

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

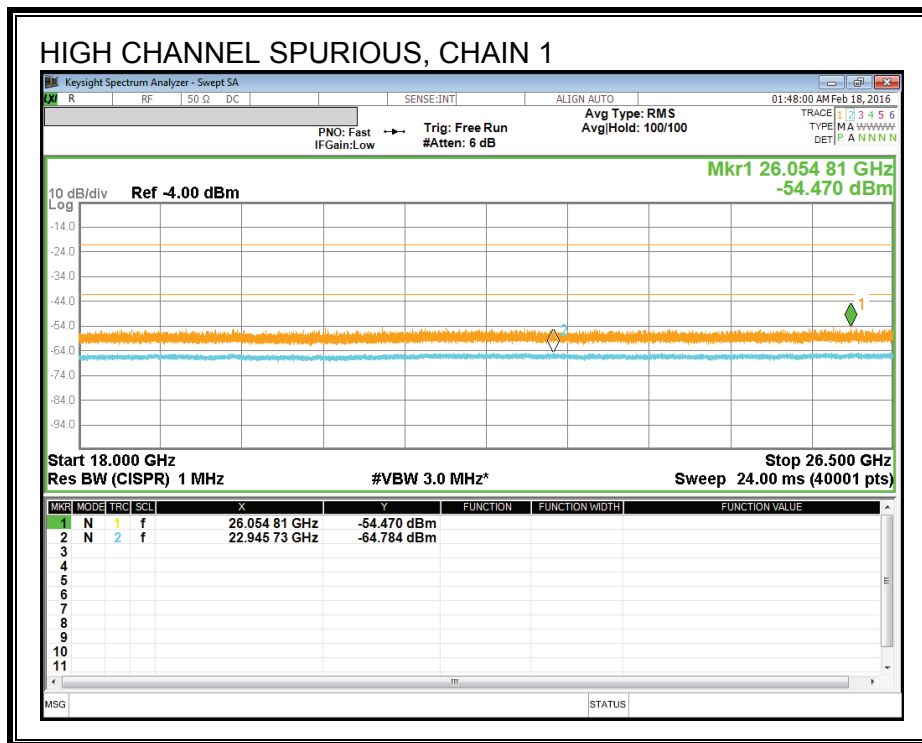
HARMONICS AND SPURIOUS EMISSIONS, HIGH CHANNEL, TABULAR DATA

The following measurements include an antenna gain of:

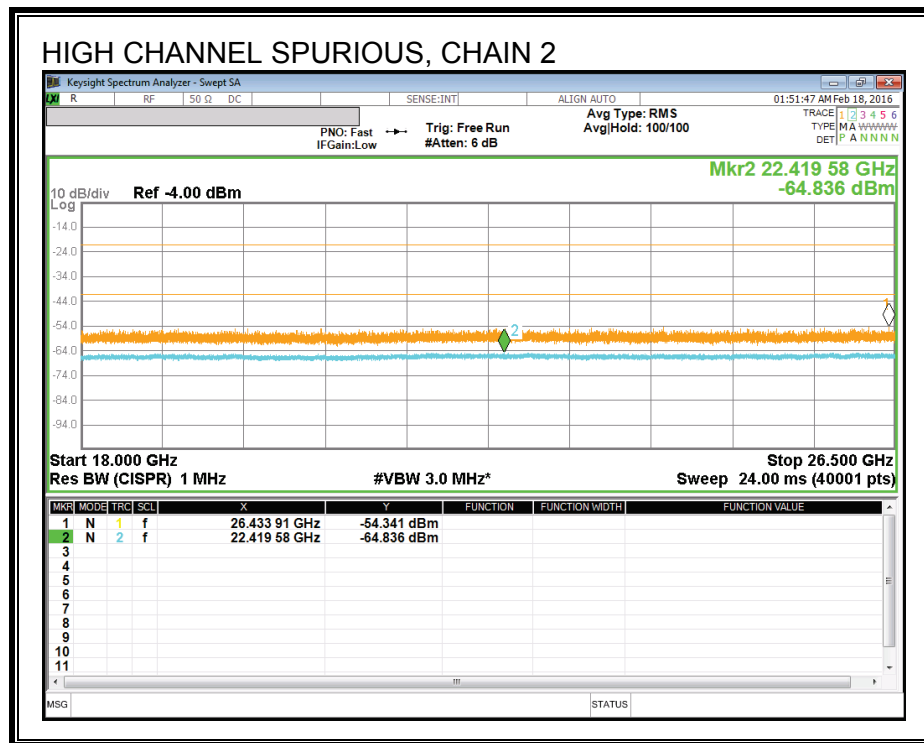
AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

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		-53.689	-54.588	-54.264	-54.453	-54.176	-54.261	-54.26	-54.532			
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		-77.553	-78.452	-78.128	-78.317	-78.04	-78.125	-78.124	-78.396	-49.15	-21.2	-27.95

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		-64.621	-65.045	-65.005	-64.948	-65.011	-65.09	-64.933	-64.792			
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		-87.805	-88.909	-88.869	-88.812	-88.195	-88.284	-88.047	-87.926	-59.36	-41.2	-18.16

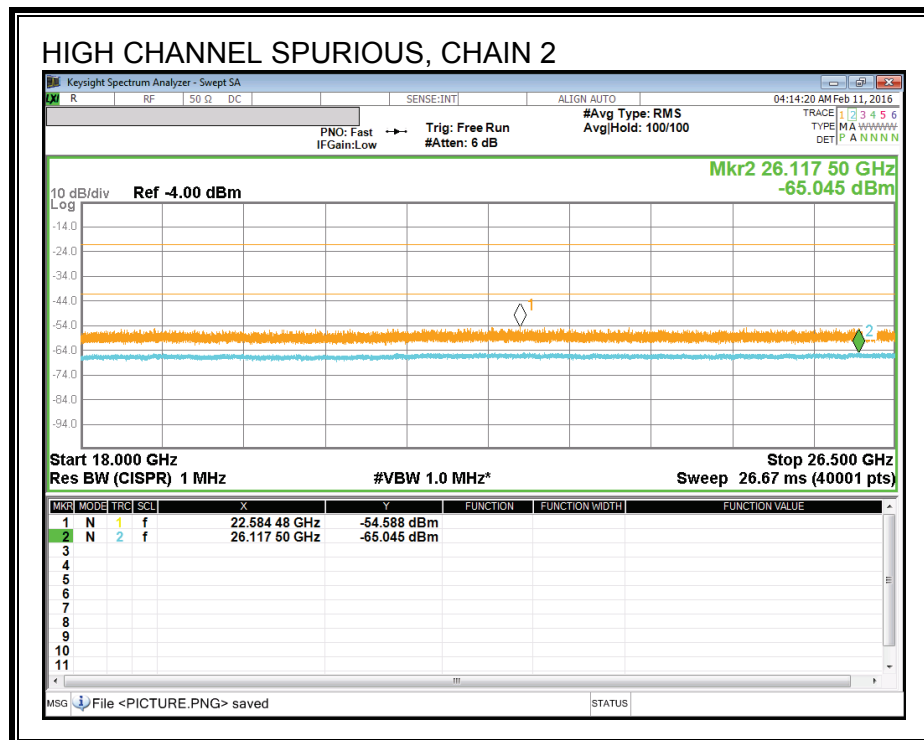
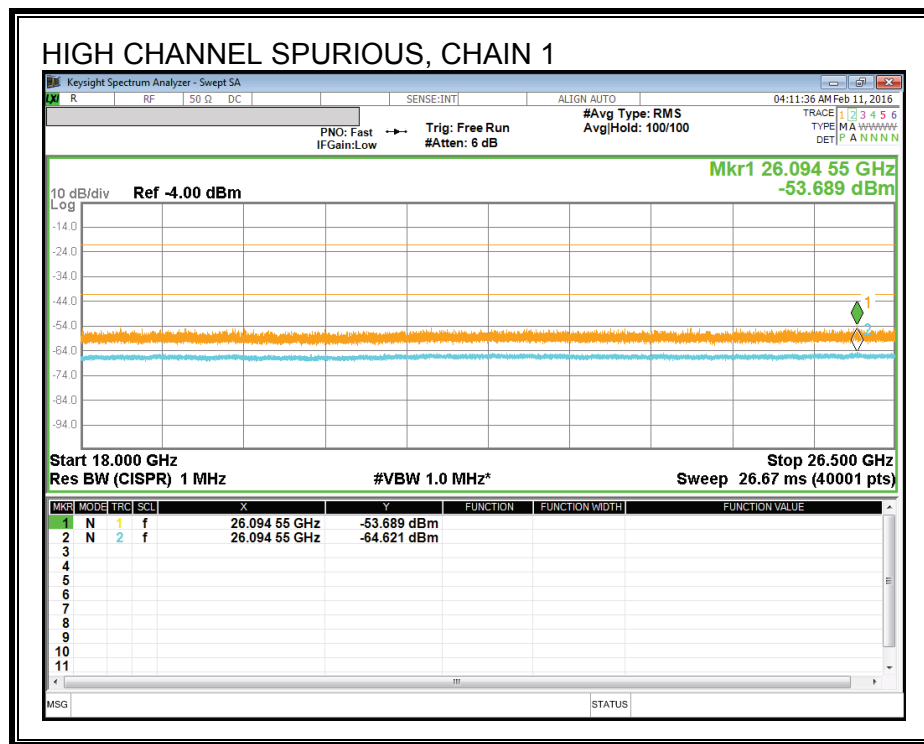


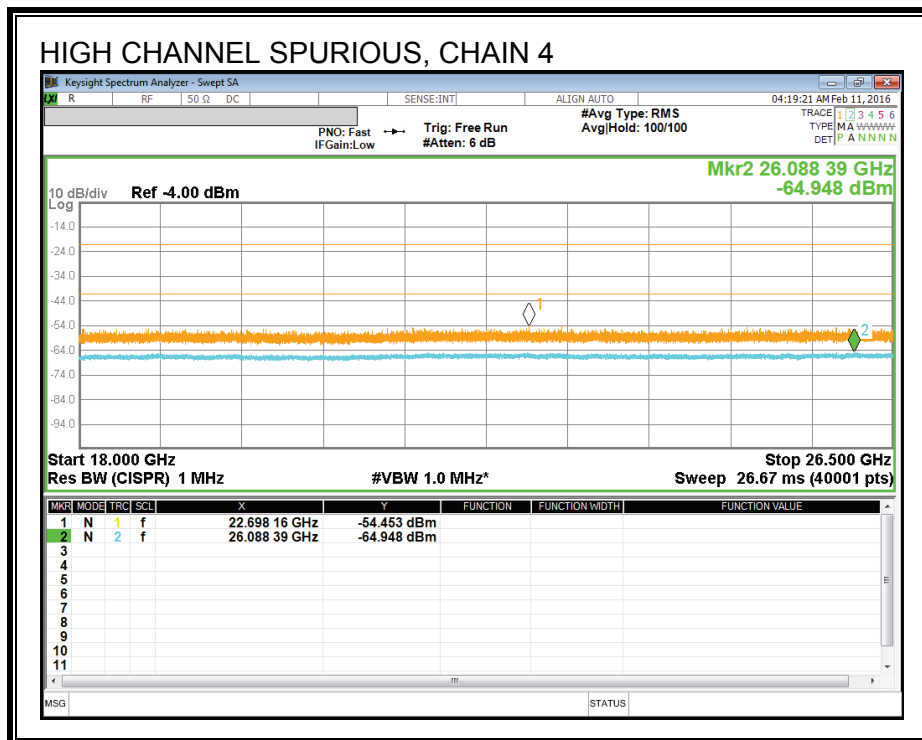
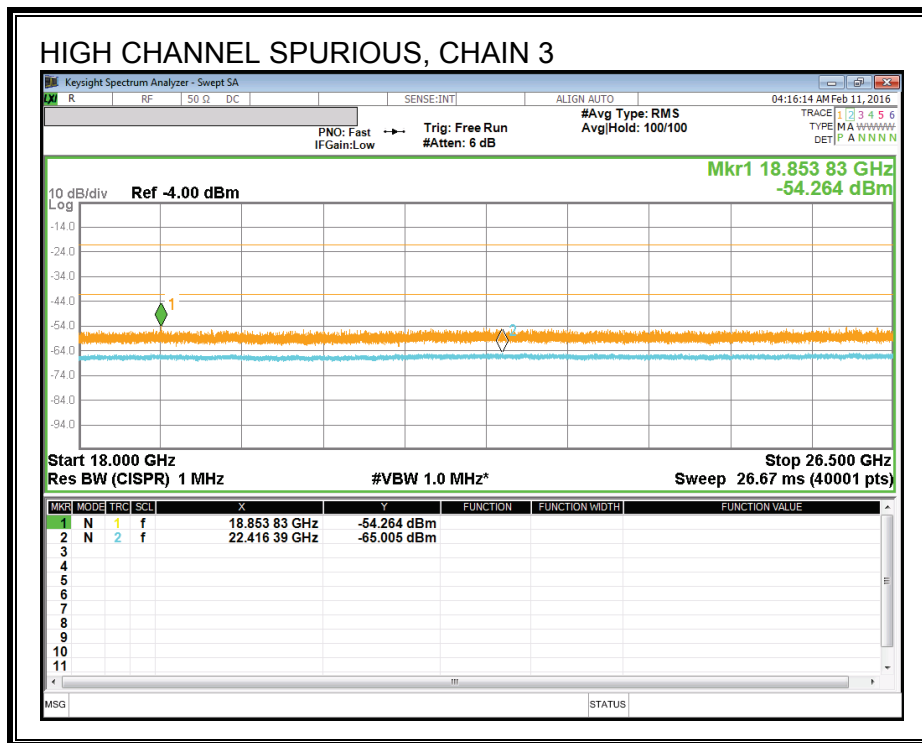
Note - The following HIGH Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHZ and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operating at 85% duty cycle (Chains 1, 5-8).

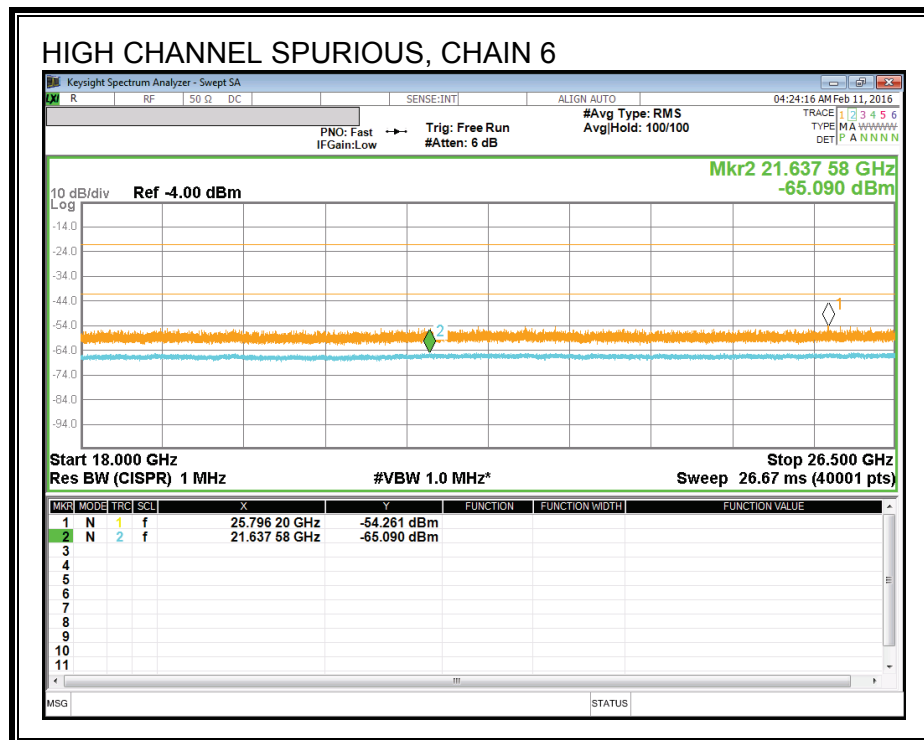
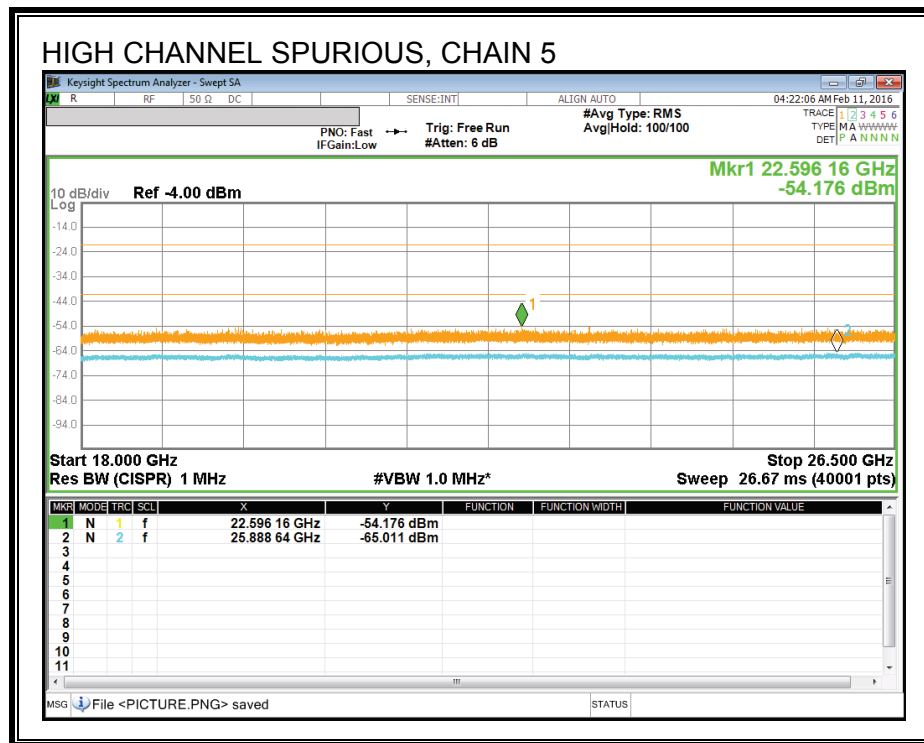


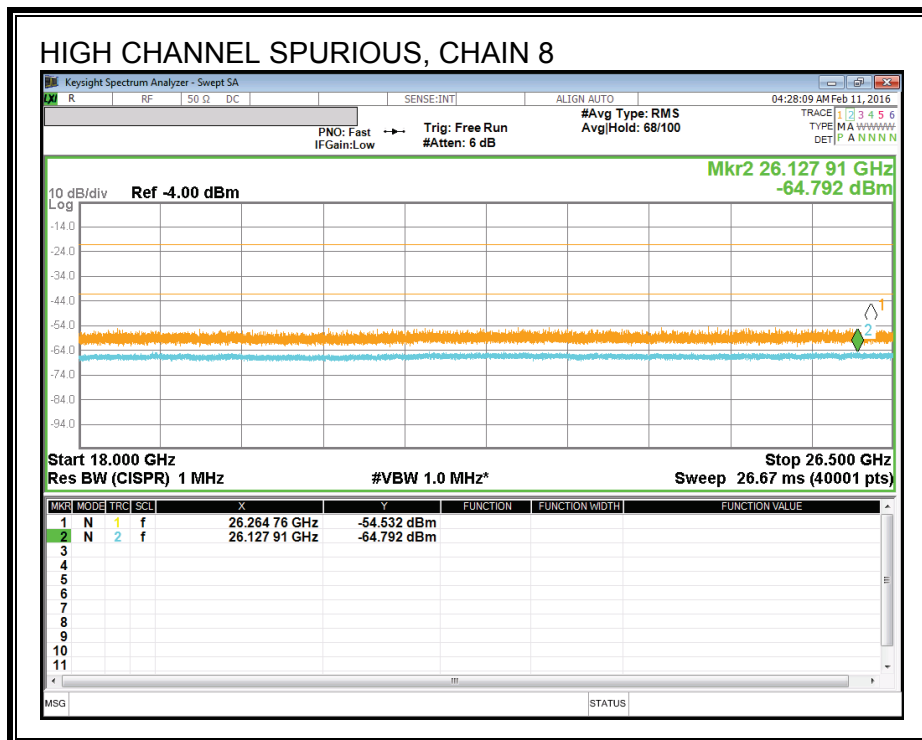
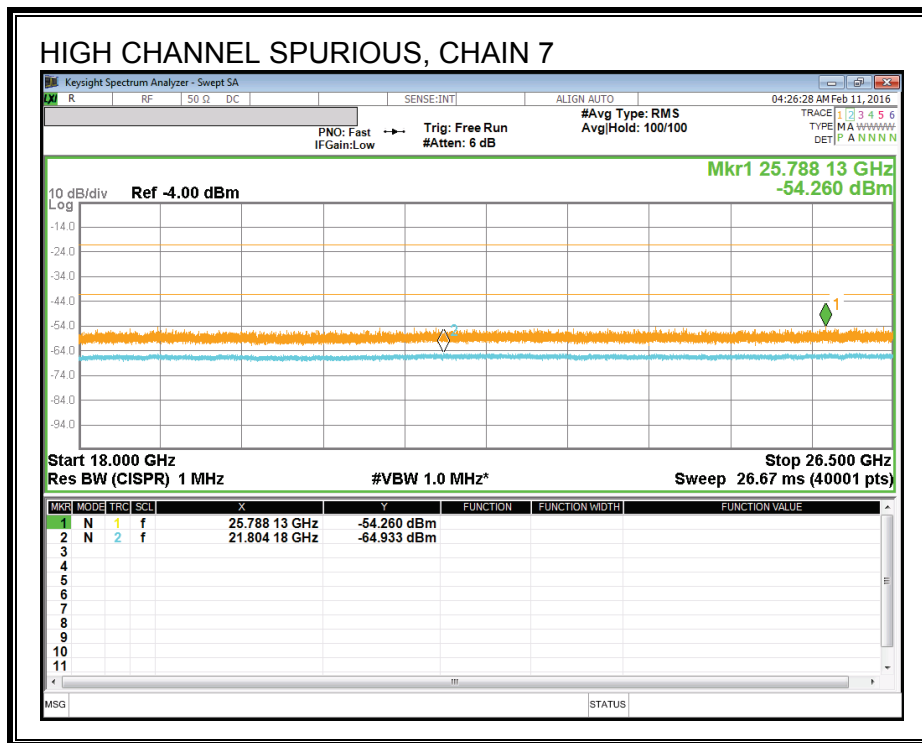
Note - The following High Channel spurious plots were taken with an RBW of 1MHz and VBW of 1MHz. The above was taken at RBW – 1MHz and VBW – 3MHz to show that the results were not impacted by the change in VBW. This plot represents all chains operating at 100% duty cycle (Chains 2-4).

HARMONICS AND SPURIOUS EMISSIONS, HIGH CHANNEL









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

RESULTS – 30-1000 MHz, WORST CASE

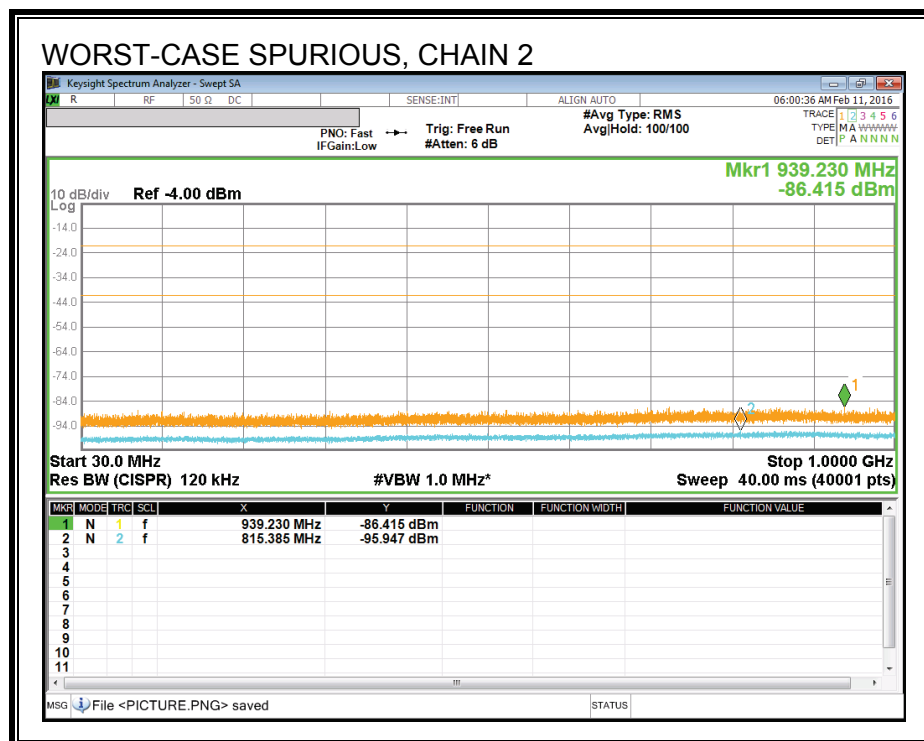
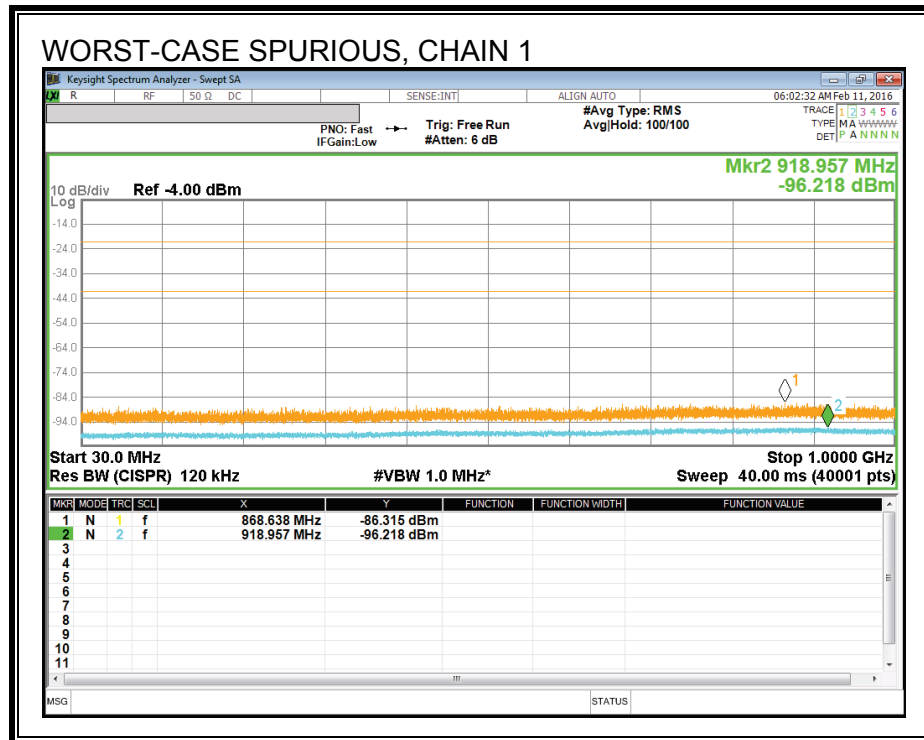
HARMONICS AND SPURIOUS EMISSIONS, WORST-CASE TABULAR DATA

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

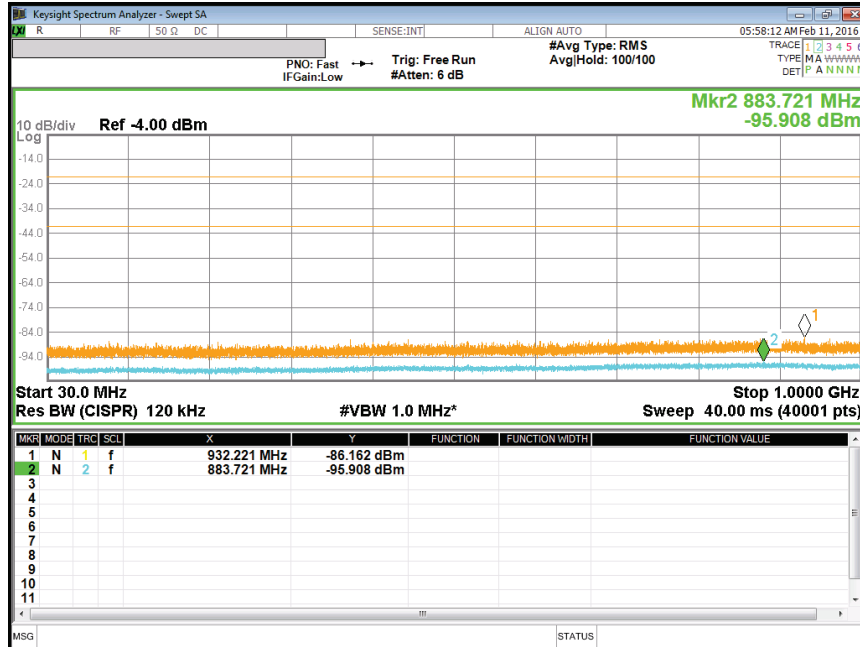
AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

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		-86.315	-86.415	-86.162	-86.329	-86.409	-85.057	-86.418	-86.266			
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		-84.109	-84.209	-83.956	-84.123	-84.203	-82.851	-84.212	-84.06	-50.25	-21.2	-29.05

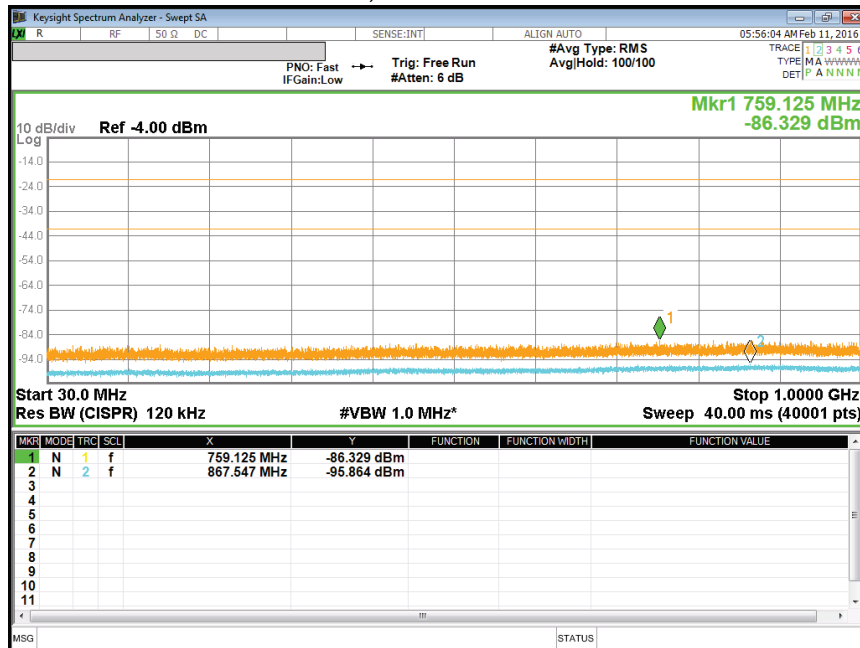
HARMONICS AND SPURIOUS EMISSIONS, WORST-CASE, PLOTS



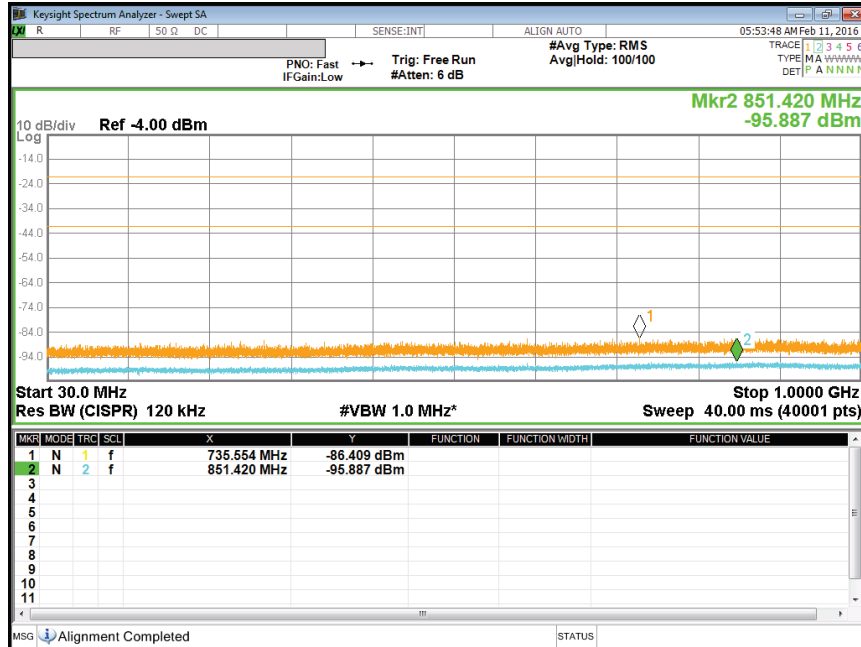
WORST-CASE SPURIOUS, CHAIN 3



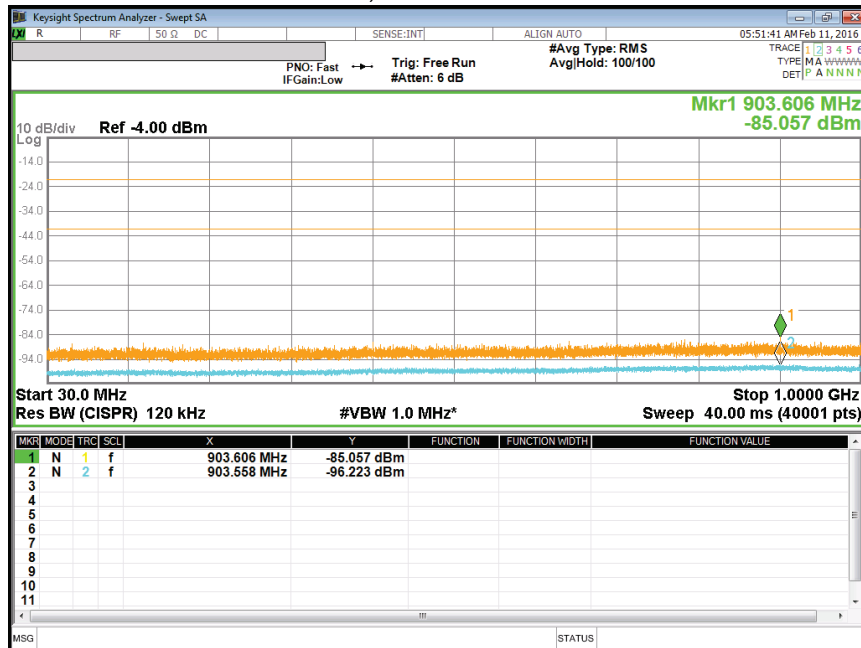
WORST-CASE SPURIOUS, CHAIN 4



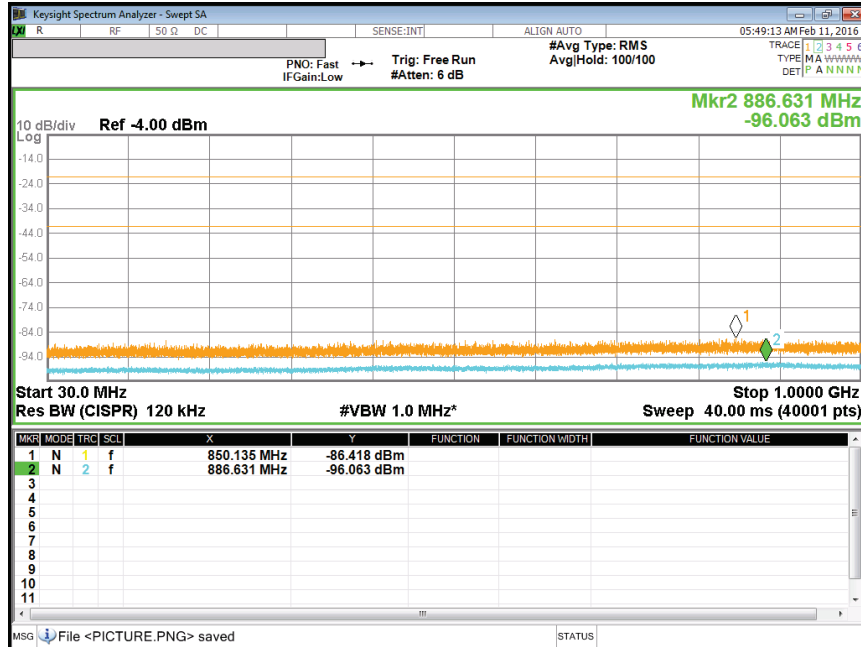
WORST-CASE SPURIOUS, CHAIN 5



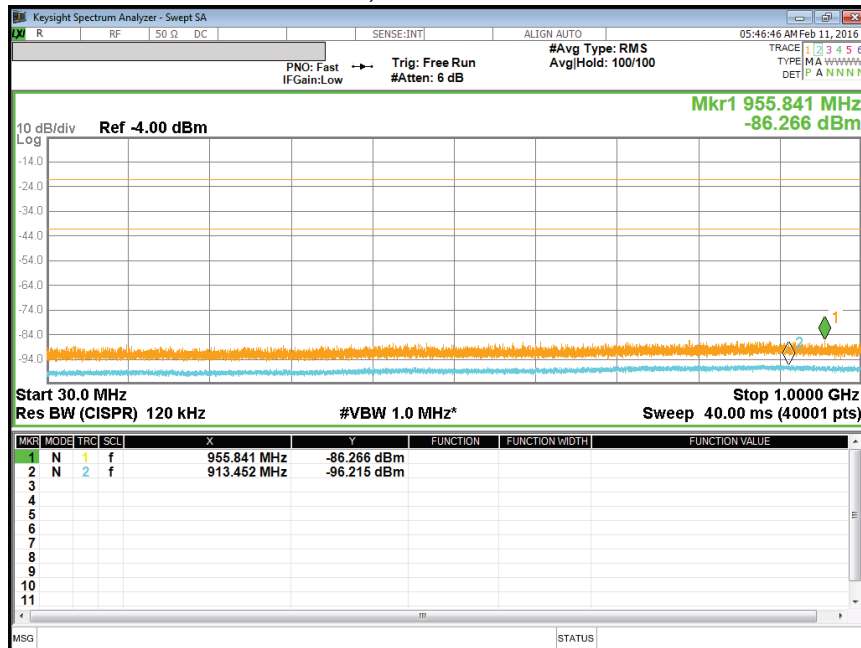
WORST-CASE SPURIOUS, CHAIN 6



WORST-CASE SPURIOUS, CHAIN 7



WORST-CASE SPURIOUS, CHAIN 8



9.3. 9 MHz MODE IN THE RESTRICTED BAND

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

RESTRICTED BANEDGE (LOW CHANNEL) TABULAR SUMMED DATA

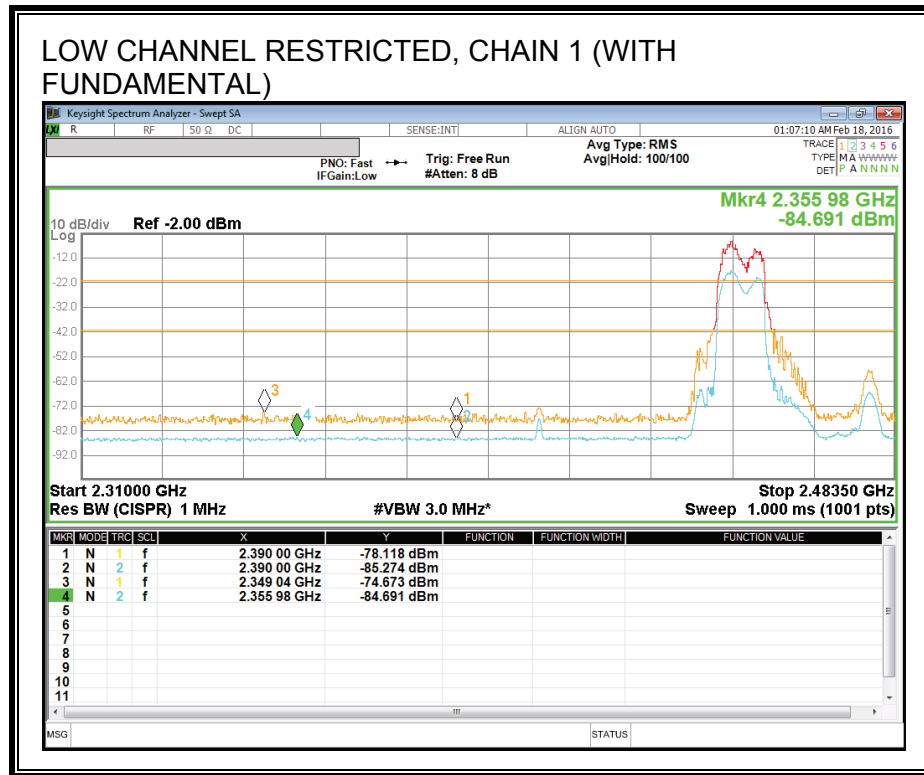
The following measurements include an antenna gain of:

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

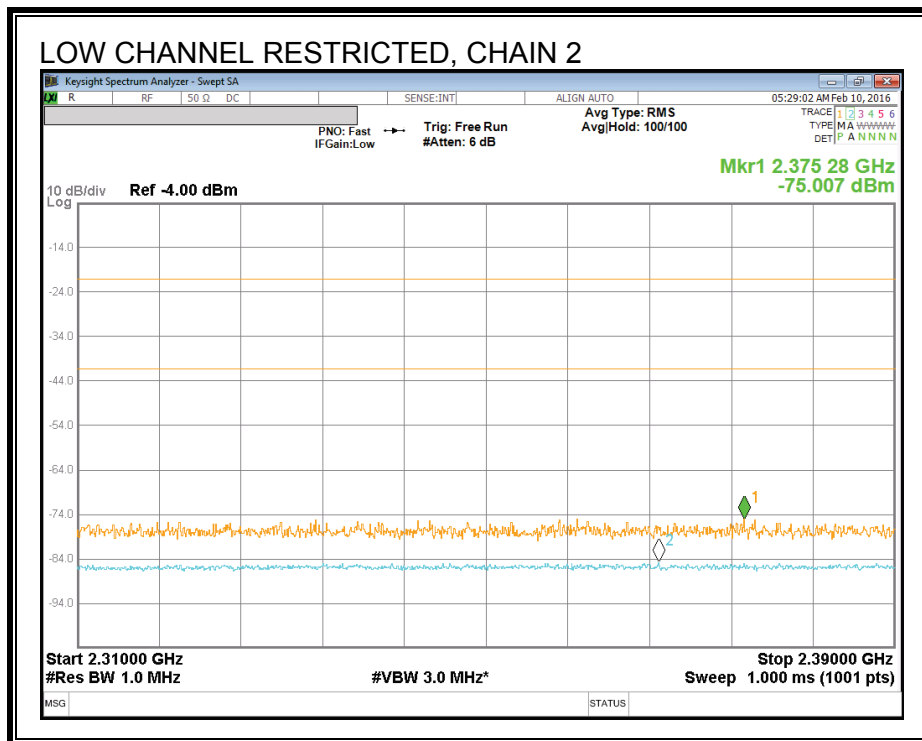
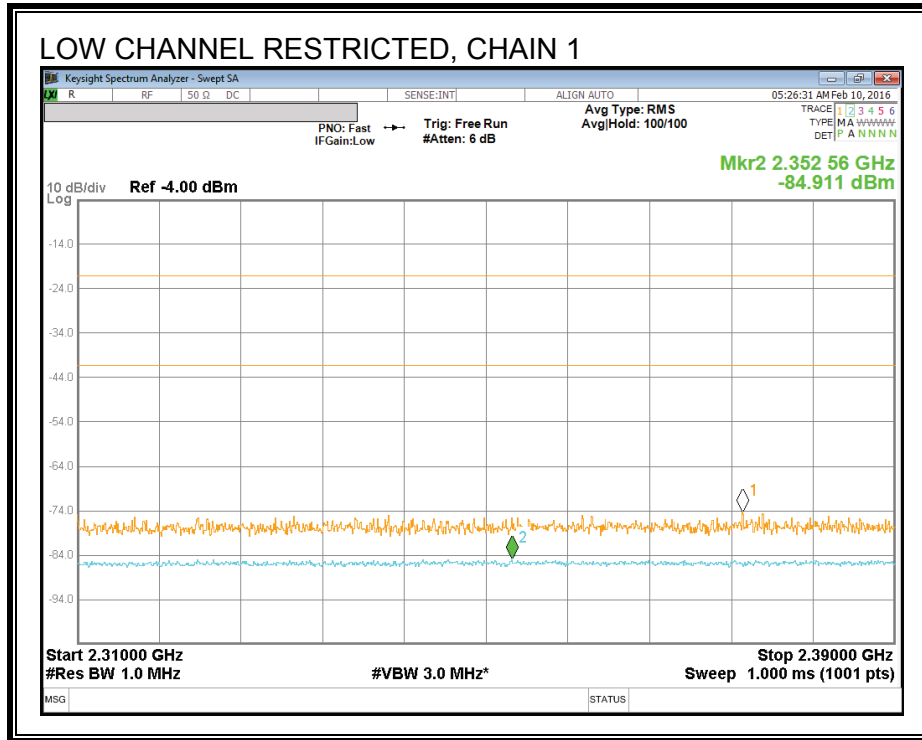
Frequency (MHz)		Meter PK Reading Chain 1 (dBm)	Meter PK Reading Chain 2 (dBm)	Meter PK Reading Chain 3 (dBm)	Meter PK Reading Chain 4 (dBm)	Meter PK Reading Chain 5 (dBm)	Meter PK Reading Chain 6 (dBm)	Meter PK Reading Chain 7 (dBm)	Meter PK Reading Chain 8 (dBm)	PK EIRP (dBm)	PK E-field Limit (dBm)	PK E-field Margin (dB)
Enter SA Value here		-74	-75.007	-74	-74.26	-74	-74.856	-74	-73.371			
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		-73.08	-74.087	-73.08	-73.34	-73.08	-73.936	-73.08	-72.451	-44.26	-21.2	-23.06

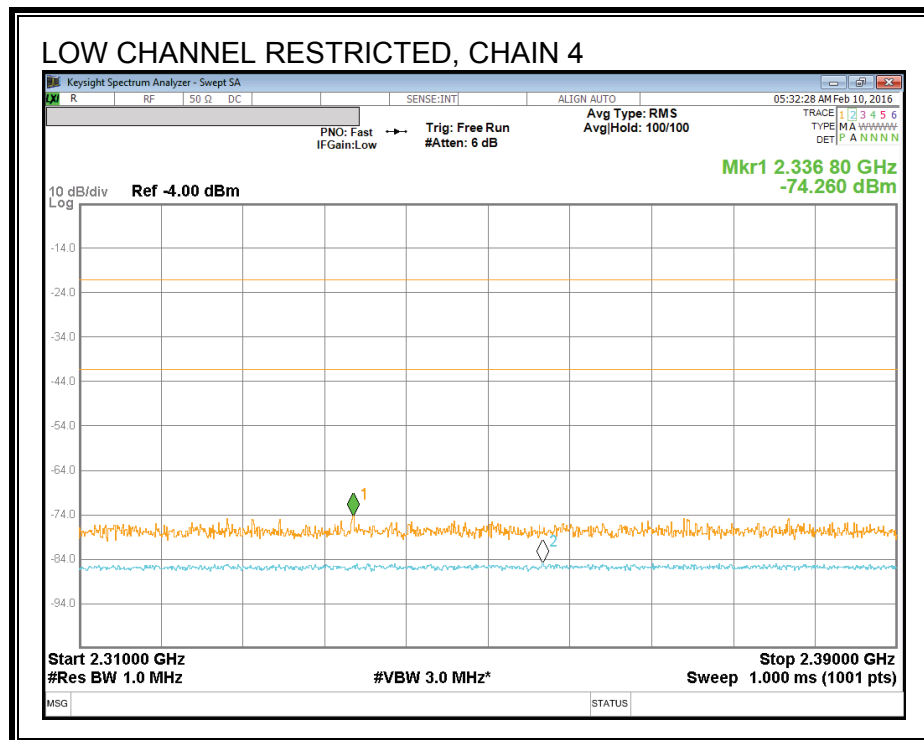
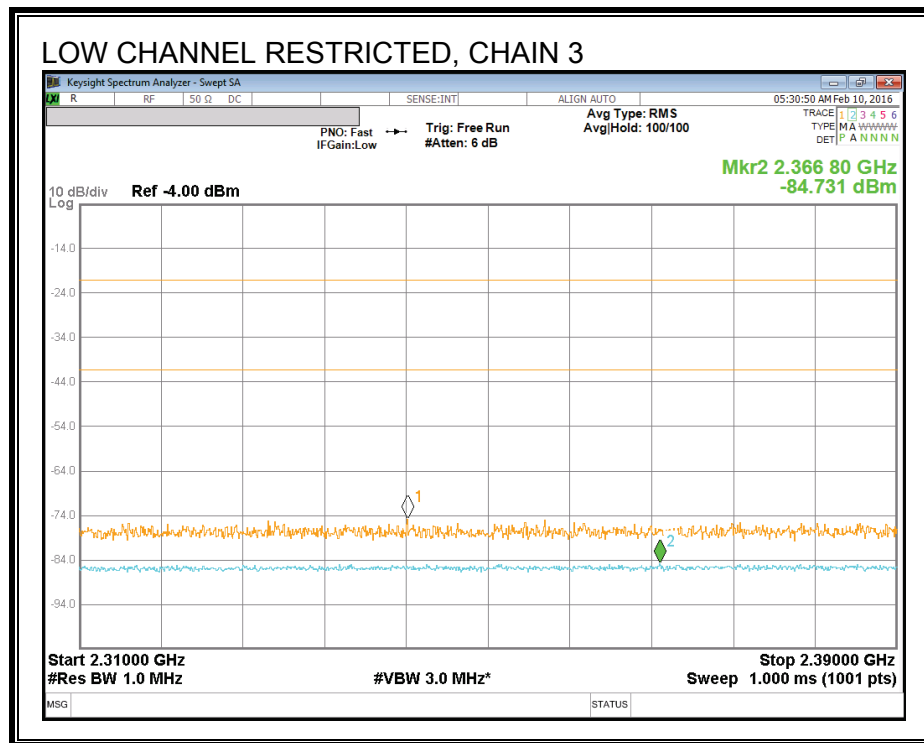
Frequency (MHz)		Meter AVG Reading Chain 1	Meter AVG Reading Chain 2	Meter AVG Reading Chain 3	Meter AVG Reading Chain 4	Meter AVG Reading Chain 5	Meter AVG Reading Chain 6	Meter AVG Reading Chain 7 (dBm)	Meter AVG Reading Chain 8	AVG EIRP (dBm)	AVG E-field Limit (dBm)	AVG E-field Margin (dB)
Enter SA Value here		-84.911	-84	-84.731	-84	-84.981	-84.5	-84.785	-84			
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	0.67	0.67	0.68	0.68			
Final Value		-83.311	-83.08	-83.811	-83.08	-83.391	-82.91	-83.185	-82.4	-54.15	-41.2	-12.95

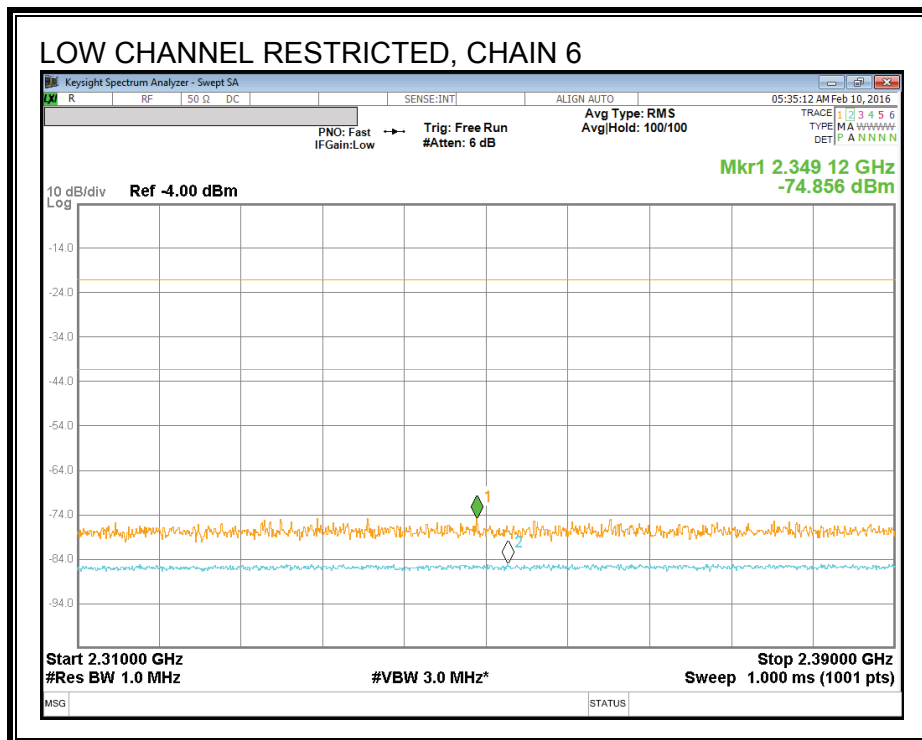
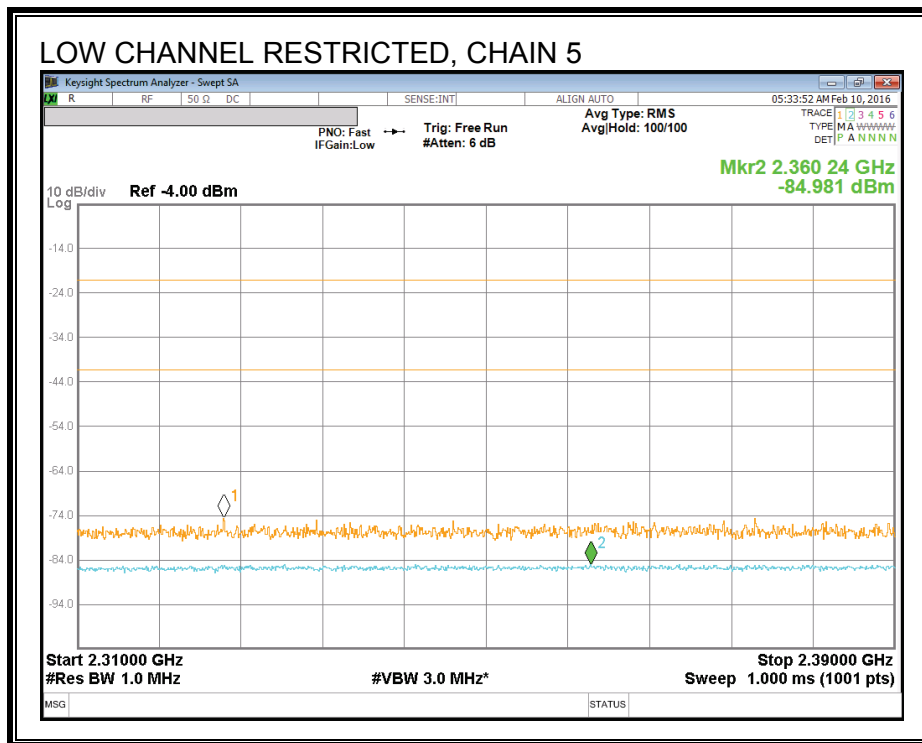
RESTRICTED BANDEDGE (LOW CHANNEL) PLOTS

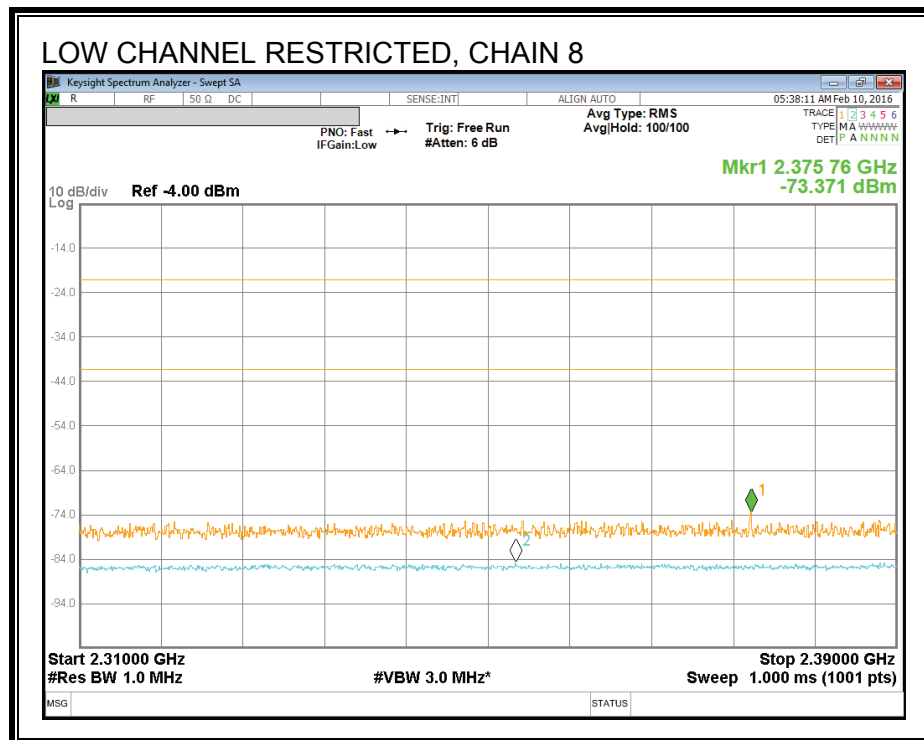
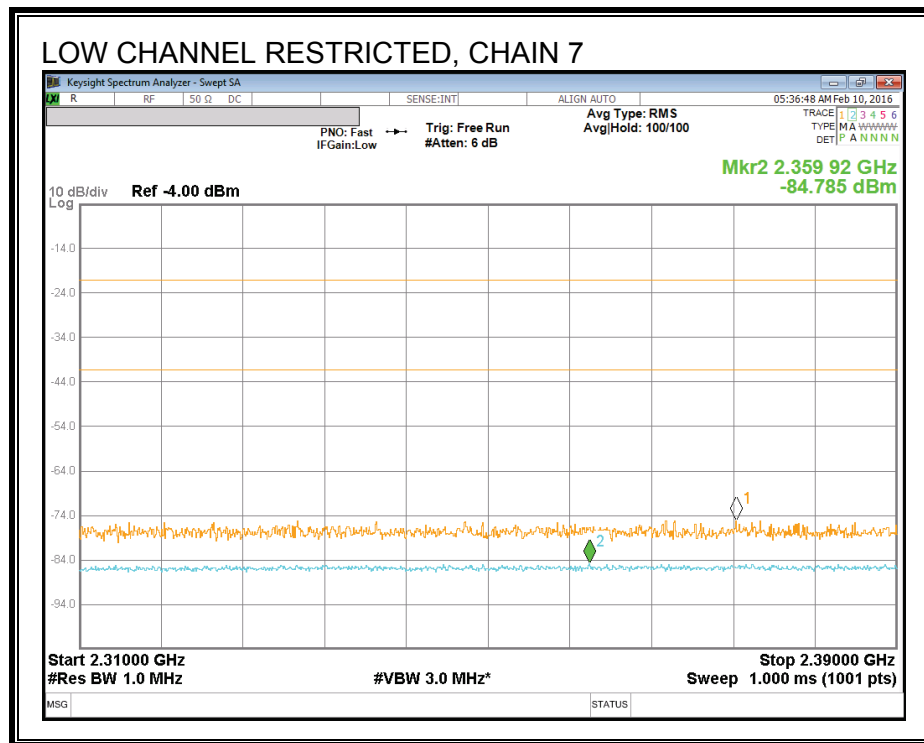


Note – Initially, all Bandedge plots were taken with the fundamental not included in the plot. The above bandedge measurement was taken with the fundamental included to show the fundamental was present.









RESTRICTED BANDEDGE (HIGH CHANNEL) TABULAR SUMMED DATA

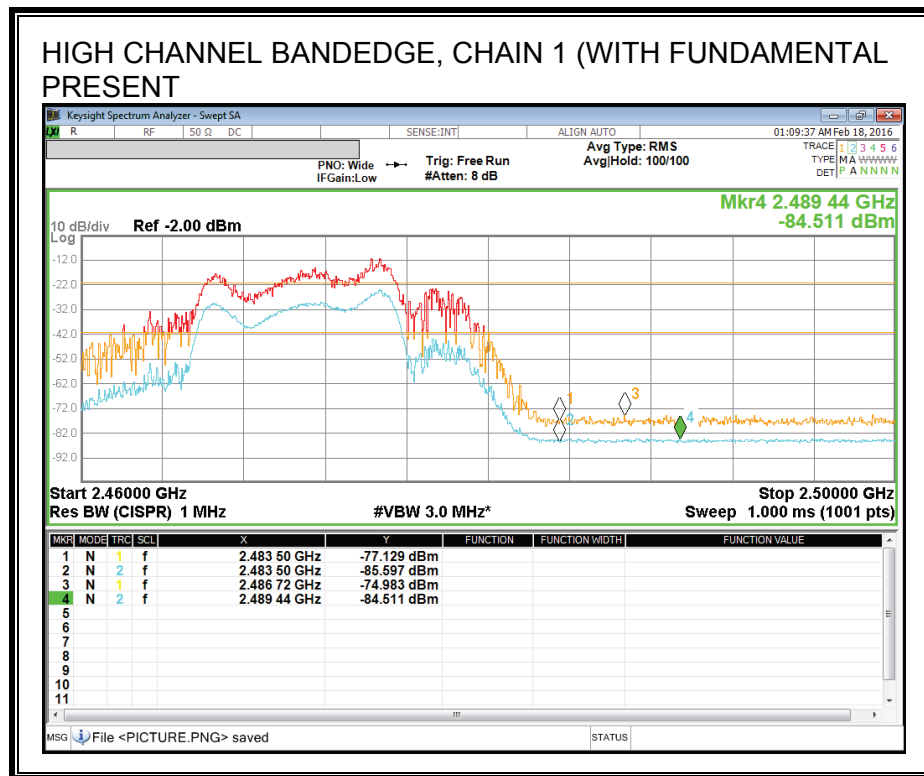
The following measurements include an antenna gain of:

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

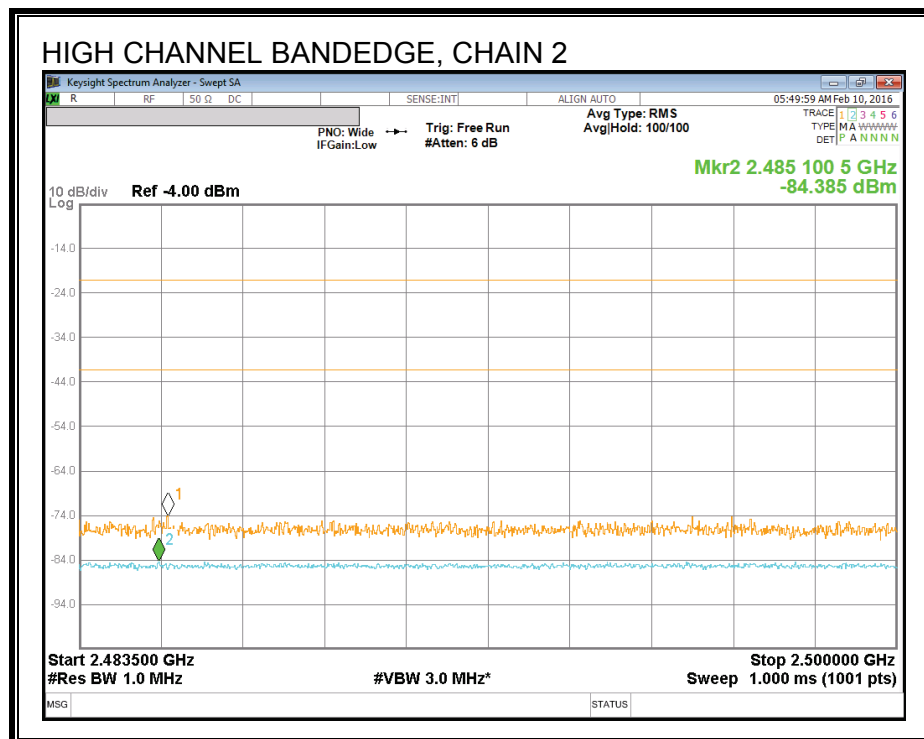
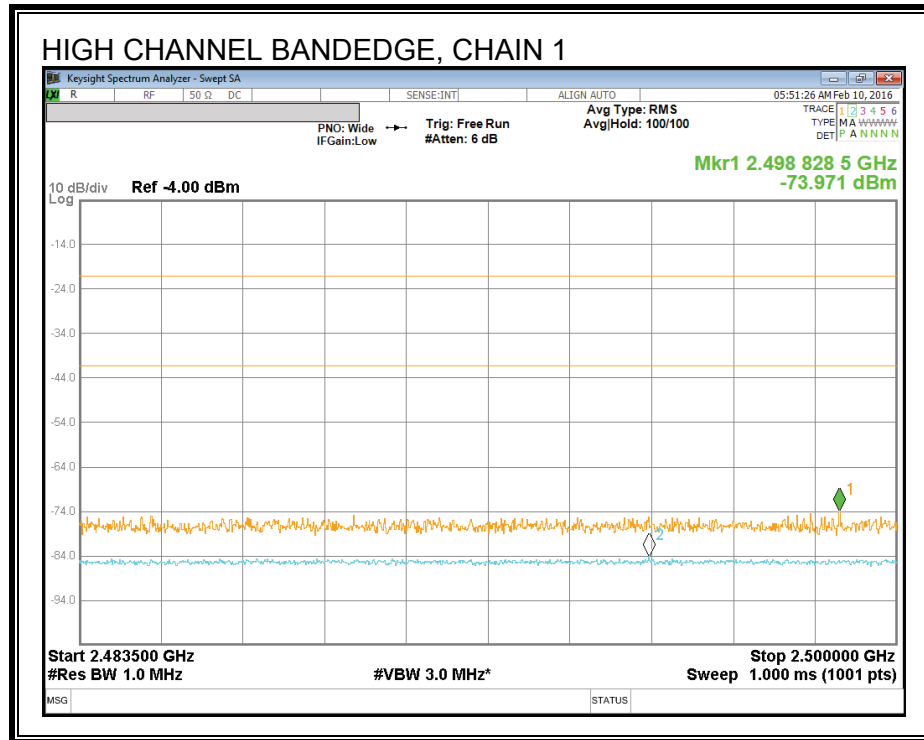
Frequency (MHz)		Meter PK Reading Chain 1 (dBm)	Meter PK Reading Chain 2 (dBm)	Meter PK Reading Chain 3 (dBm)	Meter PK Reading Chain 4 (dBm)	Meter PK Reading Chain 5 (dBm)	Meter PK Reading Chain 6 (dBm)	Meter PK Reading Chain 7 (dBm)	Meter PK Reading Chain 8 (dBm)	PK EIRP (dBm)	PK E-field Limit (dBm)	PK E-field Margin (dB)
Enter SA Value here		-73.971	-73.75	-73.989	-73.75	-73.298	-73.75	-74.64	-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		-73.051	-72.83	-73.069	-72.83	-72.378	-72.83	-73.72	-72.83	-43.94	-21.2	-22.74

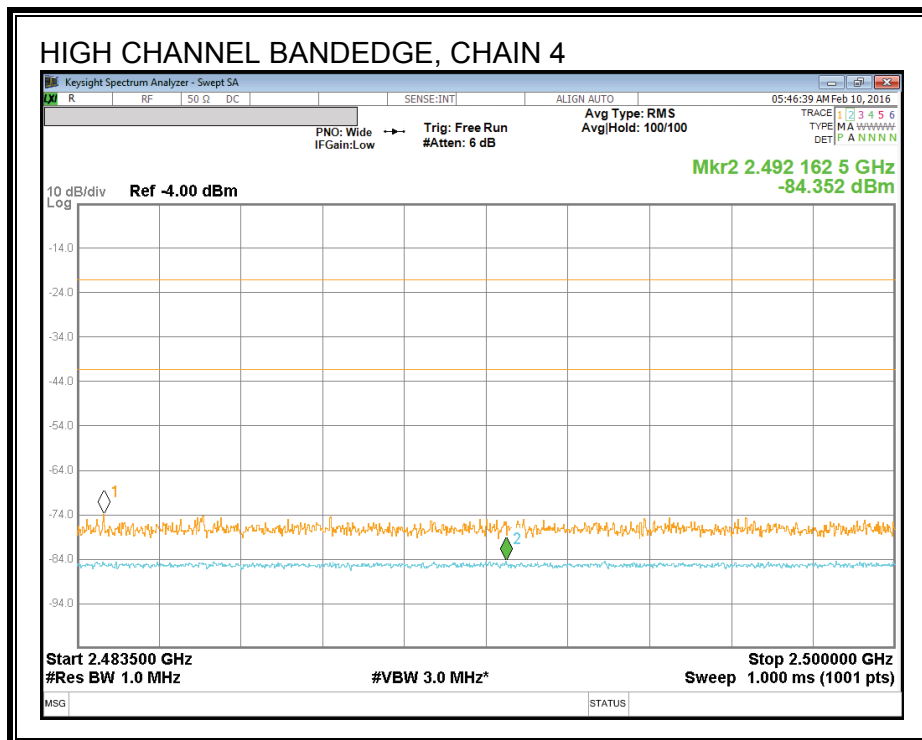
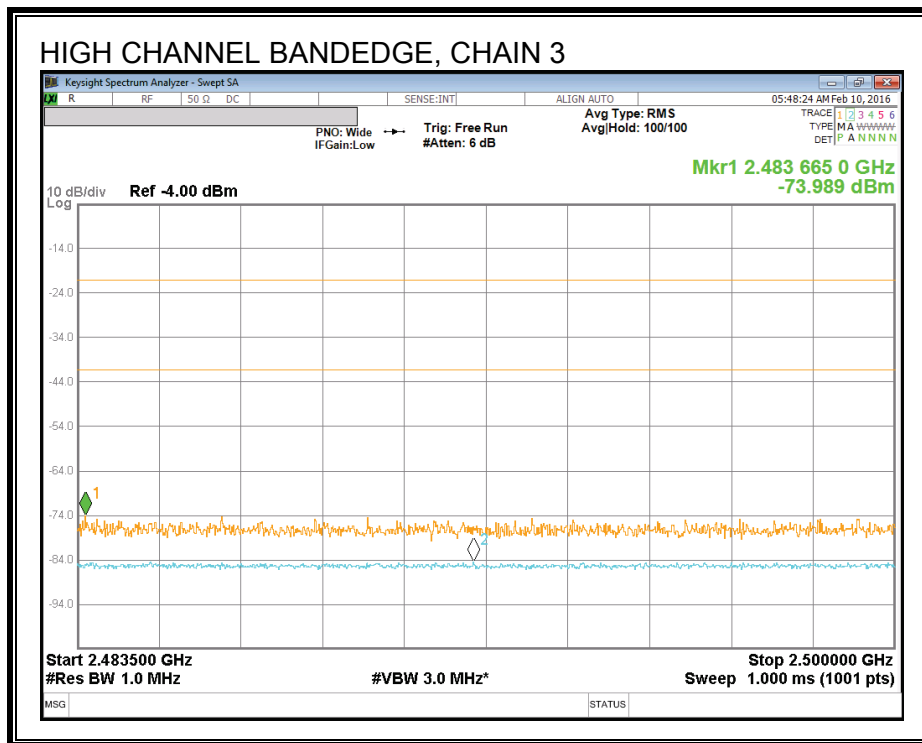
Frequency (MHz)		Meter AVG Reading Chain 1	Meter AVG Reading Chain 2	Meter AVG Reading Chain 3	Meter AVG Reading Chain 4	Meter AVG Reading Chain 5	Meter AVG Reading Chain 6	Meter AVG Reading Chain 7 (dBm)	Meter AVG Reading Chain 8	AVG EIRP (dBm)	AVG E-field Limit (dBm)	AVG E-field Margin (dB)
Enter SA Value here		-84	-84.385	-84	-84.352	-84	-84.355	-84	-84.533			
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	0.67	0.67	0.68	0.68			
Final Value		-82.4	-83.465	-83.08	-83.432	-82.41	-82.765	-82.4	-82.933	-53.86	-41.2	-12.66

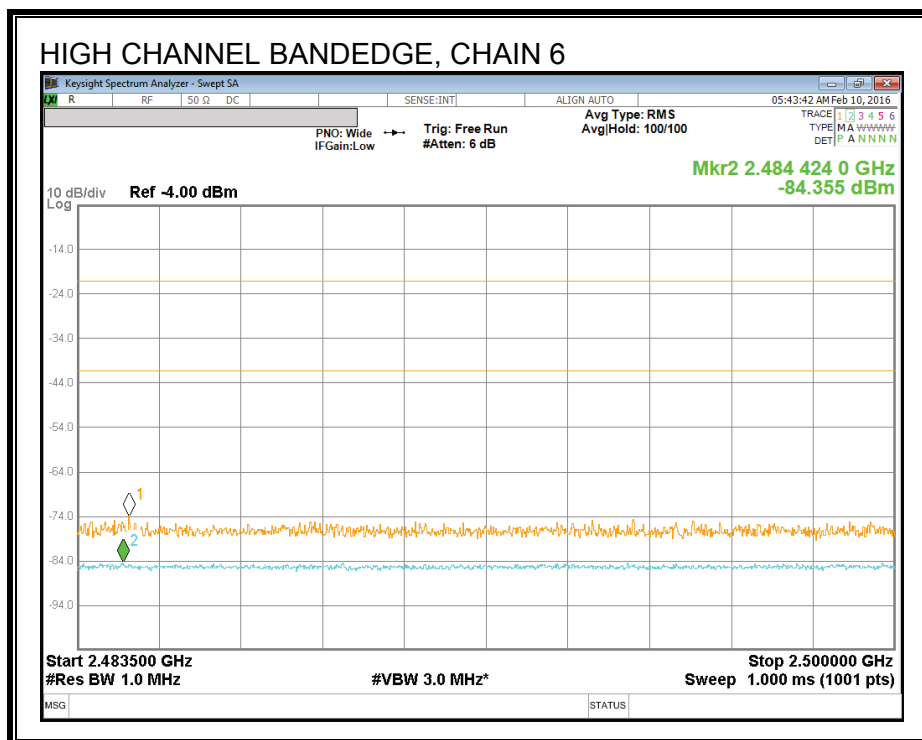
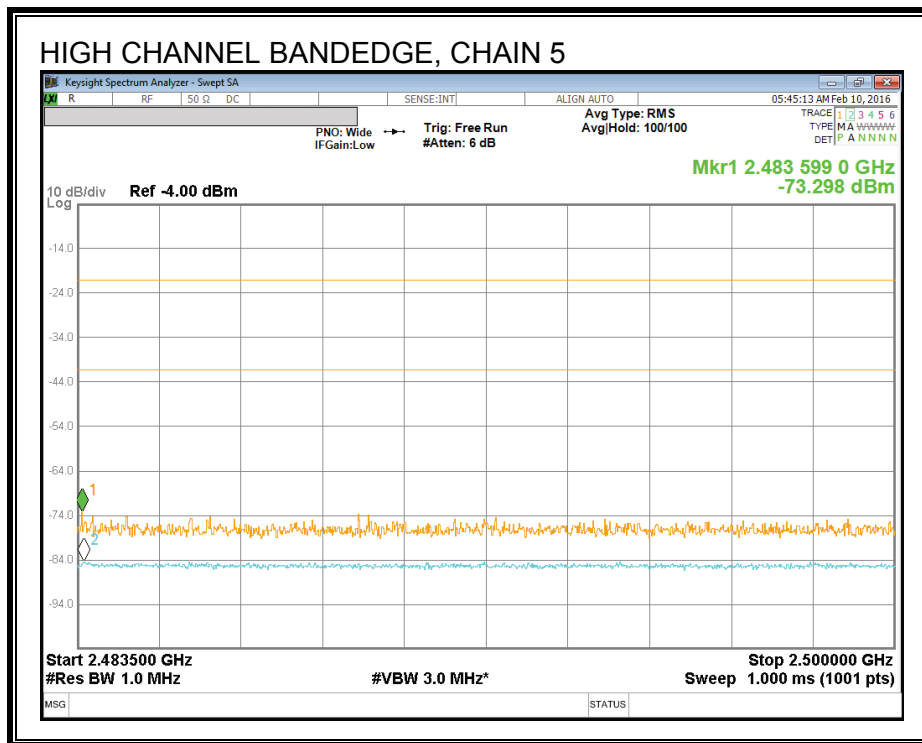
RESTRICTED BANDEDGE (HIGH CHANNEL) PLOTS

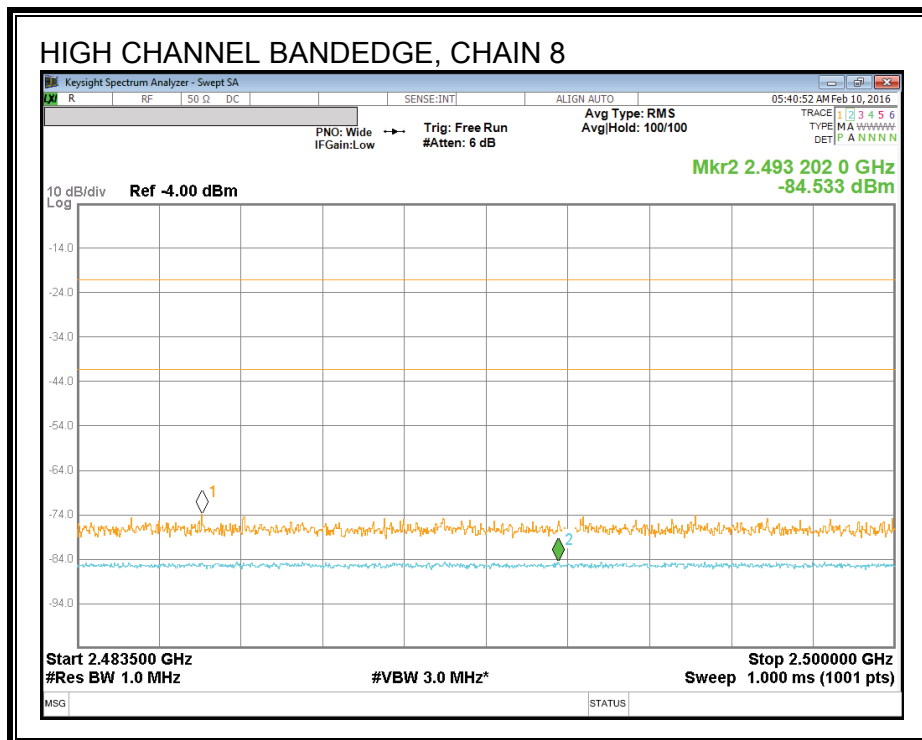
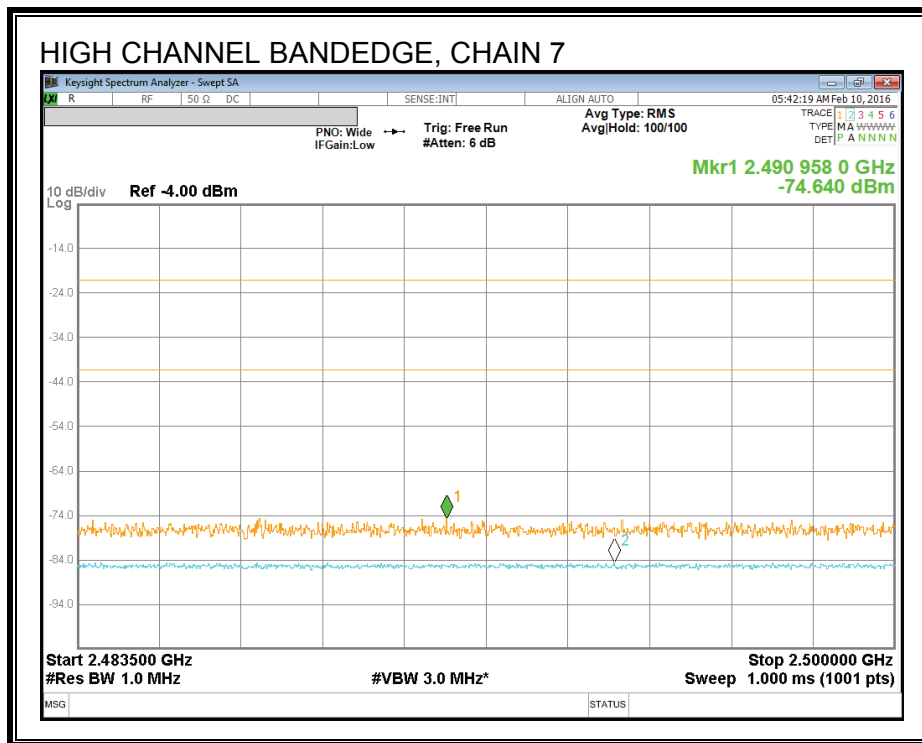


Note – Initially, all Bandedge plots were taken with the fundamental not included in the plot. The above bandedge measurement was taken with the fundamental included to show the fundamental was present.









HARMONICS AND SPURIOUS EMISSIONS, LOW CHANNEL, TABULAR DATA

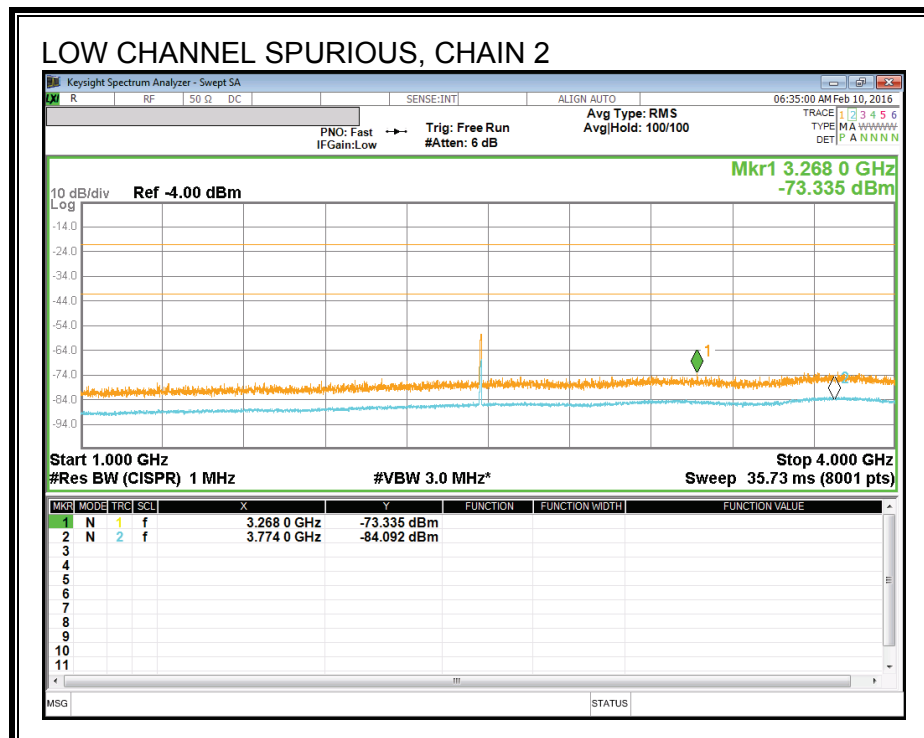
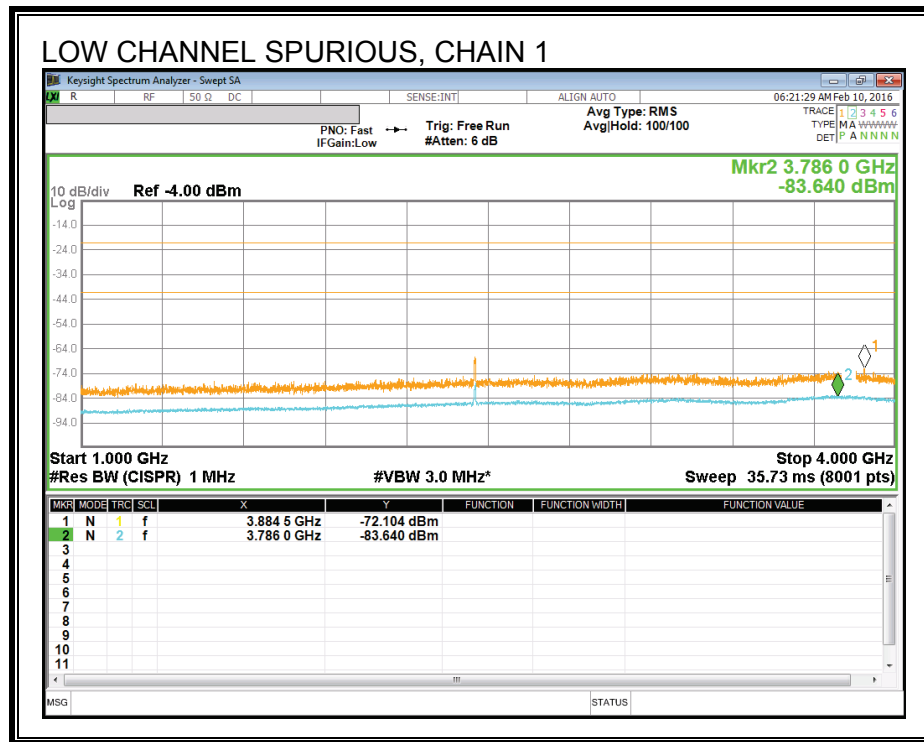
The following measurements include an antenna gain of:

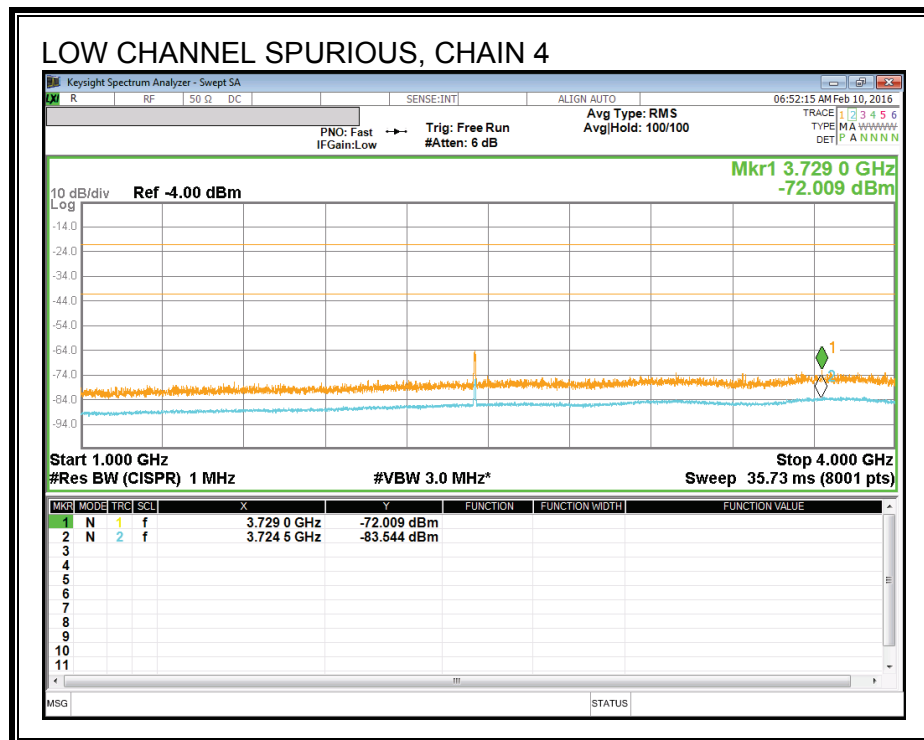
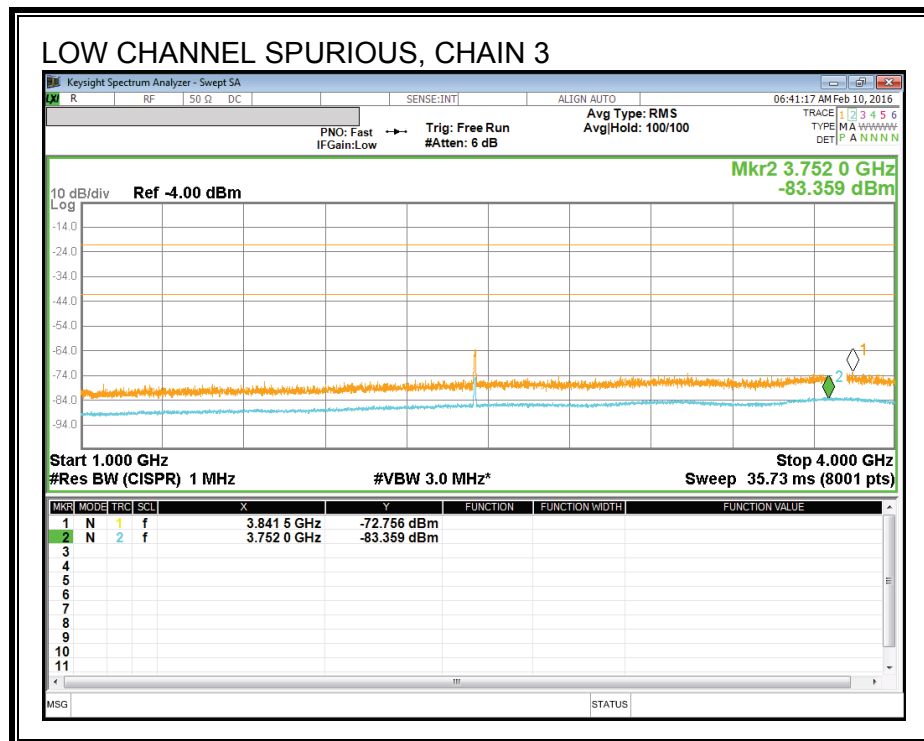
AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

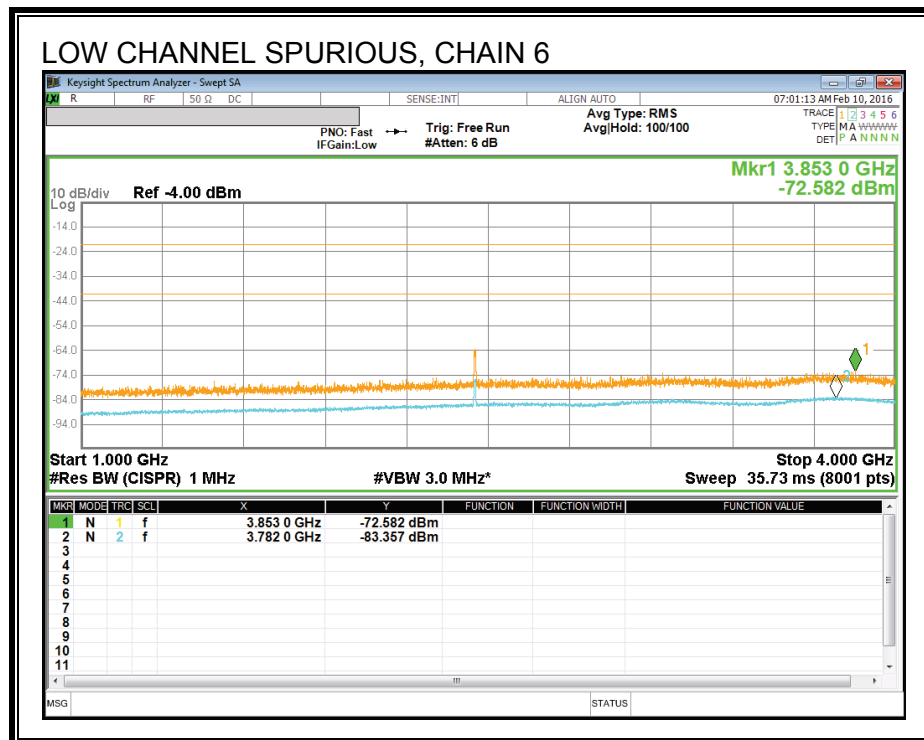
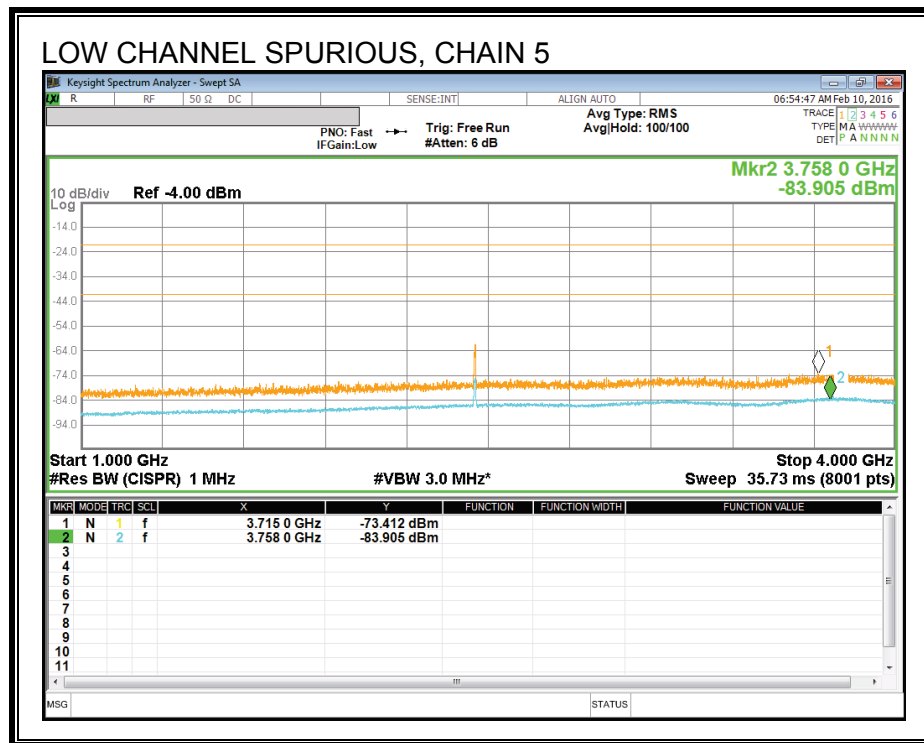
Frequency (MHz)		Meter PK Reading Chain 1 (dBm)	Meter PK Reading Chain 2 (dBm)	Meter PK Reading Chain 3 (dBm)	Meter PK Reading Chain 4 (dBm)	Meter PK Reading Chain 5 (dBm)	Meter PK Reading Chain 6 (dBm)	Meter PK Reading Chain 7 (dBm)	Meter PK Reading Chain 8 (dBm)	PK EIRP (dBm)	PK E-field Limit (dBm)	PK E-field Margin (dB)
Enter SA Value here		-72.104	-73.335	-72.756	-72.009	-73.412	-72.582	-73.45	-72.67			
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		-71.184	-72.415	-71.836	-71.089	-72.492	-71.662	-72.53	-71.75	-42.85	-21.2	-21.65

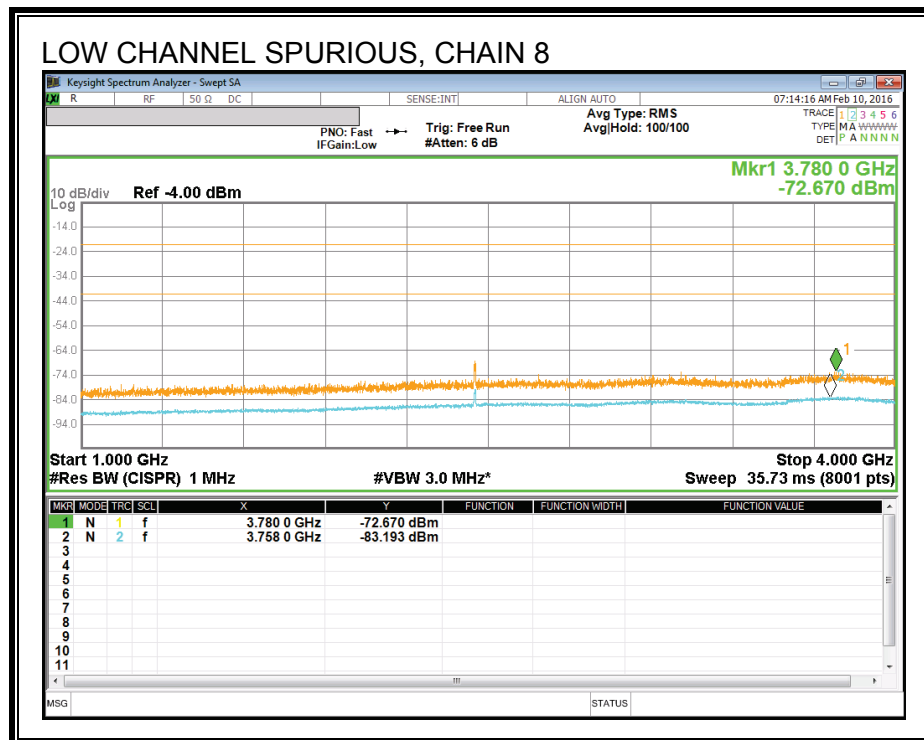
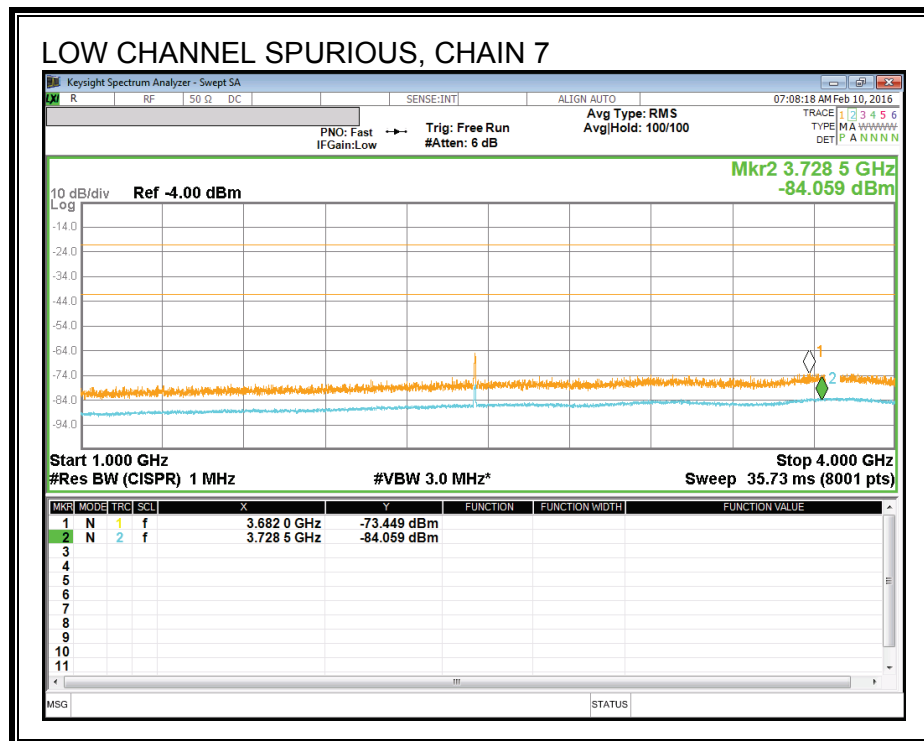
Frequency (MHz)		Meter AVG Reading Chain 1	Meter AVG Reading Chain 2	Meter AVG Reading Chain 3	Meter AVG Reading Chain 4	Meter AVG Reading Chain 5	Meter AVG Reading Chain 6	Meter AVG Reading Chain 7 (dBm)	Meter AVG Reading Chain 8	AVG EIRP (dBm)	AVG E-field Limit (dBm)	AVG E-field Margin (dB)
Enter SA Value here		-83.64	-84.092	-83.359	-83.544	-83.905	-83.357	-84.059	-83.193			
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	0.67	0.67	0.68	0.68			
Final Value		-82.04	-83.172	-82.439	-82.624	-82.315	-81.767	-82.459	-81.593	-53.30	-41.2	-12.10

HARMONICS AND SPURIOUS EMISSIONS, LOW CHANNEL









HARMONICS AND SPURIOUS EMISSIONS, MID CHANNEL, TABULAR DATA

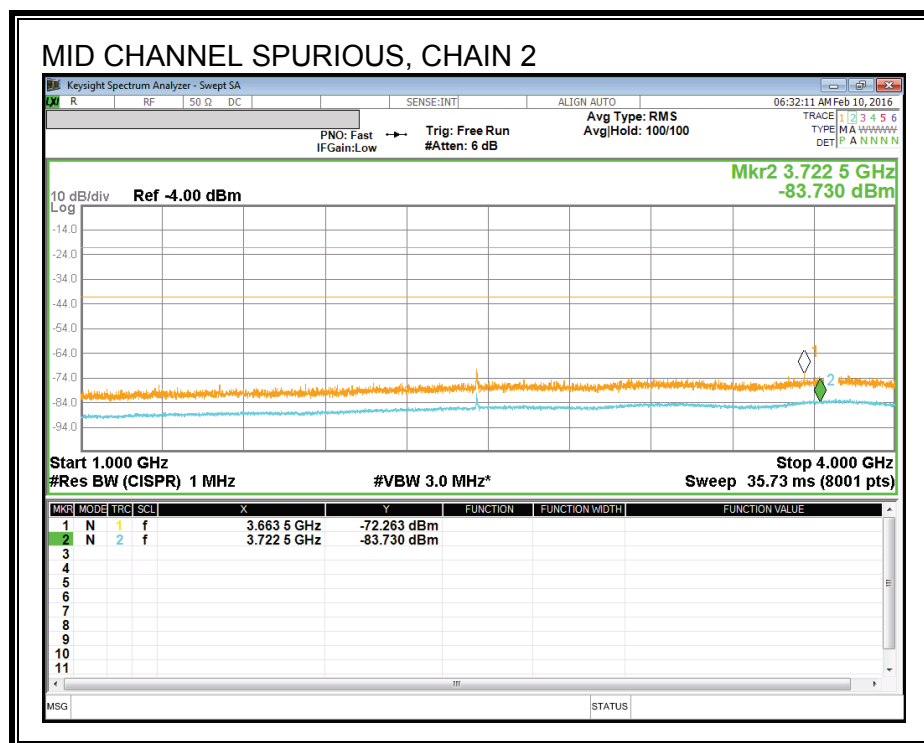
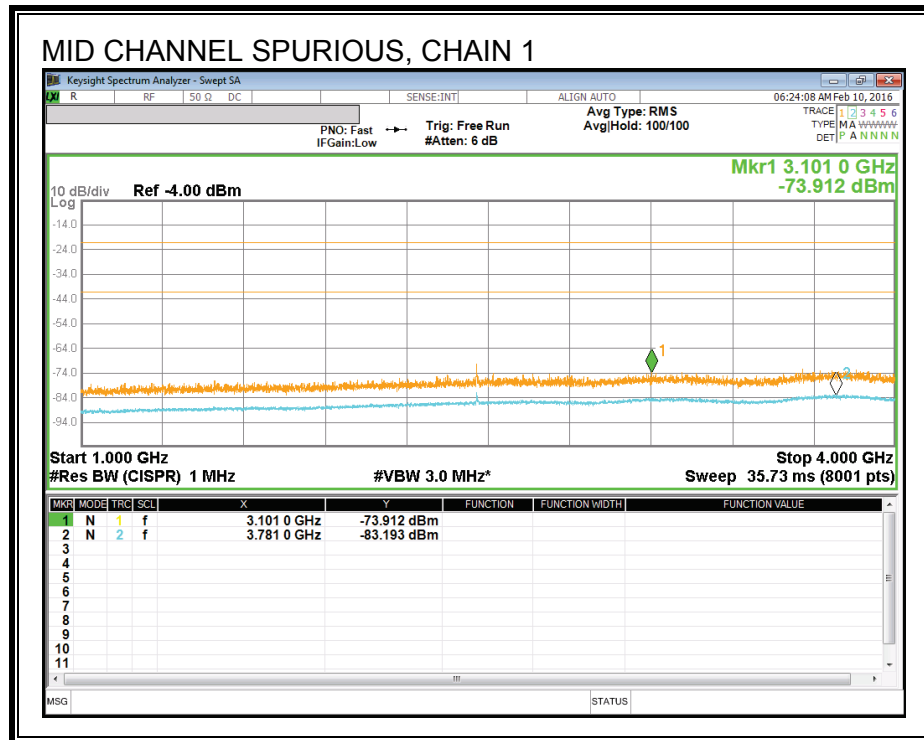
The following measurements include an antenna gain of:

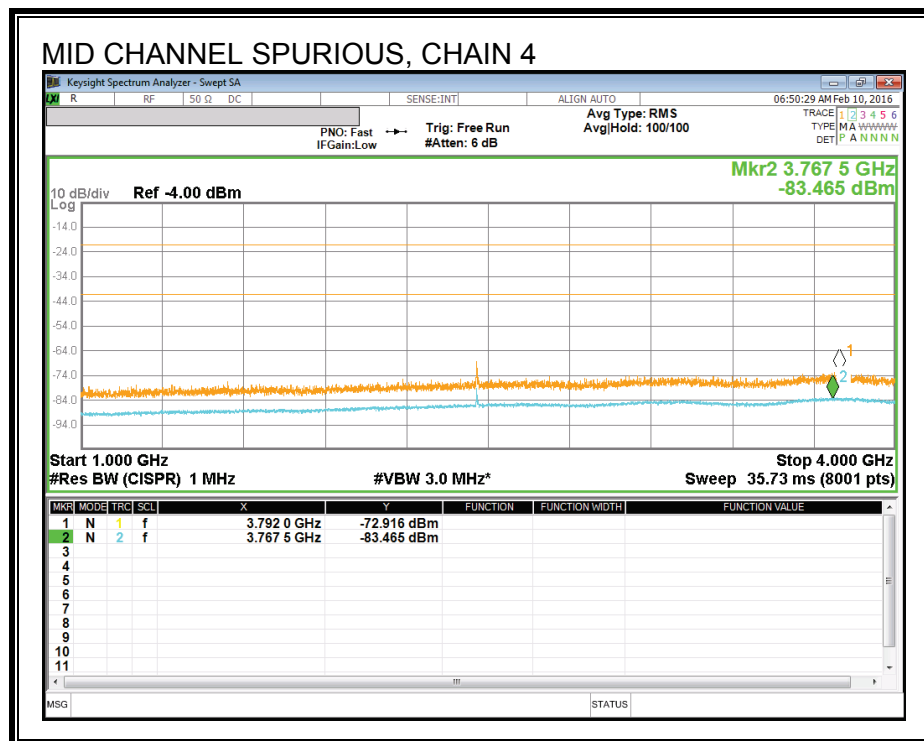
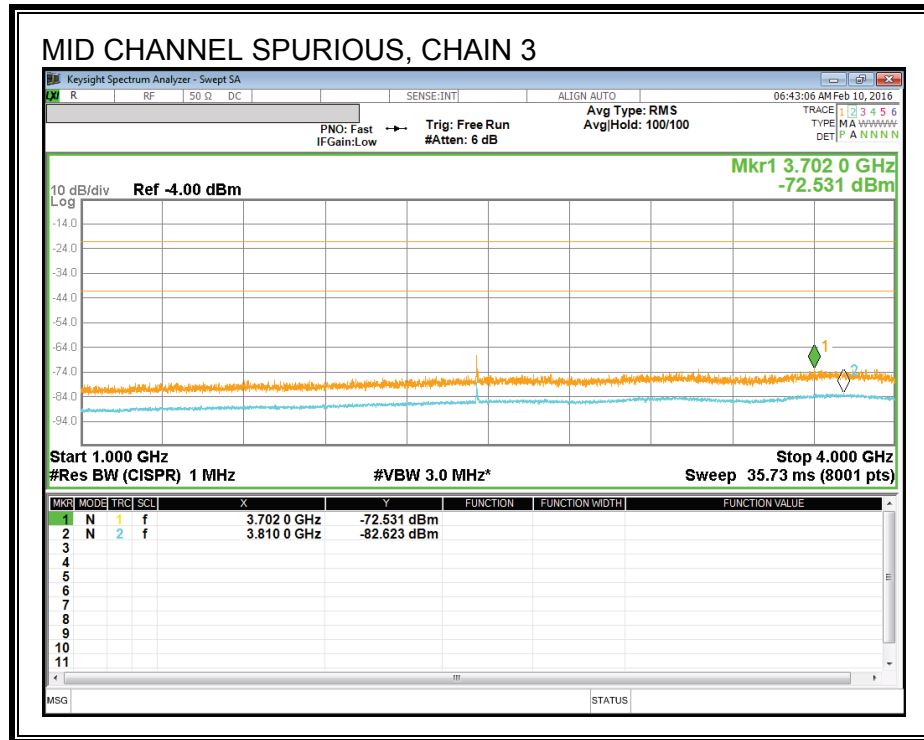
AG Chain 1 (dBi)	AG Chain 2 (dBi)	AG Chain 3 (dBi)	AG Chain 4 (dBi)	AG Chain 5 (dBi)	AG Chain 6 (dBi)	AG Chain 7 (dBi)	AG Chain 8 (dBi)
19.7	19.9	20	20.2	20.2	20.1	19.9	19.6

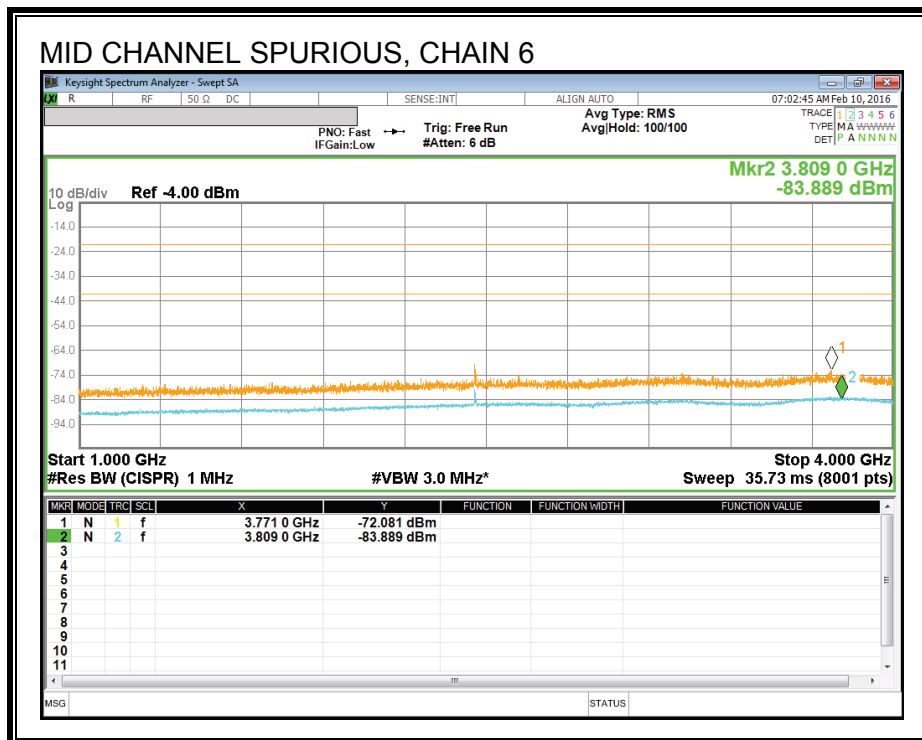
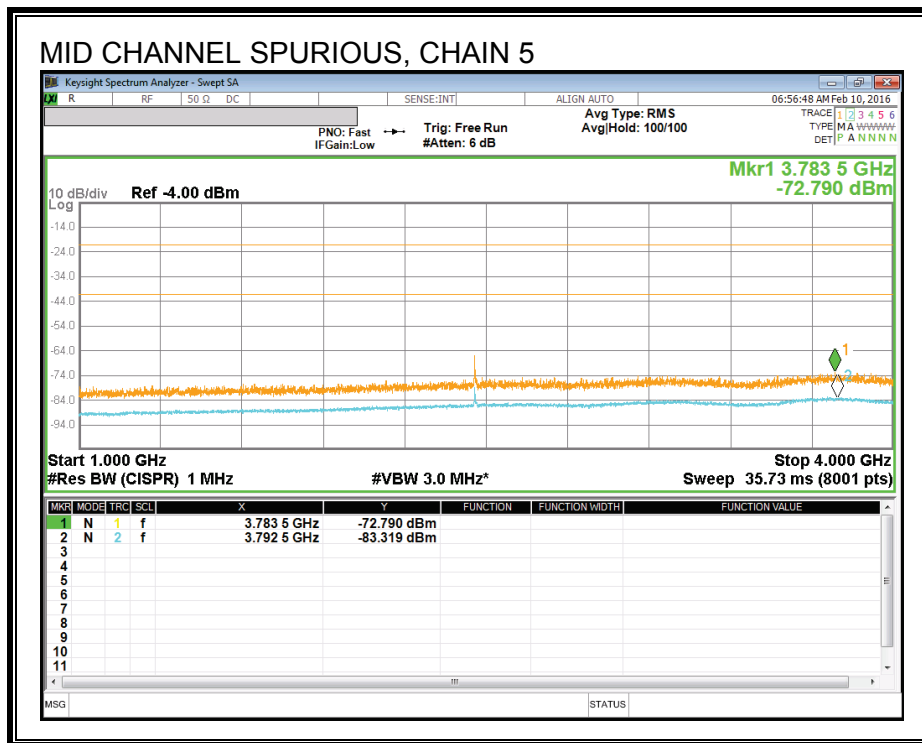
Frequency (MHz)		Meter PK Reading Chain 1 (dBm)	Meter PK Reading Chain 2 (dBm)	Meter PK Reading Chain 3 (dBm)	Meter PK Reading Chain 4 (dBm)	Meter PK Reading Chain 5 (dBm)	Meter PK Reading Chain 6 (dBm)	Meter PK Reading Chain 7 (dBm)	Meter PK Reading Chain 8 (dBm)	PK EIRP (dBm)	PK E-field Limit (dBm)	PK E-field Margin (dB)
Enter SA Value here		-73.912	-72.263	-72.531	-72.916	-72.79	-72.081	-73.117	-72.304			
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		-72.992	-71.343	-71.611	-71.996	-71.87	-71.161	-72.197	-71.384	-42.80	-21.2	-21.60

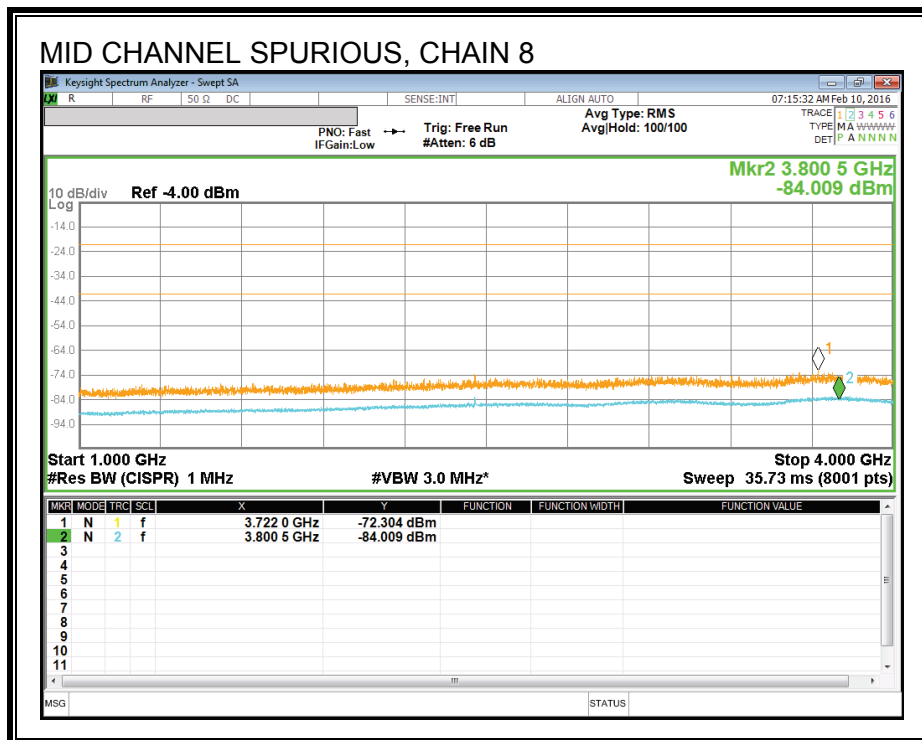
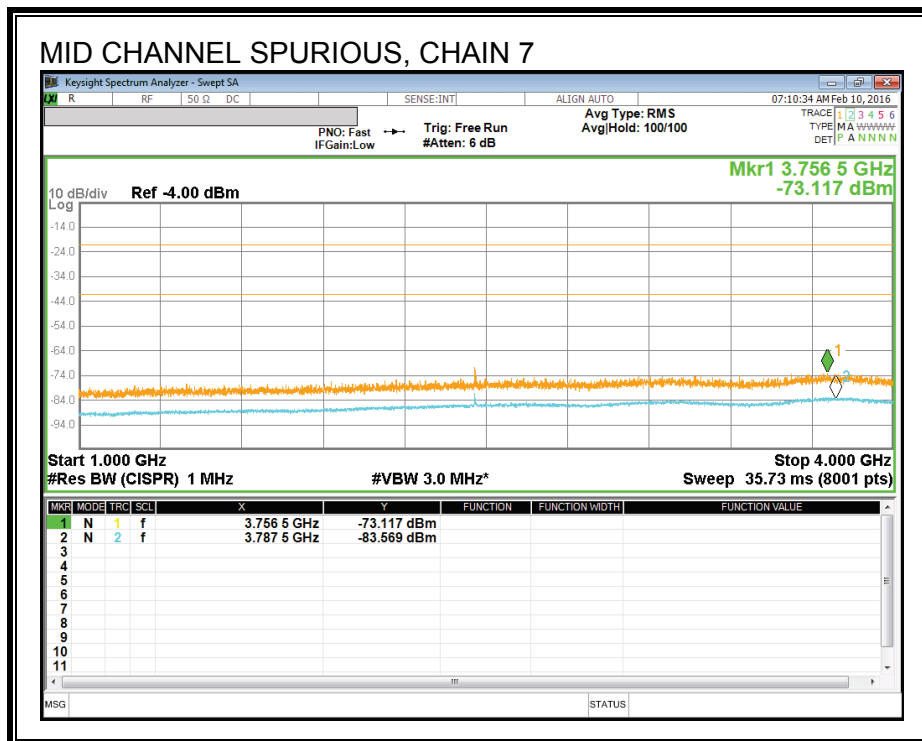
Frequency (MHz)		Meter AVG Reading Chain 1	Meter AVG Reading Chain 2	Meter AVG Reading Chain 3	Meter AVG Reading Chain 4	Meter AVG Reading Chain 5	Meter AVG Reading Chain 6	Meter AVG Reading Chain 7 (dBm)	Meter AVG Reading Chain 8	AVG EIRP (dBm)	AVG E-field Limit (dBm)	AVG E-field Margin (dB)
Enter SA Value here		-83.193	-83.73	-82.623	-83.465	-83.319	-83.889	-83.569	-84.009			
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	0.67	0.67	0.68	0.68			
Final Value		-81.593	-82.81	-81.703	-82.545	-81.729	-82.299	-81.969	-82.409	-53.13	-41.2	-11.93

HARMONICS AND SPURIOUS EMISSIONS, MID CHANNEL









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		-72.784	-73.117	-73.617	-73.437	-73.027	-72.761	-72.48	-72.757			
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		-71.864	-72.197	-72.697	-72.517	-72.107	-71.841	-71.56	-71.837	-43.08	-21.2	-21.88

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		-83.129	-83.516	-83.976	-83.55	-83.528	-83.589	-82.723	-83.496			
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	0.67	0.67	0.68	0.68			
Final Value		-81.529	-82.596	-83.056	-82.63	-81.938	-81.999	-81.123	-81.896	-53.08	-41.2	-11.88

HARMONICS AND SPURIOUS EMISSIONS, HIGH CHANNEL

