

9.1.3. TX ABOVE 1 GHz IN THE 2.4 GHz BAND: 18-26 GHz

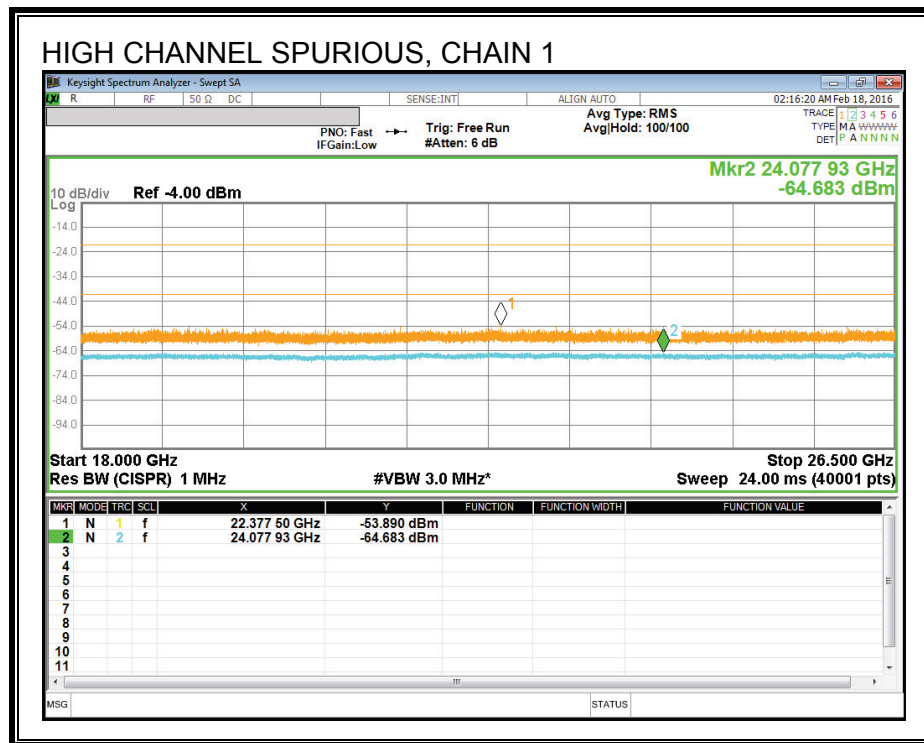
HARMONICS AND SPURIOUS EMISSIONS, LOW CHANNEL, TABULAR DATA

The following measurements include an antenna gain of:

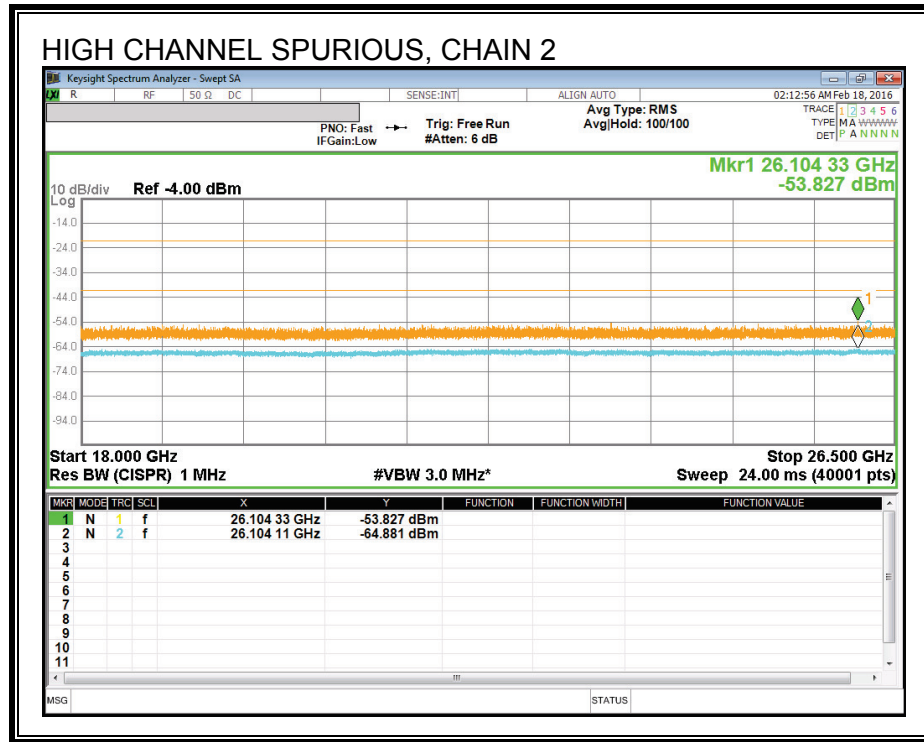
AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

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		-54.329	-54.313	-54.095	-54.125	-53.915	-53.504	-54.196	-54.193			
18000-26500	AMP	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445			
	CBL1	1.773	1.773	1.773	1.773	1.773	1.773	1.773	1.773			
	CBL2	1.808	1.808	1.808	1.808	1.808	1.808	1.808	1.808			
Final Value		-78.193	-78.177	-77.959	-77.989	-77.779	-77.368	-78.06	-78.057	-48.95	-21.2	-27.75

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		-64.88	-64.742	-64.434	-64.701	-64.74	-64.726	-64.608	-64.465			
18000-26500	AMP	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445			
	CBL1	1.773	1.773	1.773	1.773	1.773	1.773	1.773	1.773			
	CBL2	1.808	1.808	1.808	1.808	1.808	1.808	1.808	1.808			
	DCCF	0.68	0	0	0	0.68	0.67	0.75	0.73			
Final Value		-88.064	-88.606	-88.298	-88.565	-87.924	-87.92	-87.722	-87.599	-59.09	-41.2	-17.89

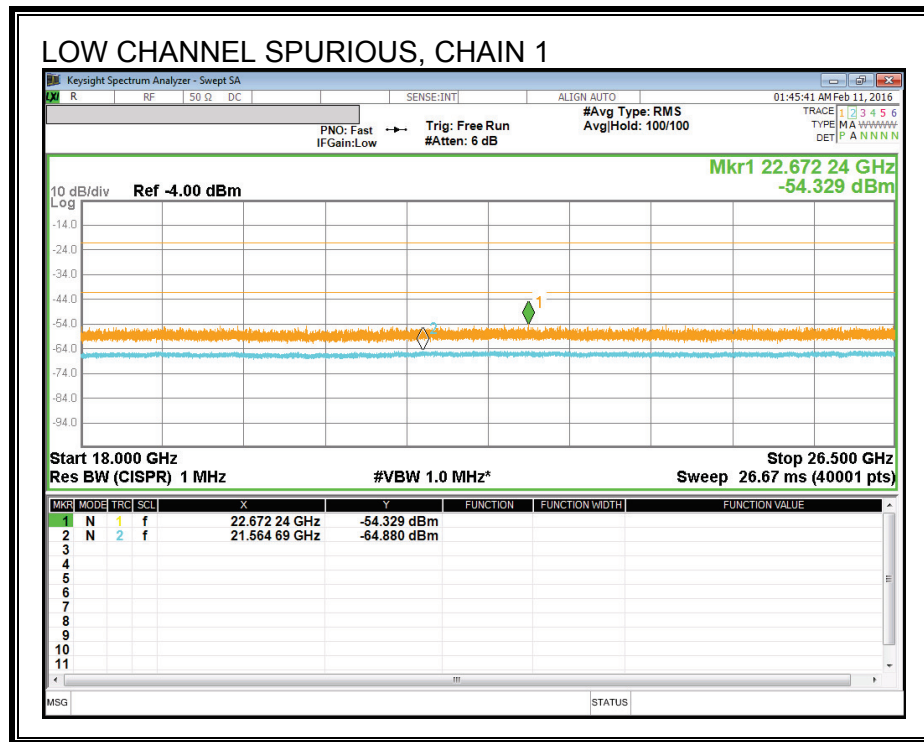
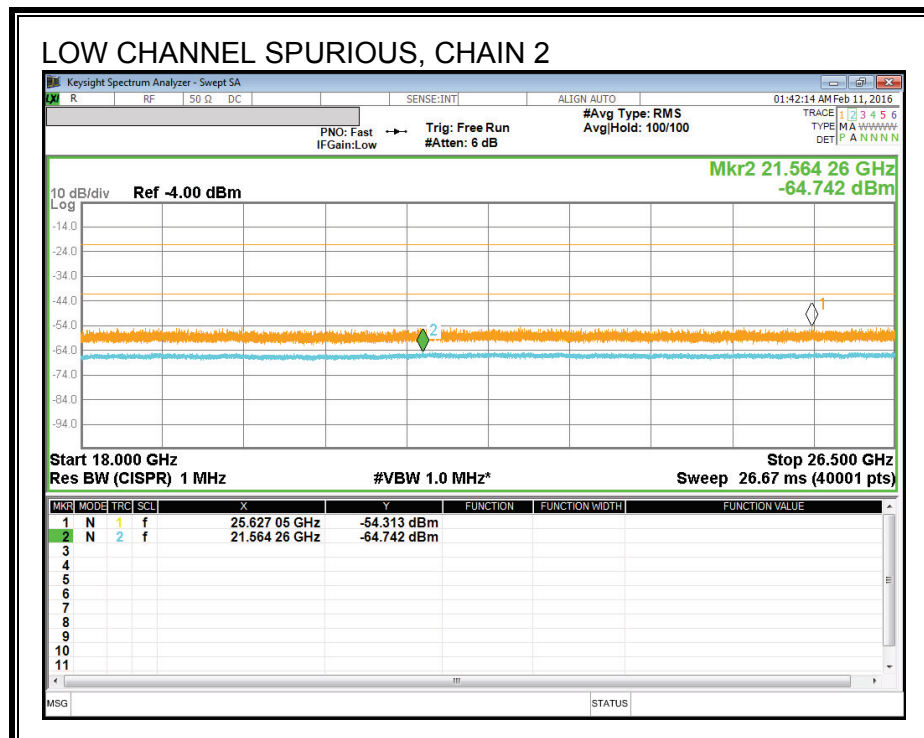


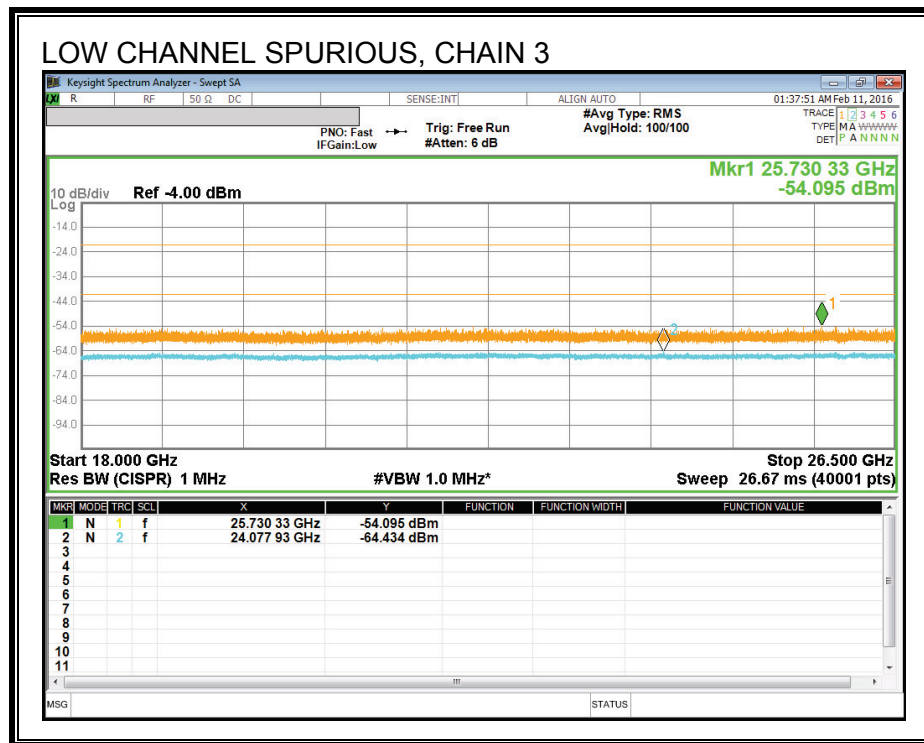
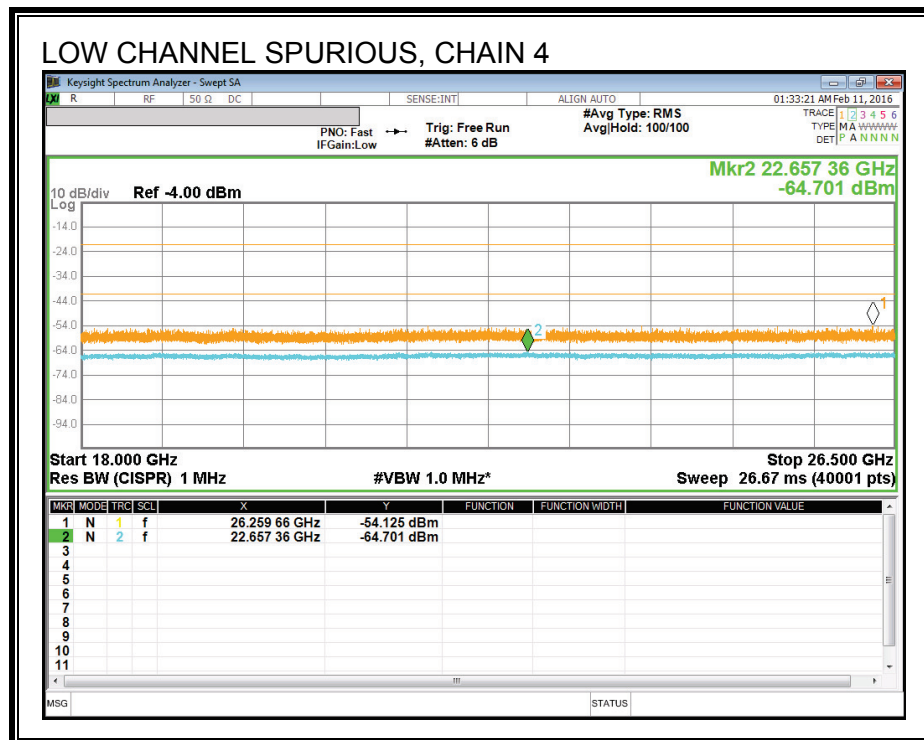
Note - The following Low Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHz and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operating at 85% duty cycle (Chains 1, 5-8).

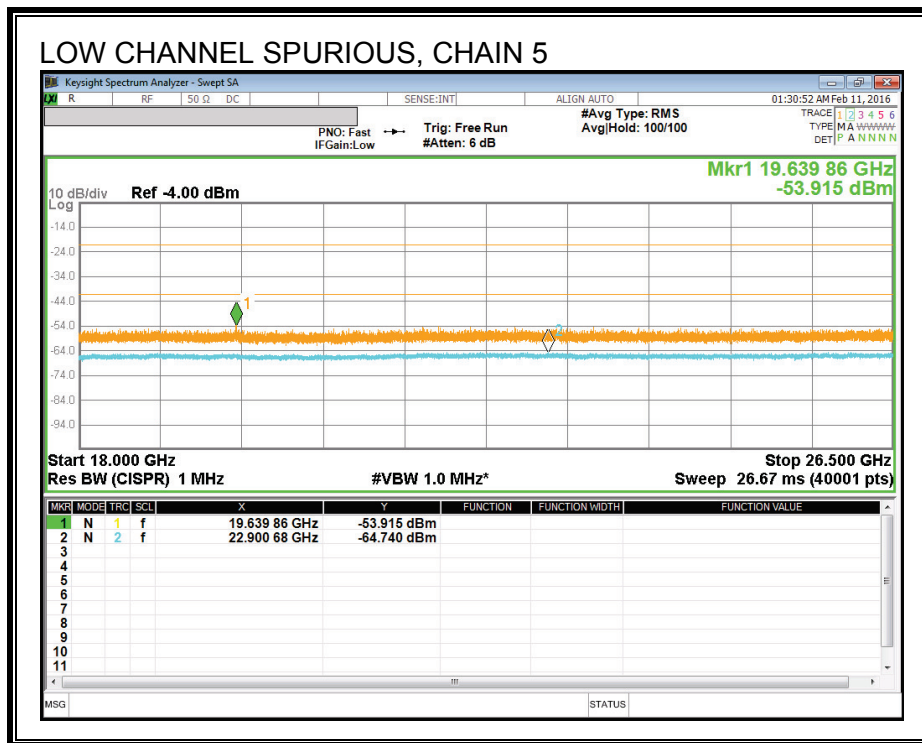
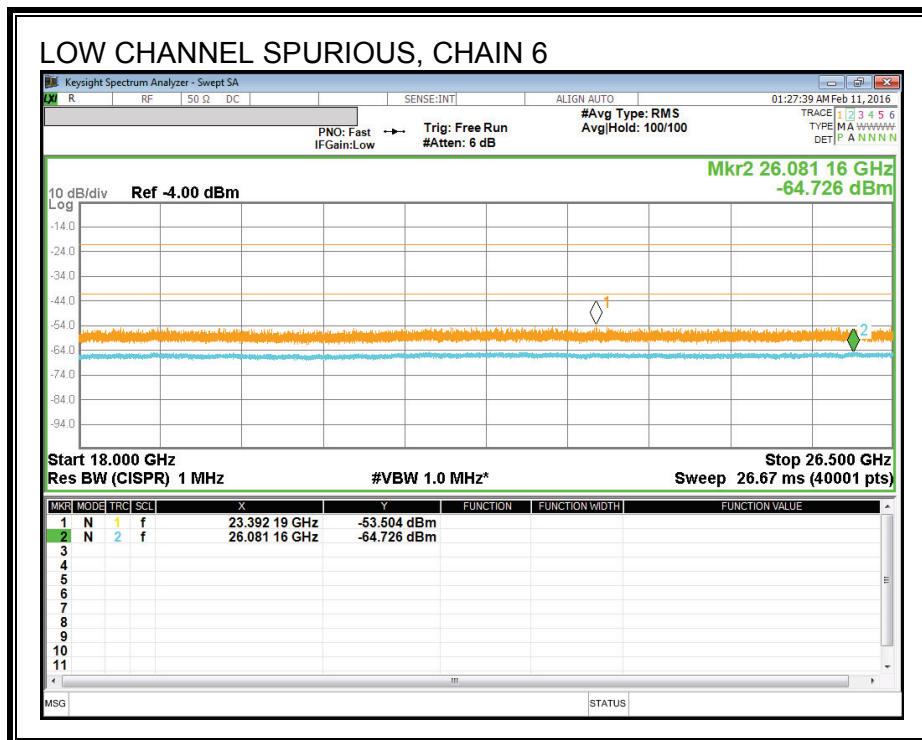


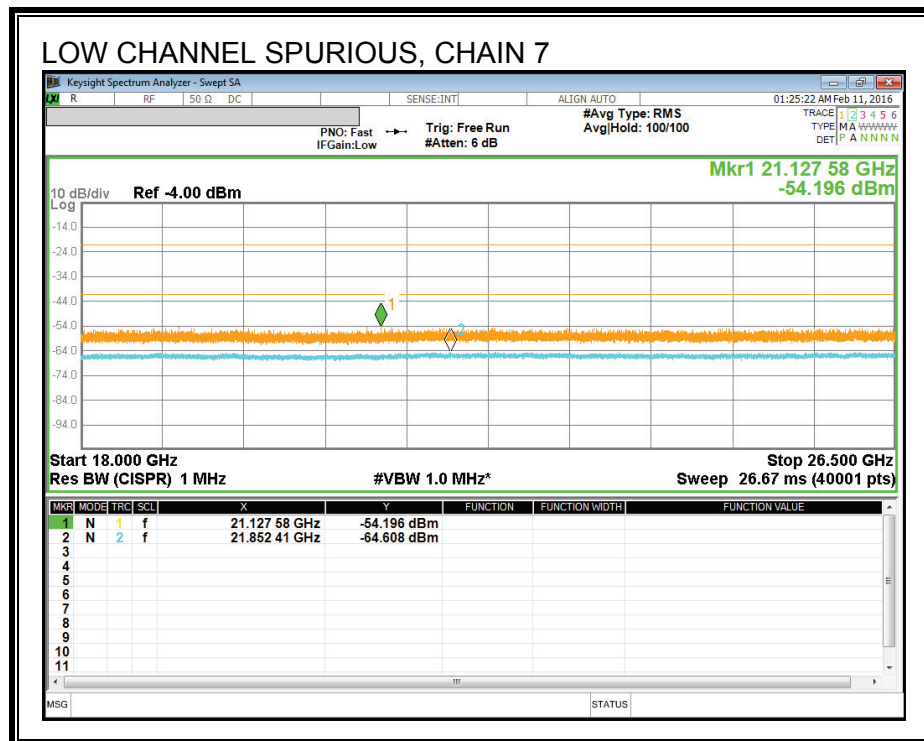
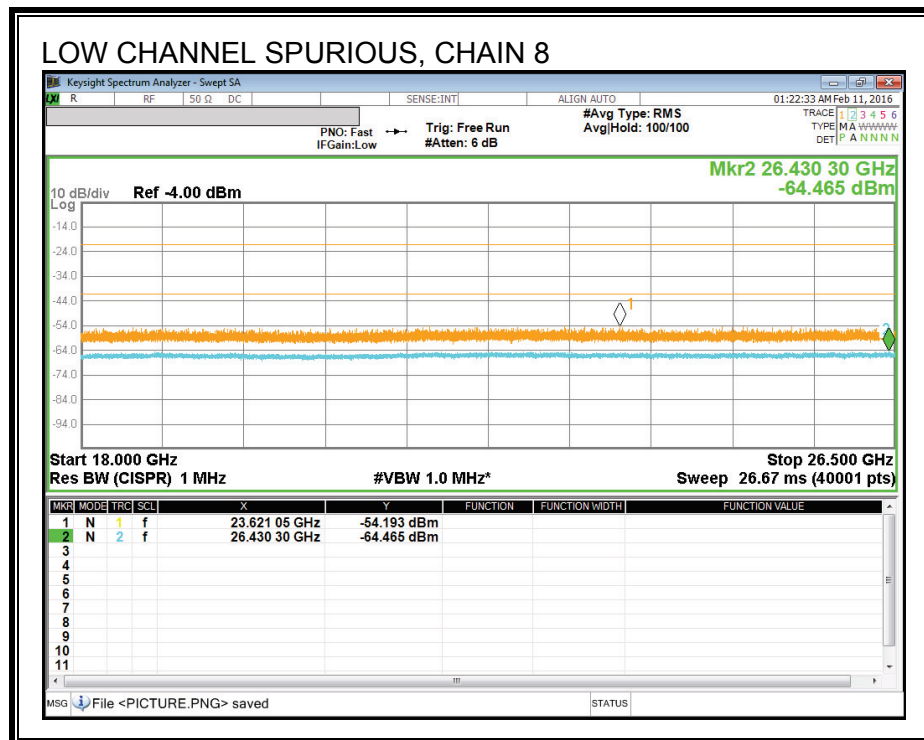
Note - The following Low Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHZ and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operating at 100% duty cycle (Chains 2-4).

HARMONICS AND SPURIOUS EMISSIONS, LOW CHANNEL









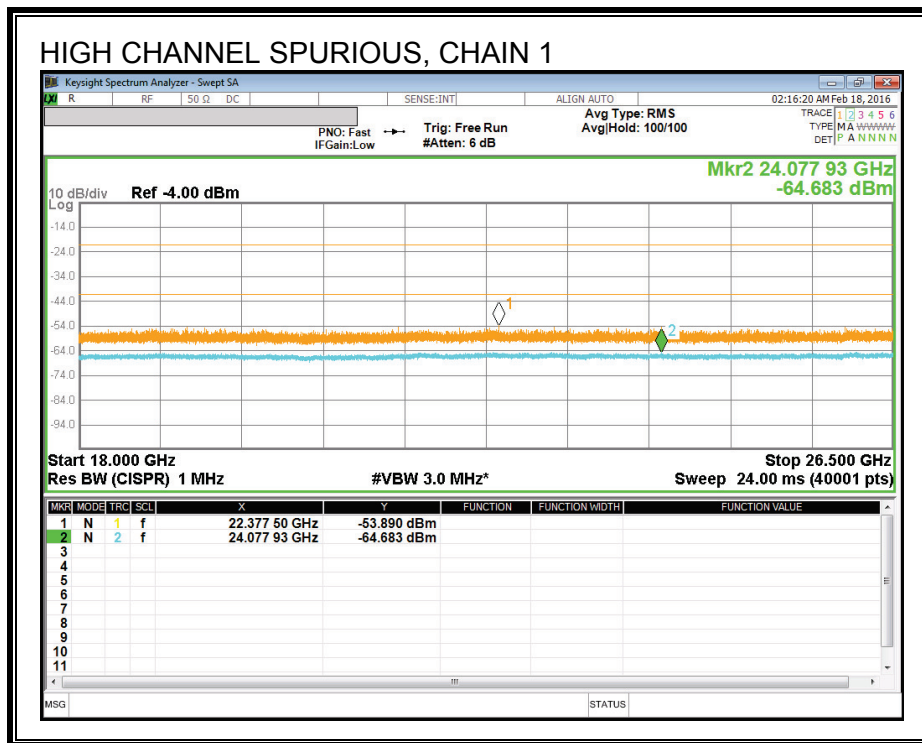
HARMONICS AND SPURIOUS EMISSIONS, MID CHANNEL, TABULAR DATA

The following measurements include an antenna gain of:

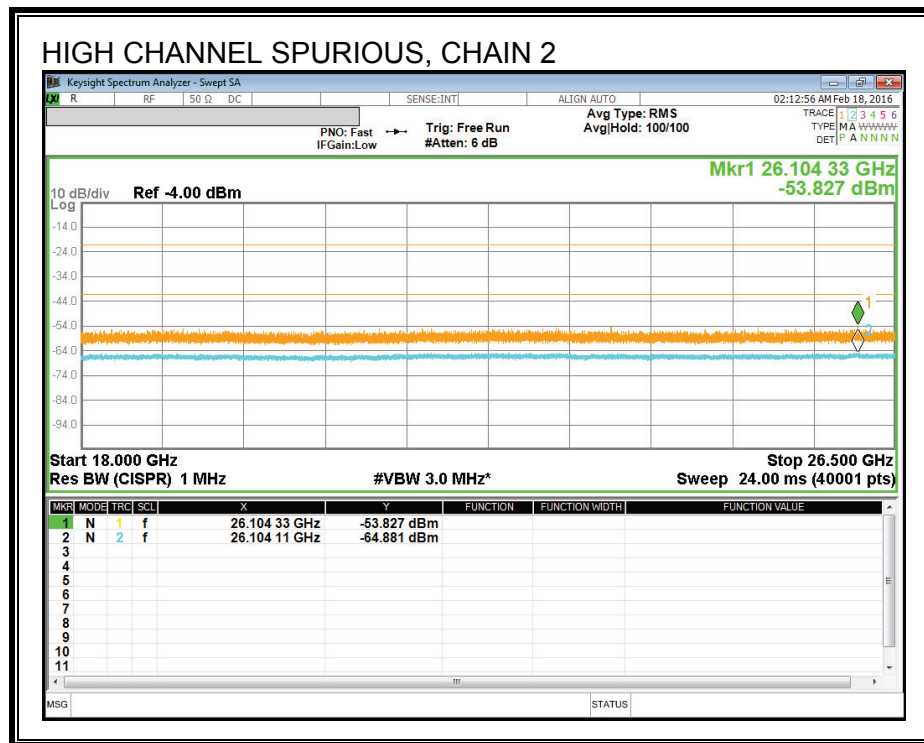
AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

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		-54.783	-54.793	-54.392	-53.795	-53.424	-53.992	-54.198	-54.197			
18000-26500	AMP	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445			
	CBL1	1.773	1.773	1.773	1.773	1.773	1.773	1.773	1.773			
	CBL2	1.808	1.808	1.808	1.808	1.808	1.808	1.808	1.808			
Final Value		-78.647	-78.657	-78.256	-77.659	-77.288	-77.856	-78.062	-78.060714	-49.04	-21.2	-27.84

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		-65.072	-64.871	-65.172	-65.04	-65.189	-64.921	-65.253	-65.074			
18000-26500	AMP	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445			
	CBL1	1.773	1.773	1.773	1.773	1.773	1.773	1.773	1.773			
	CBL2	1.808	1.808	1.808	1.808	1.808	1.808	1.808	1.808			
	DCCF	0.68	0	0	0	0.68	0.67	0.75	0.73			
Final Value		-88.256	-88.735	-89.036	-88.904	-88.373	-88.115	-88.367	-88.208	-59.51	-41.2	-18.31

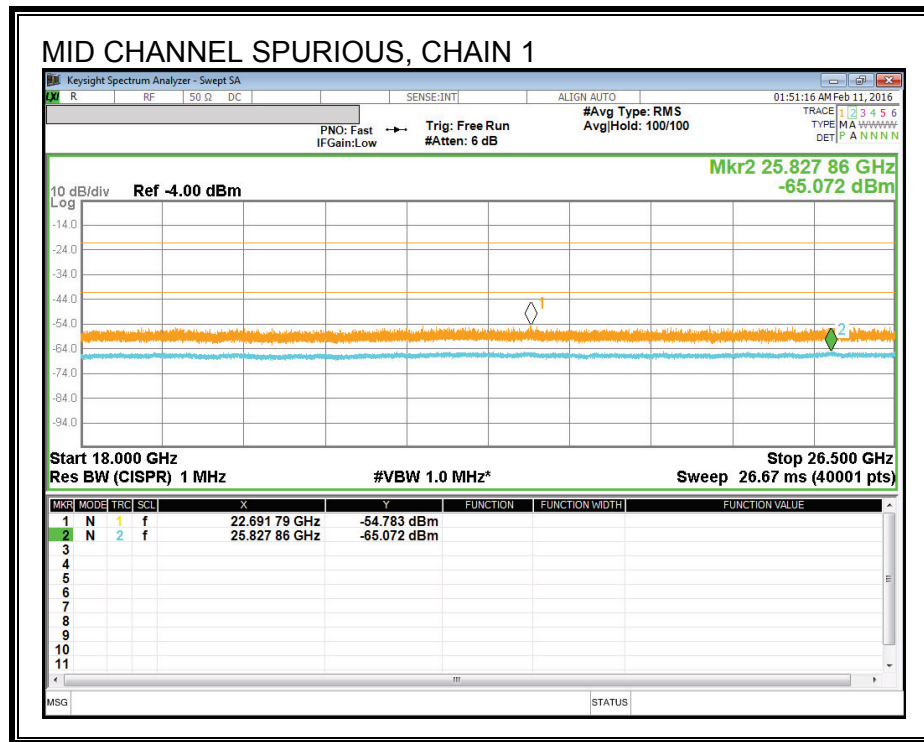
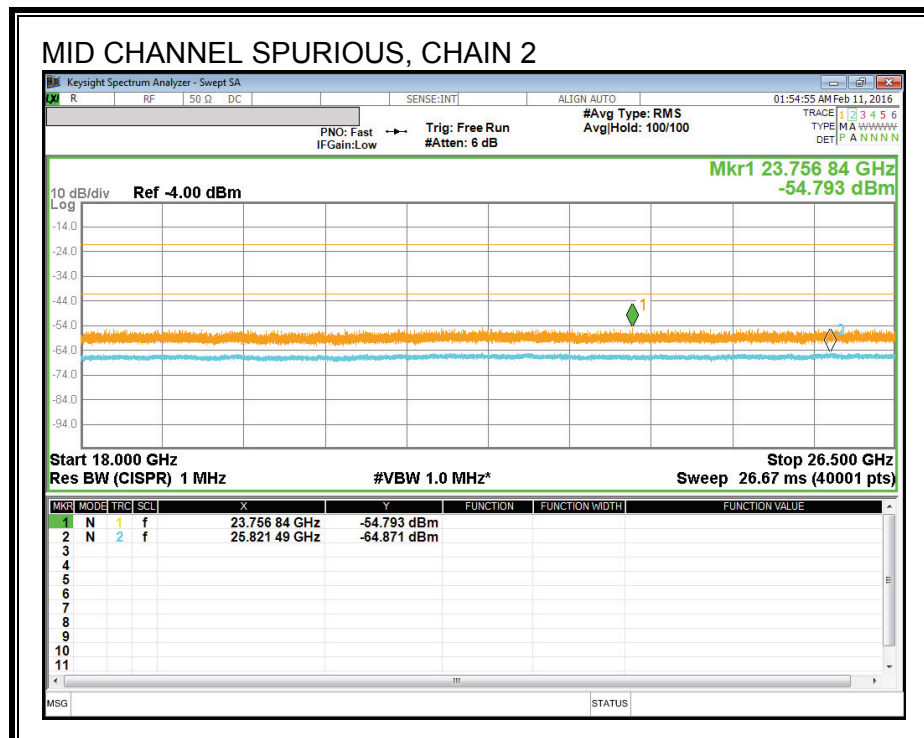


Note - The following Mid Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHz and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operating at 85% duty cycle (Chains 1, 5-8).

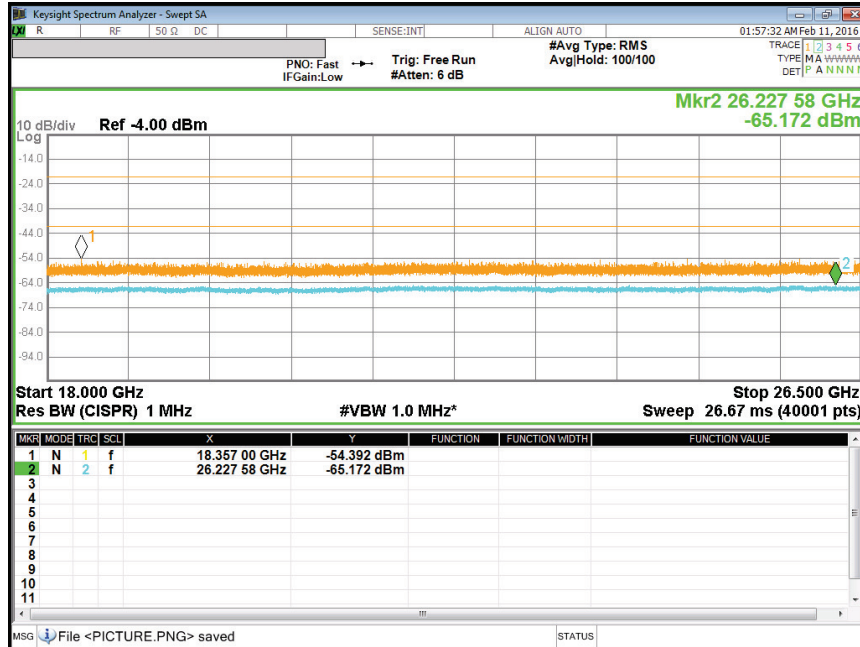


Note - The following Mid Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHZ and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operating at 100% duty cycle (Chains 2-4).

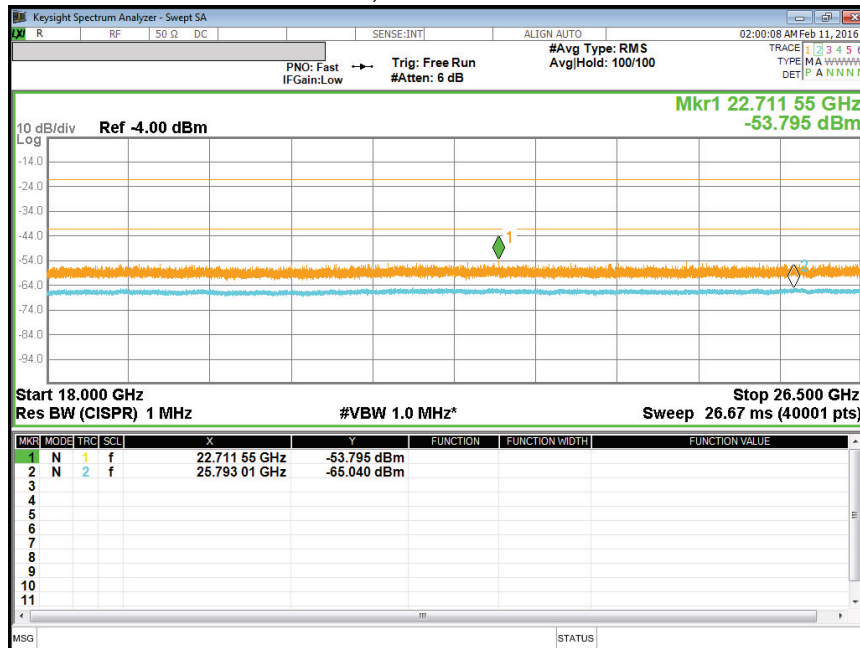
HARMONICS AND SPURIOUS EMISSIONS, MID CHANNEL

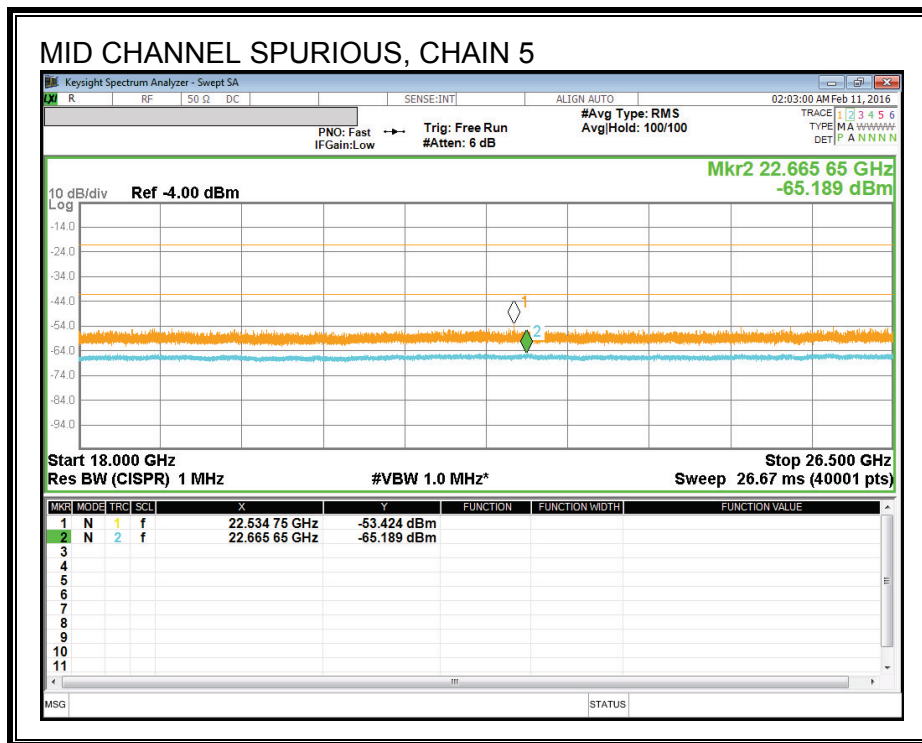
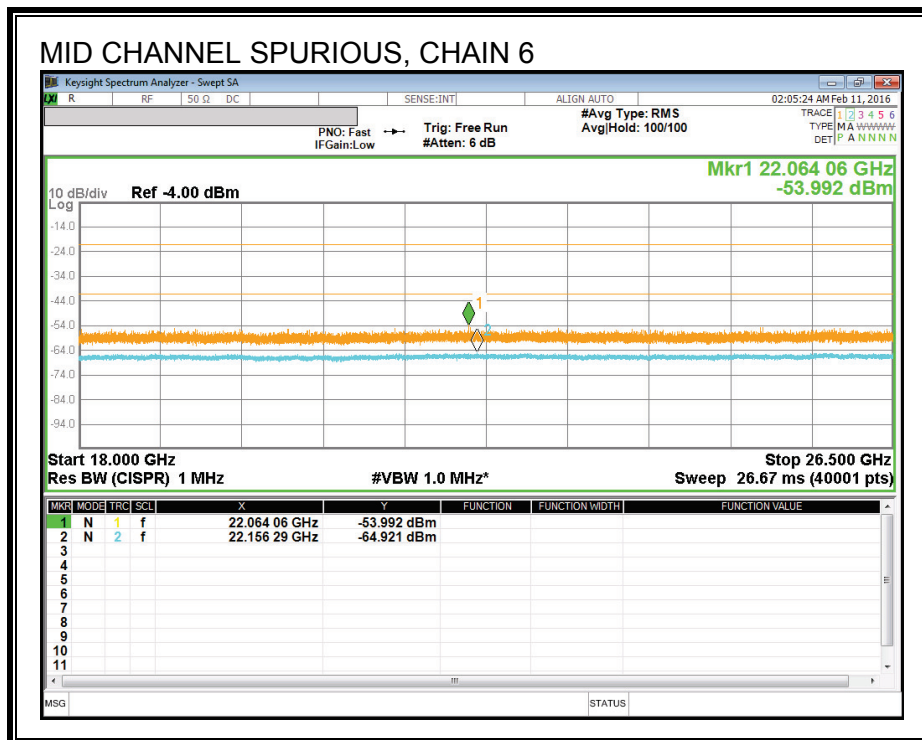


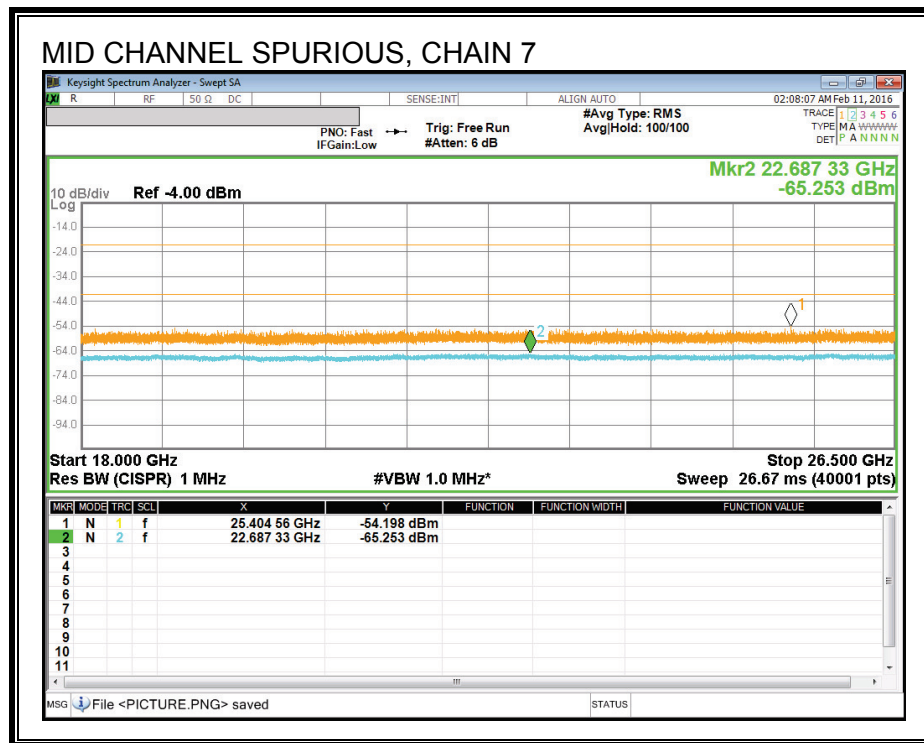
MID CHANNEL SPURIOUS, CHAIN 3



MID CHANNEL SPURIOUS, CHAIN 4







Note – Chain 8 Plot was not captured. The average of Chains 1-7 were taken to obtain the chain 8 values of -54.197 dBm PK and -65.074 dBm AVE.

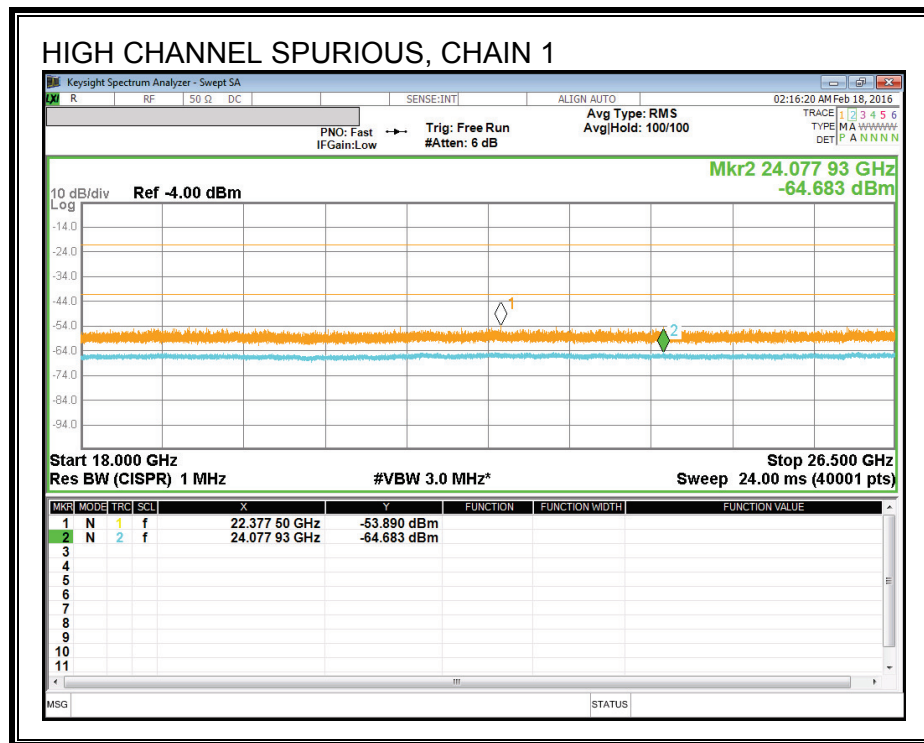
HARMONICS AND SPURIOUS EMISSIONS, HIGH CHANNEL, TABULAR DATA

The following measurements include an antenna gain of:

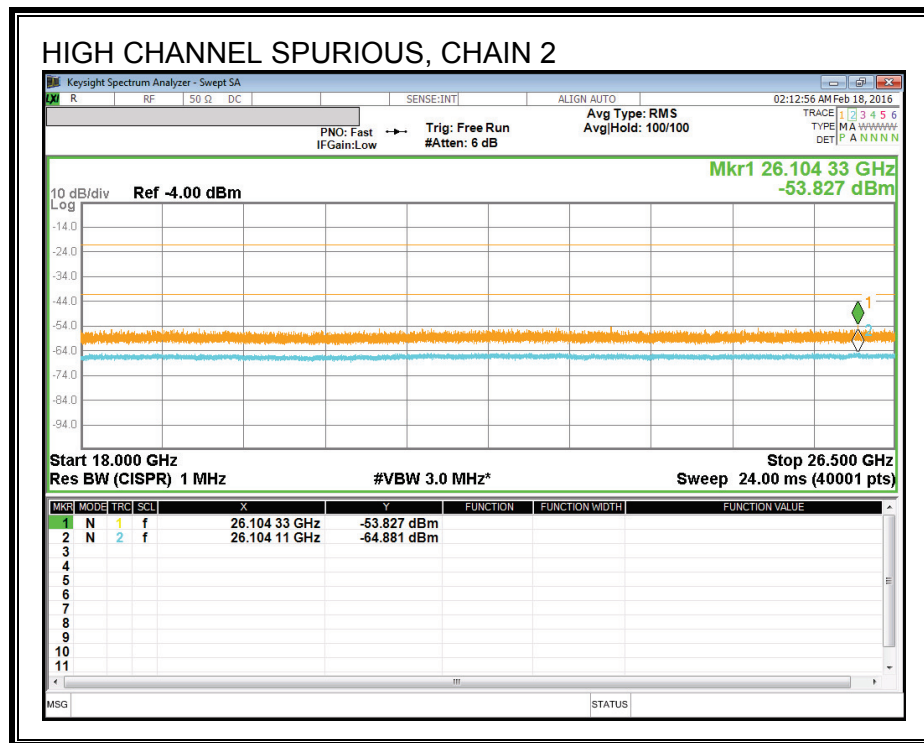
AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

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		-53.945	-54.319	-54.346	-53.928	-54.407	-54.012	-54.763	-54.69			
18000-26500	AMP	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445			
	CBL1	1.773	1.773	1.773	1.773	1.773	1.773	1.773	1.773			
	CBL2	1.808	1.808	1.808	1.808	1.808	1.808	1.808	1.808			
Final Value		-77.809	-78.183	-78.21	-77.792	-78.271	-77.876	-78.627	-78.554	-49.16	-21.2	-27.96

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		-65.002	-65.054	-64.928	-64.874	-64.818	-64.933	-64.976	-64.891			
18000-26500	AMP	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445	-27.445			
	CBL1	1.773	1.773	1.773	1.773	1.773	1.773	1.773	1.773			
	CBL2	1.808	1.808	1.808	1.808	1.808	1.808	1.808	1.808			
	DCCF	0.68	0	0	0	0.68	0.67	0.75	0.73			
Final Value		-88.186	-88.918	-88.792	-88.738	-88.002	-88.127	-88.09	-88.025	-59.36	-41.2	-18.16

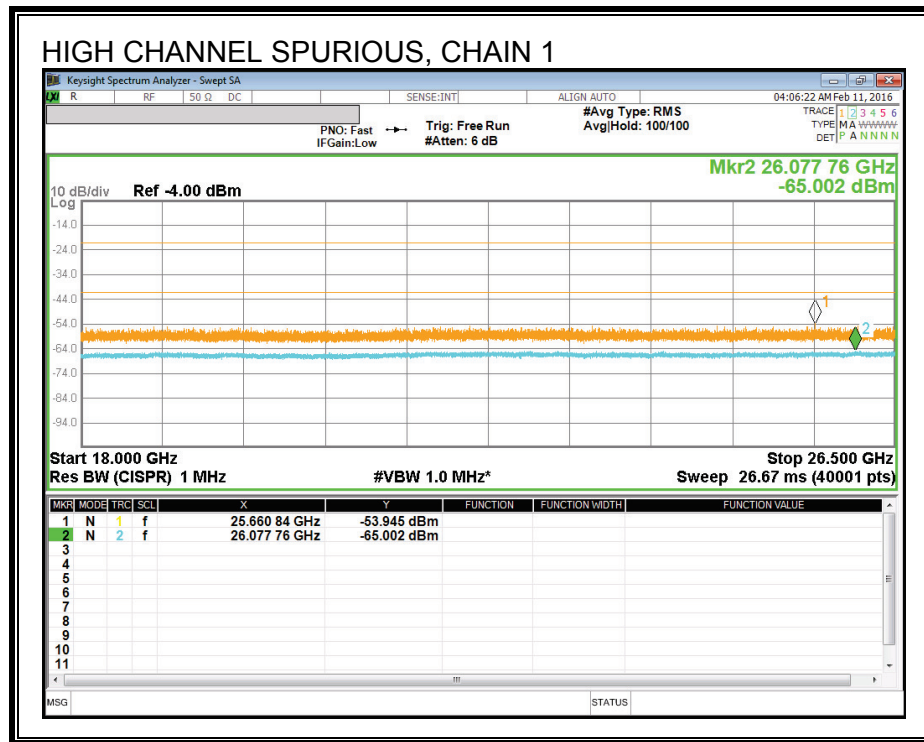
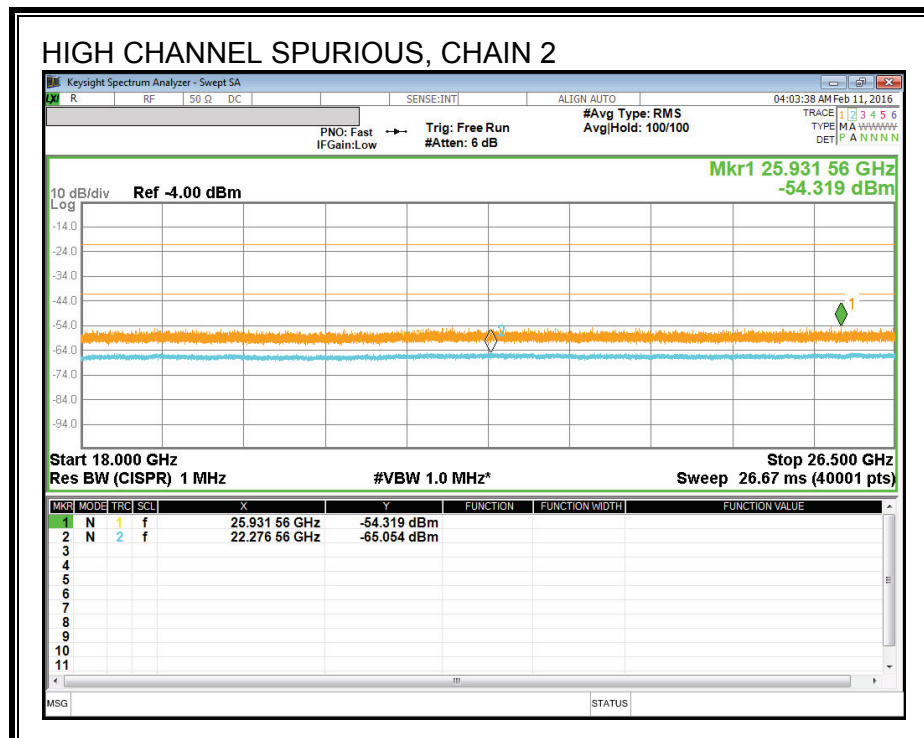


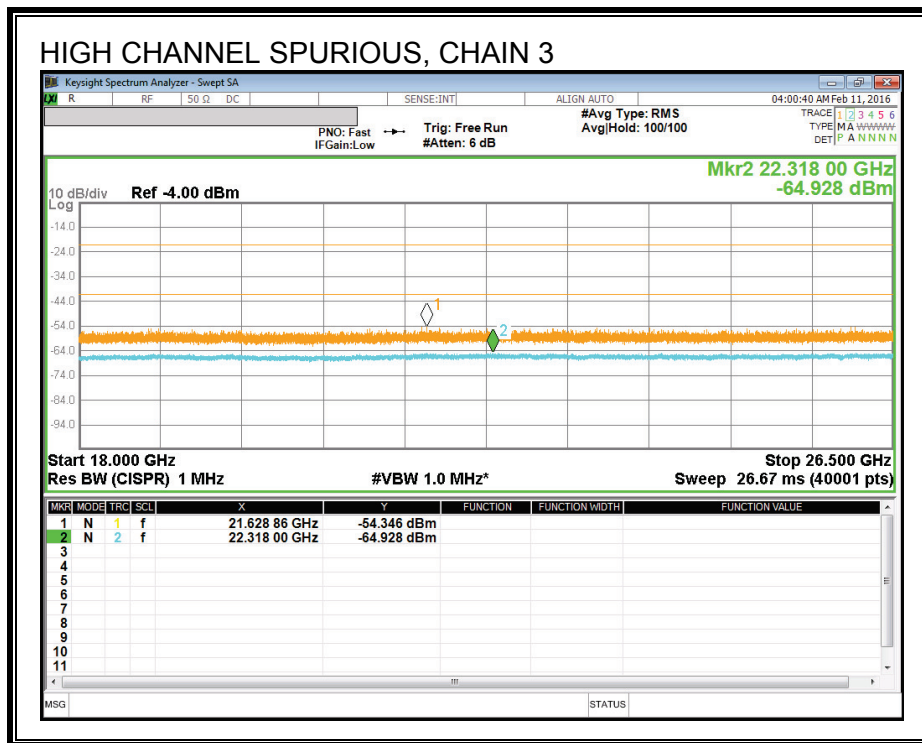
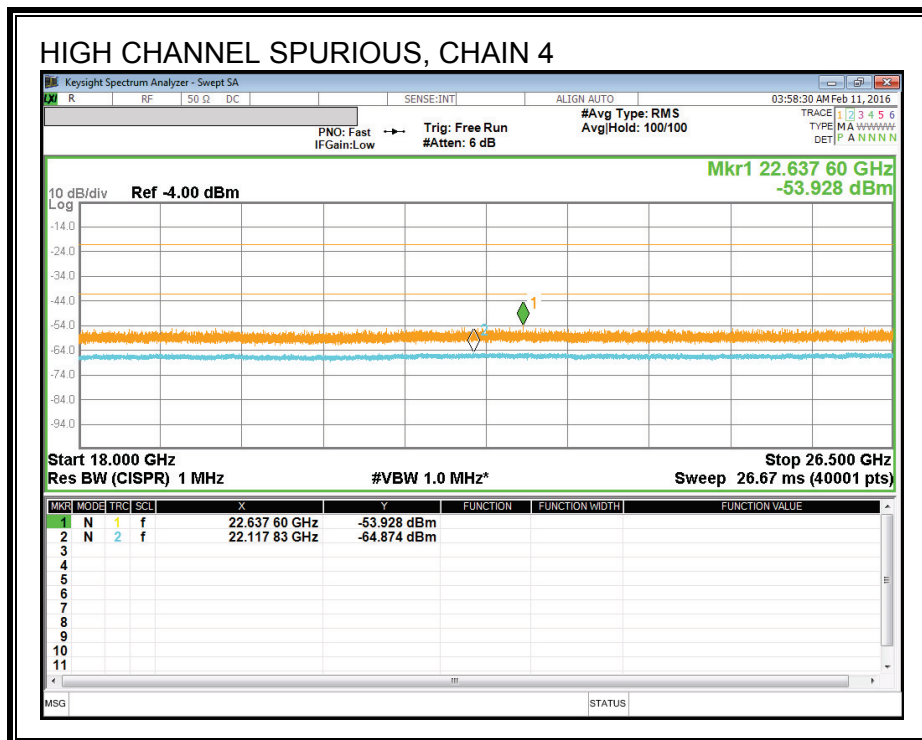
Note - The following HIGH Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHZ and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operating at 85% duty cycle (Chains 1, 5-8).

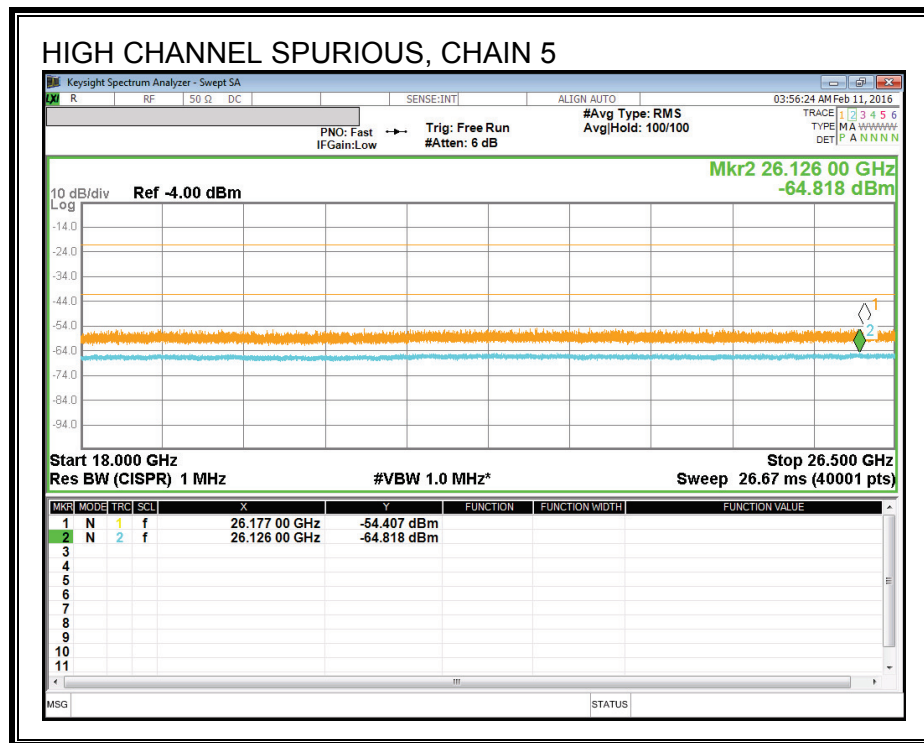
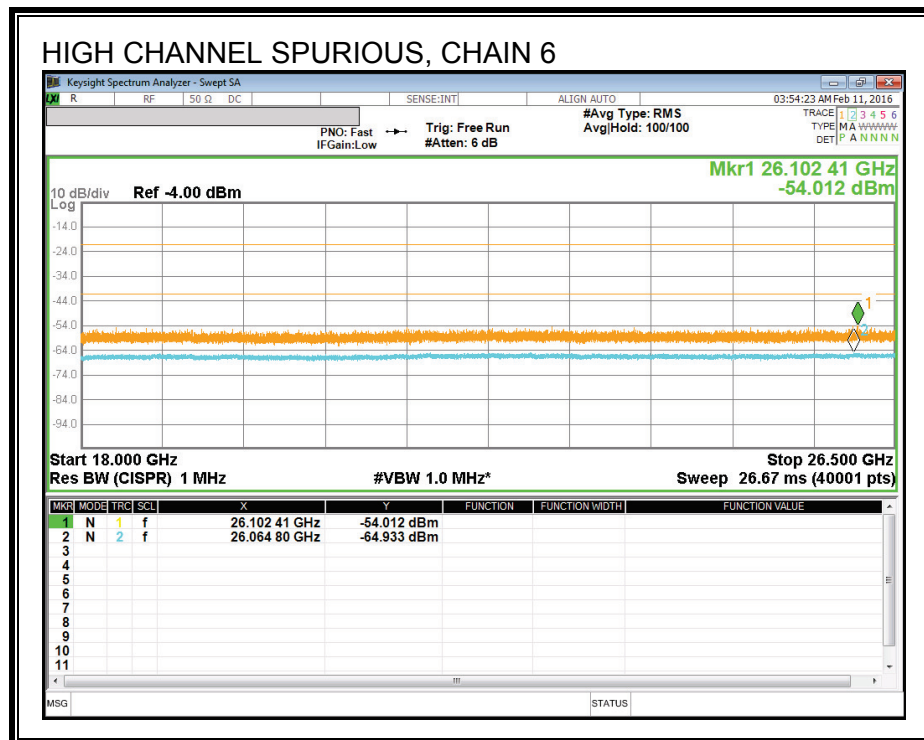


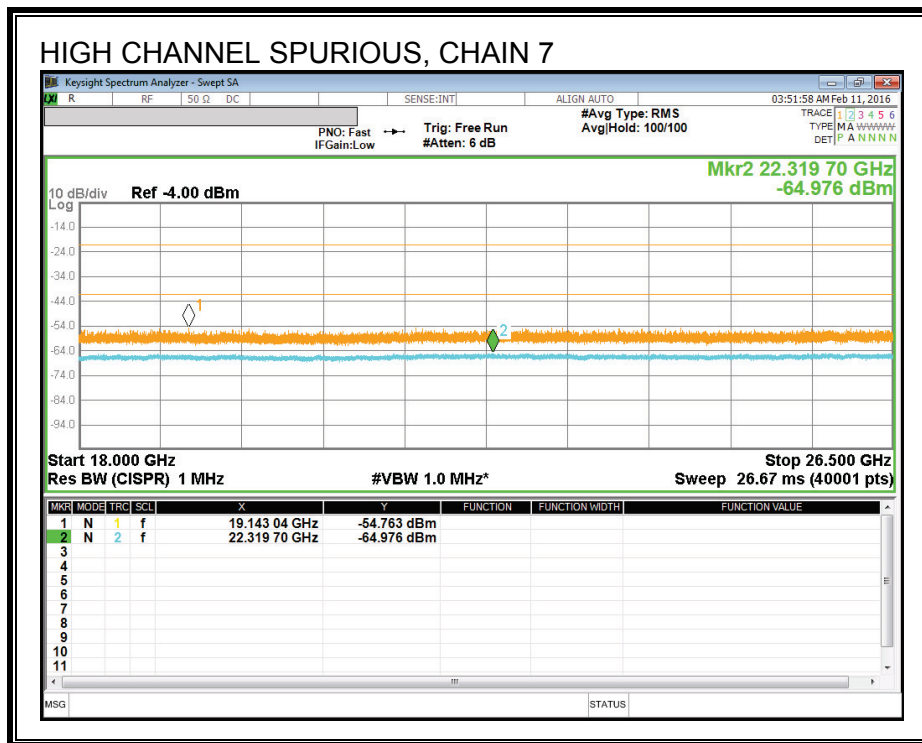
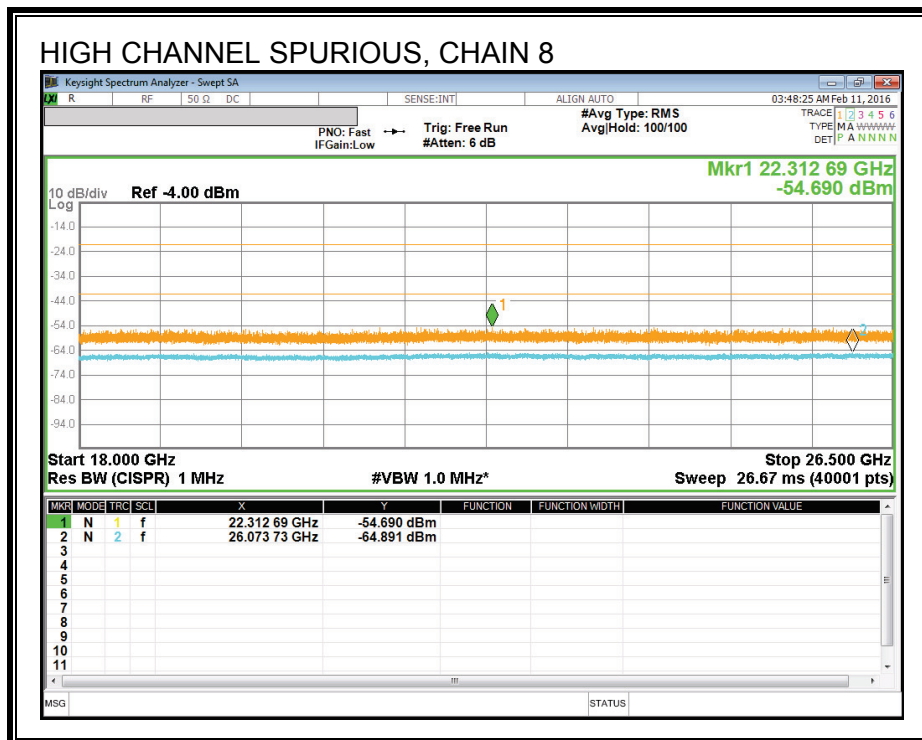
Note - The following High Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHz and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operating at 100% duty cycle (Chains 2-4).

HARMONICS AND SPURIOUS EMISSIONS, HIGH CHANNEL









9.1.4. TX BELOW 1 GHz IN THE 2.4 GHz BAND: 30-1000 MHz

RESULTS – 30-1000 MHz, WORST CASE

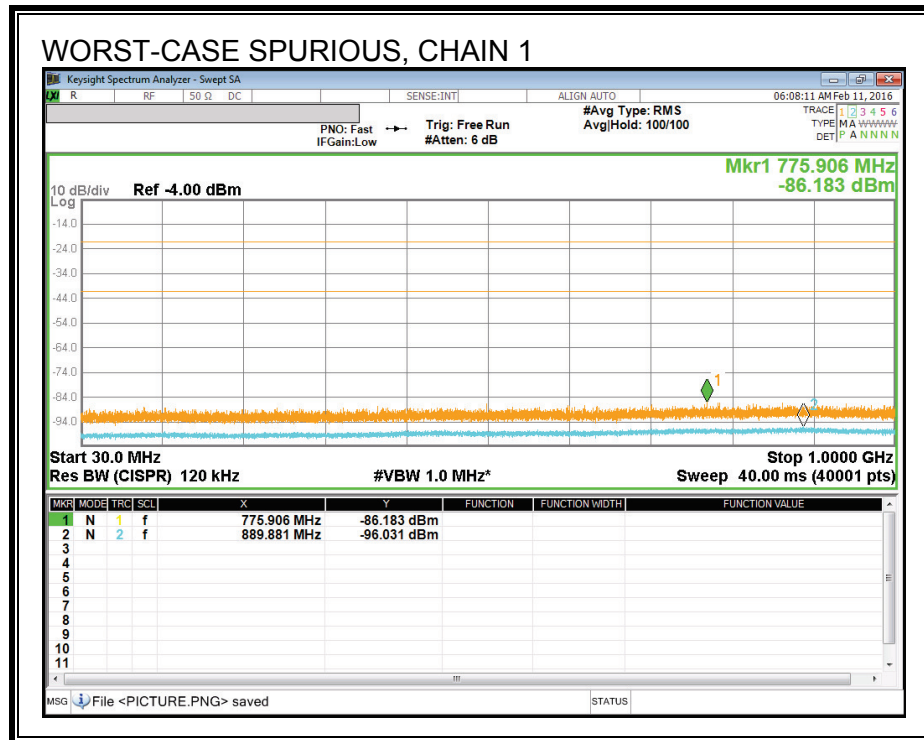
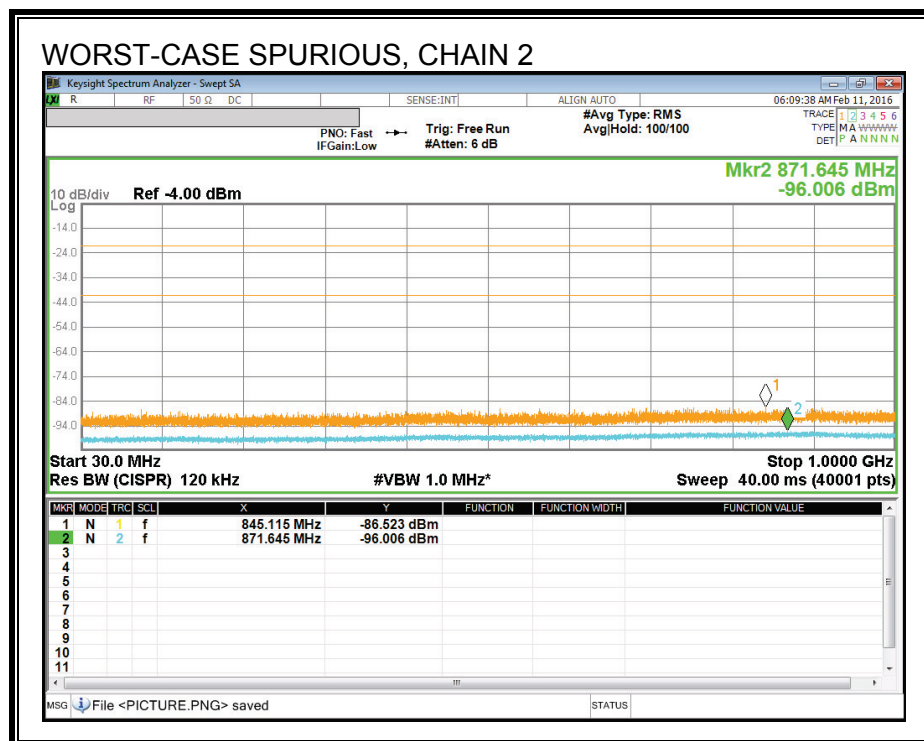
HARMONICS AND SPURIOUS EMISSIONS, WORST-CASE TABULAR DATA

The following measurements include the 4.7 dB ground reflection factor and an antenna gain of:

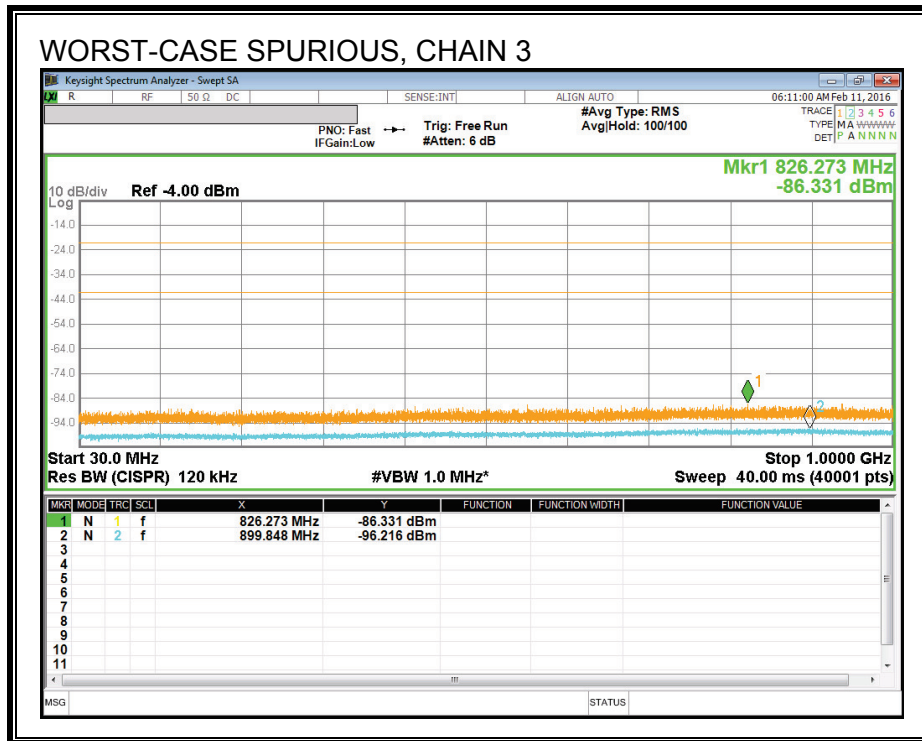
AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

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		-86.183	-86.523	-86.331	-86.043	-86.072	-86.007	-86.458	-86.534			
30-1000	FILTER	1.782	1.782	1.782	1.782	1.782	1.782	1.782	1.782			
	CBL1	0.213	0.213	0.213	0.213	0.213	0.213	0.213	0.213			
	CBL2	0.211	0.211	0.211	0.211	0.211	0.211	0.211	0.211			
Final Value		-83.977	-84.317	-84.125	-83.837	-83.866	-83.801	-84.252	-84.328	-50.37	-21.2	-29.17

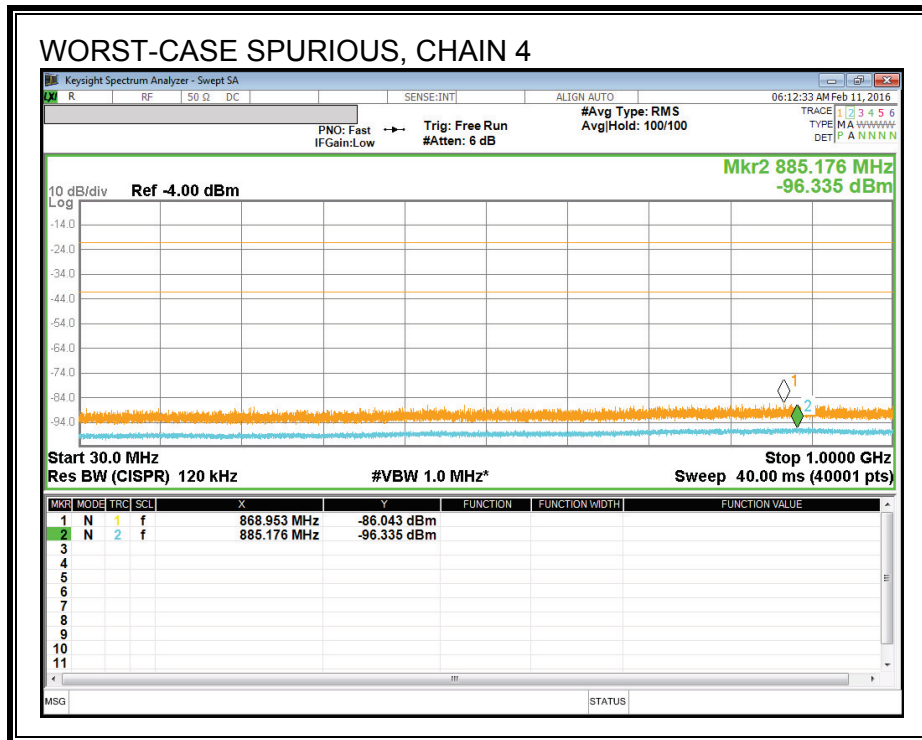
HARMONICS AND SPURIOUS EMISSIONS, WORST-CASE, PLOTS



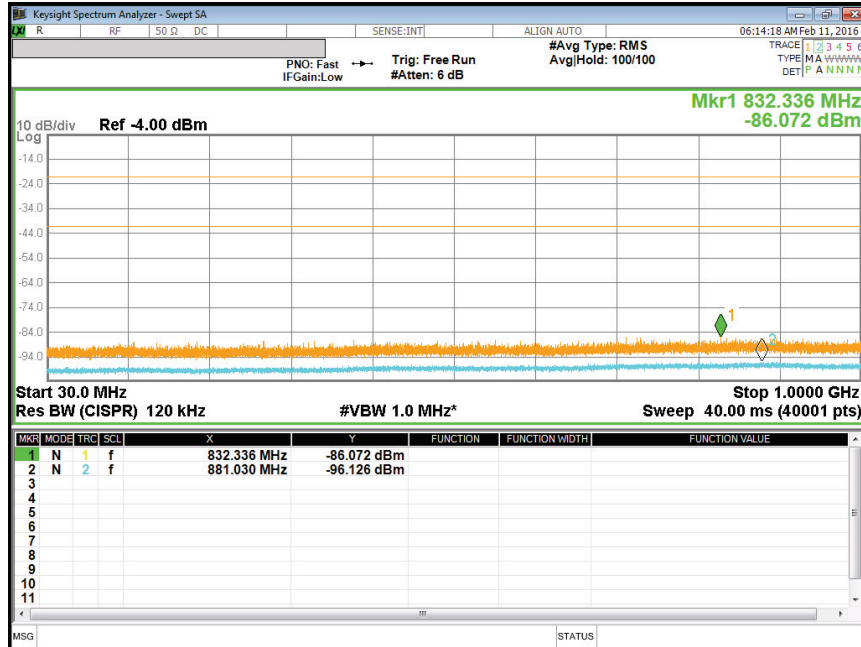
WORST-CASE SPURIOUS, CHAIN 3



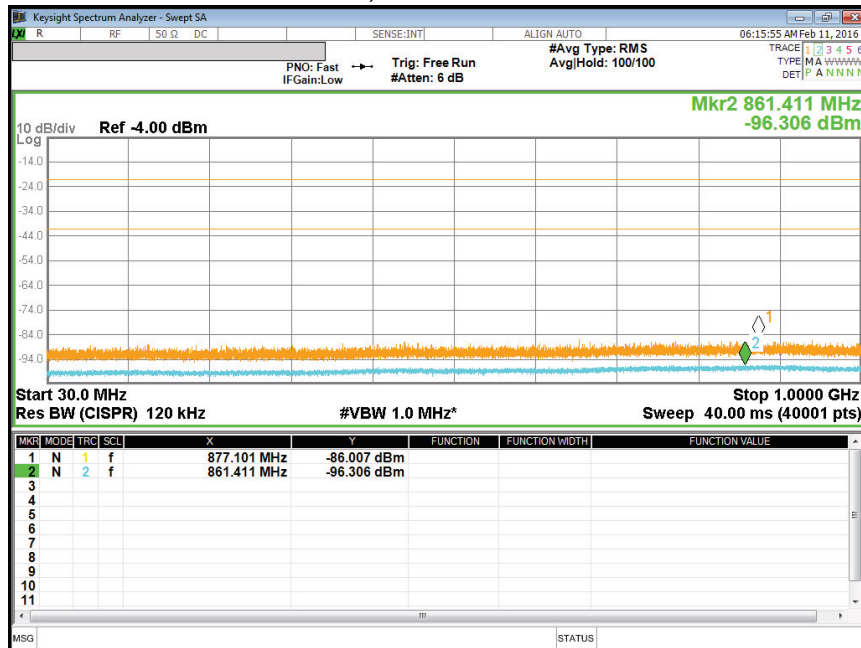
WORST-CASE SPURIOUS, CHAIN 4



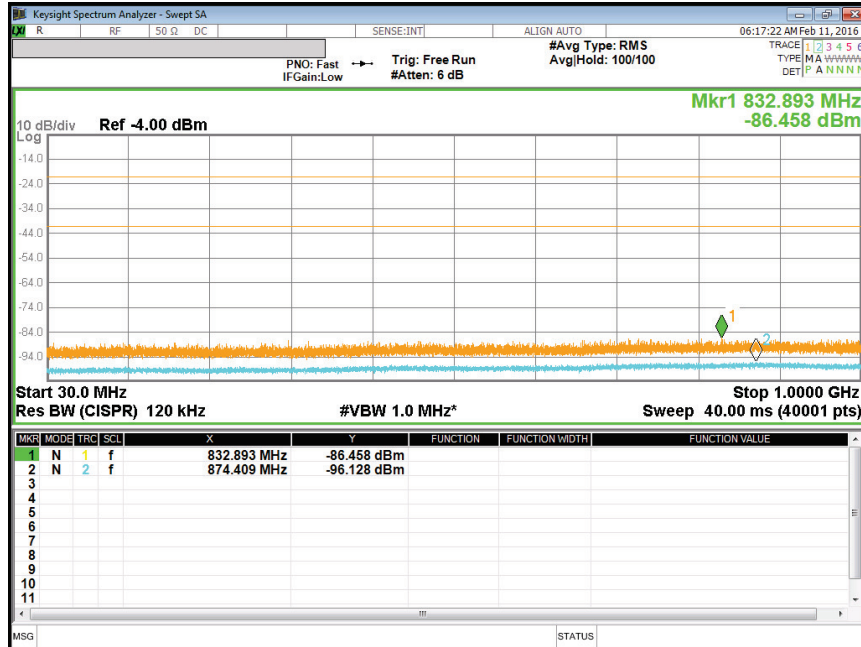
WORST-CASE SPURIOUS, CHAIN 5



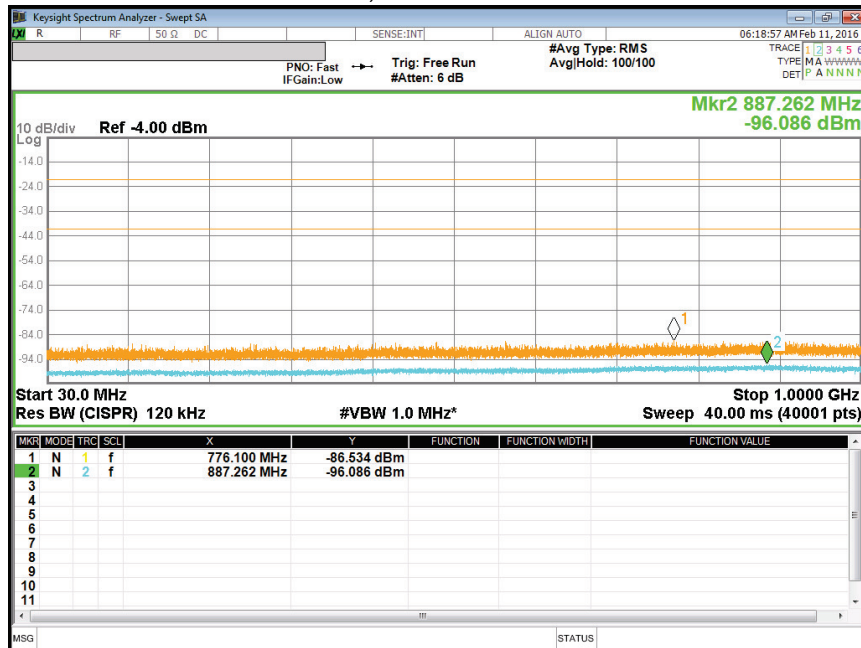
WORST-CASE SPURIOUS, CHAIN 6



WORST-CASE SPURIOUS, CHAIN 7



WORST-CASE SPURIOUS, CHAIN 8



9.2. 900 kHz MODE IN THE RESTRICTED BAND

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

RESTRICTED BANEDGE (HIGH CHANNEL) TABULAR SUMMED DATA

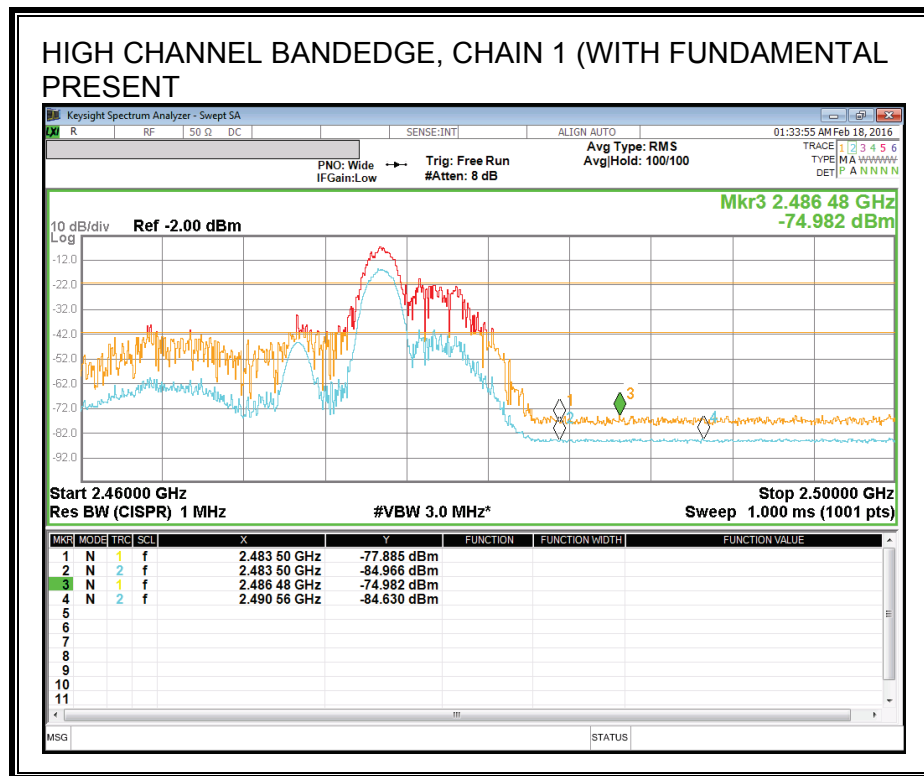
The following measurements include an antenna gain of:

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

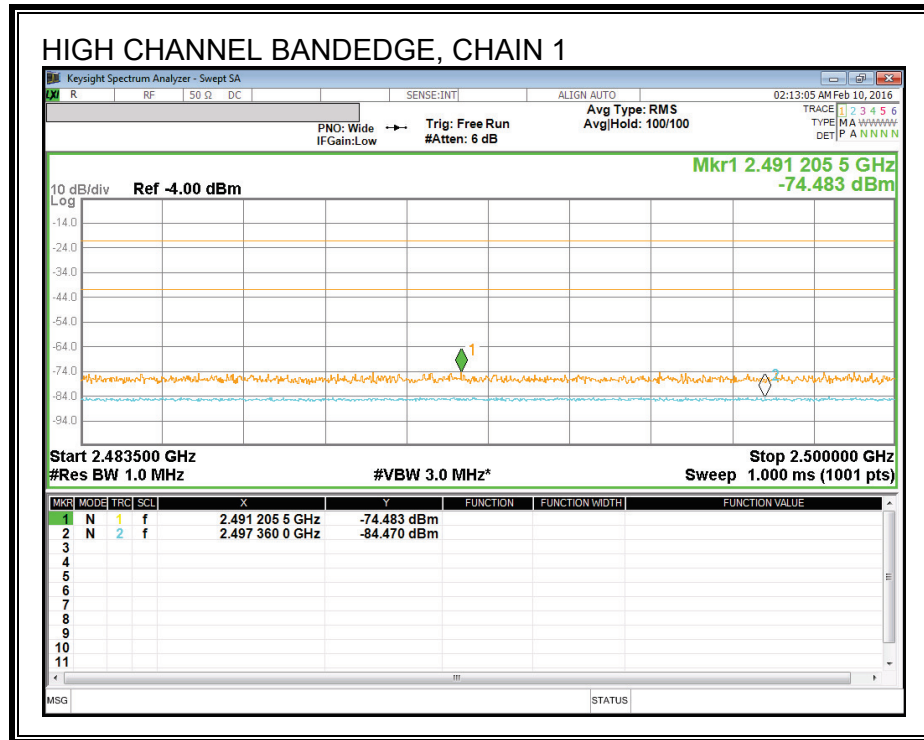
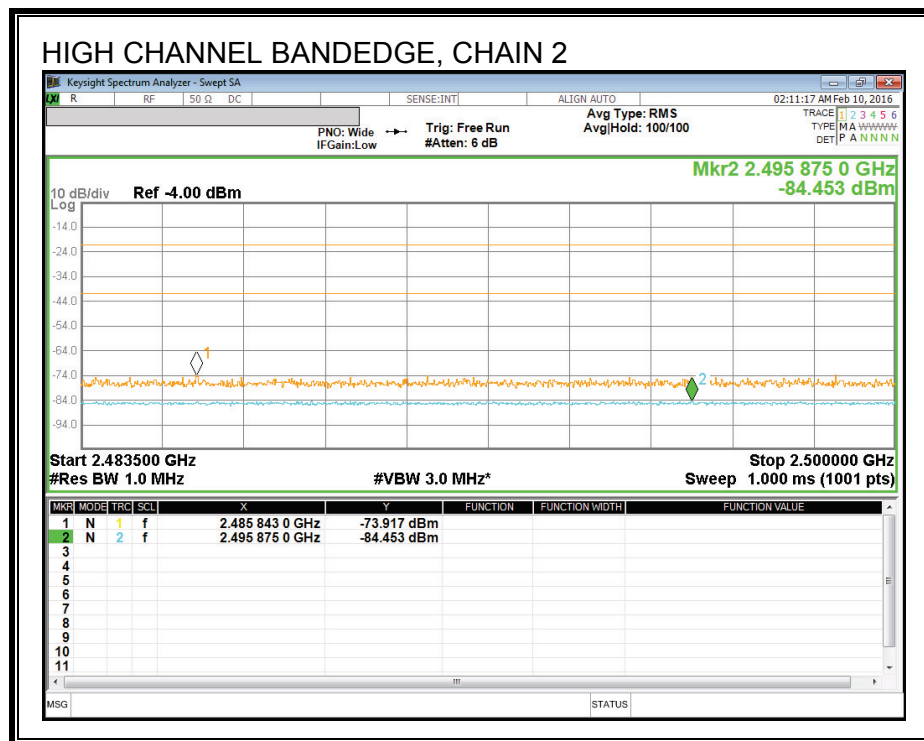
Frequency (MHz)		Meter PK Reading Chain 1 (dBm)	Meter PK Reading Chain 2 (dBm)	Meter PK Reading Chain 3 (dBm)	Meter PK Reading Chain 4 (dBm)	Meter PK Reading Chain 5 (dBm)	Meter PK Reading Chain 6 (dBm)	Meter PK Reading Chain 7 (dBm)	Meter PK Reading Chain 8 (dBm)	PK EIRP (dBm)	PK E-field Limit (dBm)	PK E-field Margin (dB)
Enter SA Value here		-74.483	-73.917	-74.163	-74.333	-73.471	-73.147	-74.574	-73.72			
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		-73.563	-72.997	-73.243	-73.413	-72.551	-72.227	-73.654	-72.8	-44.04	-21.2	-22.84

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		-84.47	-84.453	-84.348	-83.99	-84.239	-84.244	-84.465	-84.404			
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		-82.87	-83.533	-83.428	-83.07	-82.639	-82.654	-82.795	-82.754	-53.97	-41.2	-12.77

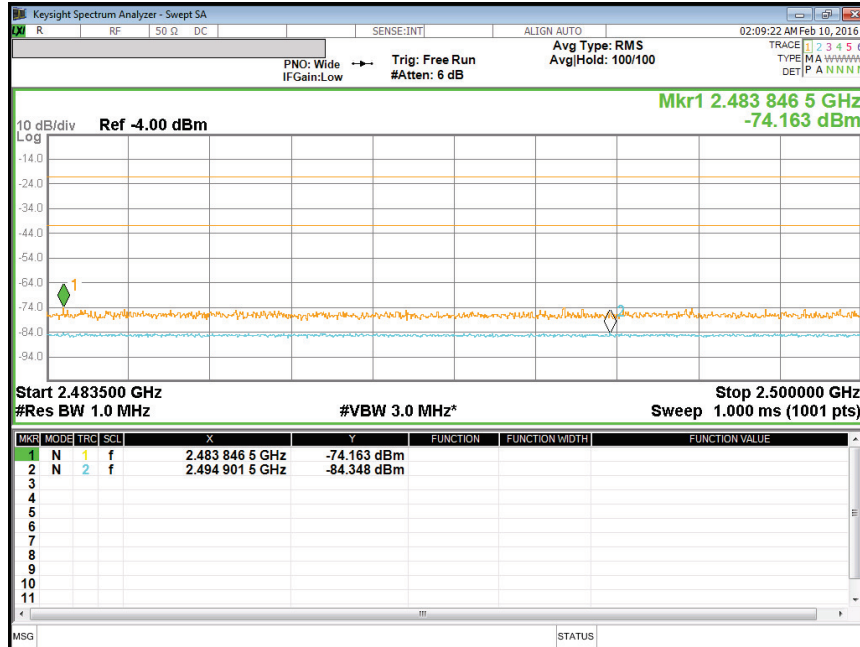
RESTRICTED BANDEDGE (HIGH CHANNEL) PLOTS



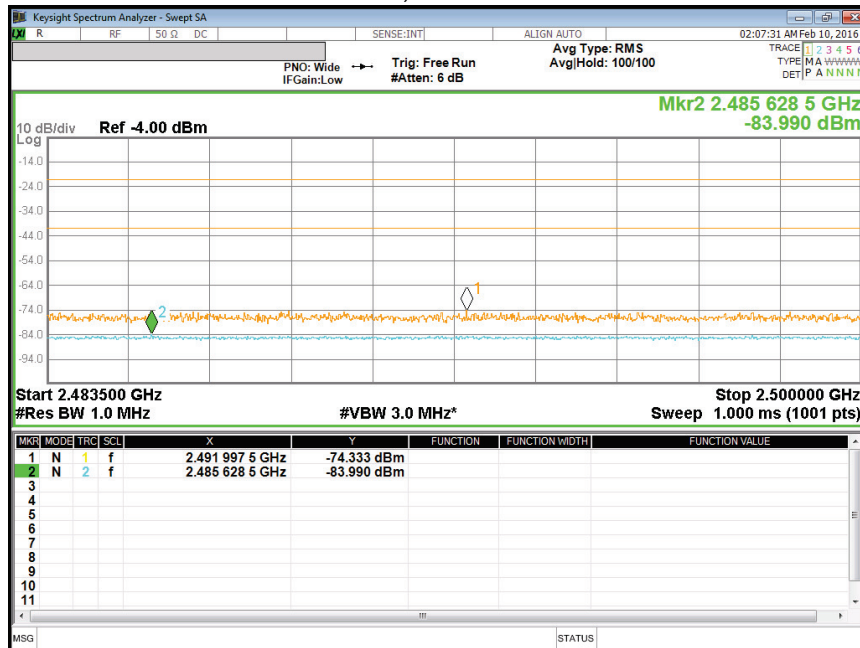
Note – Initially, all Bandedge plots were taken with the fundamental not included in the plot. The above bandedge measurement was taken with the fundamental included to show the fundamental was present.

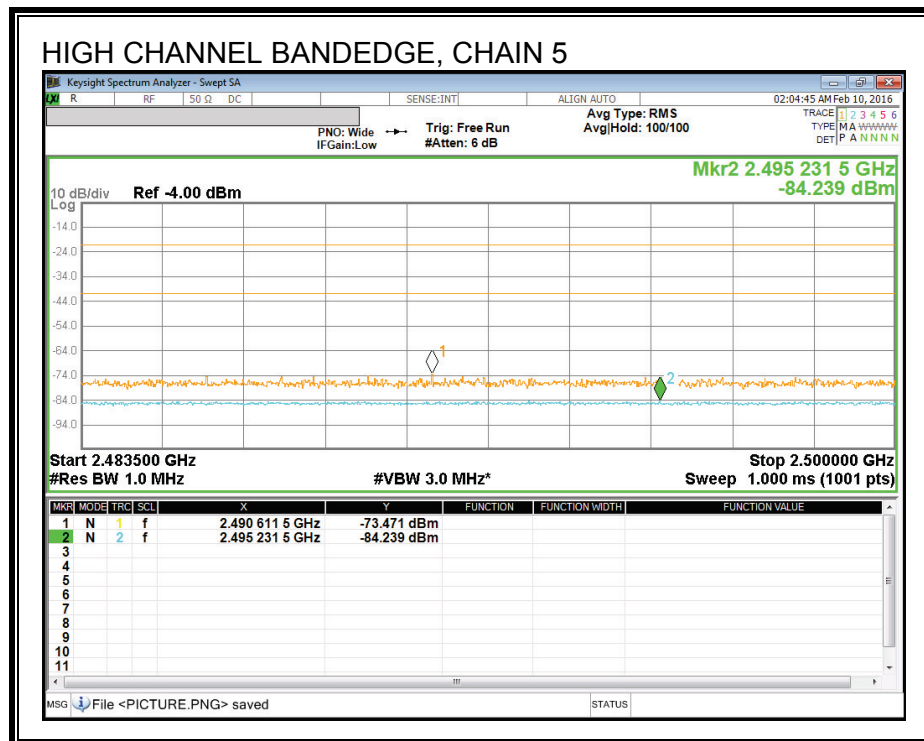
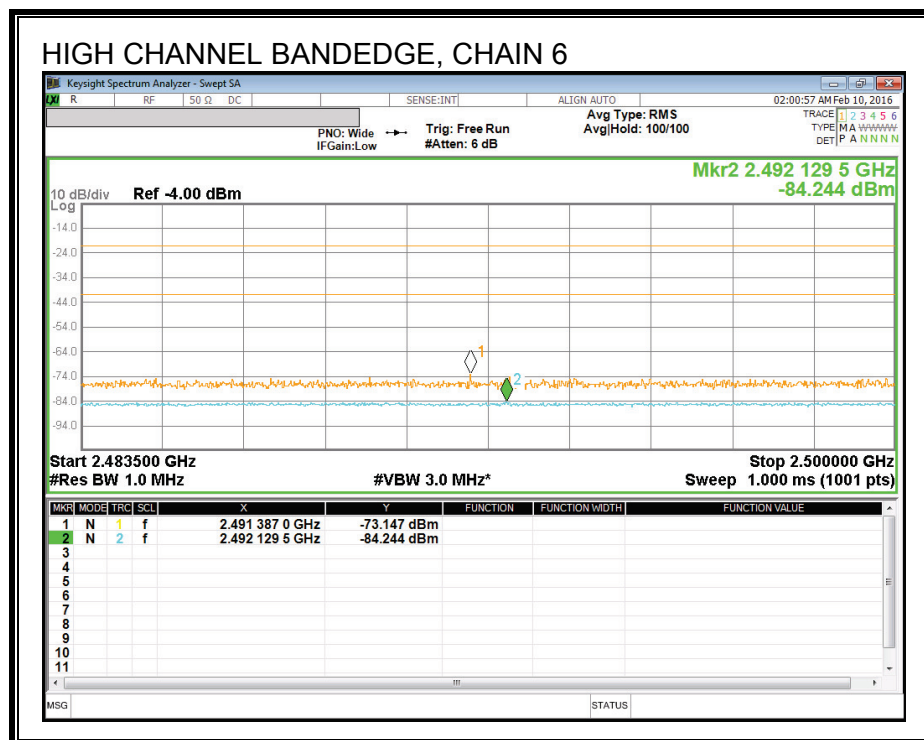


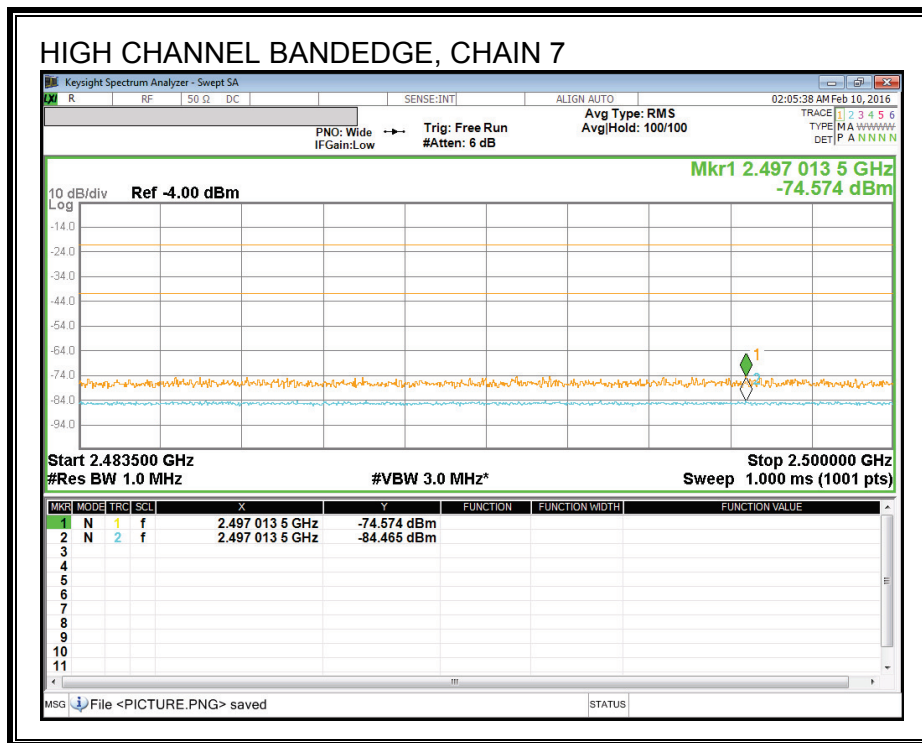
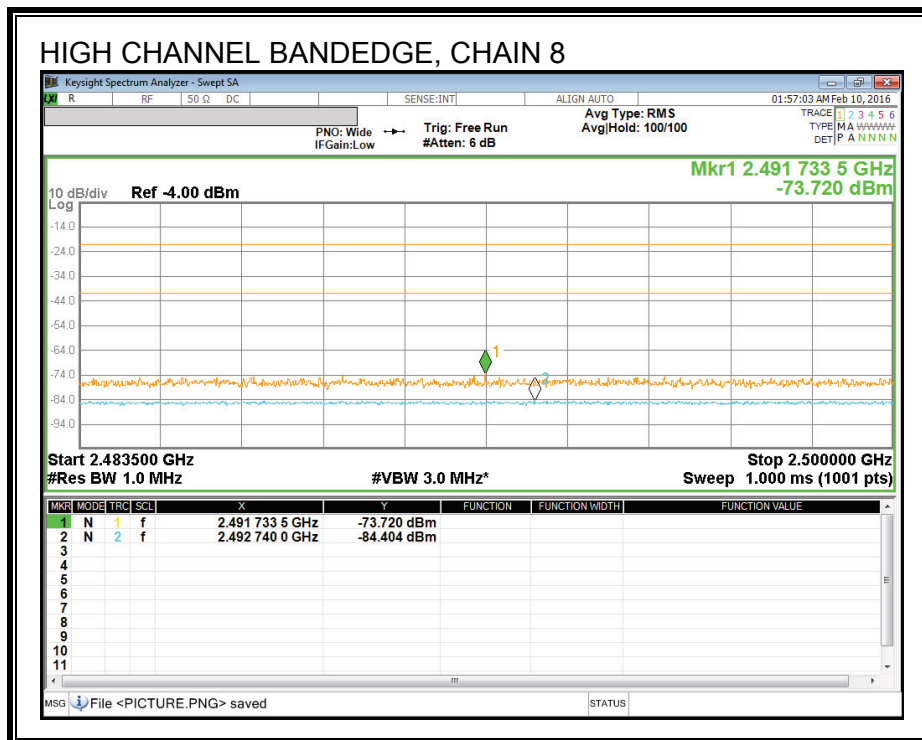
HIGH CHANNEL BANDEDGE, CHAIN 3



HIGH CHANNEL BANDEDGE, CHAIN 4







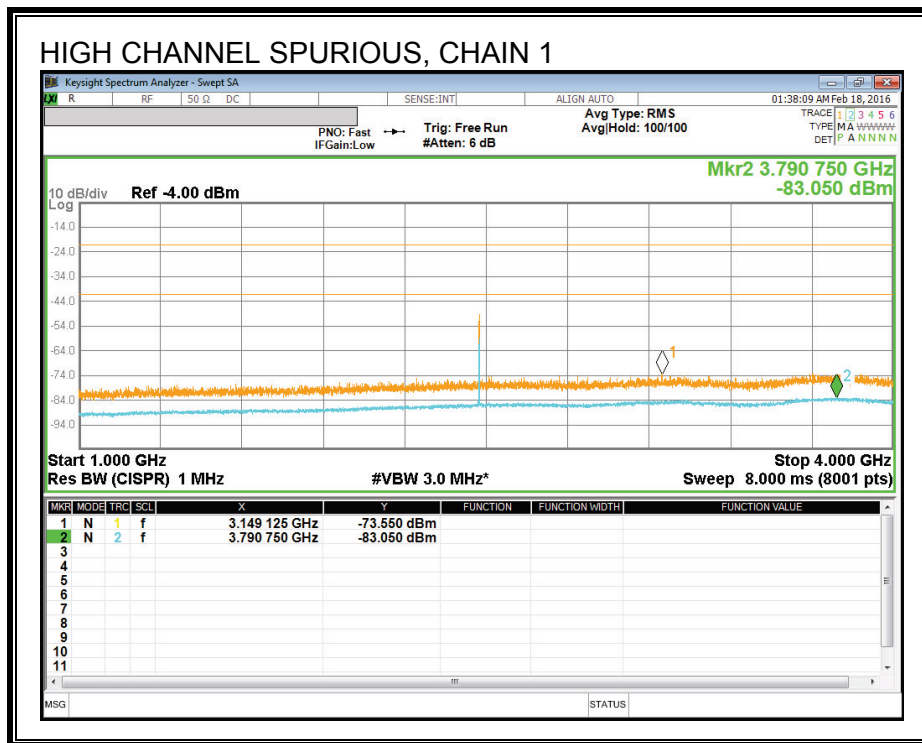
HARMONICS AND SPURIOUS EMISSIONS, HIGH CHANNEL, TABULAR DATA

The following measurements include an antenna gain of:

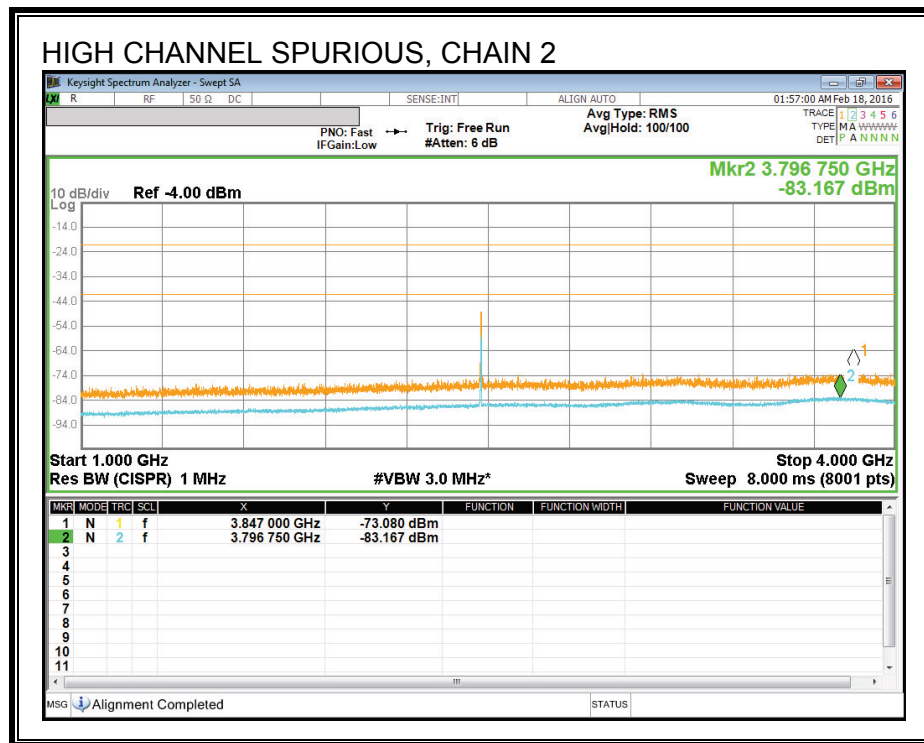
AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

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		-72.079	-73.491	-72.757	-73.572	-74.377	-72.85	-72.191	-72.803			
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		-71.159	-72.571	-71.837	-72.652	-73.457	-71.93	-71.271	-71.883	-43.07	-21.2	-21.87

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		-84.111	-83.709	-84.127	-83.504	-83.922	-83.742	-83.491	-83.832			
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		-82.511	-82.789	-83.207	-82.584	-82.322	-82.152	-81.821	-82.182	-53.44	-41.2	-12.24

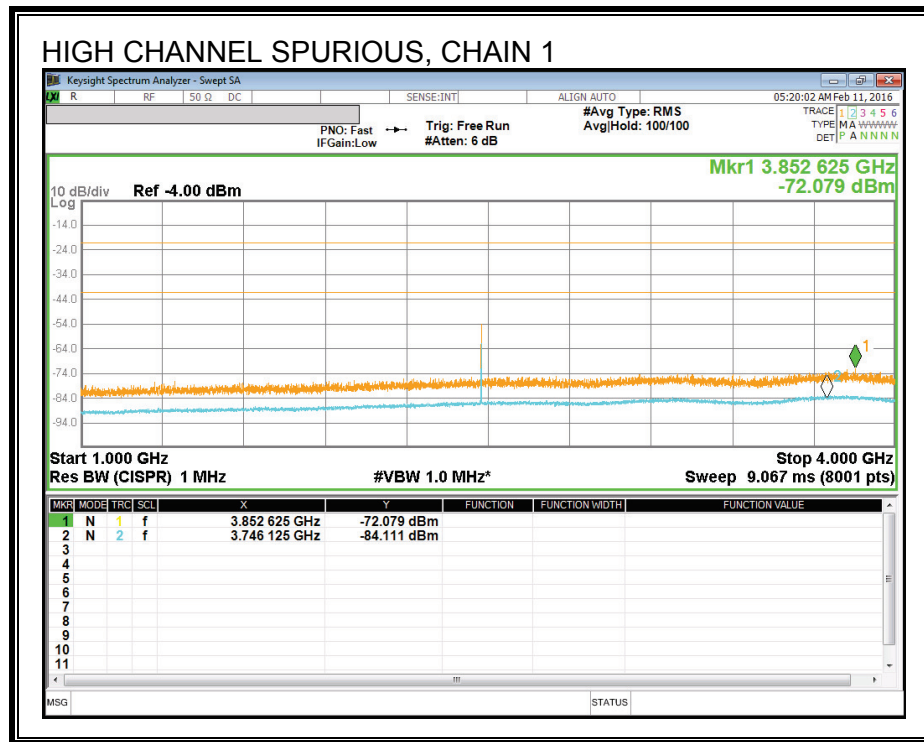
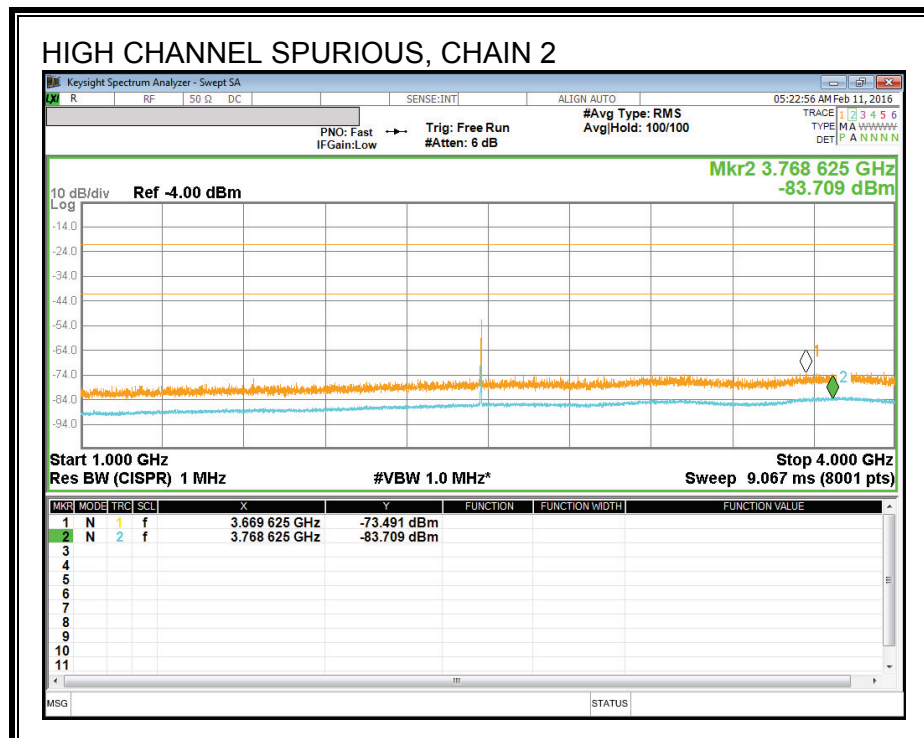


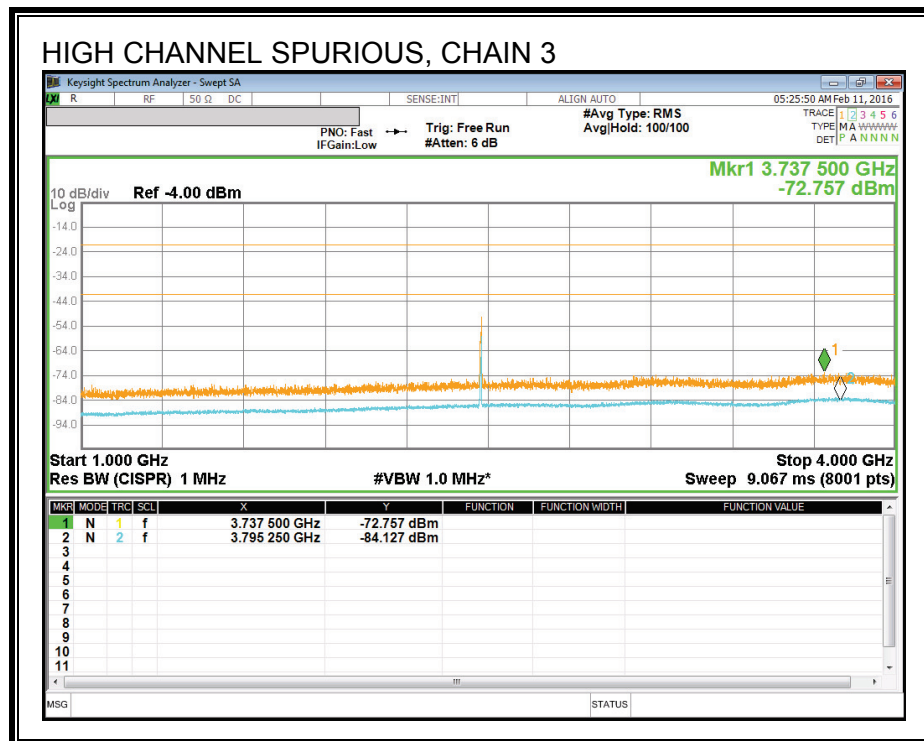
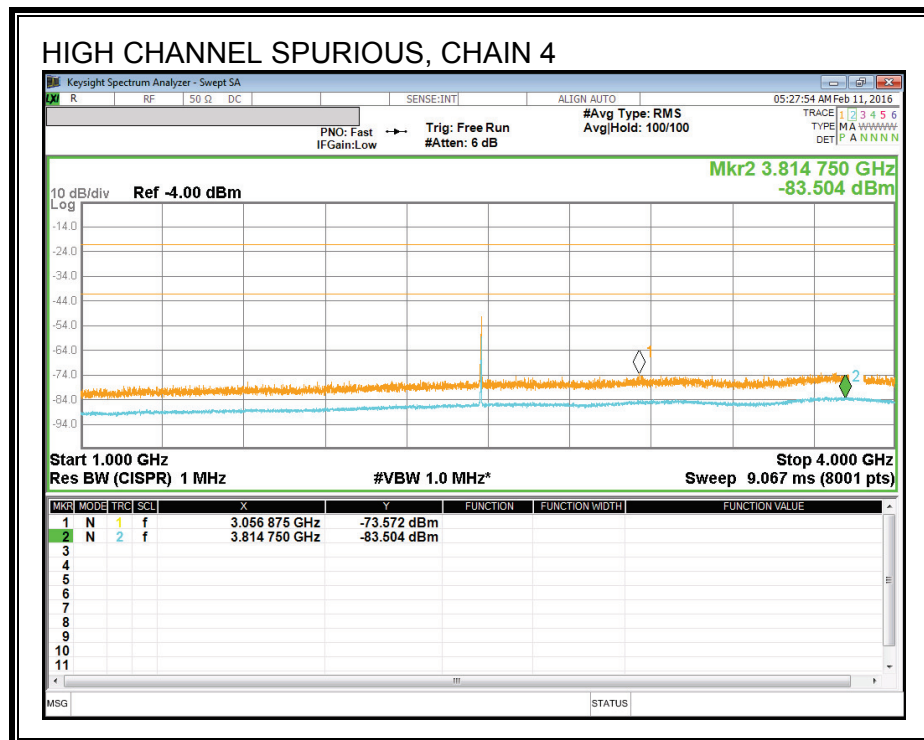
Note - The following HIGH Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHZ and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operating at 85% duty cycle (Chains 1, 5-8).

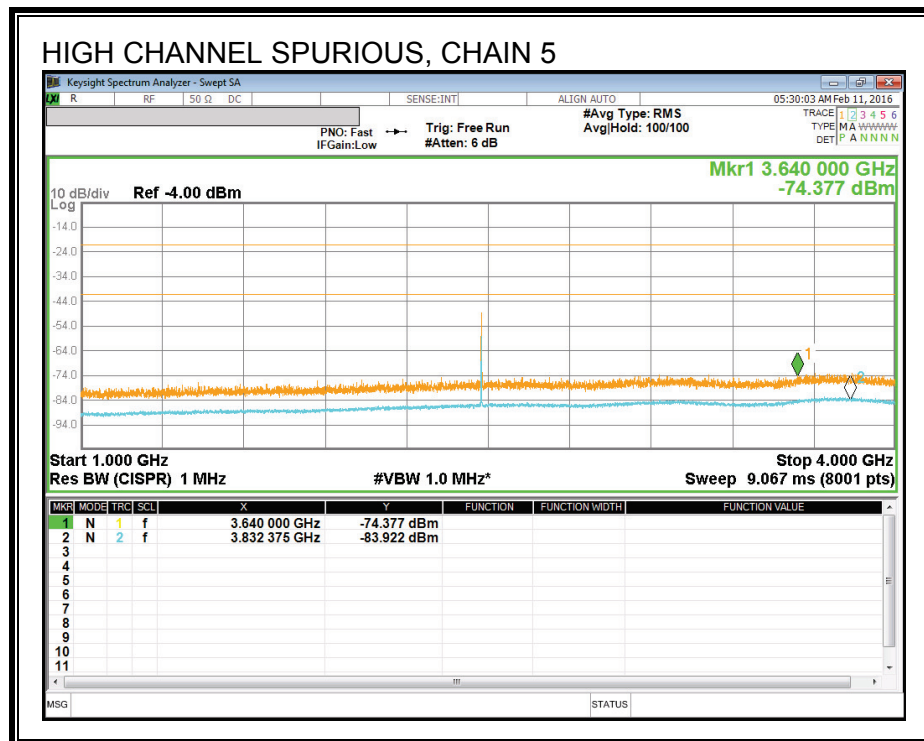
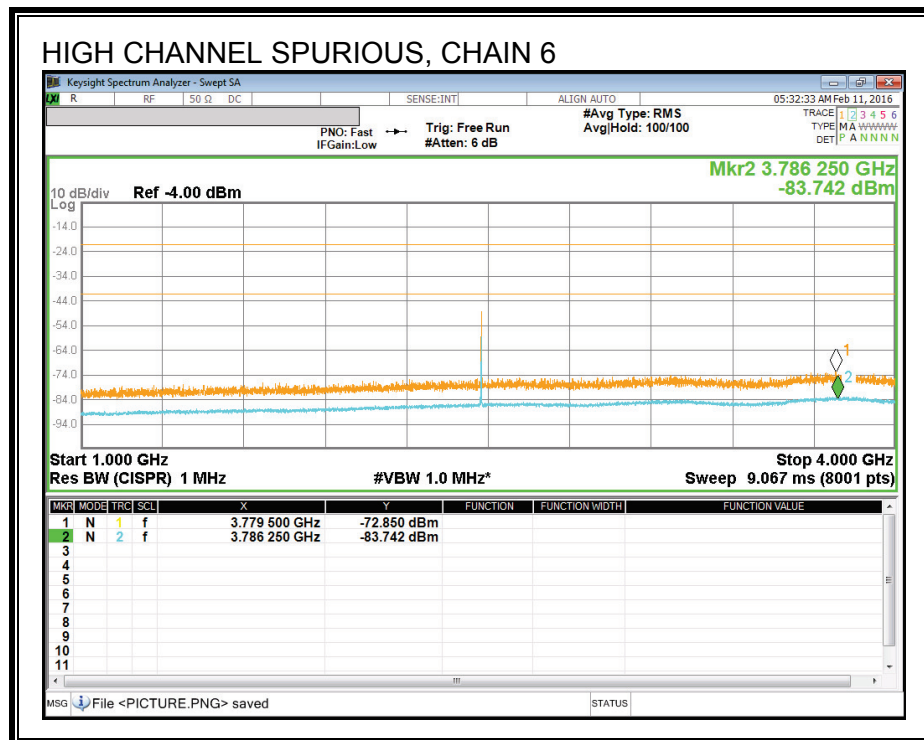


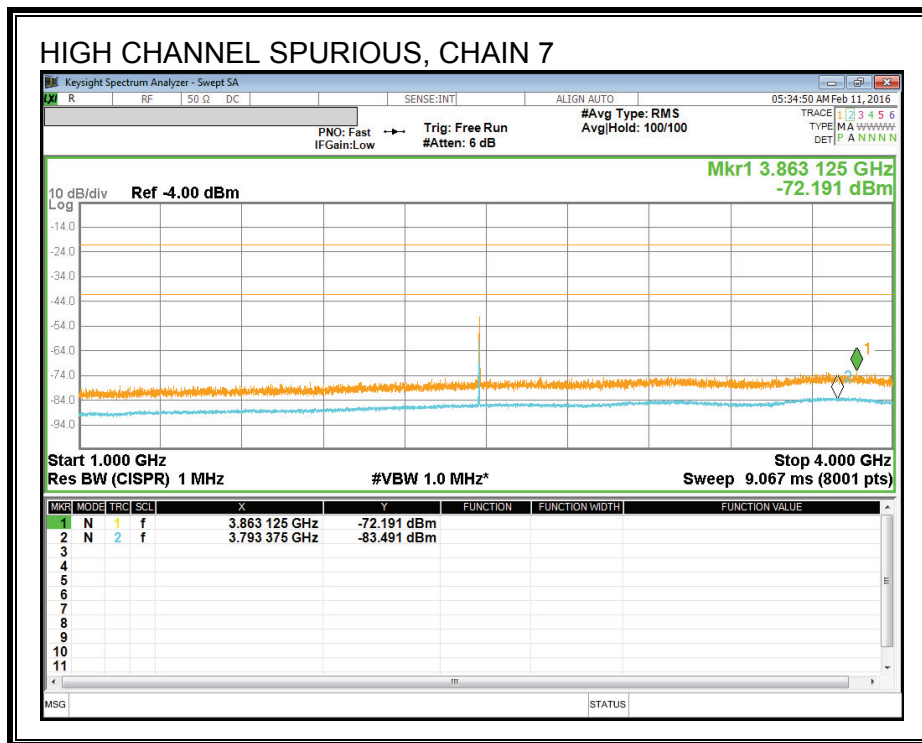
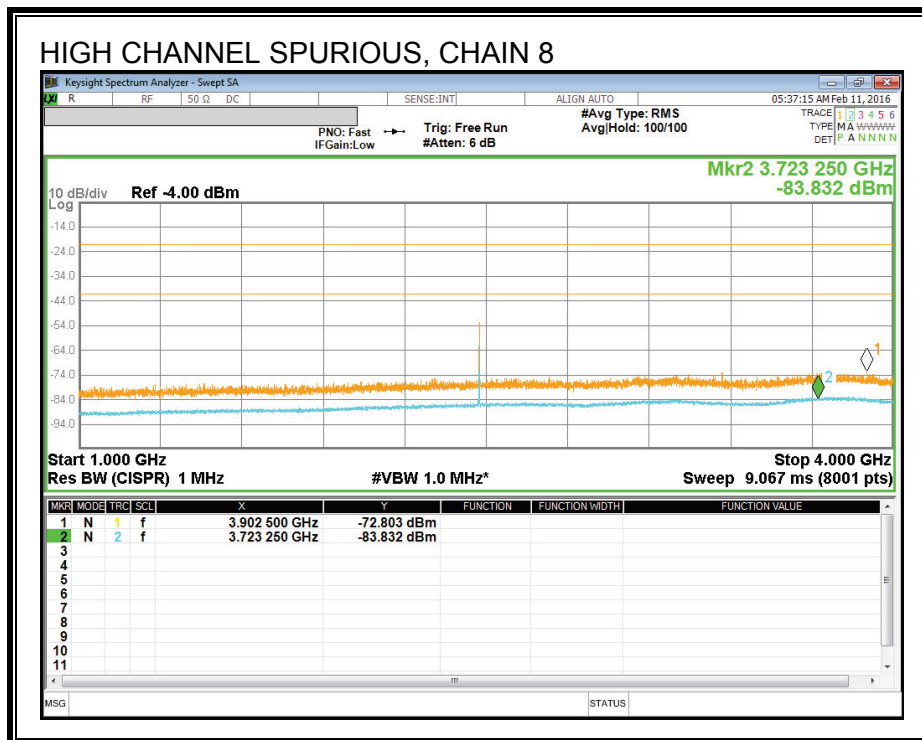
Note - The following High Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHz and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operating at 100% duty cycle (Chains 2-4).

HARMONICS AND SPURIOUS EMISSIONS, HIGH CHANNEL









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

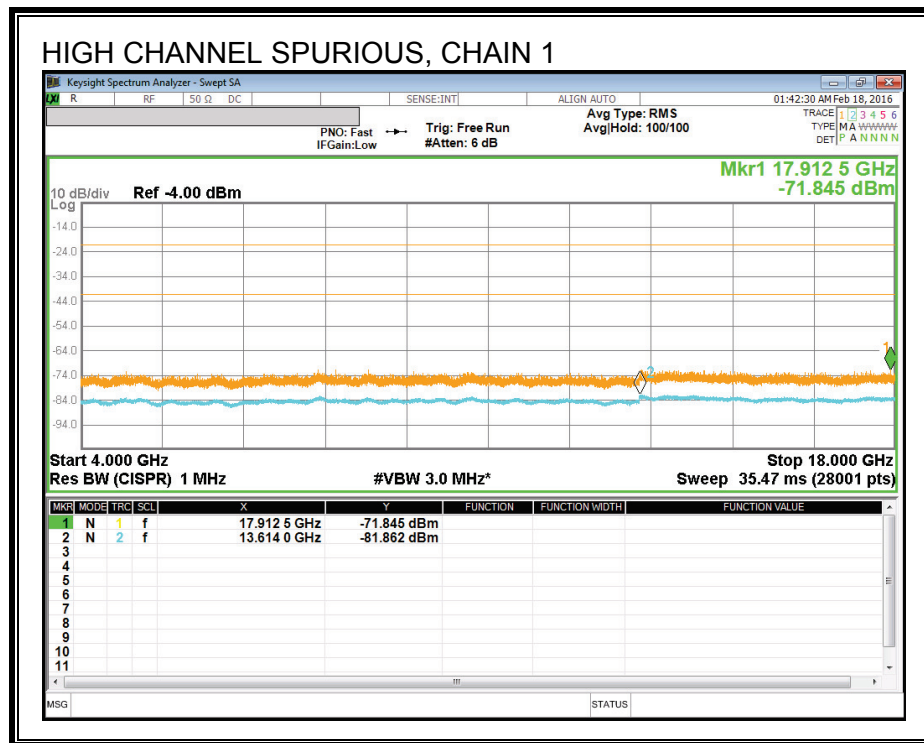
HARMONICS AND SPURIOUS EMISSIONS, HIGH CHANNEL, TABULAR DATA

The following measurements include an antenna gain of:

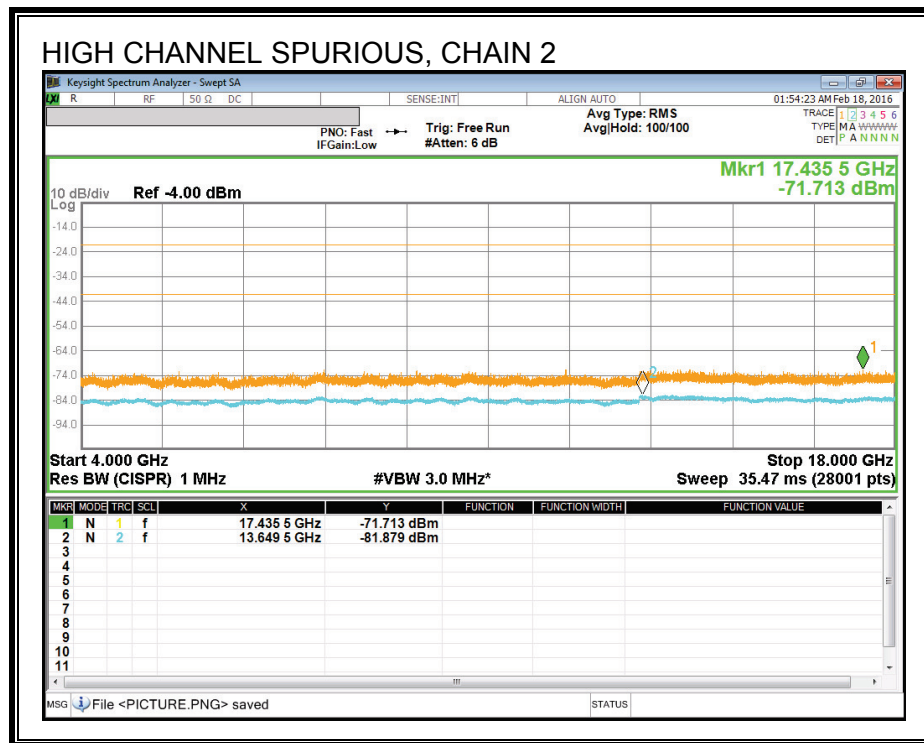
AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

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		-71.534	-71.106	-71.026	-71.535	-71.429	-71.345	-71.516	-71.875			
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		-68.32	-67.892	-67.812	-68.321	-68.215	-68.131	-68.302	-68.661	-39.21	-21.2	-18.01

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		-82.688	-81.98	-81.898	-82.056	-81.771	-81.703	-81.916	-81.806			
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		-77.319	-77.291	-77.209	-77.367	-76.402	-76.344	-76.477	-76.387	-47.84	-41.2	-6.64



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).



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 100% duty cycle (Chains 2-4).

HARMONICS AND SPURIOUS EMISSIONS, HIGH CHANNEL

