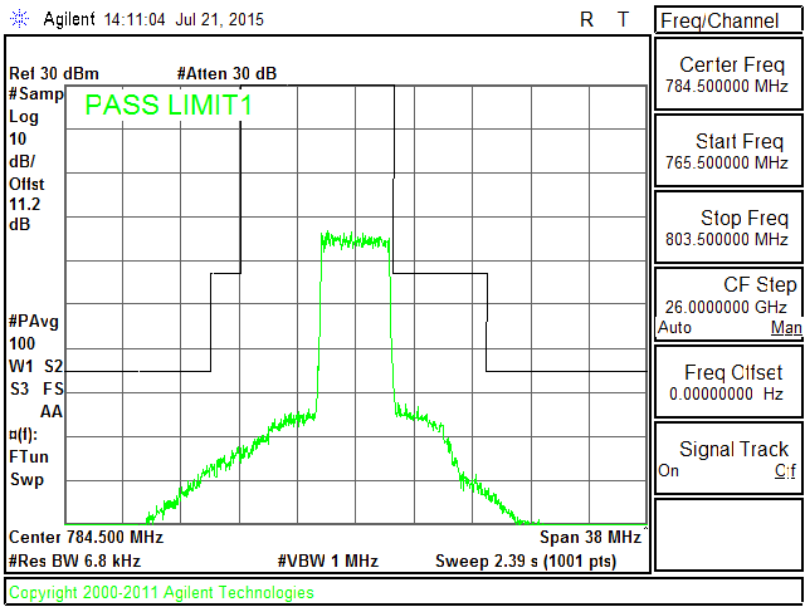
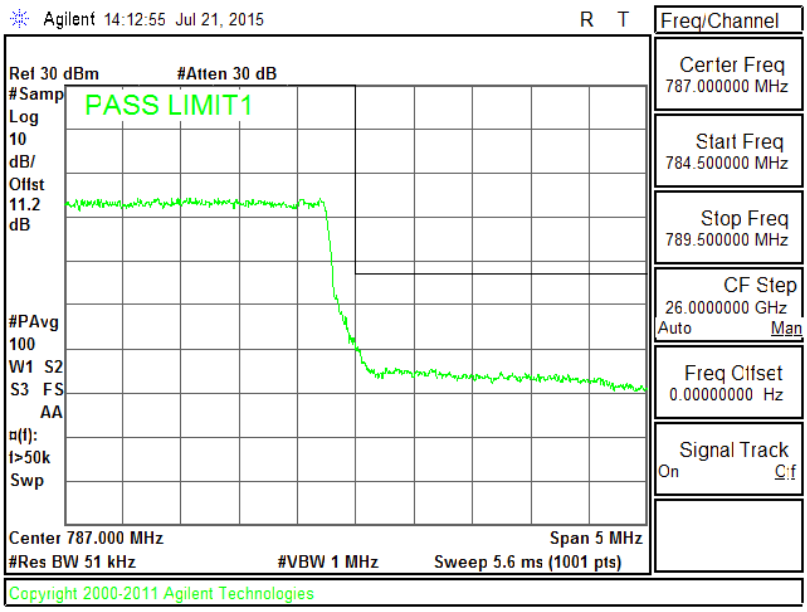
HIGH CH, RB25-0



HIGH CH, RB25-0 Zoom in



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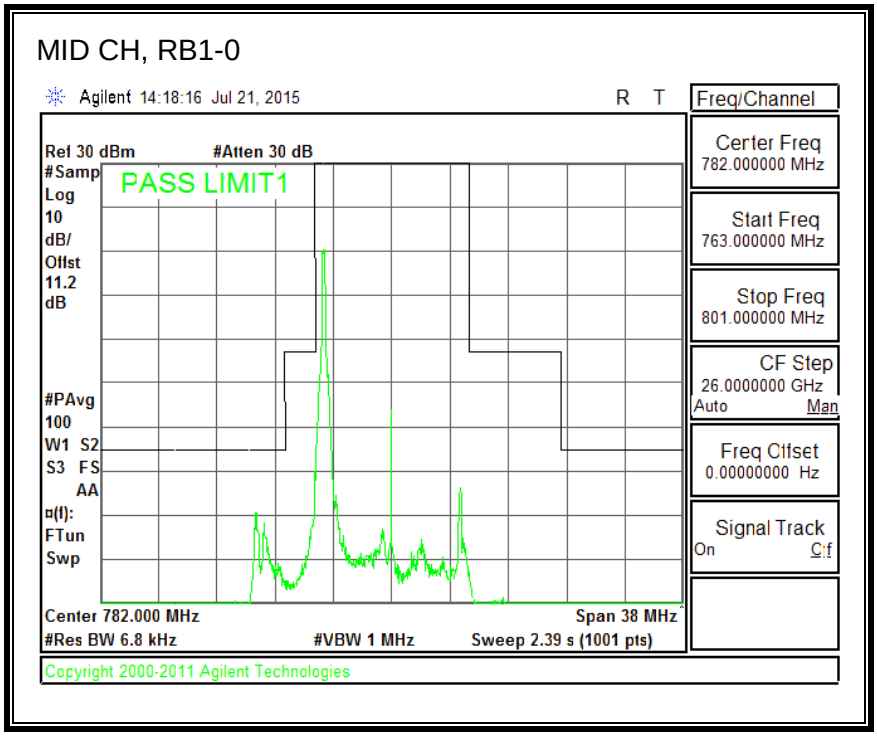
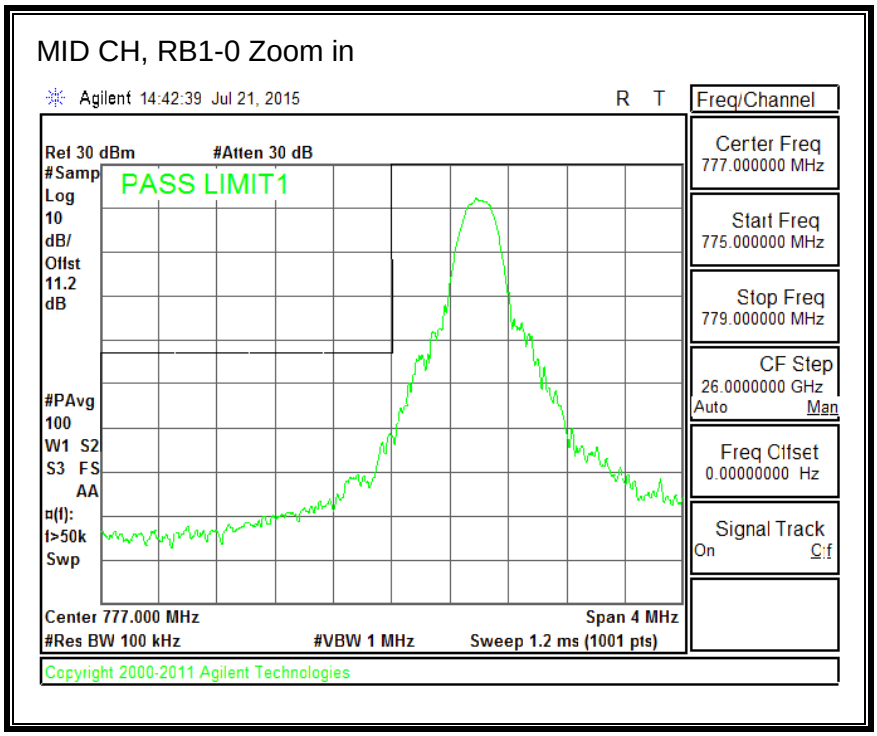
QPSK, (10.0 MHz BAND WIDTH)





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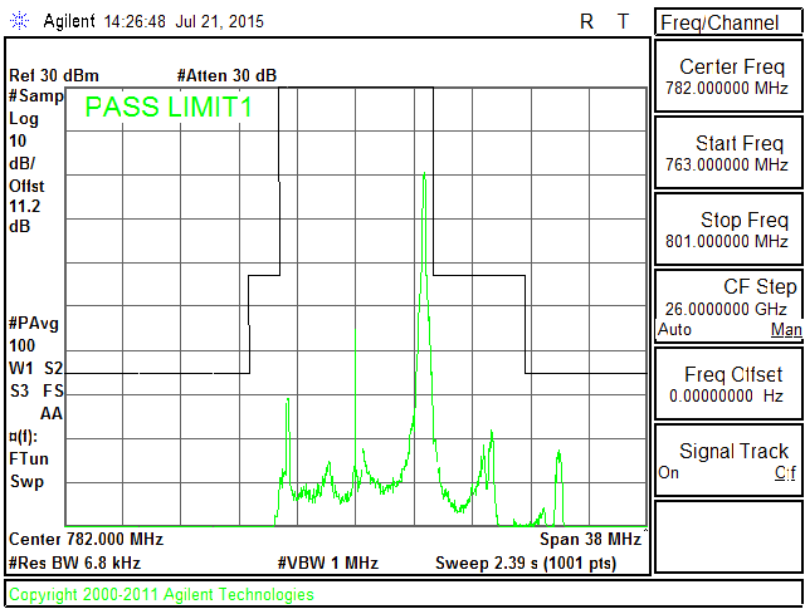
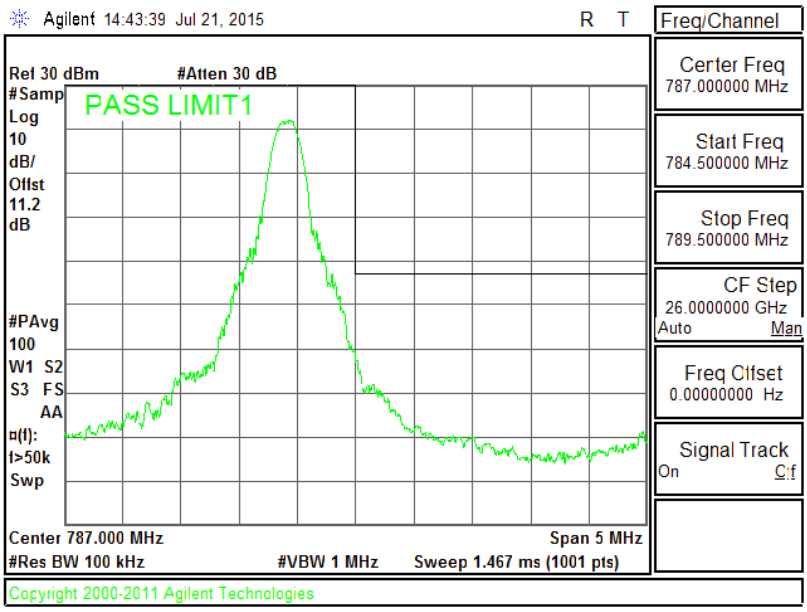
MID CH, RB1-49



MID CH, RB1-49 Zoom in



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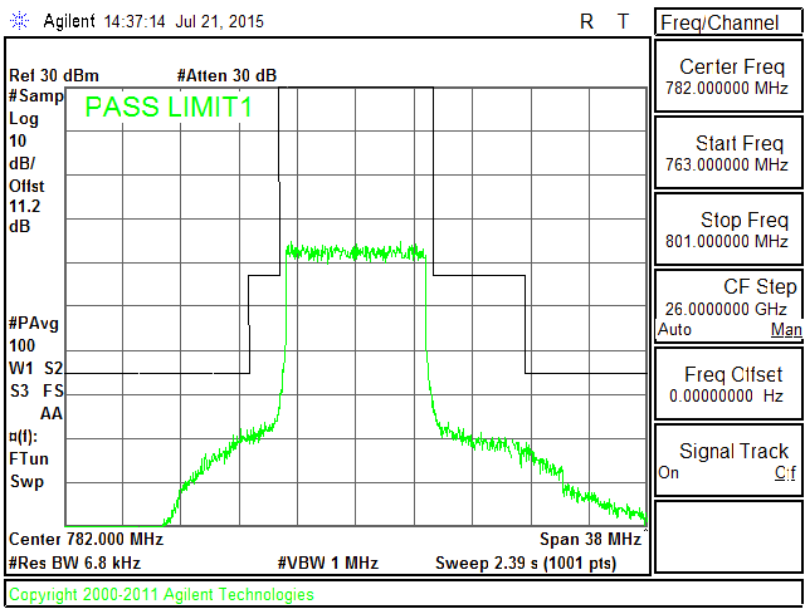
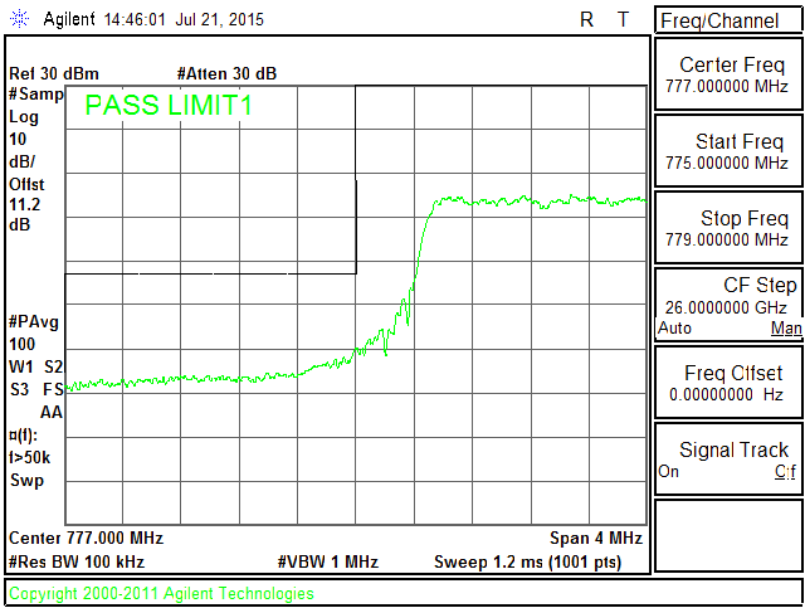
MID CH, RB50-1



MID CH, RB50-1 Low side Zoom in



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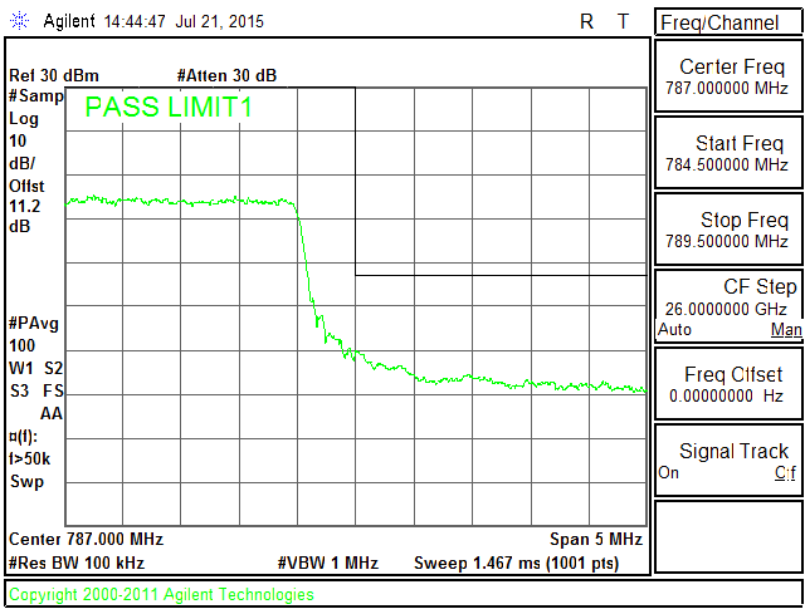
MID CH, RB50-1 High side Zoom in



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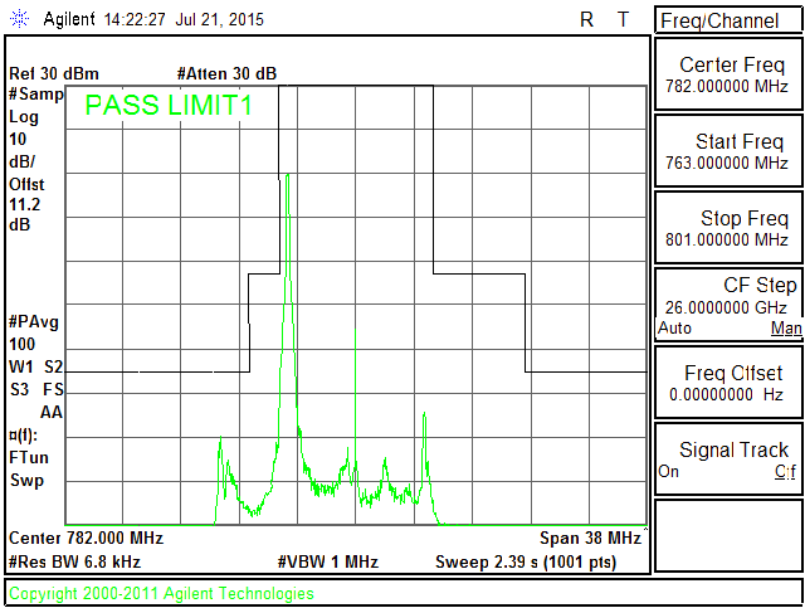
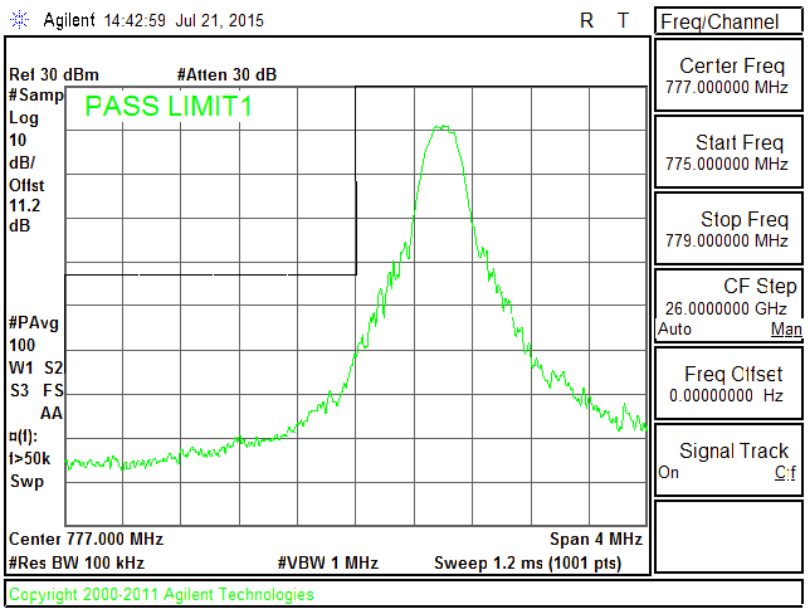
16QAM, (10.0 MHz BAND WIDTH)

MID CH, RB1-0



MID CH, RB1-0 Zoom in



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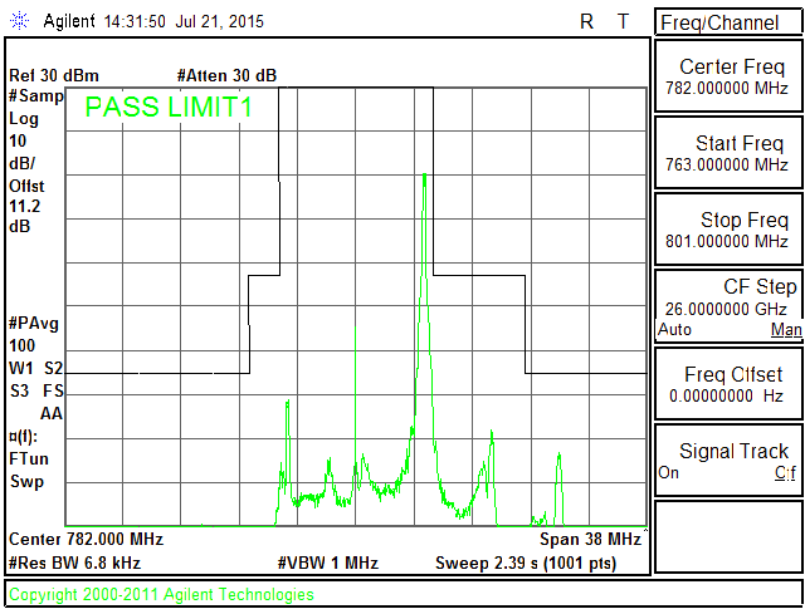
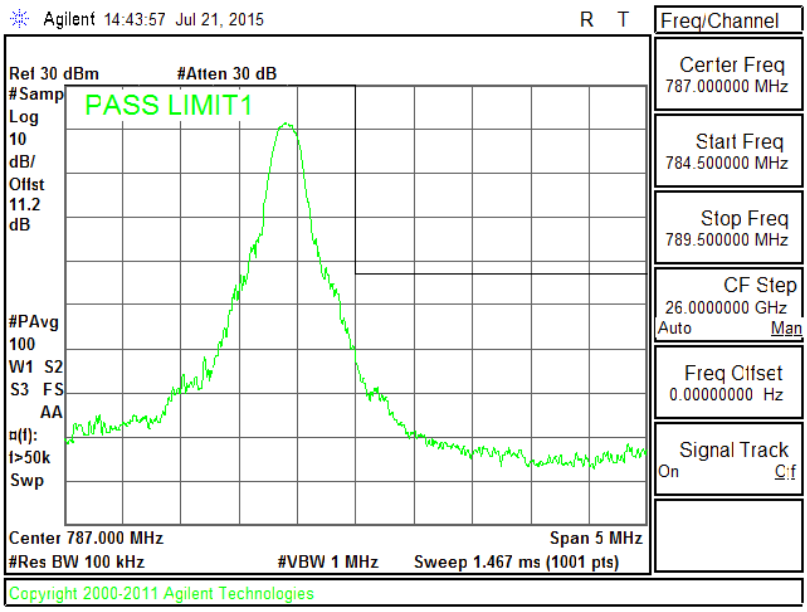
MID CH, RB1-49



MID CH, RB1-49 Zoom in



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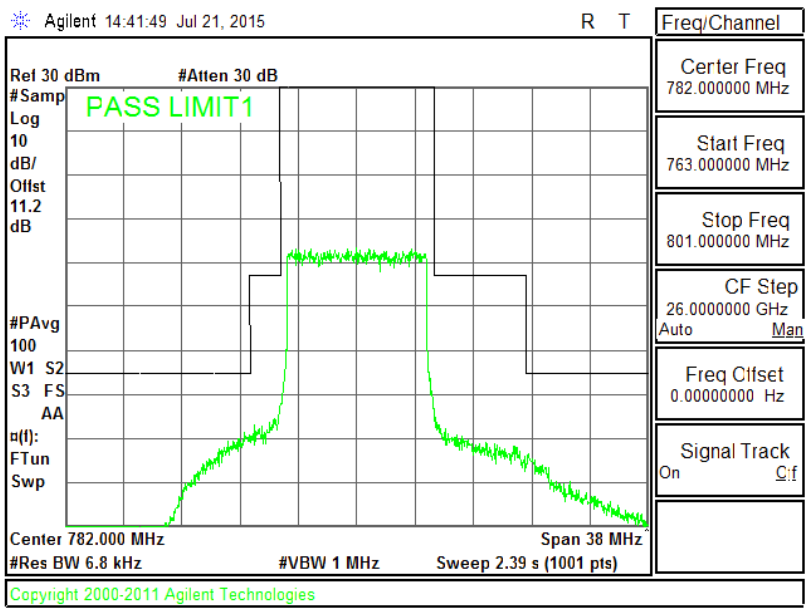
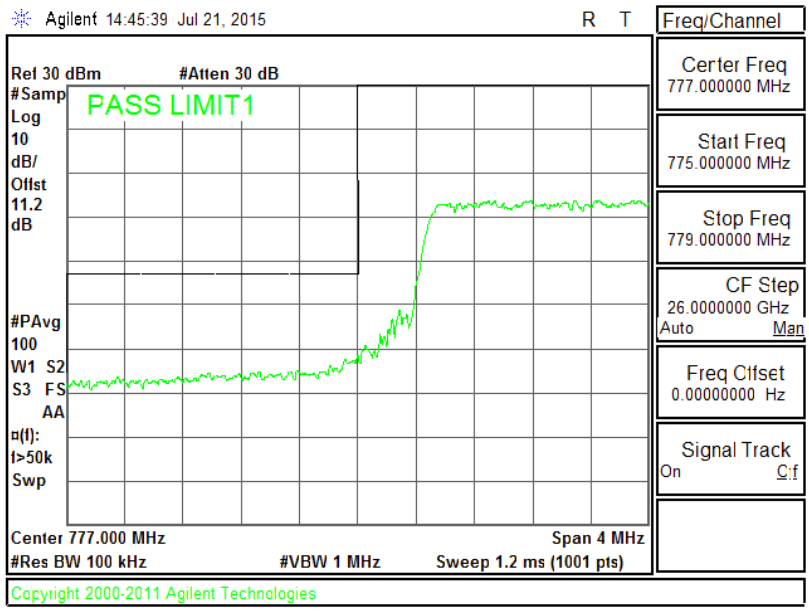
MID CH, RB50-1



MID CH, RB50-1 Low side Zoom in



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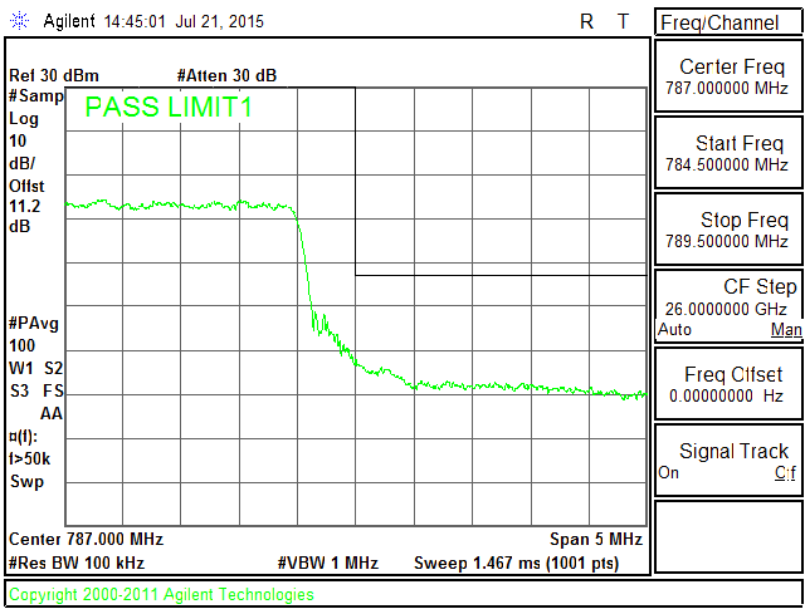
MID CH, RB50-1 High side Zoom in



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