9. ANTENNA PORT RESTRICTED BAND LIMITS AND PROCEDURE

LIMITS

FCC §15.205 and §15.209

Frequency Range (MHz)	Power Limit (dBm)
30 - 88	-55.2
88 - 216	-51.7
216 - 960	-49.2
Above 960	-41.2

TEST PROCEDURE

The conducted measurements were made for this test.

For measurements below 1 GHz the resolution bandwidth is set to 120 kHz for peak detection measurements or 120 kHz for quasi-peak detection measurements. Peak detection is used unless otherwise noted as quasi-peak.

For peak measurements above 1 GHz, the resolution bandwidth is set to 1 MHz and the video bandwidth is set to 3 MHz. For average measurements above 1GHz, the resolution bandwidth and video bandwidth are set as described in ANSI C63.10:2013 for the applicable measurement. For this evaluation, RMS Power Averaging was used and the resolution/video bandwidth settings were 1MHz/3MHz.

The spectrum from 30 MHz to 26 GHz is investigated with the transmitter set to the lowest, middle, and highest channels in each applicable band.

All 8 antenna ports were measured individually and then the ports and their associated antenna gained were summed as described in KDB 558074 D01 v03r04 Section 12.2.2 a-d.

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9.1. 540 kHz MODE IN THE RESTRICTED BAND

9.1.1. TX ABOVE 1 GHz IN THE 2.4 GHz BAND: 1-4 GHz

RESTRICTED BANDEDGE (LOW CHANNEL) TABULAR SUMMED DATA

The following measurements include an antenna gain of:

AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

Frequency (MHz)		Meter PK Reading Chain 1 (dBm)	Meter PK Reading Chain 2 (dBm)	Meter PK Reading Chain 3 (dBm)	Meter PK Reading Chain 4 (dBm)	Meter PK Reading Chain 5 (dBm)	Meter PK Reading Chain 6 (dBm)	Meter PK Reading Chain 7 (dBm)	Meter PK Reading Chain 8 (dBm)	PK EIRP (dBm)	PK E-field Limit (dBm)	PK E-field Margin (dB)
Enter SA Value here		-74.809	-74	-75.902	-74	-74.232	-74	-74.446	-74			
2310-2390	FILTER	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			
	CBL1	0.416	0.416	0.416	0.416	0.416	0.416	0.416	0.416			
	CBL2	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404			
Final Value		-73.889	-73.08	-74.982	-73.08	-73.312	-73.08	-73.526	-73.08	-44.47	-21.2	-23.27

Frequency (MHz)		Meter AVG Reading Chain 1	Meter AVG Reading Chain 2	Meter AVG Reading Chain 3	Meter AVG Reading Chain 4	Meter AVG Reading Chain 5	Meter AVG Reading Chain 6	Meter AVG Reading Chain 7 (dBm)	Meter AVG Reading Chain 8	AVG EIRP (dBm)	AVG E-field Limit (dBm)	AVG E-field Margin (dB)
Enter SA Value here		-84.75	-84.913	-84.5	-84.976	-84	-84.655	-84	-84.851			
2310-2390	FILTER	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			
	CBL1	0.416	0.416	0.416	0.416	0.416	0.416	0.416	0.416			
	CBL2	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404			
	DCCF	0.68	0	0	0	0.68	0.67	0.75	0.73			
Final Value		-83.15	-83.993	-83.58	-84.056	-82.4	-83.065	-82.33	-83.201	-54.19	-41.2	-12.99

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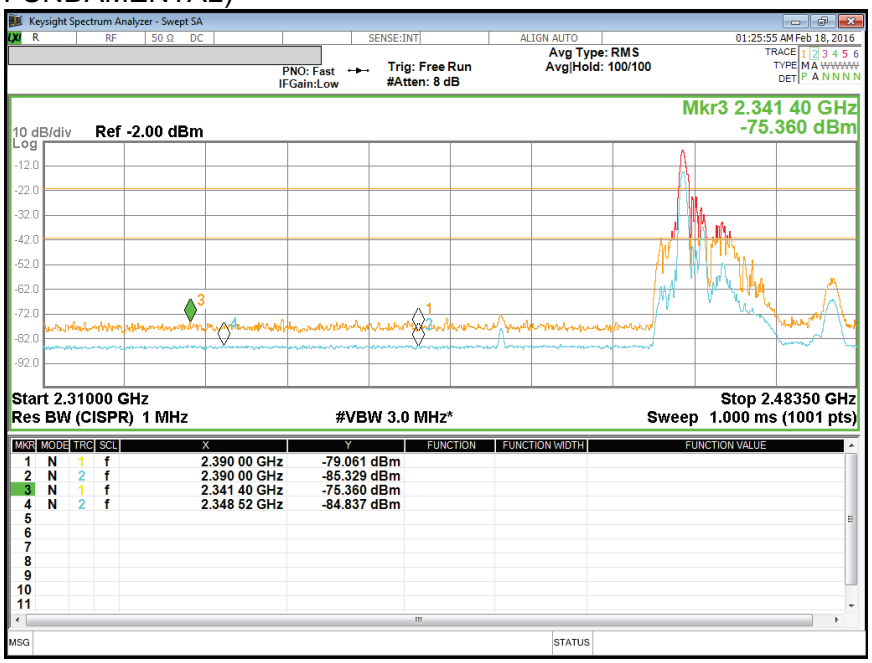
RESTRICTED BANDEDGE (LOW CHANNEL) PLOTS

LOW CHANNEL RESTRICTED, CHAIN 1 (WITH FUNDAMENTAL)



Note – Initially, all Bandedge plots were taken with the fundamental not included in the plot. The above bandedge measurement was taken with the fundamental included to show the fundamental was present.

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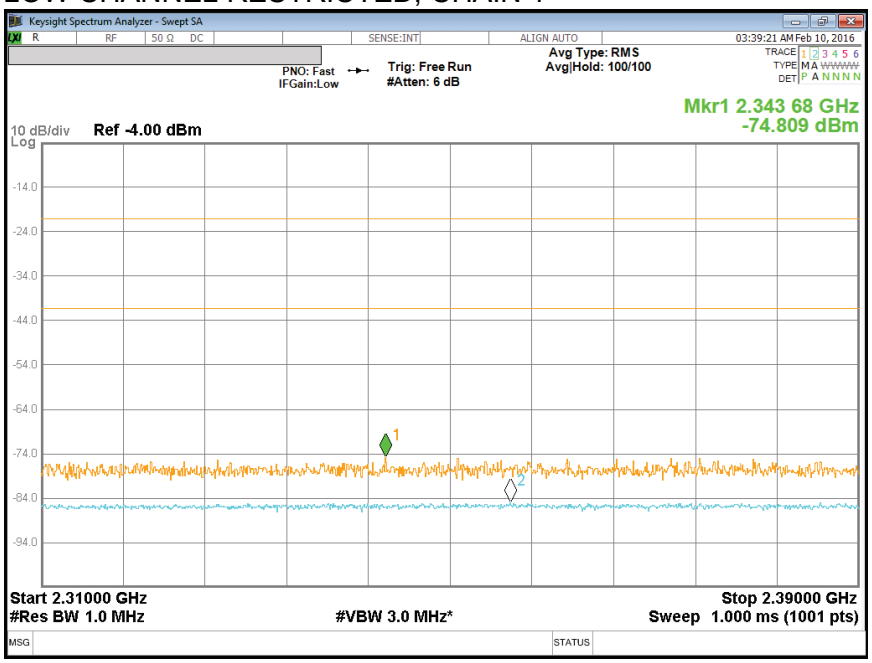
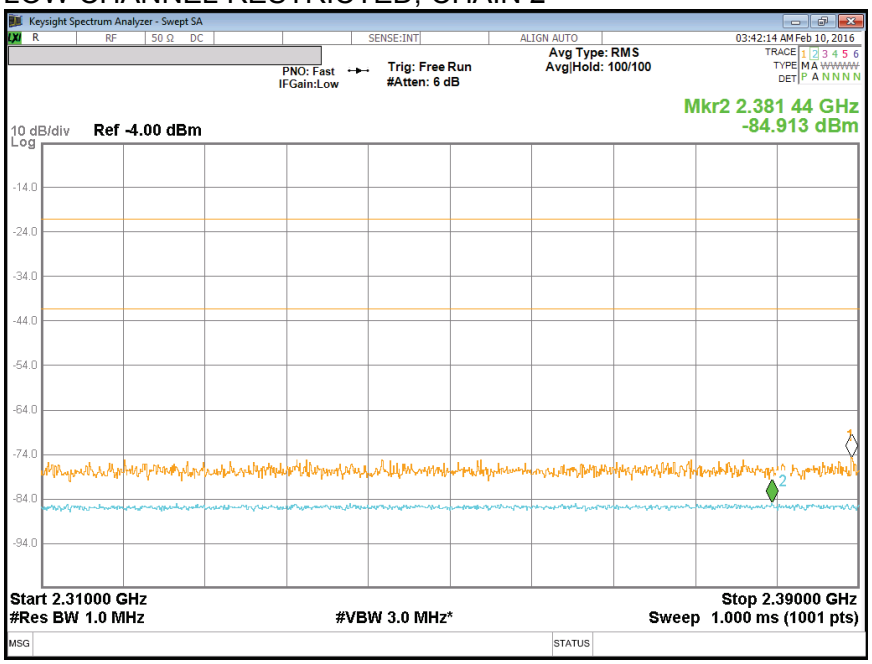
LOW CHANNEL RESTRICTED, CHAIN 1



LOW CHANNEL RESTRICTED, CHAIN 2



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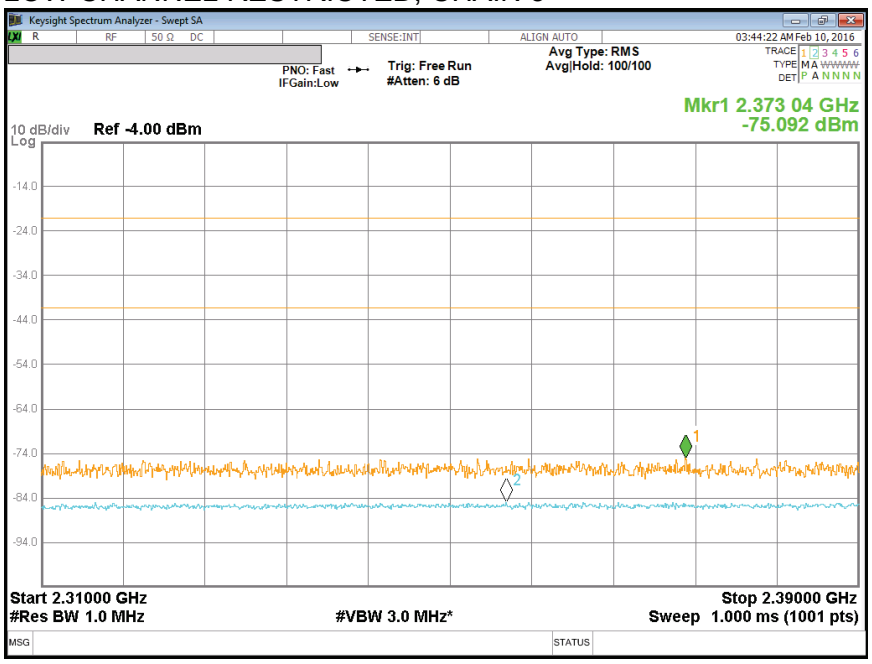
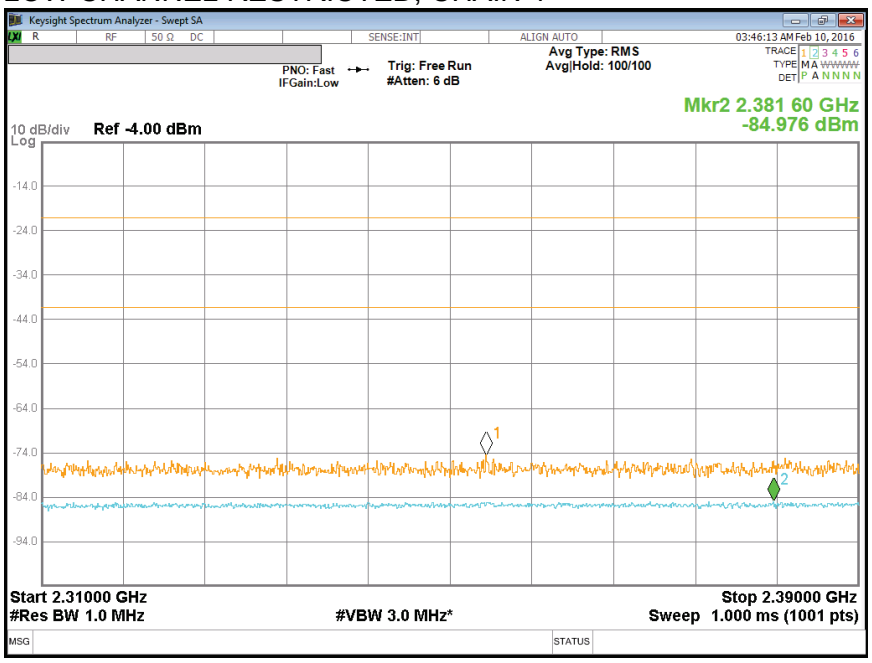
LOW CHANNEL RESTRICTED, CHAIN 3



LOW CHANNEL RESTRICTED, CHAIN 4



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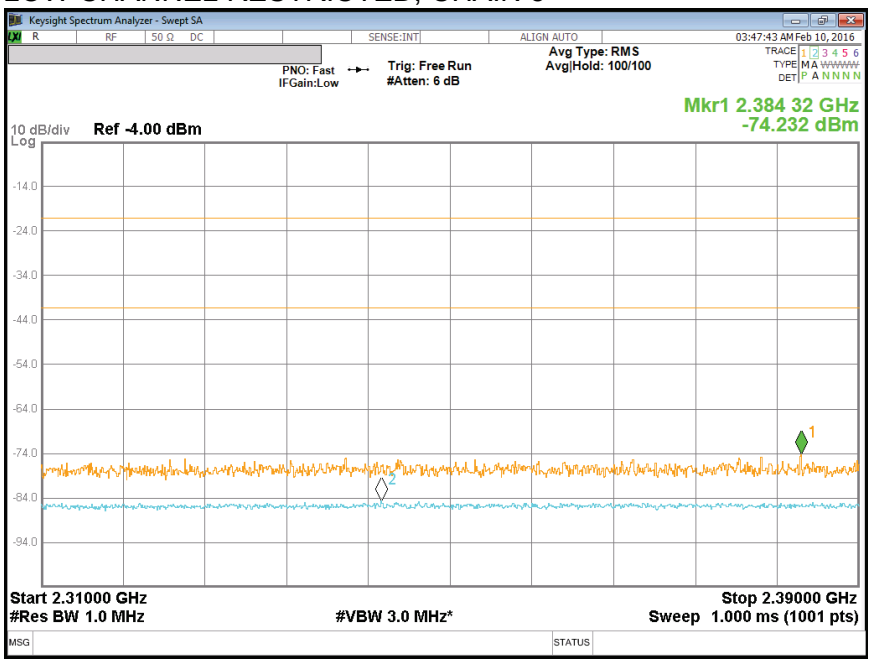
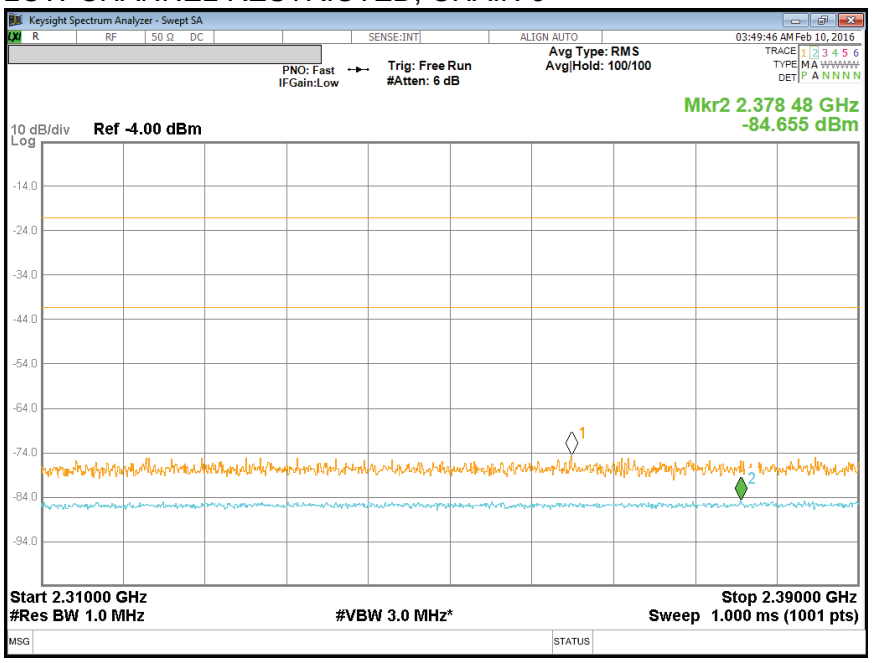
LOW CHANNEL RESTRICTED, CHAIN 5



LOW CHANNEL RESTRICTED, CHAIN 6



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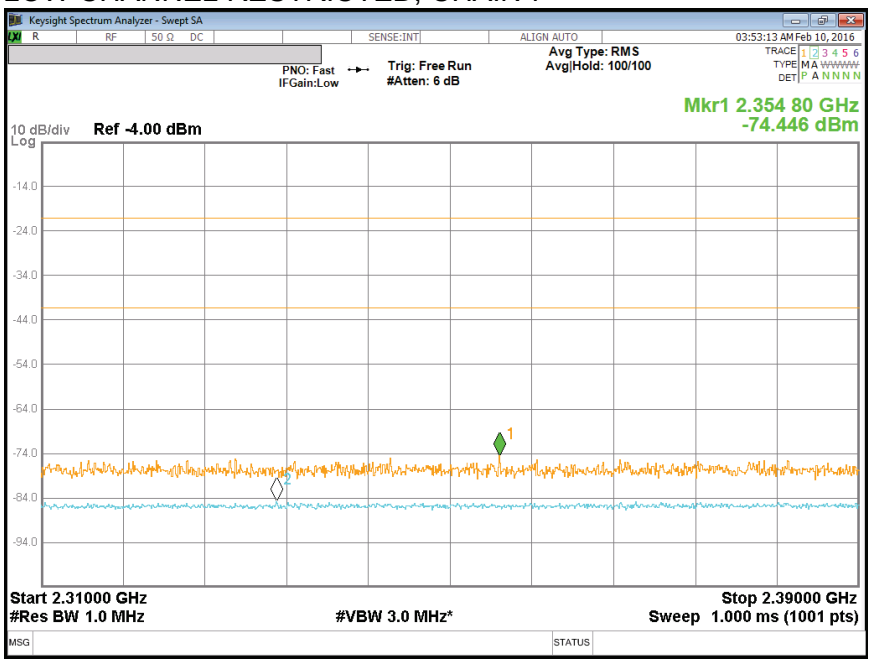
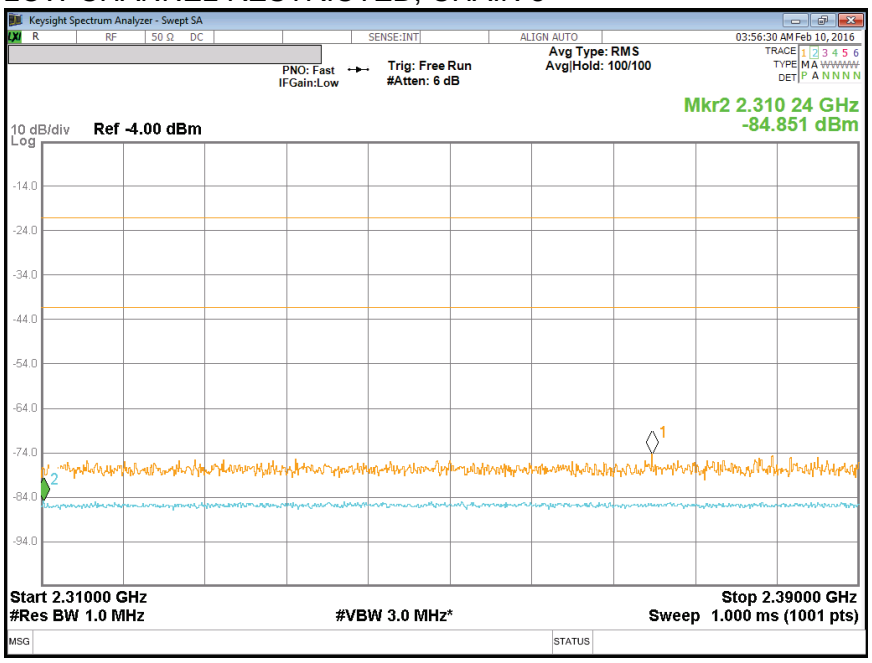
LOW CHANNEL RESTRICTED, CHAIN 7



LOW CHANNEL RESTRICTED, CHAIN 8



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RESTRICTED BANDEDGE (HIGH CHANNEL) TABULAR SUMMED DATA

The following measurements include an antenna gain of:

AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

Frequency (MHz)		Meter PK Reading Chain 1 (dBm)	Meter PK Reading Chain 2 (dBm)	Meter PK Reading Chain 3 (dBm)	Meter PK Reading Chain 4 (dBm)	Meter PK Reading Chain 5 (dBm)	Meter PK Reading Chain 6 (dBm)	Meter PK Reading Chain 7 (dBm)	Meter PK Reading Chain 8 (dBm)	PK EIRP (dBm)	PK E-field Limit (dBm)	PK E-field Margin (dB)
Enter SA Value here		-74.111	-73.75	-73.89	-73.75	-73.379	-73.75	-73.934	-73.75			
2483.5-2500	FILTER	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			
	CBL1	0.416	0.416	0.416	0.416	0.416	0.416	0.416	0.416			
	CBL2	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404			
Final Value		-73.191	-72.83	-72.97	-72.83	-72.459	-72.83	-73.014	-72.83	-43.87	-21.2	-22.67

Frequency (MHz)		Meter AVG Reading Chain 1	Meter AVG Reading Chain 2	Meter AVG Reading Chain 3	Meter AVG Reading Chain 4	Meter AVG Reading Chain 5	Meter AVG Reading Chain 6	Meter AVG Reading Chain 7 (dBm)	Meter AVG Reading Chain 8	AVG EIRP (dBm)	AVG E-field Limit (dBm)	AVG E-field Margin (dB)
Enter SA Value here		-83.75	-84.498	-83.75	-84.325	-84	-84.351	-84	-84.319			
2483.5-2500	FILTER	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			
	CBL1	0.416	0.416	0.416	0.416	0.416	0.416	0.416	0.416			
	CBL2	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404			
	DCCF	0.68	0	0	0	0.68	0.67	0.75	0.73			
Final Value		-82.15	-83.578	-82.83	-83.405	-82.4	-82.761	-82.33	-82.669	-53.76	-41.2	-12.56

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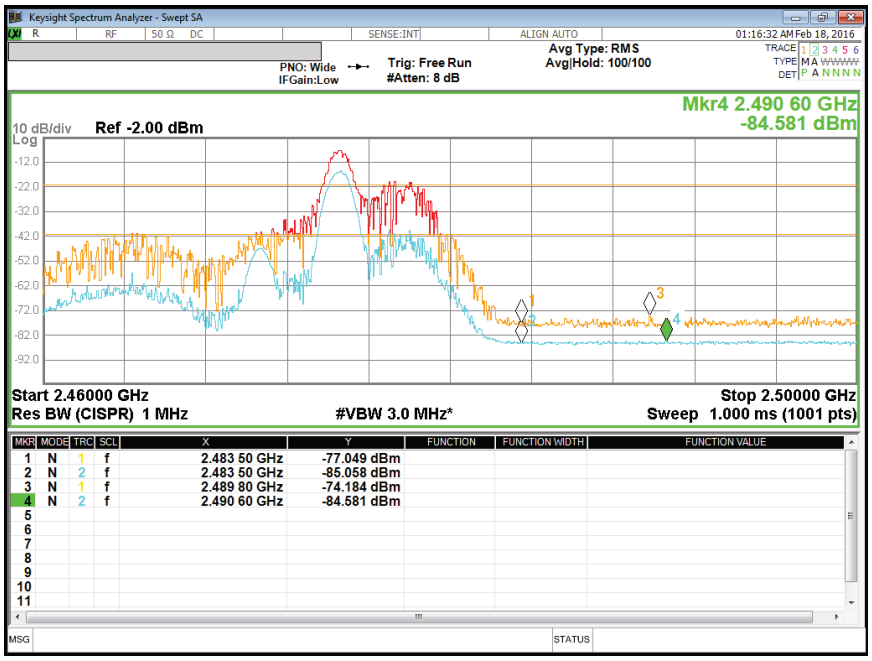
RESTRICTED BANDEDGE (HIGH CHANNEL) PLOTS

HIGH CHANNEL BANDEDGE, CHAIN 1 (WITH FUNDAMENTAL PRESENT



Note – Initially, all Bandedge plots were taken with the fundamental not included in the plot. The above bandedge measurement was taken with the fundamental included to show the fundamental was present.

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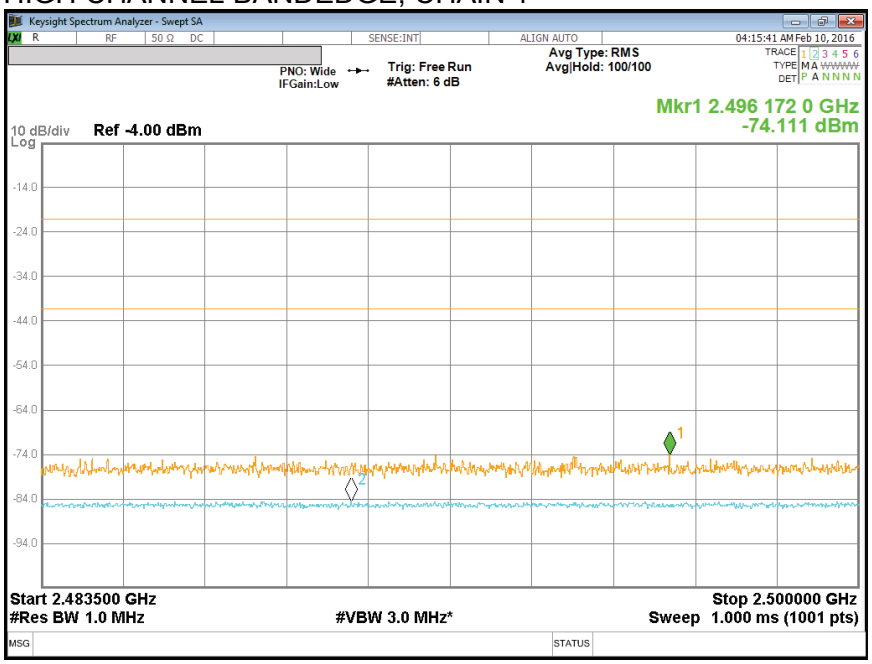
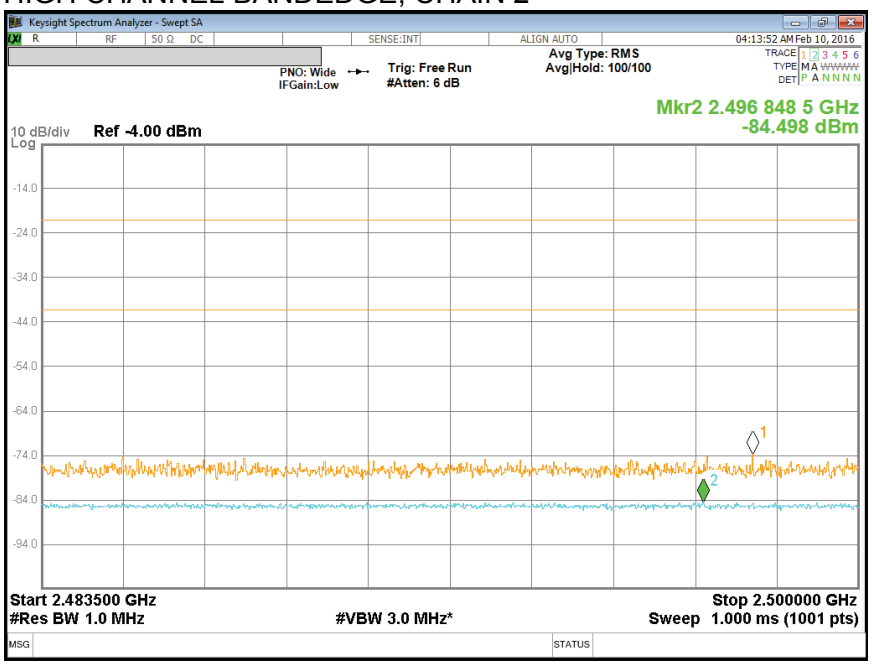
HIGH CHANNEL BANDEDGE, CHAIN 1



HIGH CHANNEL BANDEDGE, CHAIN 2



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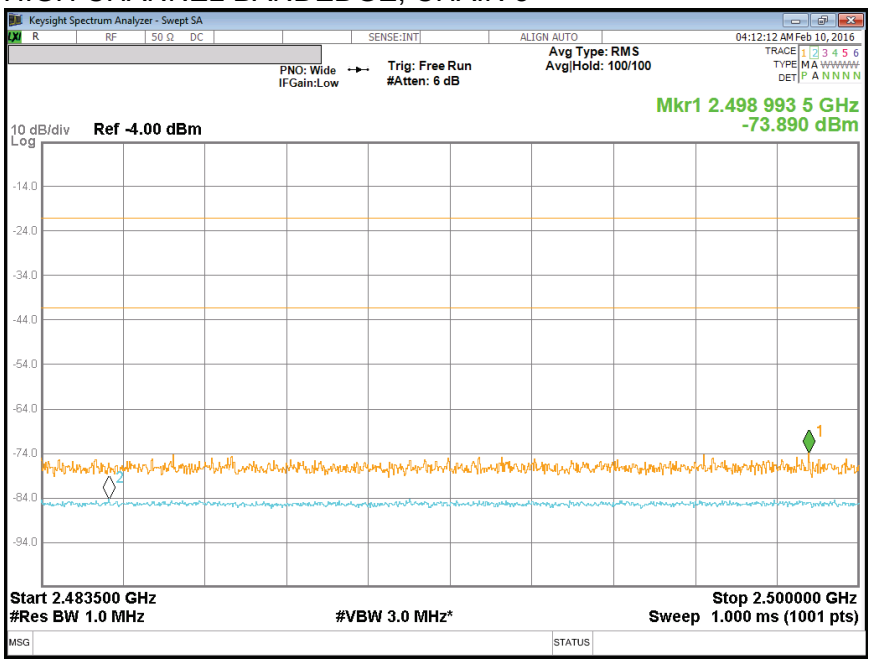
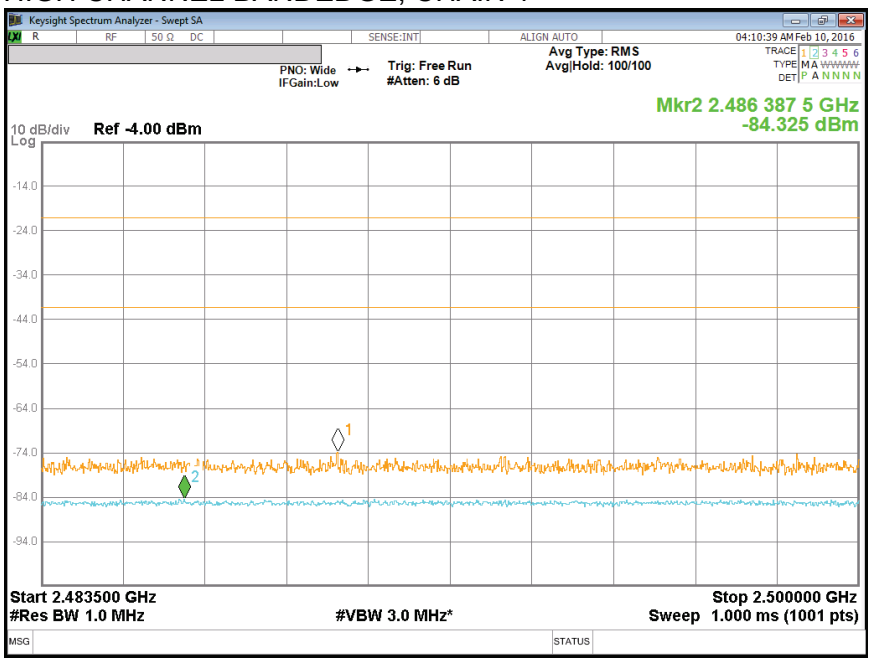
HIGH CHANNEL BANDEDGE, CHAIN 3



HIGH CHANNEL BANDEDGE, CHAIN 4



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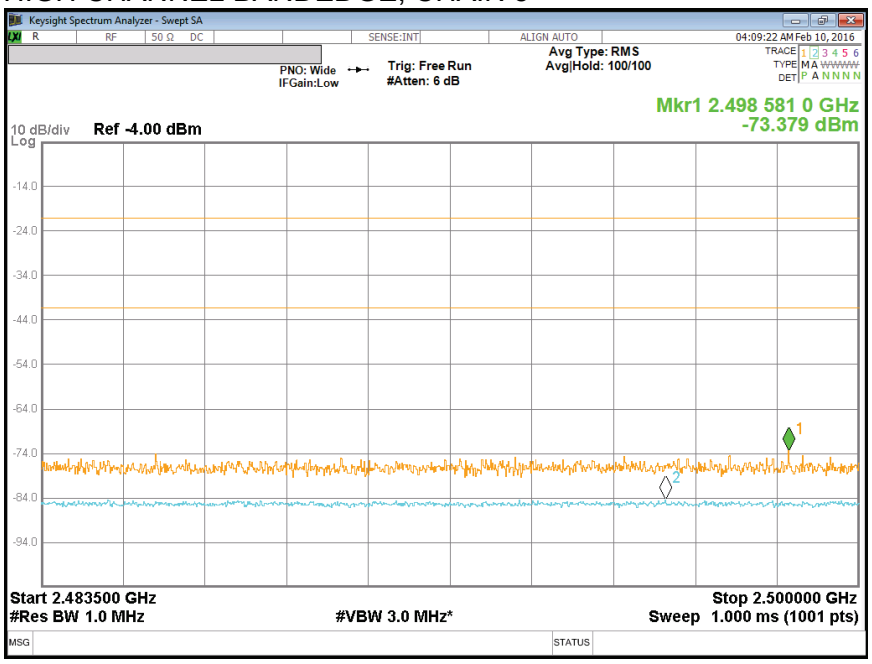
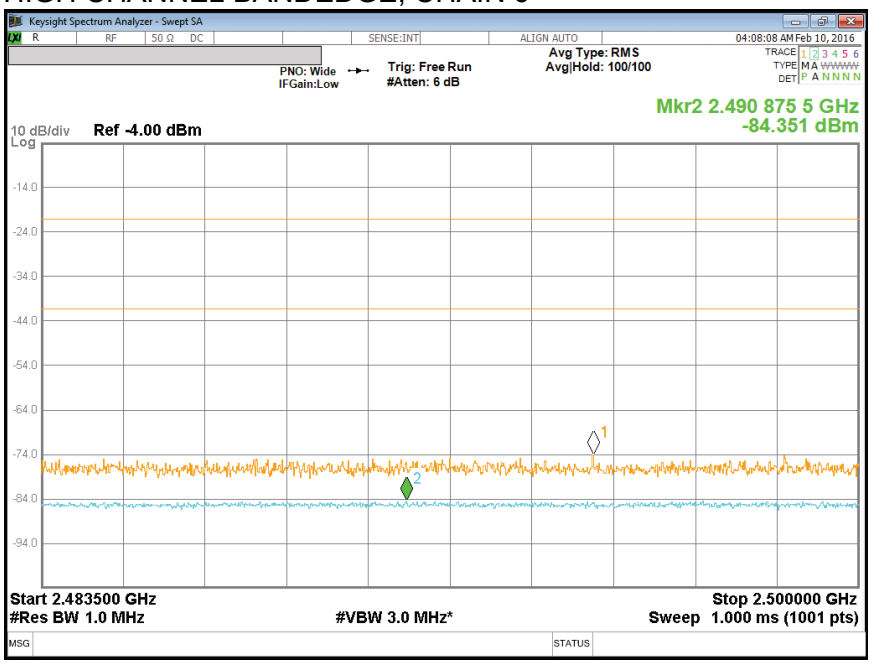
HIGH CHANNEL BANDEDGE, CHAIN 5



HIGH CHANNEL BANDEDGE, CHAIN 6



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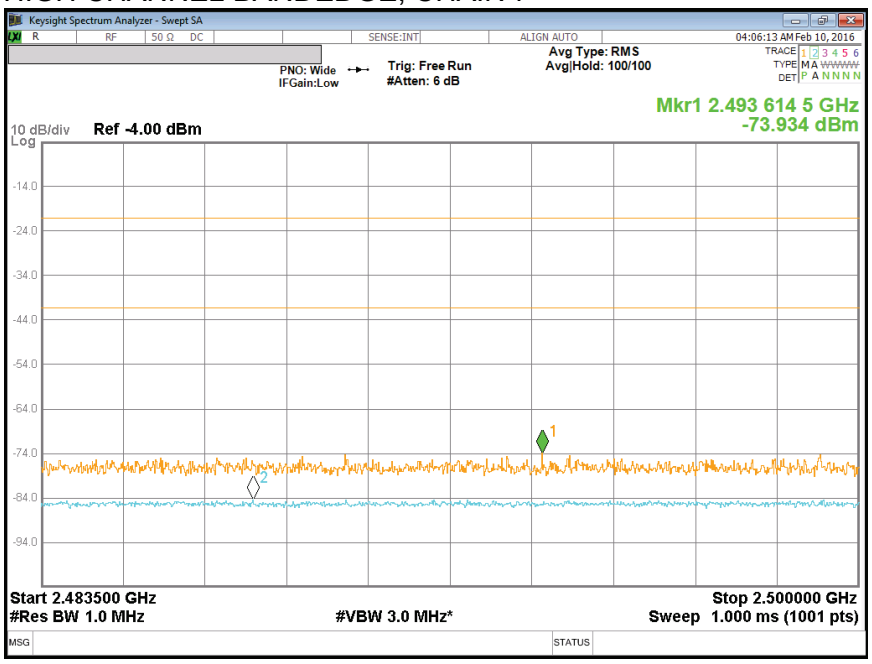
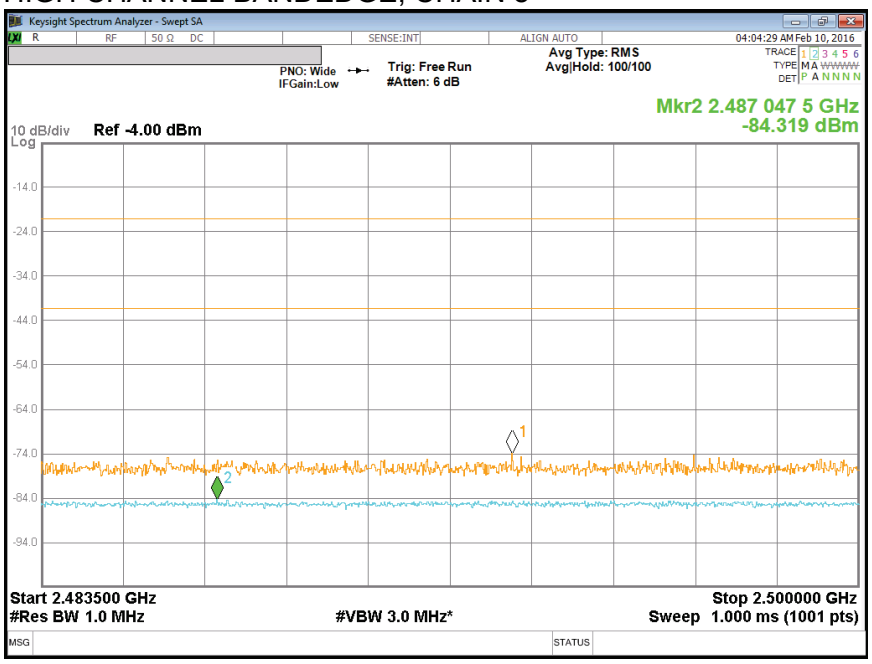
HIGH CHANNEL BANDEDGE, CHAIN 7



HIGH CHANNEL BANDEDGE, CHAIN 8



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HARMONICS AND SPURIOUS EMISSIONS, LOW CHANNEL, TABULAR DATA

The following measurements include an antenna gain of:

AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

Frequency (MHz)		Meter PK Reading Chain 1 (dBm)	Meter PK Reading Chain 2 (dBm)	Meter PK Reading Chain 3 (dBm)	Meter PK Reading Chain 4 (dBm)	Meter PK Reading Chain 5 (dBm)	Meter PK Reading Chain 6 (dBm)	Meter PK Reading Chain 7 (dBm)	Meter PK Reading Chain 8 (dBm)	PK EIRP (dBm)	PK E-field Limit (dBm)	PK E-field Margin (dB)
Enter SA Value here		-74.112	-72.664	-73.606	-72.63	-72.045	-72.481	-72.736	-72.768			
1000-4000	FILTER	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			
	CBL1	0.416	0.416	0.416	0.416	0.416	0.416	0.416	0.416			
	CBL2	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404			
Final Value		-73.192	-71.744	-72.686	-71.71	-71.125	-71.561	-71.816	-71.848	-42.92	-21.2	-21.72

Frequency (MHz)		Meter AVG Reading Chain 1	Meter AVG Reading Chain 2	Meter AVG Reading Chain 3	Meter AVG Reading Chain 4	Meter AVG Reading Chain 5	Meter AVG Reading Chain 6	Meter AVG Reading Chain 7 (dBm)	Meter AVG Reading Chain 8	AVG EIRP (dBm)	AVG E-field Limit (dBm)	AVG E-field Margin (dB)
Enter SA Value here		-83.288	-83.663	-83.699	-83.623	-84.329	-83.668	-83.918	-83.631			
1000-4000	FILTER	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			
	CBL1	0.416	0.416	0.416	0.416	0.416	0.416	0.416	0.416			
	CBL2	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404			
	DCCF	0.68	0	0	0	0.68	0.67	0.75	0.73			
Final Value		-81.688	-82.743	-82.779	-82.703	-82.729	-82.078	-82.248	-81.981	-53.38	-41.2	-12.18

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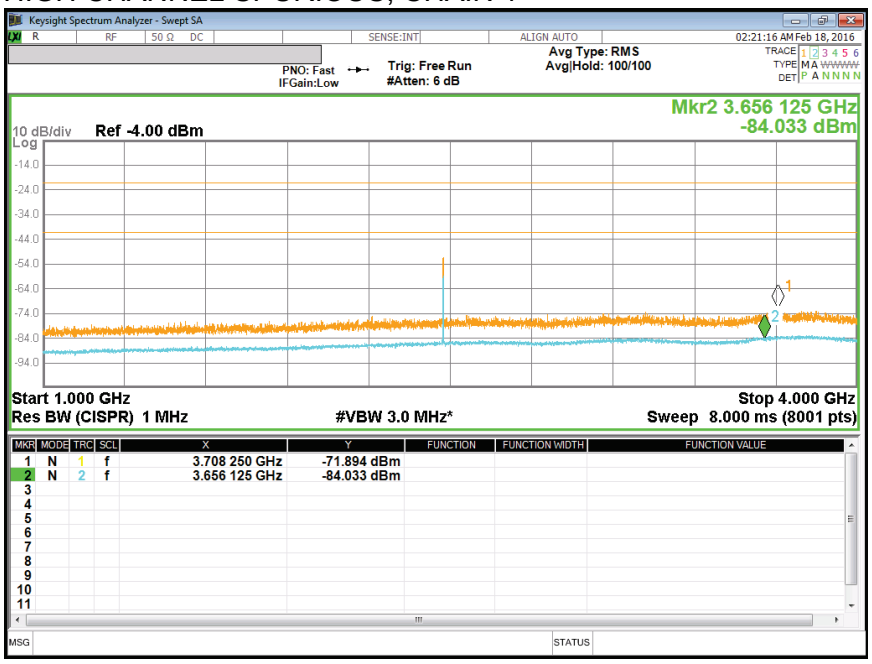
HIGH CHANNEL SPURIOUS, CHAIN 1



Note - The following Low Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHz and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operarting at 85% duty cycle (Chains 1, 5-8).

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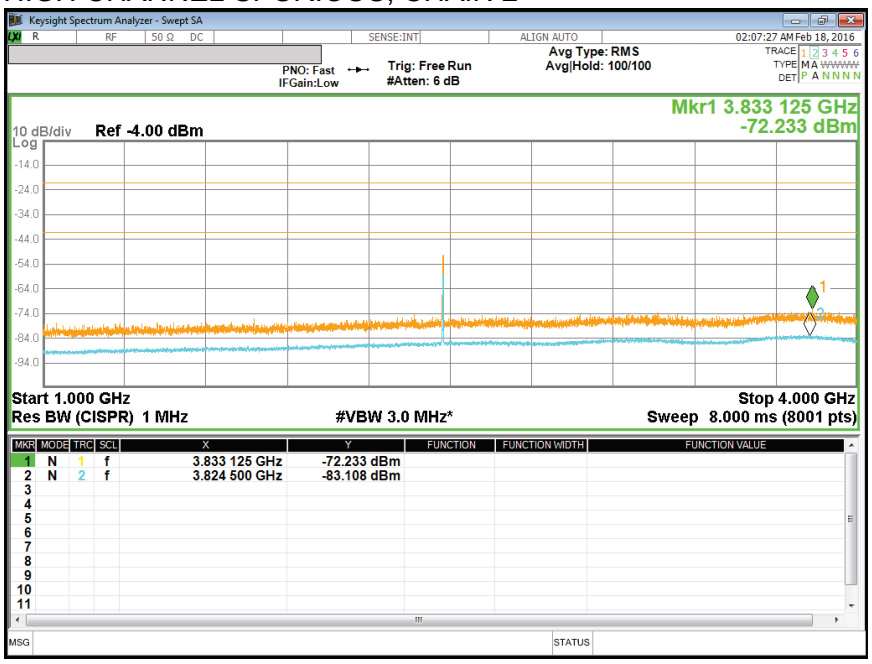
HIGH CHANNEL SPURIOUS, CHAIN 2



Note - The following Low Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHZ and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operarting at 100% duty cycle (Chains 2-4).

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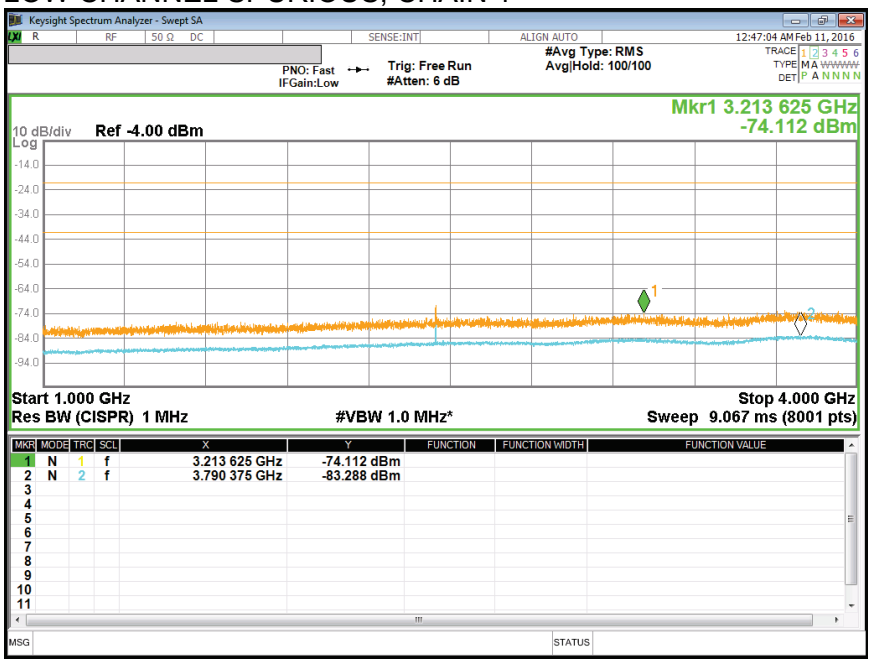
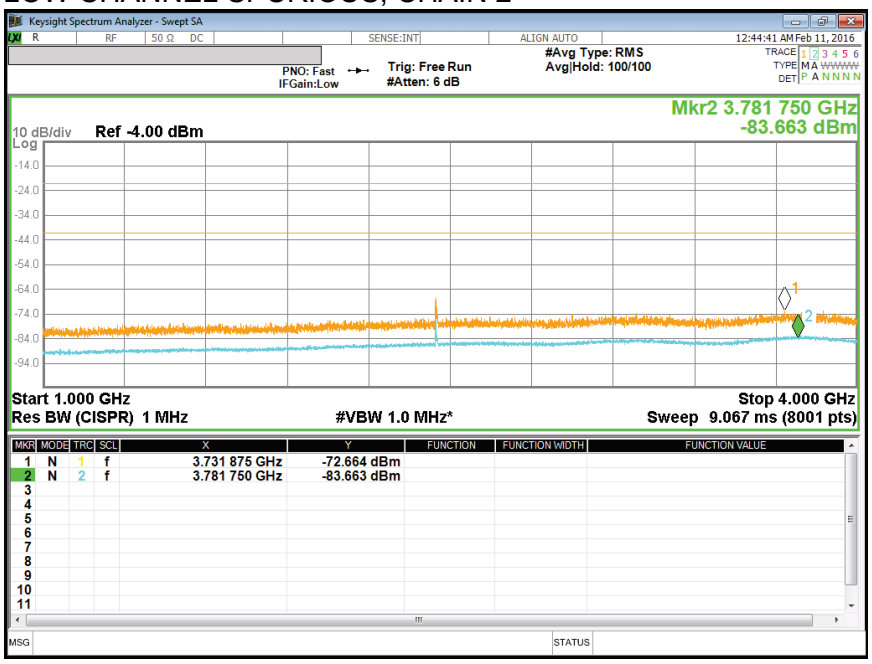
HARMONICS AND SPURIOUS EMISSIONS, LOW CHANNEL

LOW CHANNEL SPURIOUS, CHAIN 1



LOW CHANNEL SPURIOUS, CHAIN 2



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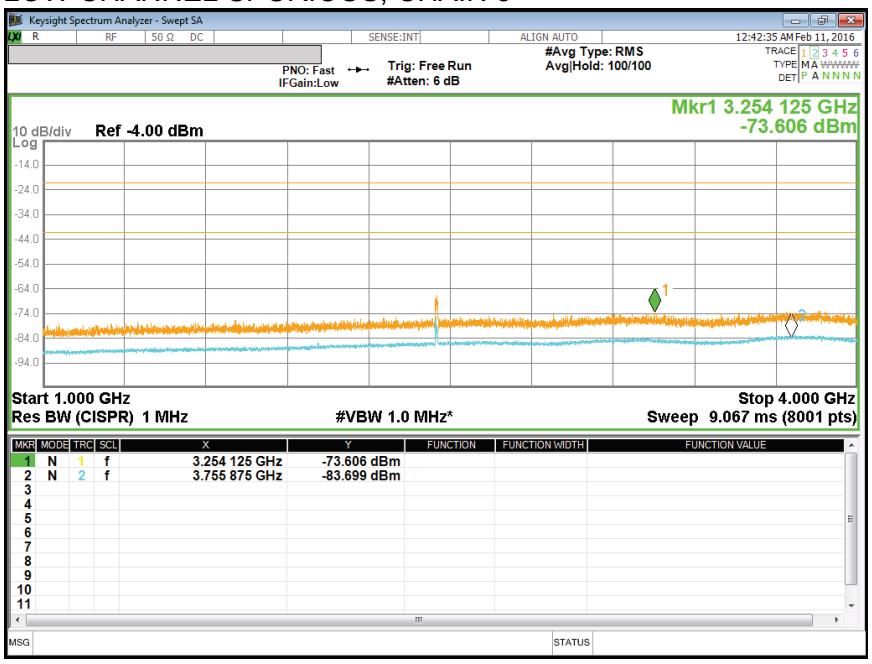
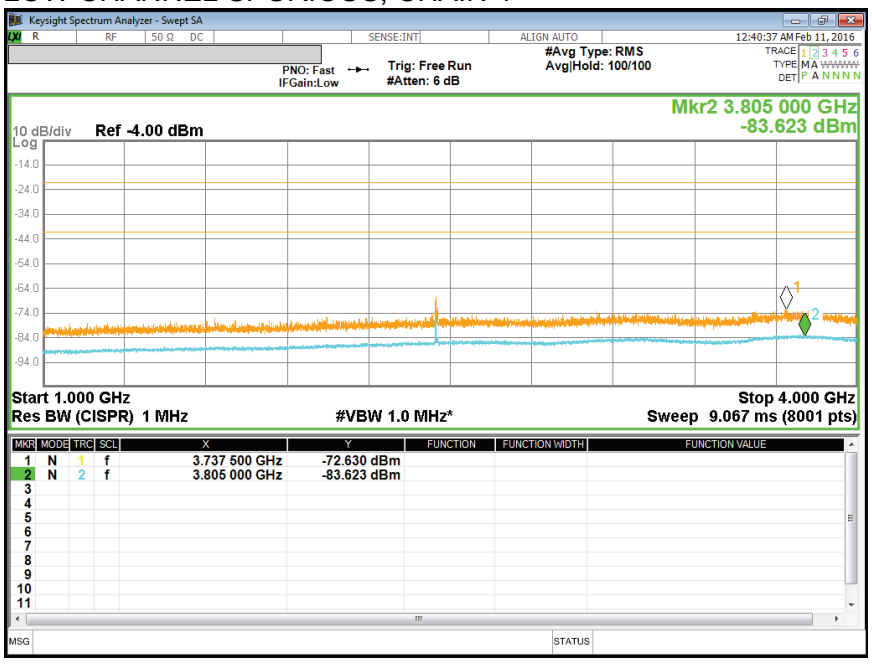
LOW CHANNEL SPURIOUS, CHAIN 3



LOW CHANNEL SPURIOUS, CHAIN 4



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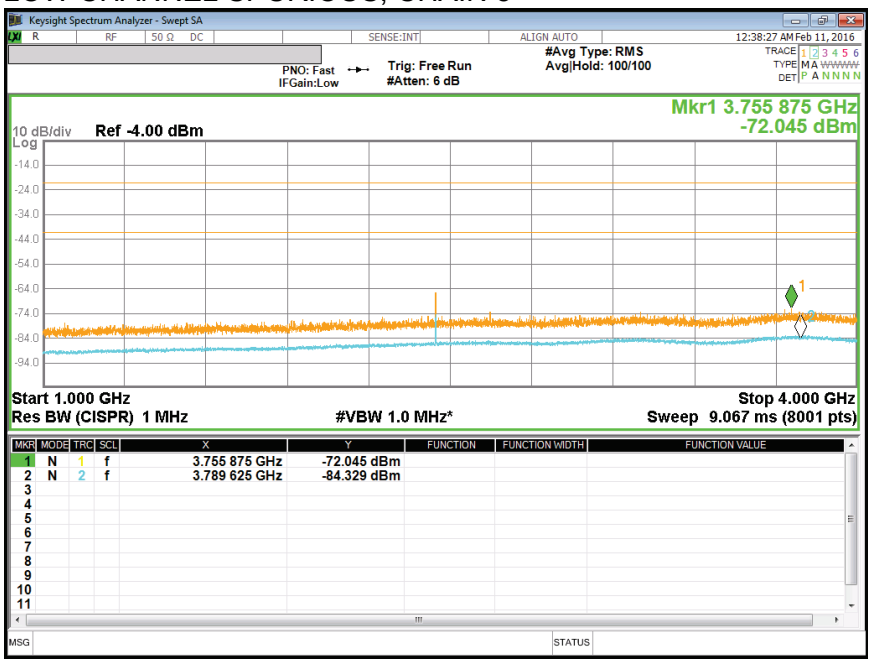
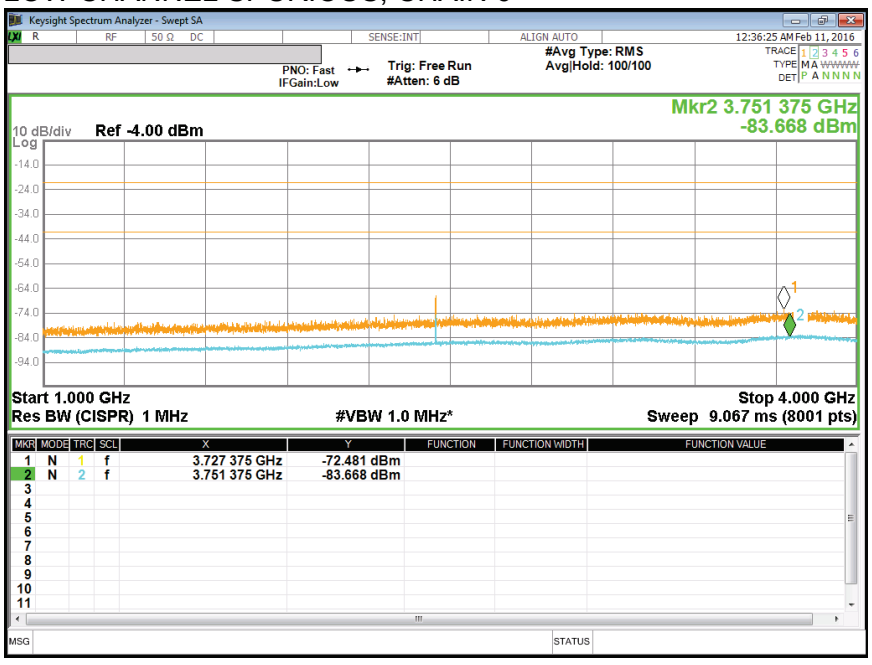
LOW CHANNEL SPURIOUS, CHAIN 5



LOW CHANNEL SPURIOUS, CHAIN 6



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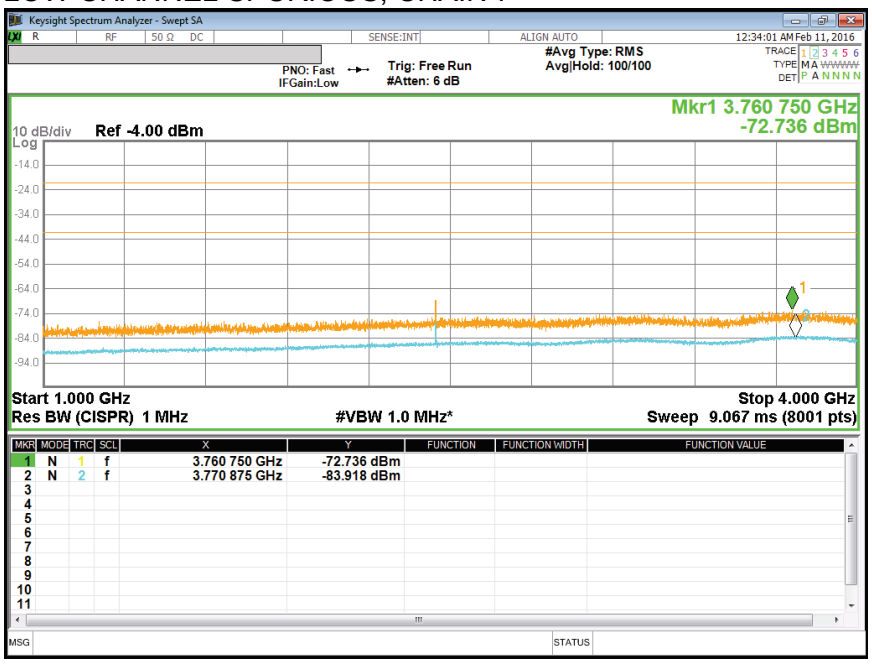
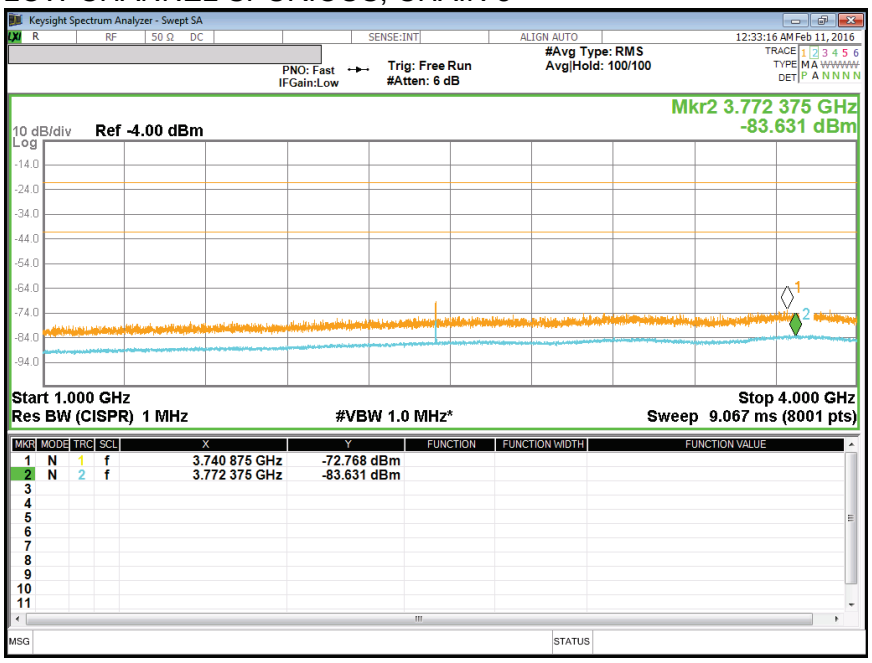
LOW CHANNEL SPURIOUS, CHAIN 7



LOW CHANNEL SPURIOUS, CHAIN 8



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HARMONICS AND SPURIOUS EMISSIONS, MID CHANNEL, TABULAR DATA

The following measurements include an antenna gain of:

AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

Frequency (MHz)		Meter PK Reading Chain 1 (dBm)	Meter PK Reading Chain 2 (dBm)	Meter PK Reading Chain 3 (dBm)	Meter PK Reading Chain 4 (dBm)	Meter PK Reading Chain 5 (dBm)	Meter PK Reading Chain 6 (dBm)	Meter PK Reading Chain 7 (dBm)	Meter PK Reading Chain 8 (dBm)	PK EIRP (dBm)	PK E-field Limit (dBm)	PK E-field Margin (dB)
Enter SA Value here		-73.77	-72.695	-72.499	-72.648	-72.191	-73.588	-72.877	-72.473			
1000-4000	FILTER	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			
	CBL1	0.416	0.416	0.416	0.416	0.416	0.416	0.416	0.416			
	CBL2	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404			
Final Value		-72.85	-71.775	-71.579	-71.728	-71.271	-72.668	-71.957	-71.553	-42.90	-21.2	-21.70

Frequency (MHz)		Meter AVG Reading Chain 1	Meter AVG Reading Chain 2	Meter AVG Reading Chain 3	Meter AVG Reading Chain 4	Meter AVG Reading Chain 5	Meter AVG Reading Chain 6	Meter AVG Reading Chain 7 (dBm)	Meter AVG Reading Chain 8	AVG EIRP (dBm)	AVG E-field Limit (dBm)	AVG E-field Margin (dB)
Enter SA Value here		-83.887	-84.124	-83.906	-83.39	-83.588	-83.62	-83.292	-83.045			
1000-4000	FILTER	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			
	CBL1	0.416	0.416	0.416	0.416	0.416	0.416	0.416	0.416			
	CBL2	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404			
	DCCF	0.68	0	0	0	0.68	0.67	0.75	0.73			
Final Value		-82.287	-83.204	-82.986	-82.47	-81.988	-82.03	-81.622	-81.395	-53.23	-41.2	-12.03

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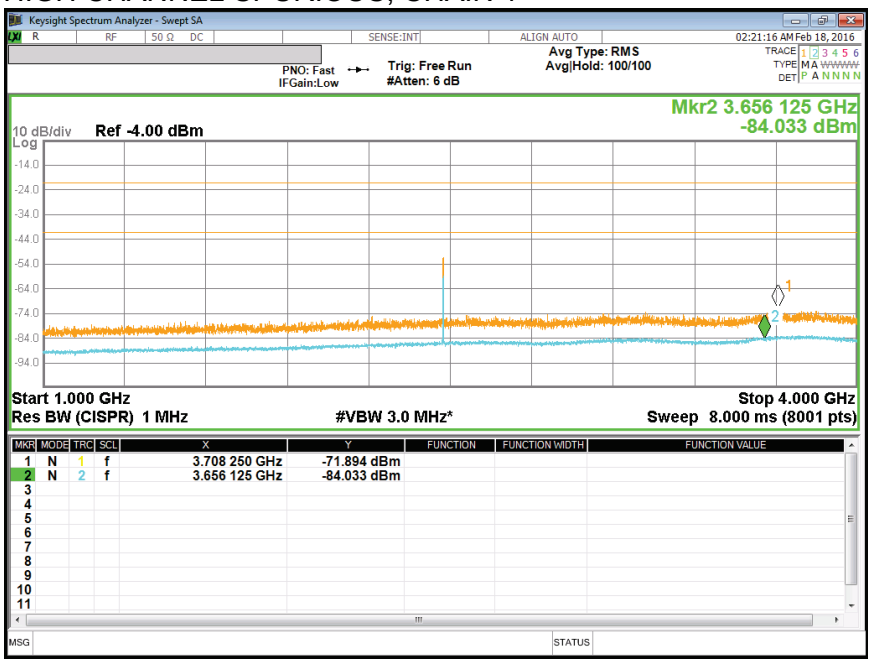
HIGH CHANNEL SPURIOUS, CHAIN 1



Note - The following Mid Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHZ and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operating at 85% duty cycle (Chains 1, 5-8).

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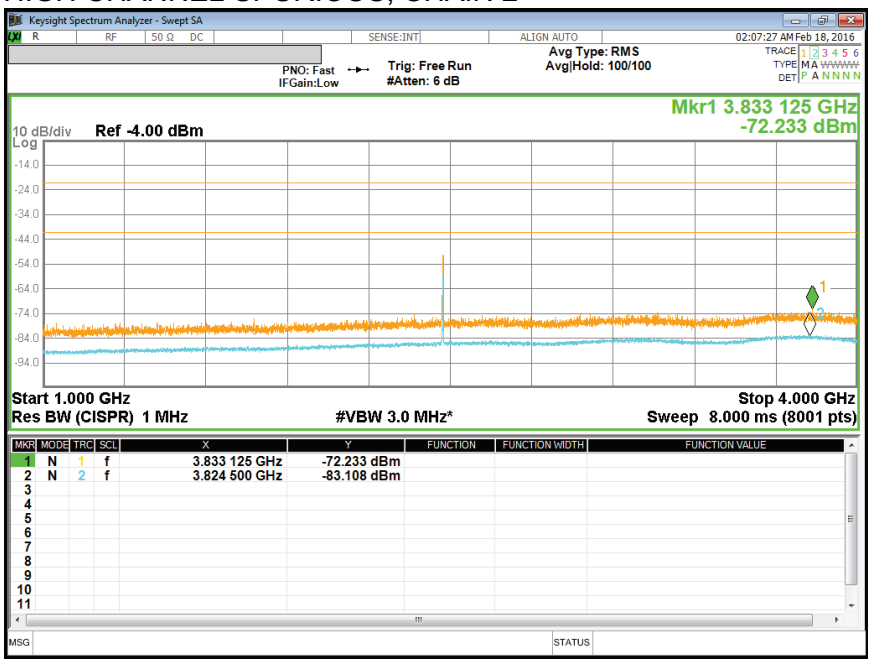
HIGH CHANNEL SPURIOUS, CHAIN 2



Note - The following Mid Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHZ and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operarting at 100% duty cycle (Chains 2-4).

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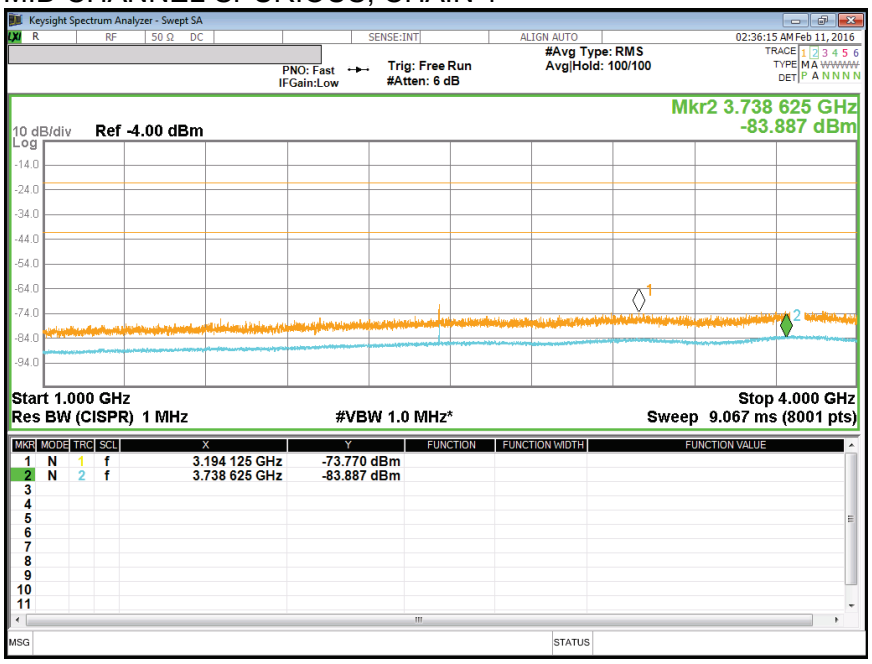
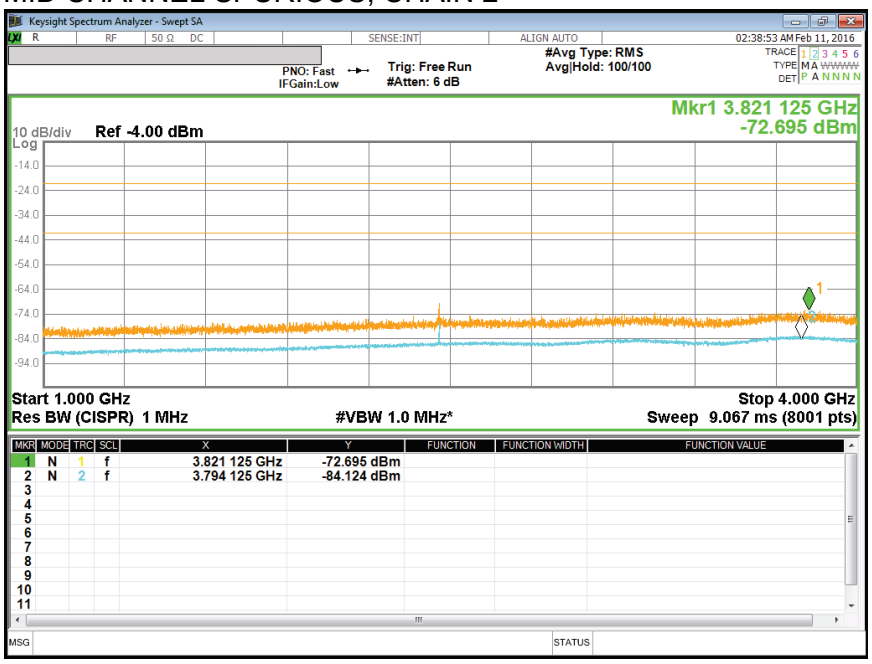
HARMONICS AND SPURIOUS EMISSIONS, MID CHANNEL

MID CHANNEL SPURIOUS, CHAIN 1



MID CHANNEL SPURIOUS, CHAIN 2



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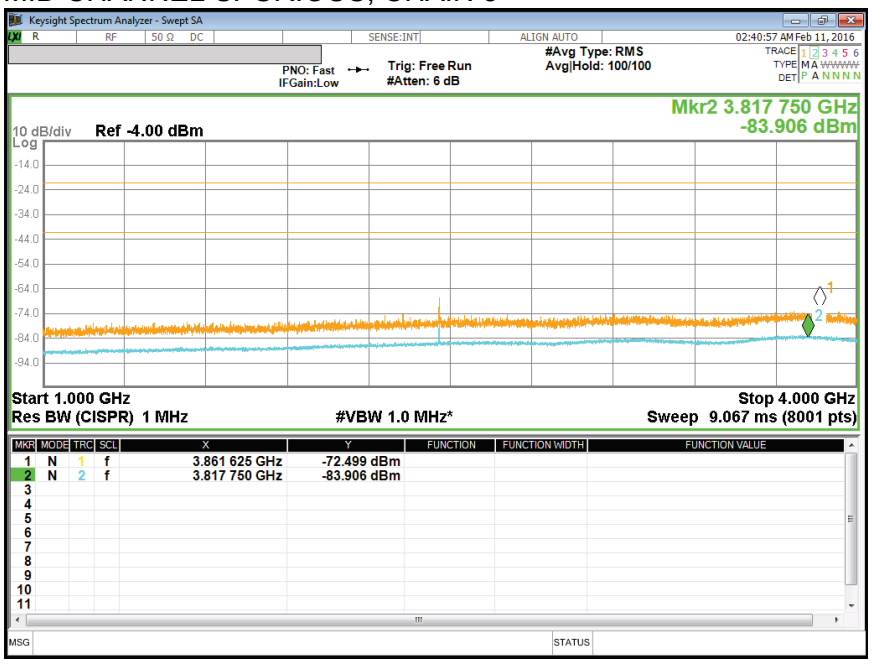
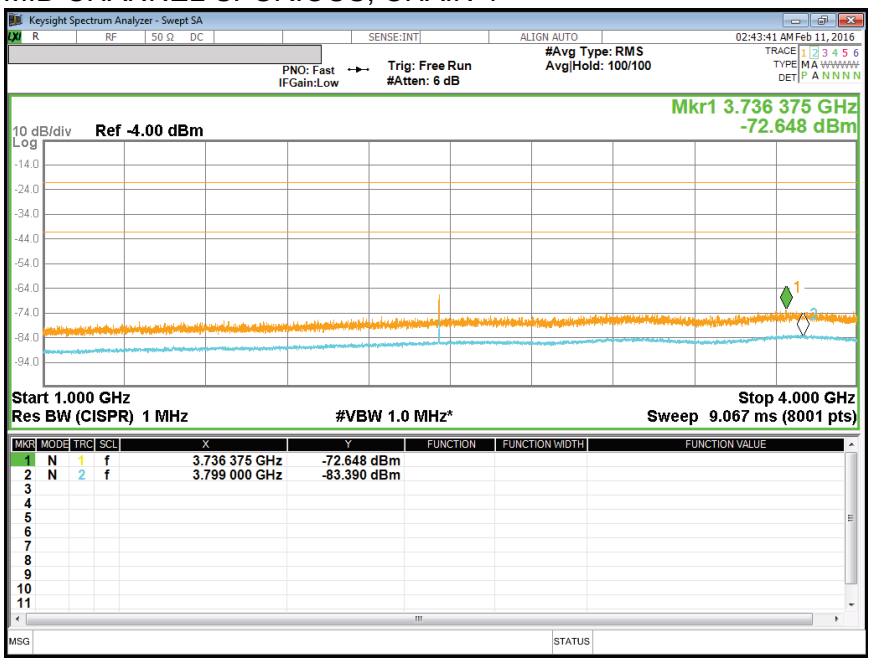
MID CHANNEL SPURIOUS, CHAIN 3



MID CHANNEL SPURIOUS, CHAIN 4



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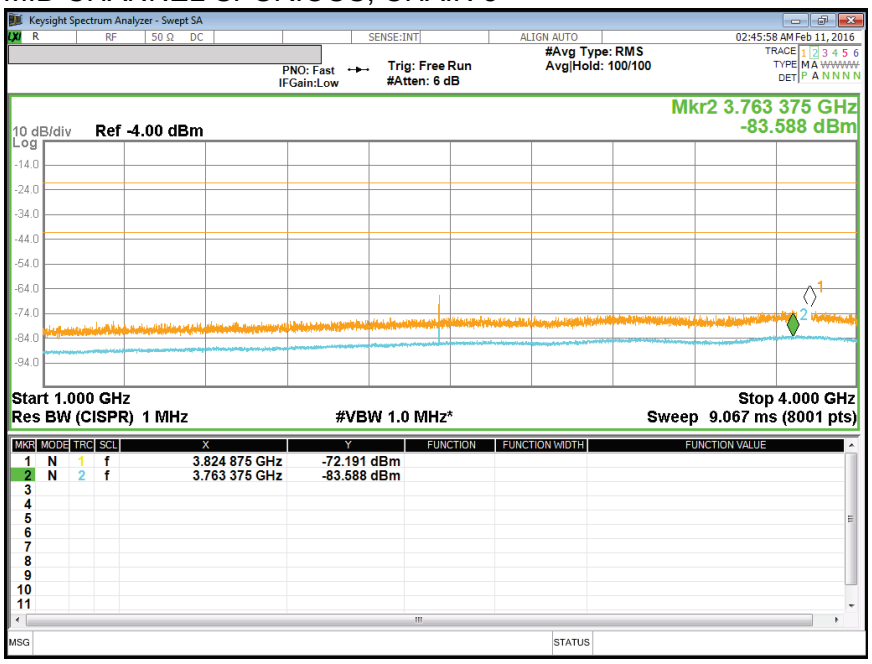
MID CHANNEL SPURIOUS, CHAIN 5



MID CHANNEL SPURIOUS, CHAIN 6

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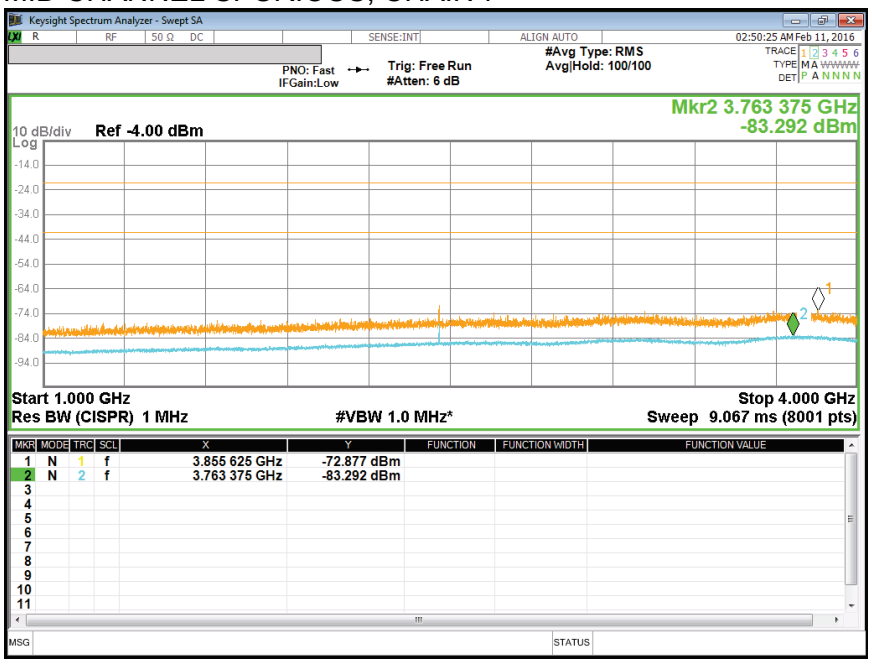
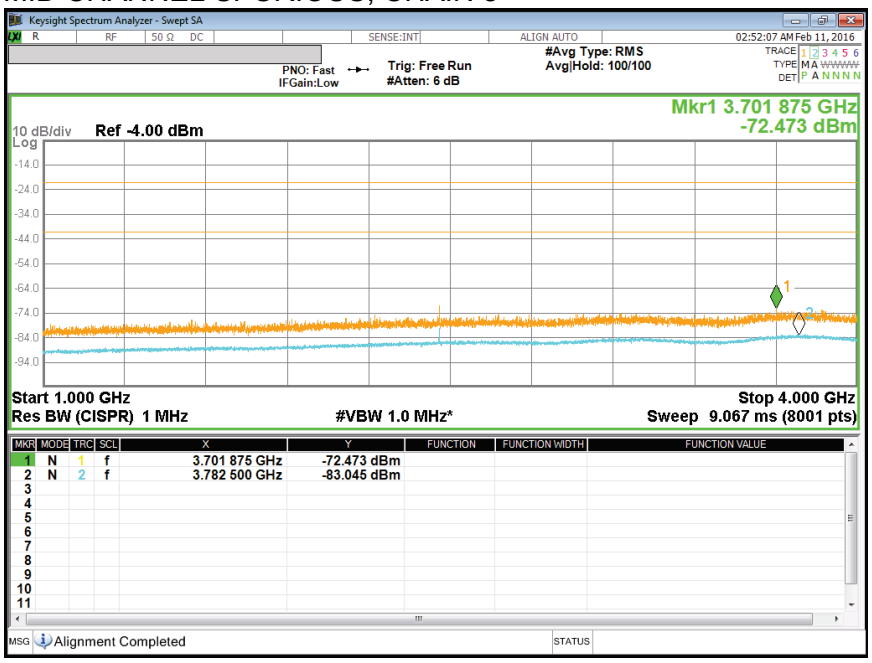
MID CHANNEL SPURIOUS, CHAIN 7



MID CHANNEL SPURIOUS, CHAIN 8



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HARMONICS AND SPURIOUS EMISSIONS, HIGH CHANNEL, TABULAR DATA

The following measurements include an antenna gain of:

AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

Frequency (MHz)		Meter PK Reading Chain 1 (dBm)	Meter PK Reading Chain 2 (dBm)	Meter PK Reading Chain 3 (dBm)	Meter PK Reading Chain 4 (dBm)	Meter PK Reading Chain 5 (dBm)	Meter PK Reading Chain 6 (dBm)	Meter PK Reading Chain 7 (dBm)	Meter PK Reading Chain 8 (dBm)	PK EIRP (dBm)	PK E-field Limit (dBm)	PK E-field Margin (dB)
Enter SA Value here		-73.673	-72.47	-71.877	-73.233	-72.754	-73.694	-72.687	-72.249			
1000-4000	FILTER	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			
	CBL1	0.416	0.416	0.416	0.416	0.416	0.416	0.416	0.416			
	CBL2	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404			
Final Value		-72.753	-71.55	-70.957	-72.313	-71.834	-72.774	-71.767	-71.329	-42.89	-21.2	-21.69

Frequency (MHz)		Meter AVG Reading Chain 1	Meter AVG Reading Chain 2	Meter AVG Reading Chain 3	Meter AVG Reading Chain 4	Meter AVG Reading Chain 5	Meter AVG Reading Chain 6	Meter AVG Reading Chain 7 (dBm)	Meter AVG Reading Chain 8	AVG EIRP (dBm)	AVG E-field Limit (dBm)	AVG E-field Margin (dB)
Enter SA Value here		-83.863	-83.769	-83.864	-83.823	-83.282	-83.438	-82.797	-83.472			
1000-4000	FILTER	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1			
	CBL1	0.416	0.416	0.416	0.416	0.416	0.416	0.416	0.416			
	CBL2	0.404	0.404	0.404	0.404	0.404	0.404	0.404	0.404			
	DCCF	0.68	0	0	0	0.68	0.67	0.75	0.73			
Final Value		-82.263	-82.849	-82.944	-82.903	-81.682	-81.848	-81.127	-81.822	-53.15	-41.2	-11.95

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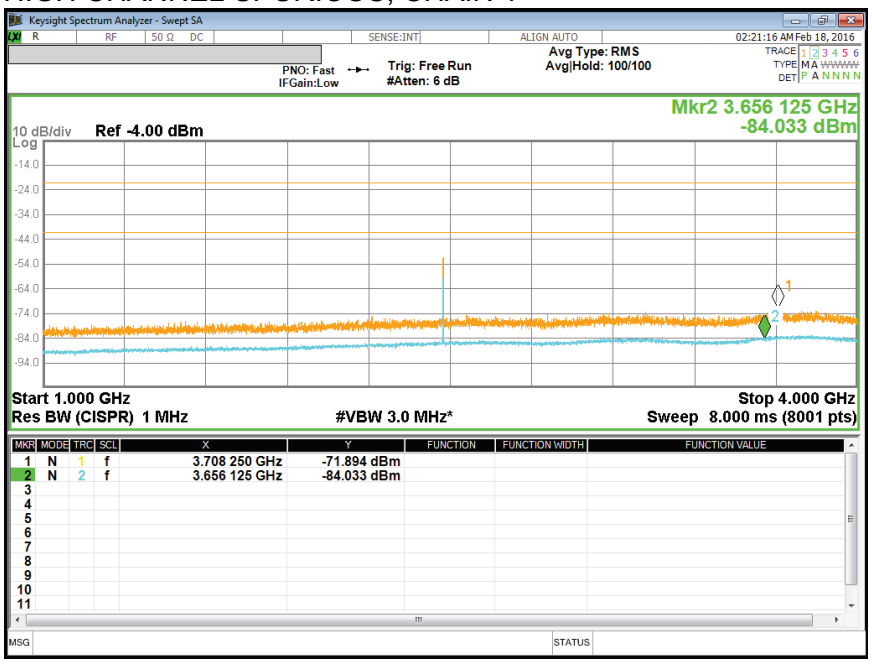
HIGH CHANNEL SPURIOUS, CHAIN 1



Note - The following HIGH Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHZ and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operating at 85% duty cycle (Chains 1, 5-8).

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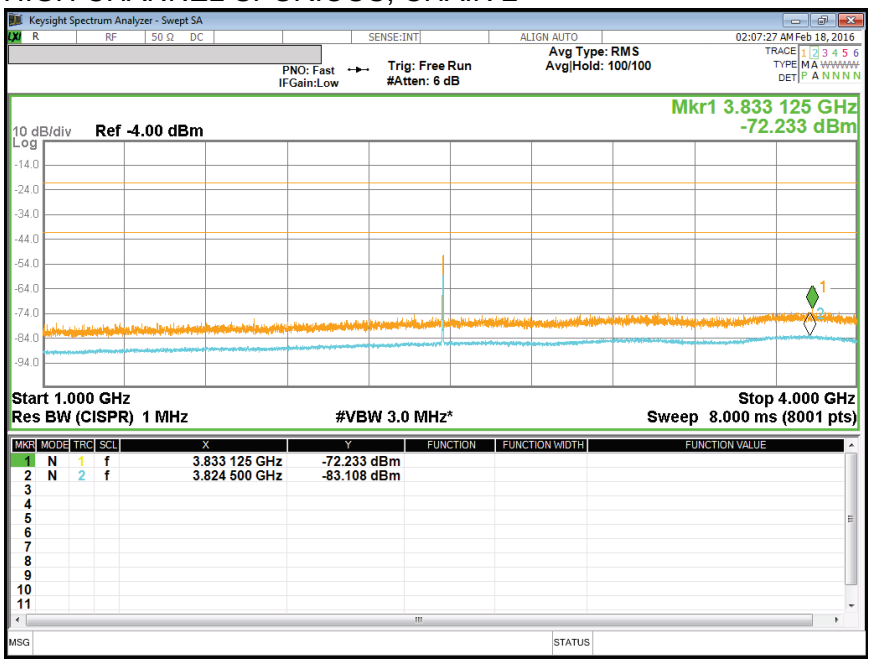
HIGH CHANNEL SPURIOUS, CHAIN 2



Note - The following High Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHZ and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operarting at 100% duty cycle (Chains 2-4).

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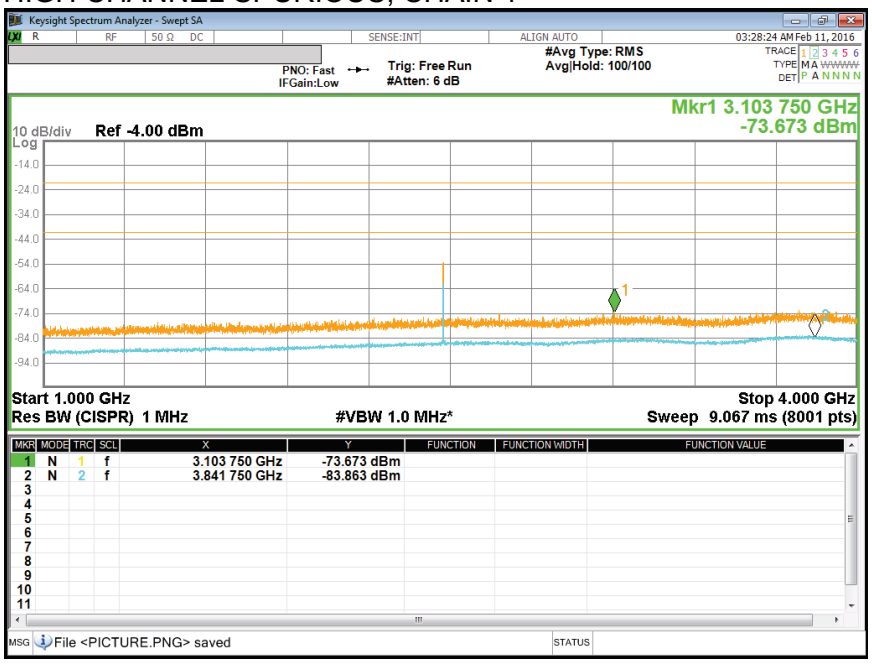
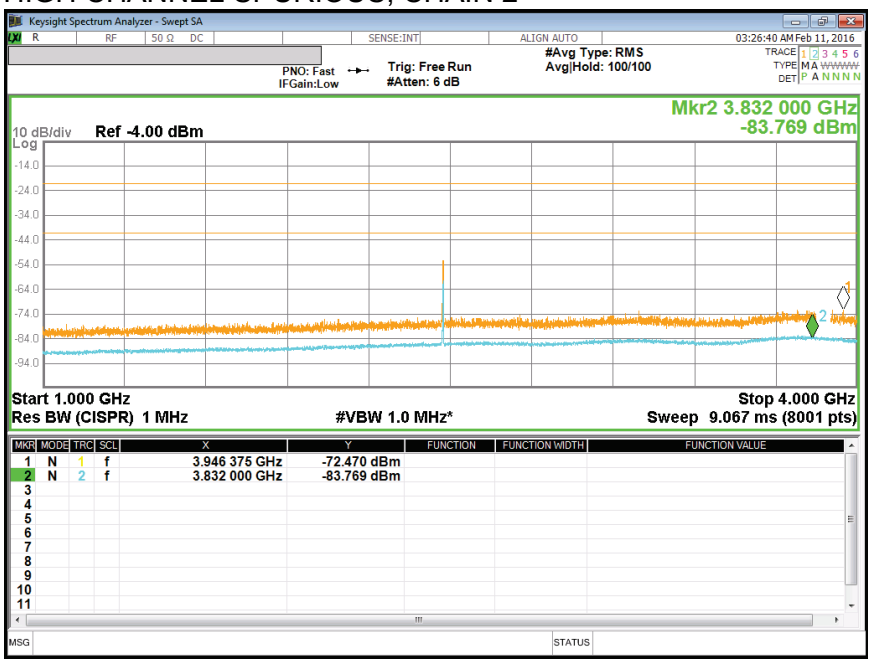
HARMONICS AND SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CHANNEL SPURIOUS, CHAIN 1



HIGH CHANNEL SPURIOUS, CHAIN 2



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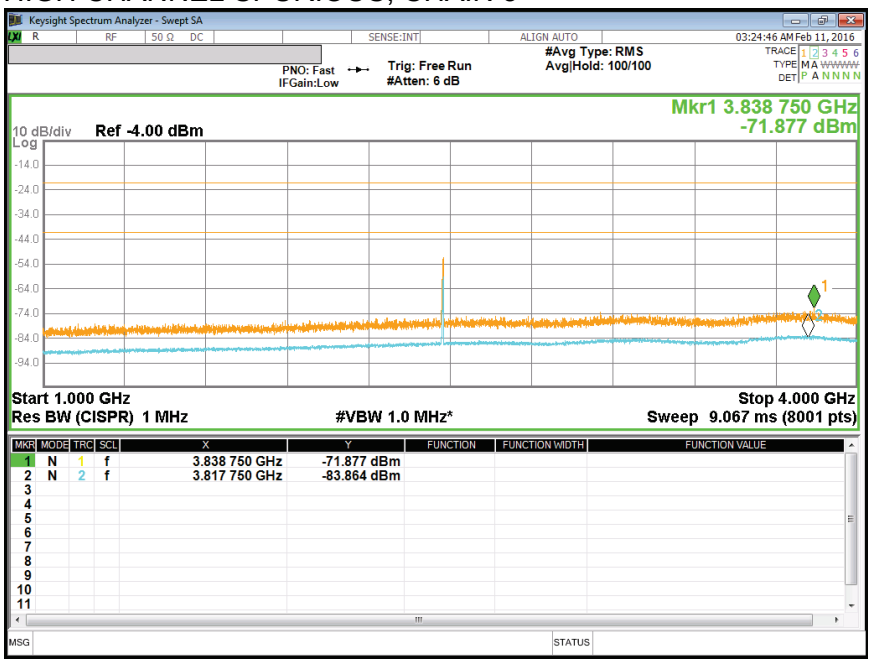
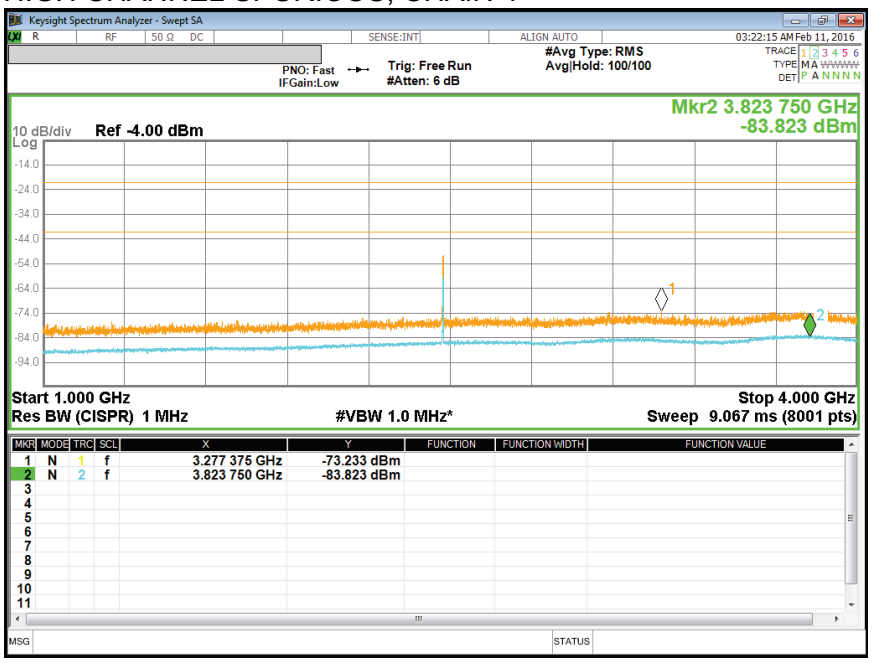
HIGH CHANNEL SPURIOUS, CHAIN 3



HIGH CHANNEL SPURIOUS, CHAIN 4



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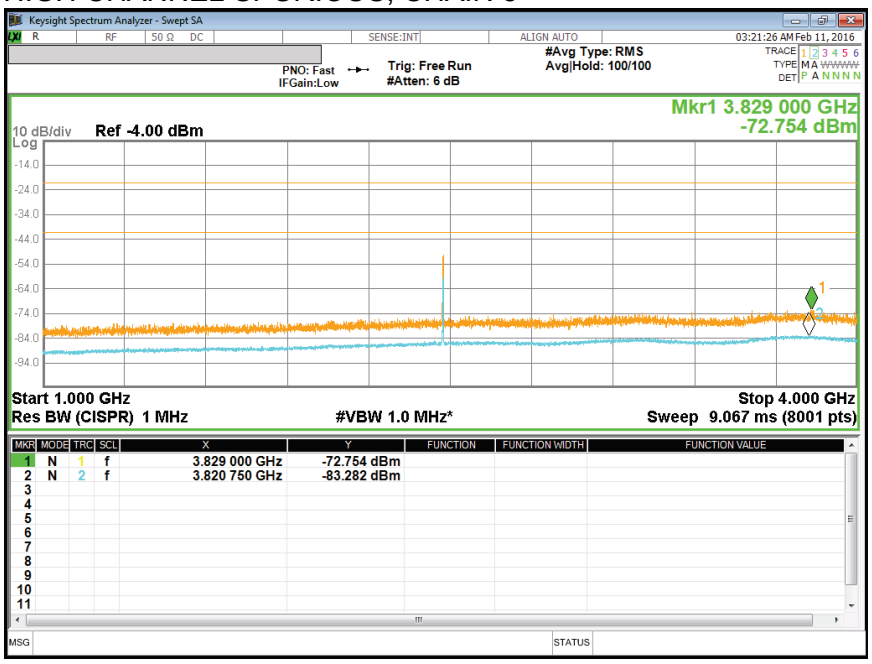
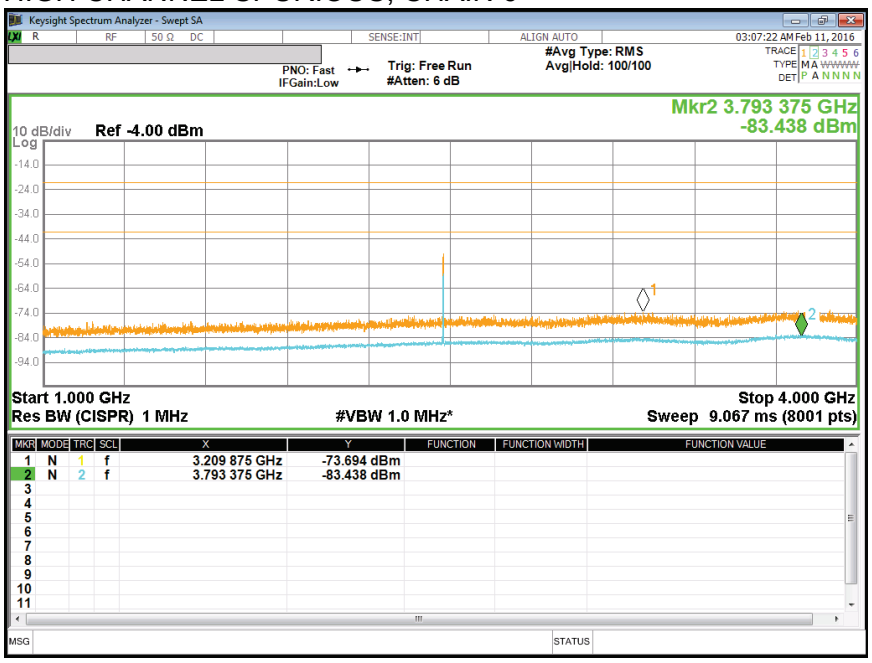
HIGH CHANNEL SPURIOUS, CHAIN 5



HIGH CHANNEL SPURIOUS, CHAIN 6



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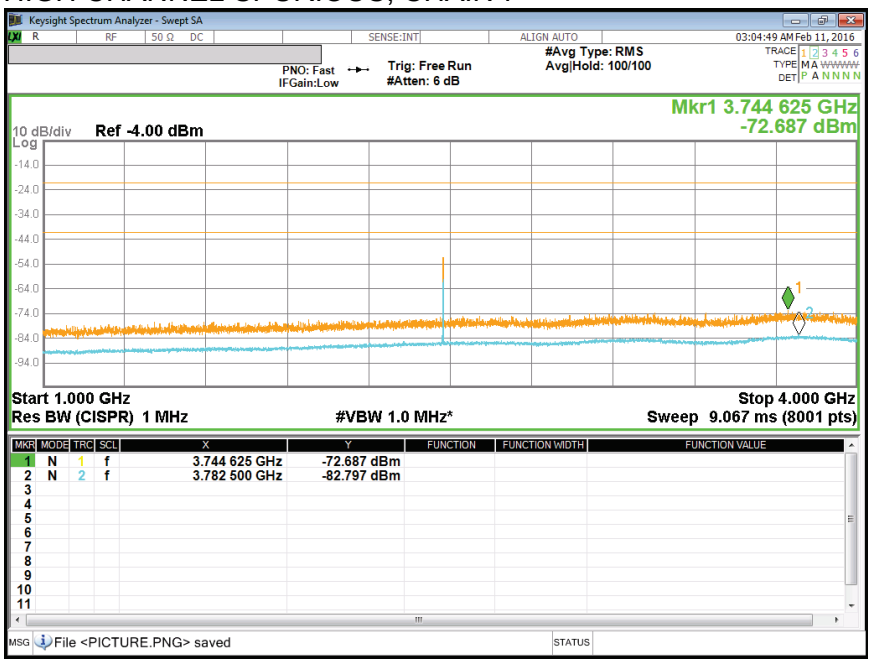
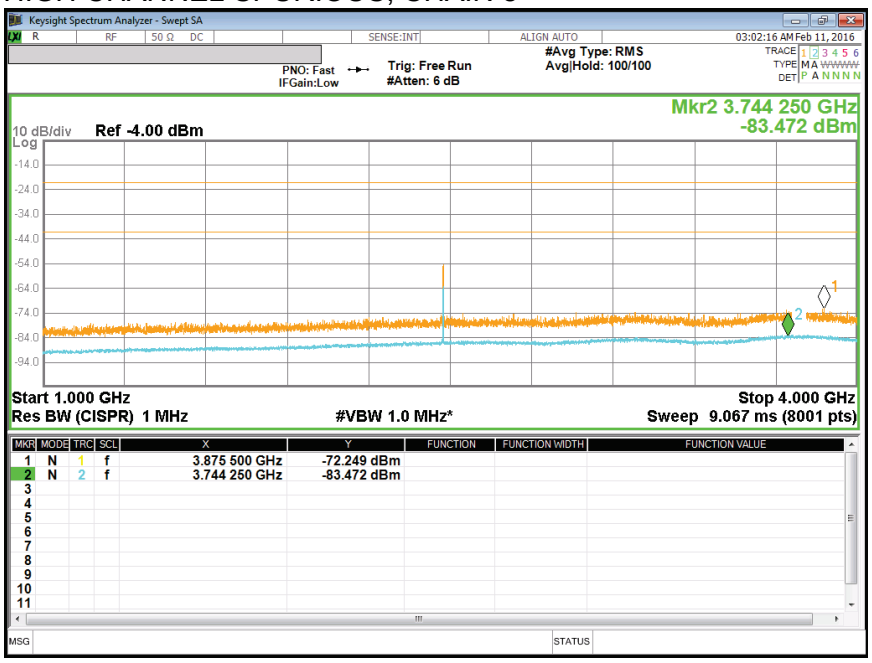
HIGH CHANNEL SPURIOUS, CHAIN 7



HIGH CHANNEL SPURIOUS, CHAIN 8



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9.1.2. TX ABOVE 1 GHz IN THE 2.4 GHz BAND: 4-18 GHz

HARMONICS AND SPURIOUS EMISSIONS, LOW CHANNEL, TABULAR DATA

The following measurements include an antenna gain of:

AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

Frequency (MHz)		Meter PK Reading Chain 1 (dBm)	Meter PK Reading Chain 2 (dBm)	Meter PK Reading Chain 3 (dBm)	Meter PK Reading Chain 4 (dBm)	Meter PK Reading Chain 5 (dBm)	Meter PK Reading Chain 6 (dBm)	Meter PK Reading Chain 7 (dBm)	Meter PK Reading Chain 8 (dBm)	PK EIRP (dBm)	PK E-field Limit (dBm)	PK E-field Margin (dB)
Enter SA Value here		-71.538	-70.546	-71.043	-71.112	-71.621	-71.877	-70.89	-71.187			
4000-18000	FILTER	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8			
	CBL1	1.414	1.414	1.414	1.414	1.414	1.414	1.414	1.414			
	CBL2	1.475	1.475	1.475	1.475	1.475	1.475	1.475	1.475			
Final Value		-66.849	-65.857	-66.354	-66.423	-66.932	-67.188	-66.201	-66.498	-37.54	-21.2	-16.34

Frequency (MHz)		Meter AVG Reading Chain 1	Meter AVG Reading Chain 2	Meter AVG Reading Chain 3	Meter AVG Reading Chain 4	Meter AVG Reading Chain 5	Meter AVG Reading Chain 6	Meter AVG Reading Chain 7 (dBm)	Meter AVG Reading Chain 8	AVG EIRP (dBm)	AVG E-field Limit (dBm)	AVG E-field Margin (dB)
Enter SA Value here		-82.032	-82.062	-81.868	-81.986	-81.846	-81.694	-82.115	-81.885			
4000-18000	FILTER	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8			
	CBL1	1.414	1.414	1.414	1.414	1.414	1.414	1.414	1.414			
	CBL2	1.475	1.475	1.475	1.475	1.475	1.475	1.475	1.475			
	DCCF	0.68	0	0	0	0.68	0.67	0.75	0.73			
Final Value		-76.663	-77.373	-77.179	-77.297	-76.477	-76.335	-76.676	-76.466	-47.81	-41.2	-6.61

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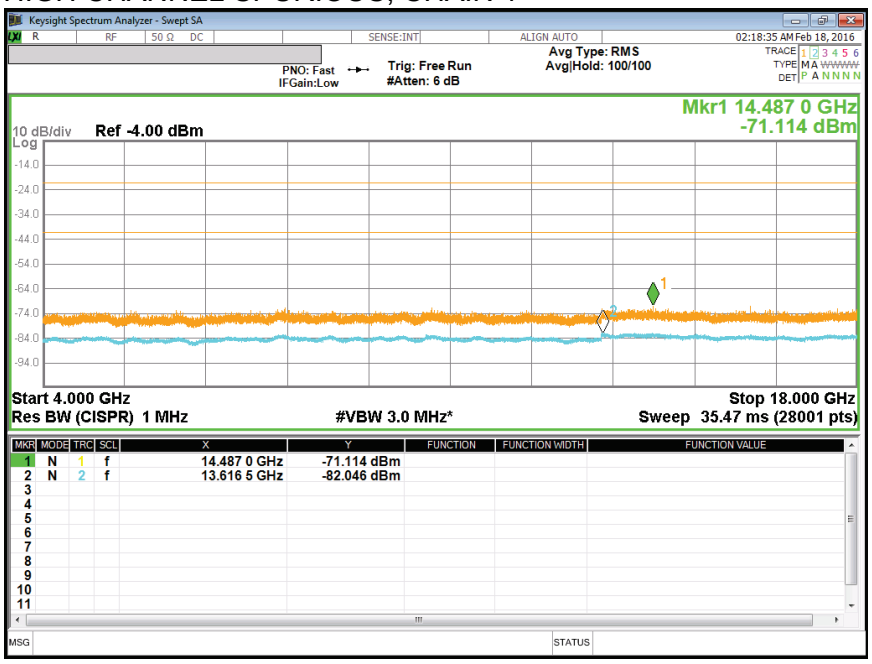
HIGH CHANNEL SPURIOUS, CHAIN 1



Note - The following Low Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHZ and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operating at 85% duty cycle (Chains 1, 5-8).

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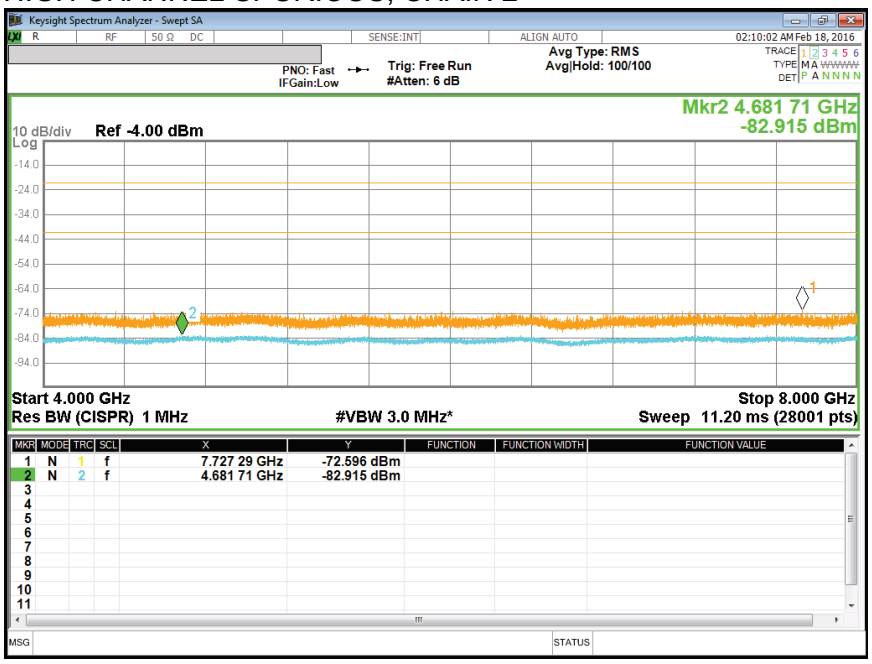
HIGH CHANNEL SPURIOUS, CHAIN 2



Note - The following Low Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHZ and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operating at 100% duty cycle (Chains 2-4).

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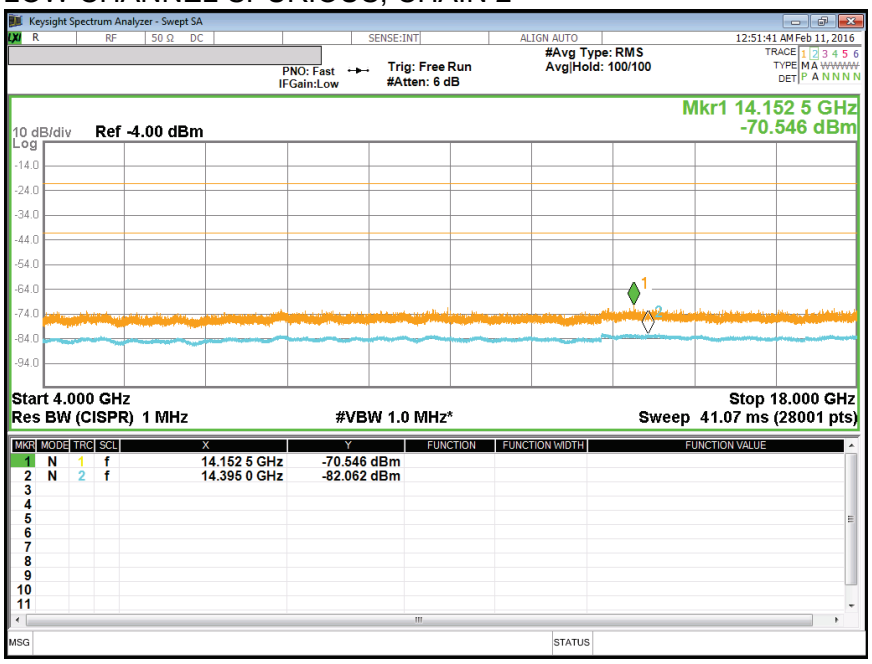
HARMONICS AND SPURIOUS EMISSIONS, LOW CHANNEL

LOW CHANNEL SPURIOUS, CHAIN 1

LOW CHANNEL SPURIOUS, CHAIN 2



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LOW CHANNEL SPURIOUS, CHAIN 3

LOW CHANNEL SPURIOUS, CHAIN 4

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LOW CHANNEL SPURIOUS, CHAIN 5

LOW CHANNEL SPURIOUS, CHAIN 6

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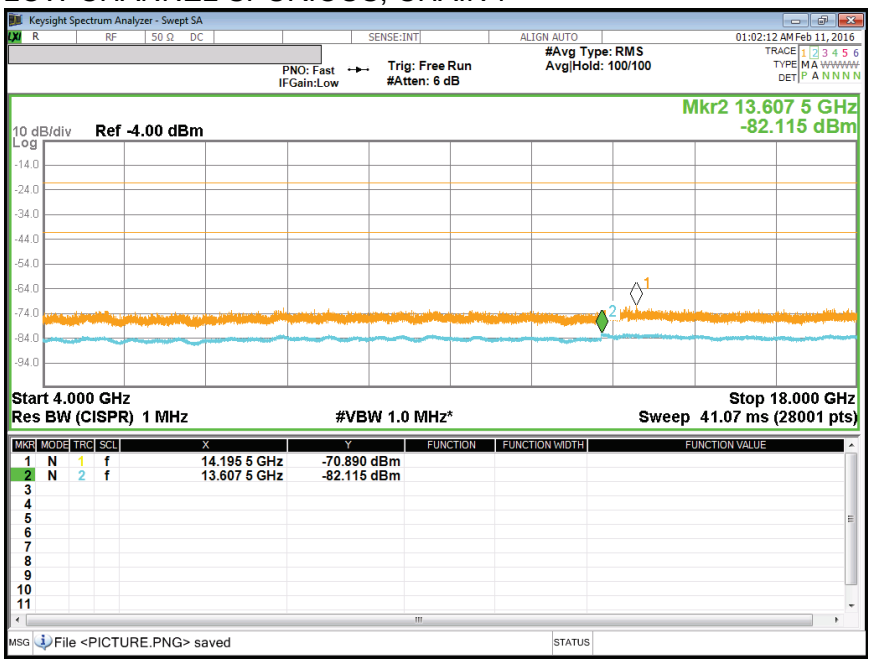
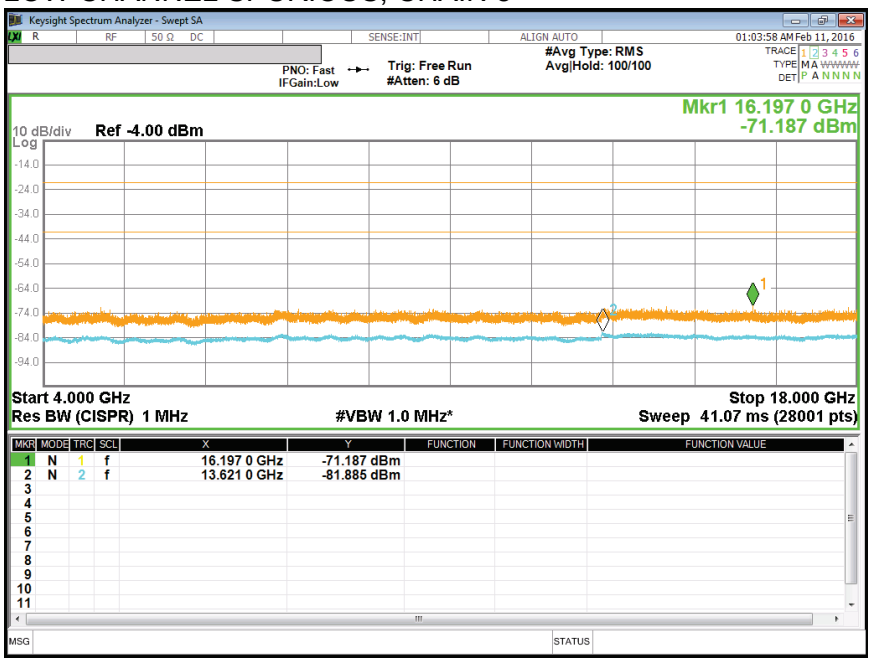
LOW CHANNEL SPURIOUS, CHAIN 7



LOW CHANNEL SPURIOUS, CHAIN 8



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HARMONICS AND SPURIOUS EMISSIONS, MID CHANNEL, TABULAR DATA

The following measurements include an antenna gain of:

AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

Frequency (MHz)		Meter PK Reading Chain 1 (dBm)	Meter PK Reading Chain 2 (dBm)	Meter PK Reading Chain 3 (dBm)	Meter PK Reading Chain 4 (dBm)	Meter PK Reading Chain 5 (dBm)	Meter PK Reading Chain 6 (dBm)	Meter PK Reading Chain 7 (dBm)	Meter PK Reading Chain 8 (dBm)	PK EIRP (dBm)	PK E-field Limit (dBm)	PK E-field Margin (dB)
Enter SA Value here		-71.121	-71.398	-71.517	-71.727	-71.714	-71.406	-71.518	-71.355			
4000-18000	FILTER	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8			
	CBL1	1.414	1.414	1.414	1.414	1.414	1.414	1.414	1.414			
	CBL2	1.475	1.475	1.475	1.475	1.475	1.475	1.475	1.475			
Final Value		-67.907	-68.184	-68.303	-68.513	-68.5	-68.192	-68.304	-68.141	-39.27	-21.2	-18.07

Frequency (MHz)		Meter AVG Reading Chain 1	Meter AVG Reading Chain 2	Meter AVG Reading Chain 3	Meter AVG Reading Chain 4	Meter AVG Reading Chain 5	Meter AVG Reading Chain 6	Meter AVG Reading Chain 7 (dBm)	Meter AVG Reading Chain 8	AVG EIRP (dBm)	AVG E-field Limit (dBm)	AVG E-field Margin (dB)
Enter SA Value here		-81.867	-81.778	-81.736	-82.065	-81.915	-81.735	-81.974	-81.93			
4000-18000	FILTER	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8			
	CBL1	1.414	1.414	1.414	1.414	1.414	1.414	1.414	1.414			
	CBL2	1.475	1.475	1.475	1.475	1.475	1.475	1.475	1.475			
	DCCF	0.68	0	0	0	0.68	0.67	0.75	0.73			
Final Value		-76.498	-77.089	-77.047	-77.376	-76.546	-76.376	-76.535	-76.511	-47.75	-41.2	-6.55

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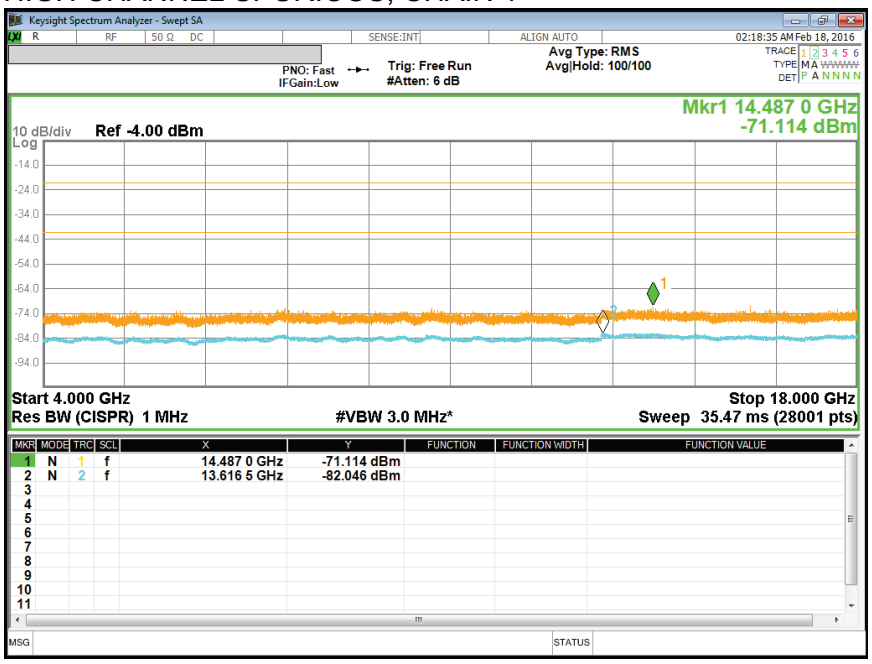
HIGH CHANNEL SPURIOUS, CHAIN 1



Note - The following Mid Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHZ and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operating at 85% duty cycle (Chains 1, 5-8).

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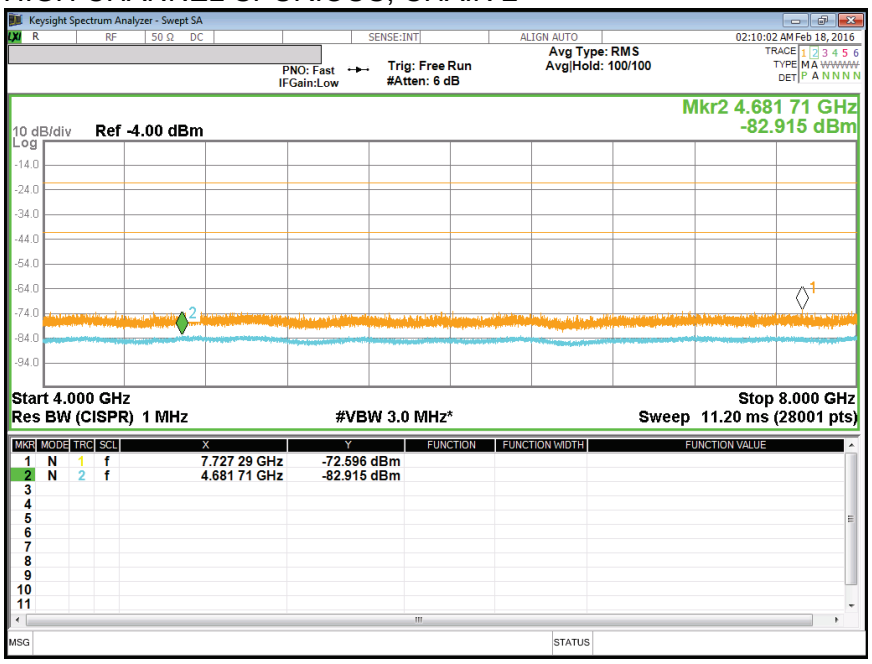
HIGH CHANNEL SPURIOUS, CHAIN 2



Note - The following Mid Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHZ and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operarting at 100% duty cycle (Chains 2-4).

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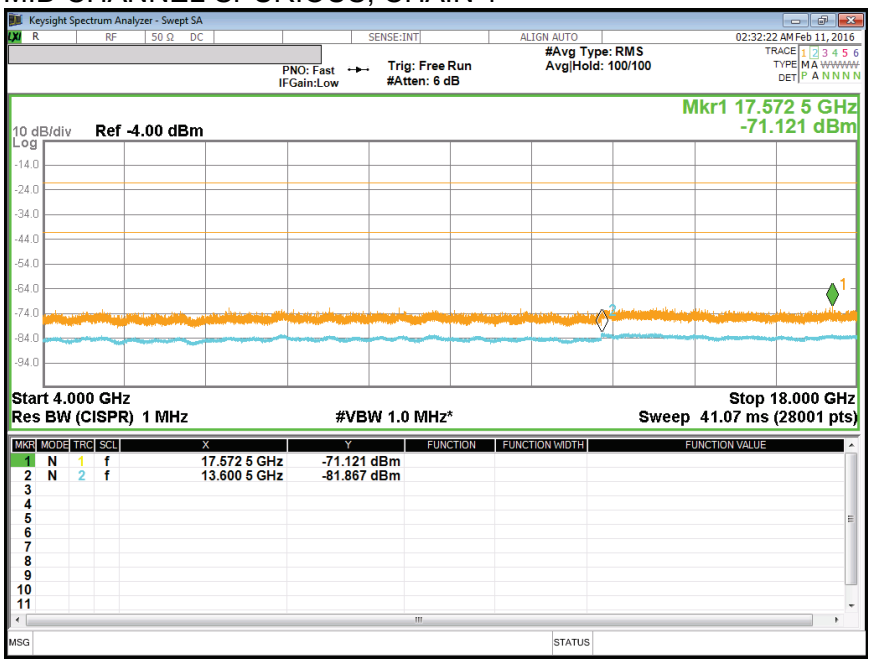
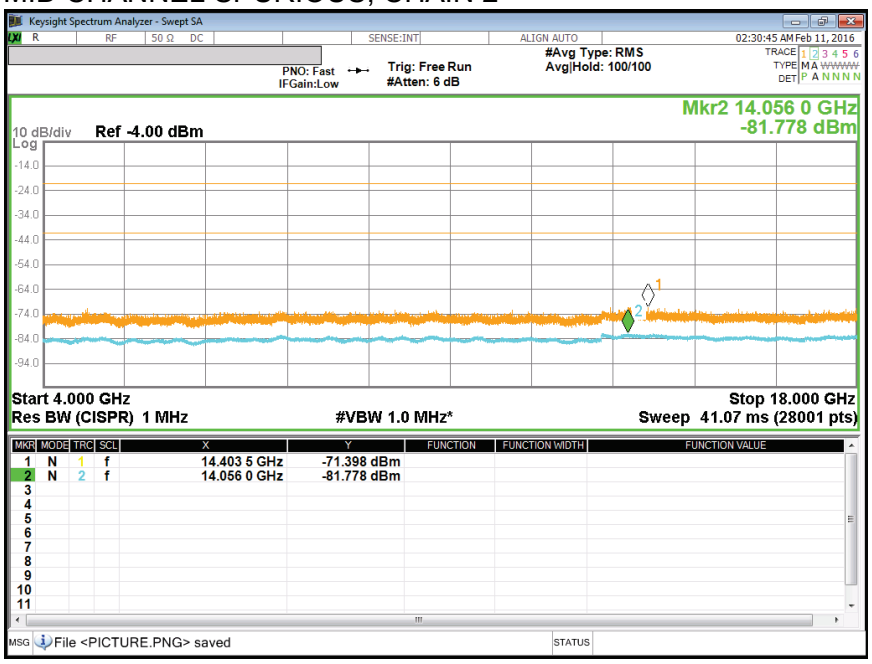
HARMONICS AND SPURIOUS EMISSIONS, MID CHANNEL

MID CHANNEL SPURIOUS, CHAIN 1



MID CHANNEL SPURIOUS, CHAIN 2



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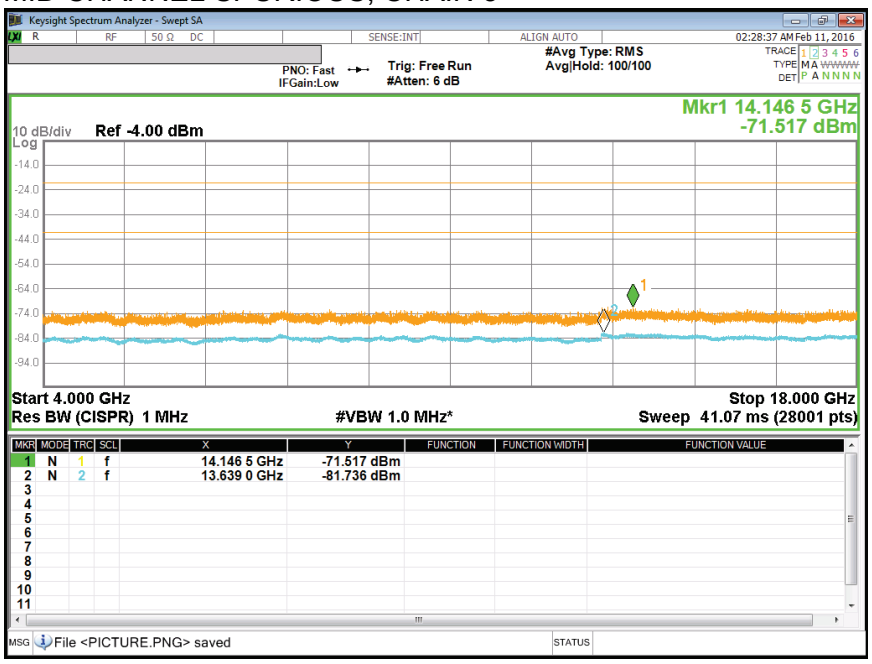
MID CHANNEL SPURIOUS, CHAIN 3



MID CHANNEL SPURIOUS, CHAIN 4

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MID CHANNEL SPURIOUS, CHAIN 5

MID CHANNEL SPURIOUS, CHAIN 6

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MID CHANNEL SPURIOUS, CHAIN 7

MID CHANNEL SPURIOUS, CHAIN 8

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HARMONICS AND SPURIOUS EMISSIONS, HIGH CHANNEL, TABULAR DATA

The following measurements include an antenna gain of:

AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

Frequency (MHz)		Meter PK Reading Chain 1 (dBm)	Meter PK Reading Chain 2 (dBm)	Meter PK Reading Chain 3 (dBm)	Meter PK Reading Chain 4 (dBm)	Meter PK Reading Chain 5 (dBm)	Meter PK Reading Chain 6 (dBm)	Meter PK Reading Chain 7 (dBm)	Meter PK Reading Chain 8 (dBm)	PK EIRP (dBm)	PK E-field Limit (dBm)	PK E-field Margin (dB)
Enter SA Value here		-71.915	-70.772	-71.161	-71.26	-71.019	-71.5	-71.355	-71.928			
4000-18000	FILTER	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8			
	CBL1	1.414	1.414	1.414	1.414	1.414	1.414	1.414	1.414			
	CBL2	1.475	1.475	1.475	1.475	1.475	1.475	1.475	1.475			
Final Value		-68.701	-67.558	-67.947	-68.046	-67.805	-68.286	-68.141	-68.714	-39.14	-21.2	-17.94

Frequency (MHz)		Meter AVG Reading Chain 1	Meter AVG Reading Chain 2	Meter AVG Reading Chain 3	Meter AVG Reading Chain 4	Meter AVG Reading Chain 5	Meter AVG Reading Chain 6	Meter AVG Reading Chain 7 (dBm)	Meter AVG Reading Chain 8	AVG EIRP (dBm)	AVG E-field Limit (dBm)	AVG E-field Margin (dB)
Enter SA Value here		-81.826	-82.007	-82.004	-81.939	-81.941	-81.832	-81.717	-82.016			
4000-18000	FILTER	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8			
	CBL1	1.414	1.414	1.414	1.414	1.414	1.414	1.414	1.414			
	CBL2	1.475	1.475	1.475	1.475	1.475	1.475	1.475	1.475			
	DCCF	0.68	0	0	0	0.68	0.67	0.75	0.73			
Final Value		-76.457	-77.318	-77.315	-77.25	-76.572	-76.473	-76.278	-76.597	-47.78	-41.2	-6.58

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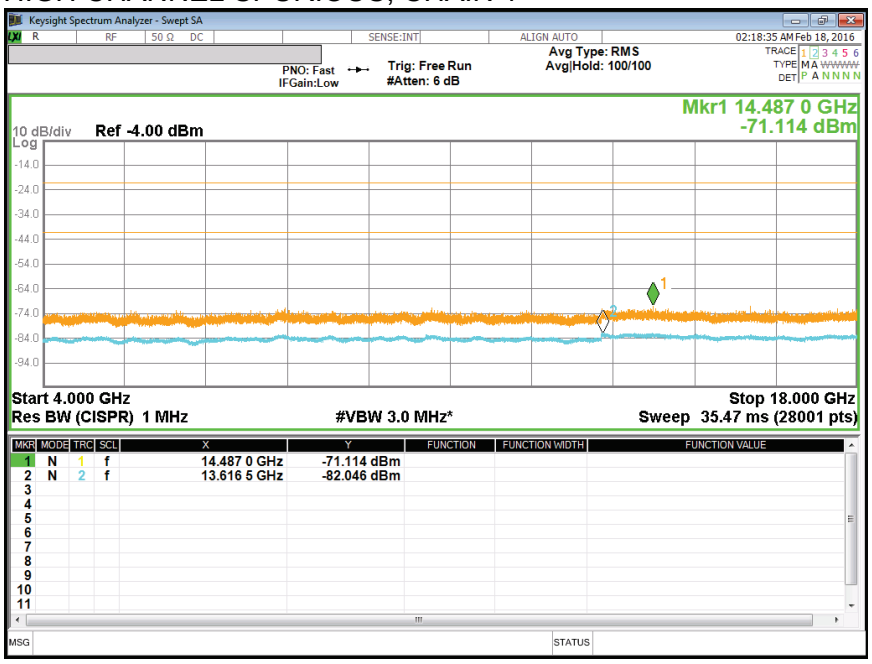
HIGH CHANNEL SPURIOUS, CHAIN 1



Note - The following HIGH Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHZ and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operating at 85% duty cycle (Chains 1, 5-8).

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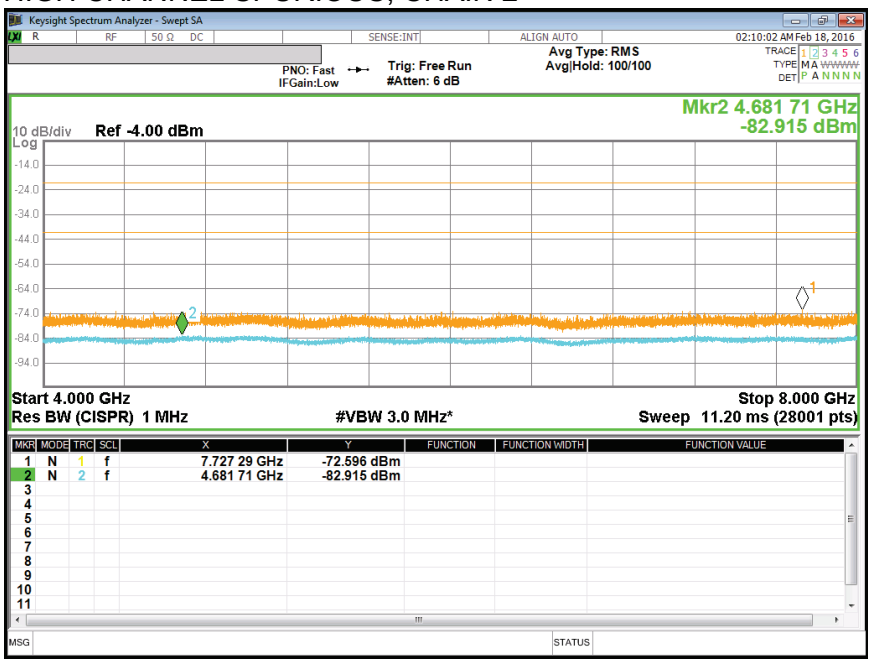
HIGH CHANNEL SPURIOUS, CHAIN 2



Note - The following High Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHZ and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operarting at 100% duty cycle (Chains 2-4).

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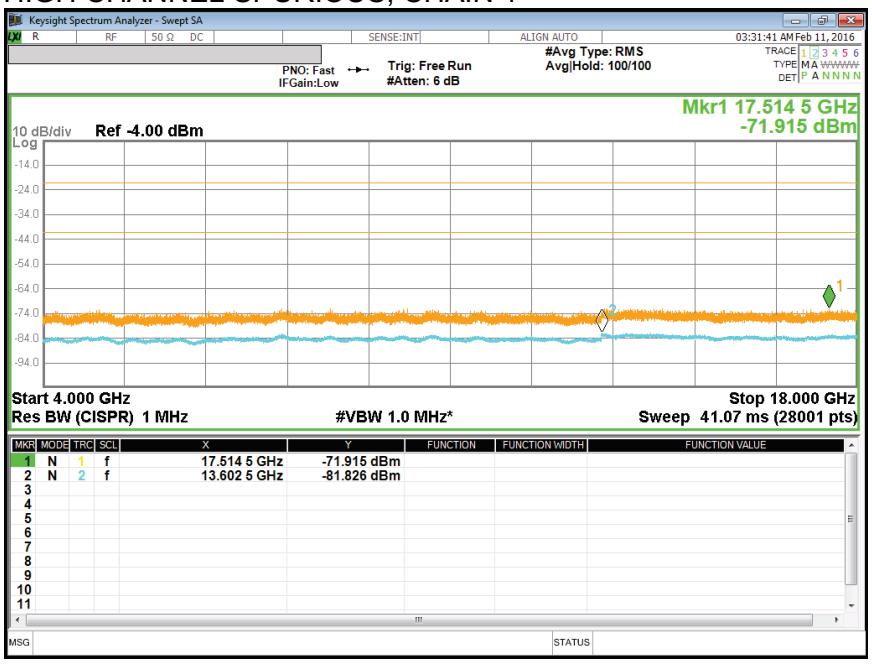
HARMONICS AND SPURIOUS EMISSIONS, HIGH CHANNEL

HIGH CHANNEL SPURIOUS, CHAIN 1



HIGH CHANNEL SPURIOUS, CHAIN 2

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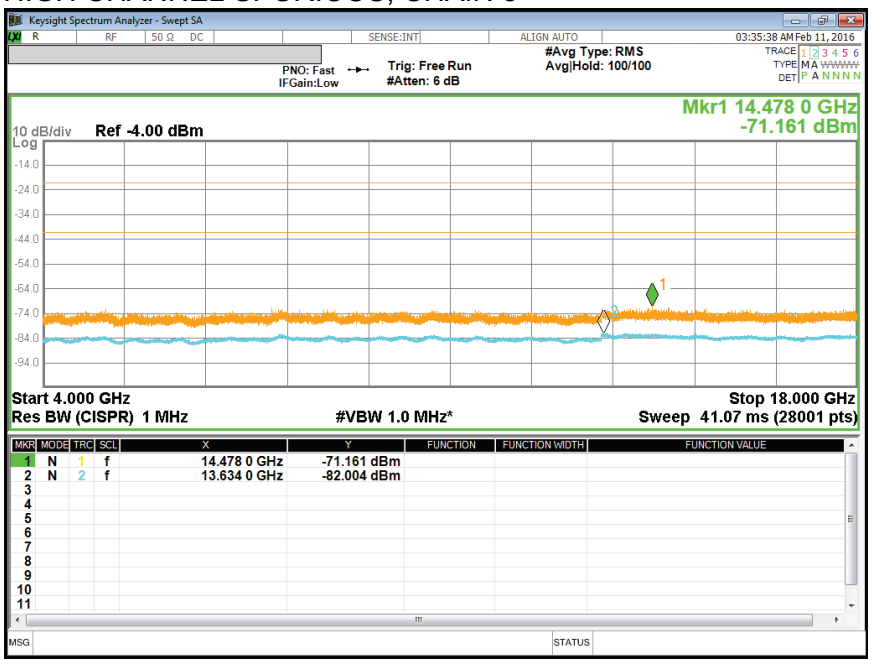
HIGH CHANNEL SPURIOUS, CHAIN 3



HIGH CHANNEL SPURIOUS, CHAIN 4

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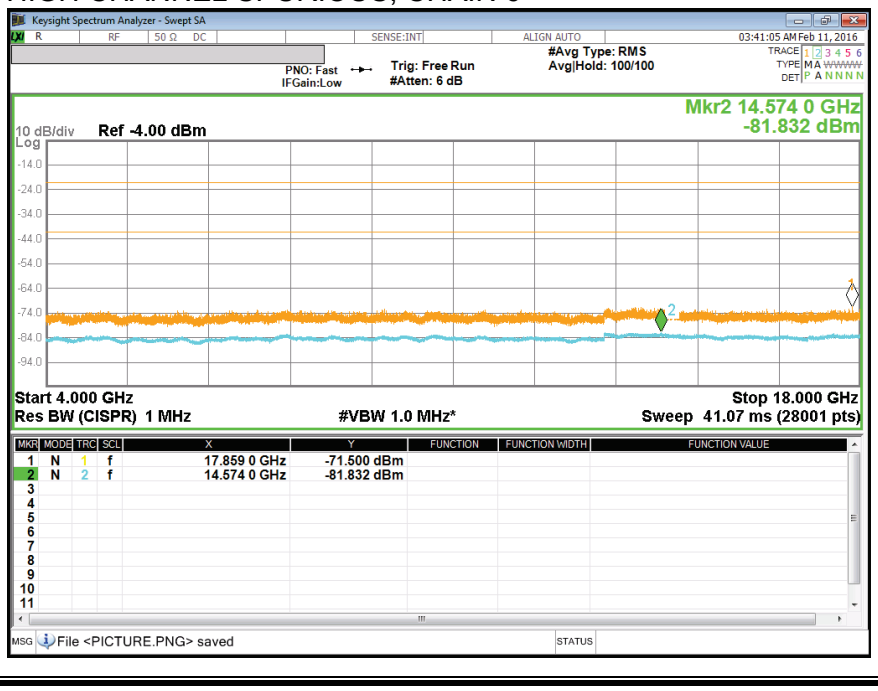
HIGH CHANNEL SPURIOUS, CHAIN 5

HIGH CHANNEL SPURIOUS, CHAIN 6



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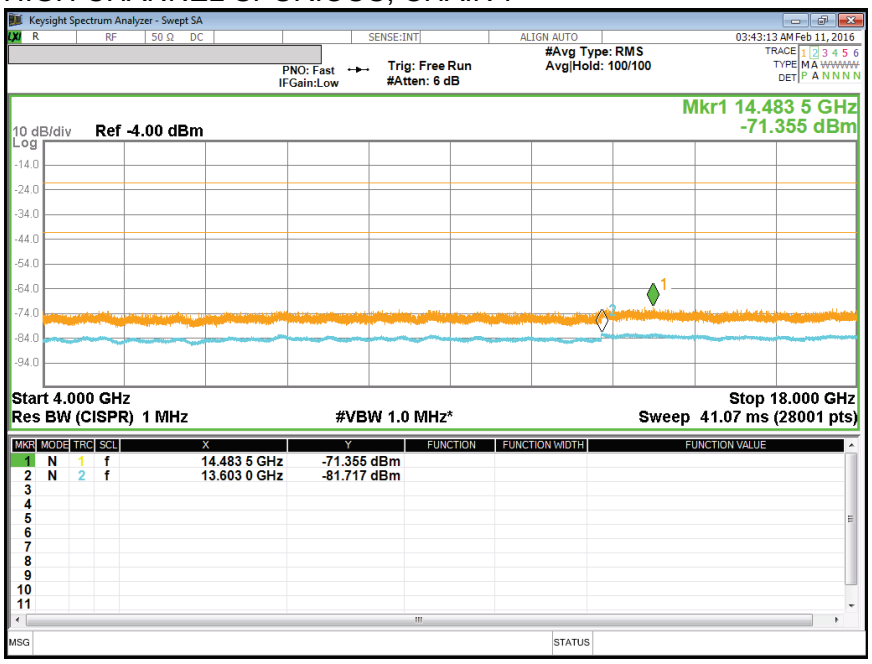
HIGH CHANNEL SPURIOUS, CHAIN 7



HIGH CHANNEL SPURIOUS, CHAIN 8

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