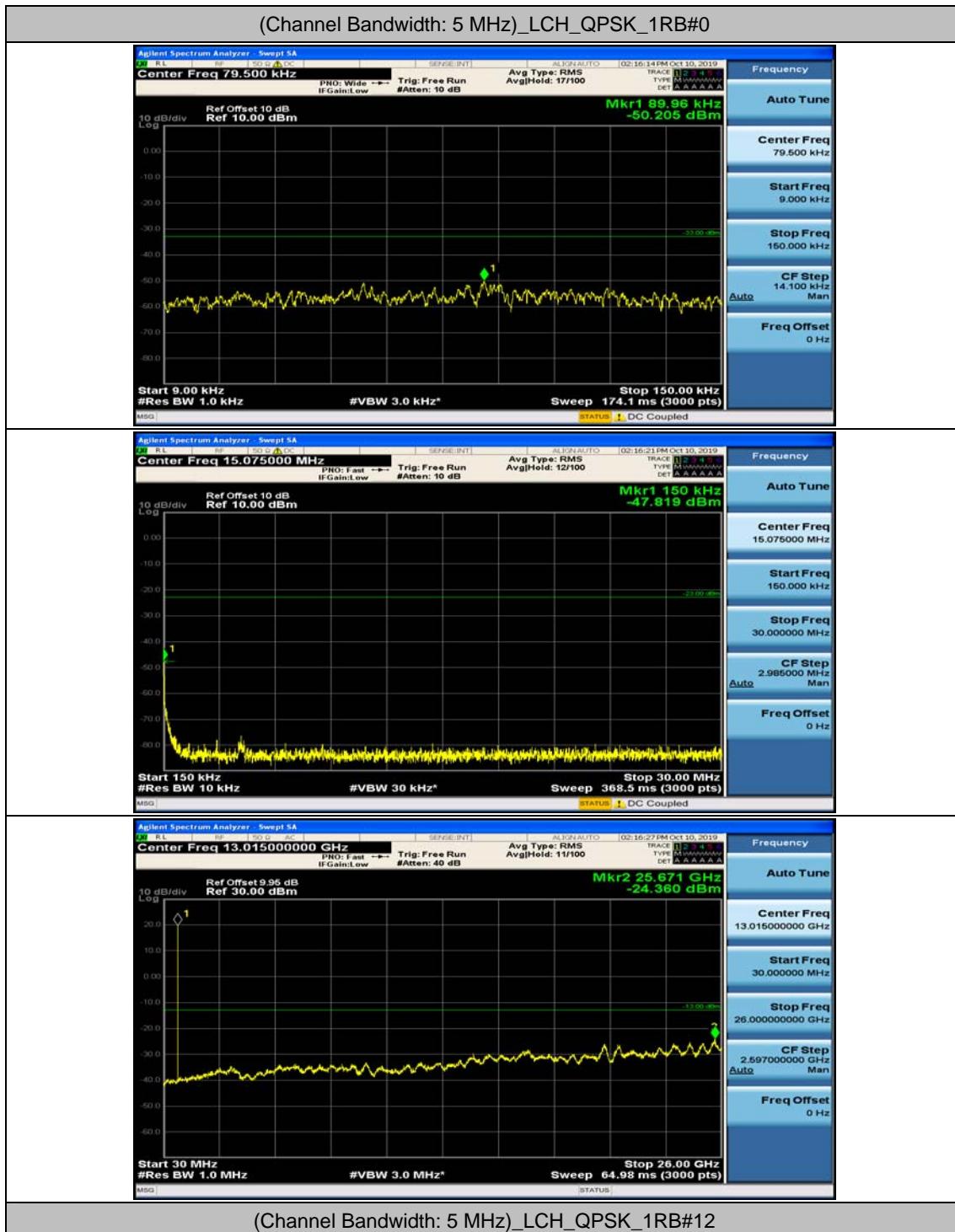
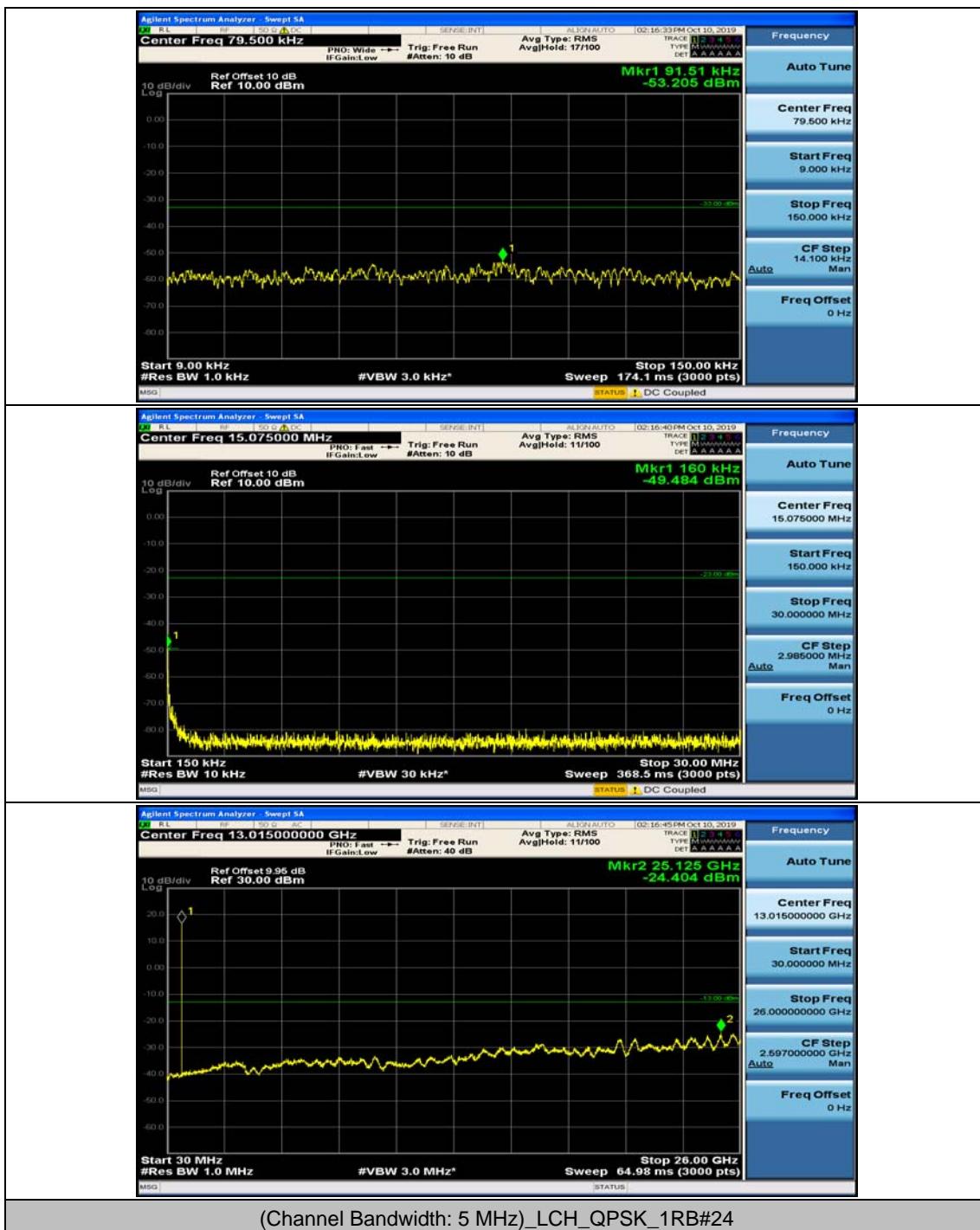
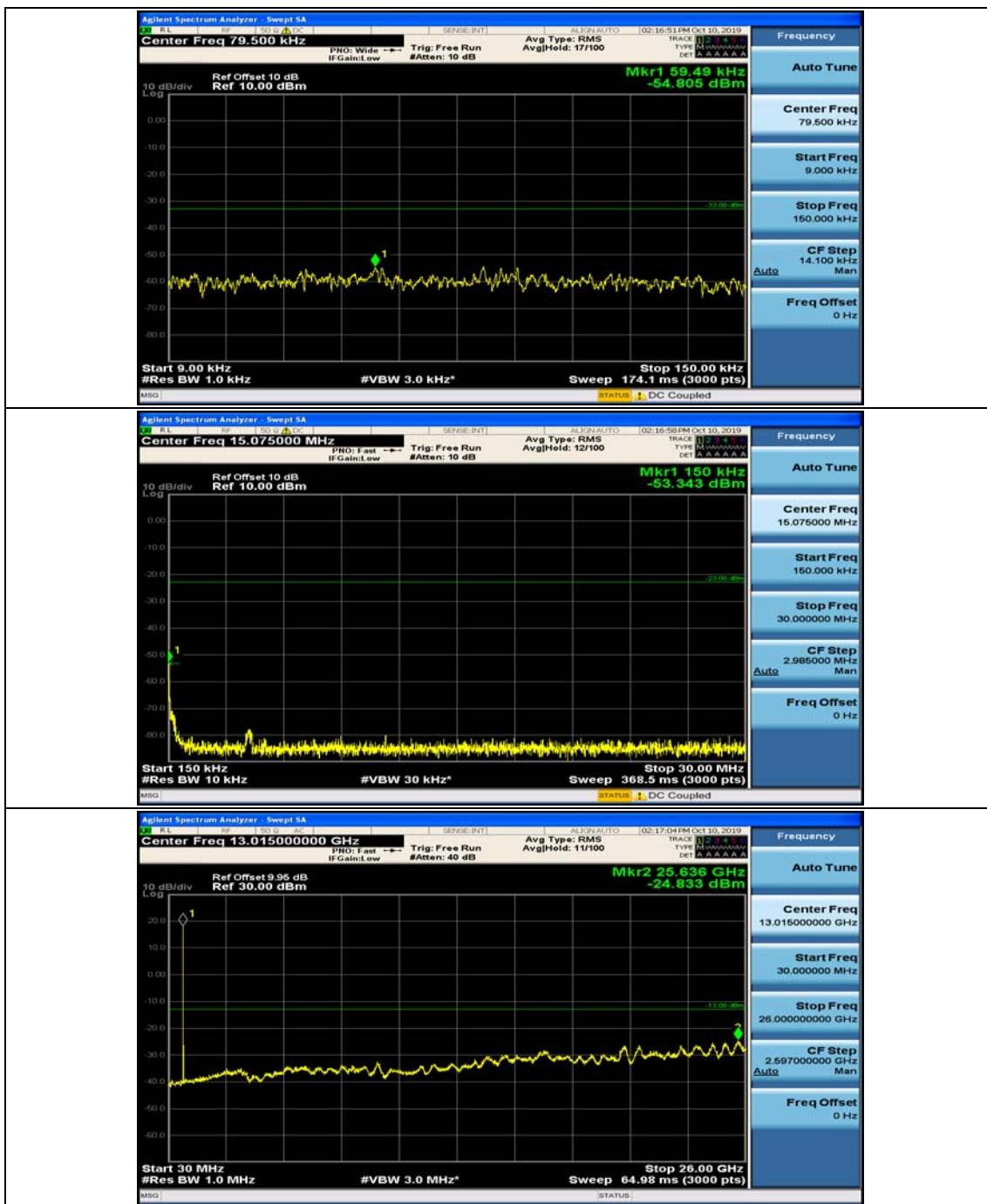
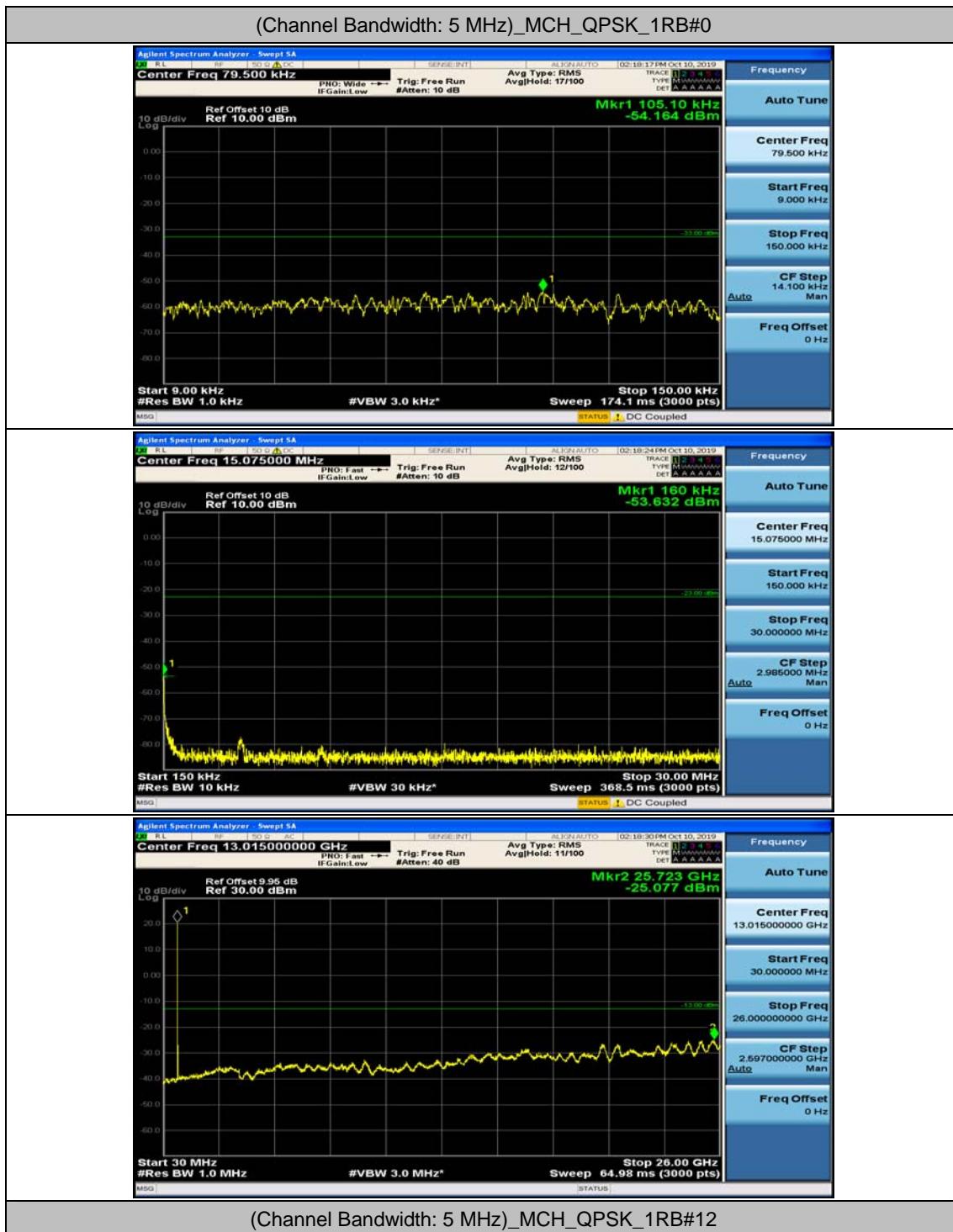


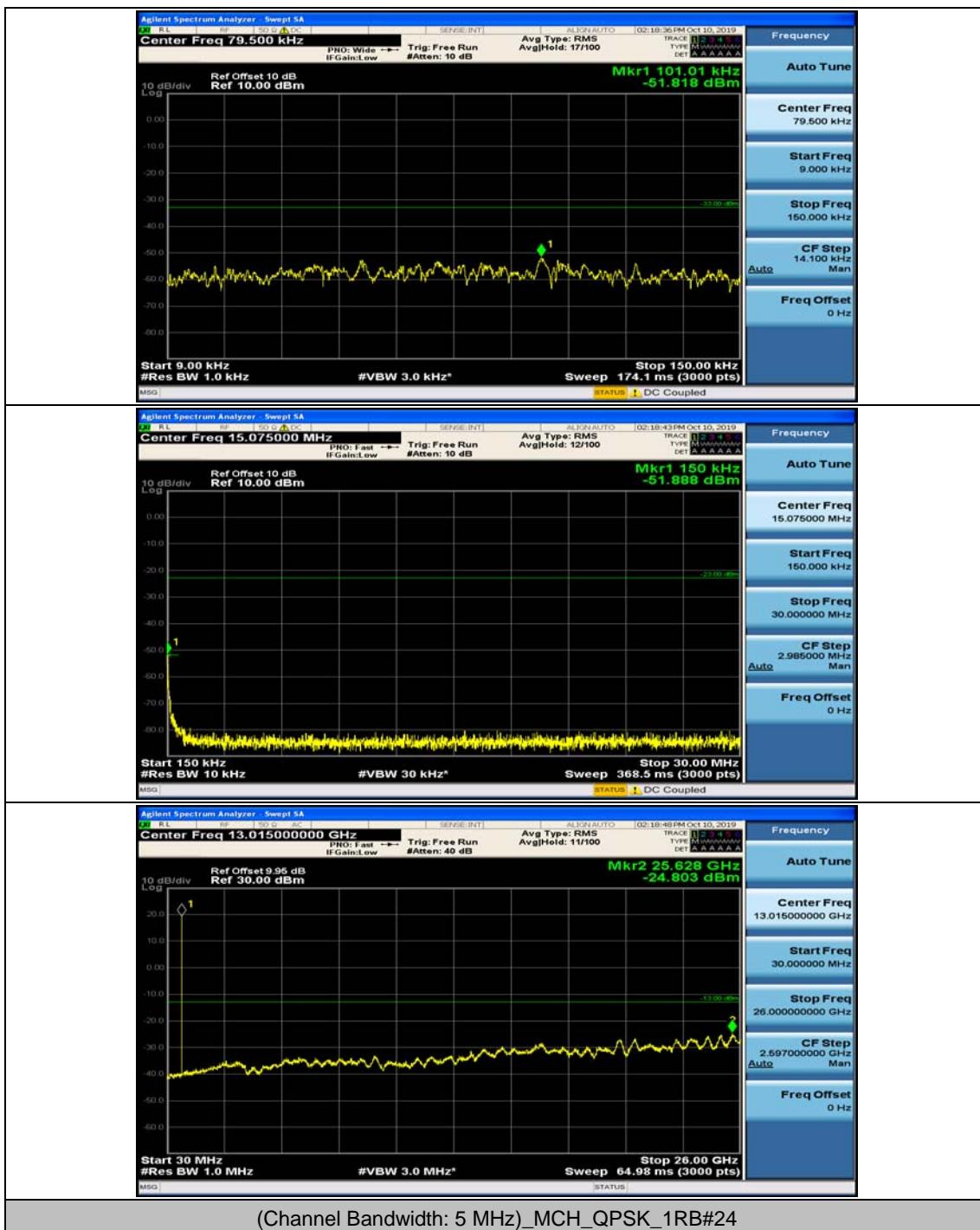
## Channel Bandwidth: 5 MHz

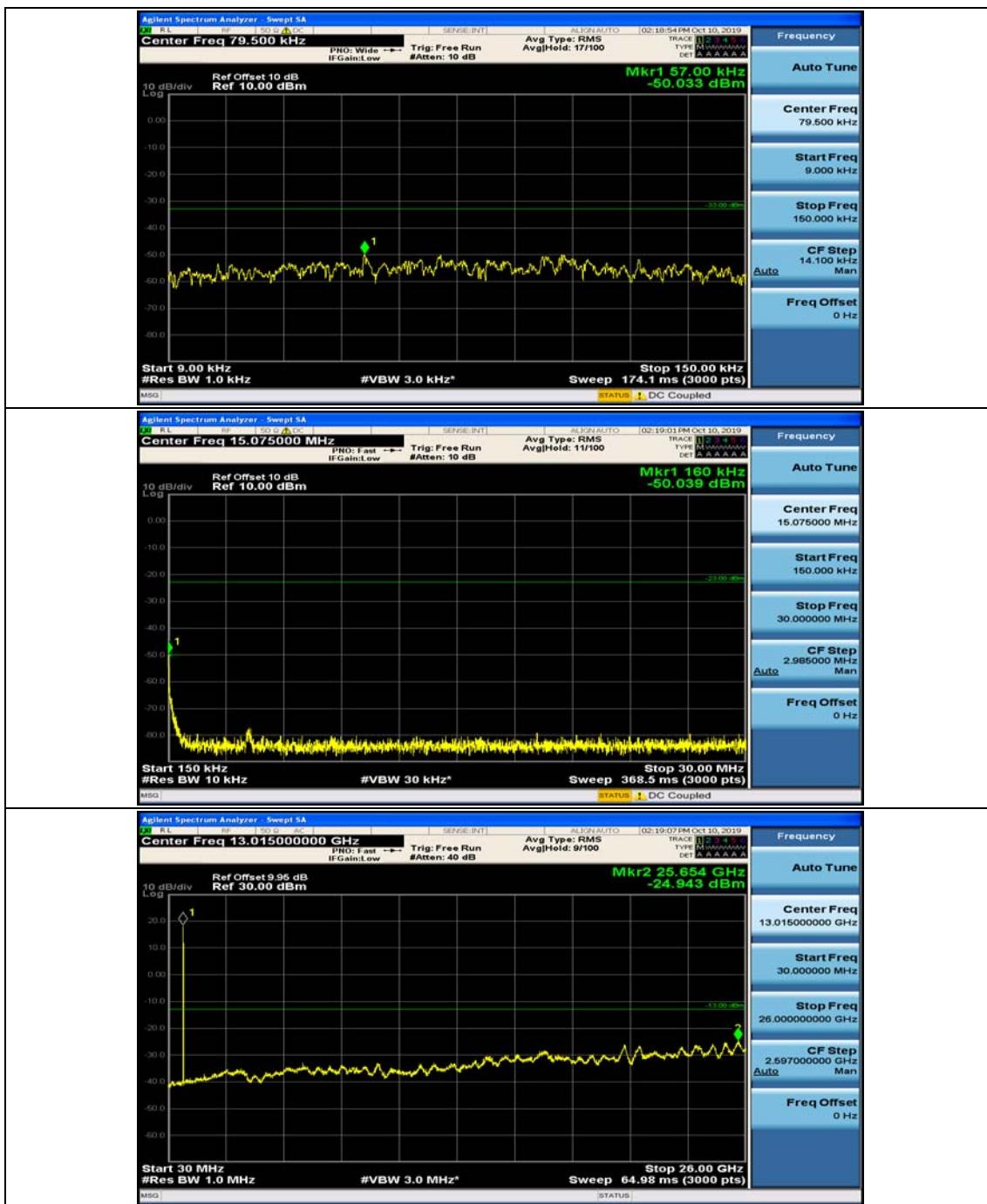


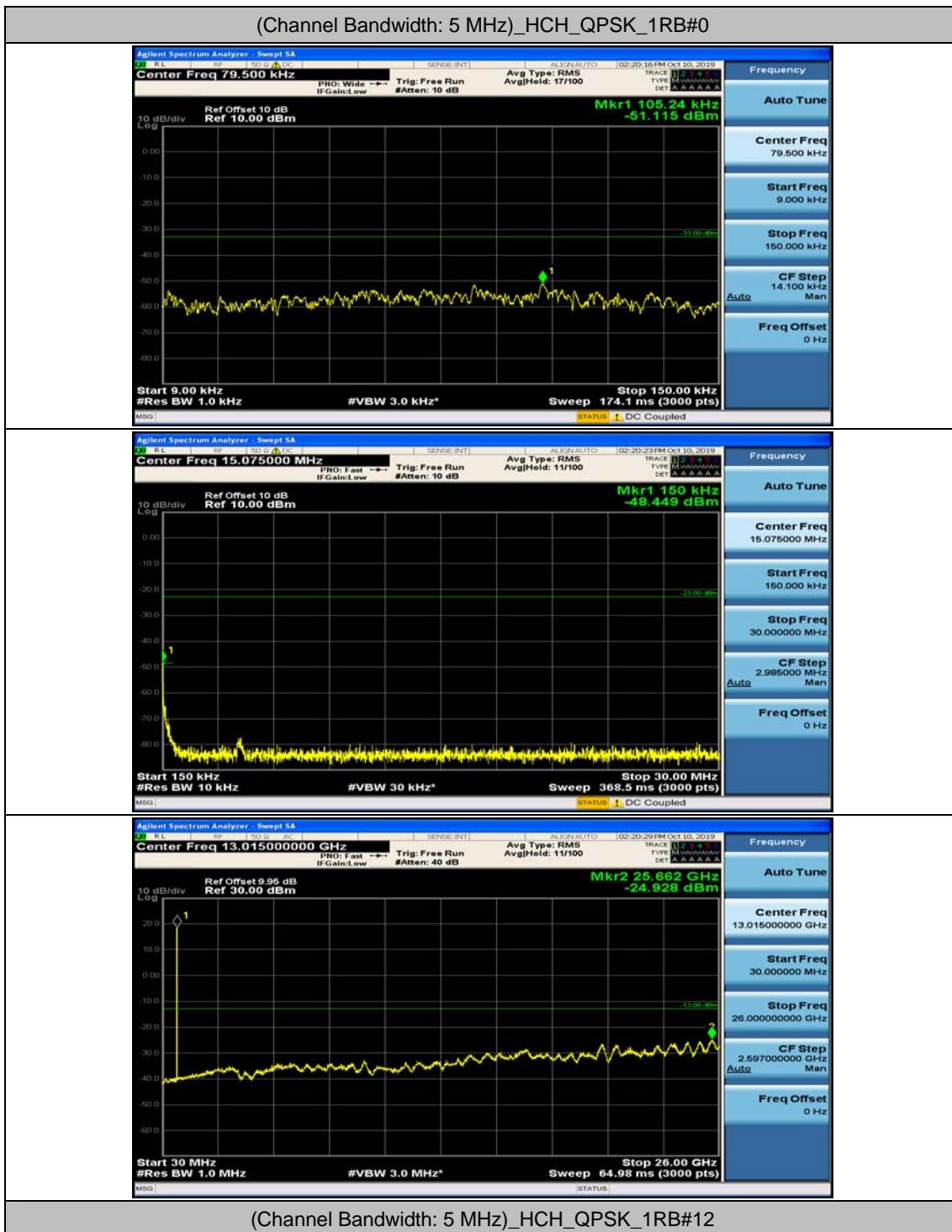


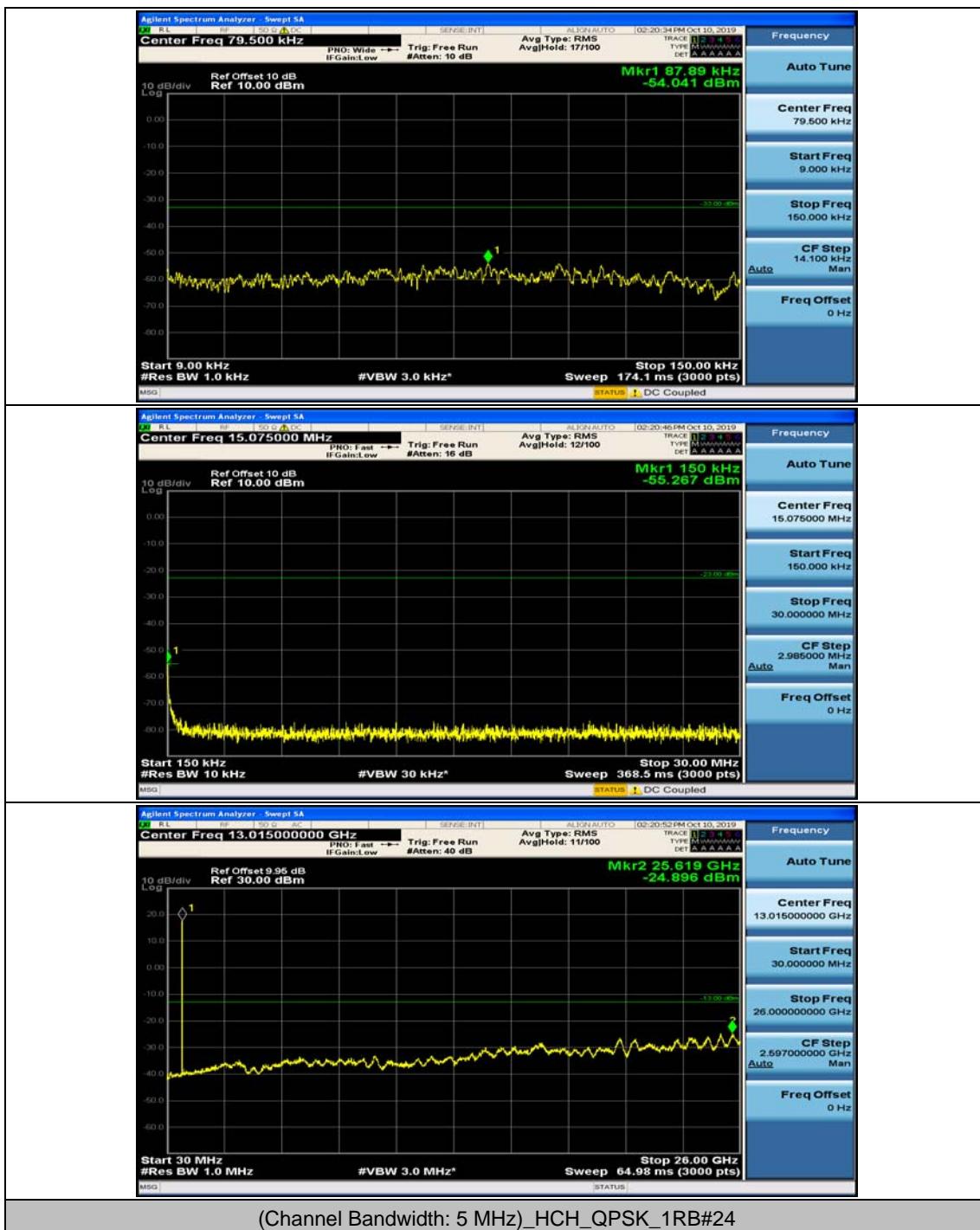


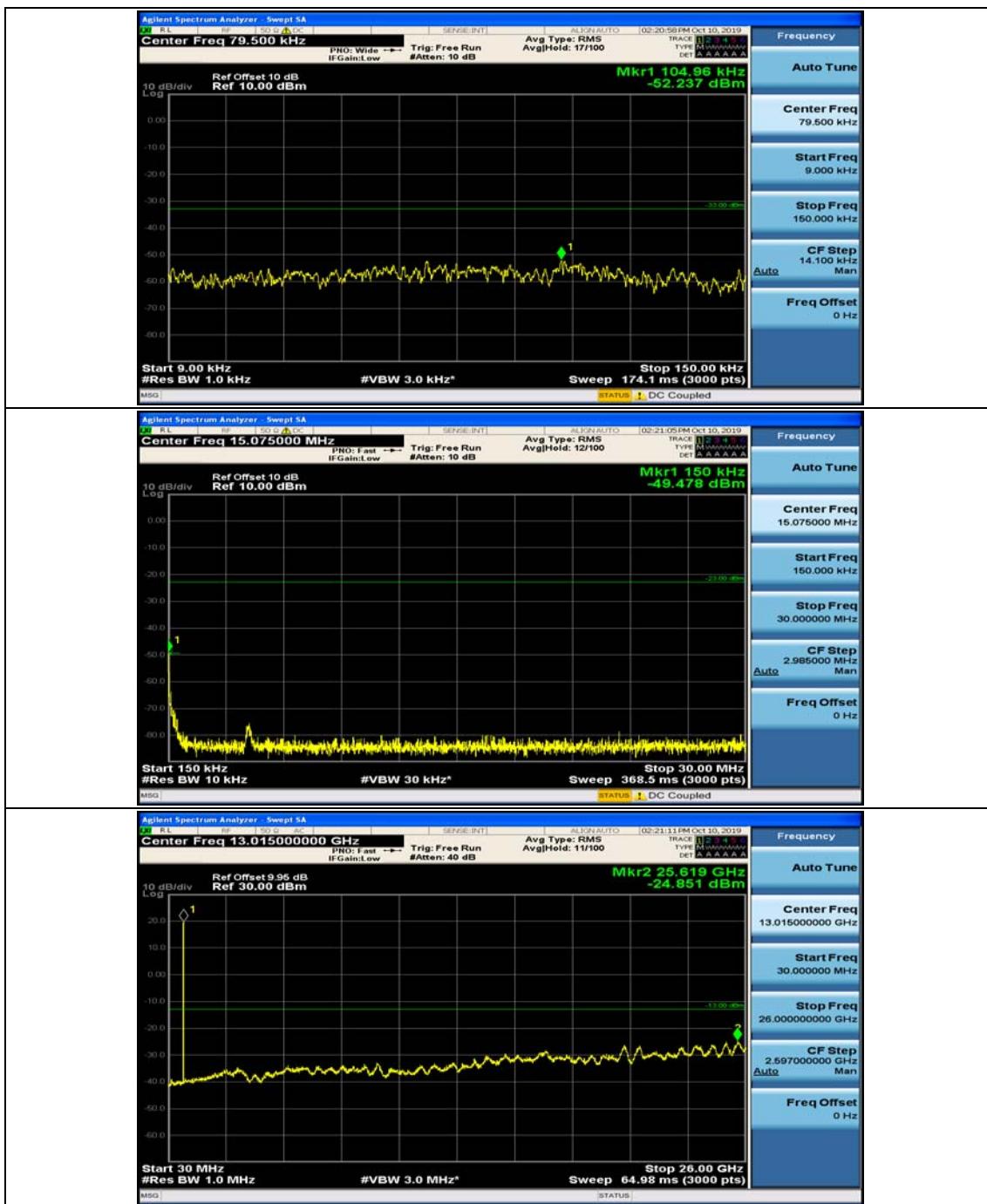


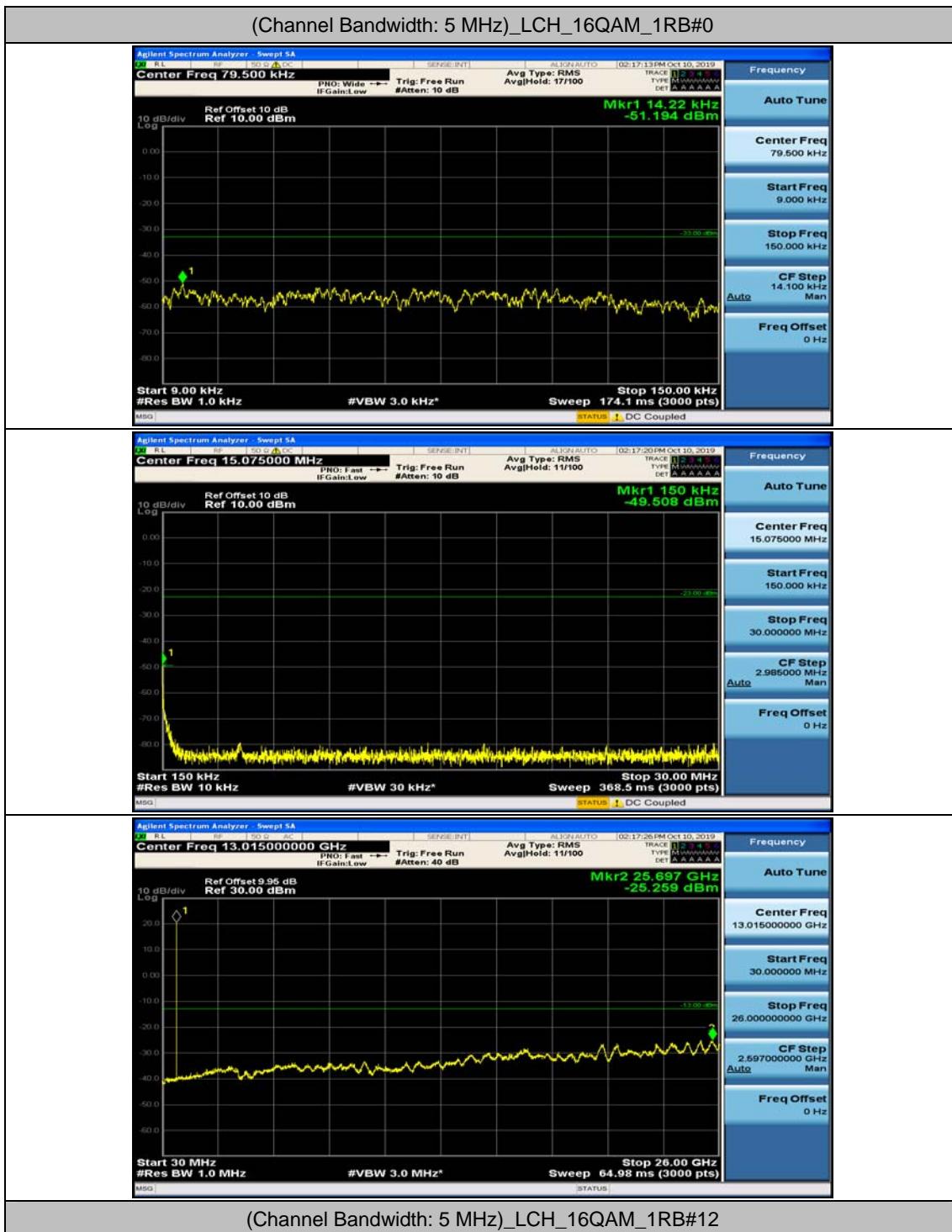


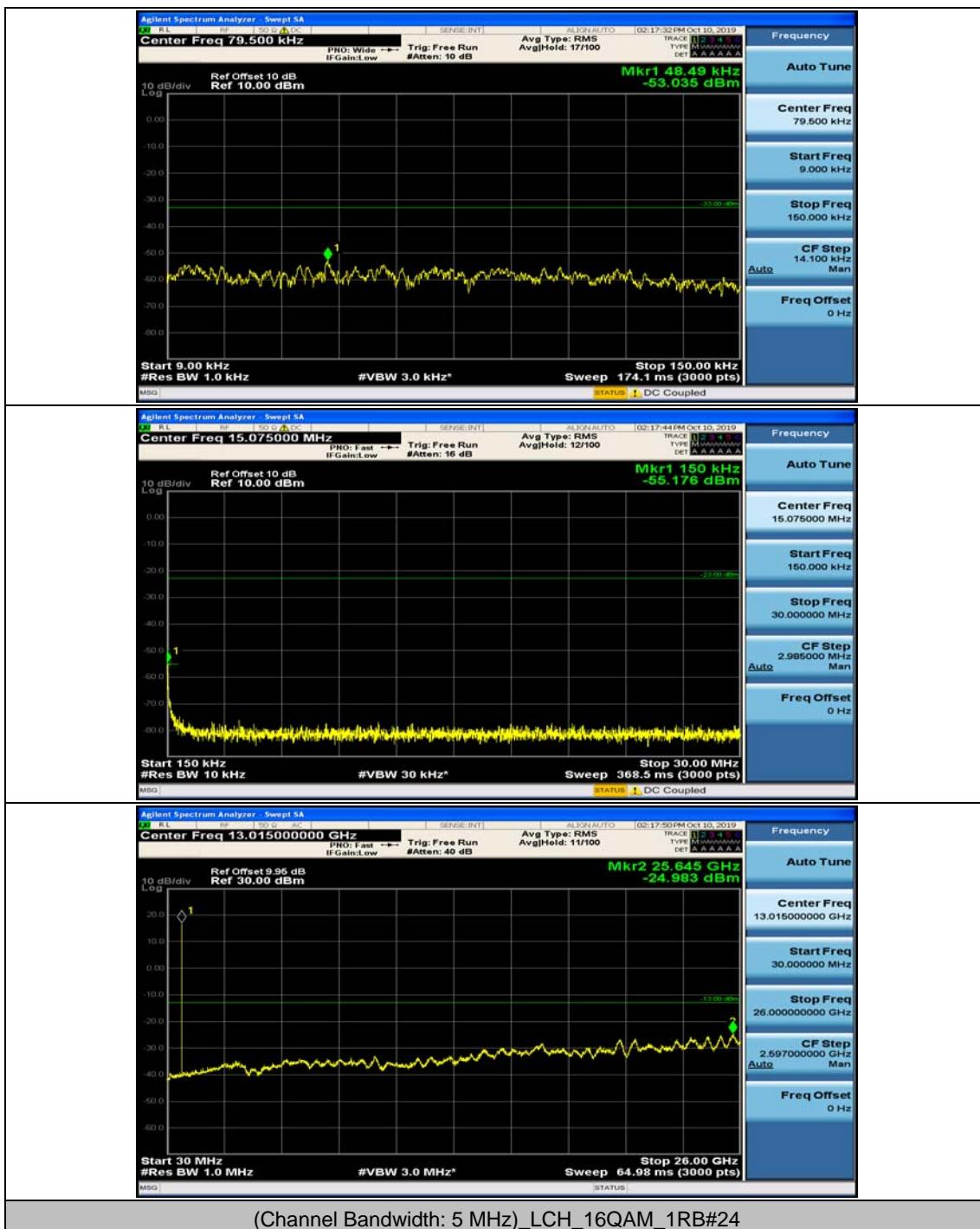




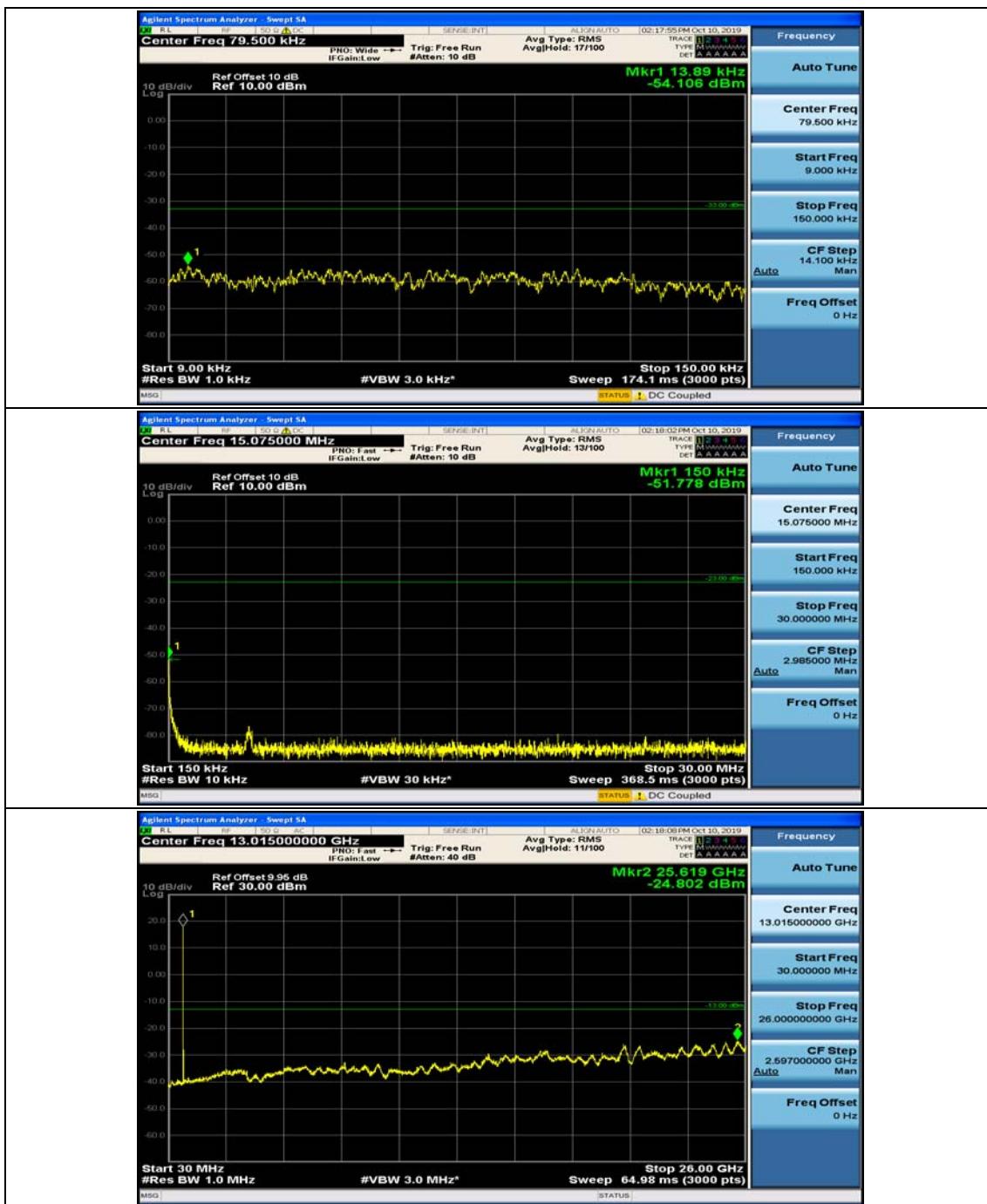


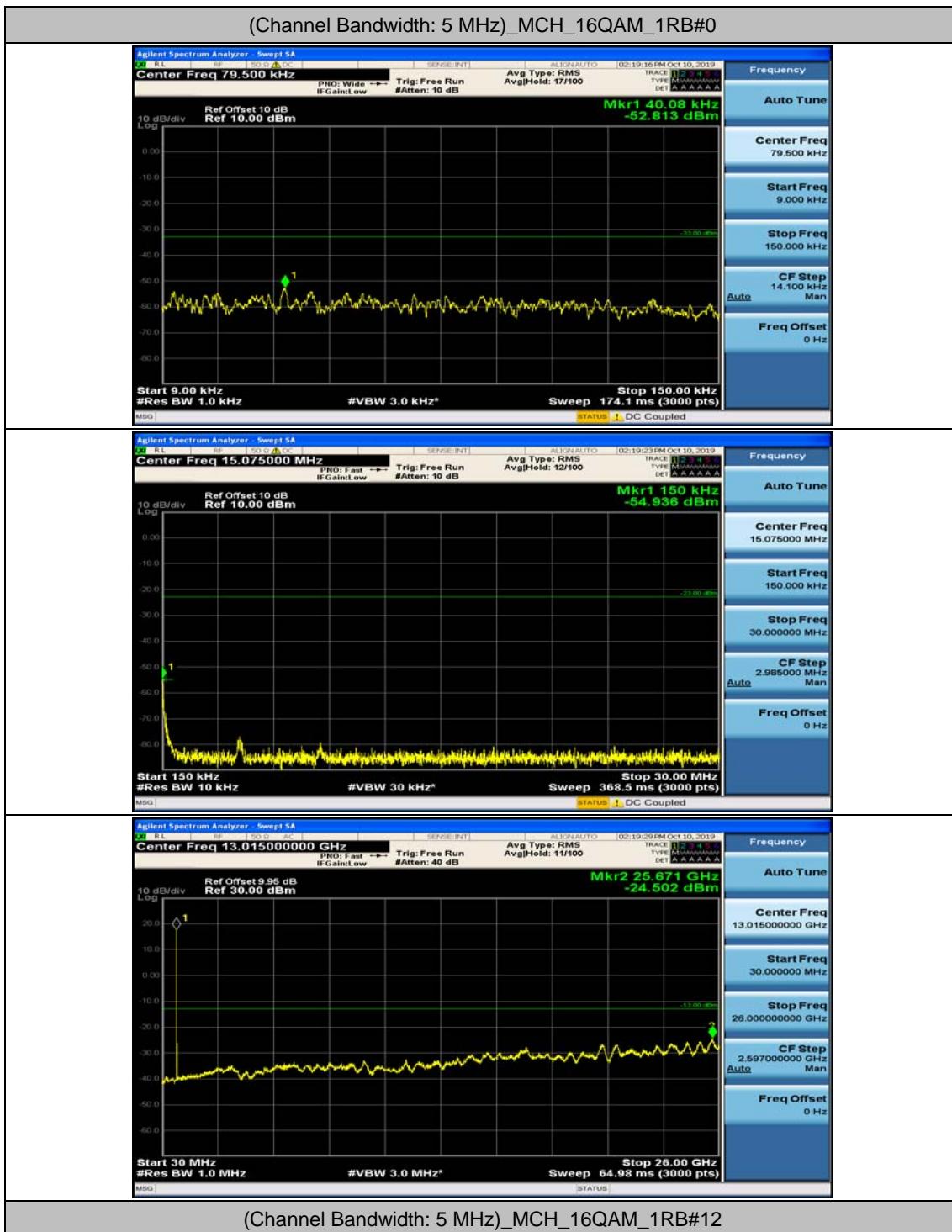


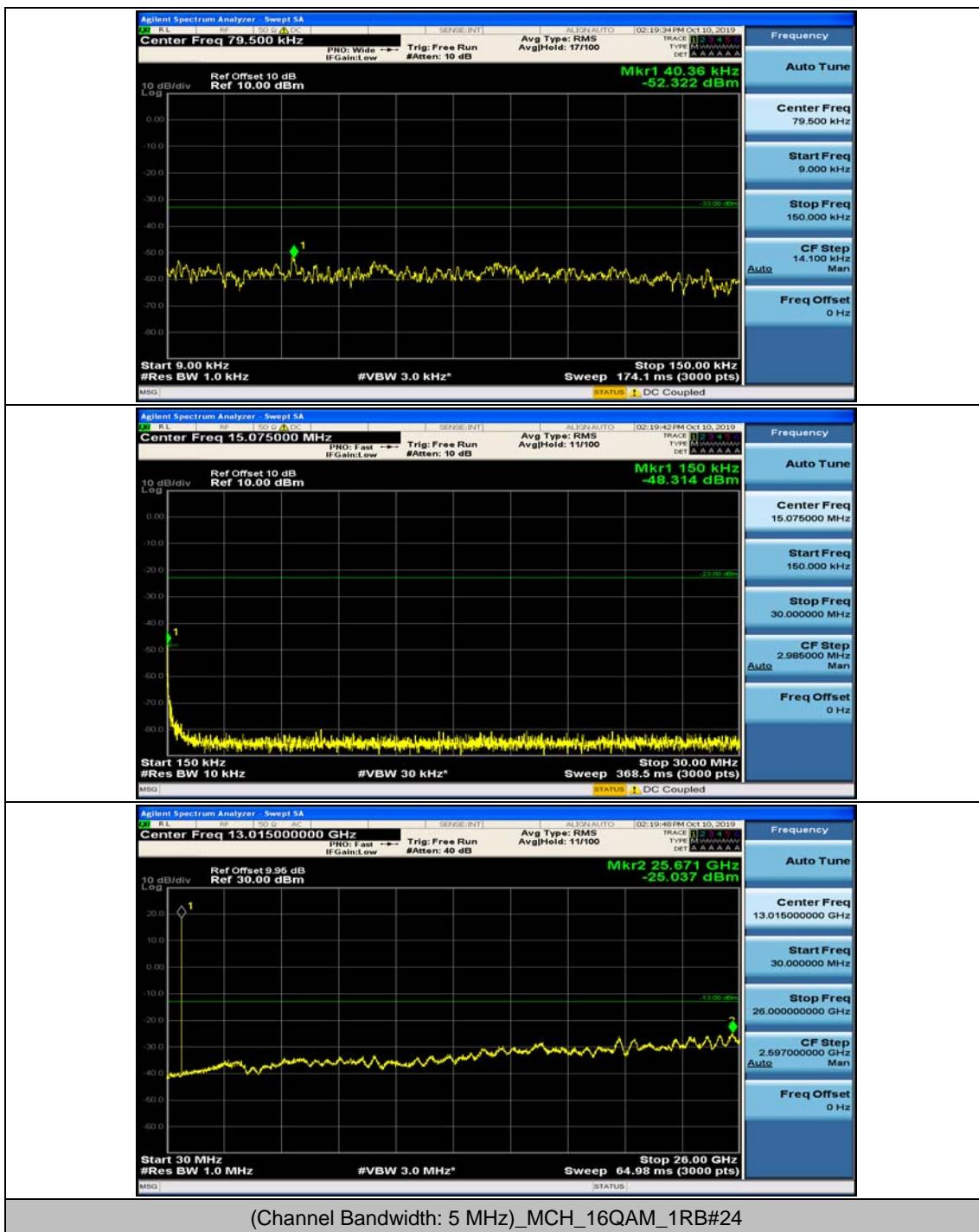


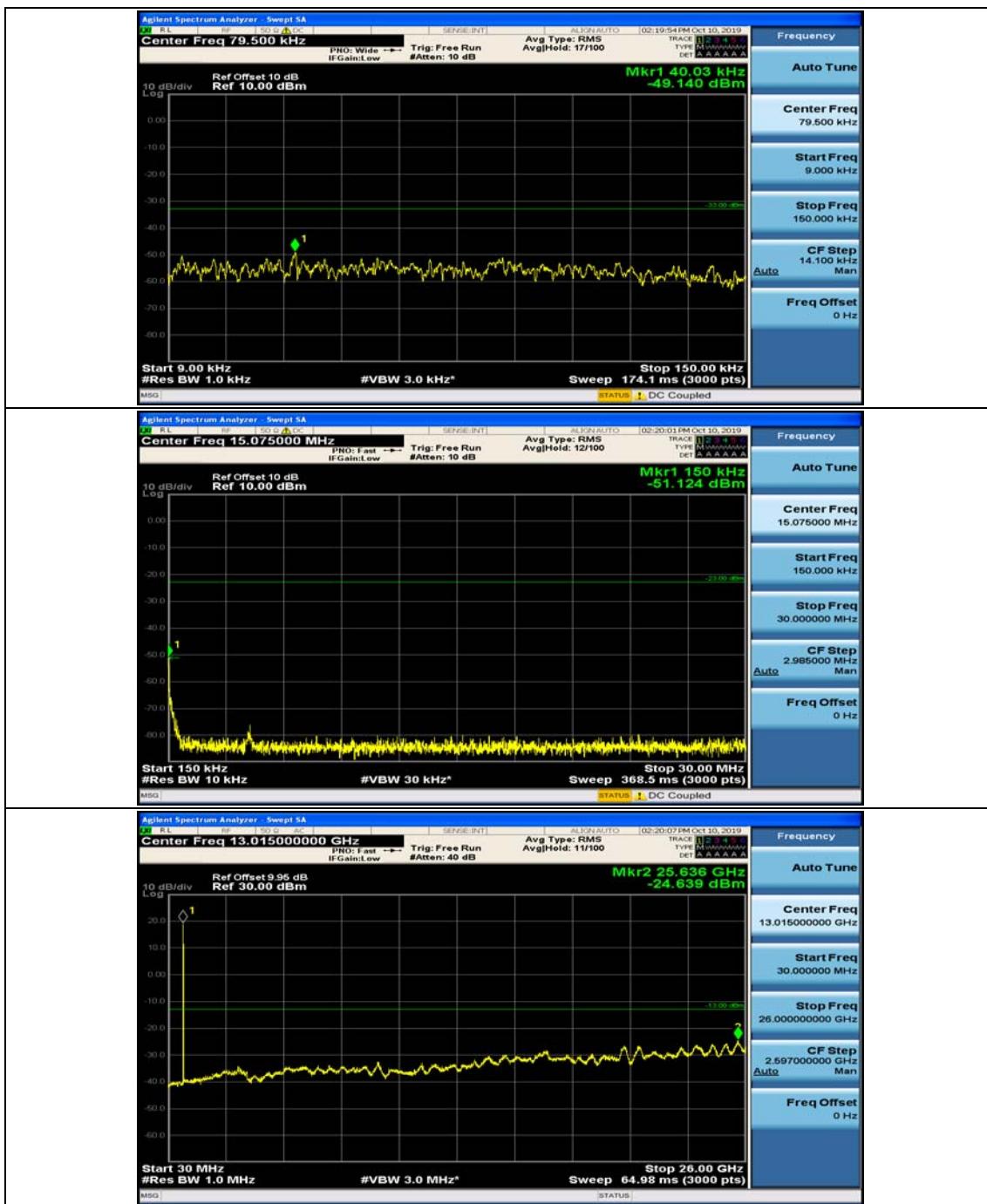


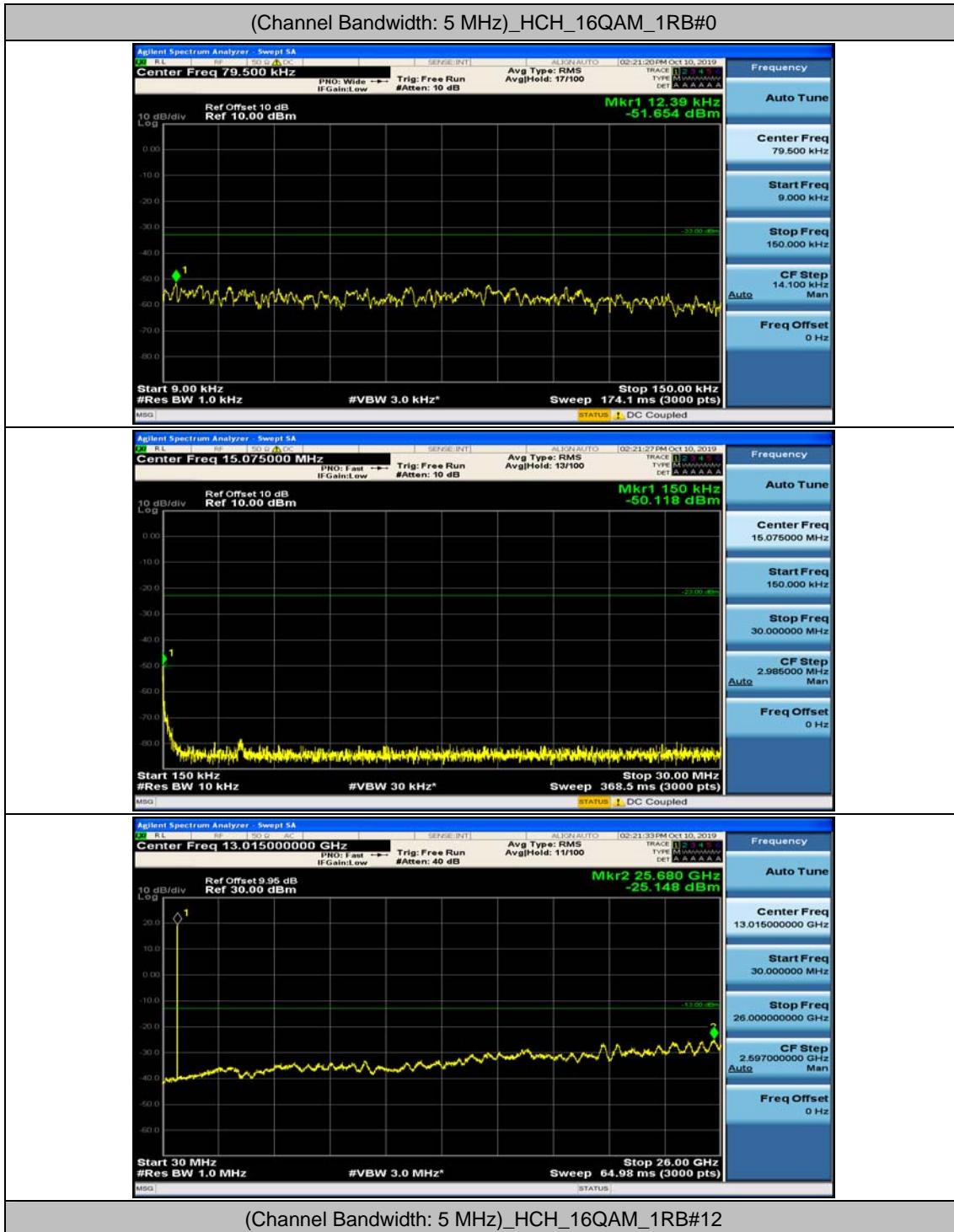
(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_1RB#24

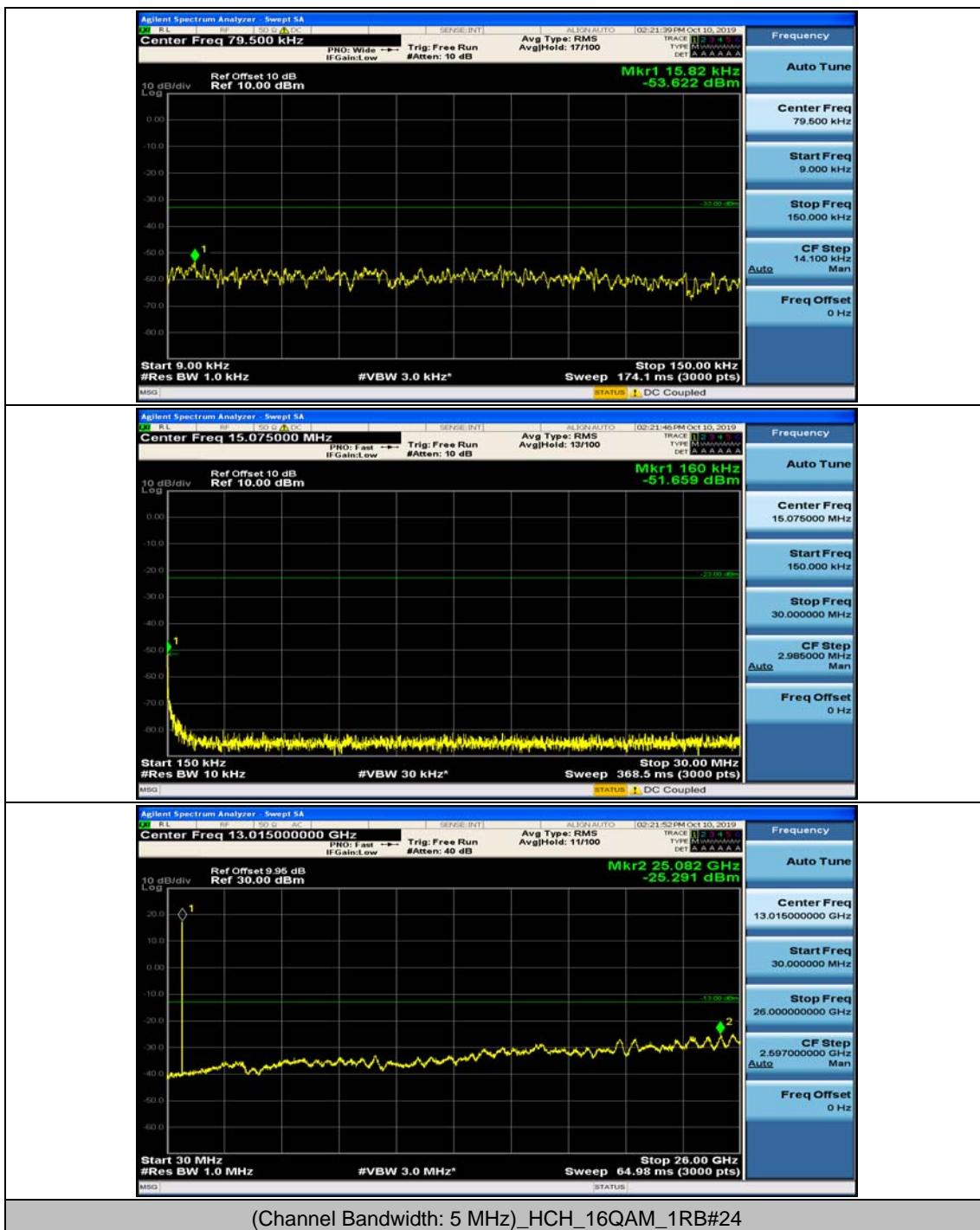


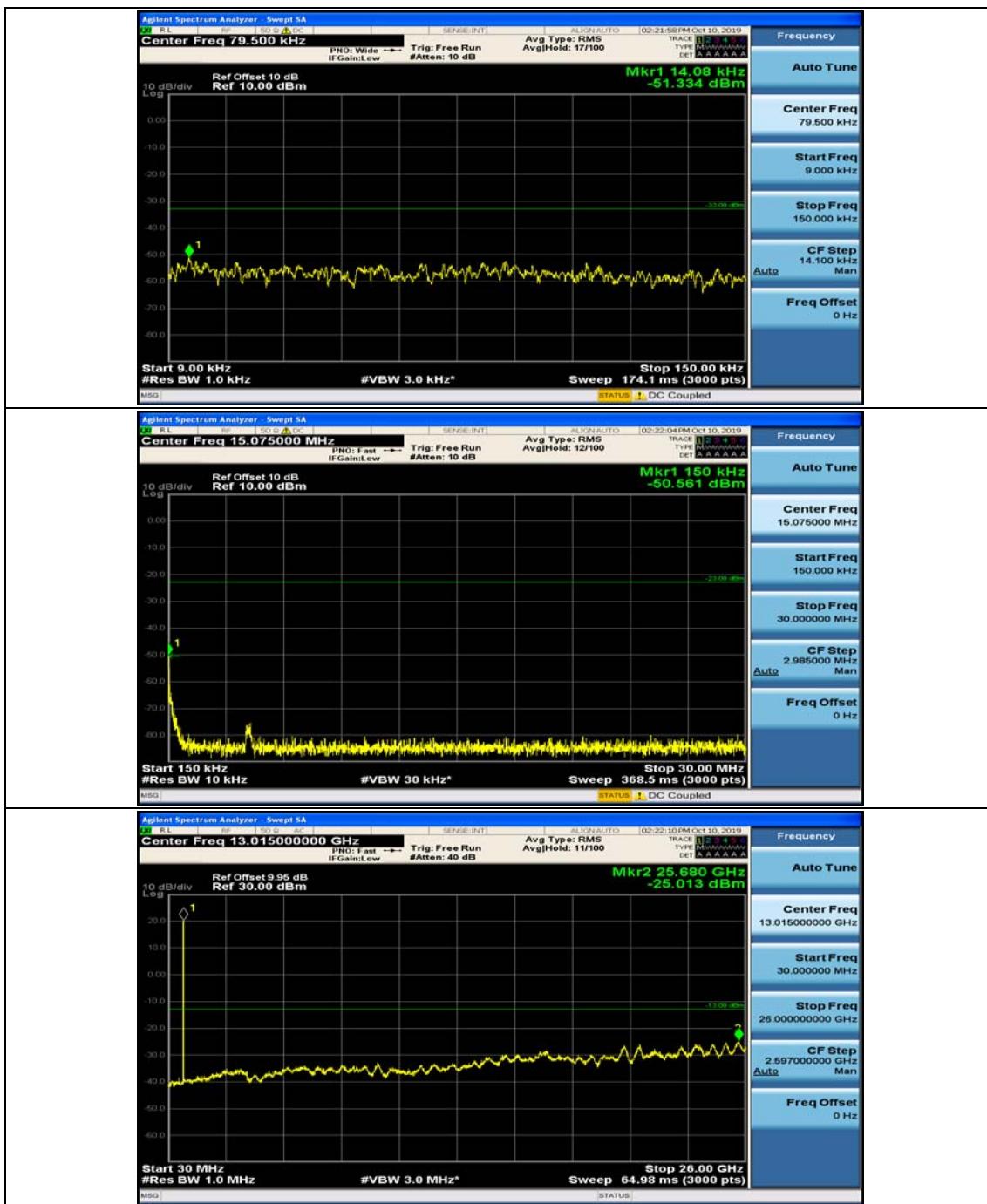




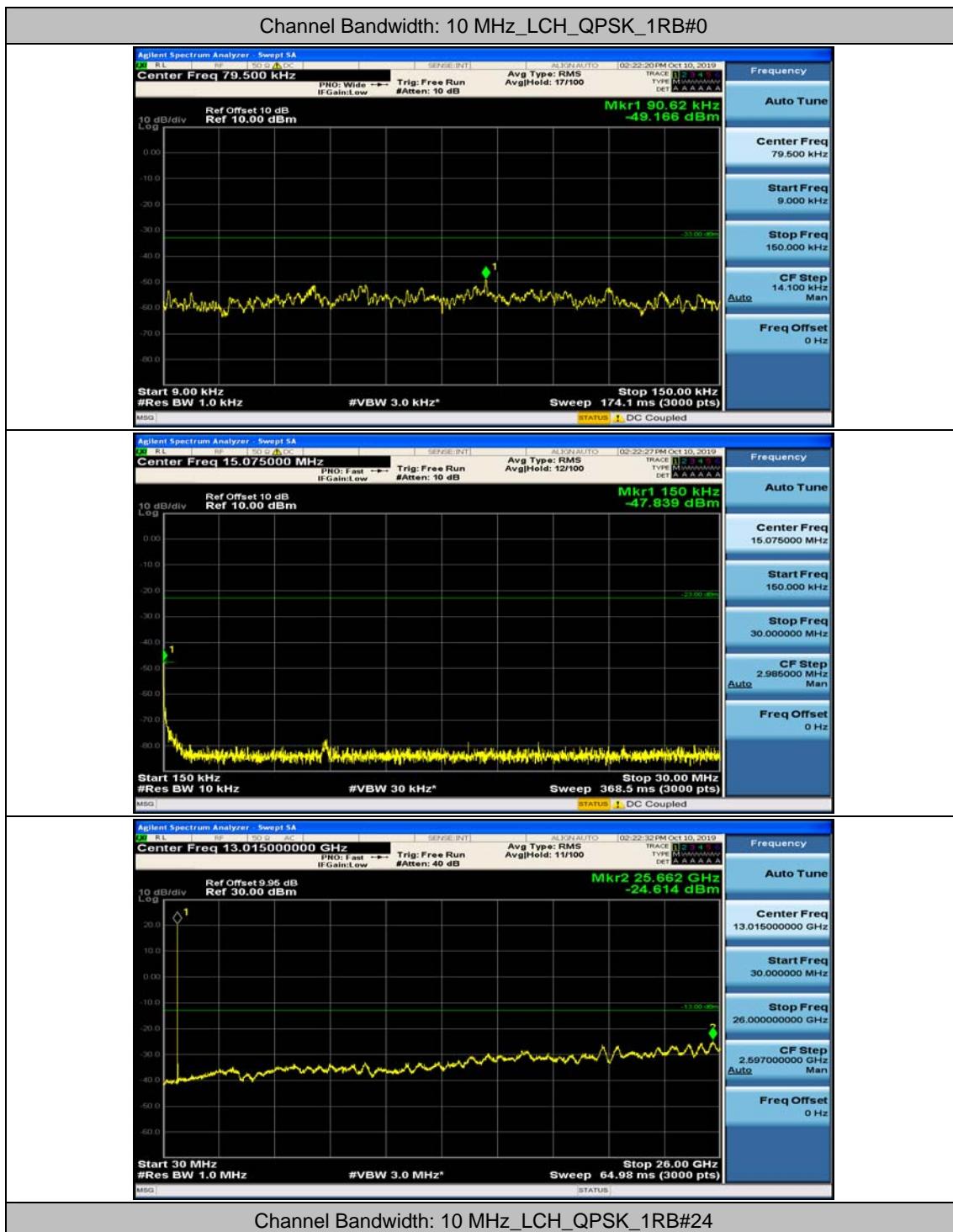


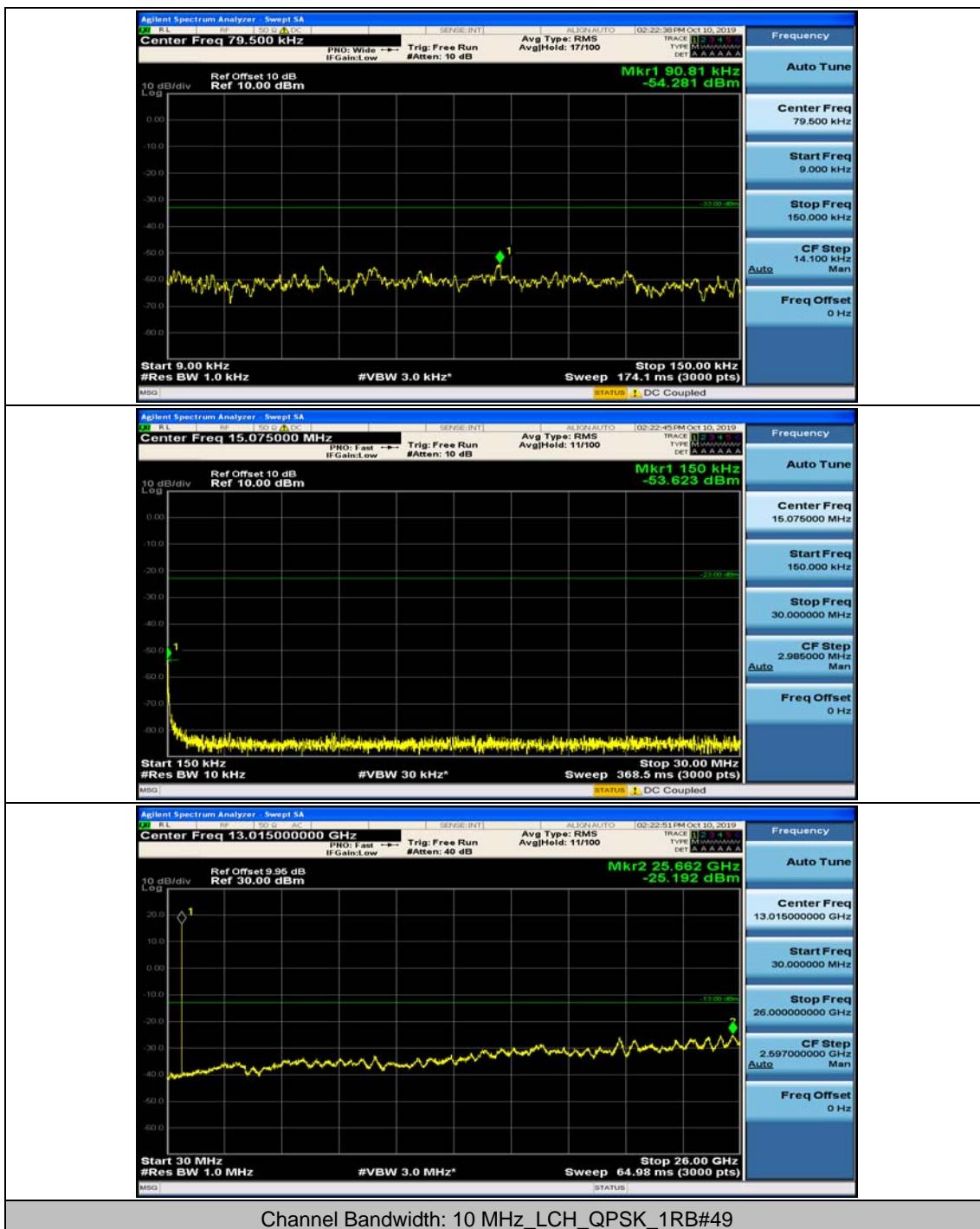


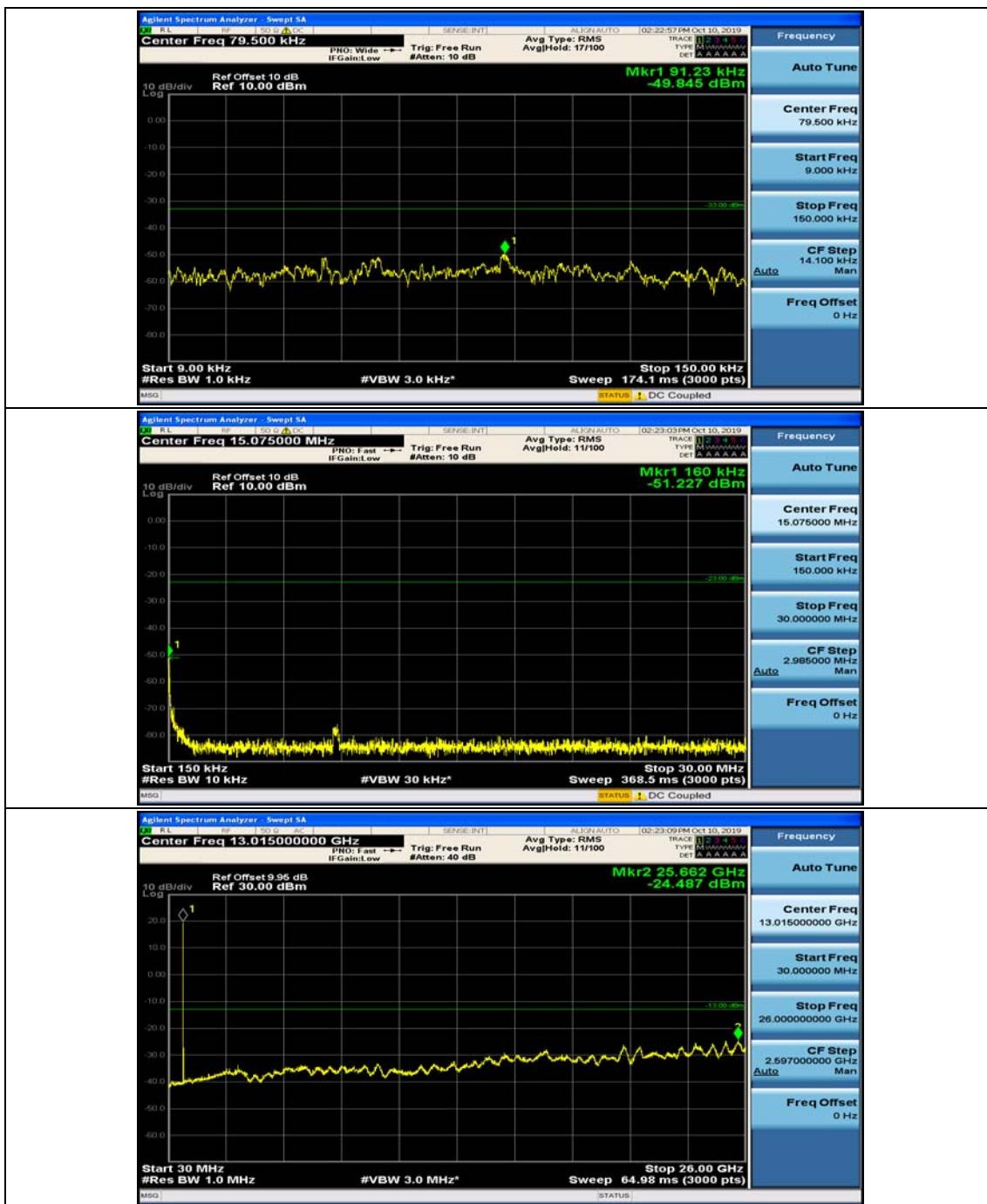


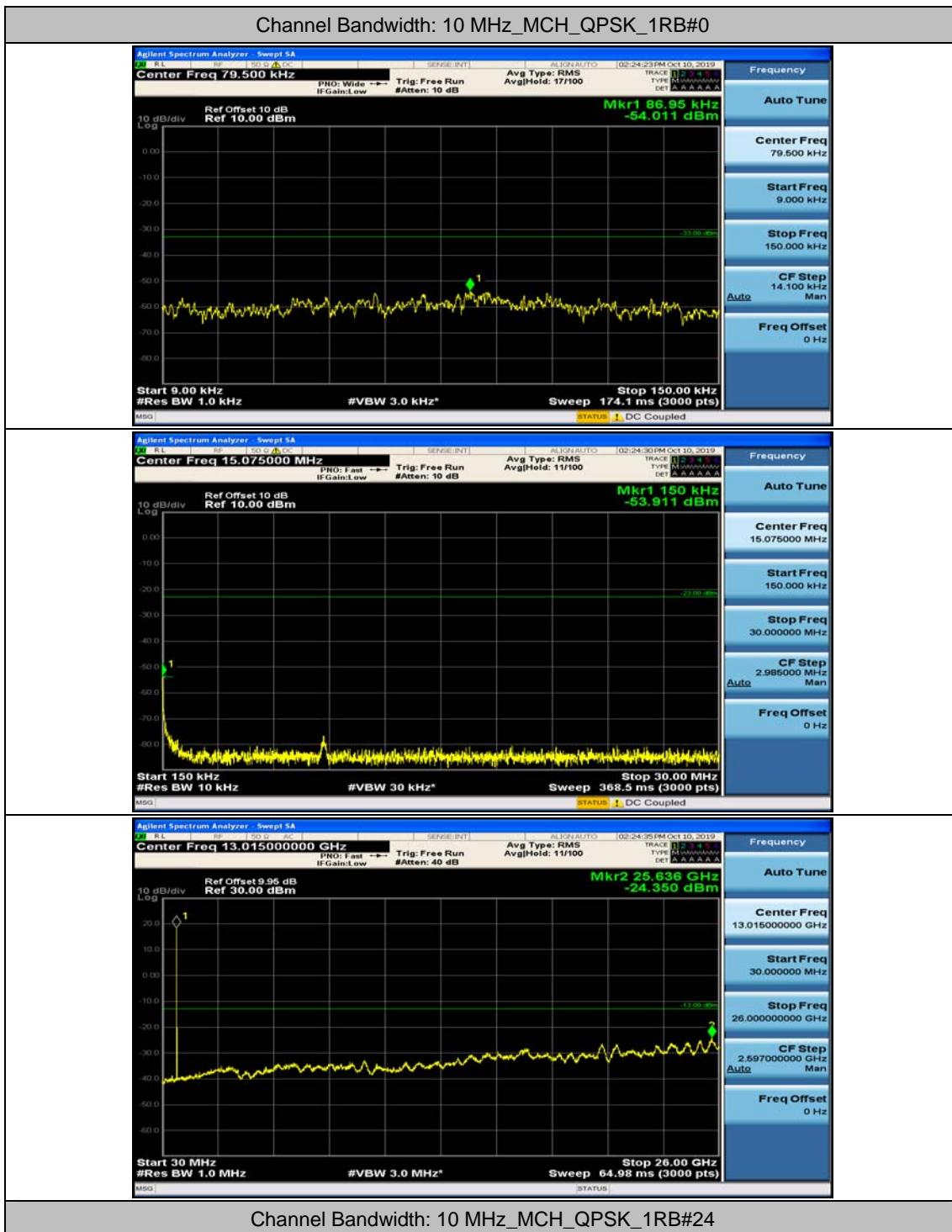


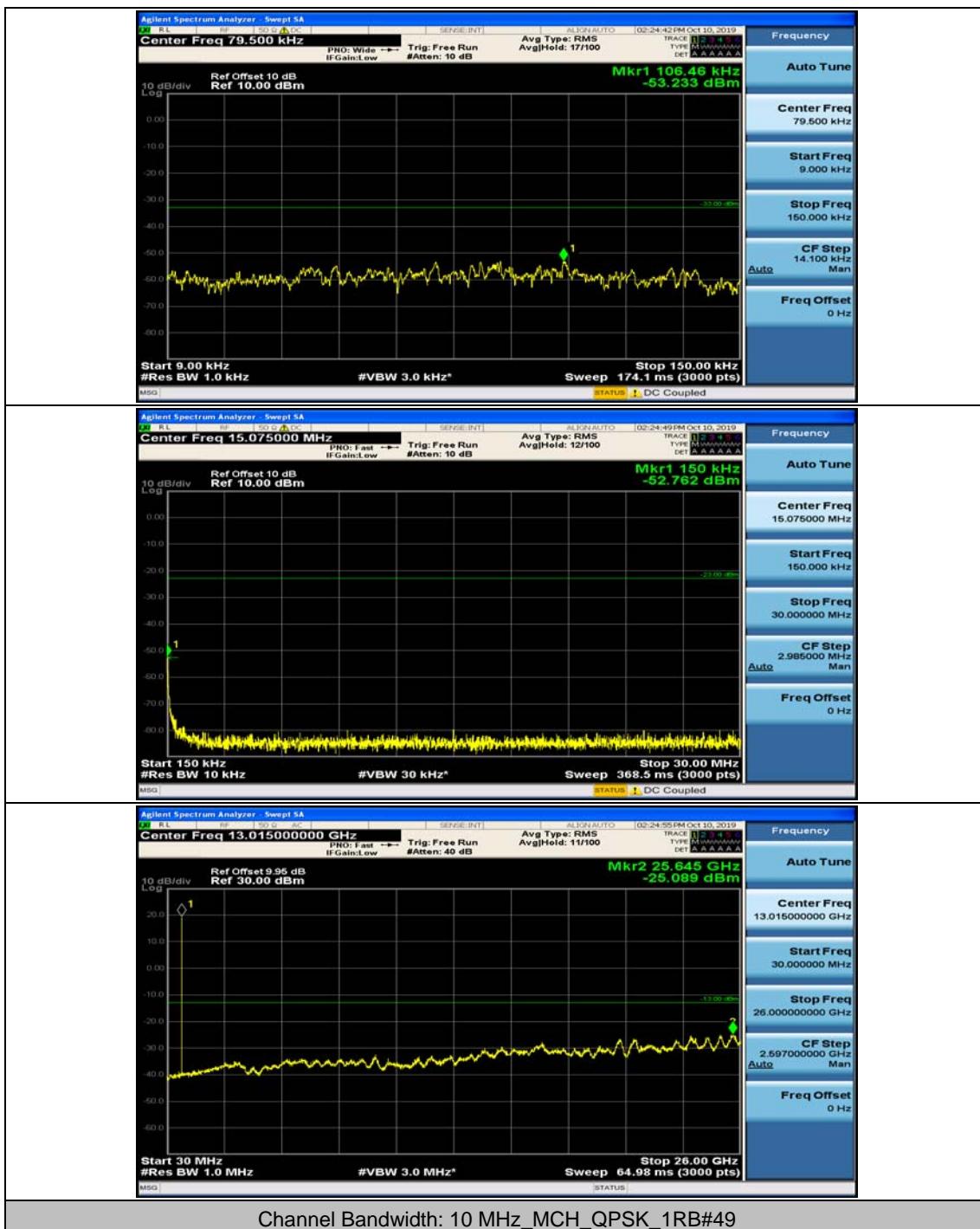
## Channel Bandwidth: 10 MHz

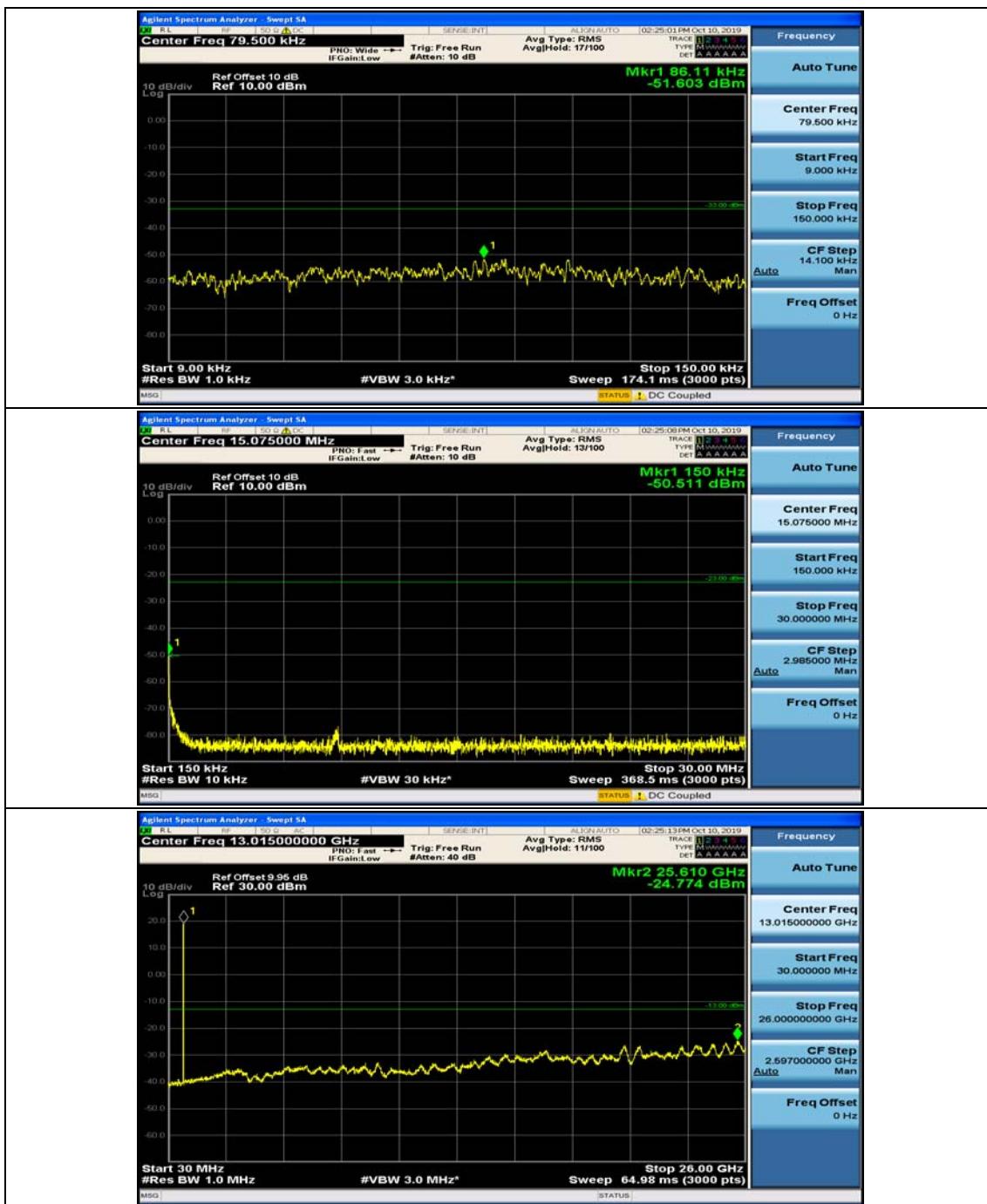


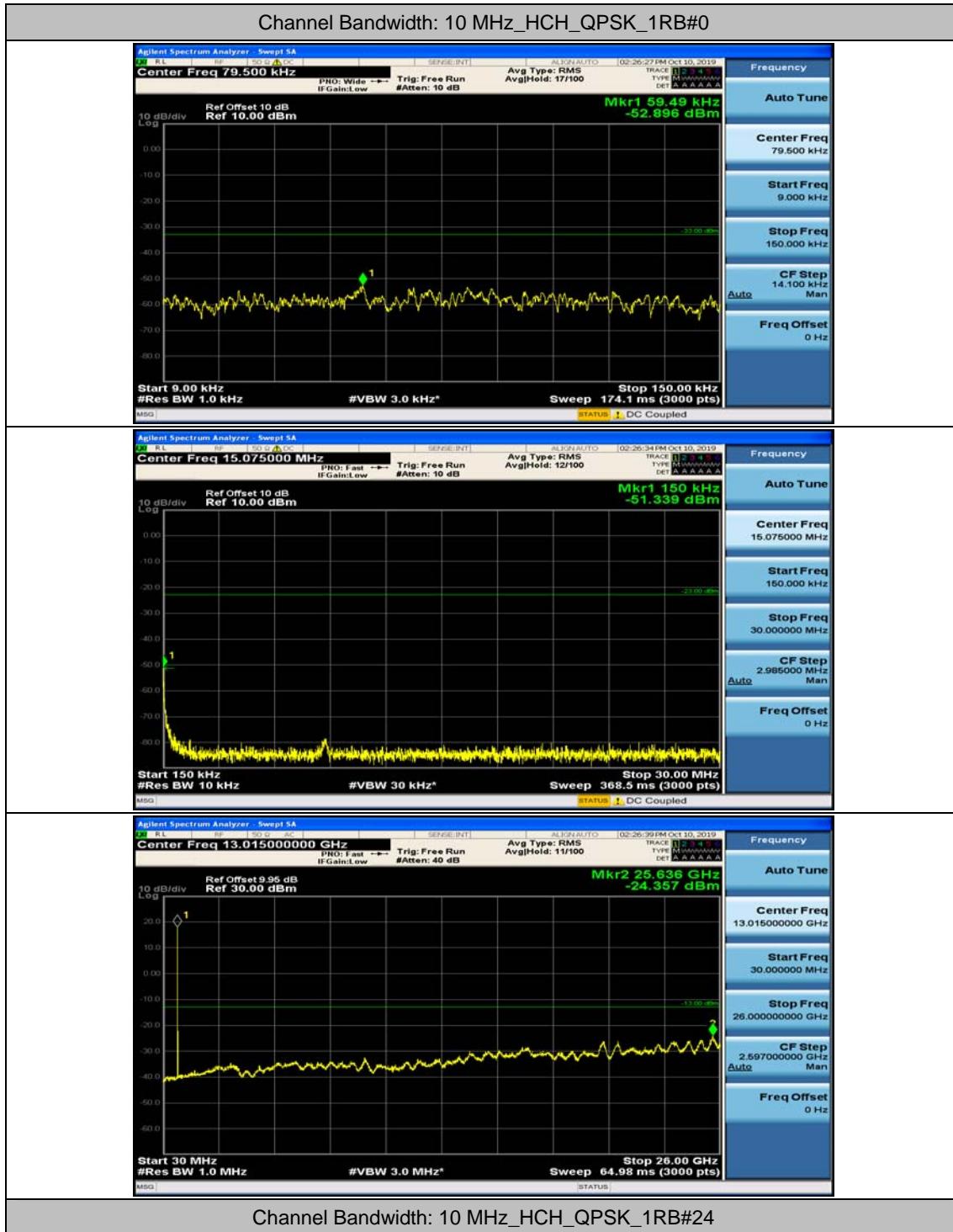


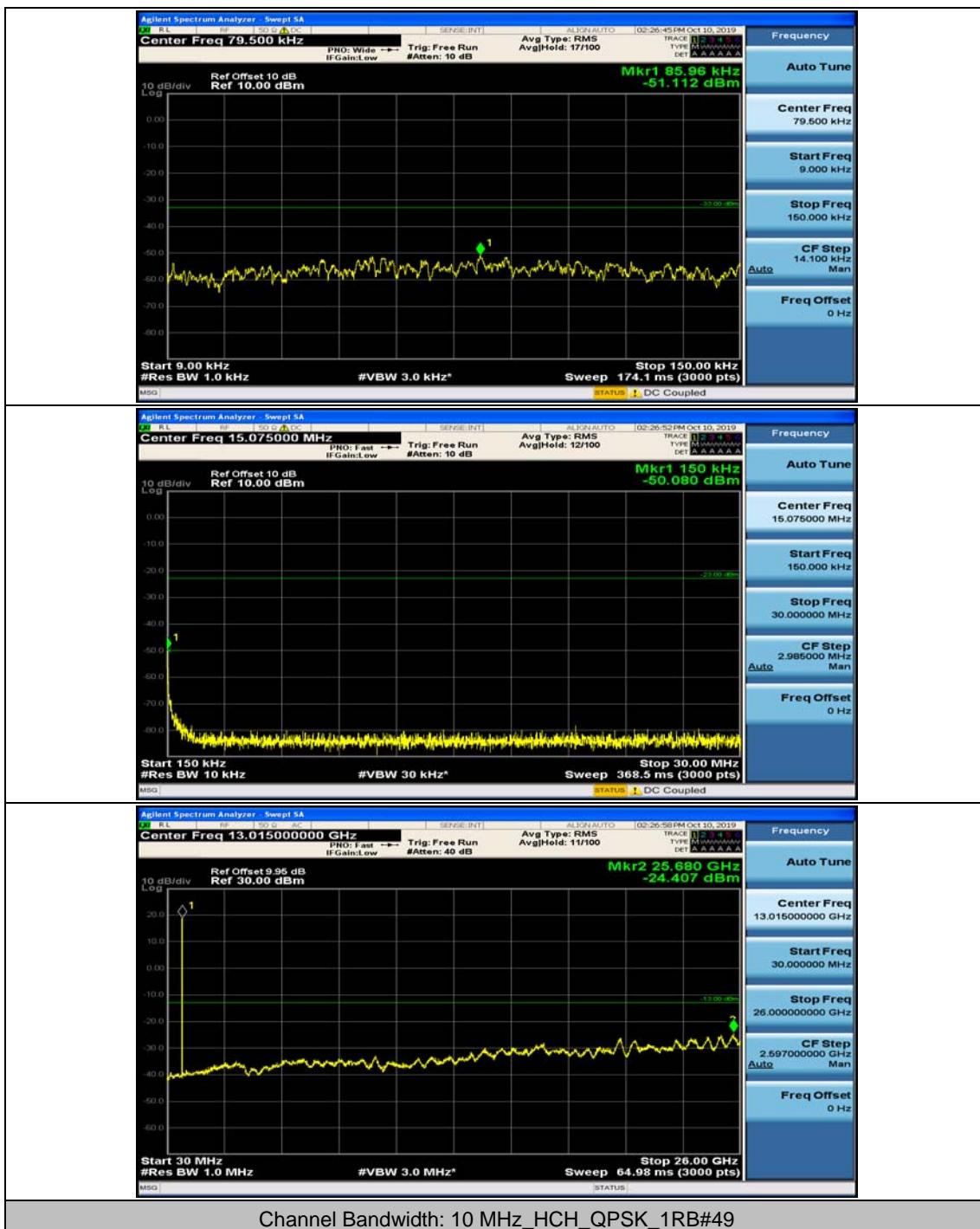


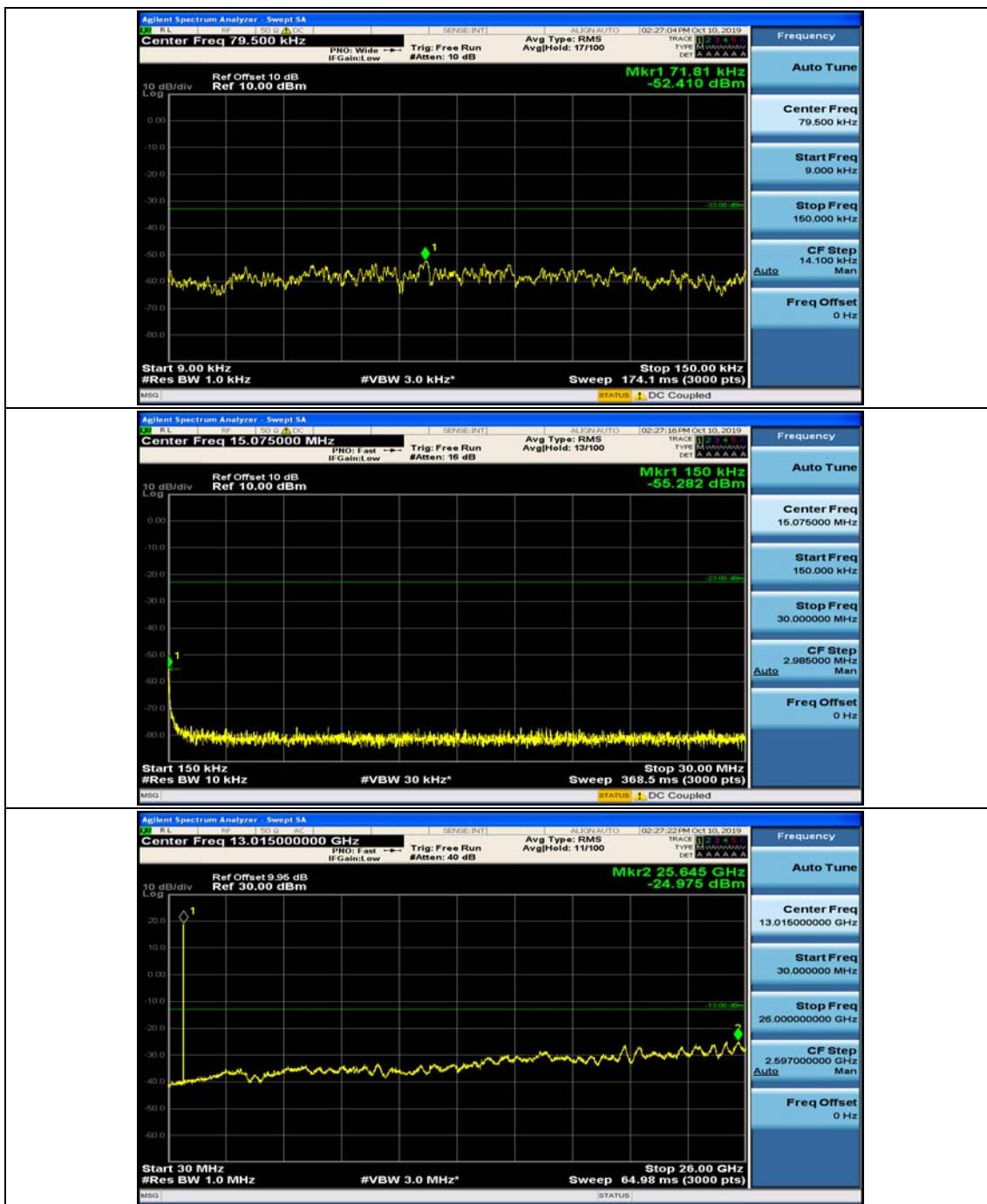


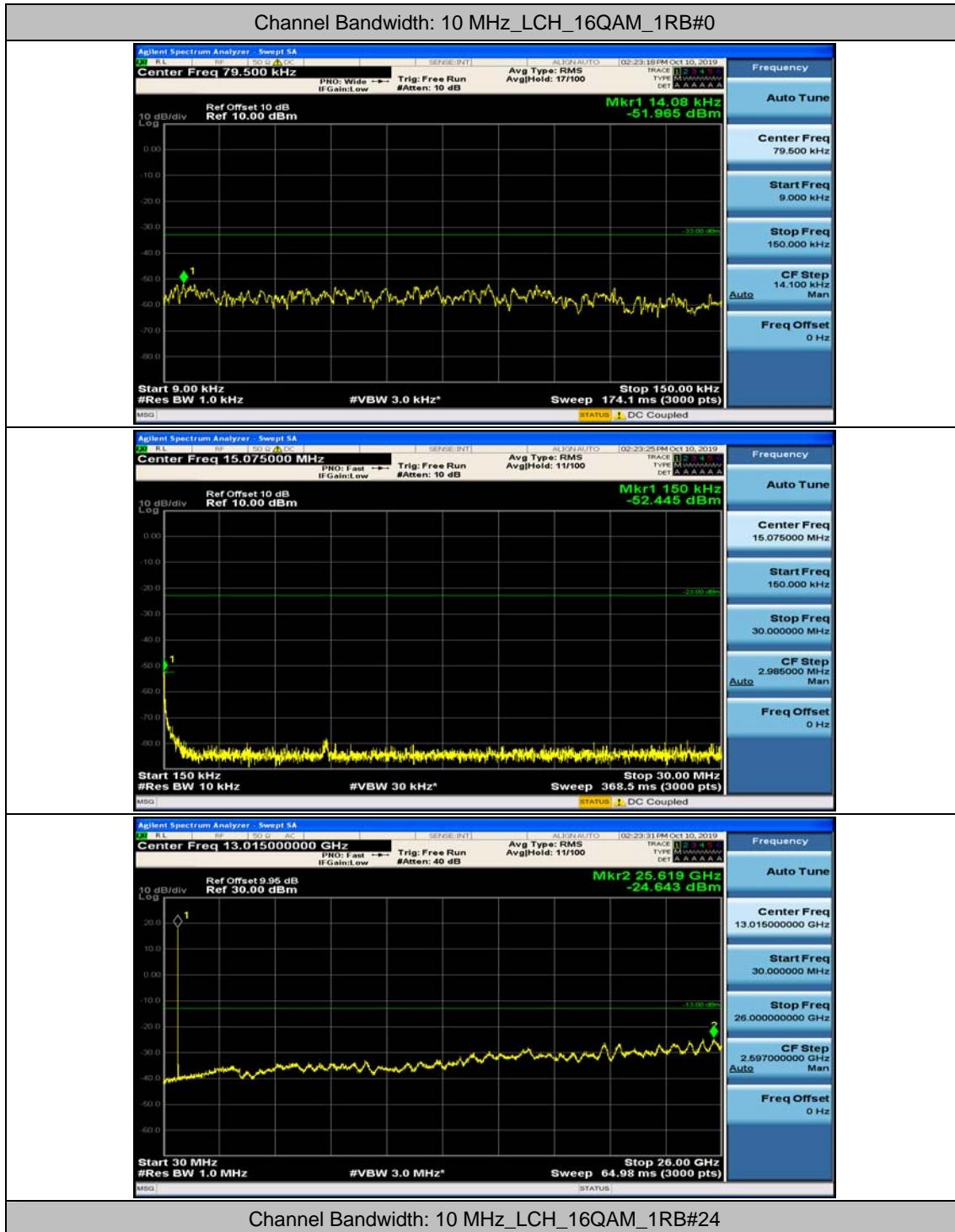


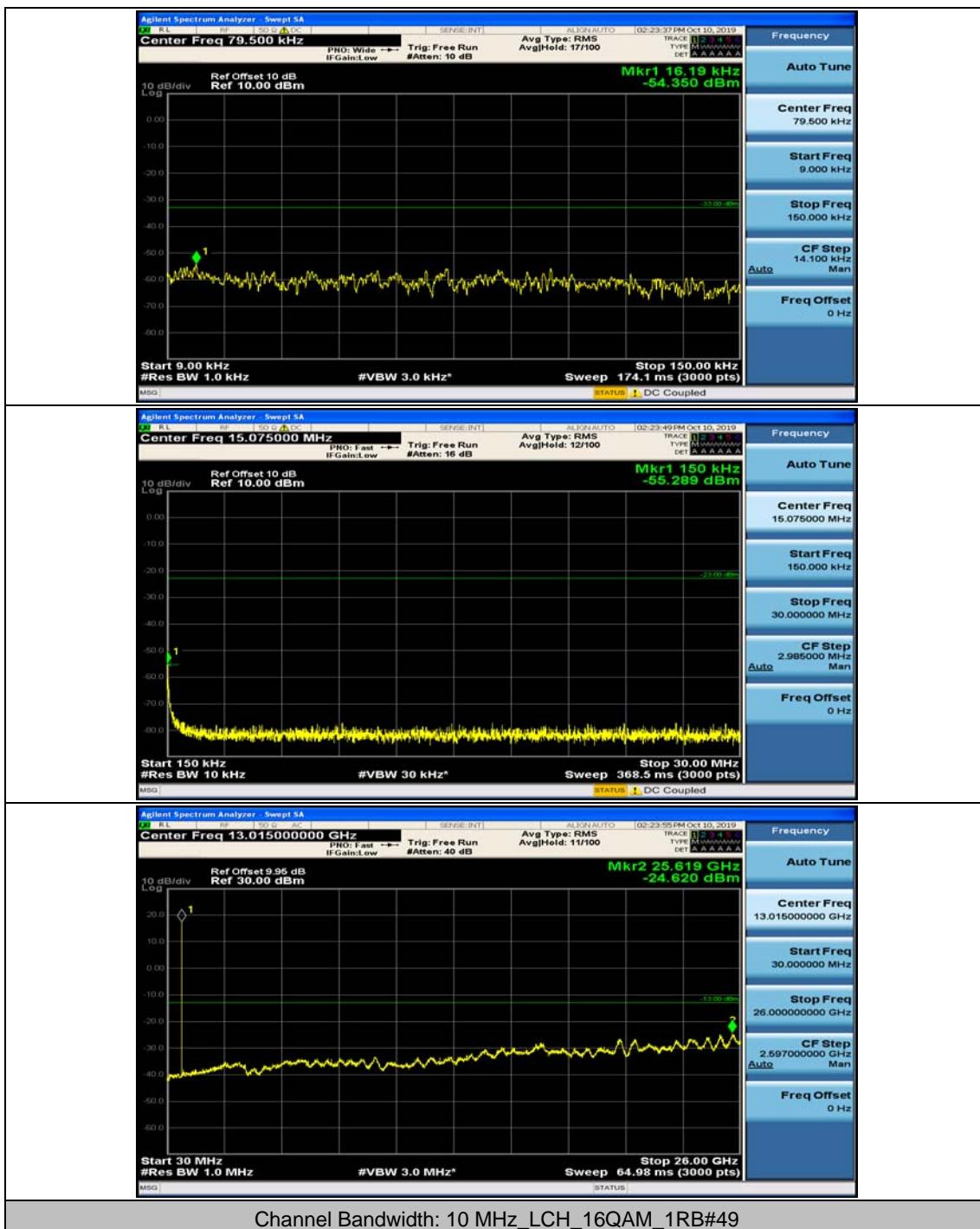


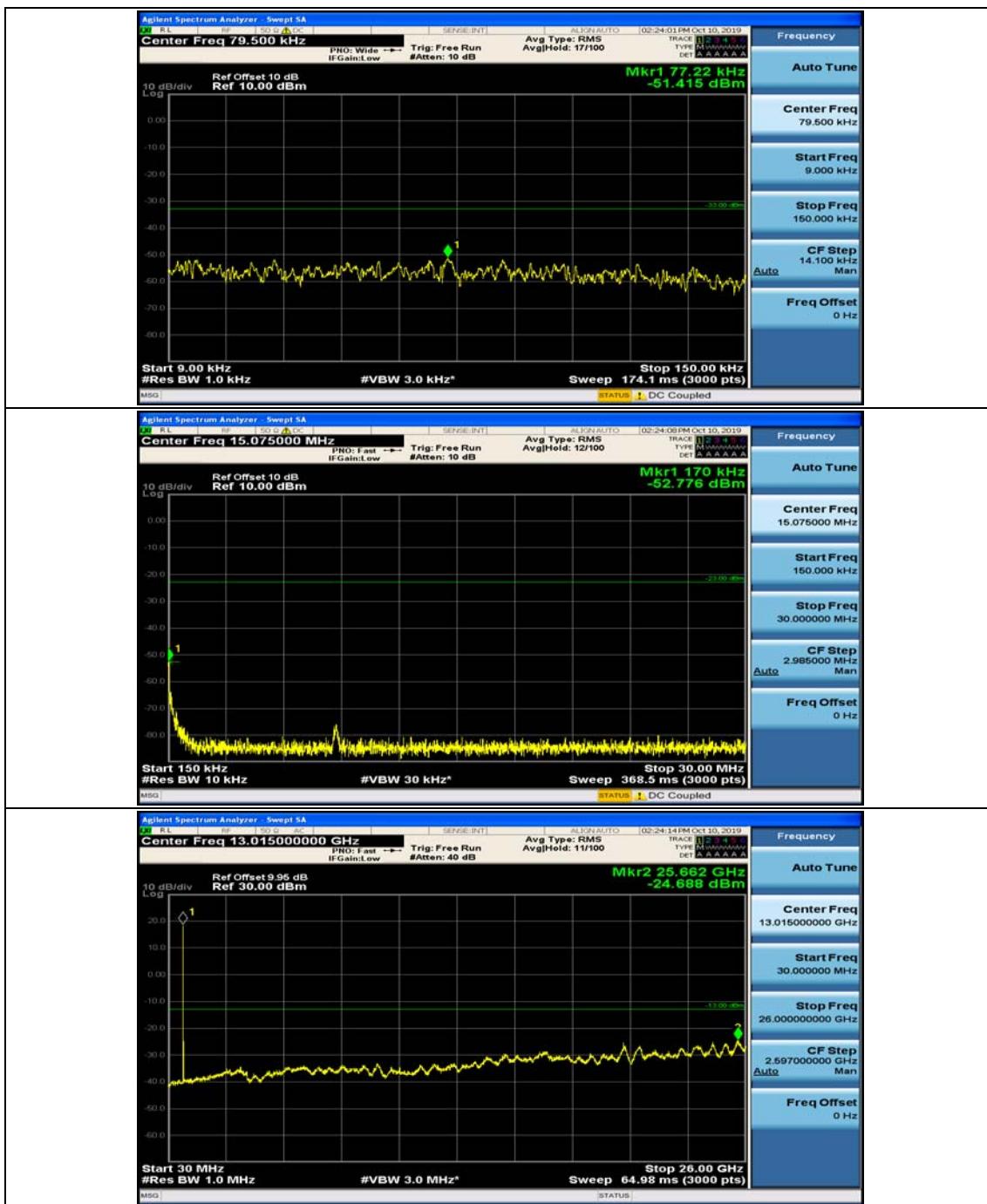


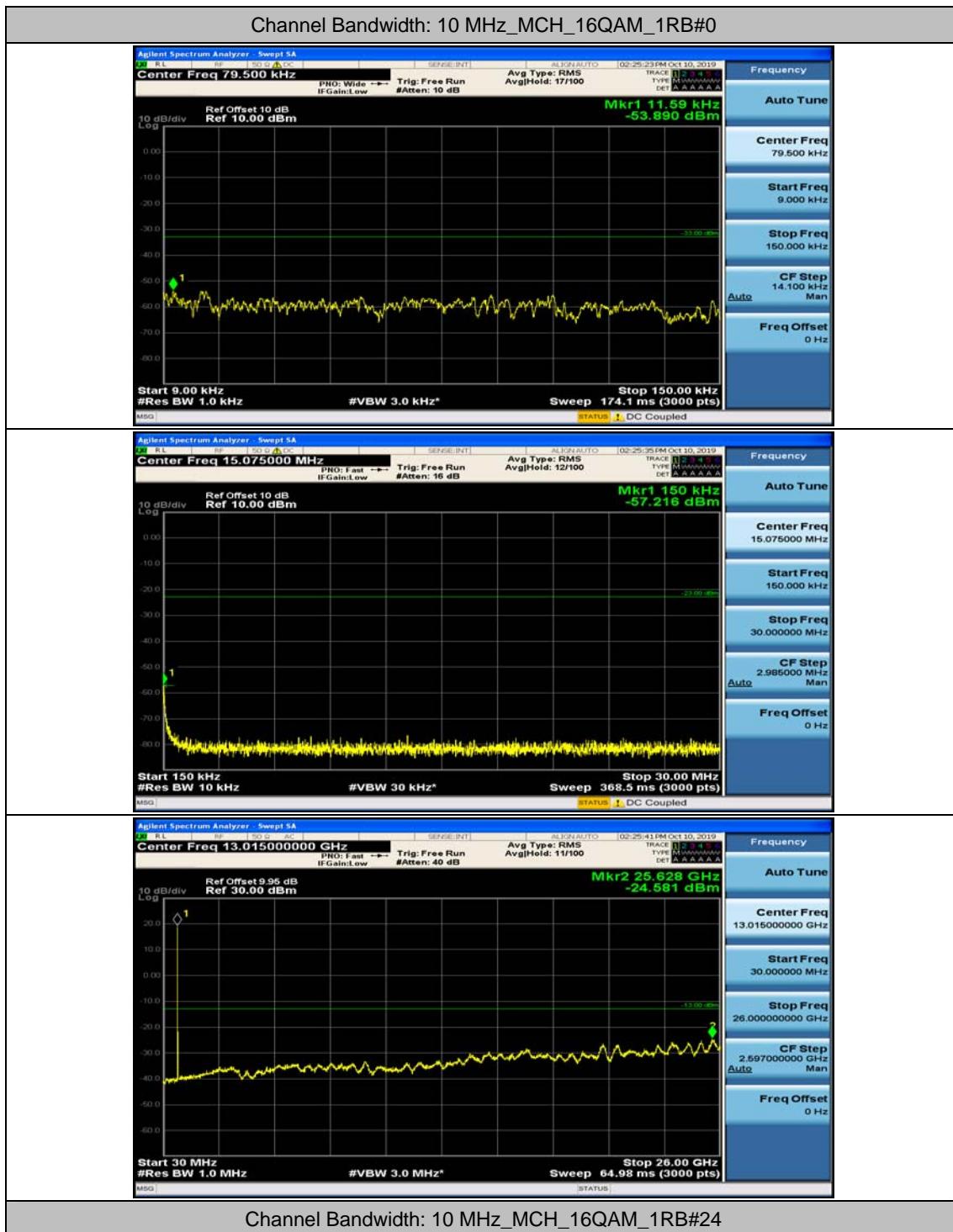


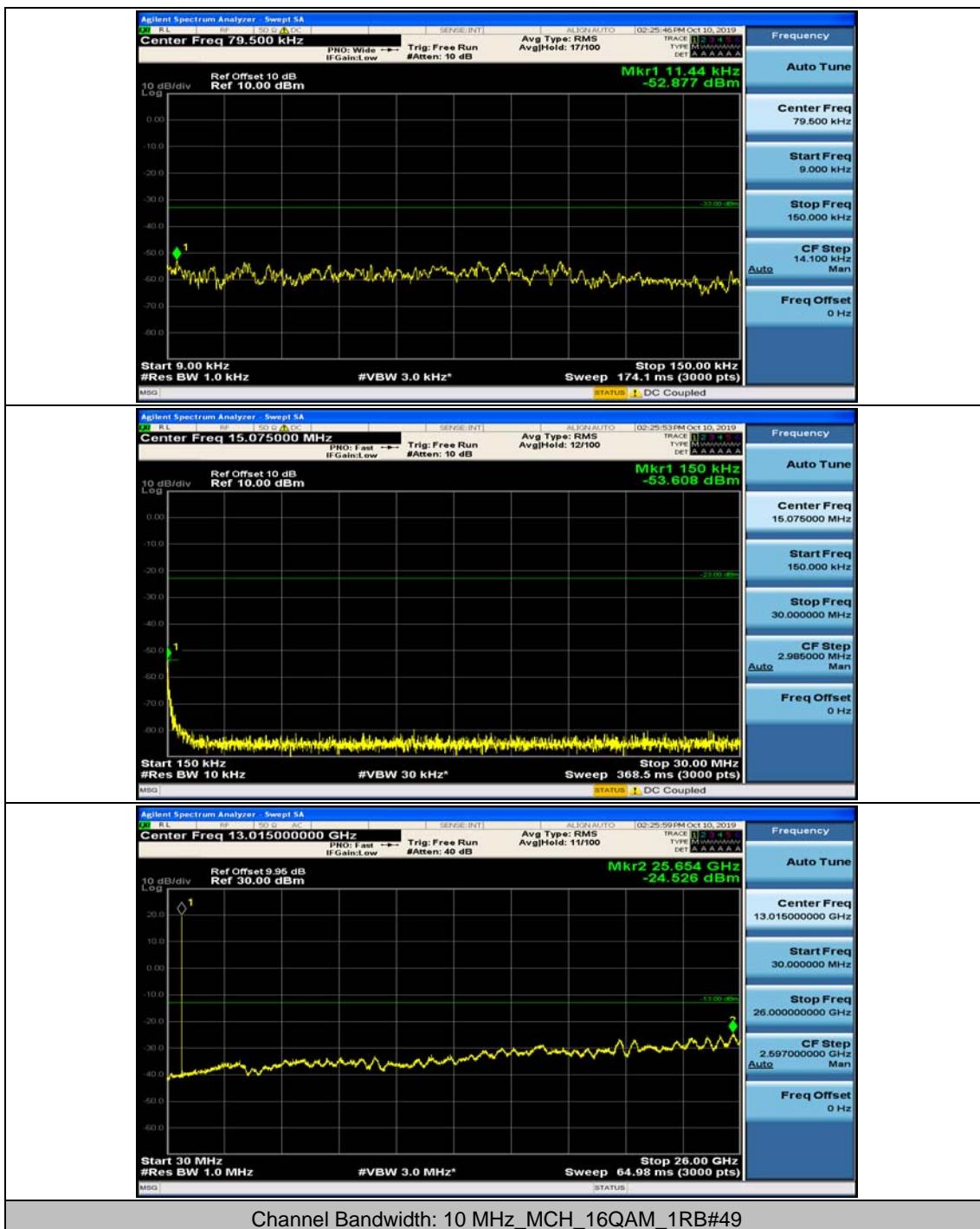


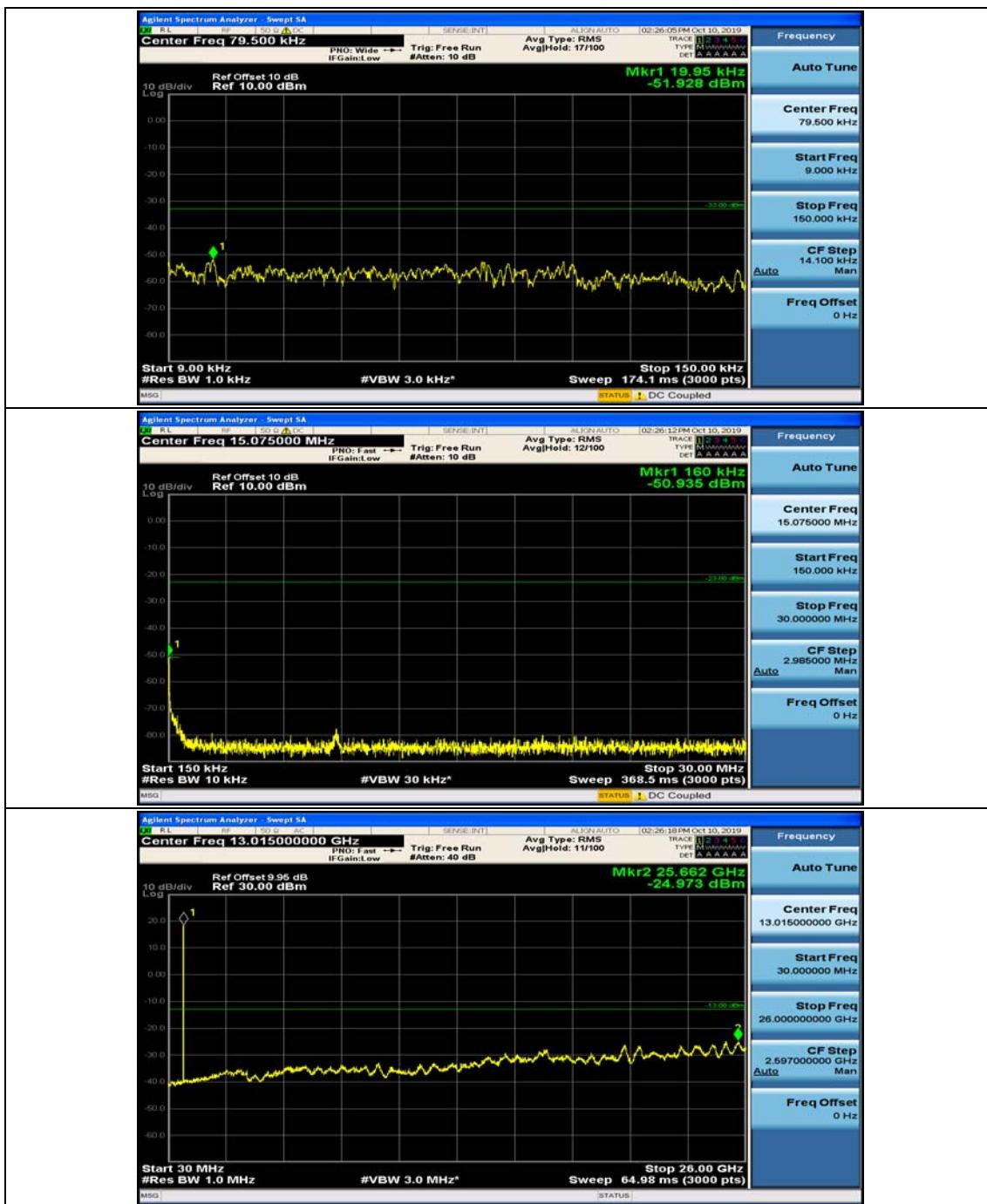


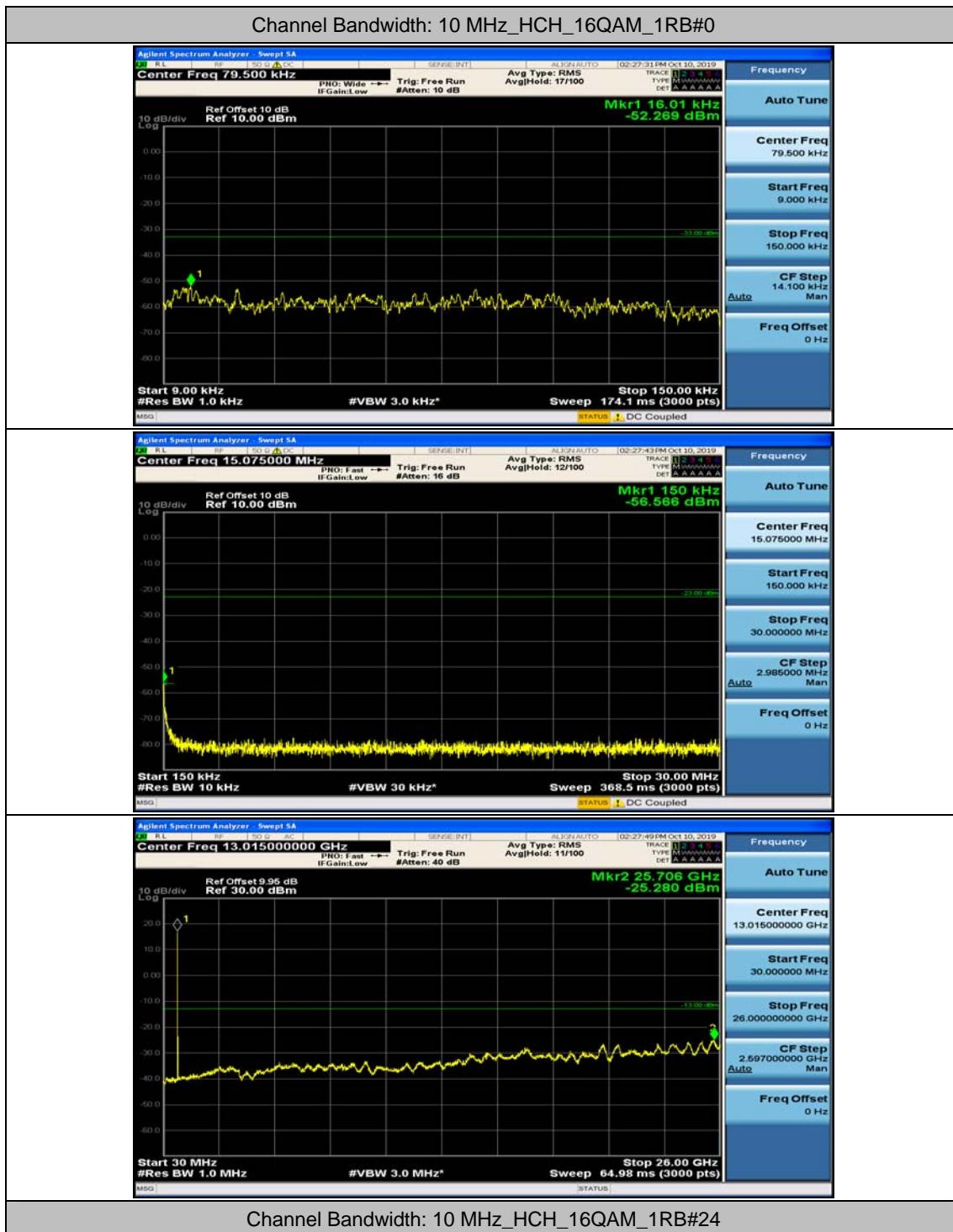


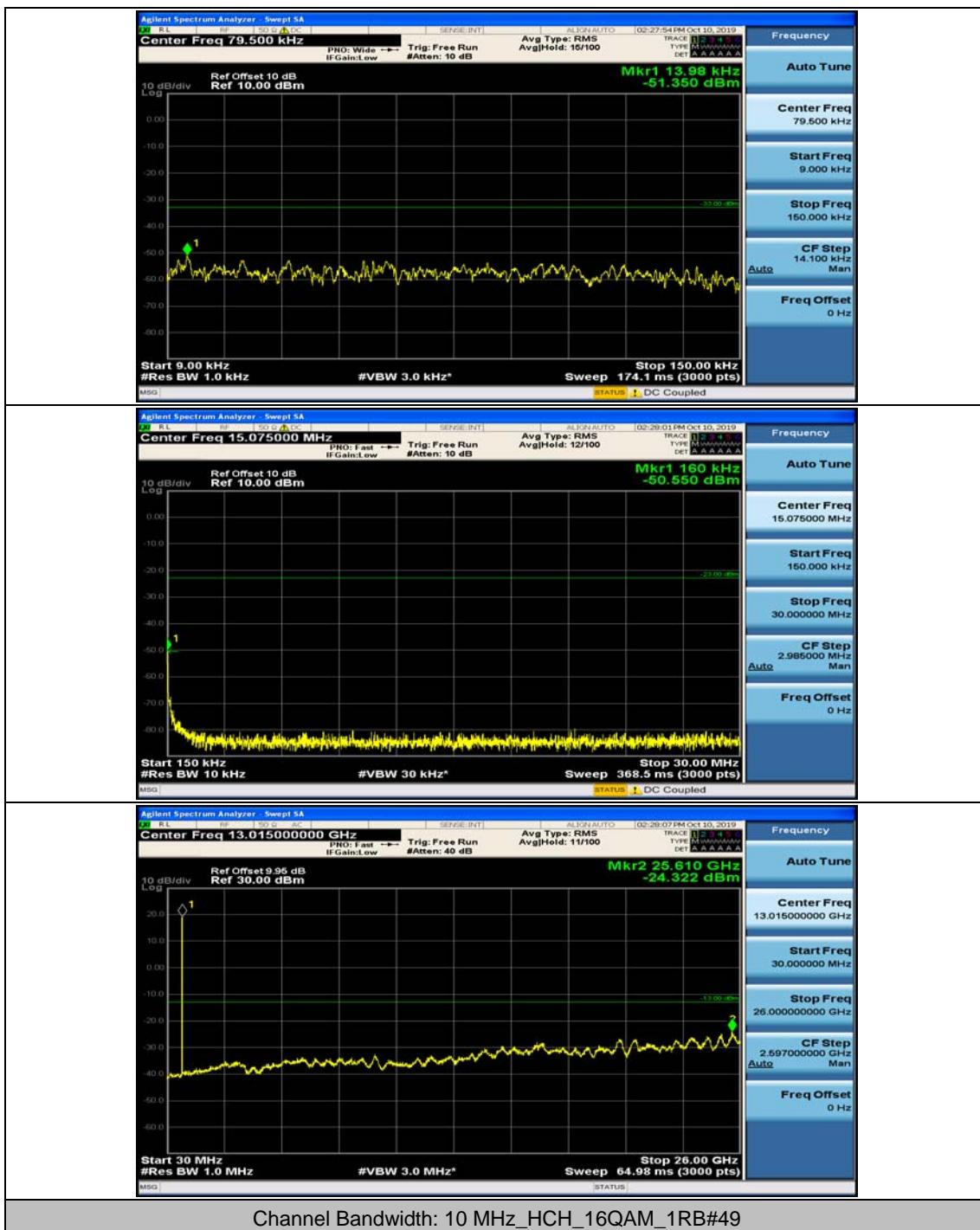


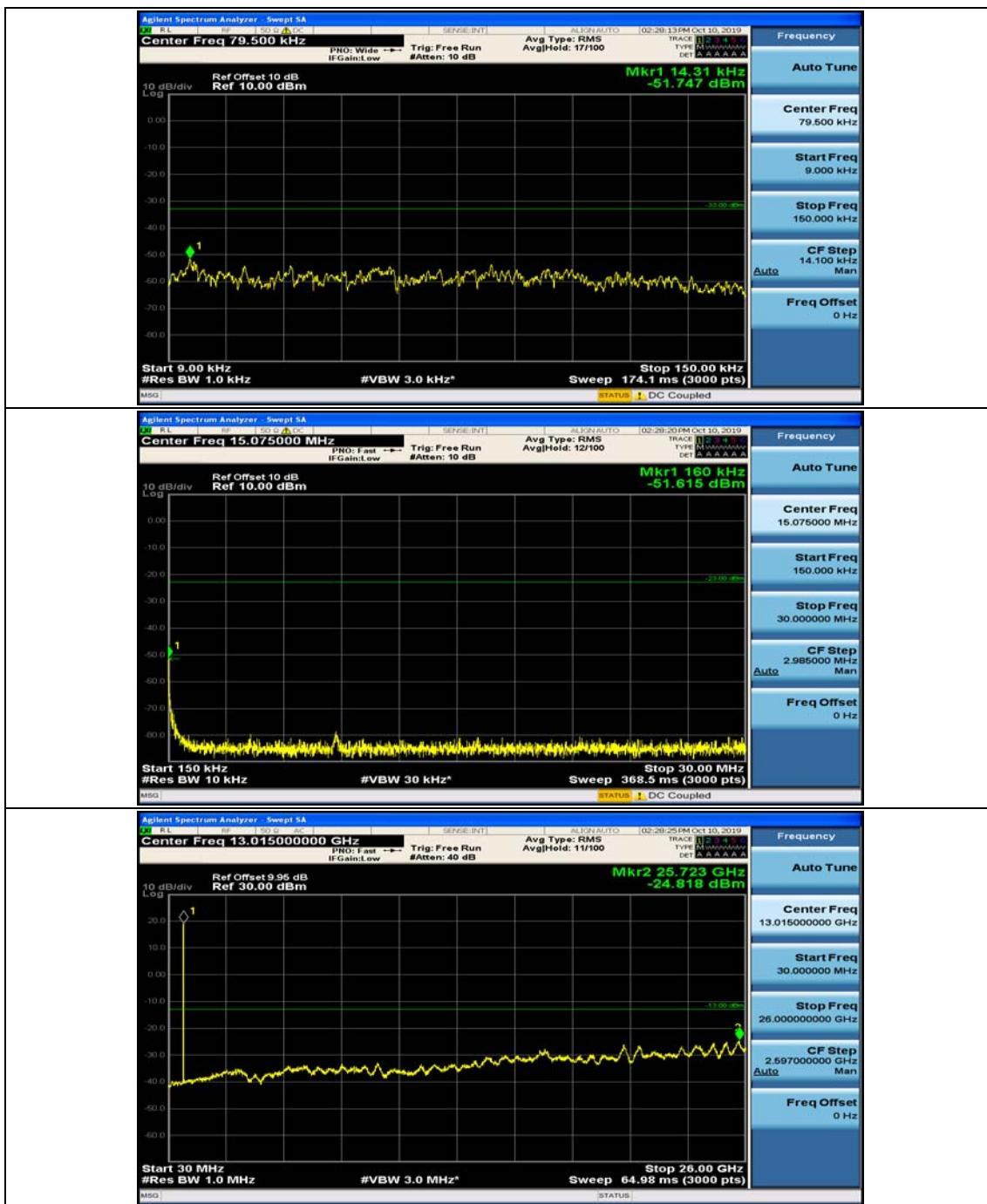












## Appendix F: Frequency Stability

### Test Result

#### Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	1.91	0.002730	± 2.5	PASS
		VN	TN	1.65	0.002358	± 2.5	PASS
		VH	TN	3.15	0.004502	± 2.5	PASS
	MCH	VL	TN	2	0.002827	± 2.5	PASS
		VN	TN	3.36	0.004749	± 2.5	PASS
		VH	TN	-0.63	-0.000890	± 2.5	PASS
	HCH	VL	TN	0.21	0.000294	± 2.5	PASS
		VN	TN	1.95	0.002726	± 2.5	PASS
		VH	TN	-1.1	-0.001538	± 2.5	PASS
16QAM	LCH	VL	TN	1.08	0.001544	± 2.5	PASS
		VN	TN	1.9	0.002715	± 2.5	PASS
		VH	TN	2.46	0.003516	± 2.5	PASS
	MCH	VL	TN	3.05	0.004311	± 2.5	PASS
		VN	TN	4.59	0.006488	± 2.5	PASS
		VH	TN	-1.03	-0.001456	± 2.5	PASS
	HCH	VL	TN	-0.54	-0.000755	± 2.5	PASS
		VN	TN	3.31	0.004627	± 2.5	PASS
		VH	TN	2.15	0.003006	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.13	0.004473	± 2.5	PASS
		VN	-20	2.45	0.003502	± 2.5	PASS
		VN	-10	3.42	0.004888	± 2.5	PASS
		VN	0	-1.58	-0.002258	± 2.5	PASS
		VN	10	-1.44	-0.002058	± 2.5	PASS
		VN	20	0.98	0.001401	± 2.5	PASS
		VN	30	4.61	0.006589	± 2.5	PASS
		VN	40	1.49	0.002129	± 2.5	PASS
		VN	50	-0.12	-0.000172	± 2.5	PASS
	MCH	VN	-30	-0.21	-0.000297	± 2.5	PASS
		VN	-20	0.67	0.000947	± 2.5	PASS

	HCH	VN	-10	0.26	0.000367	$\pm 2.5$	PASS
		VN	0	4.51	0.006375	$\pm 2.5$	PASS
		VN	10	-0.95	-0.001343	$\pm 2.5$	PASS
		VN	20	-1.95	-0.002756	$\pm 2.5$	PASS
		VN	30	4.99	0.007053	$\pm 2.5$	PASS
		VN	40	-0.22	-0.000311	$\pm 2.5$	PASS
		VN	50	-0.96	-0.001357	$\pm 2.5$	PASS
		VN	-30	-1.99	-0.002782	$\pm 2.5$	PASS
		VN	-20	1.19	0.001664	$\pm 2.5$	PASS
		VN	-10	1.58	0.002209	$\pm 2.5$	PASS
		VN	0	2.03	0.002838	$\pm 2.5$	PASS
		VN	10	-0.09	-0.000126	$\pm 2.5$	PASS
		VN	20	1.6	0.002237	$\pm 2.5$	PASS
		VN	30	0.81	0.001132	$\pm 2.5$	PASS
		VN	40	1.22	0.001706	$\pm 2.5$	PASS
		VN	50	0.91	0.001272	$\pm 2.5$	PASS
16QAM	LCH	VN	-30	-0.31	-0.000443	$\pm 2.5$	PASS
		VN	-20	4.55	0.006503	$\pm 2.5$	PASS
		VN	-10	3.61	0.005159	$\pm 2.5$	PASS
		VN	0	2.45	0.003502	$\pm 2.5$	PASS
		VN	10	2.17	0.003101	$\pm 2.5$	PASS
		VN	20	-0.02	-0.000029	$\pm 2.5$	PASS
		VN	30	4.22	0.006031	$\pm 2.5$	PASS
		VN	40	0.31	0.000443	$\pm 2.5$	PASS
		VN	50	3.94	0.005631	$\pm 2.5$	PASS
	MCH	VN	-30	4.92	0.006954	$\pm 2.5$	PASS
		VN	-20	1.59	0.002247	$\pm 2.5$	PASS
		VN	-10	1.26	0.001781	$\pm 2.5$	PASS
		VN	0	-1.35	-0.001908	$\pm 2.5$	PASS
		VN	10	1.3	0.001837	$\pm 2.5$	PASS
		VN	20	0.11	0.000155	$\pm 2.5$	PASS
		VN	30	4.43	0.006261	$\pm 2.5$	PASS
		VN	40	1.73	0.002445	$\pm 2.5$	PASS
	HCH	VN	50	0.72	0.001018	$\pm 2.5$	PASS
		VN	-30	3.23	0.004516	$\pm 2.5$	PASS
		VN	-20	1.76	0.002461	$\pm 2.5$	PASS
		VN	-10	1.83	0.002558	$\pm 2.5$	PASS
		VN	0	3.33	0.004655	$\pm 2.5$	PASS
		VN	10	-1.49	-0.002083	$\pm 2.5$	PASS
		VN	20	3.72	0.005201	$\pm 2.5$	PASS
		VN	30	2.64	0.003691	$\pm 2.5$	PASS

		VN	40	1.44	0.002013	$\pm 2.5$	PASS
		VN	50	2.09	0.002922	$\pm 2.5$	PASS

### Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz+							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	2.08	0.002969	$\pm 2.5$	PASS
		VN	TN	4.97	0.007095	$\pm 2.5$	PASS
		VH	TN	4.52	0.006453	$\pm 2.5$	PASS
	MCH	VL	TN	0.83	0.001173	$\pm 2.5$	PASS
		VN	TN	-1.01	-0.001428	$\pm 2.5$	PASS
		VH	TN	3.15	0.004452	$\pm 2.5$	PASS
	HCH	VL	TN	-1.45	-0.002029	$\pm 2.5$	PASS
		VN	TN	1.06	0.001484	$\pm 2.5$	PASS
		VH	TN	3.57	0.004997	$\pm 2.5$	PASS
16QAM	LCH	VL	TN	0.99	0.001413	$\pm 2.5$	PASS
		VN	TN	0.59	0.000842	$\pm 2.5$	PASS
		VH	TN	3.21	0.004582	$\pm 2.5$	PASS
	MCH	VL	TN	3.22	0.004551	$\pm 2.5$	PASS
		VN	TN	2.8	0.003958	$\pm 2.5$	PASS
		VH	TN	-1.72	-0.002431	$\pm 2.5$	PASS
	HCH	VL	TN	0.68	0.000952	$\pm 2.5$	PASS
		VN	TN	4.31	0.006032	$\pm 2.5$	PASS
		VH	TN	1.96	0.002743	$\pm 2.5$	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.91	0.002727	$\pm 2.5$	PASS
		VN	-20	-1.11	-0.001585	$\pm 2.5$	PASS
		VN	-10	0.88	0.001256	$\pm 2.5$	PASS
		VN	0	-0.4	-0.000571	$\pm 2.5$	PASS
		VN	10	4.78	0.006824	$\pm 2.5$	PASS
		VN	20	4.36	0.006224	$\pm 2.5$	PASS
		VN	30	-0.27	-0.000385	$\pm 2.5$	PASS
		VN	40	3.75	0.005353	$\pm 2.5$	PASS
		VN	50	0.36	0.000514	$\pm 2.5$	PASS
	MCH	VN	-30	2.64	0.003731	$\pm 2.5$	PASS
		VN	-20	-1.44	-0.002035	$\pm 2.5$	PASS
		VN	-10	2.7	0.003816	$\pm 2.5$	PASS

		VN	0	2.34	0.003307	$\pm 2.5$	PASS
		VN	10	2.28	0.003223	$\pm 2.5$	PASS
		VN	20	1.79	0.002530	$\pm 2.5$	PASS
		VN	30	2.24	0.003166	$\pm 2.5$	PASS
		VN	40	2.36	0.003336	$\pm 2.5$	PASS
		VN	50	4.26	0.006021	$\pm 2.5$	PASS
		VN	-30	4.04	0.005654	$\pm 2.5$	PASS
		VN	-20	1.7	0.002379	$\pm 2.5$	PASS
		VN	-10	2.22	0.003107	$\pm 2.5$	PASS
		VN	0	-1.29	-0.001805	$\pm 2.5$	PASS
	HCH	VN	10	2.44	0.003415	$\pm 2.5$	PASS
		VN	20	2.17	0.003037	$\pm 2.5$	PASS
		VN	30	0.87	0.001218	$\pm 2.5$	PASS
		VN	40	4.19	0.005864	$\pm 2.5$	PASS
		VN	50	0.16	0.000224	$\pm 2.5$	PASS
		VN	-30	4.55	0.006495	$\pm 2.5$	PASS
		VN	-20	-1.53	-0.002184	$\pm 2.5$	PASS
		VN	-10	1.39	0.001984	$\pm 2.5$	PASS
		VN	0	1.08	0.001542	$\pm 2.5$	PASS
		VN	10	2.77	0.003954	$\pm 2.5$	PASS
	LCH	VN	20	2.03	0.002898	$\pm 2.5$	PASS
		VN	30	2.78	0.003969	$\pm 2.5$	PASS
		VN	40	1.94	0.002769	$\pm 2.5$	PASS
		VN	50	4.31	0.006153	$\pm 2.5$	PASS
		VN	-30	-0.53	-0.000749	$\pm 2.5$	PASS
		VN	-20	0	0.000000	$\pm 2.5$	PASS
		VN	-10	2.73	0.003859	$\pm 2.5$	PASS
		VN	0	3.11	0.004396	$\pm 2.5$	PASS
		VN	10	0.6	0.000848	$\pm 2.5$	PASS
		VN	20	0.8	0.001131	$\pm 2.5$	PASS
	MCH	VN	30	4.48	0.006332	$\pm 2.5$	PASS
		VN	40	4.03	0.005696	$\pm 2.5$	PASS
		VN	50	1.11	0.001569	$\pm 2.5$	PASS
		VN	-30	0.7	0.000980	$\pm 2.5$	PASS
		VN	-20	1.66	0.002323	$\pm 2.5$	PASS
		VN	-10	-1.35	-0.001889	$\pm 2.5$	PASS
		VN	0	3.86	0.005402	$\pm 2.5$	PASS
		VN	10	1.99	0.002785	$\pm 2.5$	PASS
		VN	20	4.24	0.005934	$\pm 2.5$	PASS
		VN	30	1.52	0.002127	$\pm 2.5$	PASS
	HCH	VN	40	-0.14	-0.000196	$\pm 2.5$	PASS

		VN	50	-1.37	-0.001917	$\pm 2.5$	PASS
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## Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	3.71	0.005289	$\pm 2.5$	PASS
		VN	TN	-0.75	-0.001069	$\pm 2.5$	PASS
		VH	TN	-0.17	-0.000242	$\pm 2.5$	PASS
	MCH	VL	TN	-1.13	-0.001597	$\pm 2.5$	PASS
		VN	TN	-0.63	-0.000890	$\pm 2.5$	PASS
		VH	TN	3.46	0.004890	$\pm 2.5$	PASS
	HCH	VL	TN	0.83	0.001163	$\pm 2.5$	PASS
		VN	TN	0.27	0.000378	$\pm 2.5$	PASS
		VH	TN	1.73	0.002425	$\pm 2.5$	PASS
16QAM	LCH	VL	TN	1.11	0.001582	$\pm 2.5$	PASS
		VN	TN	1.79	0.002552	$\pm 2.5$	PASS
		VH	TN	4.8	0.006842	$\pm 2.5$	PASS
	MCH	VL	TN	0.28	0.000396	$\pm 2.5$	PASS
		VN	TN	-0.91	-0.001286	$\pm 2.5$	PASS
		VH	TN	0.43	0.000608	$\pm 2.5$	PASS
	HCH	VL	TN	0.87	0.001219	$\pm 2.5$	PASS
		VN	TN	1.01	0.001416	$\pm 2.5$	PASS
		VH	TN	4.65	0.006517	$\pm 2.5$	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.62	0.003735	$\pm 2.5$	PASS
		VN	-20	1.55	0.002210	$\pm 2.5$	PASS
		VN	-10	4.64	0.006614	$\pm 2.5$	PASS
		VN	0	4.83	0.006885	$\pm 2.5$	PASS
		VN	10	1.09	0.001554	$\pm 2.5$	PASS
		VN	20	1.55	0.002210	$\pm 2.5$	PASS
		VN	30	2.12	0.003022	$\pm 2.5$	PASS
		VN	40	-0.2	-0.000285	$\pm 2.5$	PASS
		VN	50	-1.92	-0.002737	$\pm 2.5$	PASS
	MCH	VN	-30	2.47	0.003491	$\pm 2.5$	PASS
		VN	-20	-0.31	-0.000438	$\pm 2.5$	PASS
		VN	-10	4.55	0.006431	$\pm 2.5$	PASS
		VN	0	-1.72	-0.002431	$\pm 2.5$	PASS

		VN	10	-1.08	-0.001527	$\pm 2.5$	PASS
		VN	20	3.33	0.004707	$\pm 2.5$	PASS
		VN	30	3.19	0.004509	$\pm 2.5$	PASS
		VN	40	3.49	0.004933	$\pm 2.5$	PASS
		VN	50	-1.68	-0.002375	$\pm 2.5$	PASS
	HCH	VN	-30	0.33	0.000463	$\pm 2.5$	PASS
		VN	-20	-0.18	-0.000252	$\pm 2.5$	PASS
		VN	-10	3.95	0.005536	$\pm 2.5$	PASS
		VN	0	4.35	0.006097	$\pm 2.5$	PASS
		VN	10	4.59	0.006433	$\pm 2.5$	PASS
		VN	20	-1.43	-0.002004	$\pm 2.5$	PASS
		VN	30	-1.41	-0.001976	$\pm 2.5$	PASS
		VN	40	-1.61	-0.002256	$\pm 2.5$	PASS
		VN	50	0.78	0.001093	$\pm 2.5$	PASS
16QAM	LCH	VN	-30	3.69	0.005260	$\pm 2.5$	PASS
		VN	-20	1.38	0.001967	$\pm 2.5$	PASS
		VN	-10	1.11	0.001582	$\pm 2.5$	PASS
		VN	0	-0.57	-0.000813	$\pm 2.5$	PASS
		VN	10	4.44	0.006329	$\pm 2.5$	PASS
		VN	20	-0.12	-0.000171	$\pm 2.5$	PASS
		VN	30	3.02	0.004305	$\pm 2.5$	PASS
		VN	40	4.1	0.005845	$\pm 2.5$	PASS
		VN	50	0.36	0.000513	$\pm 2.5$	PASS
	MCH	VN	-30	-0.31	-0.000438	$\pm 2.5$	PASS
		VN	-20	-0.53	-0.000749	$\pm 2.5$	PASS
		VN	-10	3.84	0.005428	$\pm 2.5$	PASS
		VN	0	3.74	0.005286	$\pm 2.5$	PASS
		VN	10	3.43	0.004848	$\pm 2.5$	PASS
		VN	20	-1.41	-0.001993	$\pm 2.5$	PASS
		VN	30	2.22	0.003138	$\pm 2.5$	PASS
		VN	40	0.01	0.000014	$\pm 2.5$	PASS
		VN	50	2.42	0.003420	$\pm 2.5$	PASS
	HCH	VN	-30	2.91	0.004078	$\pm 2.5$	PASS
		VN	-20	2.17	0.003041	$\pm 2.5$	PASS
		VN	-10	4.83	0.006769	$\pm 2.5$	PASS
		VN	0	-0.7	-0.000981	$\pm 2.5$	PASS
		VN	10	-0.51	-0.000715	$\pm 2.5$	PASS
		VN	20	4.91	0.006882	$\pm 2.5$	PASS
		VN	30	1.57	0.002200	$\pm 2.5$	PASS
		VN	40	2.44	0.003420	$\pm 2.5$	PASS
		VN	50	-1.51	-0.002116	$\pm 2.5$	PASS

## Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	2.14	0.003040	± 2.5	PASS
		VN	TN	-0.72	-0.001023	± 2.5	PASS
		VH	TN	3.73	0.005298	± 2.5	PASS
	MCH	VL	TN	-1.41	-0.001993	± 2.5	PASS
		VN	TN	2	0.002827	± 2.5	PASS
		VH	TN	2.33	0.003293	± 2.5	PASS
	HCH	VL	TN	4.58	0.006442	± 2.5	PASS
		VN	TN	2.55	0.003586	± 2.5	PASS
		VH	TN	4.4	0.006188	± 2.5	PASS
16QAM	LCH	VL	TN	-1.94	-0.002756	± 2.5	PASS
		VN	TN	-1.36	-0.001932	± 2.5	PASS
		VH	TN	-0.32	-0.000455	± 2.5	PASS
	MCH	VL	TN	2.12	0.002996	± 2.5	PASS
		VN	TN	-0.75	-0.001060	± 2.5	PASS
		VH	TN	-1.7	-0.002403	± 2.5	PASS
	HCH	VL	TN	1.75	0.002461	± 2.5	PASS
		VN	TN	0.71	0.000999	± 2.5	PASS
		VH	TN	3.29	0.004627	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.35	-0.000497	± 2.5	PASS
		VN	-20	4.64	0.006591	± 2.5	PASS
		VN	-10	3.01	0.004276	± 2.5	PASS
		VN	0	0.8	0.001136	± 2.5	PASS
		VN	10	-0.01	-0.000014	± 2.5	PASS
		VN	20	2.48	0.003523	± 2.5	PASS
		VN	30	0.61	0.000866	± 2.5	PASS
		VN	40	-0.91	-0.001293	± 2.5	PASS
		VN	50	4.24	0.006023	± 2.5	PASS
	MCH	VN	-30	-0.27	-0.000382	± 2.5	PASS
		VN	-20	3.68	0.005201	± 2.5	PASS
		VN	-10	-0.84	-0.001187	± 2.5	PASS
		VN	0	3.54	0.005004	± 2.5	PASS
		VN	10	3.02	0.004269	± 2.5	PASS
		VN	20	3.92	0.005541	± 2.5	PASS

	HCH	VN	30	3.09	0.004367	$\pm 2.5$	PASS
		VN	40	1.12	0.001583	$\pm 2.5$	PASS
		VN	50	1.21	0.001710	$\pm 2.5$	PASS
		VN	-30	0.82	0.001153	$\pm 2.5$	PASS
		VN	-20	-1.31	-0.001842	$\pm 2.5$	PASS
		VN	-10	-1.44	-0.002025	$\pm 2.5$	PASS
		VN	0	3.07	0.004318	$\pm 2.5$	PASS
		VN	10	-0.68	-0.000956	$\pm 2.5$	PASS
		VN	20	0.43	0.000605	$\pm 2.5$	PASS
		VN	30	-0.99	-0.001392	$\pm 2.5$	PASS
16QAM	LCH	VN	40	2.19	0.003080	$\pm 2.5$	PASS
		VN	50	2.55	0.003586	$\pm 2.5$	PASS
		VN	-30	2.78	0.003949	$\pm 2.5$	PASS
		VN	-20	2.63	0.003736	$\pm 2.5$	PASS
		VN	-10	4.45	0.006321	$\pm 2.5$	PASS
		VN	0	4.16	0.005909	$\pm 2.5$	PASS
		VN	10	1.57	0.002230	$\pm 2.5$	PASS
		VN	20	2.36	0.003352	$\pm 2.5$	PASS
		VN	30	0.19	0.000270	$\pm 2.5$	PASS
	MCH	VN	40	2.27	0.003224	$\pm 2.5$	PASS
		VN	50	3.35	0.004759	$\pm 2.5$	PASS
		VN	-30	2.86	0.004042	$\pm 2.5$	PASS
		VN	-20	-1.97	-0.002784	$\pm 2.5$	PASS
		VN	-10	2.38	0.003364	$\pm 2.5$	PASS
		VN	0	1.79	0.002530	$\pm 2.5$	PASS
		VN	10	4.07	0.005753	$\pm 2.5$	PASS
		VN	20	4.78	0.006756	$\pm 2.5$	PASS
		VN	30	-0.51	-0.000721	$\pm 2.5$	PASS
		VN	40	3.21	0.004537	$\pm 2.5$	PASS
	HCH	VN	50	-1.39	-0.001965	$\pm 2.5$	PASS
		VN	-30	-1.7	-0.002391	$\pm 2.5$	PASS
		VN	-20	0.09	0.000127	$\pm 2.5$	PASS
		VN	-10	4.76	0.006695	$\pm 2.5$	PASS
		VN	0	4.15	0.005837	$\pm 2.5$	PASS
		VN	10	-1.06	-0.001491	$\pm 2.5$	PASS
		VN	20	2.17	0.003052	$\pm 2.5$	PASS
		VN	30	-0.66	-0.000928	$\pm 2.5$	PASS
		VN	40	-1.53	-0.002152	$\pm 2.5$	PASS
		VN	50	2.22	0.003122	$\pm 2.5$	PASS