

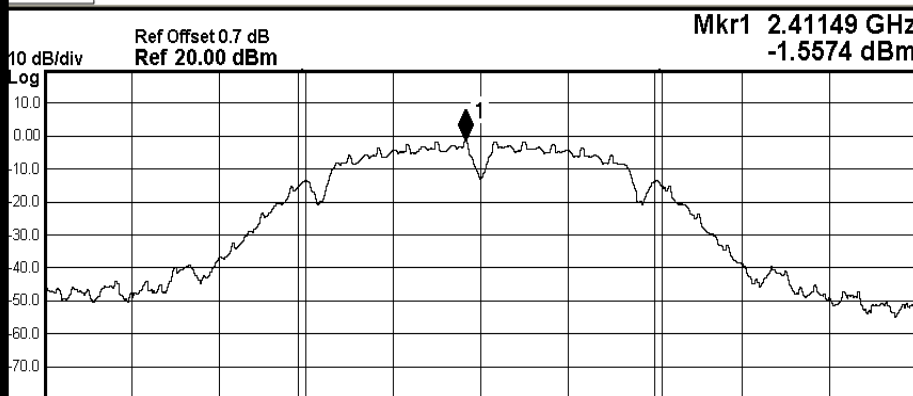
1.6dB Bandwidth

Test Mode	Test Channel	Ant	EBW[MHz]	Limit	Verdict
11B	2412	Ant1	9.157	0.5	PASS
11B	2437	Ant1	9.159	0.5	PASS
11B	2462	Ant1	9.161	0.5	PASS
11G	2412	Ant1	16.43	0.5	PASS
11G	2437	Ant1	16.42	0.5	PASS
11G	2462	Ant1	16.42	0.5	PASS
11N20SISO	2412	Ant1	17.62	0.5	PASS
11N20SISO	2437	Ant1	17.62	0.5	PASS
11N20SISO	2462	Ant1	17.63	0.5	PASS
11N40SISO	2422	Ant1	36.38	0.5	PASS
11N40SISO	2437	Ant1	36.37	0.5	PASS
11N40SISO	2452	Ant1	36.32	0.5	PASS

6dB Bandwidth_11B_2412_Ant1

Agilent Spectrum Analyzer - Occupied BW

☒ R L ☐ RF ☐ 50 Ω ☐ AC ☐ SENSE:PULSE ☐ ALIGN: AUTO 03:45:11 PM Nov 29, 2017
Center Freq 2.412000000 GHz Center Freq: 2.412000000 GHz Radio Std: None
Trig: Free Run Avg/Hold: 1/1
#IFGain: Low #Atten: 30 dB Radio Device: BTS



Center 2.412 GHz Span 30 MHz
#Res BW 100 kHz #VBW 300 kHz Sweep 2.933 ms

Occupied Bandwidth Total Power 15.0 dBm
12.496 MHz
Transmit Freq Error -2.319 kHz OBW Power 99.00 %
x dB Bandwidth 9.157 MHz x dB -6.00 dB

Frequency

Center Freq
2.412000000 GHz

CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

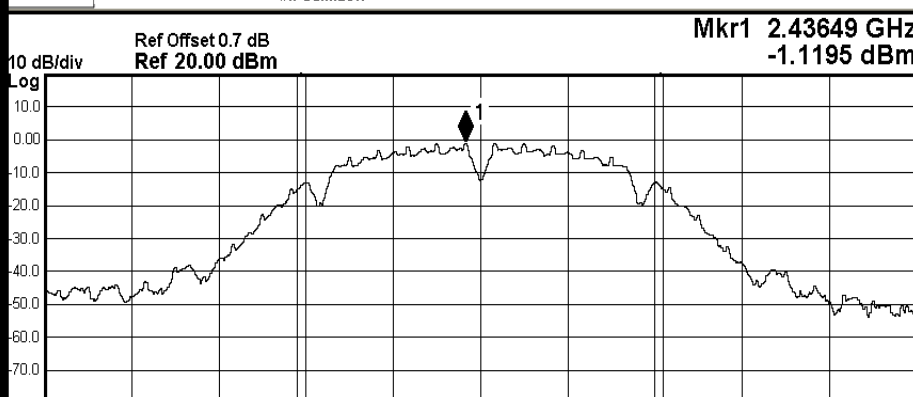
ISG

STATUS

6dB Bandwidth_11B_2437_Ant1

Agilent Spectrum Analyzer - Occupied BW

☒ R L ☐ RF ☐ 50 Ω ☐ AC ☐ SENSE:PULSE ☐ ALIGN: AUTO 03:47:33 PM Nov 29, 2017
Center Freq 2.437000000 GHz Center Freq: 2.437000000 GHz Radio Std: None
Trig: Free Run Avg/Hold: 1/1
#IFGain: Low #Atten: 30 dB Radio Device: BTS



Center 2.437 GHz Span 30 MHz
#Res BW 100 kHz #VBW 300 kHz Sweep 2.933 ms

Occupied Bandwidth Total Power 15.5 dBm
12.531 MHz
Transmit Freq Error 3.320 kHz OBW Power 99.00 %
x dB Bandwidth 9.159 MHz x dB -6.00 dB

Frequency

Center Freq
2.437000000 GHz

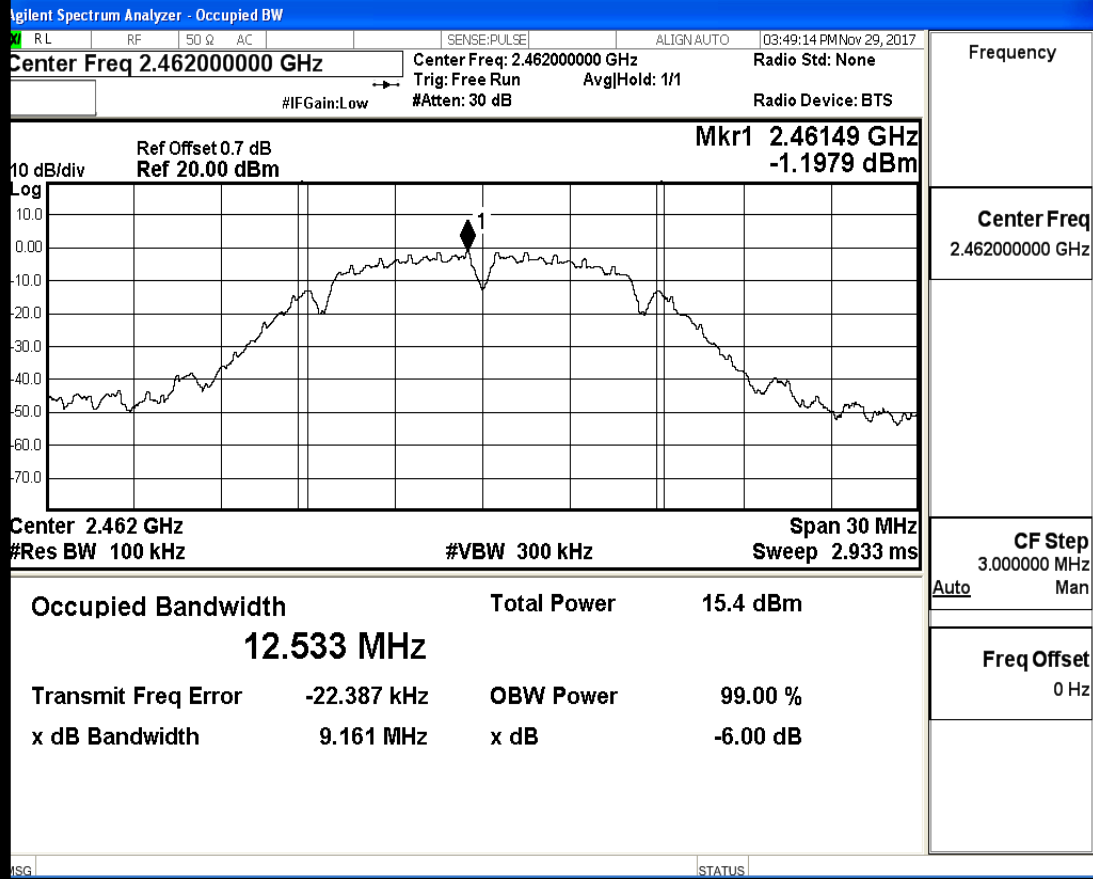
CF Step
3.000000 MHz
Auto Man

Freq Offset
0 Hz

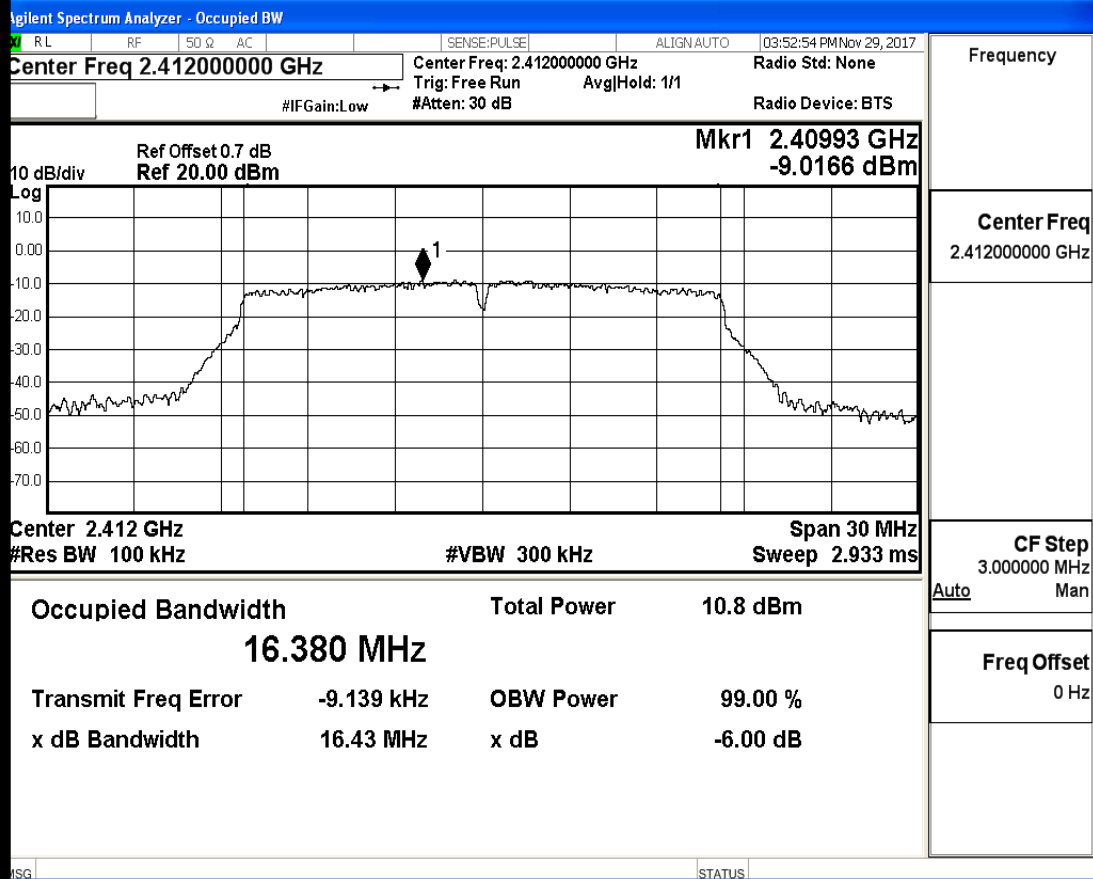
ISG

STATUS

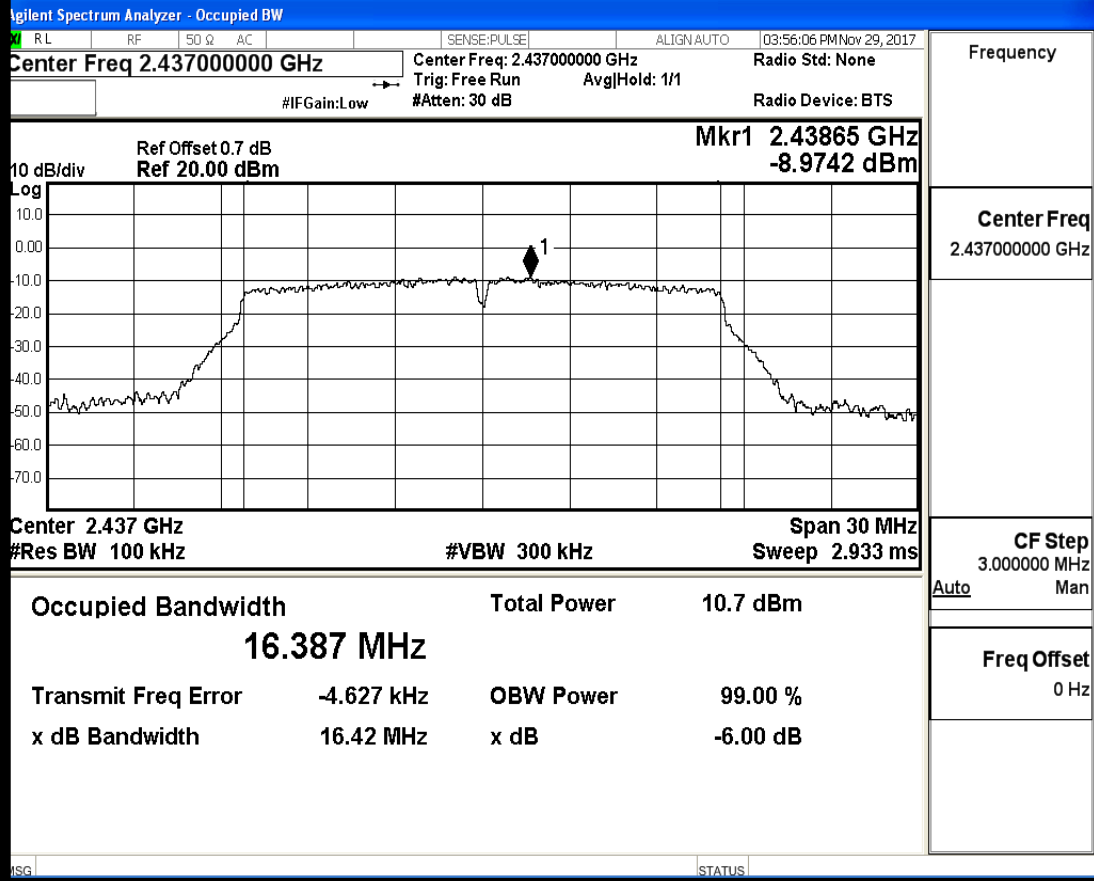
6dB Bandwidth_11B_2462_Ant1



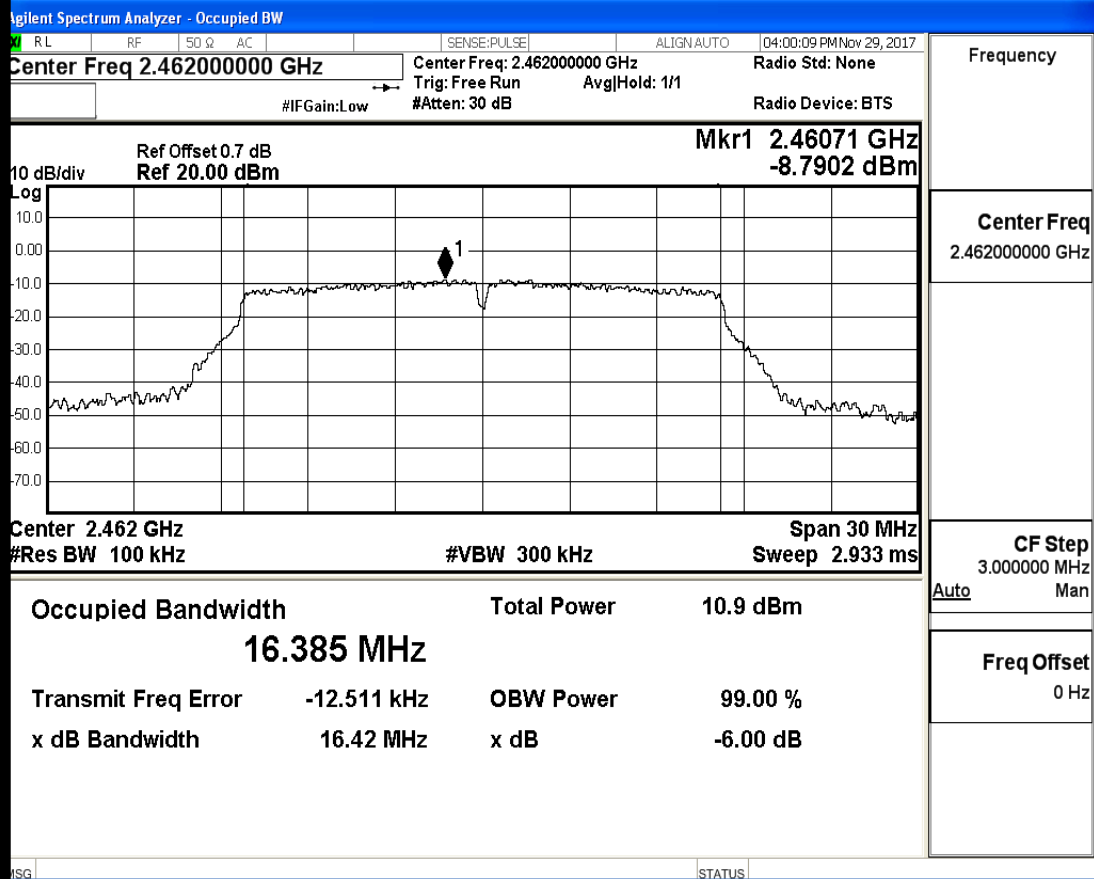
6dB Bandwidth_11G_2412_Ant1



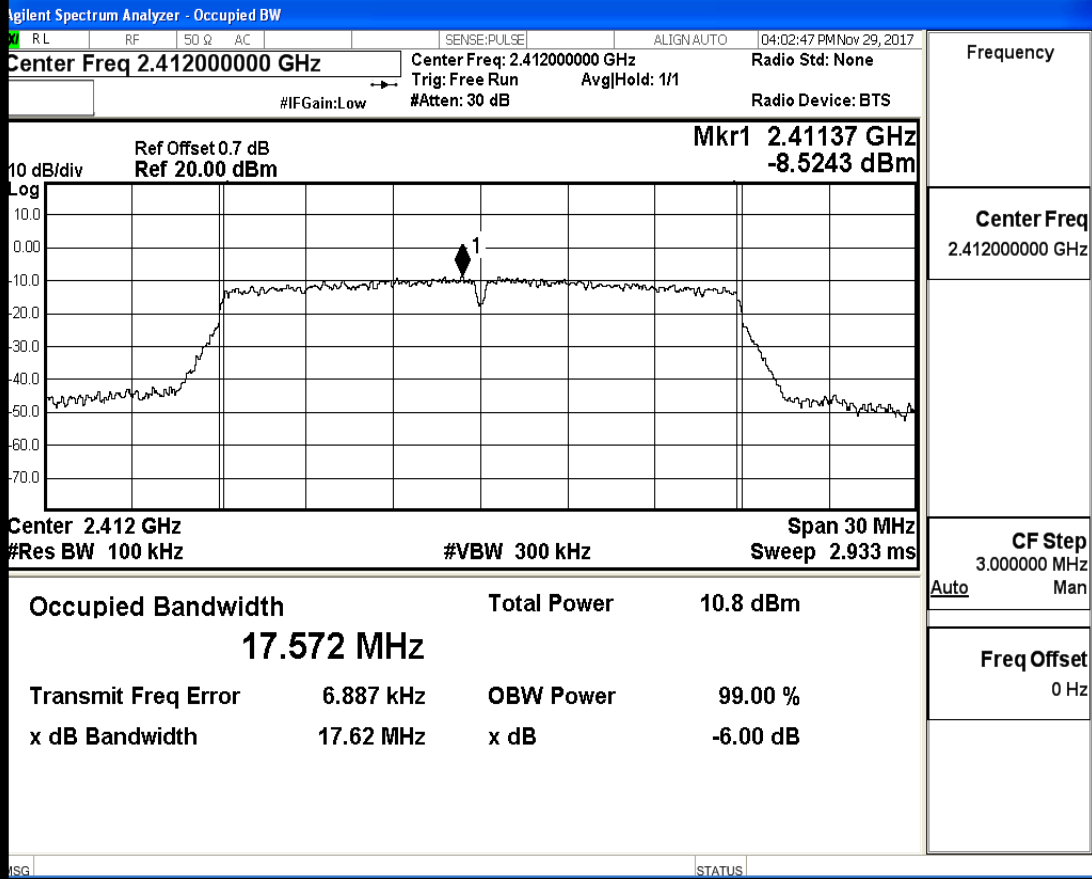
6dB Bandwidth_11G_2437_Ant1



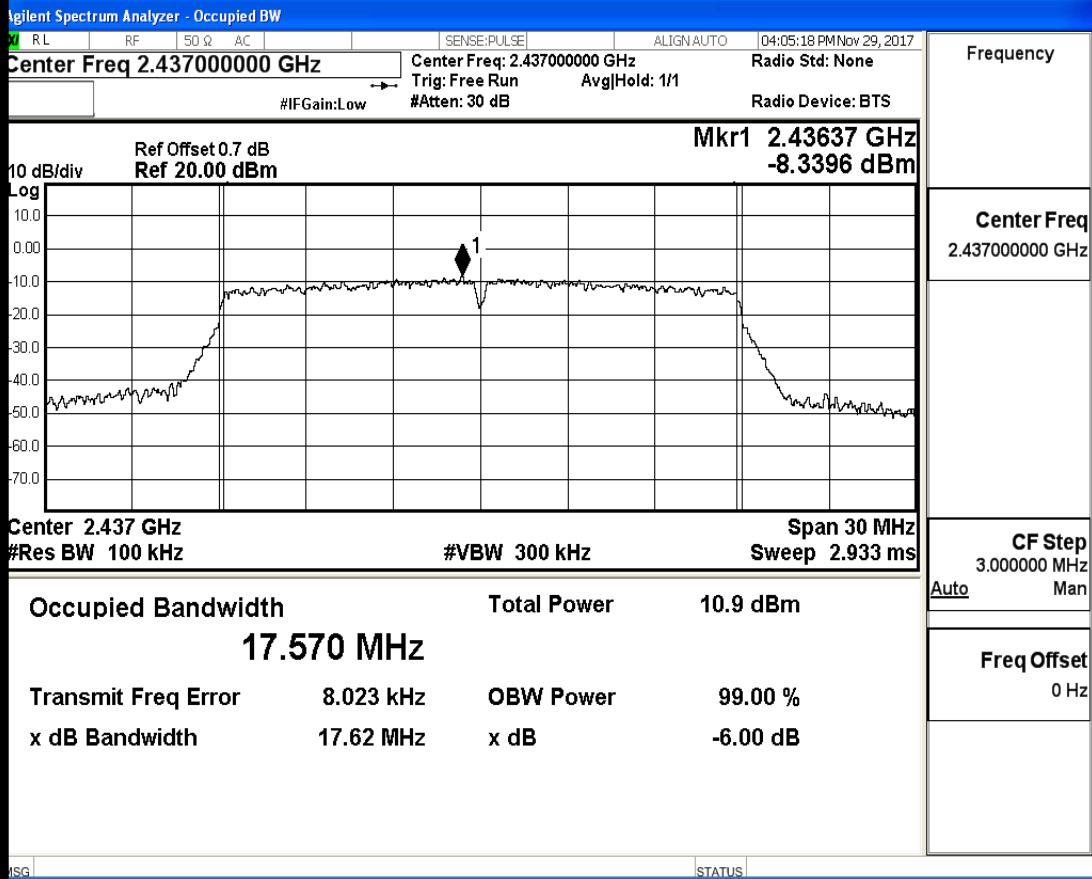
6dB Bandwidth_11G_2462_Ant1



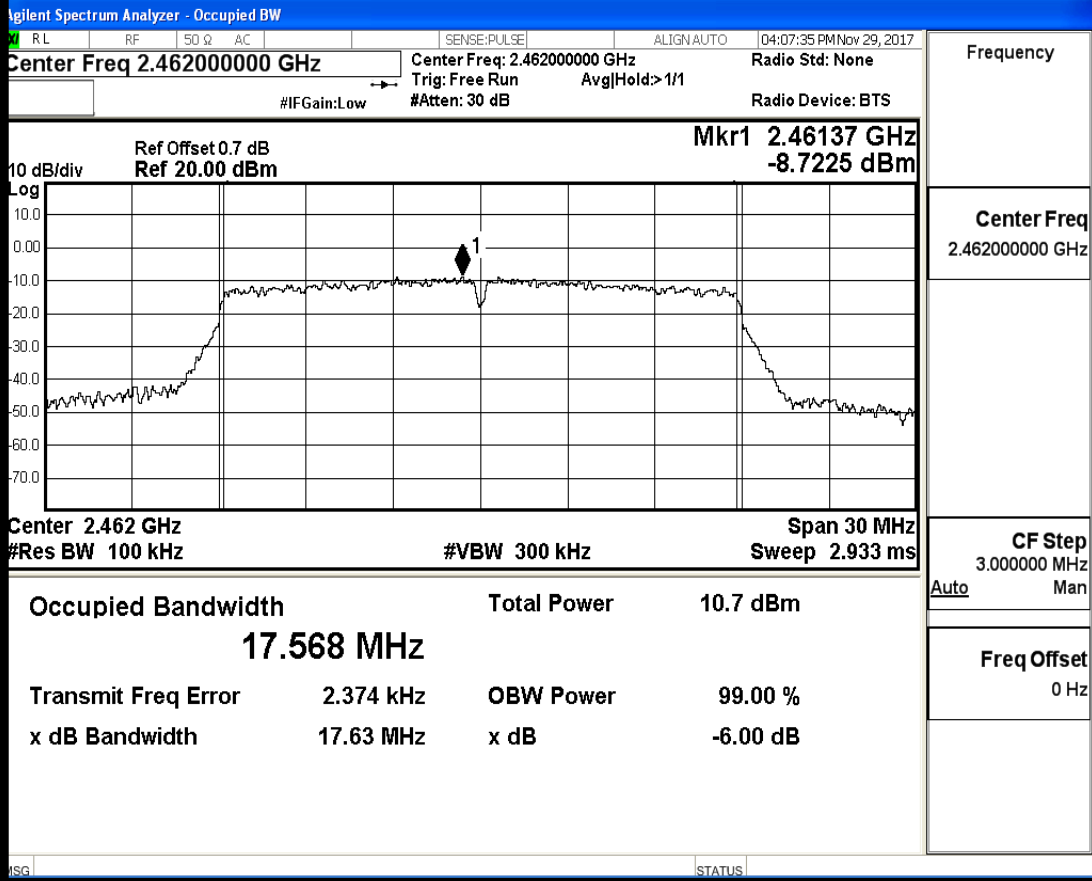
6dB Bandwidth_11N20SISO_2412_Ant1



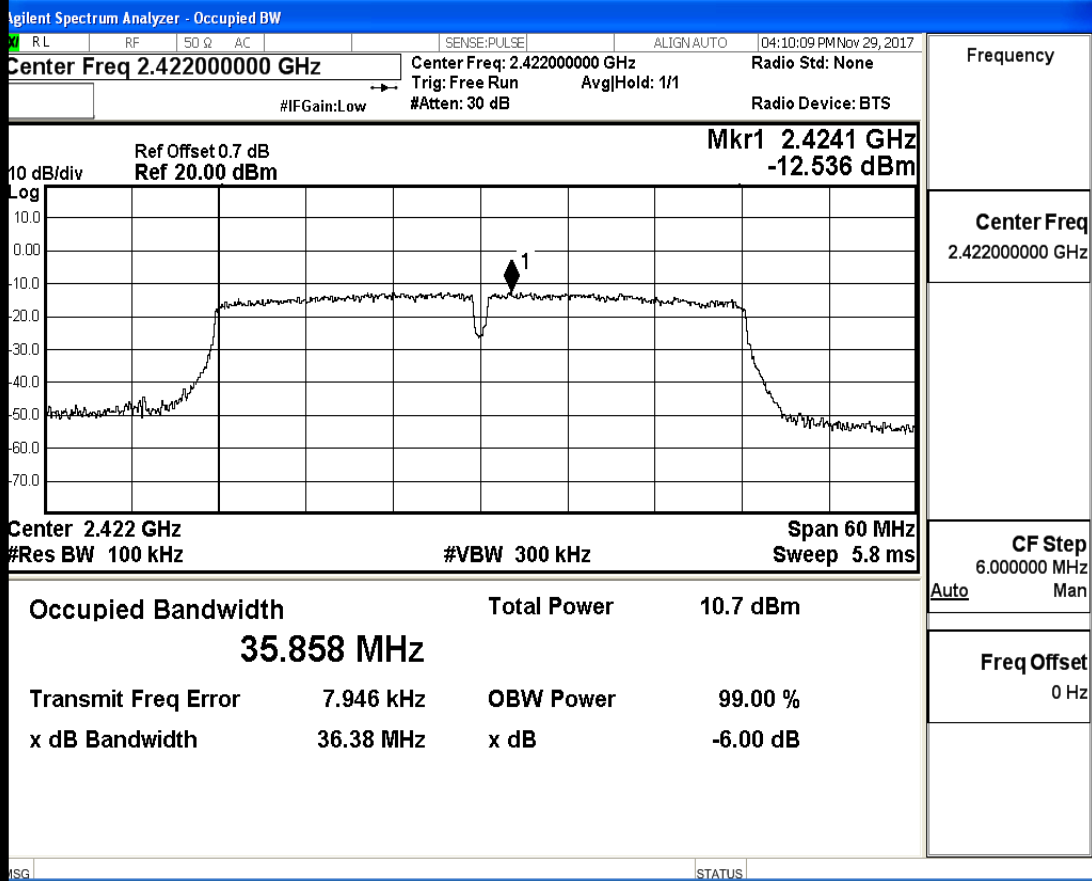
6dB Bandwidth_11N20SISO_2437_Ant1



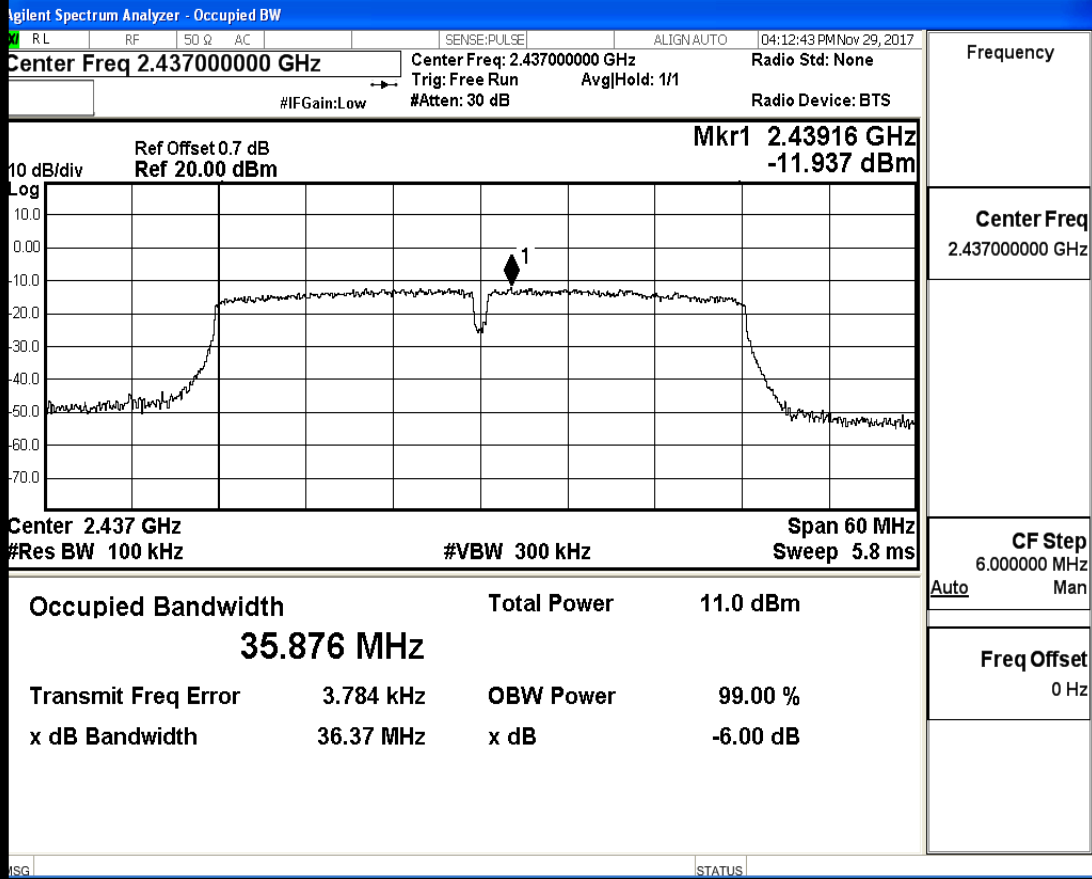
6dB Bandwidth_11N20SISO_2462_Ant1



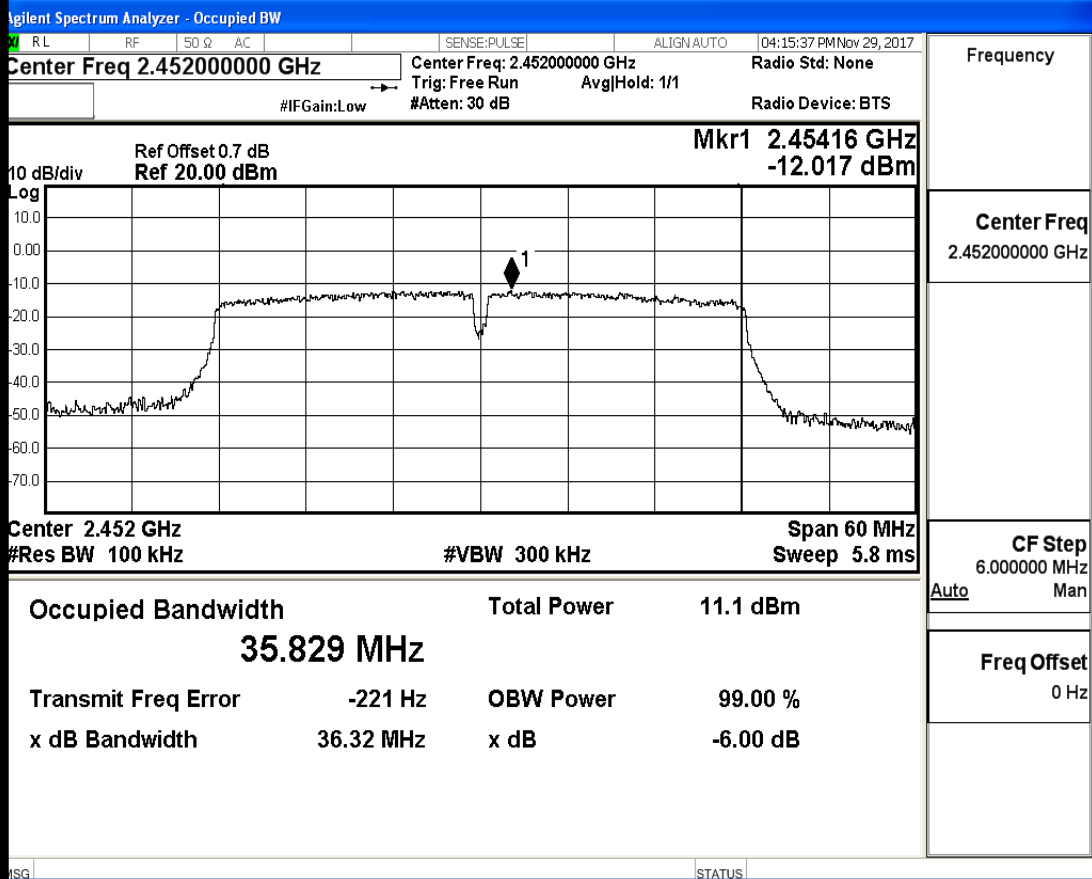
6dB Bandwidth_11N40SISO_2422_Ant1



6dB Bandwidth_11N40SISO_2437_Ant1



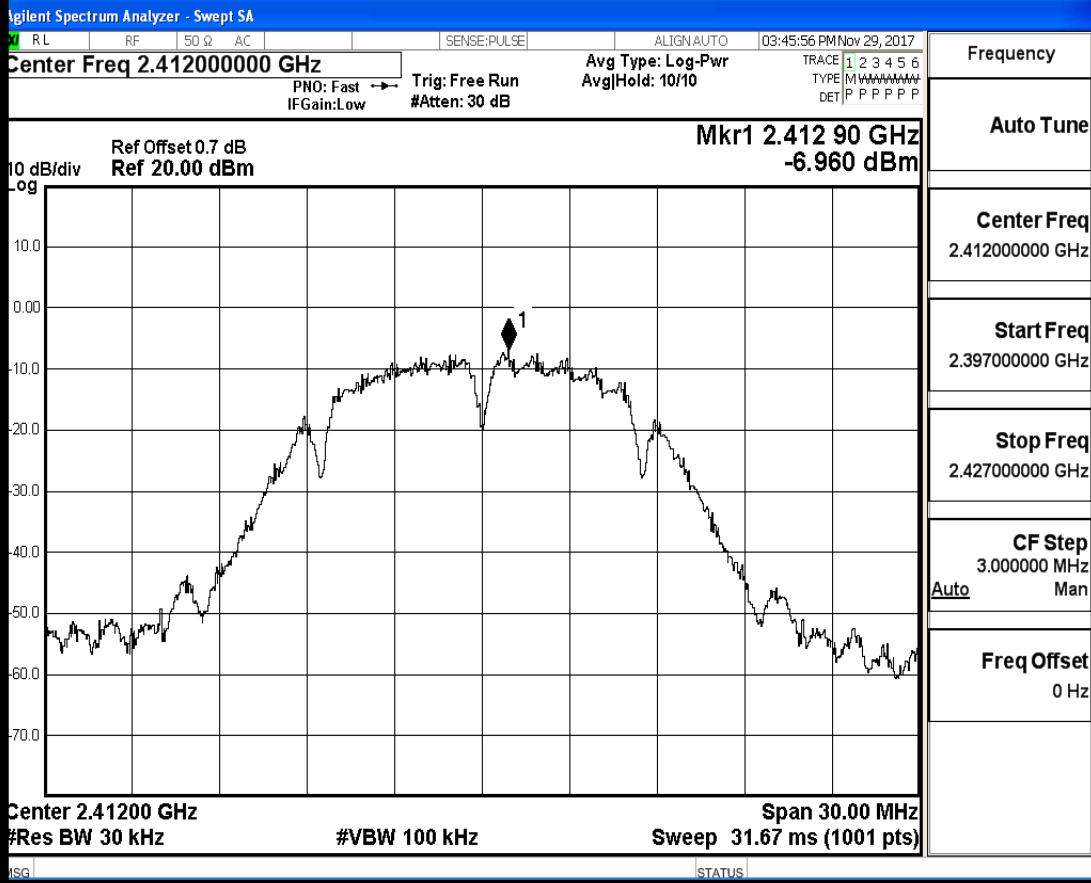
6dB Bandwidth_11N40SISO_2452_Ant1



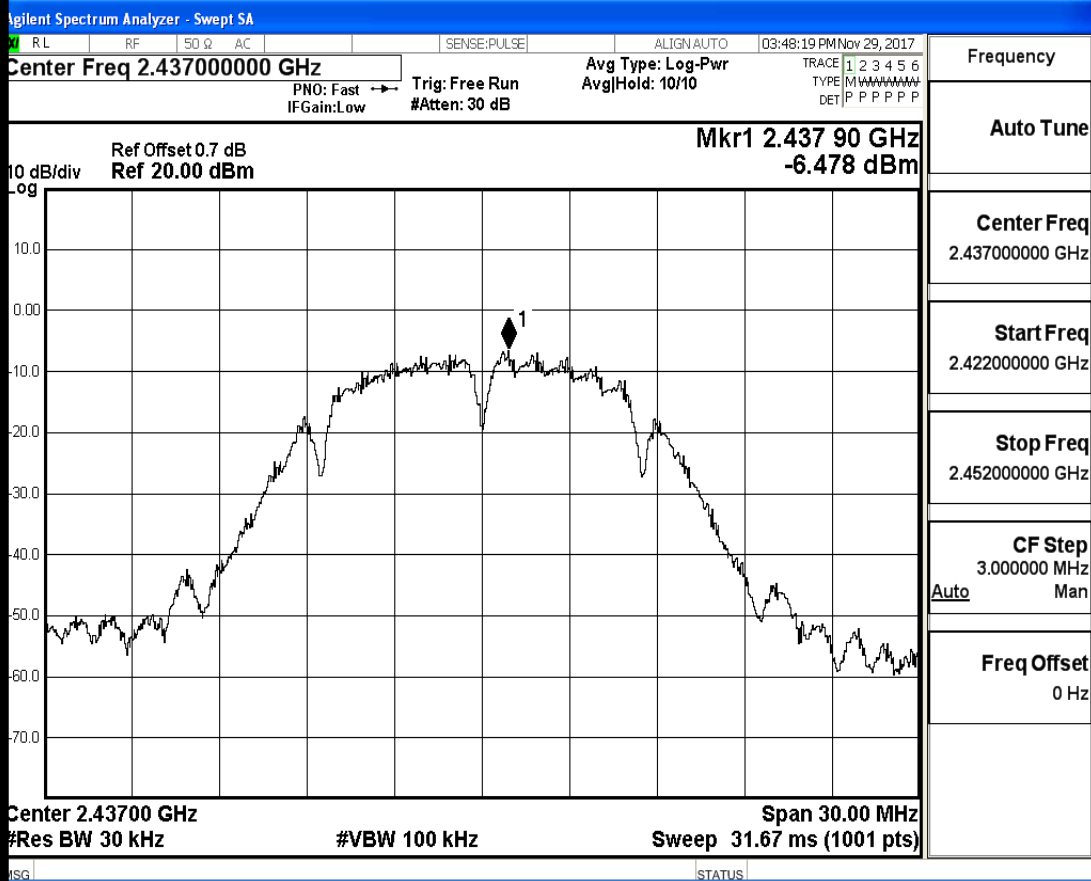
2.Maximum Peak power spectral density

Test Mode	Test Channel	Ant	PSD[dBm/30kHz]	Limit[dBm/3kHz]	Verdict
11B	2412	Ant1	-6.960	8.00	PASS
11B	2437	Ant1	-6.478	8.00	PASS
11B	2462	Ant1	-6.597	8.00	PASS
11G	2412	Ant1	-11.711	8.00	PASS
11G	2437	Ant1	-11.539	8.00	PASS
11G	2462	Ant1	-11.559	8.00	PASS
11N20SISO	2412	Ant1	-11.163	8.00	PASS
11N20SISO	2437	Ant1	-10.670	8.00	PASS
11N20SISO	2462	Ant1	-11.043	8.00	PASS
11N40SISO	2422	Ant1	-15.336	8.00	PASS
11N40SISO	2437	Ant1	-15.466	8.00	PASS
11N40SISO	2452	Ant1	-15.229	8.00	PASS

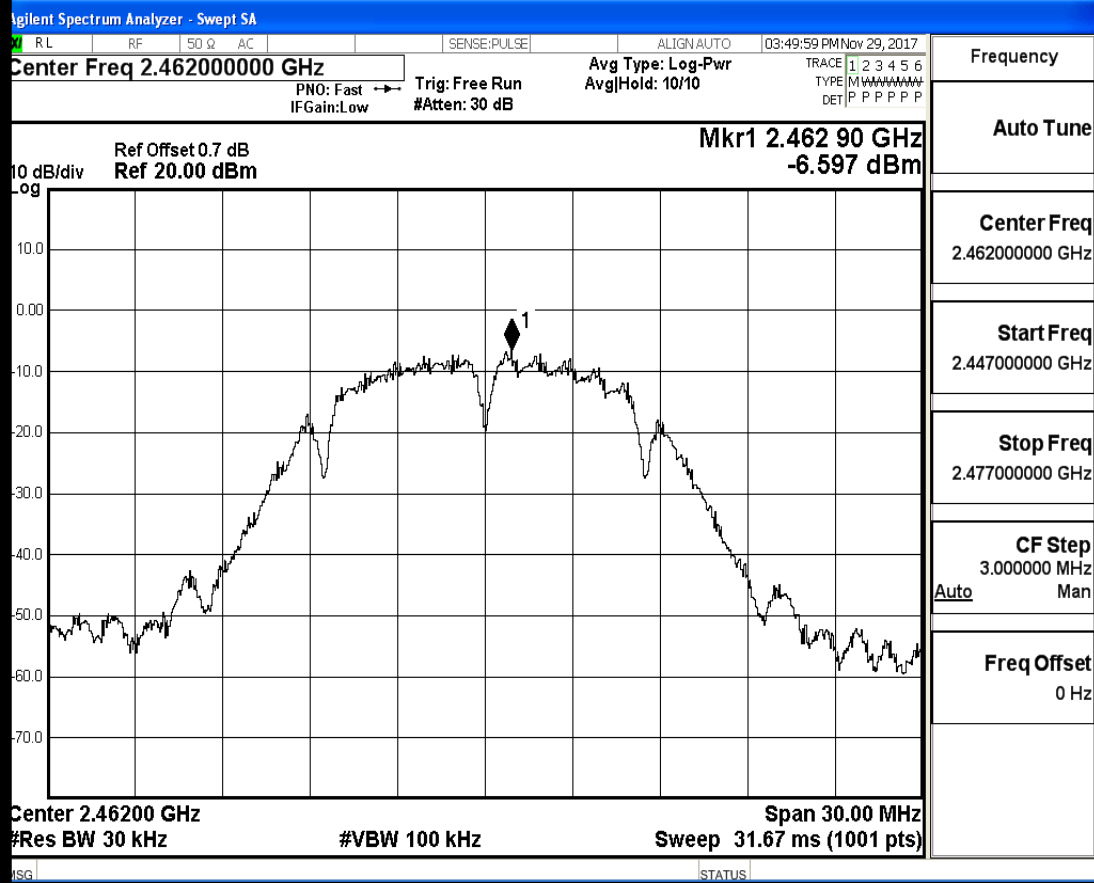
Maximum Peak power spectral density_11B_2412_Ant1



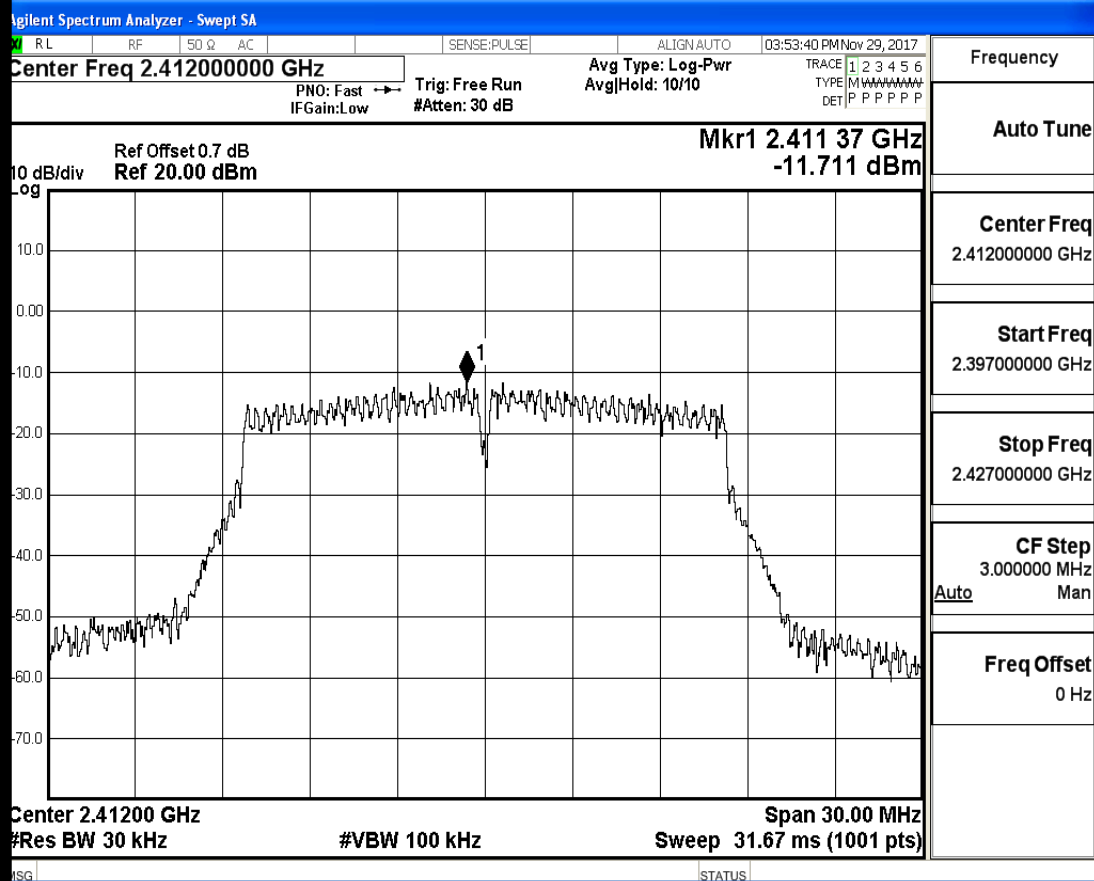
Maximum Peak power spectral density_11B_2437_Ant1



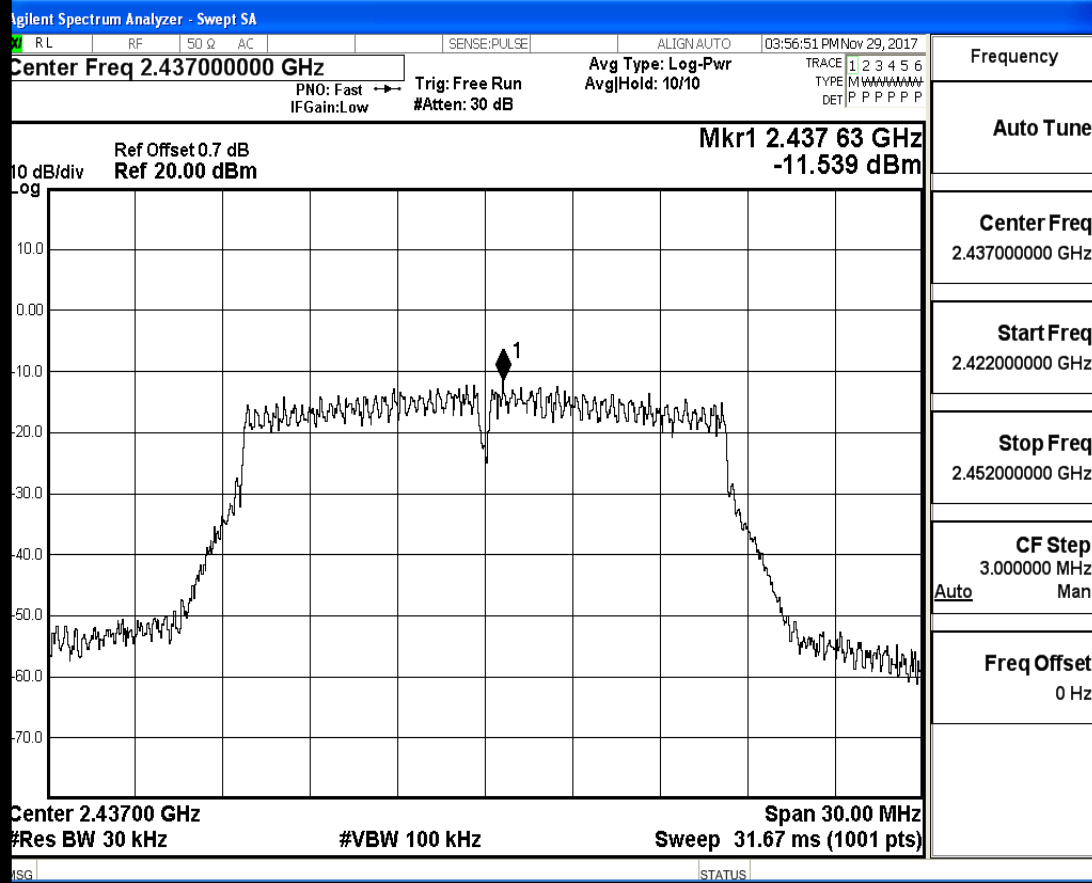
Maximum Peak power spectral density_11B_2462_Ant1



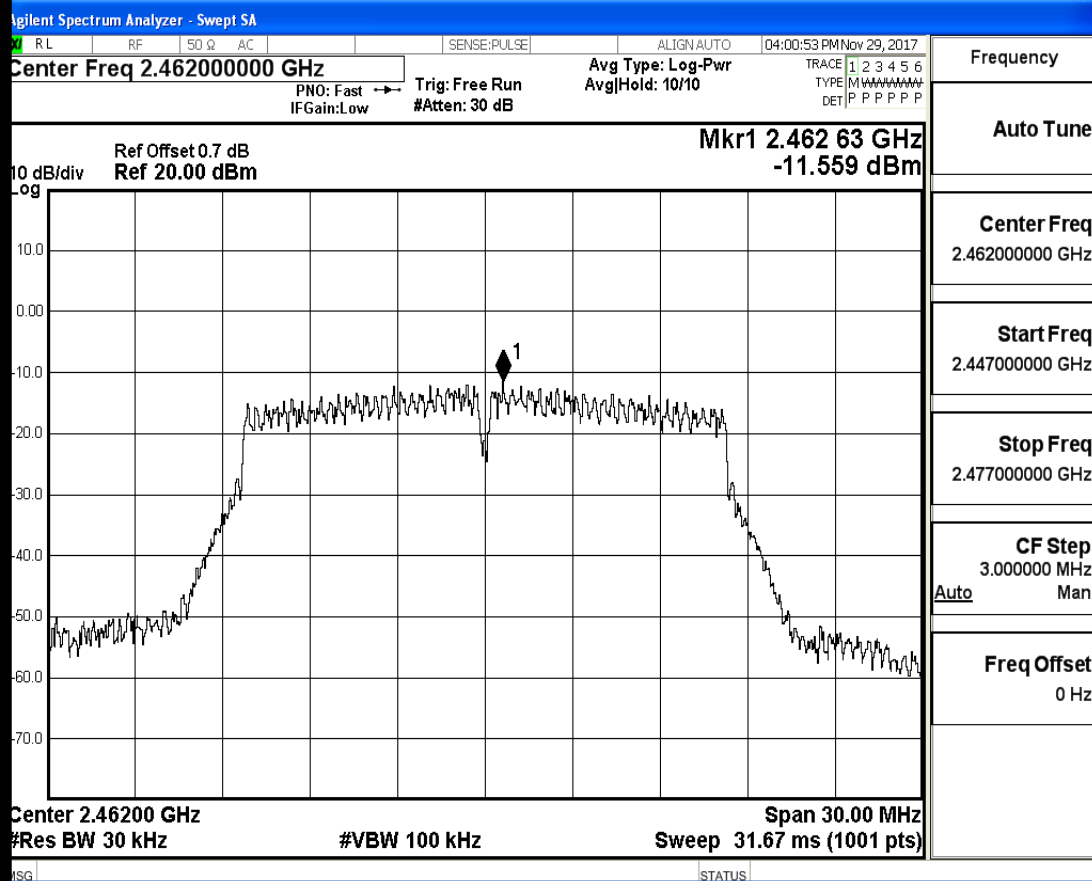
Maximum Peak power spectral density_11G_2412_Ant1



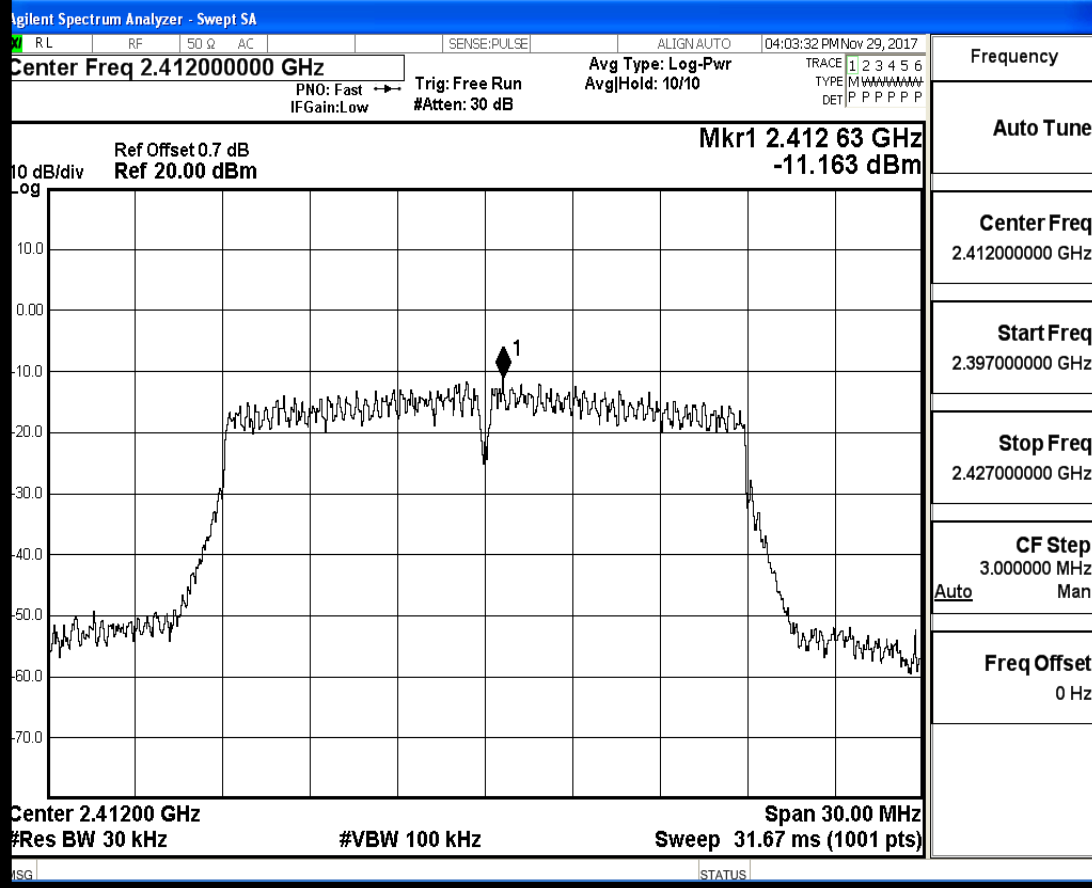
Maximum Peak power spectral density_11G_2437_Ant1



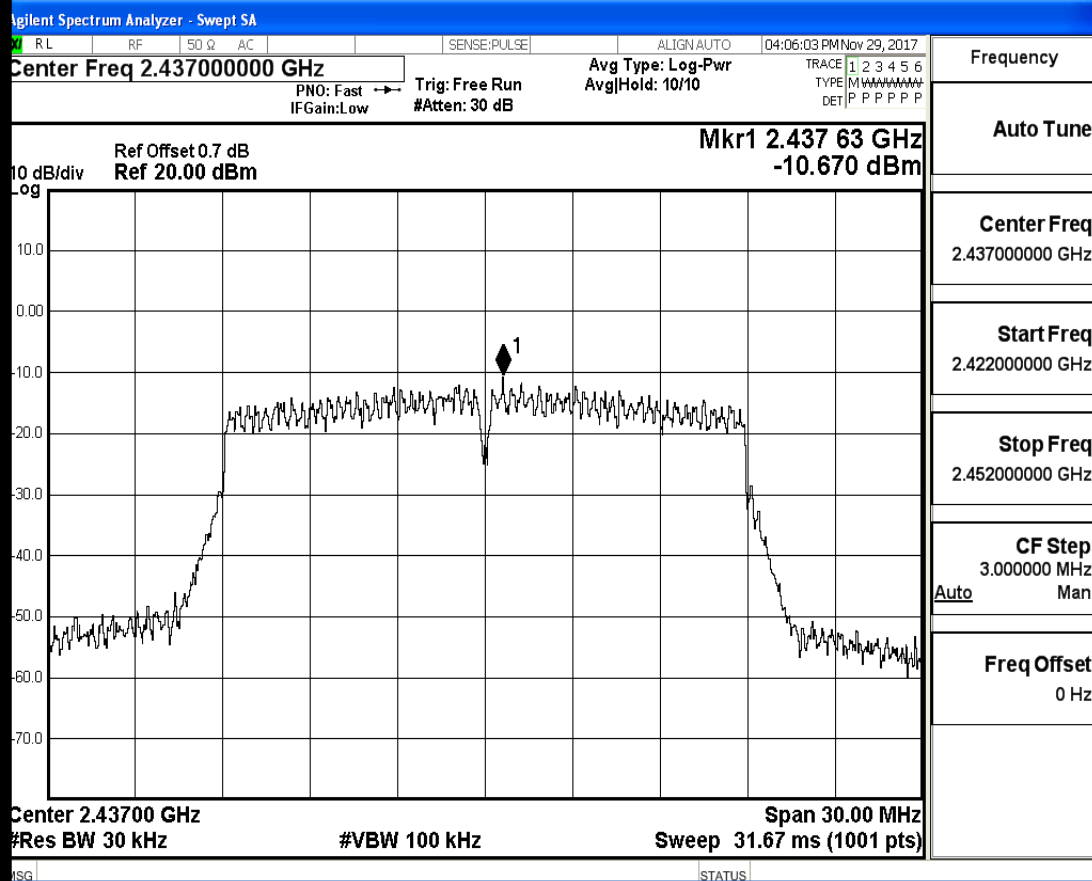
Maximum Peak power spectral density_11G_2462_Ant1



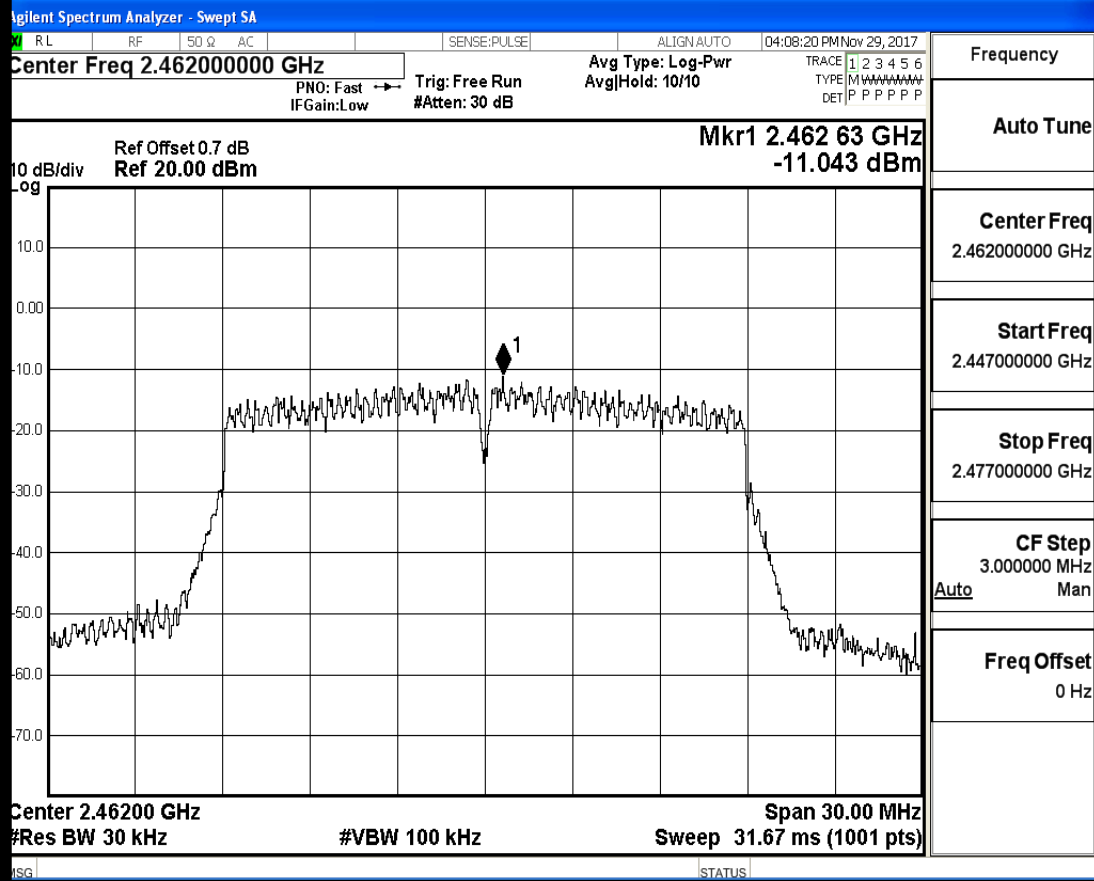
Maximum Peak power spectral density_11N20SISO_2412_Ant1



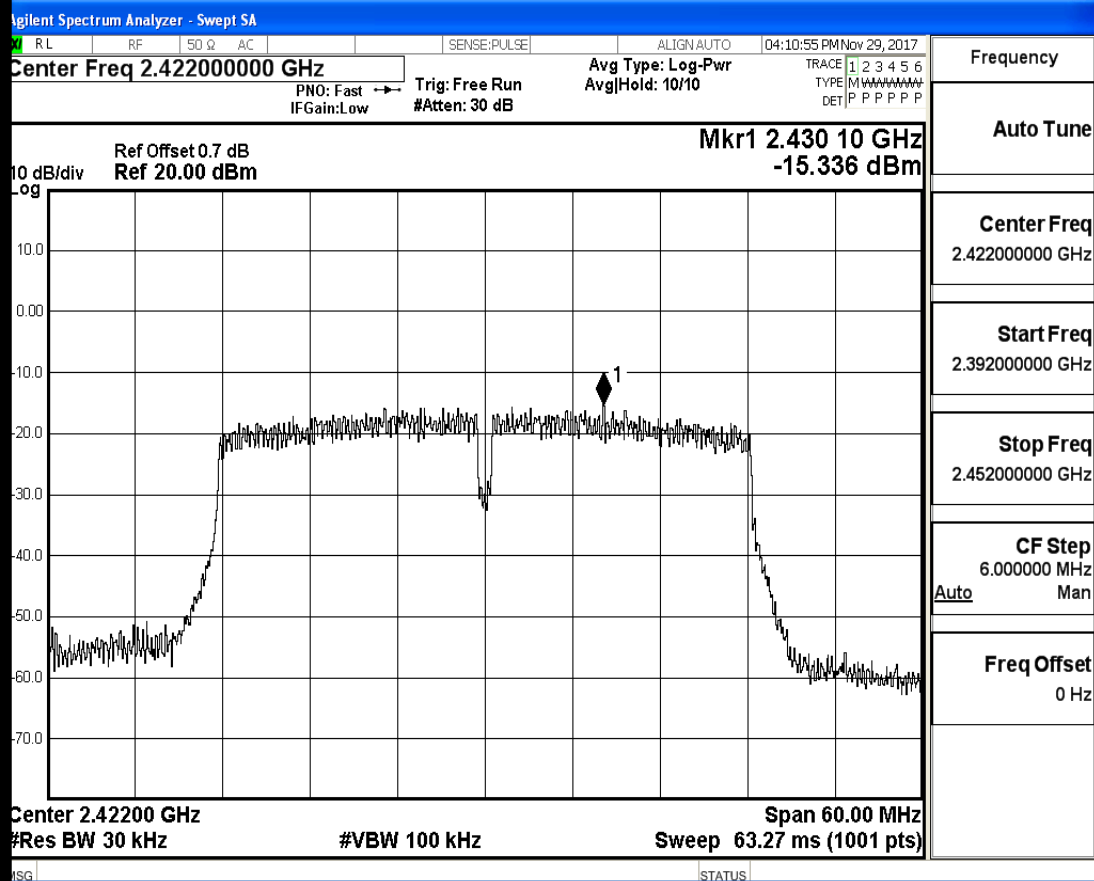
Maximum Peak power spectral density_11N20SISO_2437_Ant1



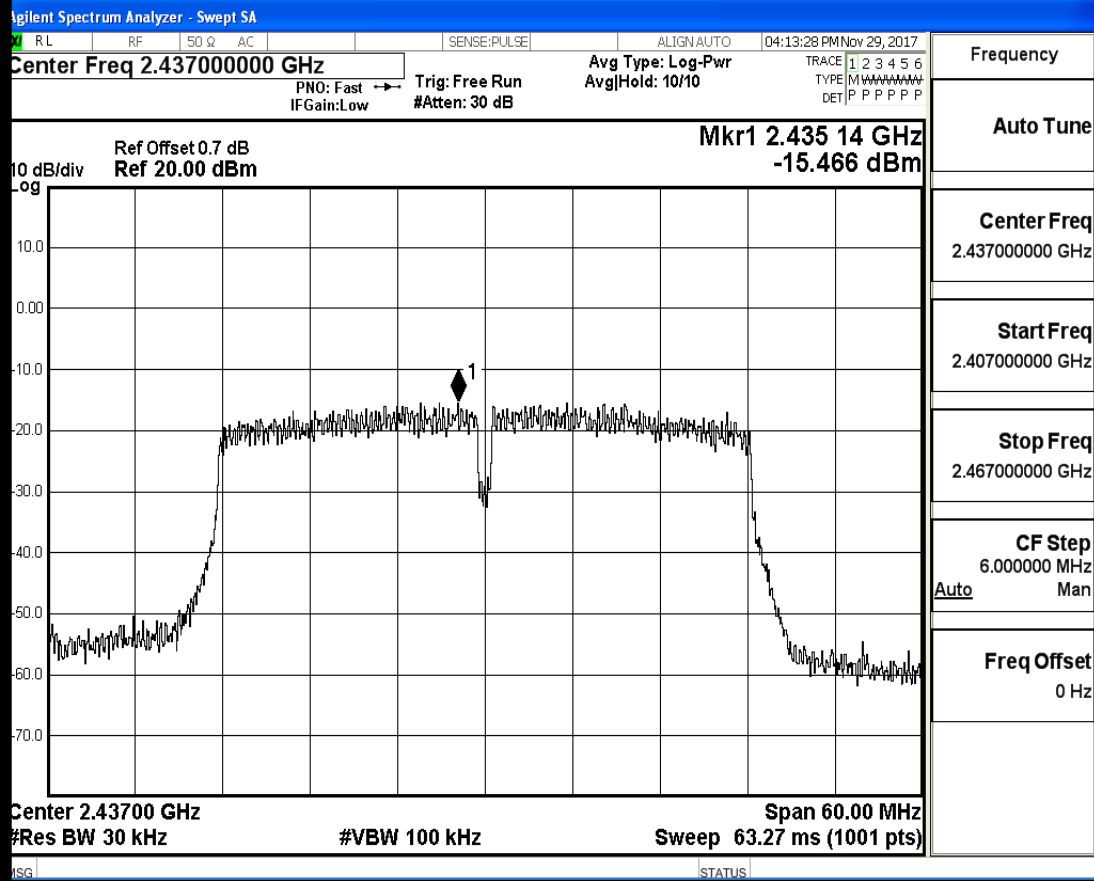
Maximum Peak power spectral density_11N20SISO_2462_Ant1



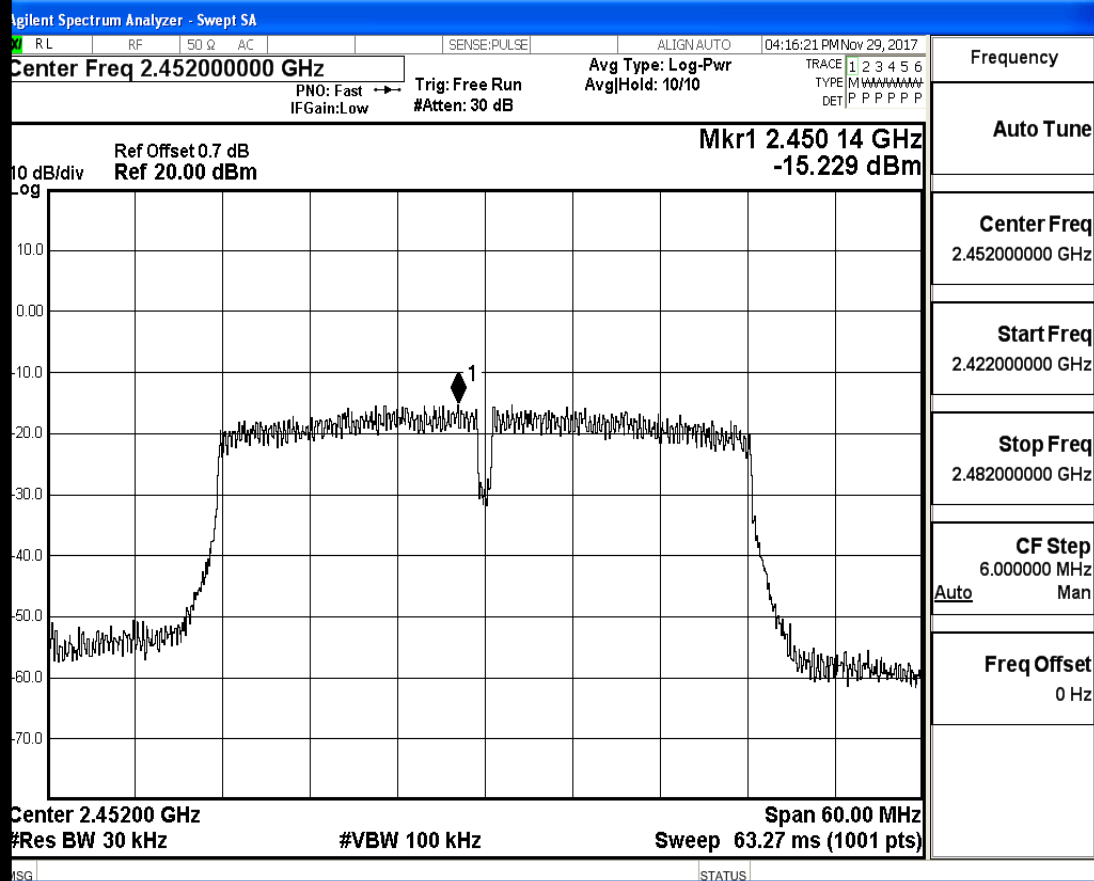
Maximum Peak power spectral density_11N40SISO_2422_Ant1



Maximum Peak power spectral density_11N40SISO_2437_Ant1

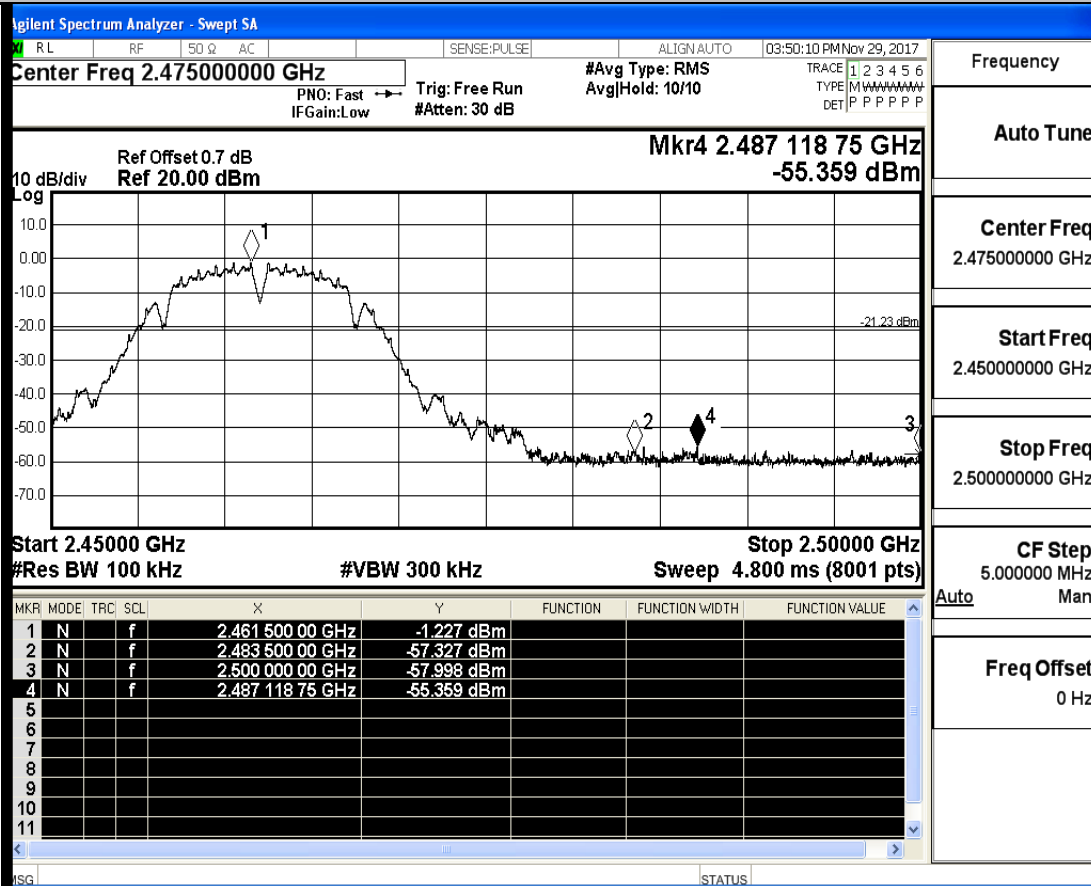
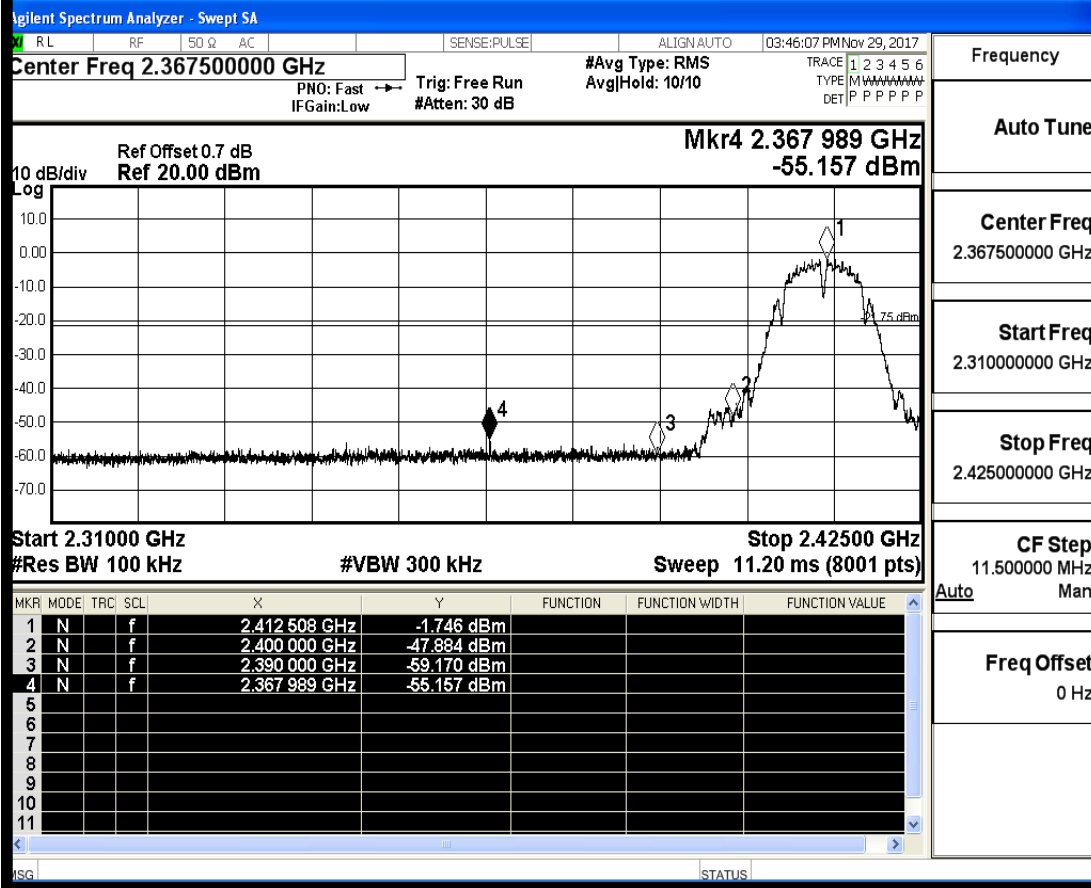


Maximum Peak power spectral density_11N40SISO_2452_Ant1

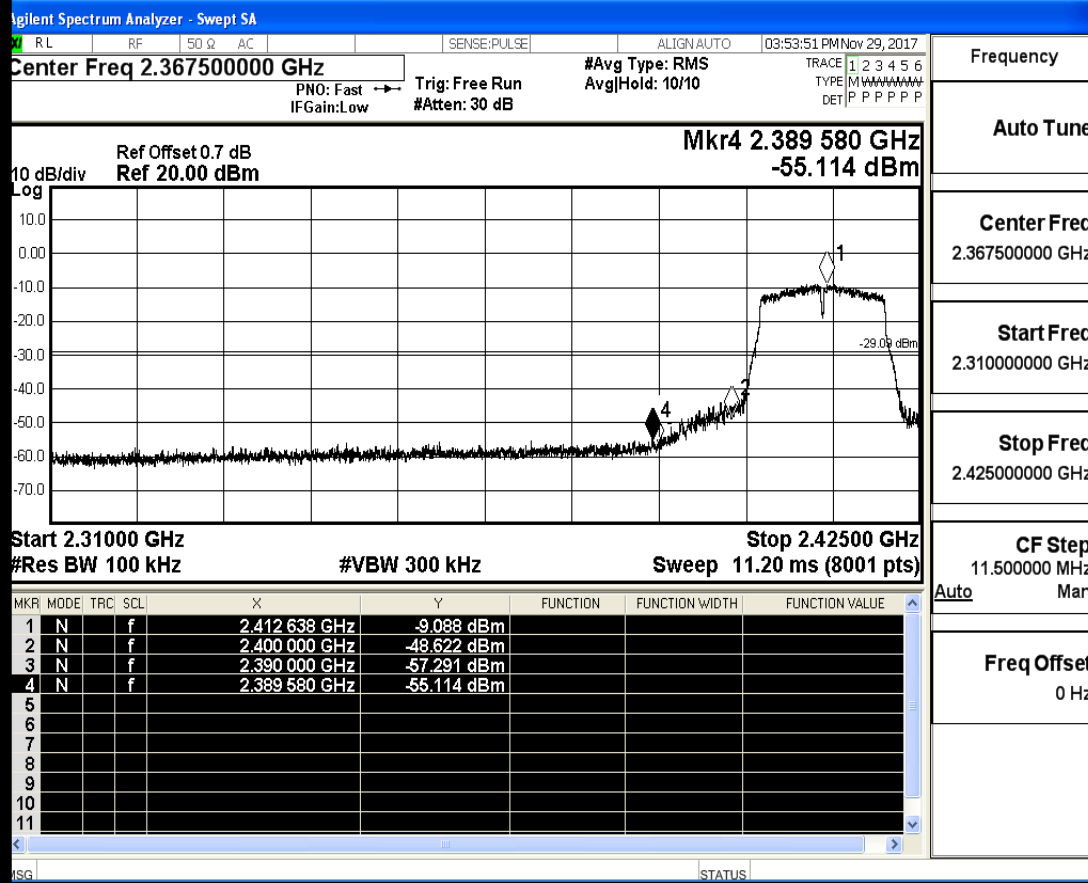


3.Band-edge for RF Conducted Emissions

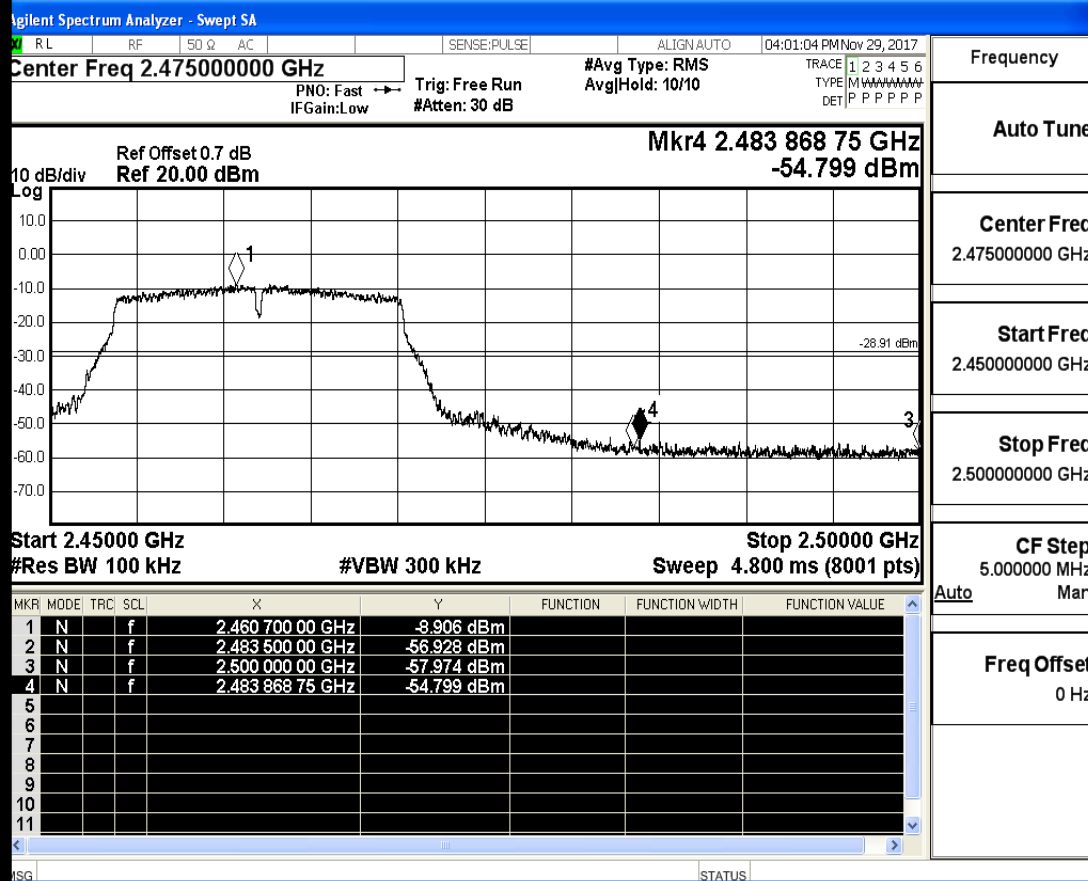
Test Mode	Test Channel	Ant	Carrier Power[dBm]	Max. Spurious Level [dBm]	Limit [dBm]	Verdict
11B	2412	Ant1	-1.746	-55.157	-21.75	PASS
11B	2462	Ant1	-1.227	-55.359	-21.23	PASS
11G	2412	Ant1	-9.088	-55.114	-29.09	PASS
11G	2462	Ant1	-8.906	-54.799	-28.91	PASS
11N20SISO	2412	Ant1	-8.680	-54.317	-28.68	PASS
11N20SISO	2462	Ant1	-8.885	-54.753	-28.89	PASS
11N40SISO	2422	Ant1	-12.829	-48.975	-32.83	PASS
11N40SISO	2452	Ant1	-12.219	-51.207	-32.22	PASS



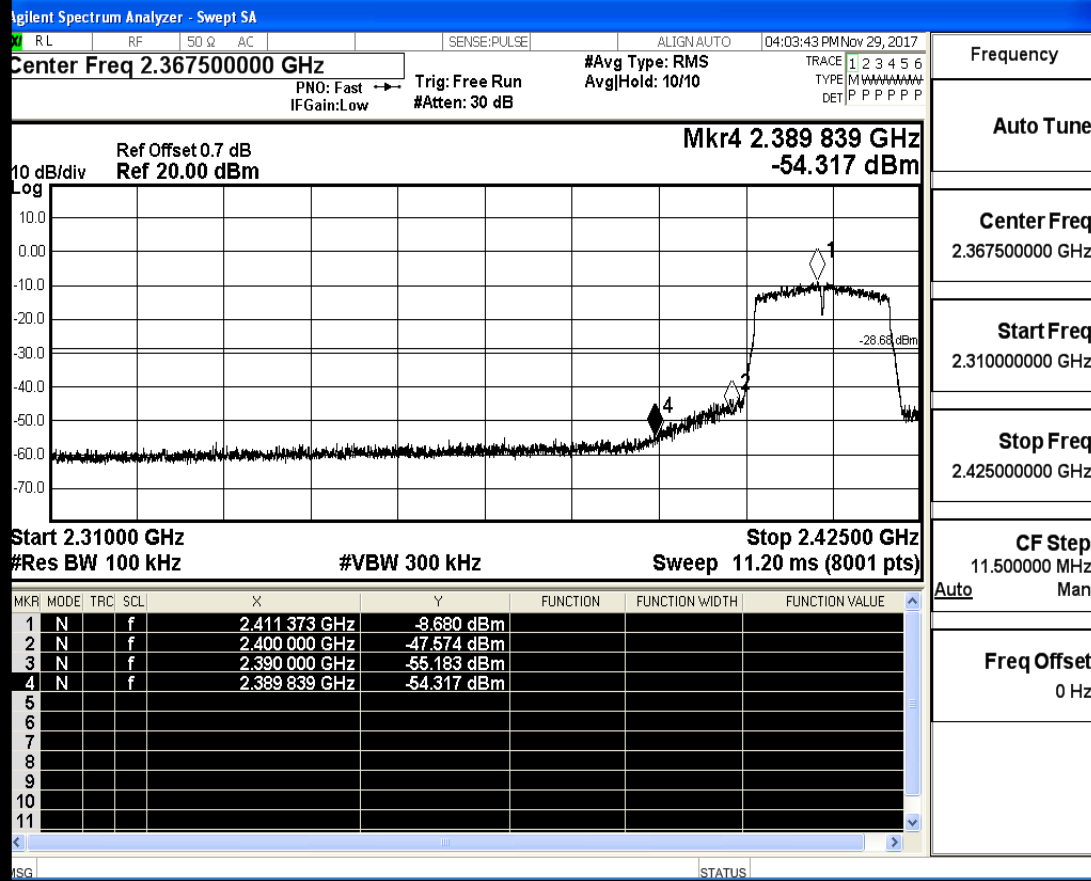
Band-edge for RF Conducted Emissions_11G_2412_Ant1



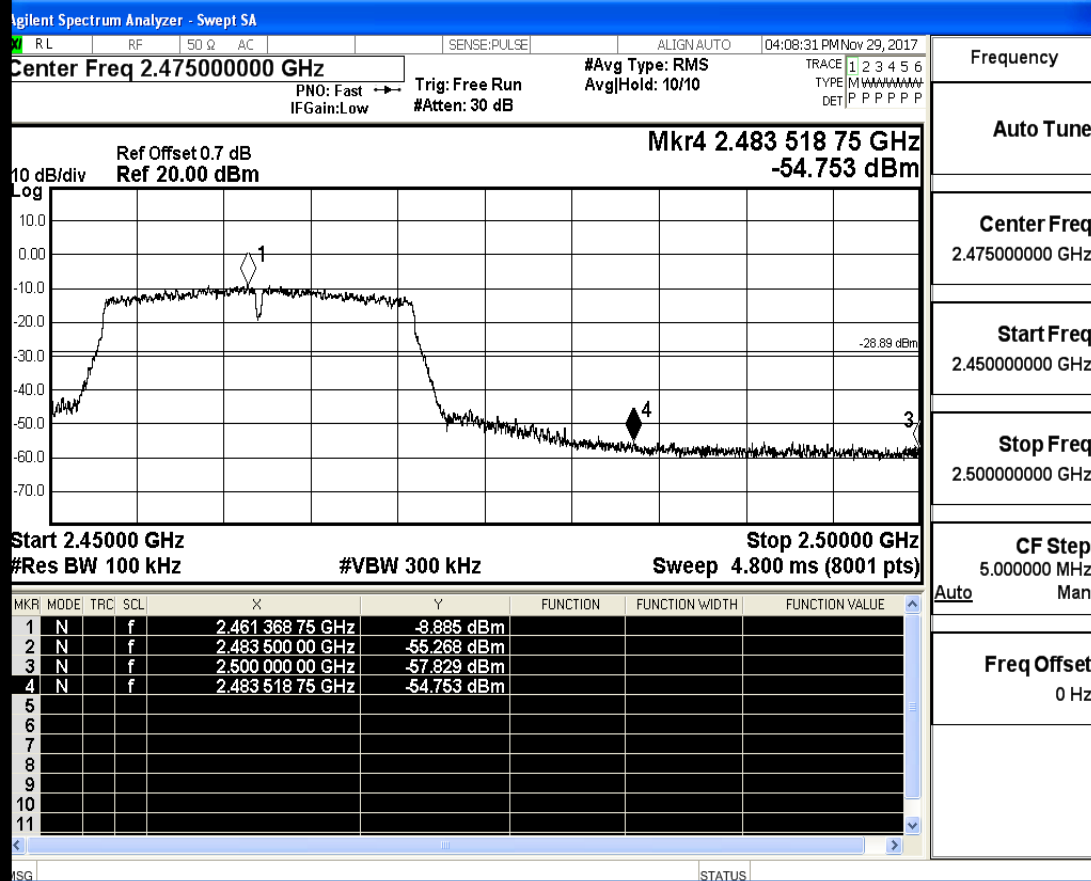
Band-edge for RF Conducted Emissions_11G_2462_Ant1



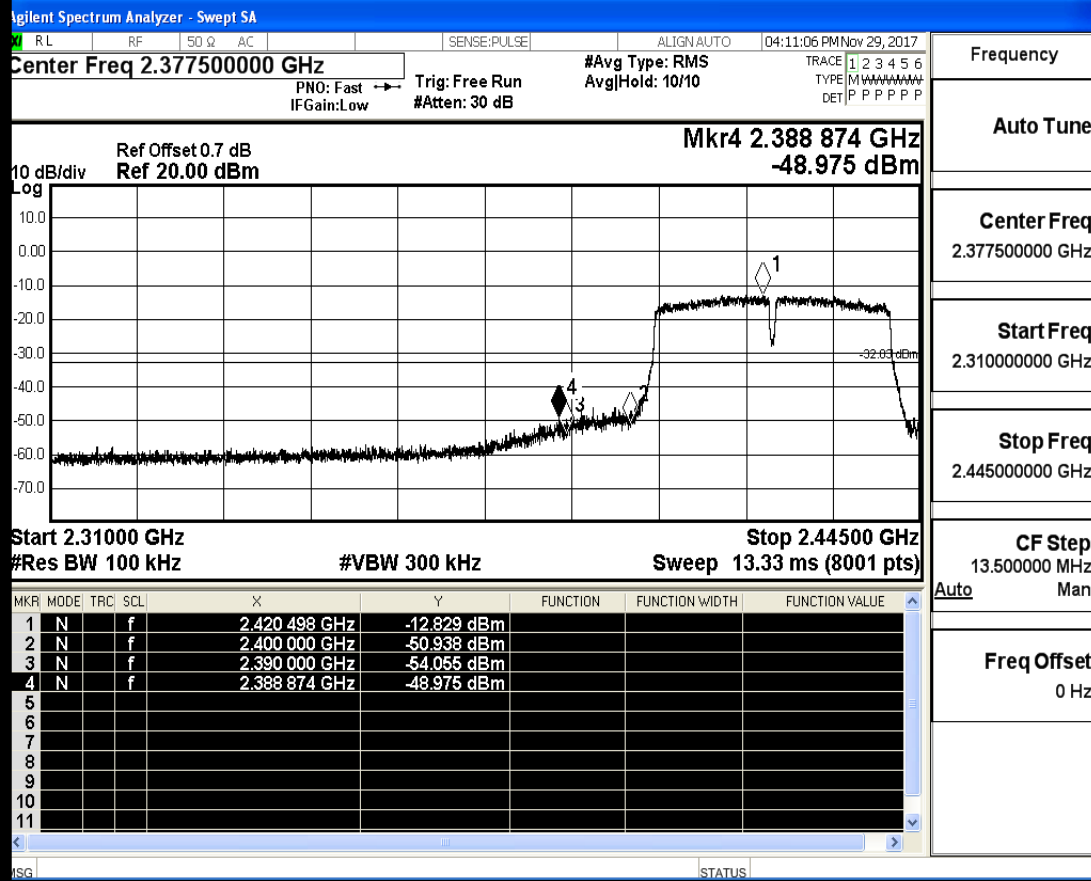
Band-edge for RF Conducted Emissions_11N20SISO_2412_Ant1



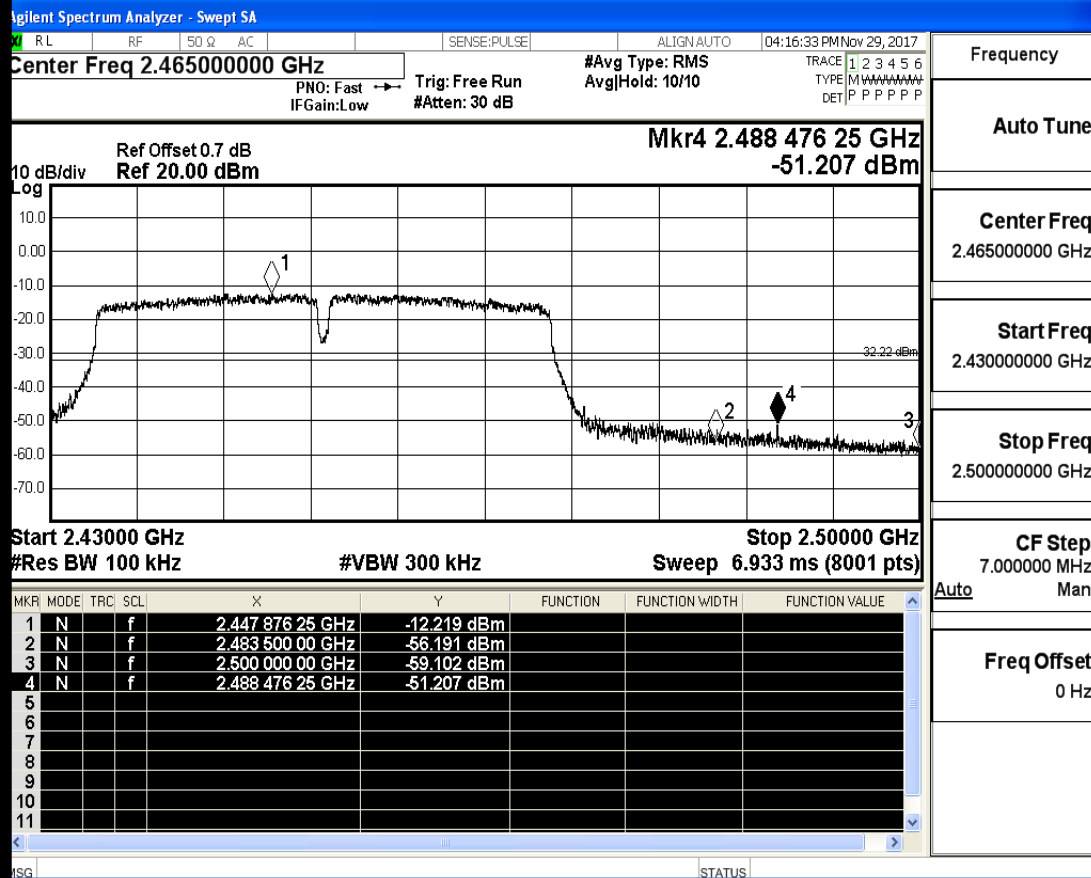
Band-edge for RF Conducted Emissions_11N20SISO_2462_Ant1



Band-edge for RF Conducted Emissions_11N40SISO_2422_Ant1



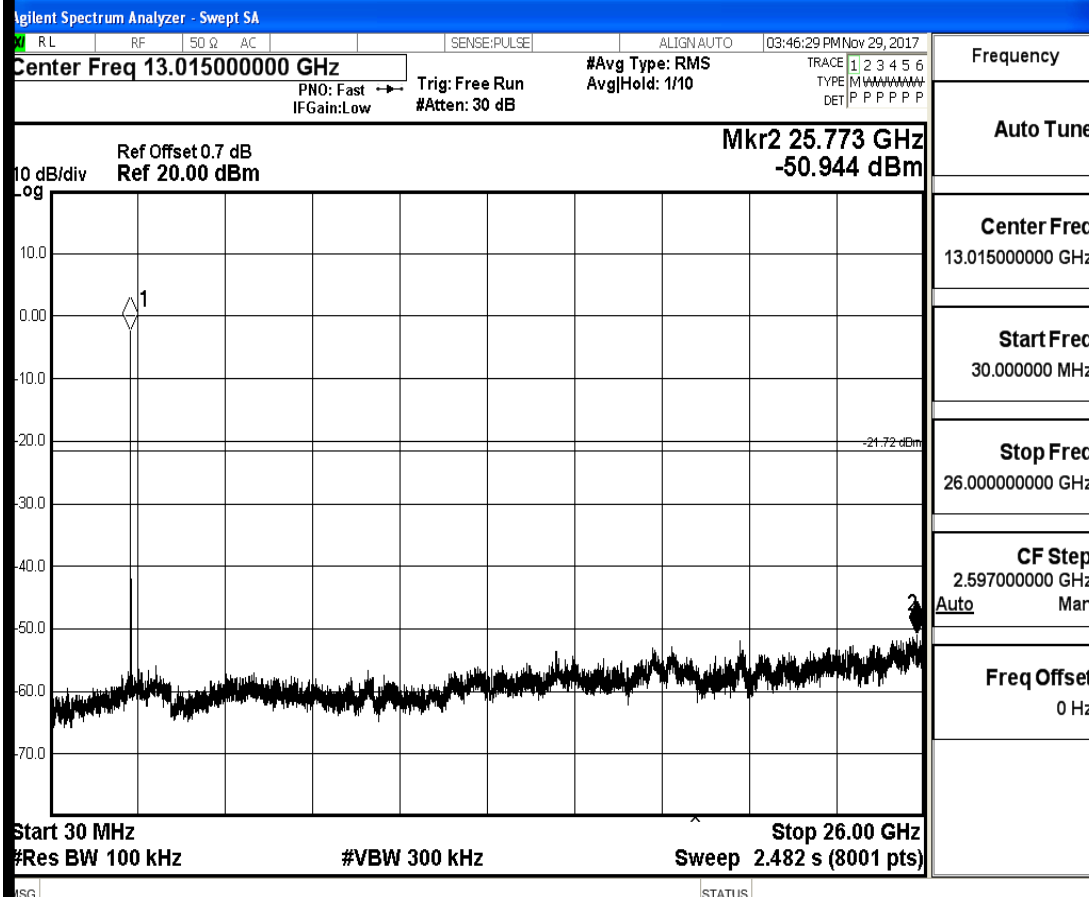
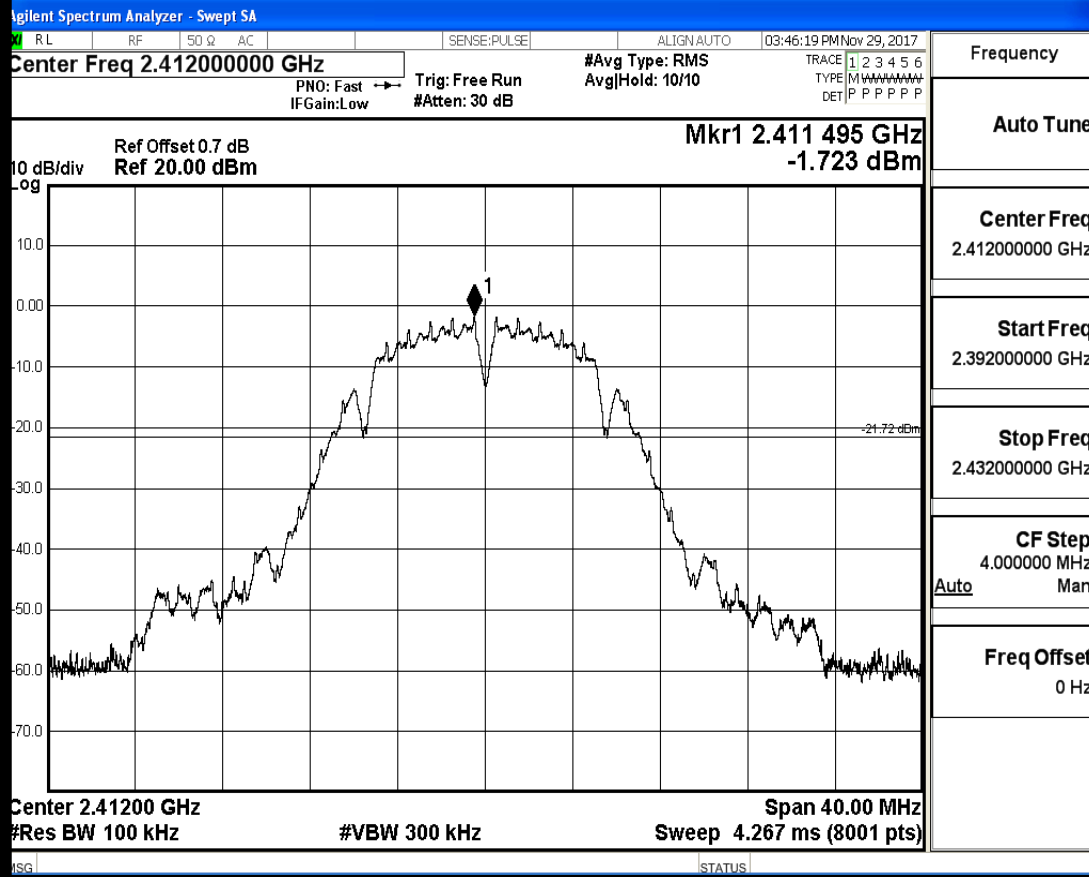
Band-edge for RF Conducted Emissions_11N40SISO_2452_Ant1



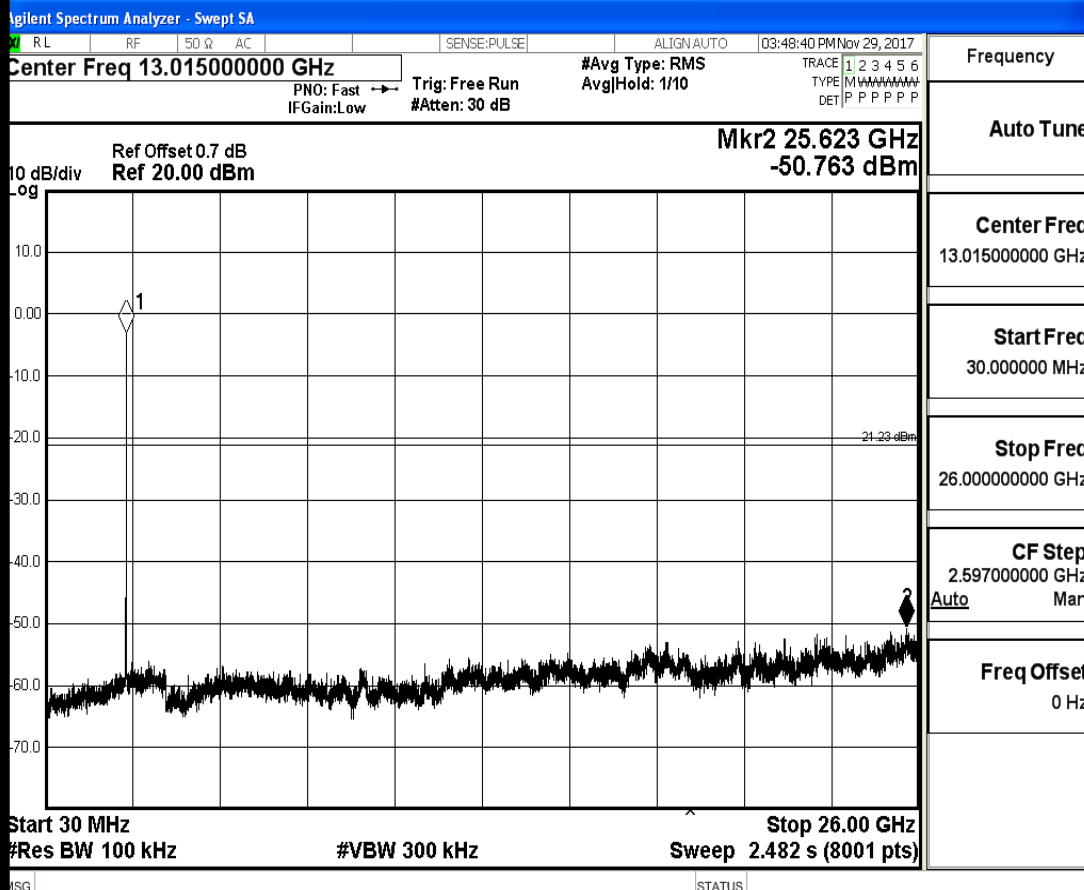
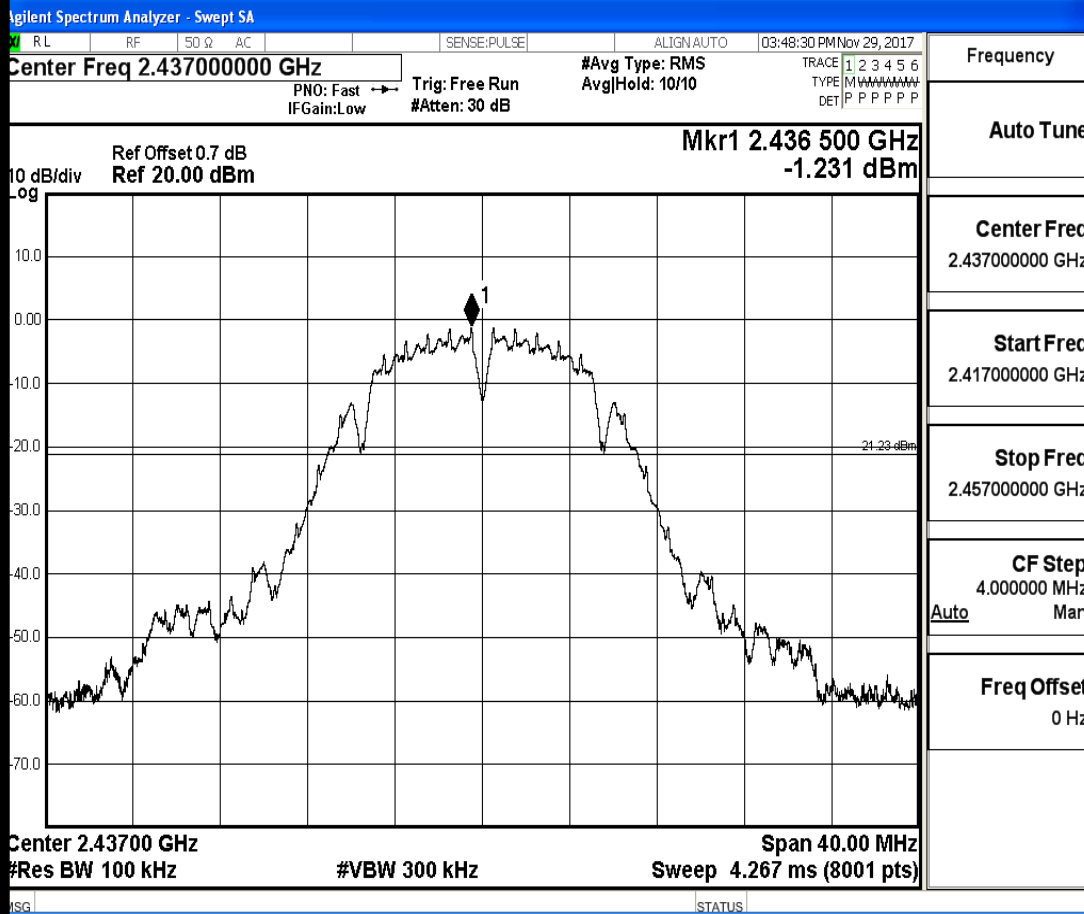
4.RF Conducted Spurious Emissions

Test Mode	Test Channel	Ant	StartFre [MHz]	StopFre [MHz]	RBW [kHz]	VBW [kHz]	Pref[dBm]	Max. Level [dBm]	Limit [dBm]	Verdict
11B	2412	Ant1	30	26000	100	300	-1.723	-50.944	<-21.723	PASS
11B	2437	Ant1	30	26000	100	300	-1.231	-50.763	<-21.231	PASS
11B	2462	Ant1	30	26000	100	300	-1.293	-51.129	<-21.293	PASS
11G	2412	Ant1	30	26000	100	300	-9.109	-50.074	<-29.109	PASS
11G	2437	Ant1	30	26000	100	300	-9.053	-50.946	<-29.053	PASS
11G	2462	Ant1	30	26000	100	300	-8.989	-50.062	<-28.989	PASS
11N20SISO	2412	Ant1	30	26000	100	300	-8.682	-50.919	<-28.682	PASS
11N20SISO	2437	Ant1	30	26000	100	300	-8.474	-51.077	<-28.474	PASS
11N20SISO	2462	Ant1	30	26000	100	300	-8.761	-50.847	<-28.761	PASS
11N40SISO	2422	Ant1	30	26000	100	300	-12.687	-51.349	<-32.687	PASS
11N40SISO	2437	Ant1	30	26000	100	300	-11.971	-49.921	<-31.971	PASS
11N40SISO	2452	Ant1	30	26000	100	300	-12.344	-50.460	<-32.344	PASS

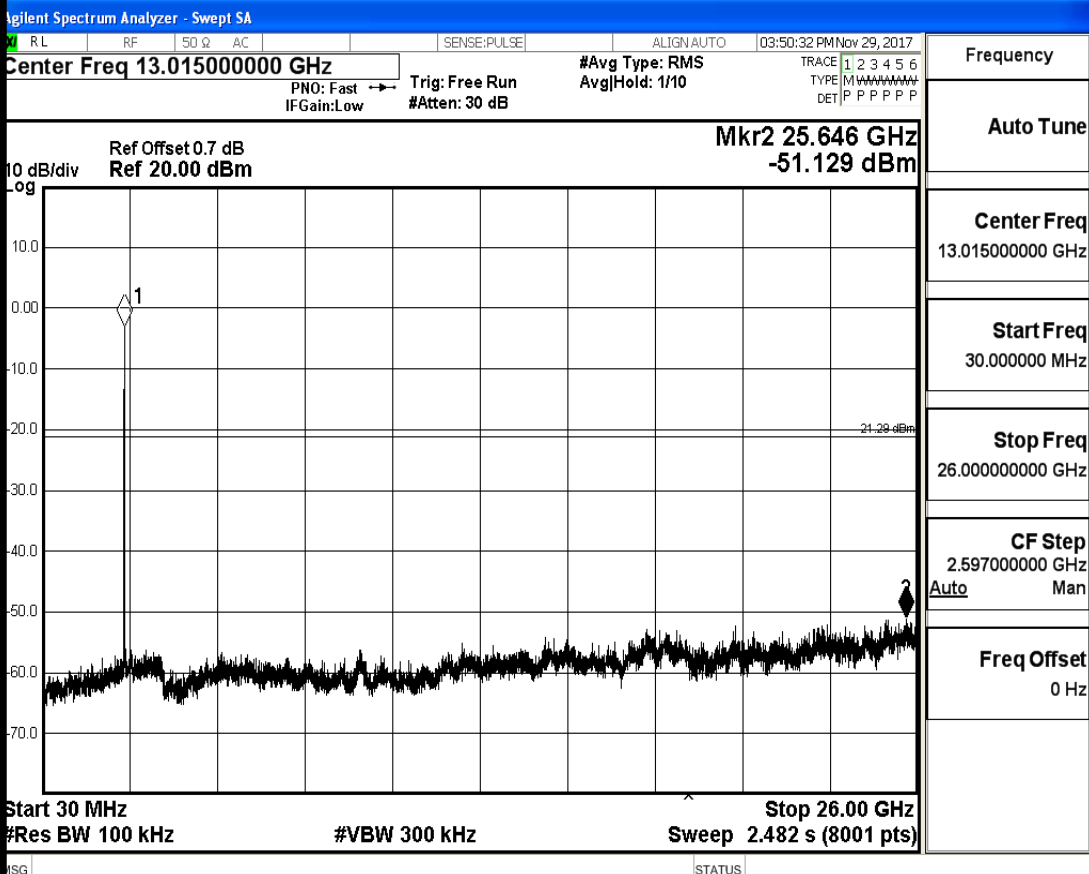
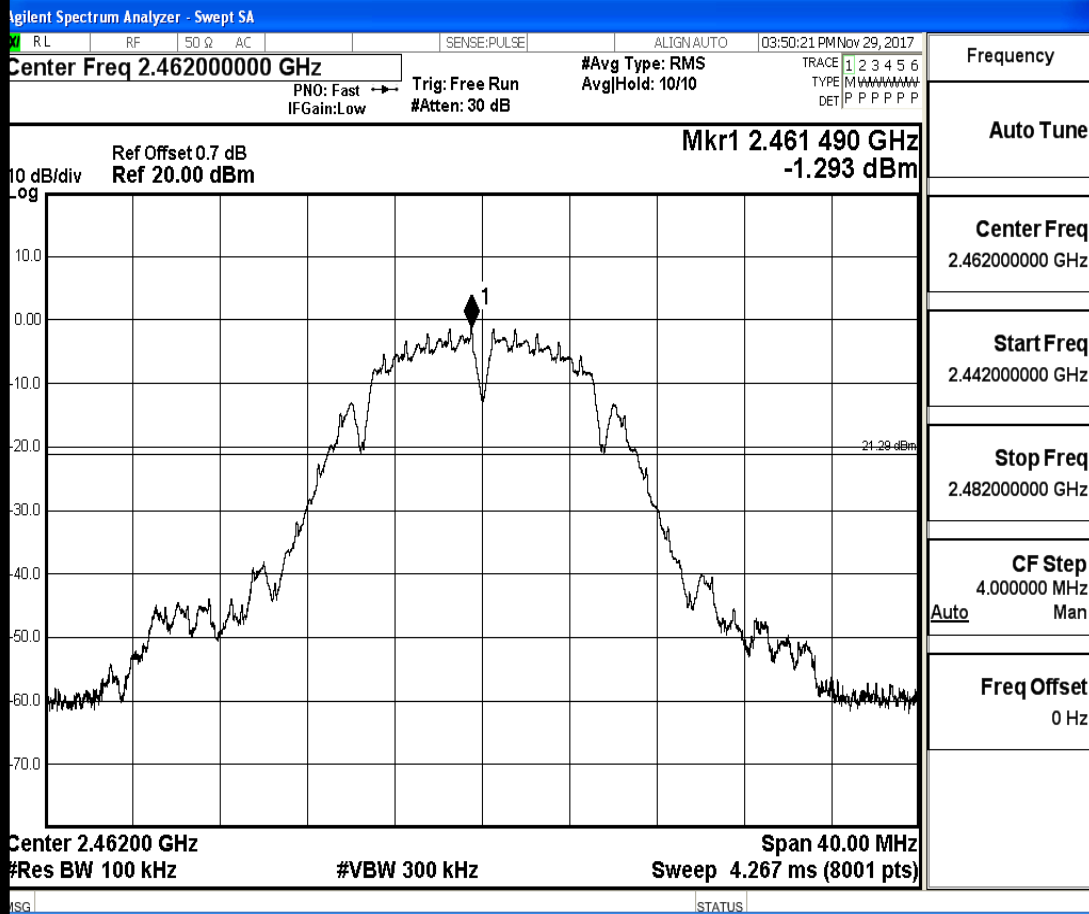
RF Conducted Spurious Emissions_11B_2412_Ant1



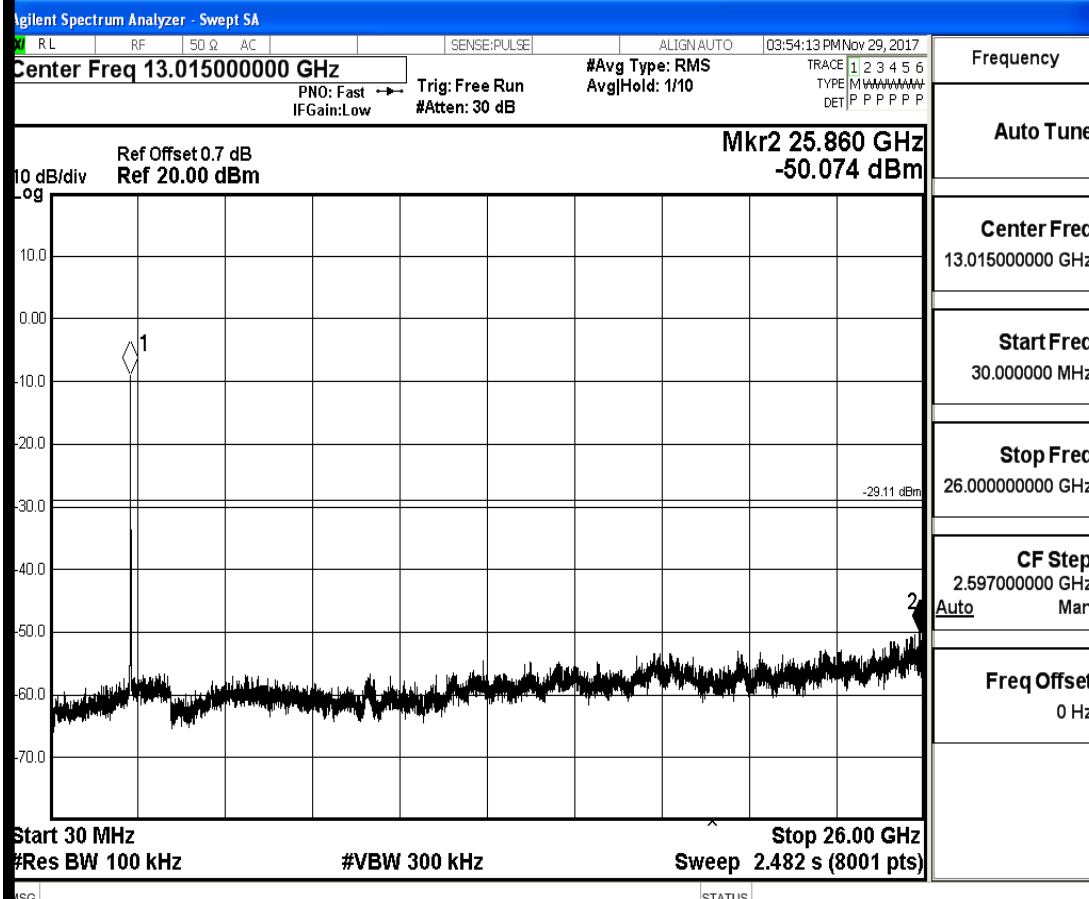
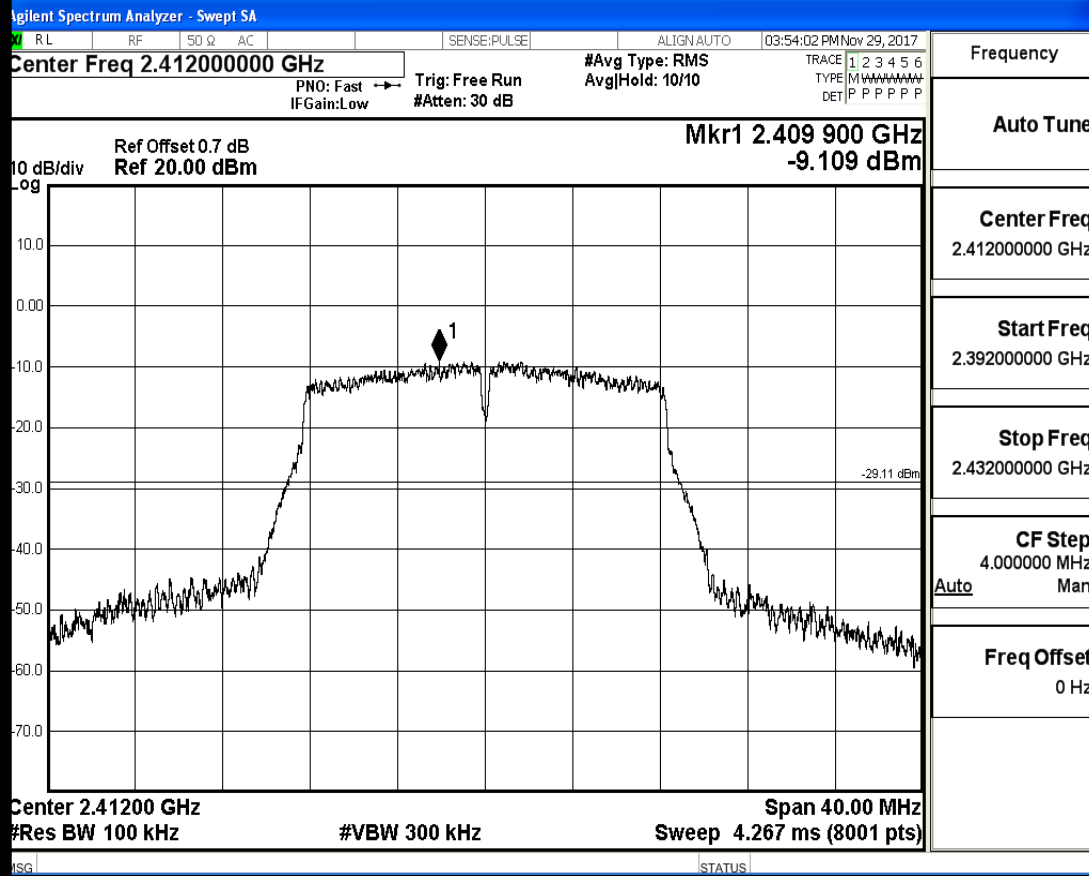
RF Conducted Spurious Emissions_11B_2437_Ant1



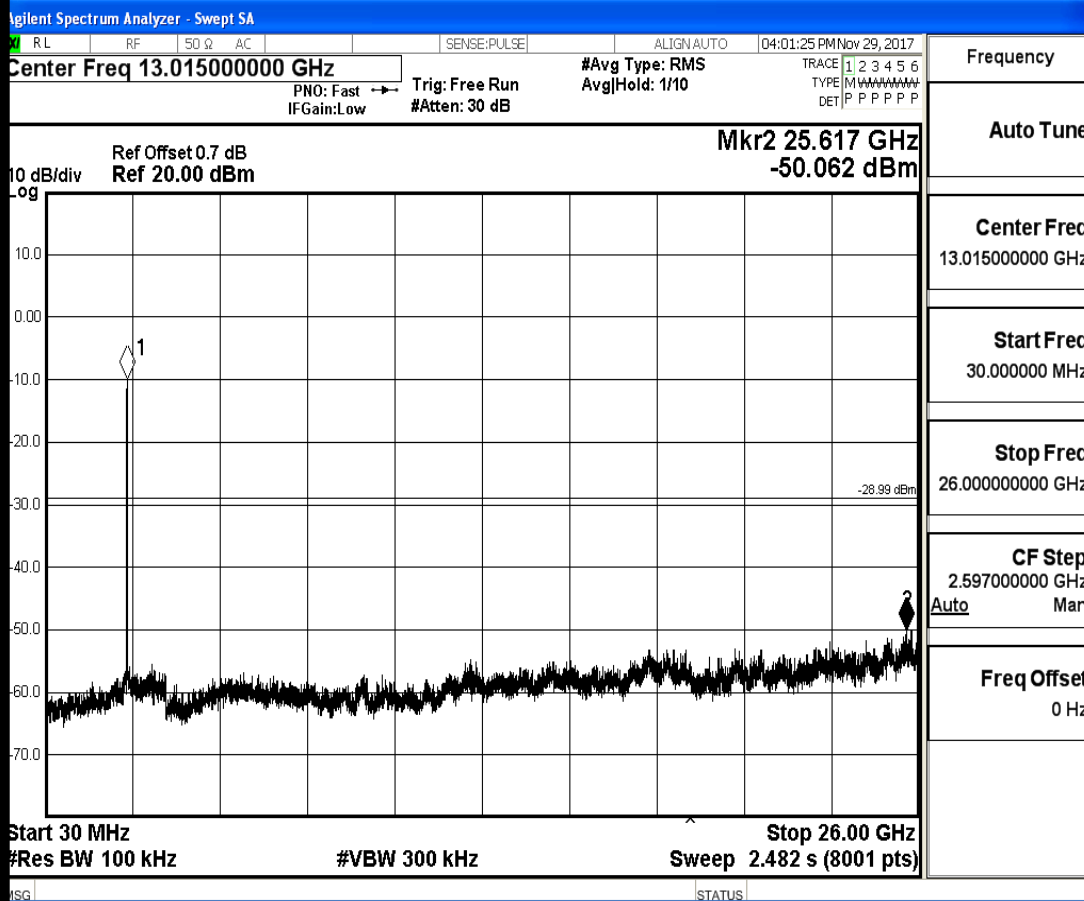
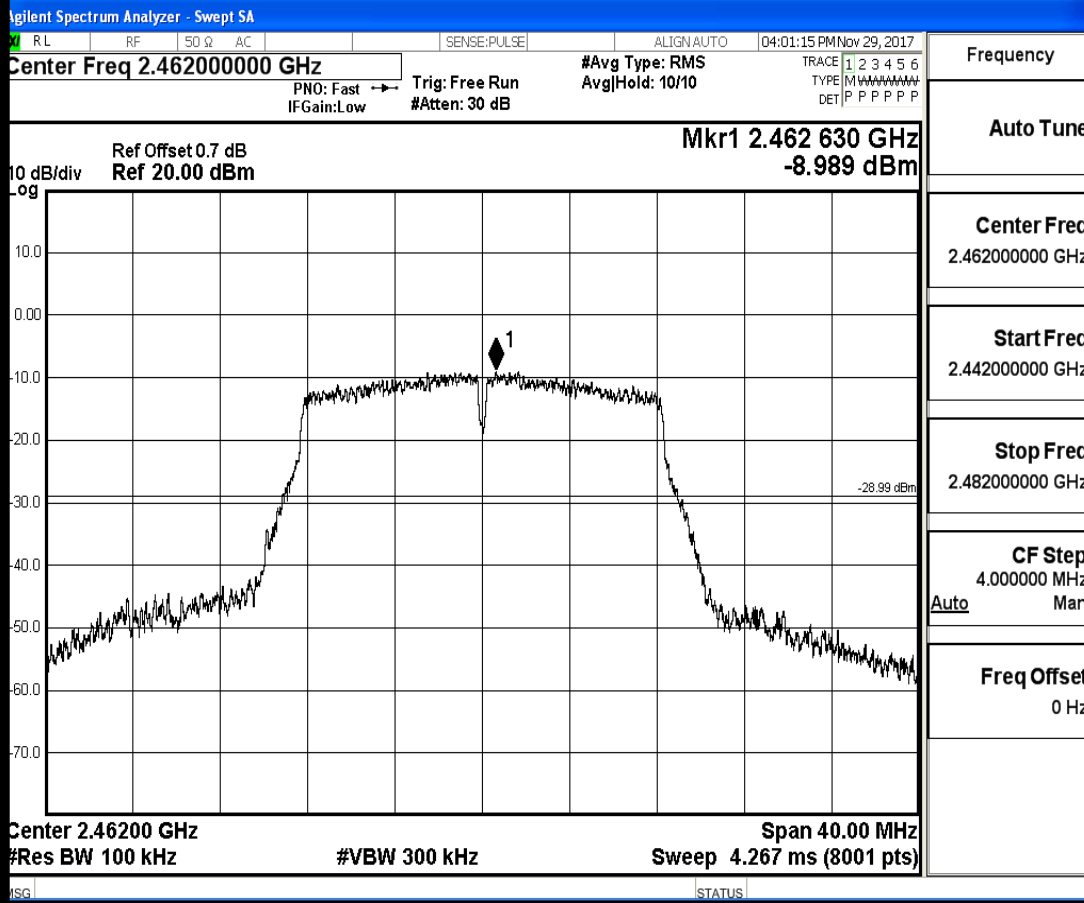
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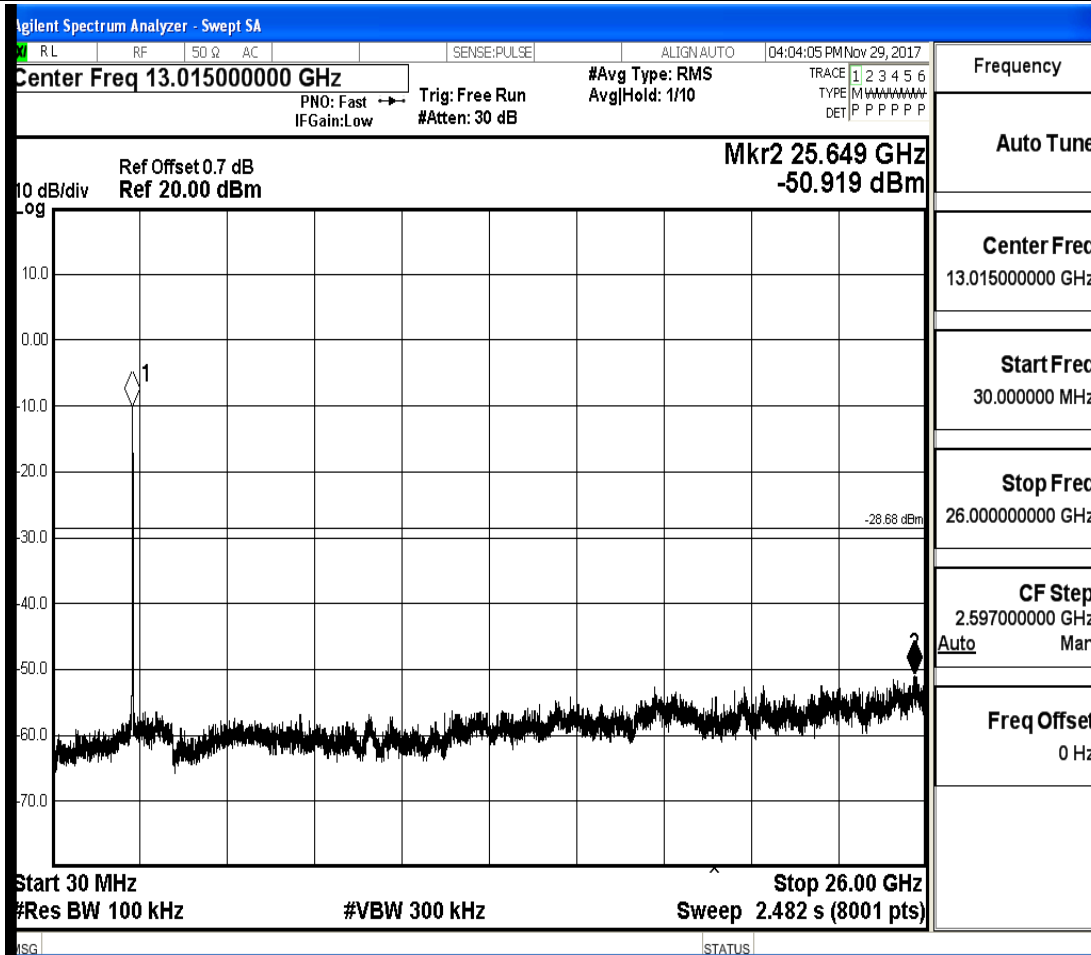
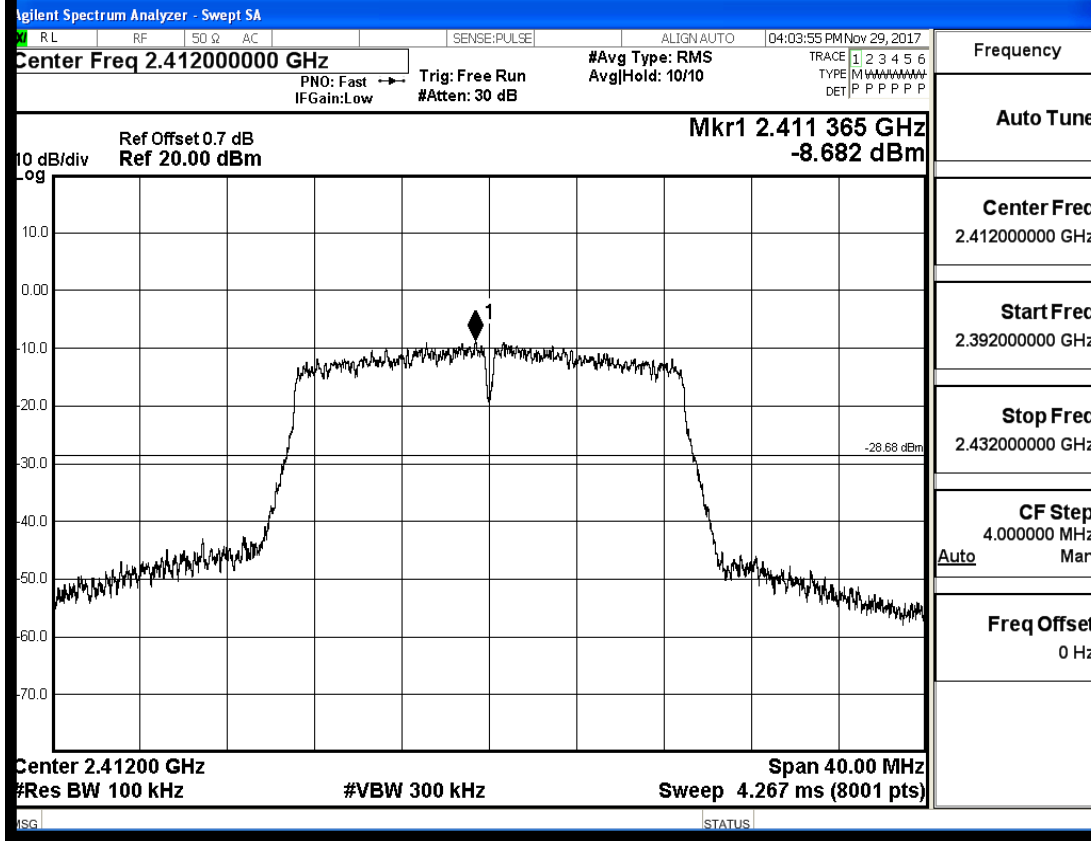
RF Conducted Spurious Emissions_11G_2412_Ant1



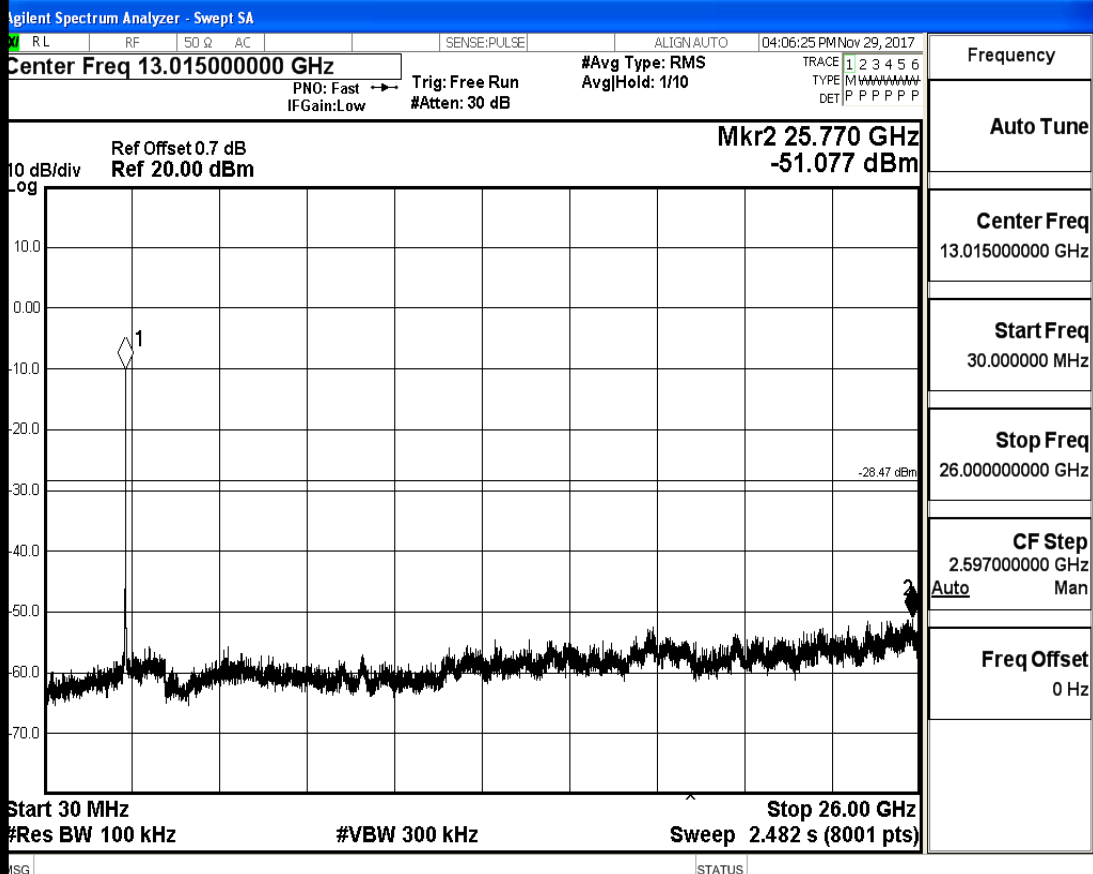
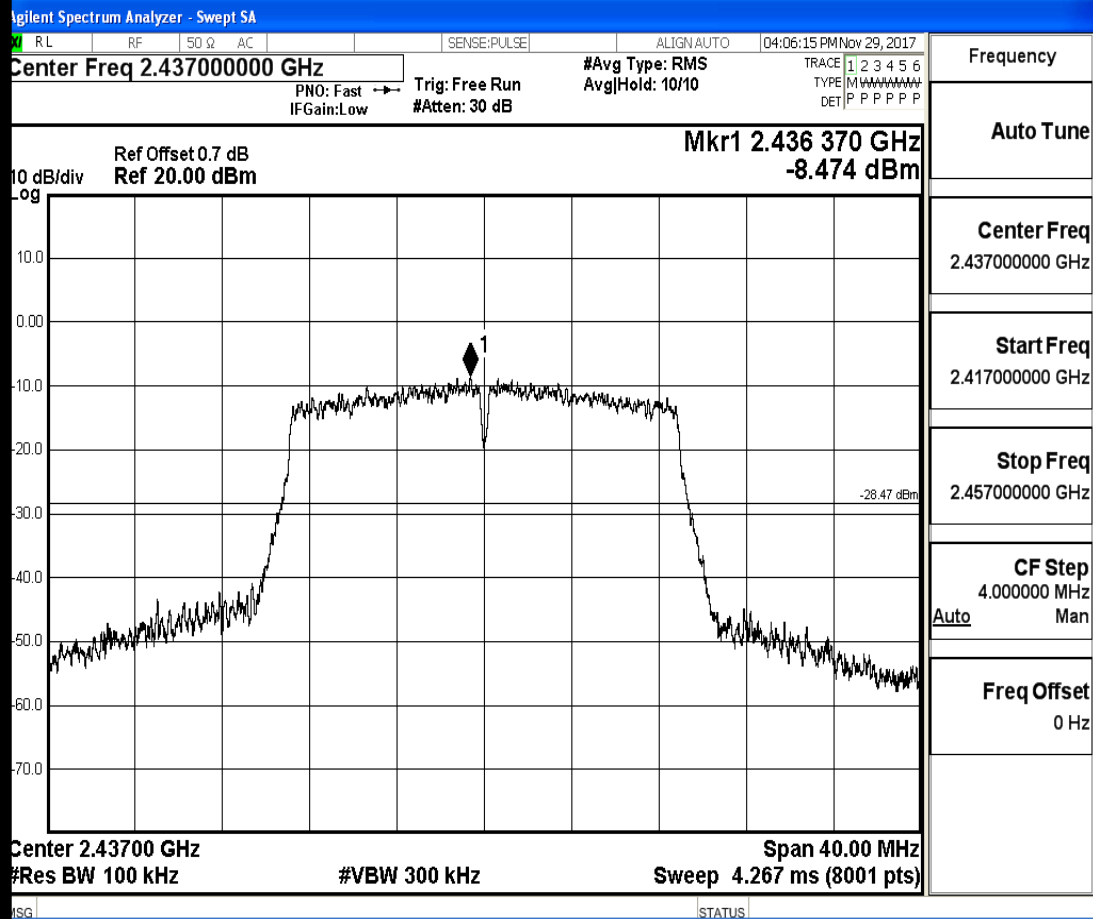
RF Conducted Spurious Emissions_11G_2462_Ant1



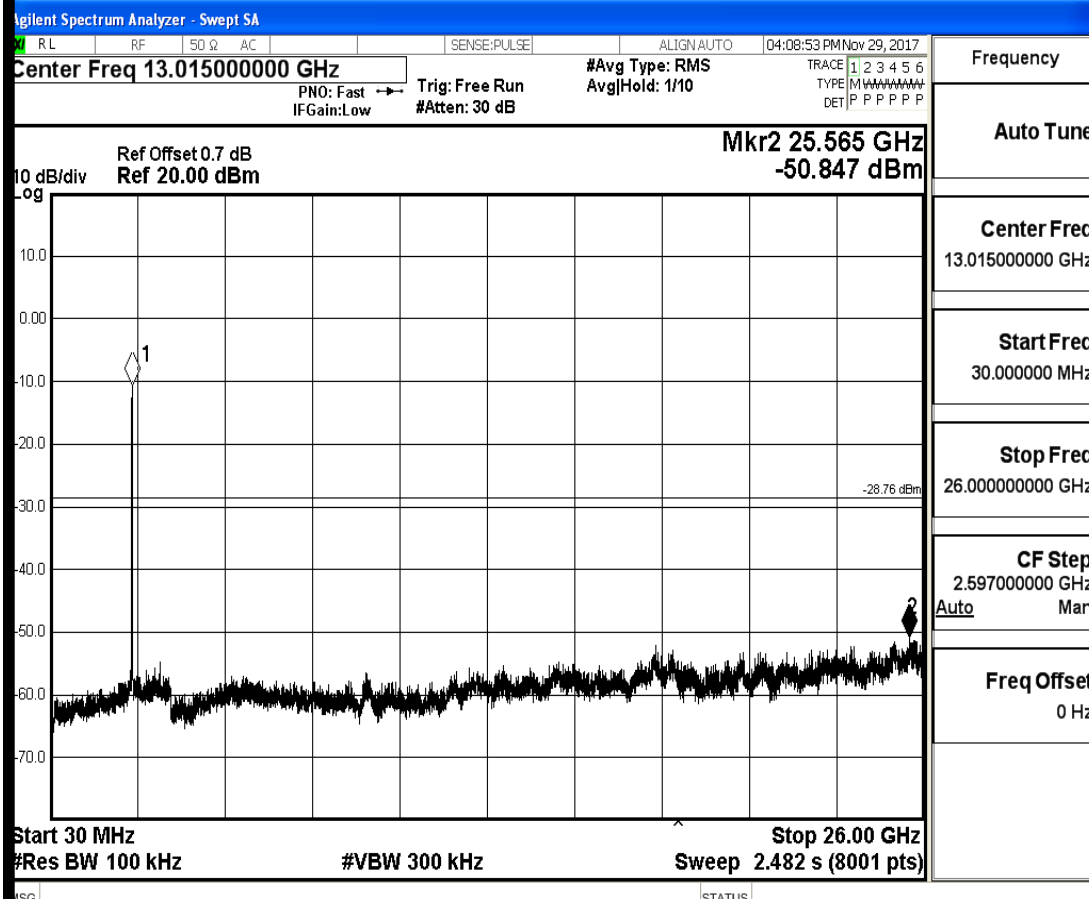
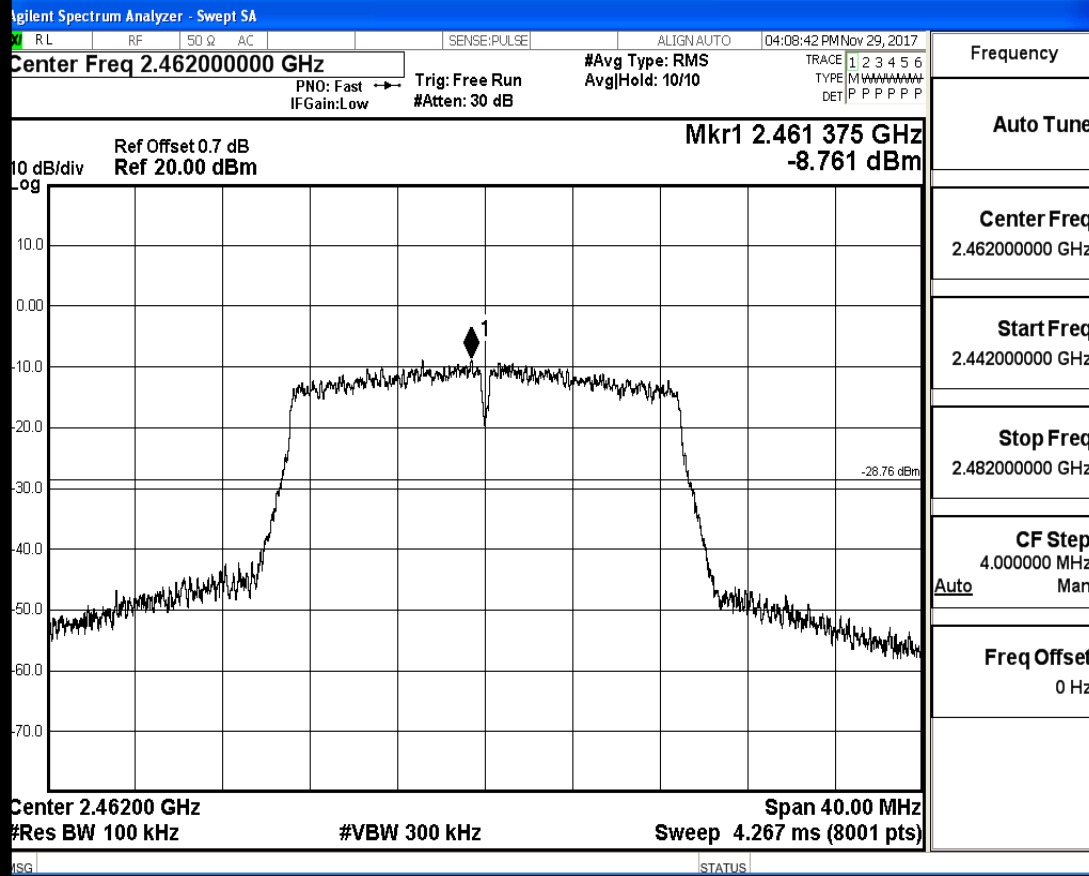
RF Conducted Spurious Emissions_11N20SISO_2412_Ant1



RF Conducted Spurious Emissions_11N20SISO_2437_Ant1



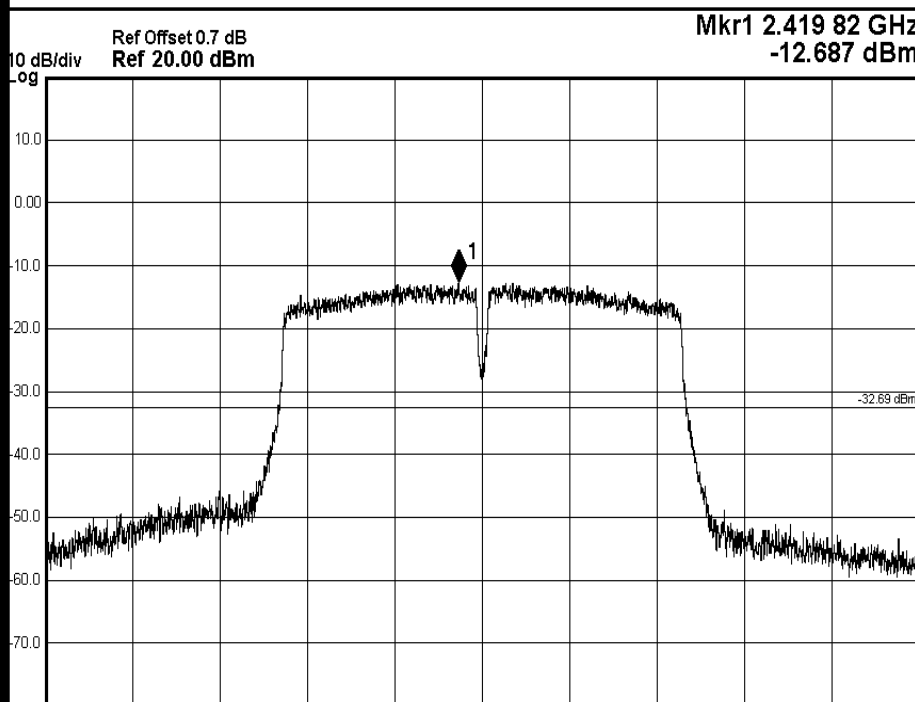
RF Conducted Spurious Emissions_11N20SISO_2462_Ant1



RF Conducted Spurious Emissions_11N40SISO_2422_Ant1

Agilent Spectrum Analyzer - Swept SA

Center Freq 2.42200000 GHz
 PNO: Fast → Trig: Free Run
 IF Gain: Low #Atten: 30 dB
 #Avg Type: RMS
 Avg/Hold: 10/10
 04:11:18 PM Nov 29, 2017
 TRACE 1 2 3 4 5 6
 TYPE M W W W W W W W
 DET P P P P P P P



Frequency

Auto Tune

Center Freq
2.422000000 GHz

Start Freq
2.382000000 GHz

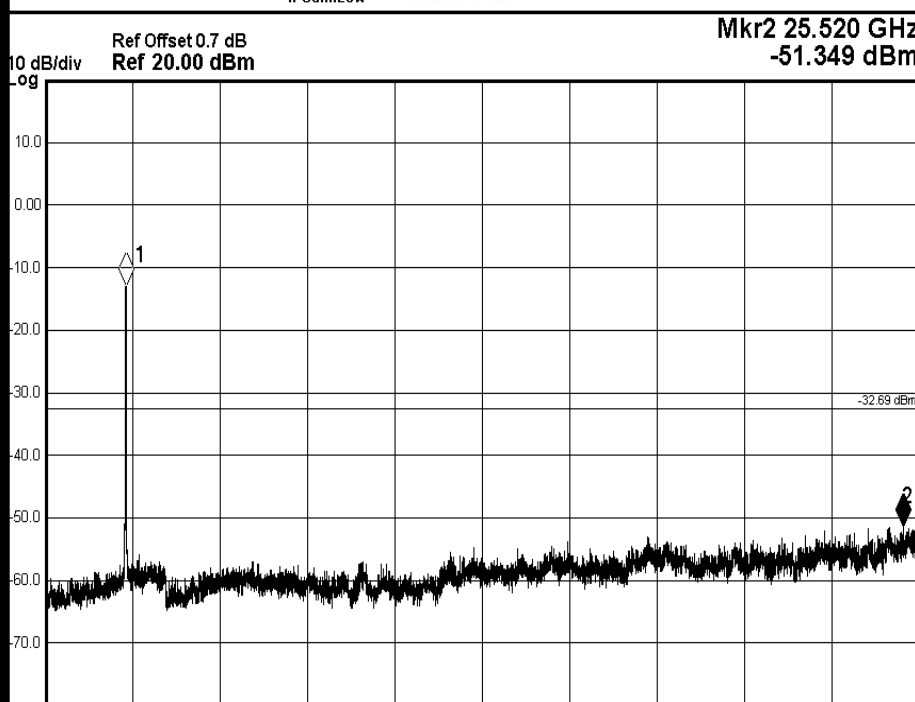
Stop Freq
2.462000000 GHz

CF Step
8.000000 MHz
Auto Man

Freq Offset
0 Hz

Agilent Spectrum Analyzer - Swept SA

Center Freq 13.01500000 GHz
 PNO: Fast → Trig: Free Run
 IF Gain: Low #Atten: 30 dB
 #Avg Type: RMS
 Avg/Hold: 1/10
 04:11:28 PM Nov 29, 2017
 TRACE 1 2 3 4 5 6
 TYPE M W W W W W W W
 DET P P P P P P P



Frequency

Auto Tune

Center Freq
13.015000000 GHz

Start Freq
30.000000 MHz

Stop Freq
26.000000000 GHz

CF Step
2.597000000 GHz
Auto Man

Freq Offset
0 Hz

RF Conducted Spurious Emissions_11N40SISO_2437_Ant1

Agilent Spectrum Analyzer - Swept SA

Center Freq 2.43700000 GHz

PNO: Fast
IFGain: Low

Trig: Free Run
#Atten: 30 dB

#Avg Type: RMS
Avg/Hold: 10/10

04:13:39 PM Nov 29, 2017
TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET P P P P P P P

Frequency

Auto Tune

Center Freq
2.437000000 GHz

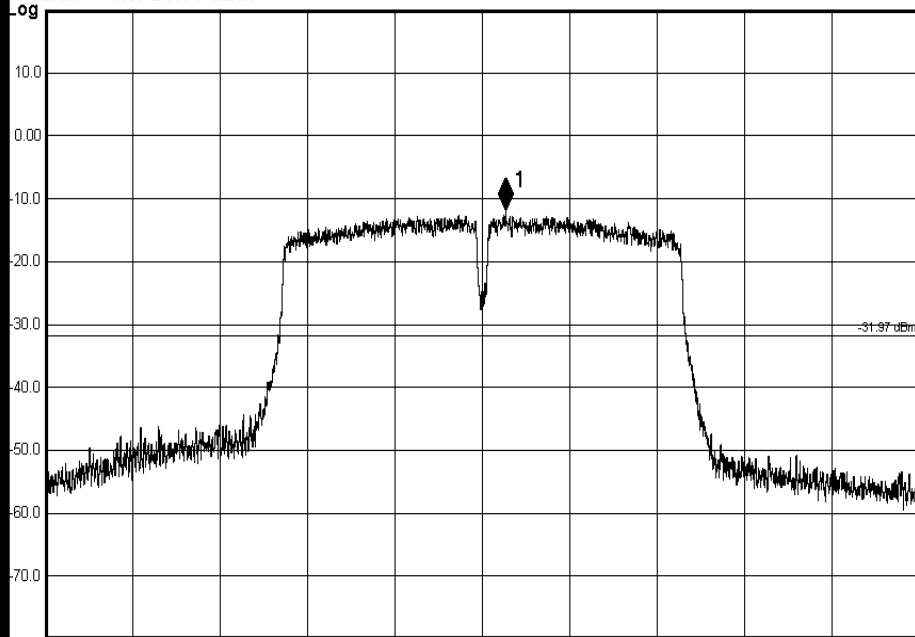
Start Freq
2.397000000 GHz

Stop Freq
2.477000000 GHz

CF Step
8.000000 MHz
Auto Man

Freq Offset
0 Hz

Ref Offset 0.7 dB
Ref 20.00 dBm

Mkr1 2.439 13 GHz
-11.971 dBm


Center 2.43700 GHz

#Res BW 100 kHz

#VBW 300 kHz

Span 80.00 MHz
Sweep 8.000 ms (8001 pts)

MSG

STATUS

Agilent Spectrum Analyzer - Swept SA

Center Freq 13.01500000 GHz

PNO: Fast
IFGain: Low

Trig: Free Run
#Atten: 30 dB

#Avg Type: RMS
Avg/Hold: 1/10

04:13:49 PM Nov 29, 2017
TRACE 1 2 3 4 5 6
TYPE M W W W W W W W
DET P P P P P P P

Frequency

Auto Tune

Center Freq
13.015000000 GHz

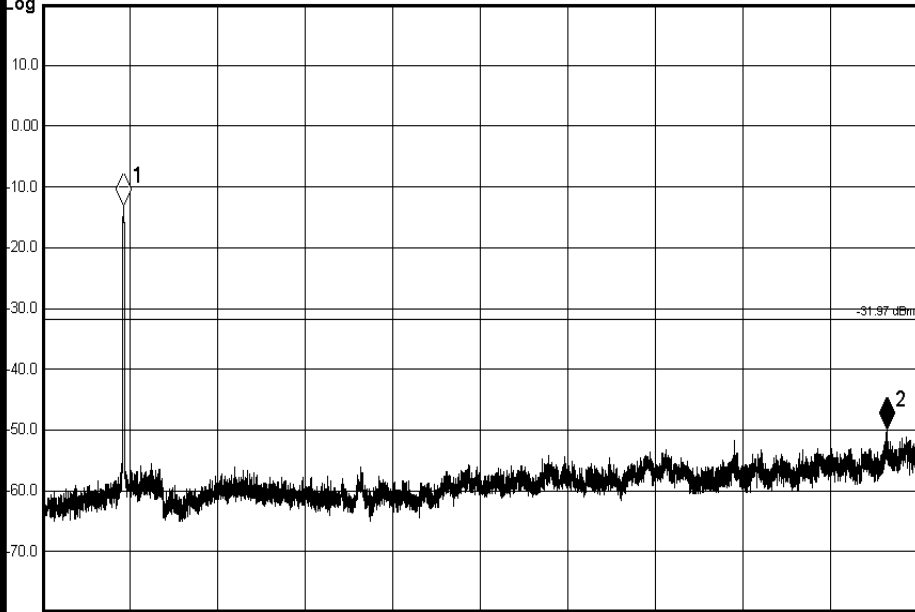
Start Freq
30.000000 MHz

Stop Freq
26.000000000 GHz

CF Step
2.597000000 GHz
Auto Man

Freq Offset
0 Hz

Ref Offset 0.7 dB
Ref 20.00 dBm

Mkr2 25.094 GHz
-49.921 dBm


Start 30 MHz

#Res BW 100 kHz

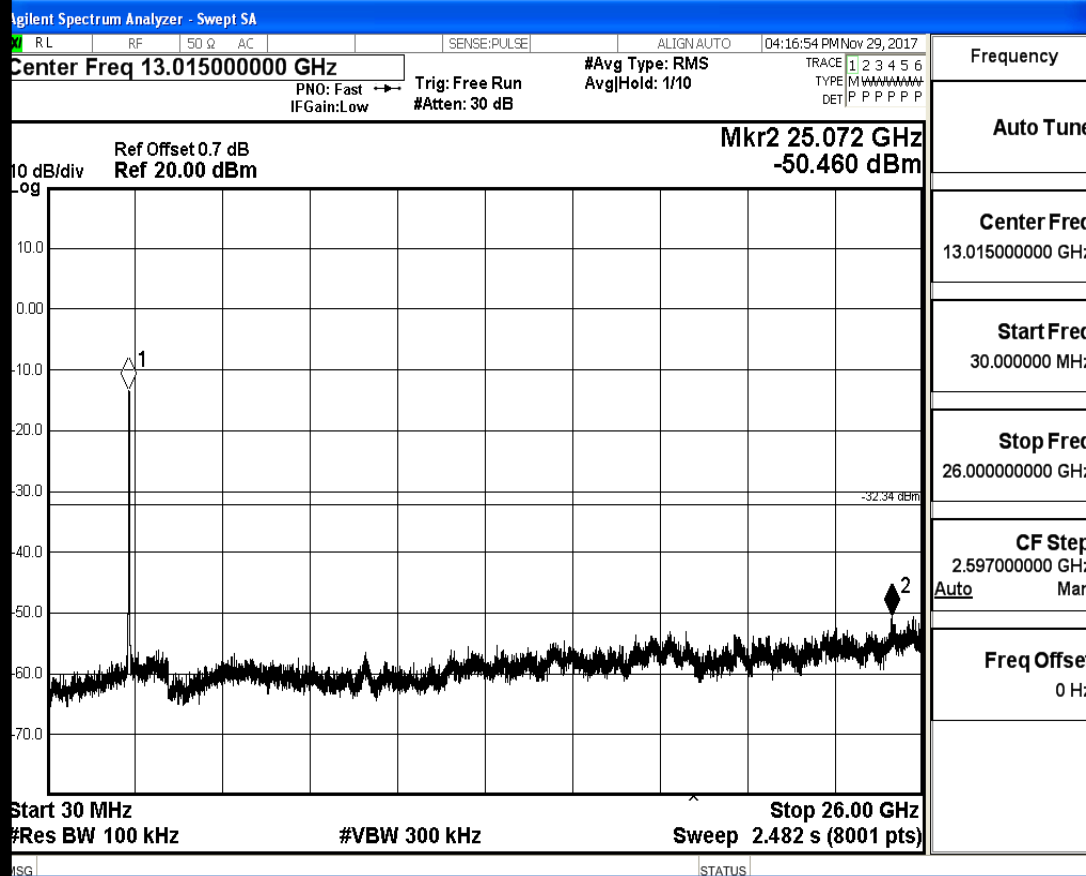
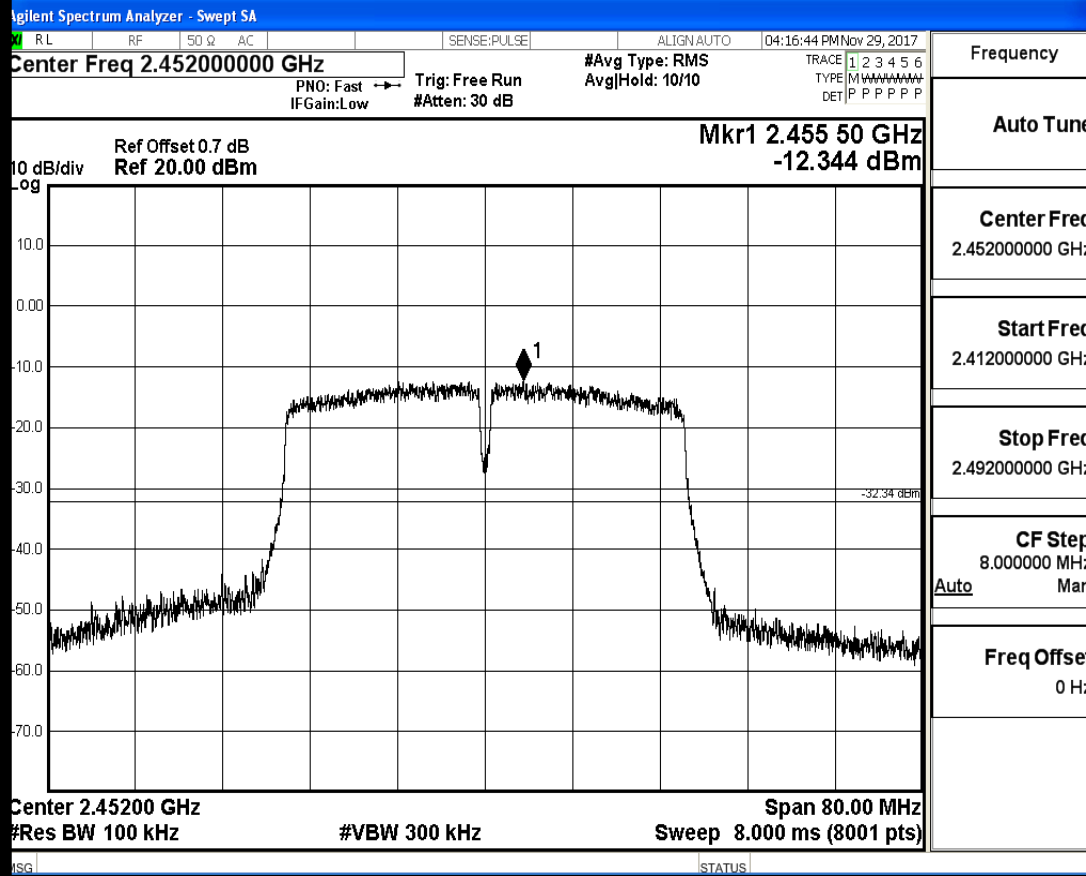
#VBW 300 kHz

Stop 26.00 GHz
Sweep 2.482 s (8001 pts)

MSG

STATUS

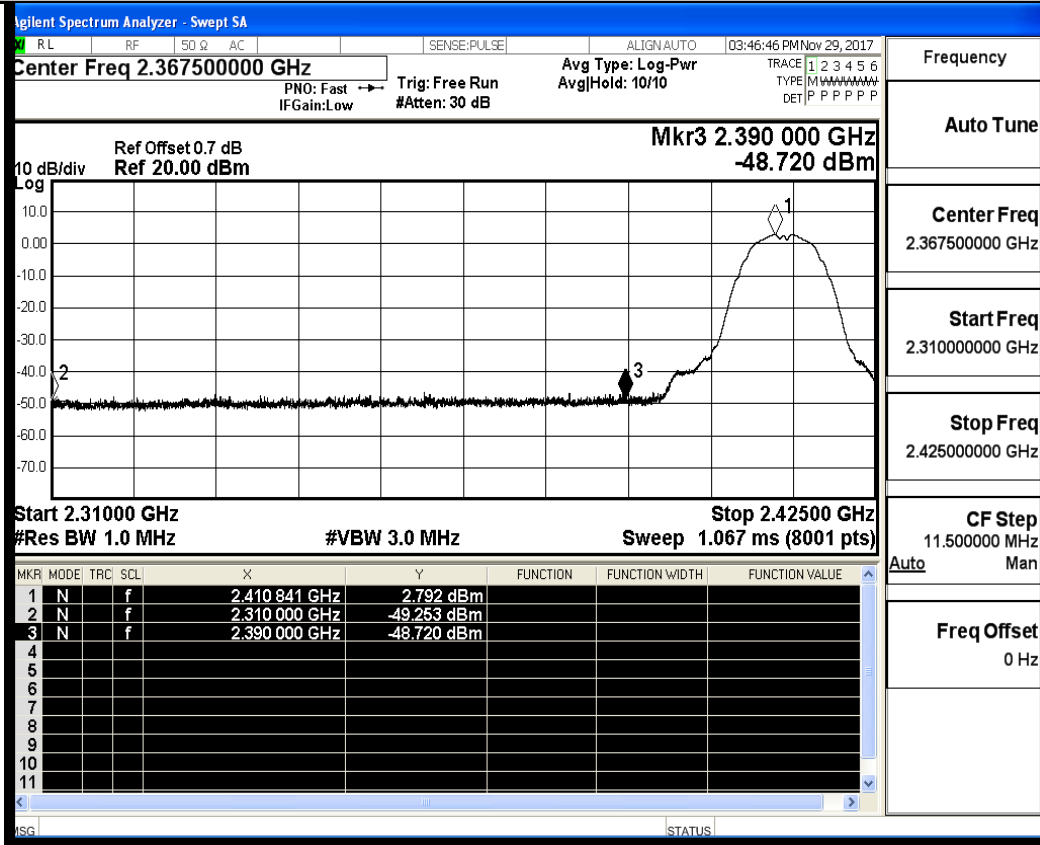
RF Conducted Spurious Emissions_11N40SISO_2452_Ant1



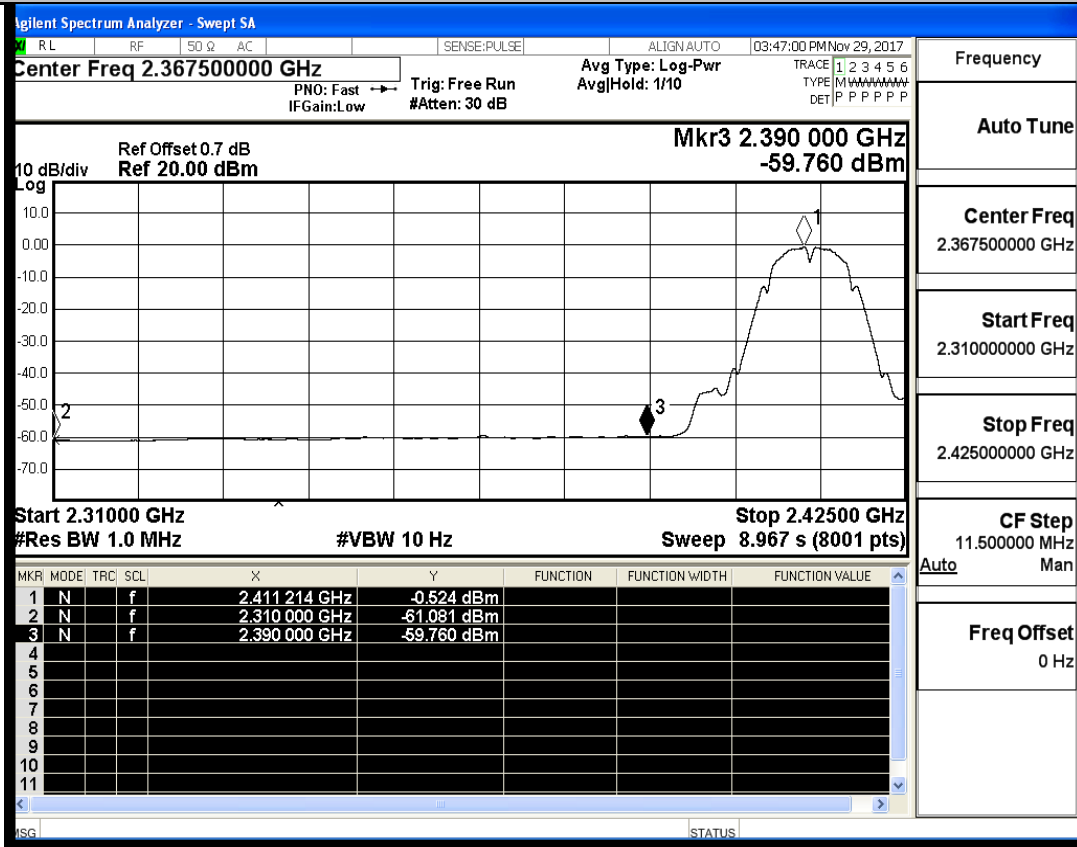
5.Restrict-band band-edge measurements

Test Mode	Test Channel	Ant	Freq.	Power [dBm]	Gain	Ground Factor	E [dBuV/m]	Detector	Limit [dBuV/m]	Verdict
11B	2412	Ant1	2310.0	-49.25	2.00	0	48.00	PEAK	74	PASS
11B	2412	Ant1	2310.0	-61.08	2.00	0	36.18	AV	54	PASS
11B	2412	Ant1	2390.0	-48.72	2.00	0	48.54	PEAK	74	PASS
11B	2412	Ant1	2390.0	-59.76	2.00	0	37.50	AV	54	PASS
11B	2462	Ant1	2483.5	-48.63	2.00	0	48.63	PEAK	74	PASS
11B	2462	Ant1	2483.5	-58.88	2.00	0	38.37	AV	54	PASS
11B	2462	Ant1	2500.0	-49.68	2.00	0	47.58	PEAK	74	PASS
11B	2462	Ant1	2500.0	-59.75	2.00	0	37.51	AV	54	PASS
11G	2412	Ant1	2310.0	-49.96	2.00	0	47.30	PEAK	74	PASS
11G	2412	Ant1	2310.0	-61.05	2.00	0	36.20	AV	54	PASS
11G	2412	Ant1	2390.0	-46.68	2.00	0	50.58	PEAK	74	PASS
11G	2412	Ant1	2390.0	-57.18	2.00	0	40.08	AV	54	PASS
11G	2462	Ant1	2483.5	-47.43	2.00	0	49.82	PEAK	74	PASS
11G	2462	Ant1	2483.5	-57.74	2.00	0	39.51	AV	54	PASS
11G	2462	Ant1	2500.0	-49.29	2.00	0	47.97	PEAK	74	PASS
11G	2462	Ant1	2500.0	-59.04	2.00	0	38.22	AV	54	PASS
11N20SISO	2412	Ant1	2310.0	-50.18	2.00	0	47.07	PEAK	74	PASS
11N20SISO	2412	Ant1	2310.0	-61.07	2.00	0	36.19	AV	54	PASS
11N20SISO	2412	Ant1	2390.0	-37.24	2.00	0	60.02	PEAK	74	PASS
11N20SISO	2412	Ant1	2390.0	-56.02	2.00	0	41.24	AV	54	PASS
11N20SISO	2462	Ant1	2483.5	-46.37	2.00	0	50.88	PEAK	74	PASS
11N20SISO	2462	Ant1	2483.5	-57.52	2.00	0	39.74	AV	54	PASS
11N20SISO	2462	Ant1	2500.0	-47.05	2.00	0	50.20	PEAK	74	PASS
11N20SISO	2462	Ant1	2500.0	-59.00	2.00	0	38.26	AV	54	PASS
11N40SISO	2422	Ant1	2310.0	-50.45	2.00	0	46.81	PEAK	74	PASS
11N40SISO	2422	Ant1	2310.0	-61.21	2.00	0	36.05	AV	54	PASS
11N40SISO	2422	Ant1	2390.0	-40.83	2.00	0	56.43	PEAK	74	PASS
11N40SISO	2422	Ant1	2390.0	-52.84	2.00	0	44.41	AV	54	PASS
11N40SISO	2452	Ant1	2483.5	-43.81	2.00	0	53.45	PEAK	74	PASS
11N40SISO	2452	Ant1	2483.5	-55.28	2.00	0	41.98	AV	54	PASS
11N40SISO	2452	Ant1	2500.0	-47.18	2.00	0	50.08	PEAK	74	PASS
11N40SISO	2452	Ant1	2500.0	-58.59	2.00	0	38.67	AV	54	PASS

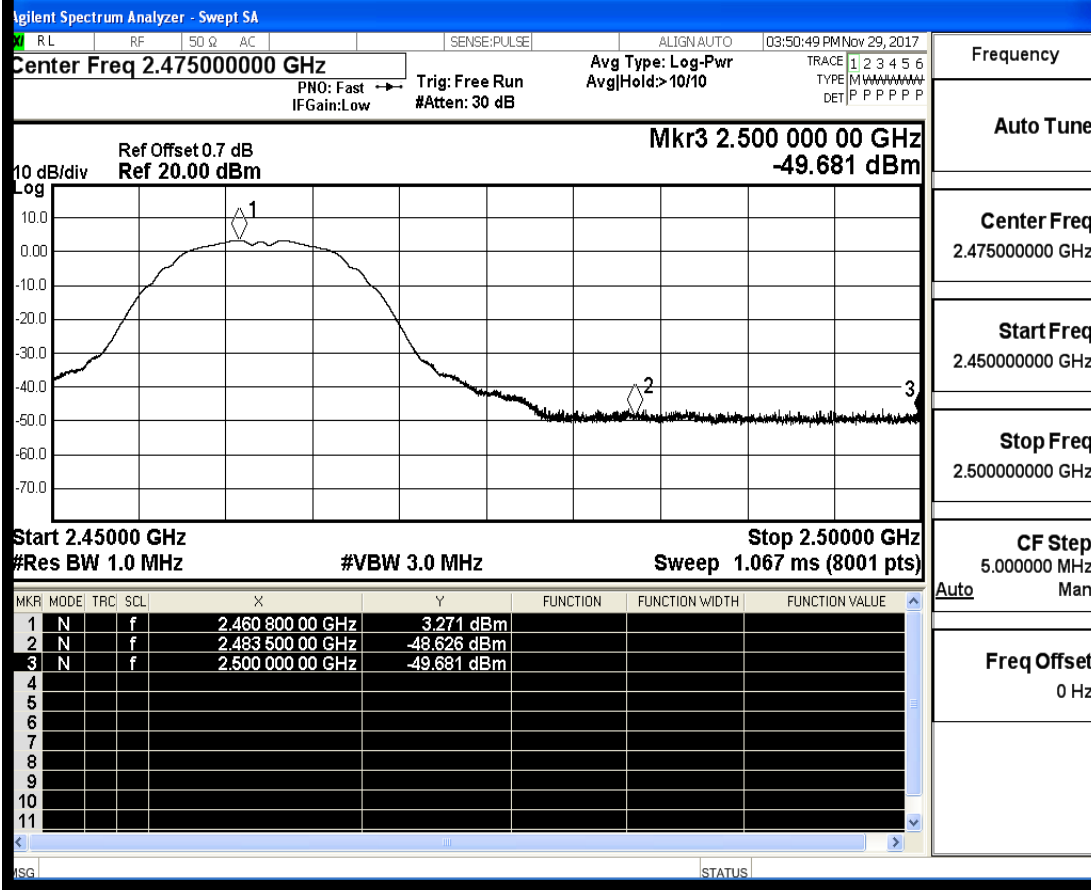
Restrict-band band-edge measurements_11B_2412_Ant1_PEAK



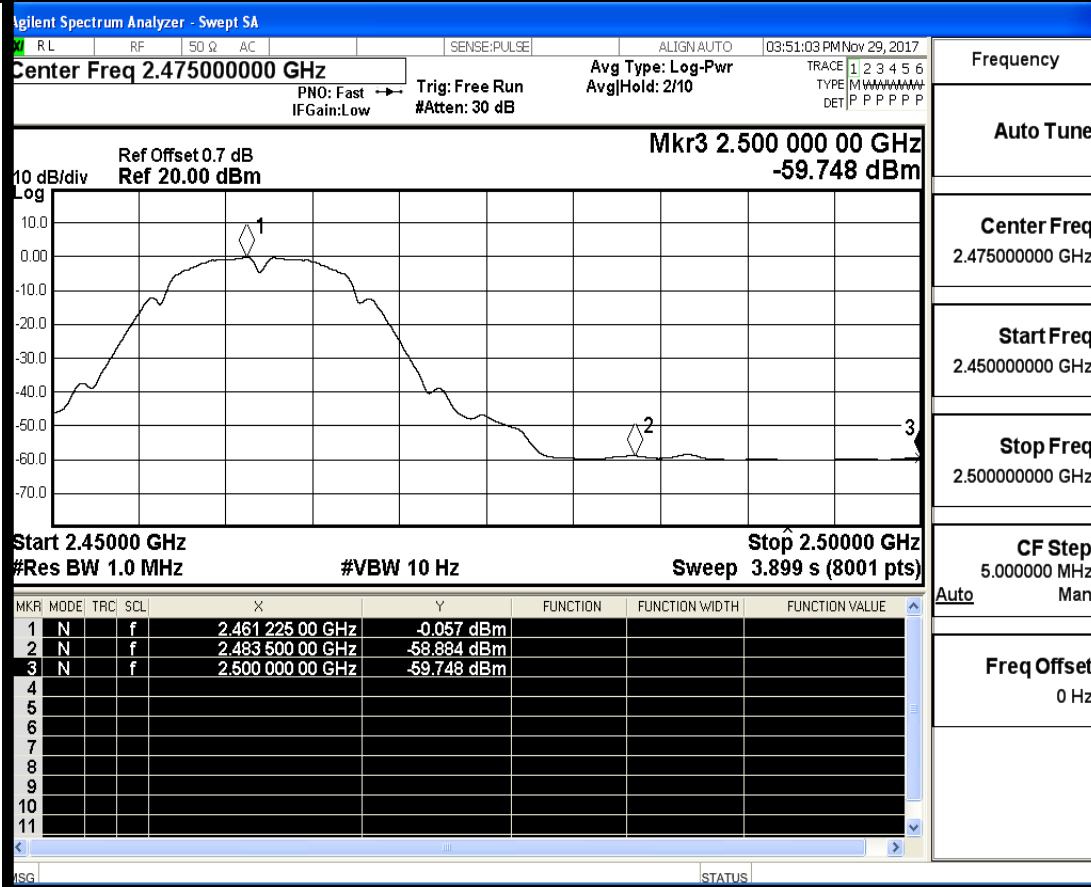
Restrict-band band-edge measurements_11B_2412_Ant1_AV



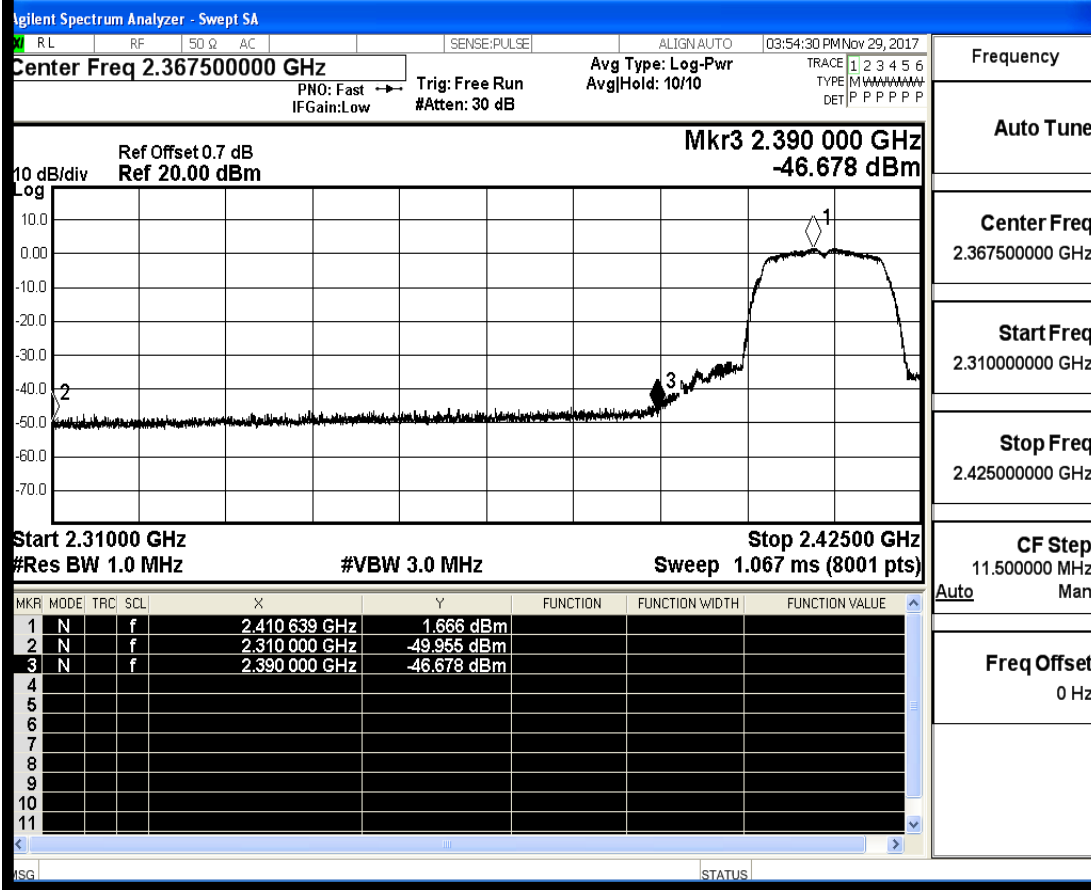
Restrict-band band-edge measurements_11B_2462_Ant1_PEAK



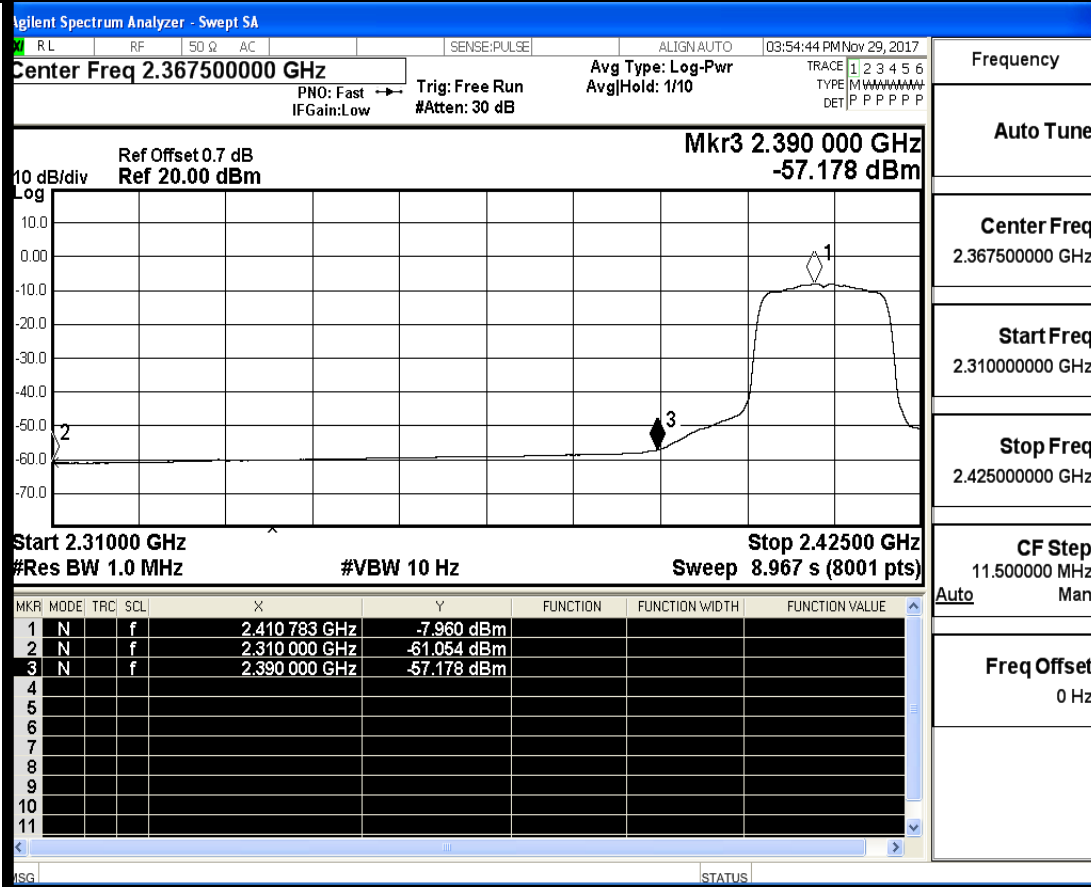
Restrict-band band-edge measurements_11B_2462_Ant1_AV



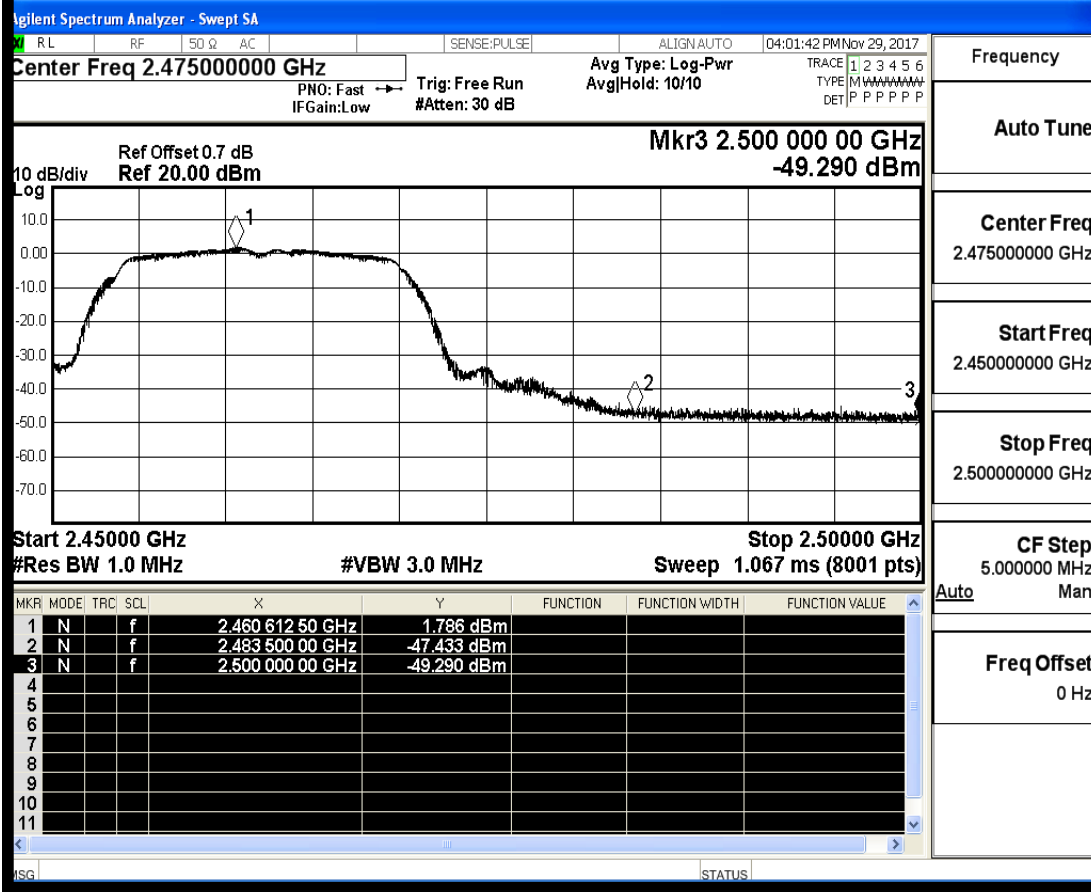
Restrict-band band-edge measurements_11G_2412_Ant1_PEAK



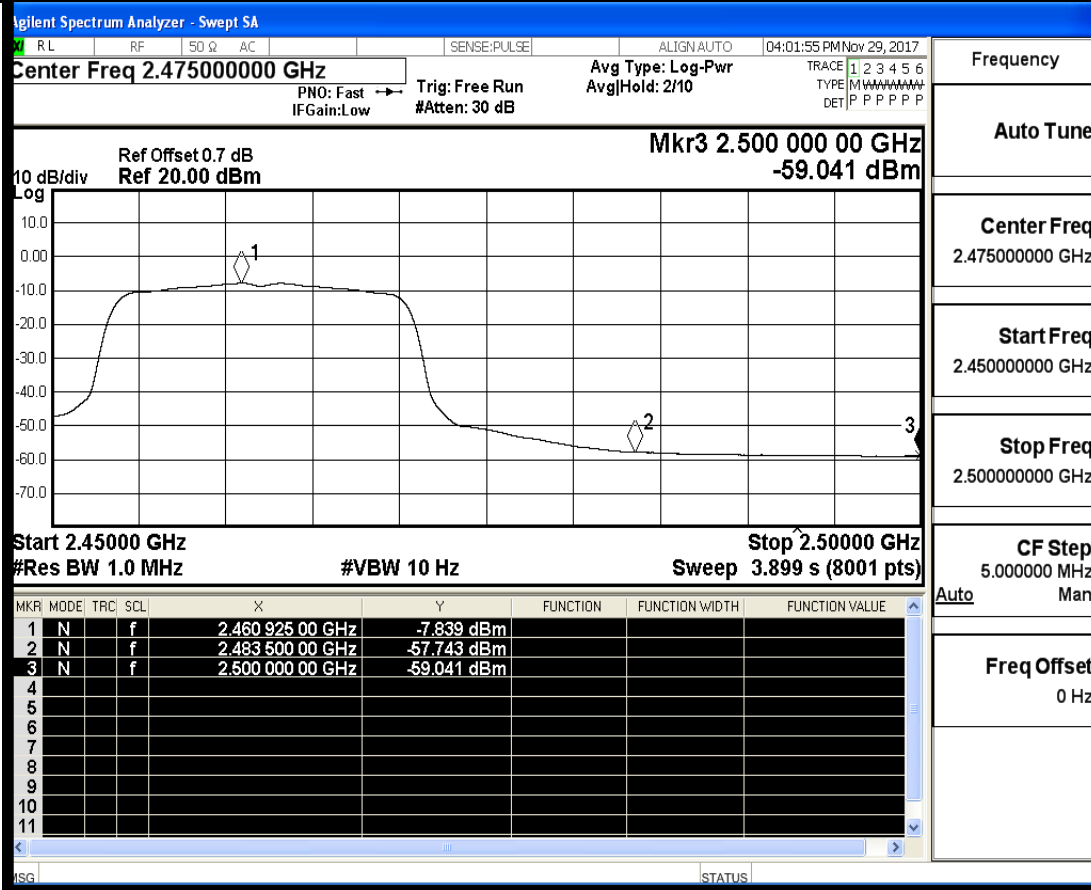
Restrict-band band-edge measurements_11G_2412_Ant1_AV



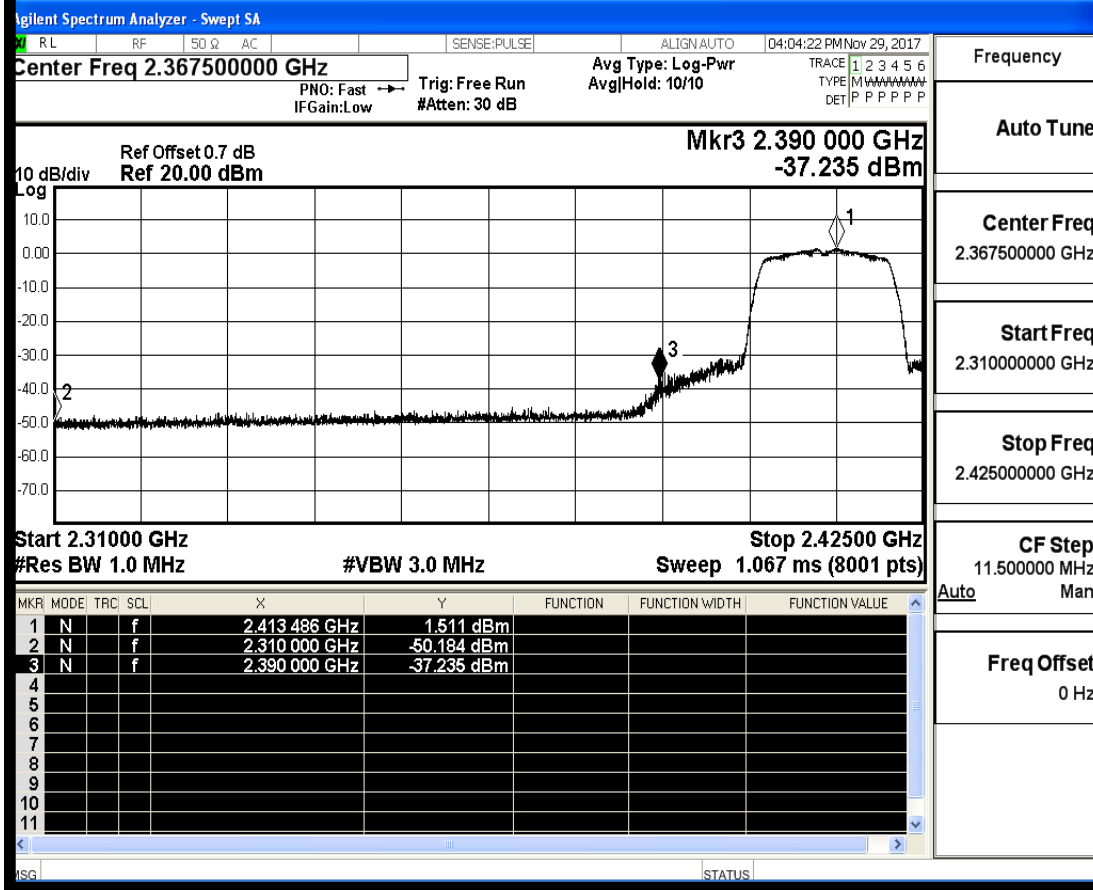
Restrict-band band-edge measurements_11G_2462_Ant1_PEAK



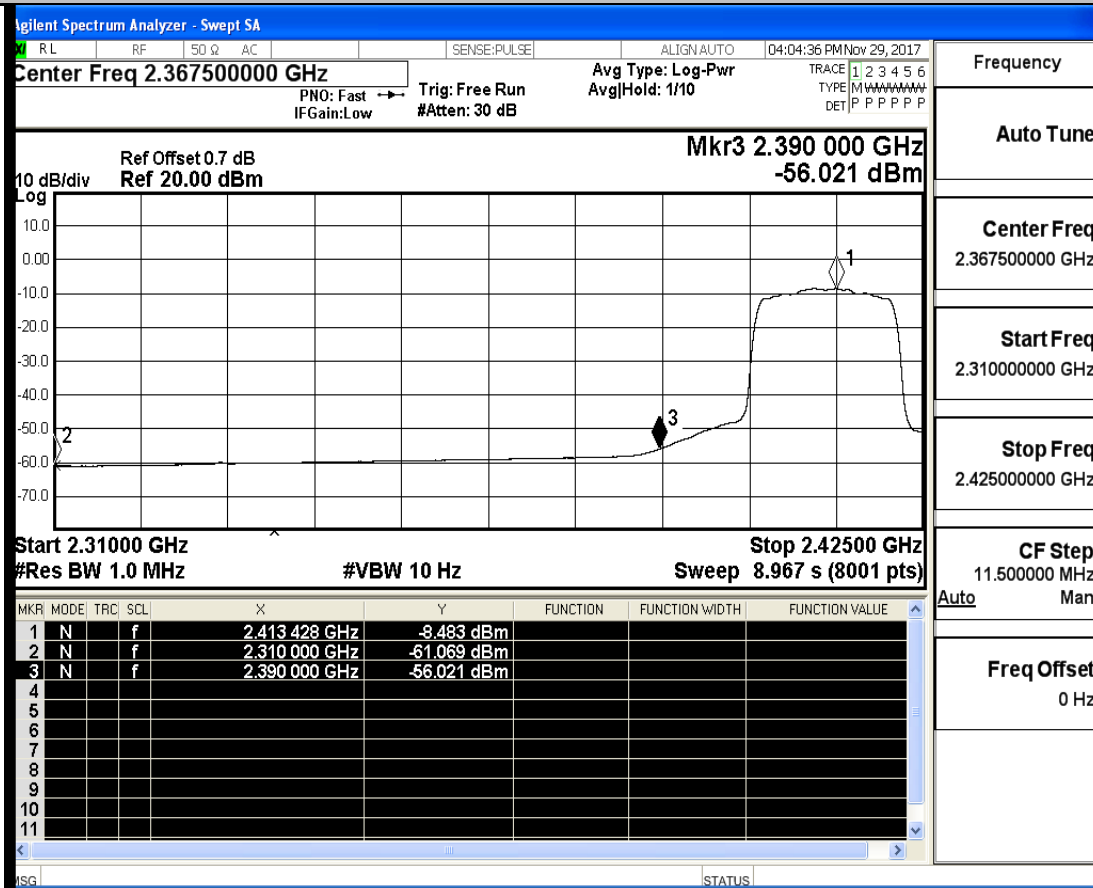
Restrict-band band-edge measurements_11G_2462_Ant1_AV



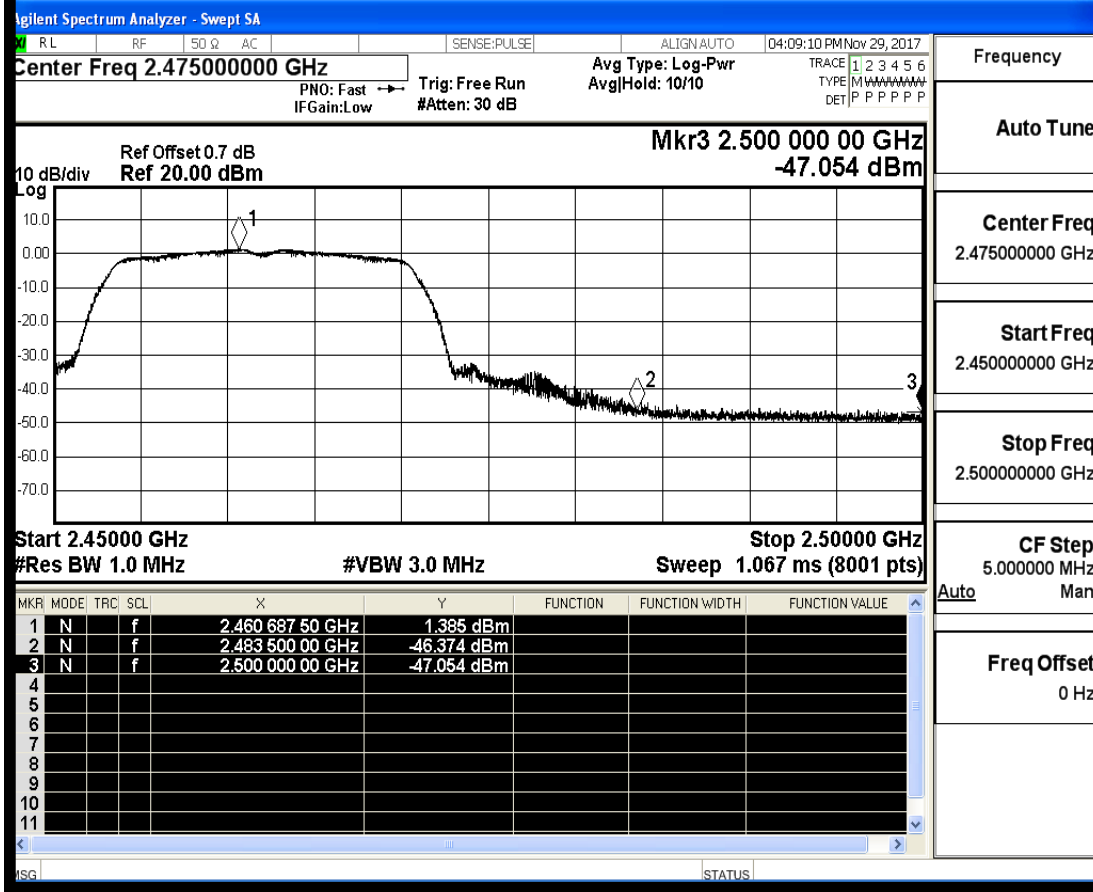
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_PEAK



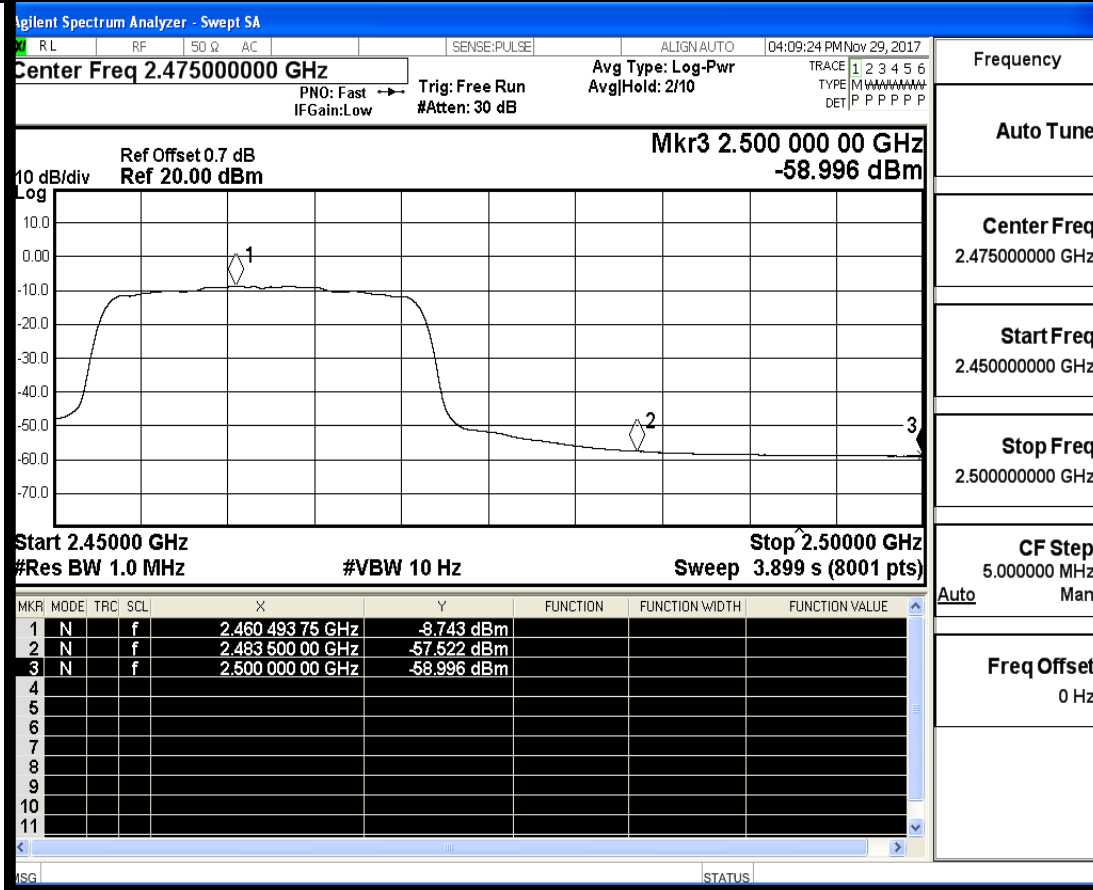
Restrict-band band-edge measurements_11N20SISO_2412_Ant1_AV



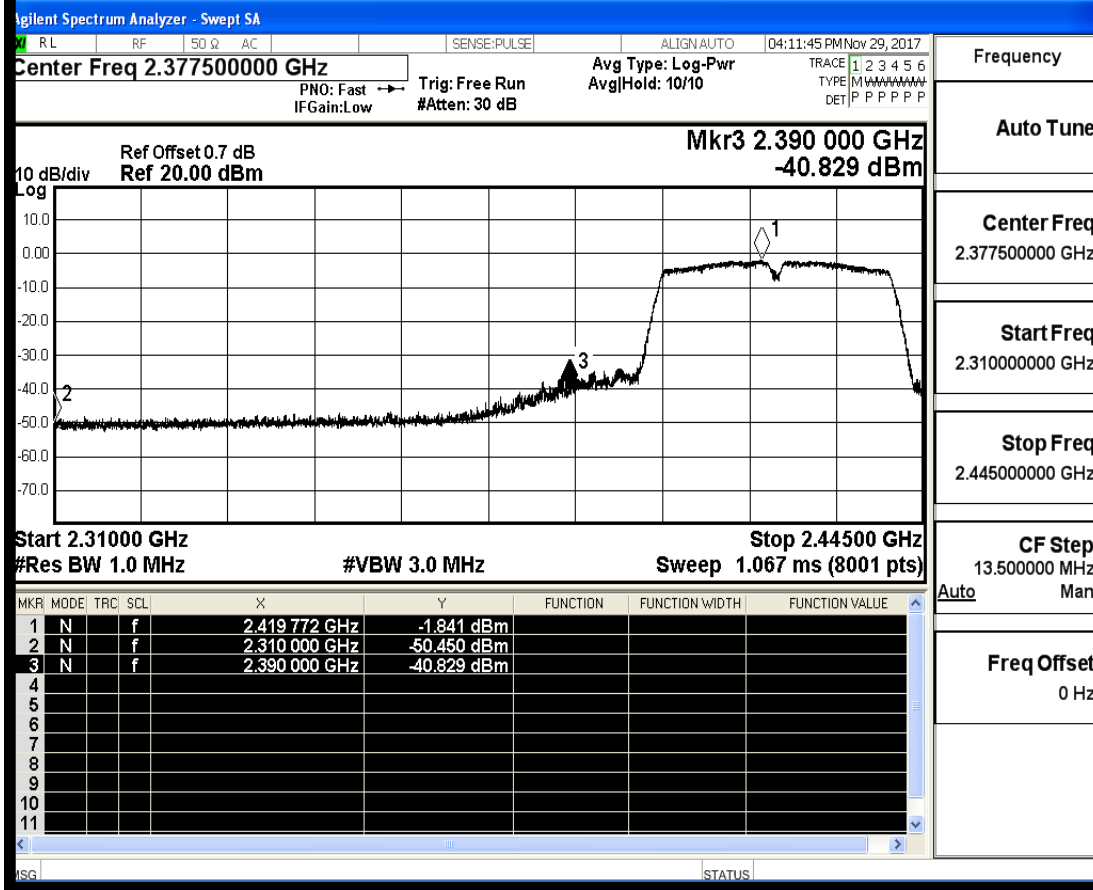
Restrict-band band-edge measurements_11N20SISO_2462_Ant1_PEAK



Restrict-band band-edge measurements_11N20SISO_2462_Ant1_AV



Restrict-band band-edge measurements_11N40SISO_2422_Ant1_PEAK



Frequency

Auto Tune

Center Freq
2.377500000 GHz

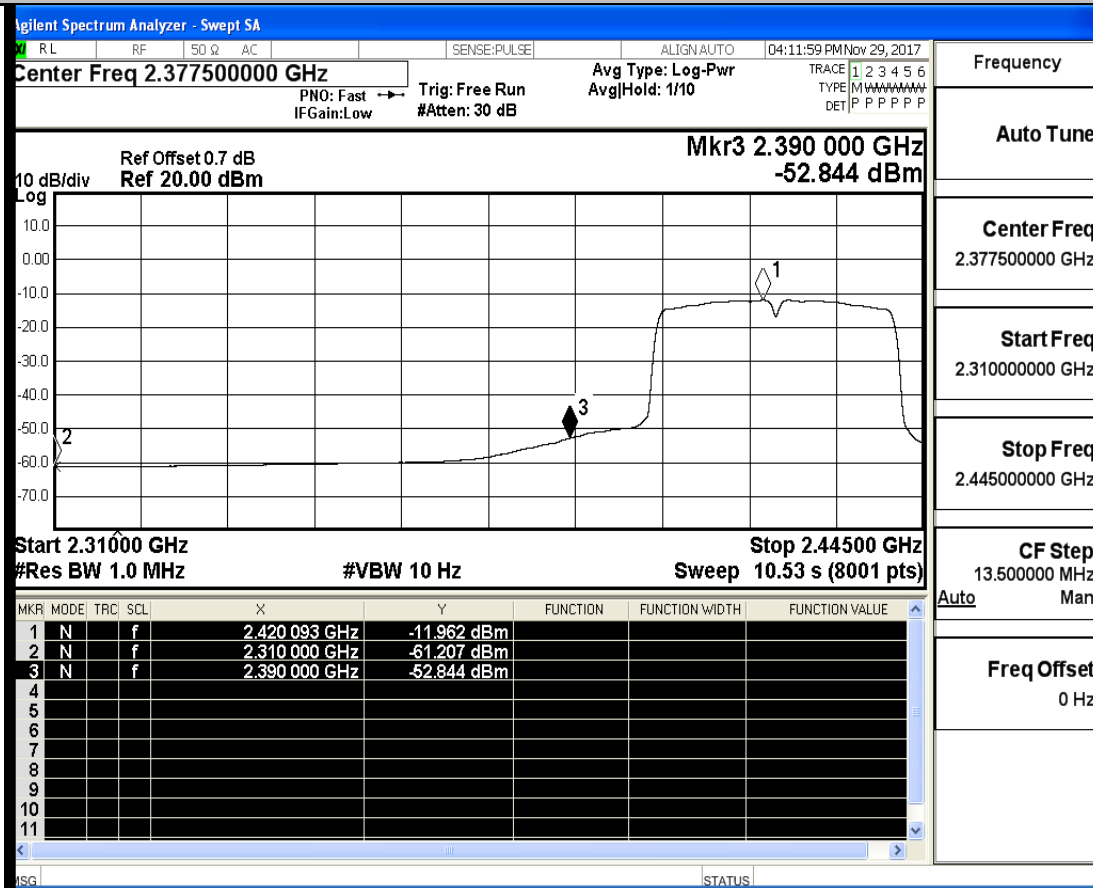
Start Freq
2.310000000 GHz

Stop Freq
2.445000000 GHz

CF Step
13.500000 MHz
Auto Man

Freq Offset
0 Hz

Restrict-band band-edge measurements_11N40SISO_2422_Ant1_AV



Frequency

Auto Tune

Center Freq
2.377500000 GHz

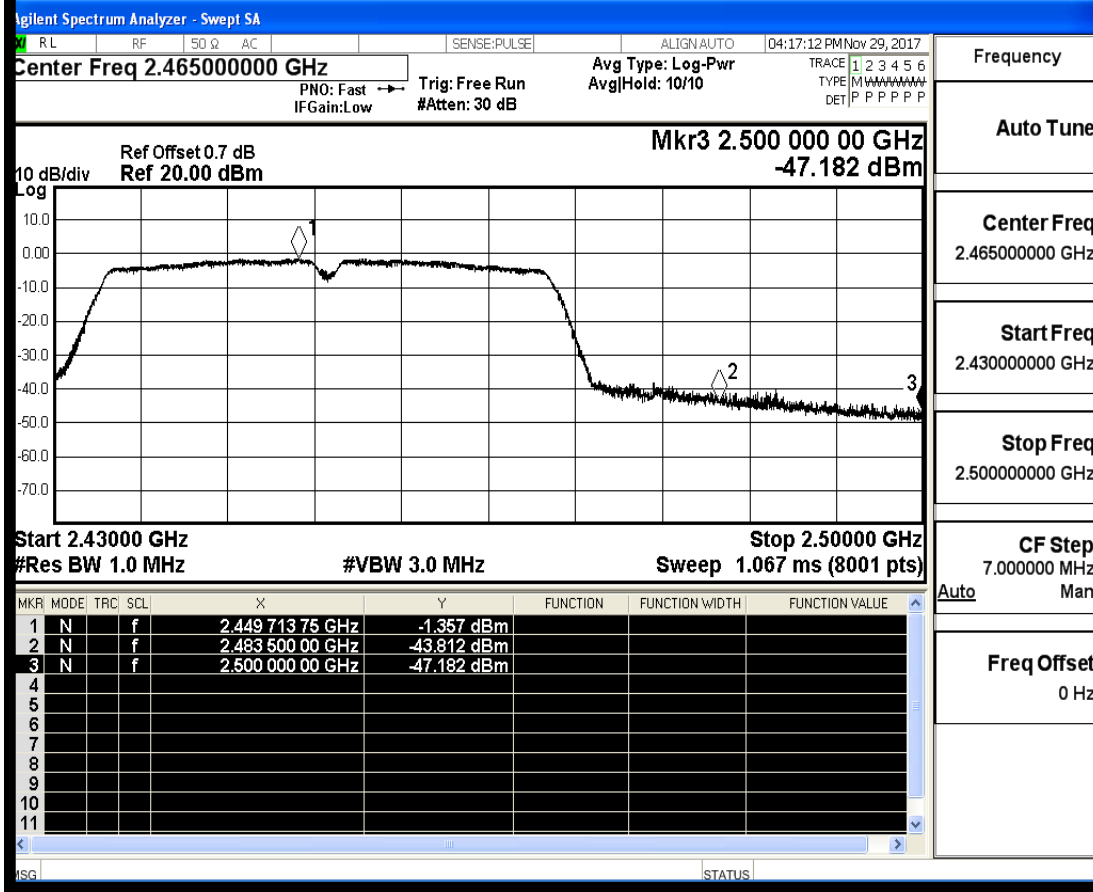
Start Freq
2.310000000 GHz

Stop Freq
2.445000000 GHz

CF Step
13.500000 MHz
Auto Man

Freq Offset
0 Hz

Restrict-band band-edge measurements_11N40SISO_2452_Ant1_PEAK



Frequency

Auto Tune

Center Freq
2.465000000 GHz

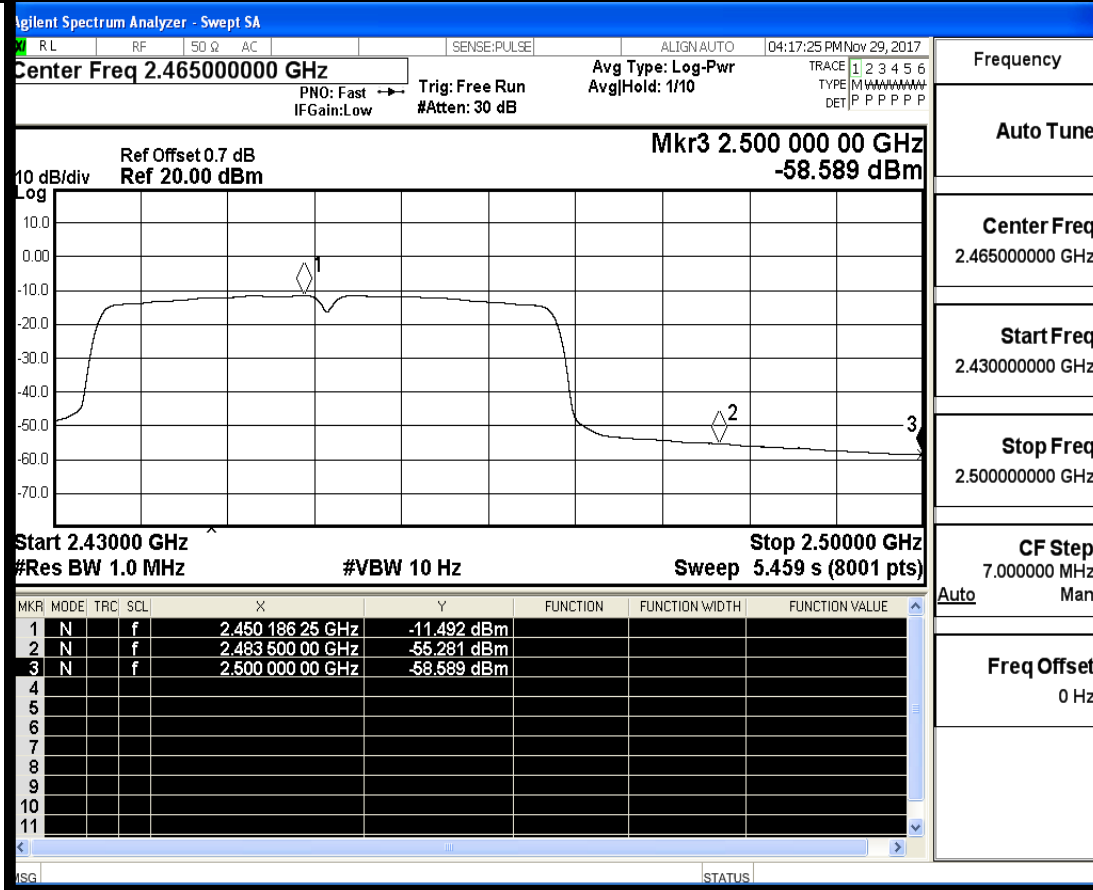
Start Freq
2.430000000 GHz

Stop Freq
2.500000000 GHz

CF Step
7.000000 MHz
Auto Man

Freq Offset
0 Hz

Restrict-band band-edge measurements_11N40SISO_2452_Ant1_AV



Frequency

Auto Tune

Center Freq
2.465000000 GHz

Start Freq
2.430000000 GHz

Stop Freq
2.500000000 GHz

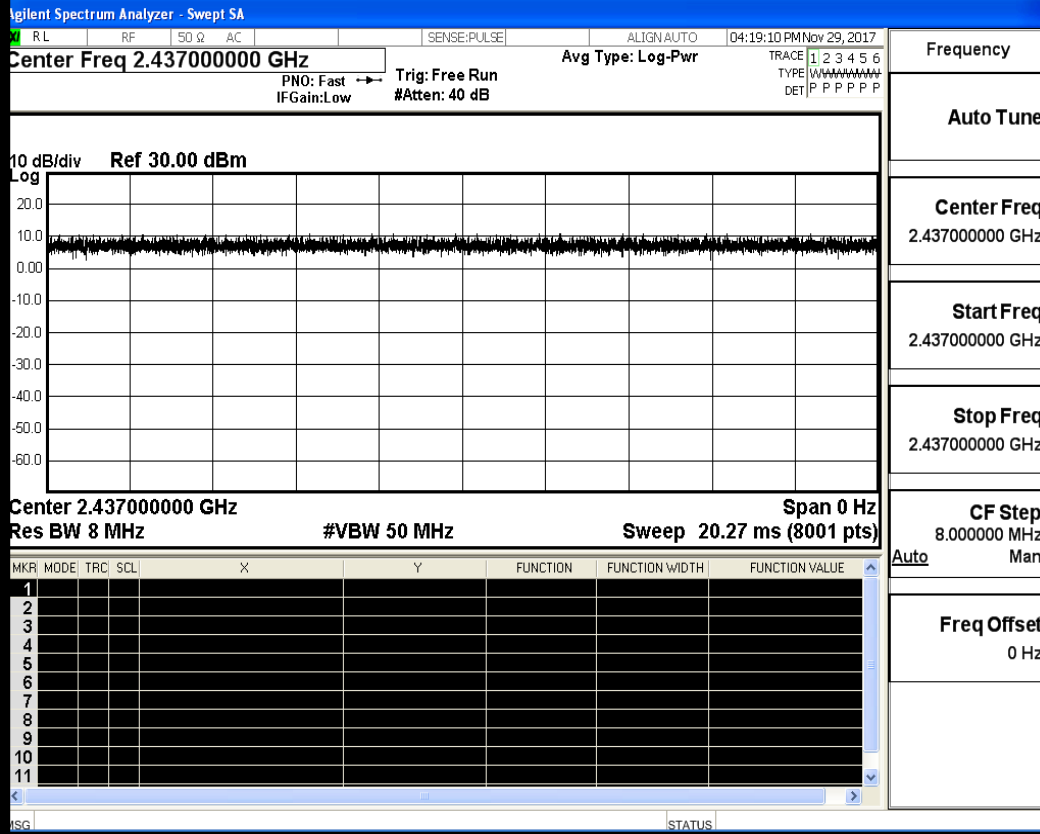
CF Step
7.000000 MHz
Auto Man

Freq Offset
0 Hz

6.Duty Cycle

Test Mode	Test Channel	Ant	Duty Cycle[%]	Verdict
11B	2437	Ant1	100	PASS
11G	2437	Ant1	100	PASS
11N20SISO	2437	Ant1	100	PASS
11N40SISO	2437	Ant1	100	PASS

Duty Cycle_11N20SISO_2437_Ant1



Duty Cycle_11N40SISO_2437_Ant1

