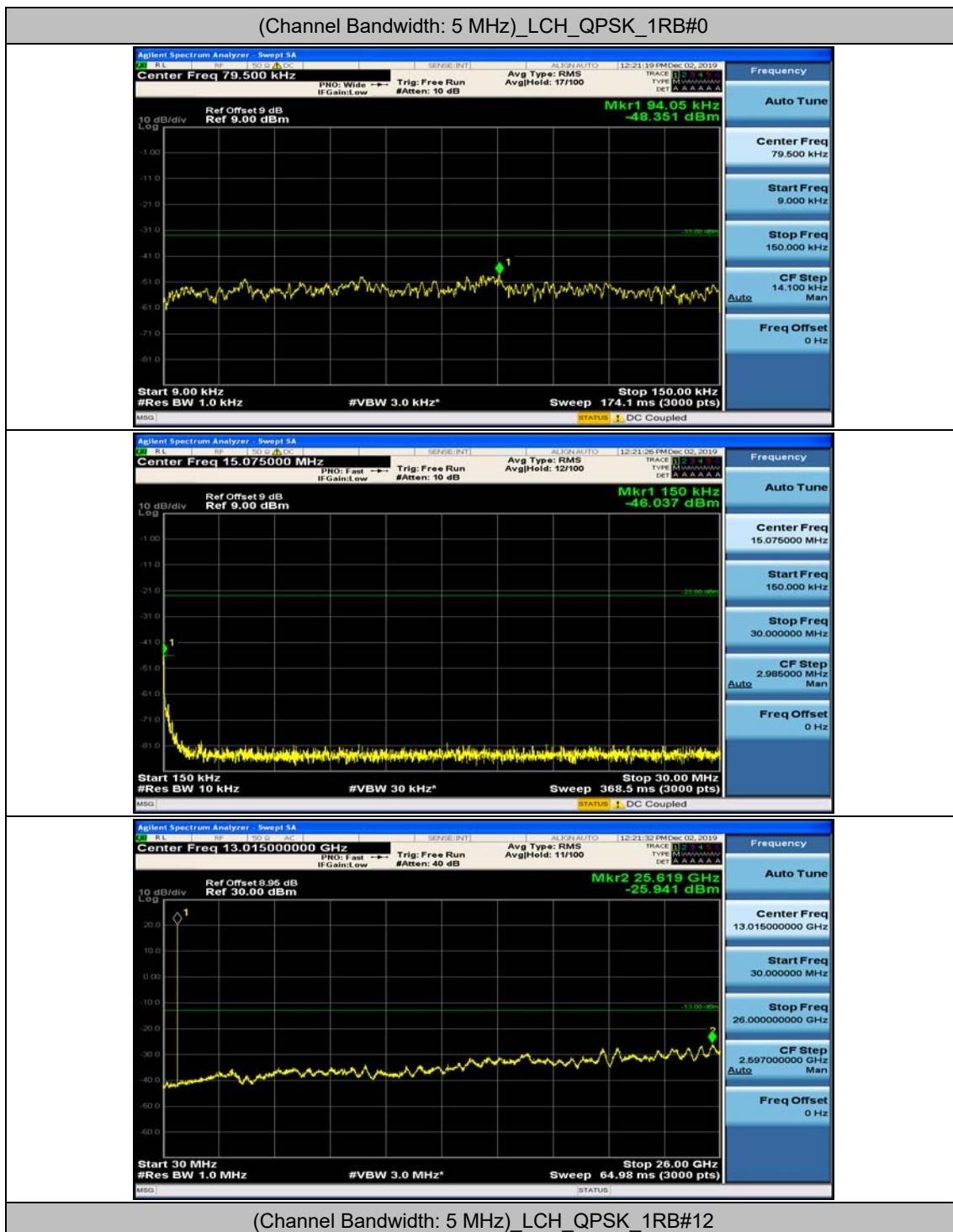
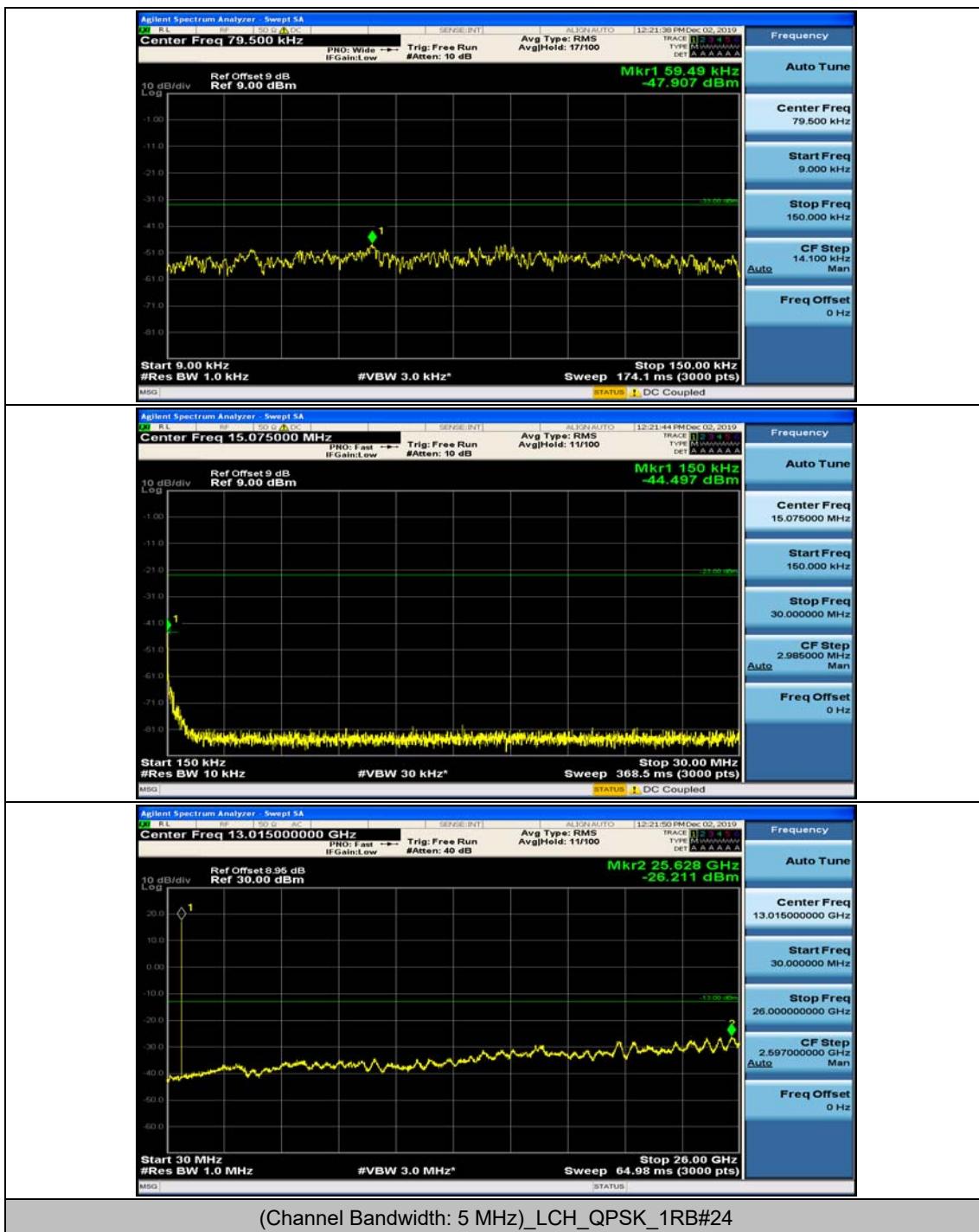
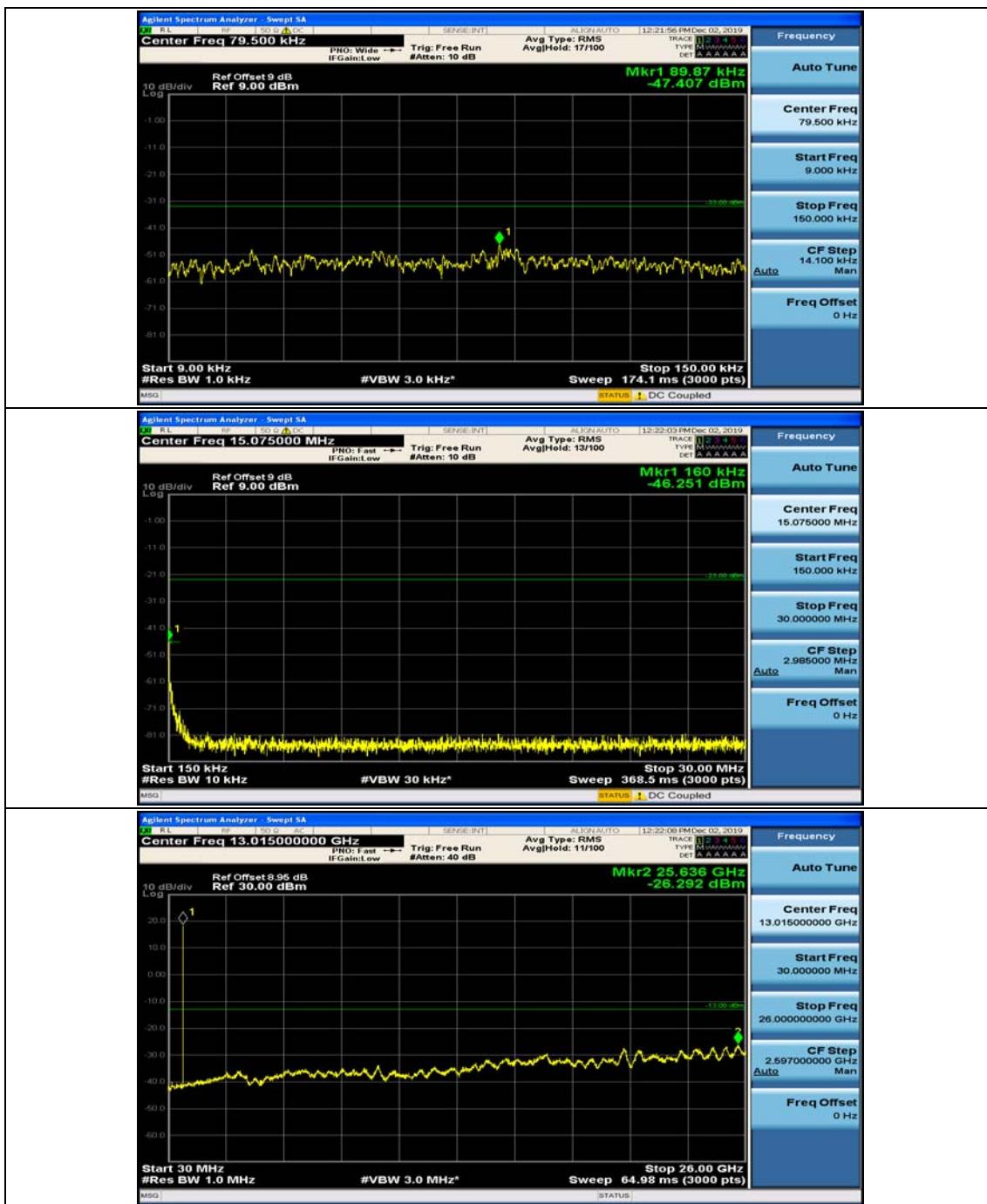
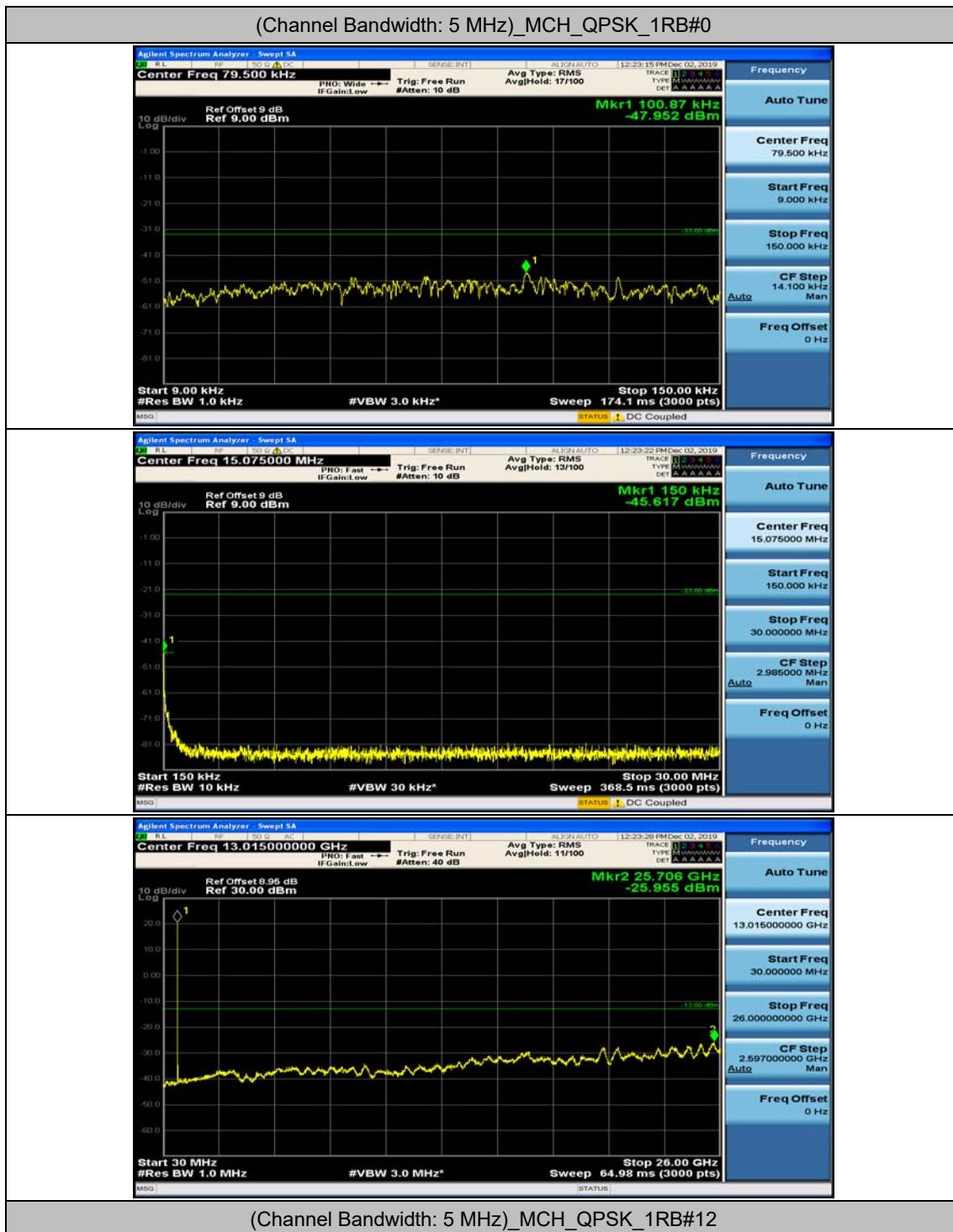


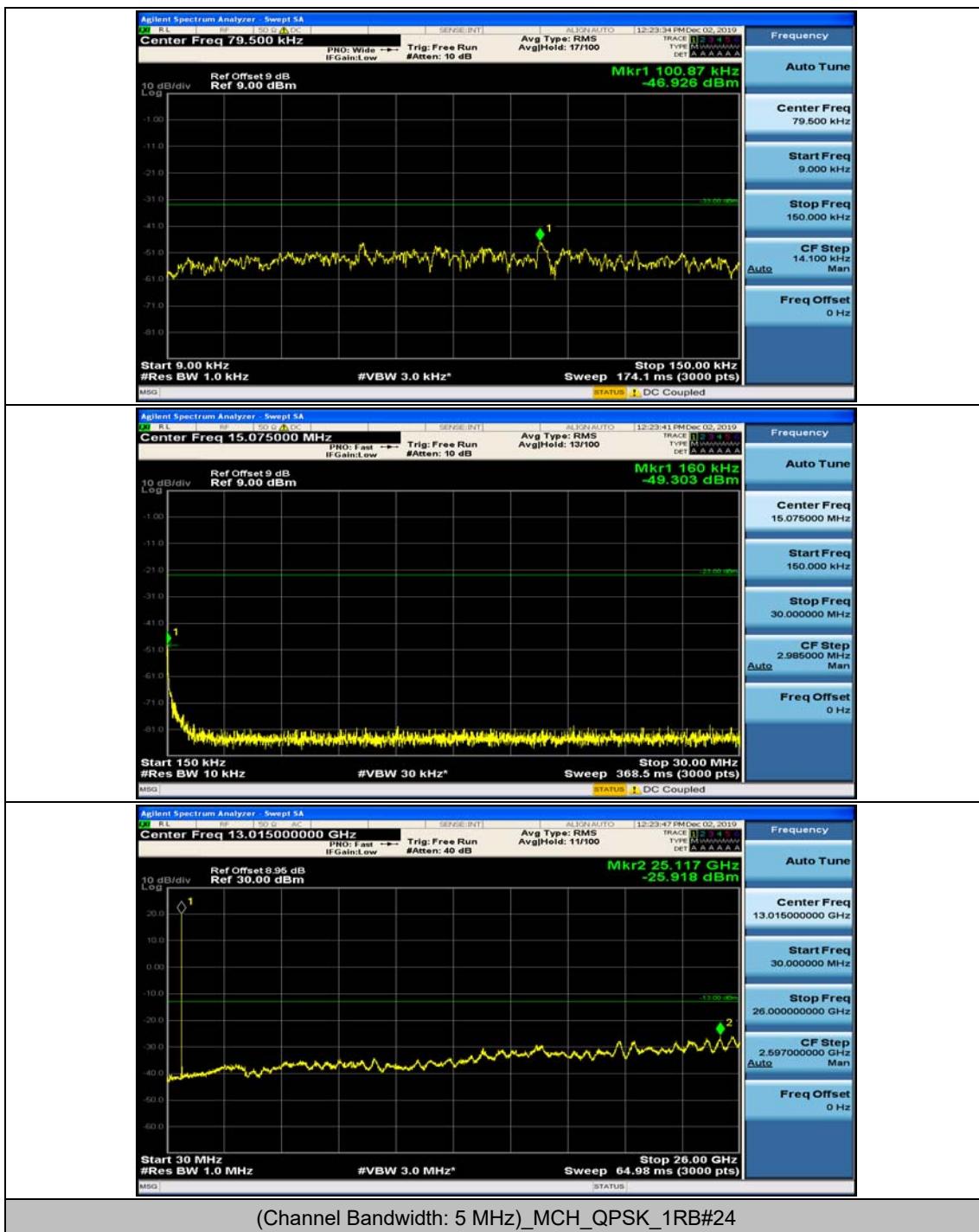
Channel Bandwidth: 5 MHz

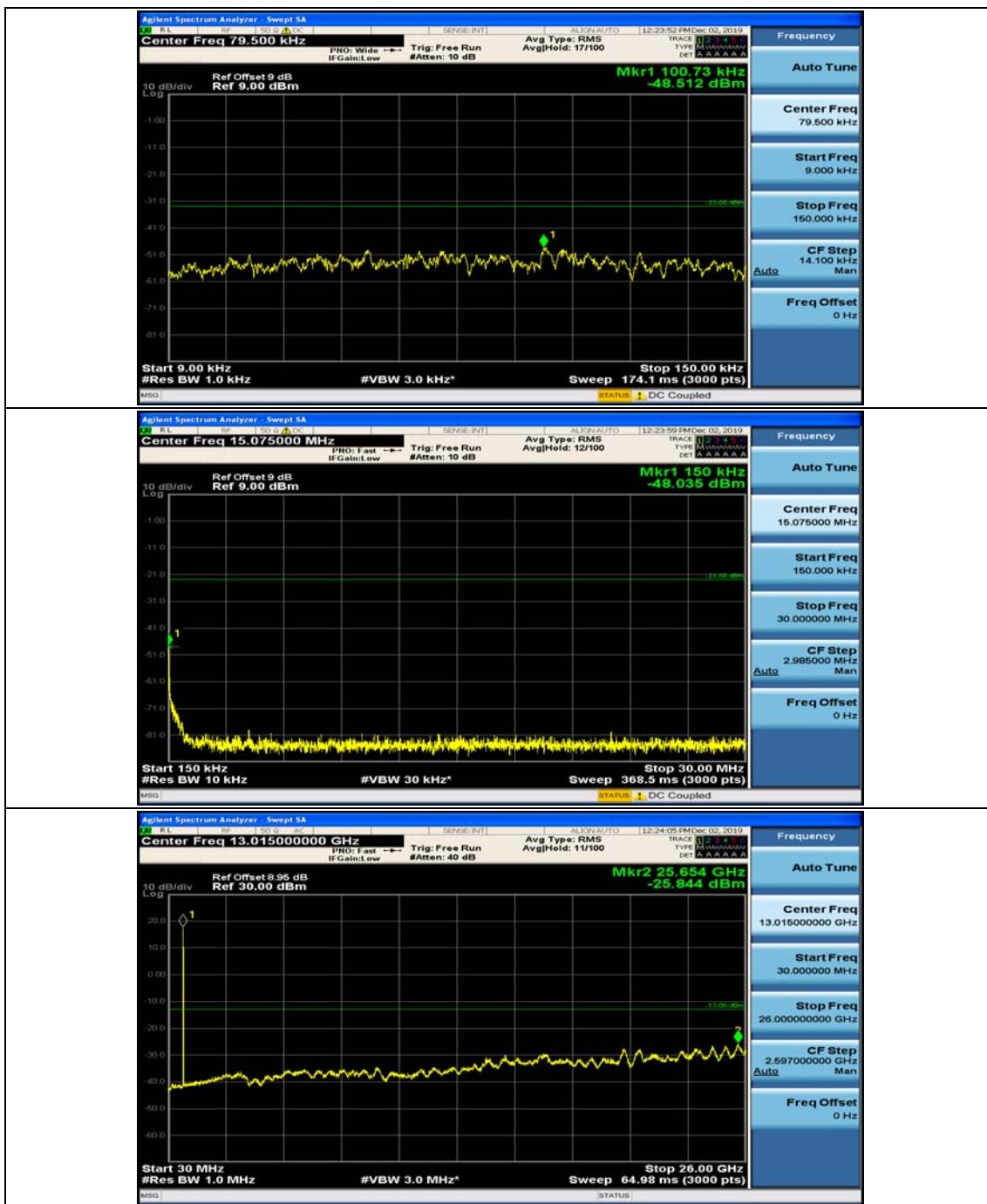


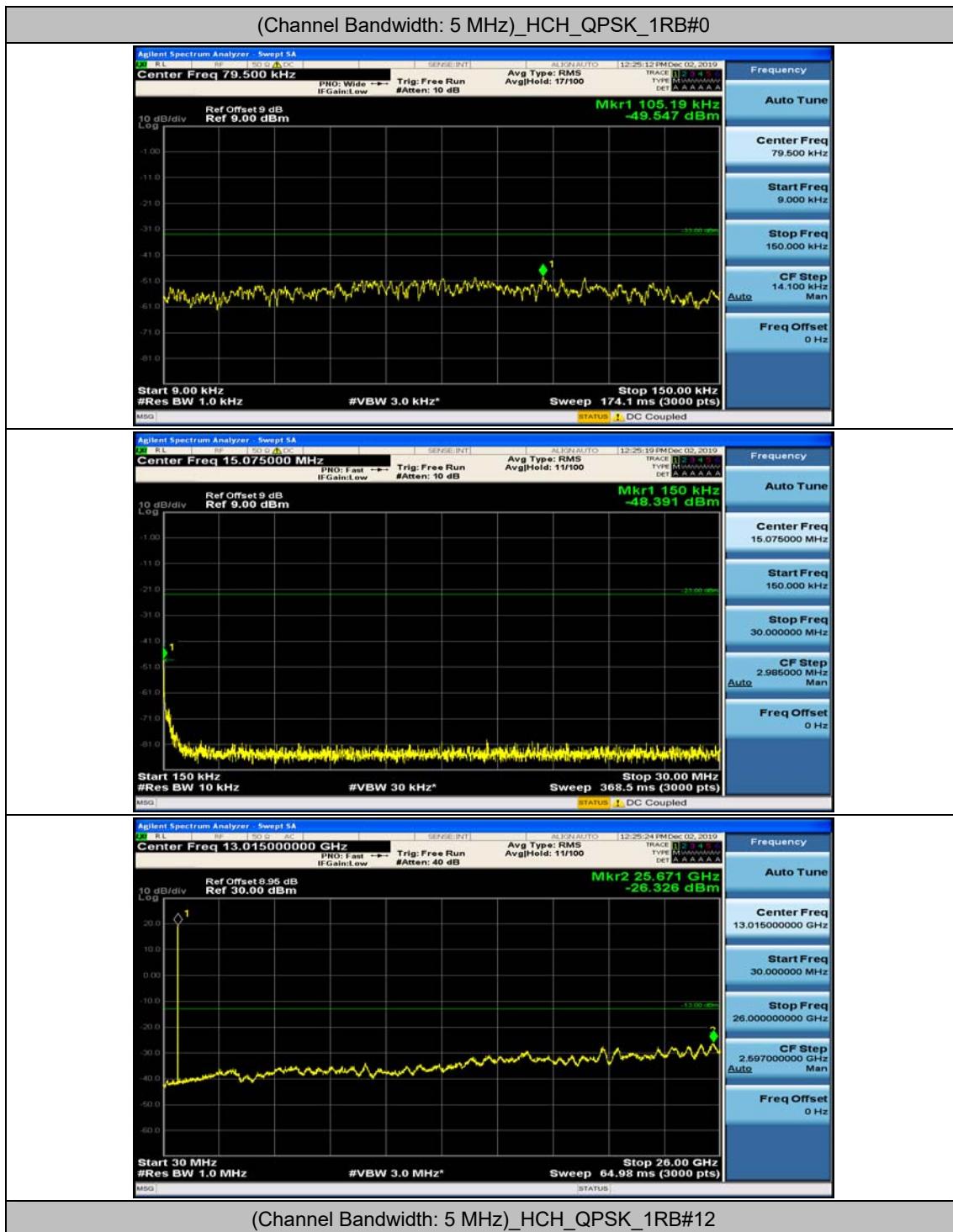


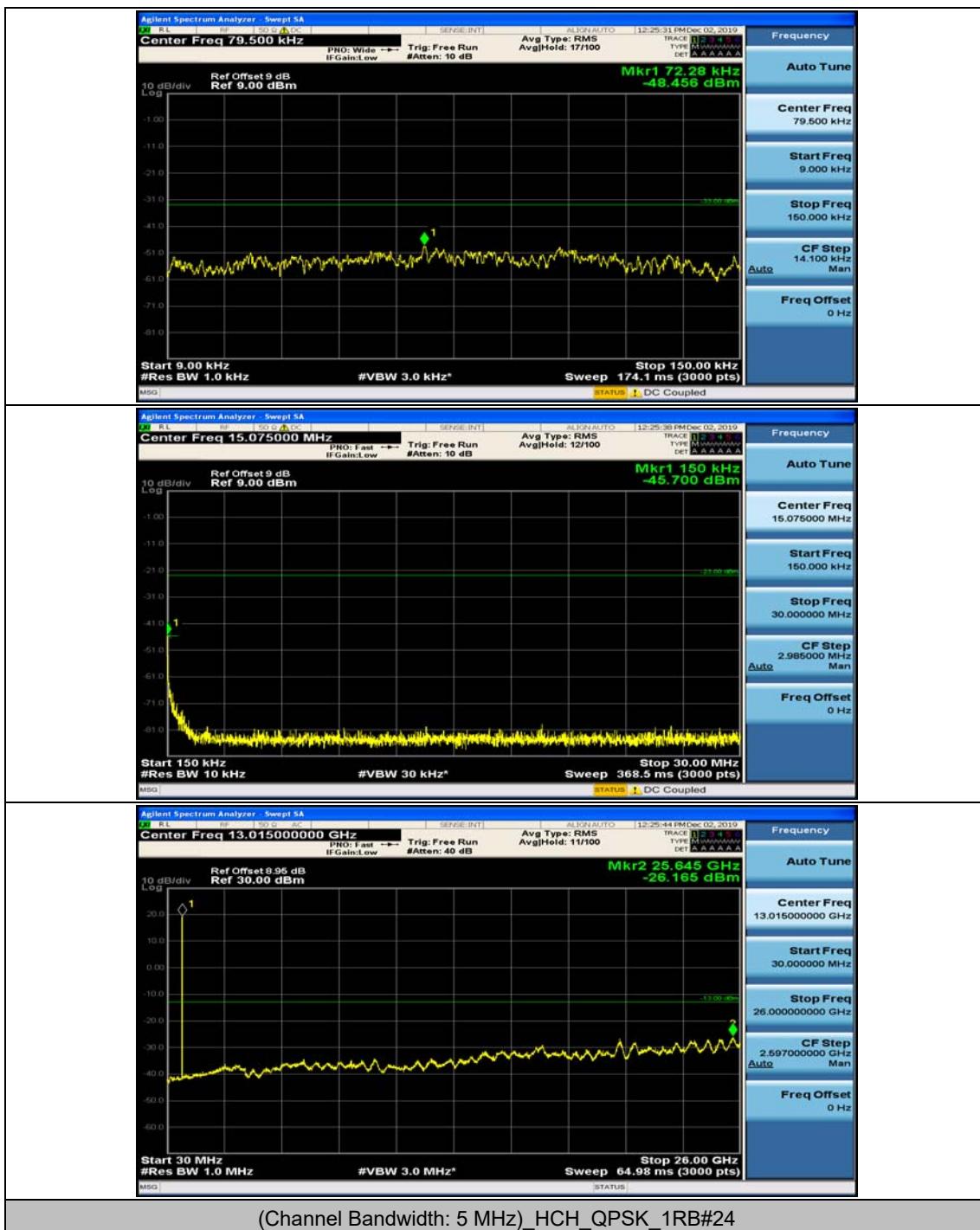


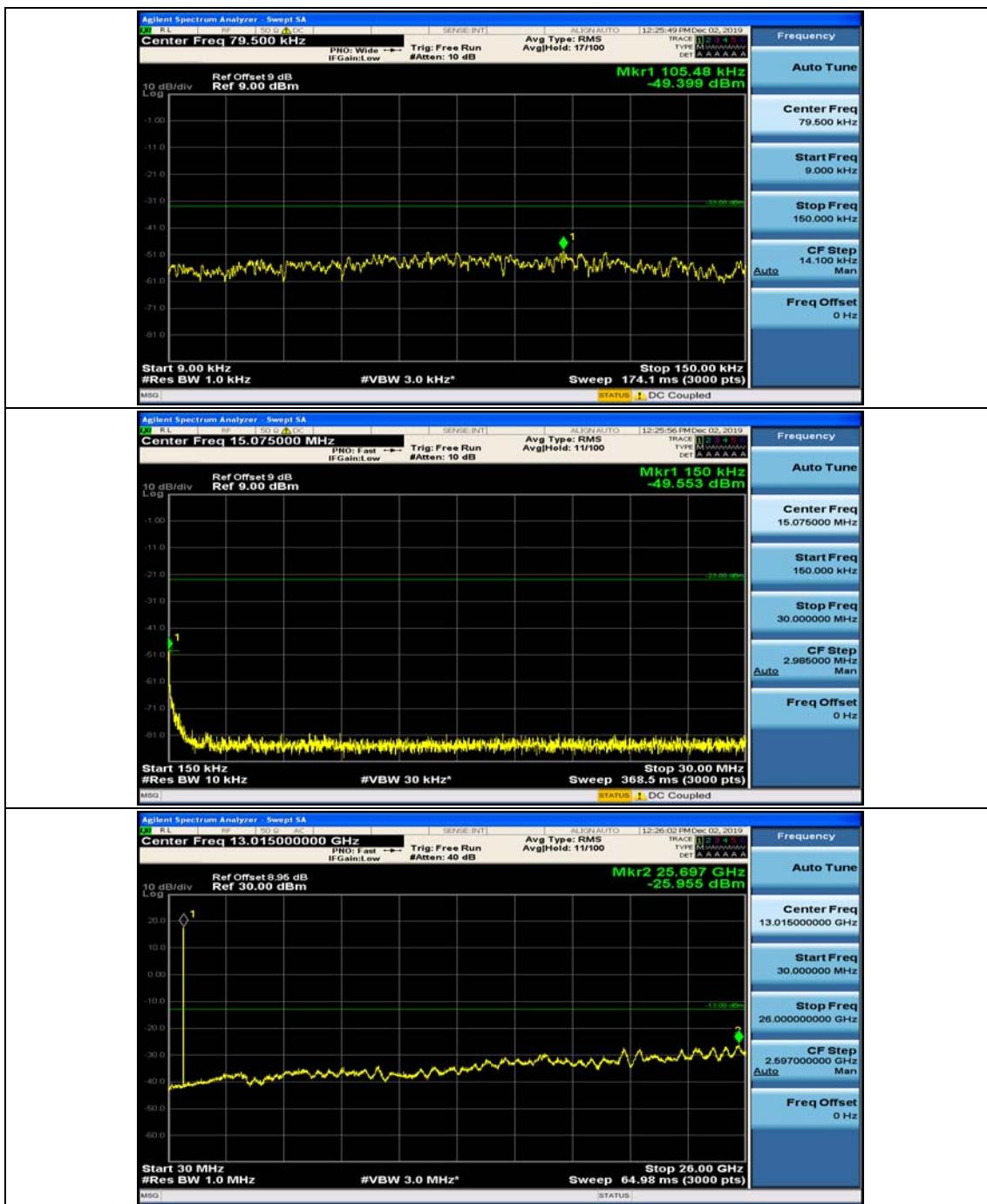


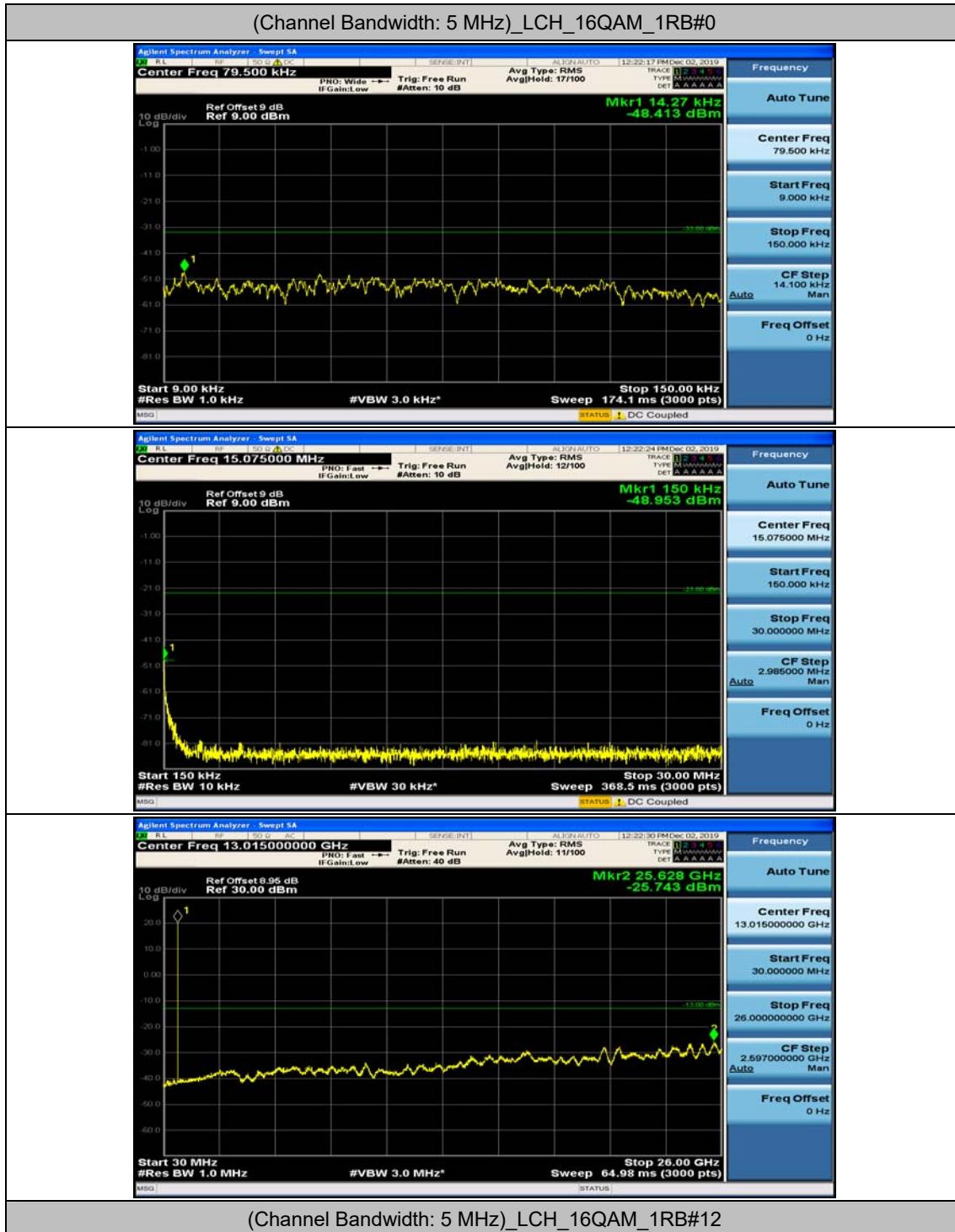


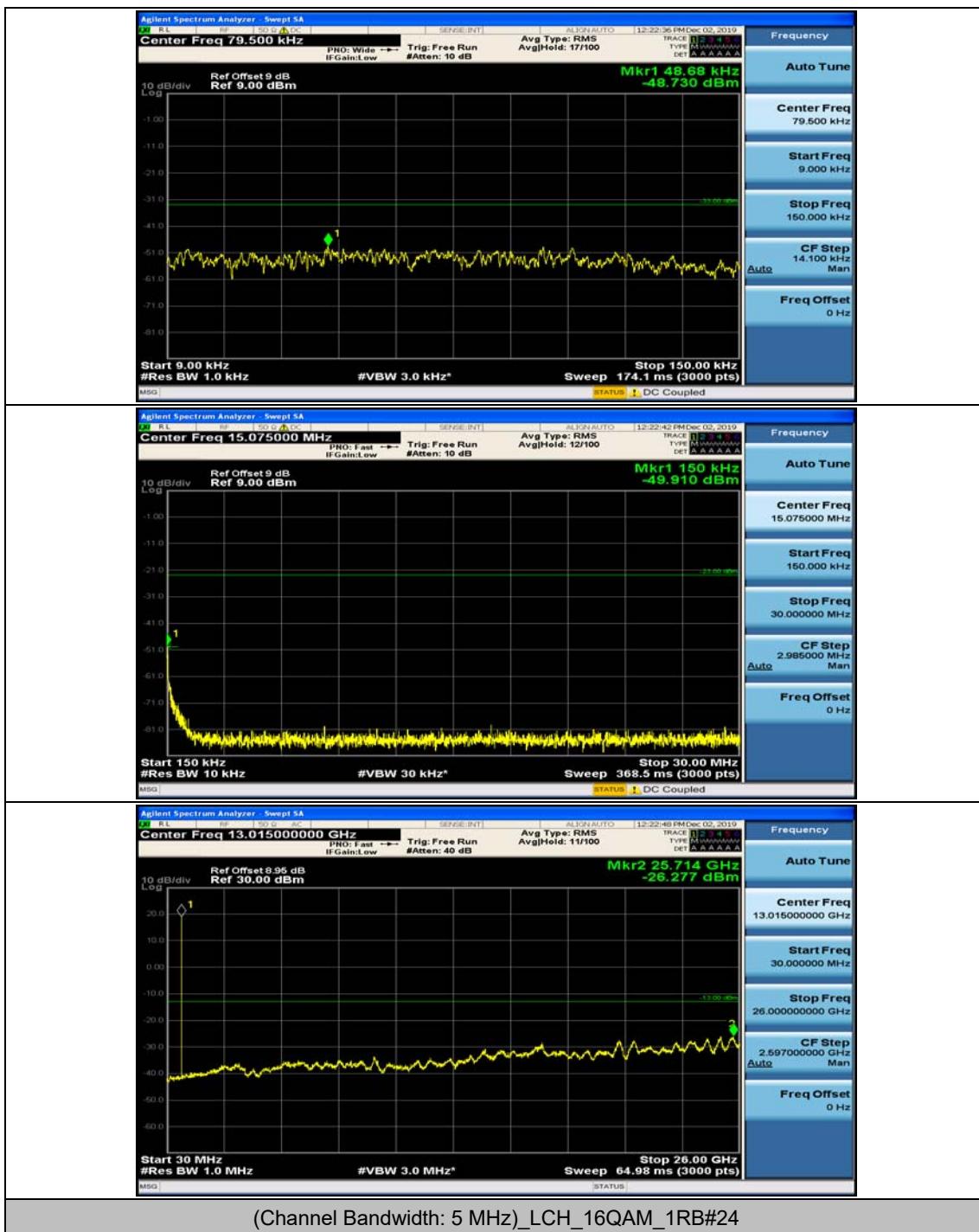


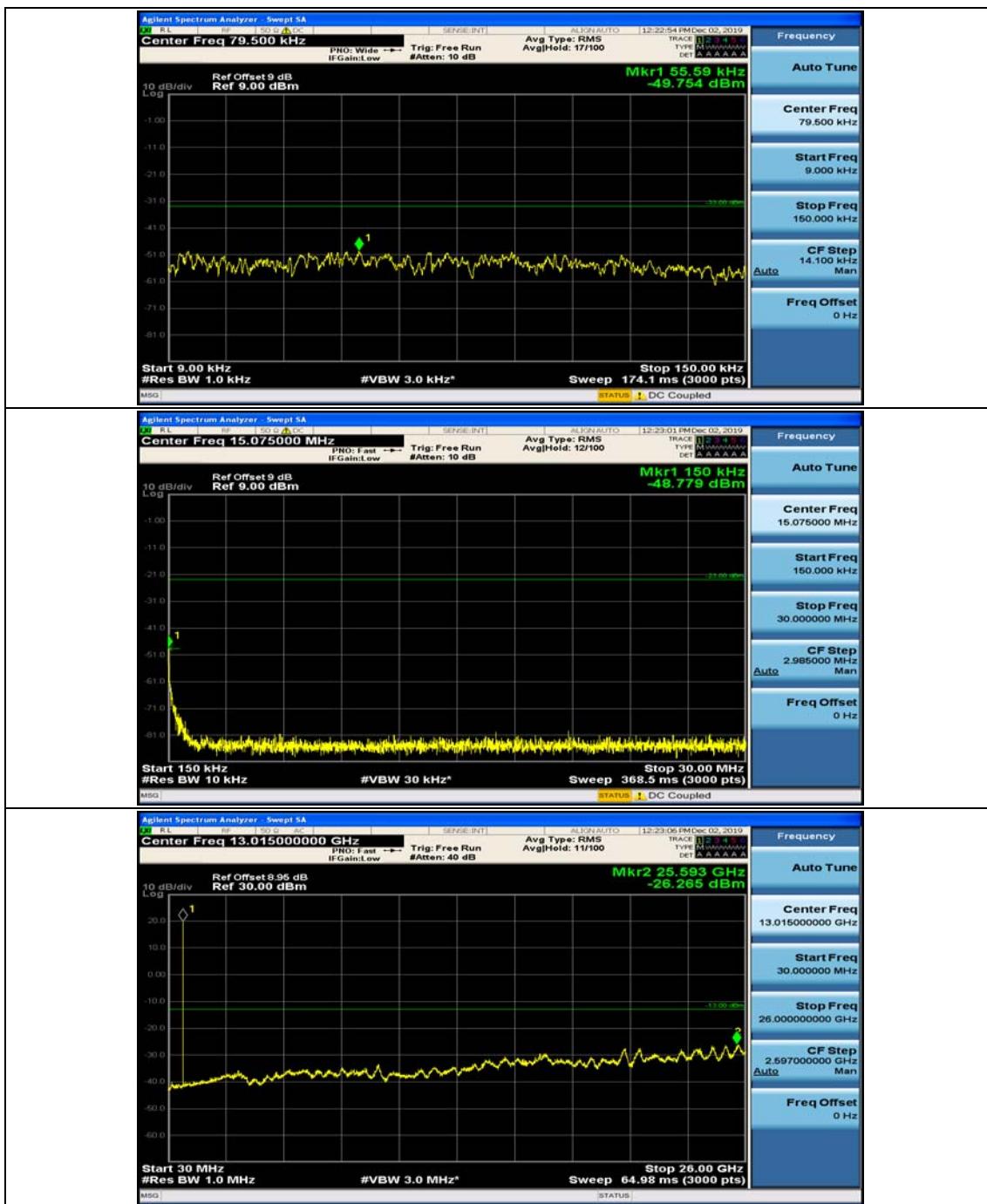


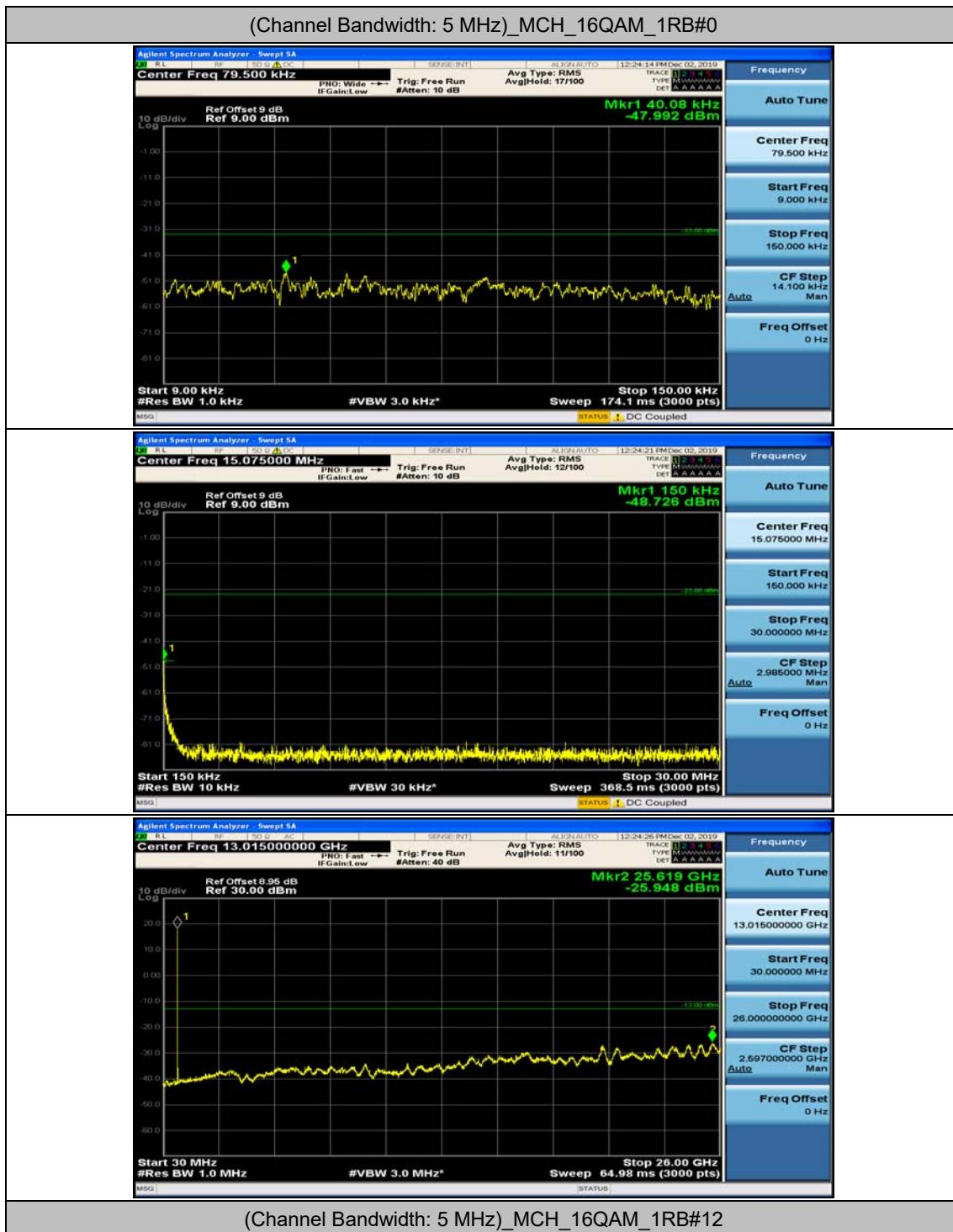


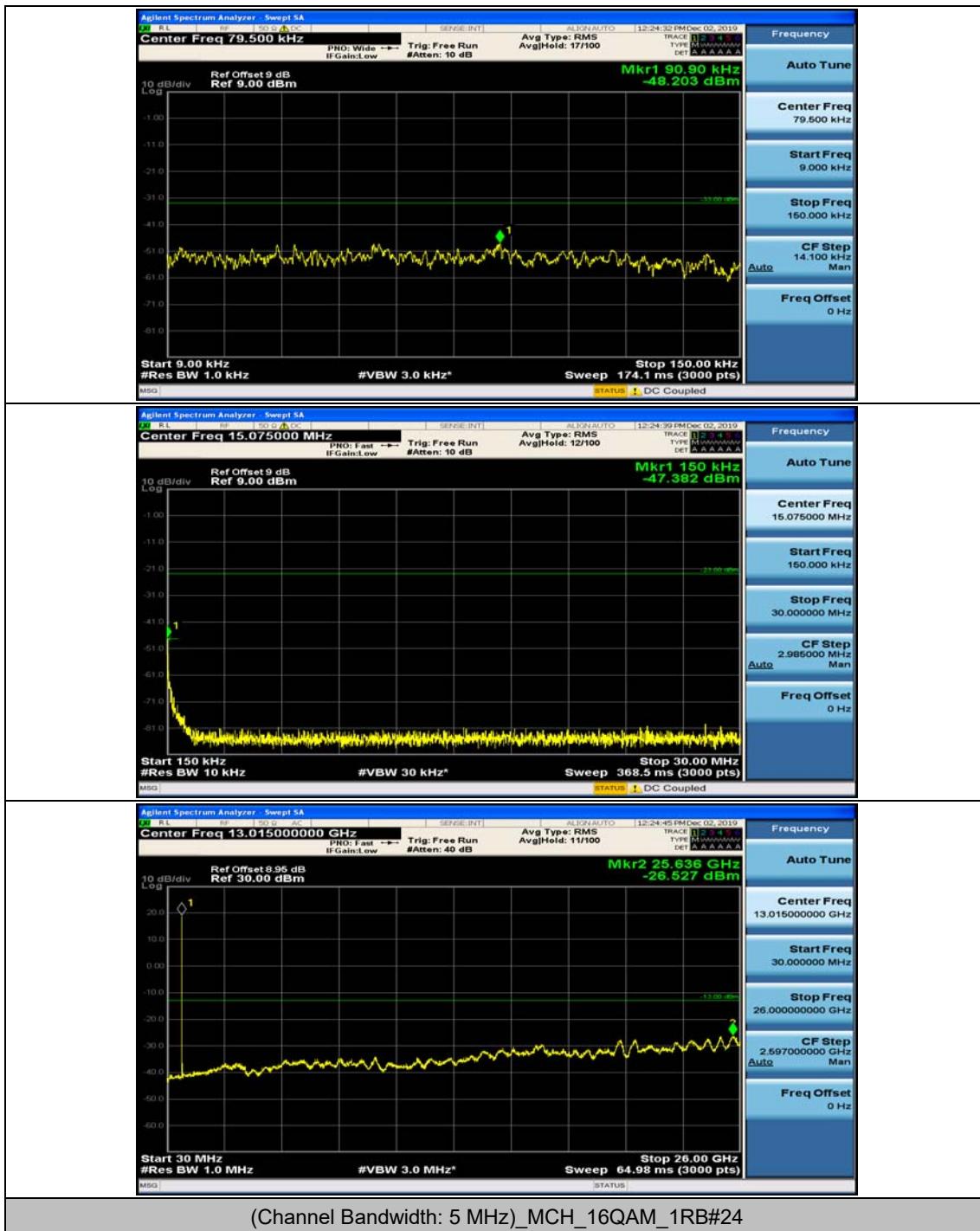


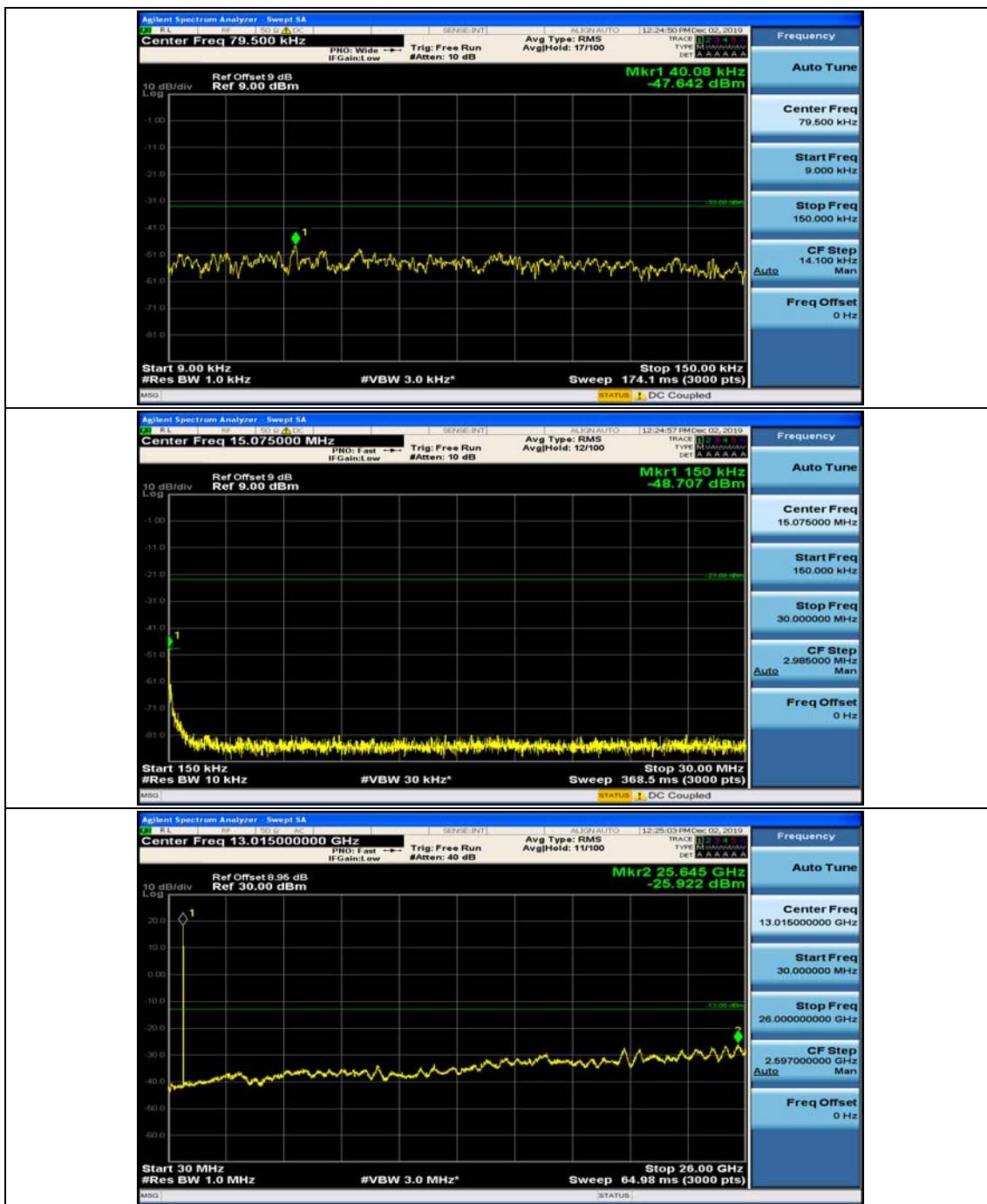


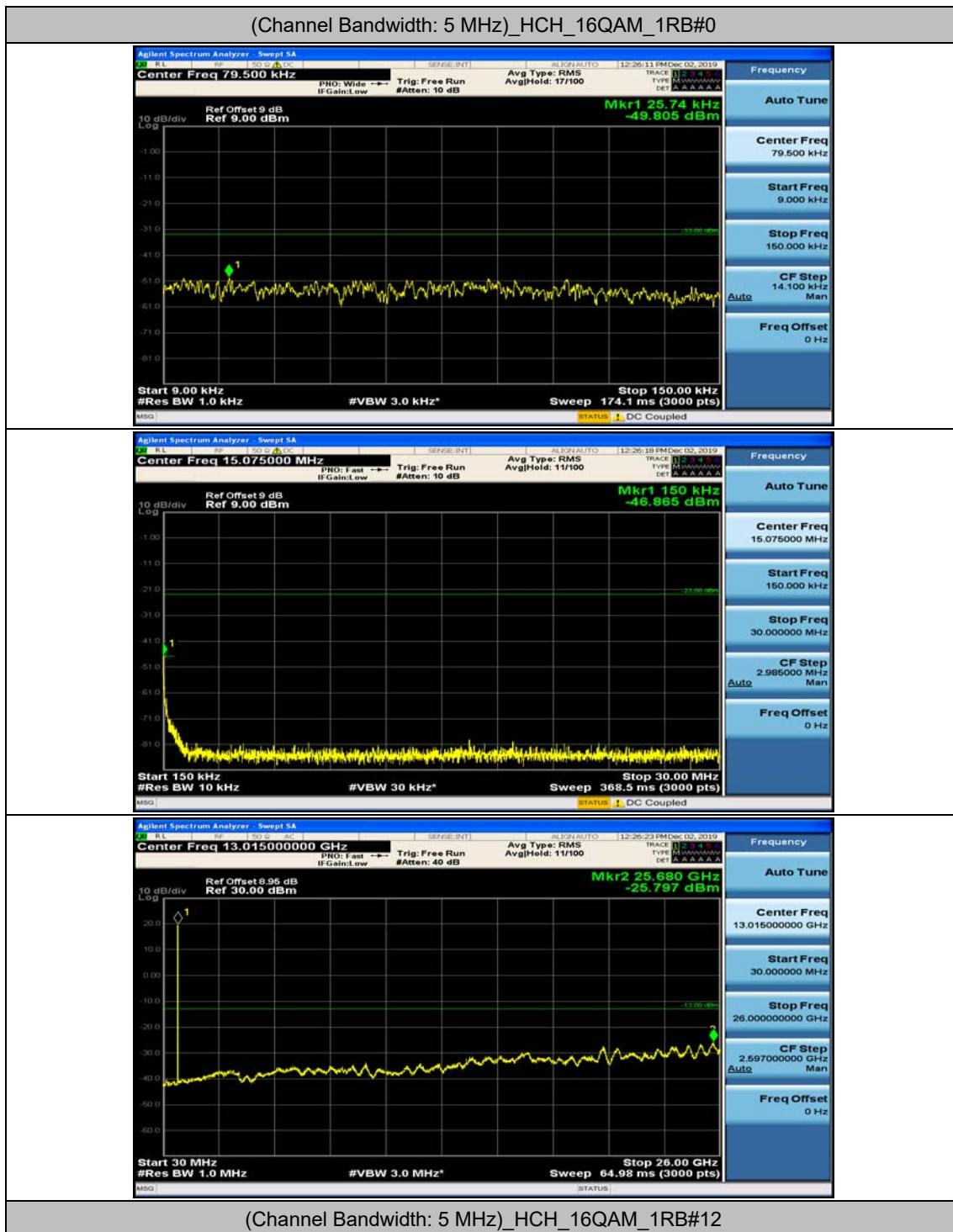


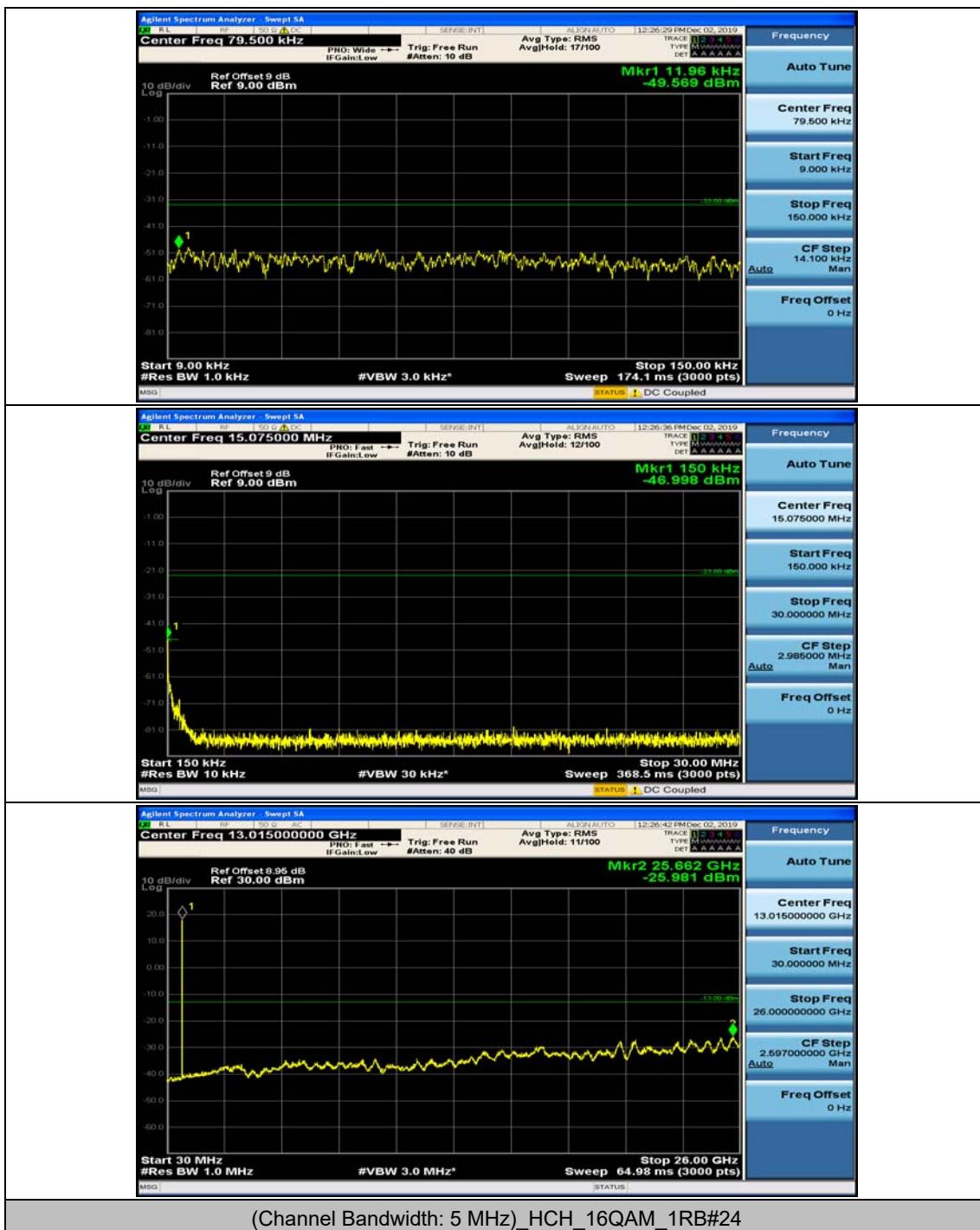


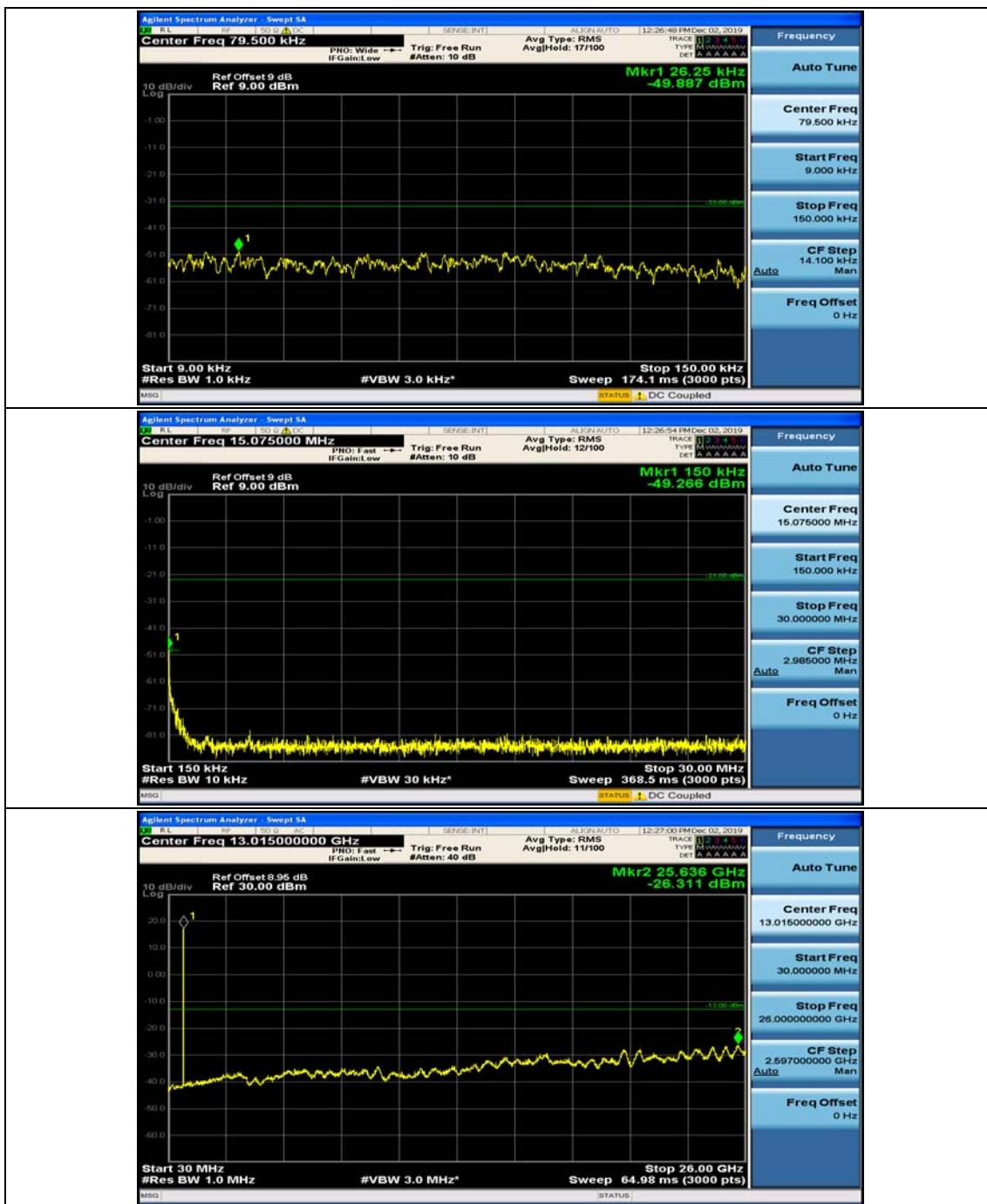




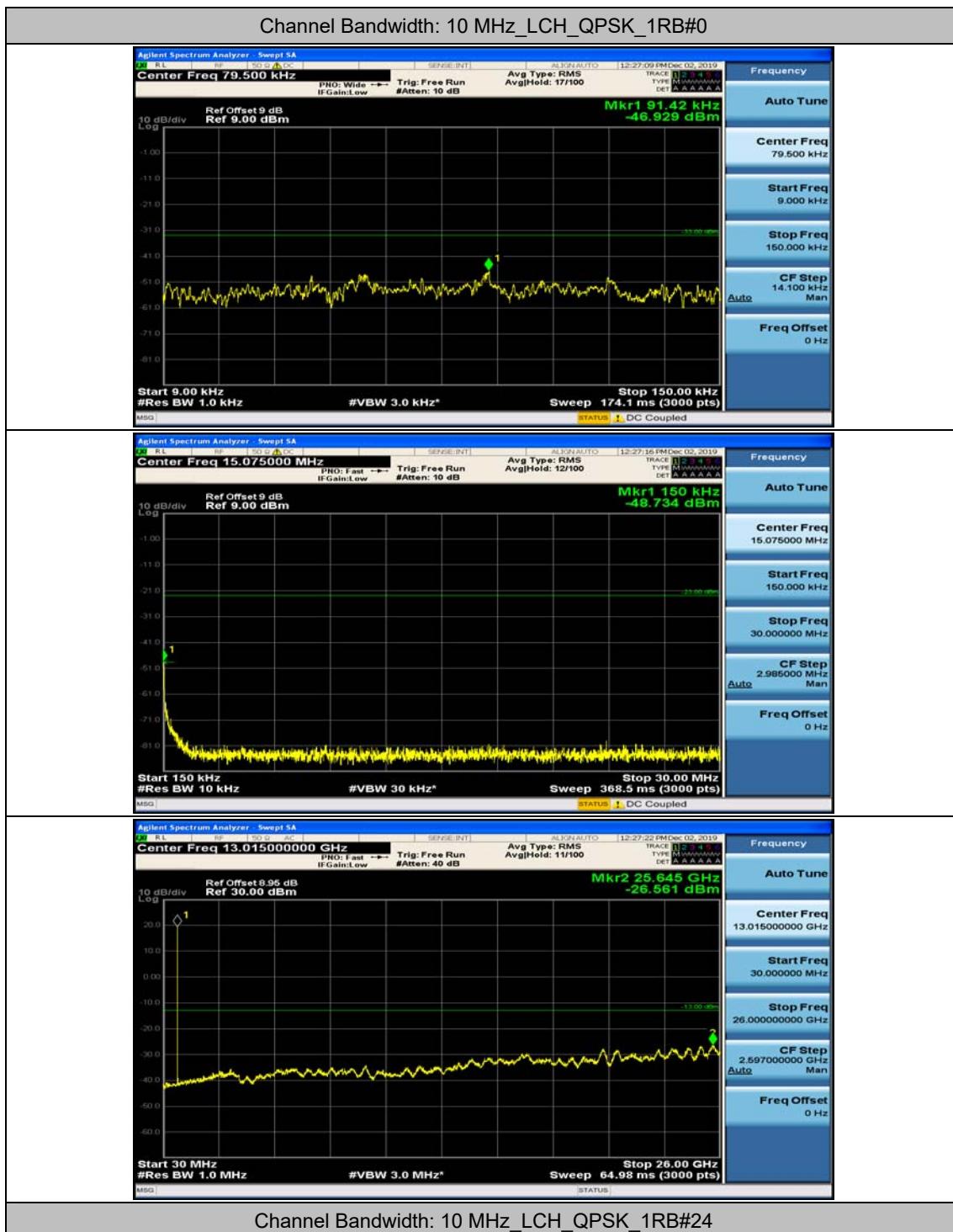


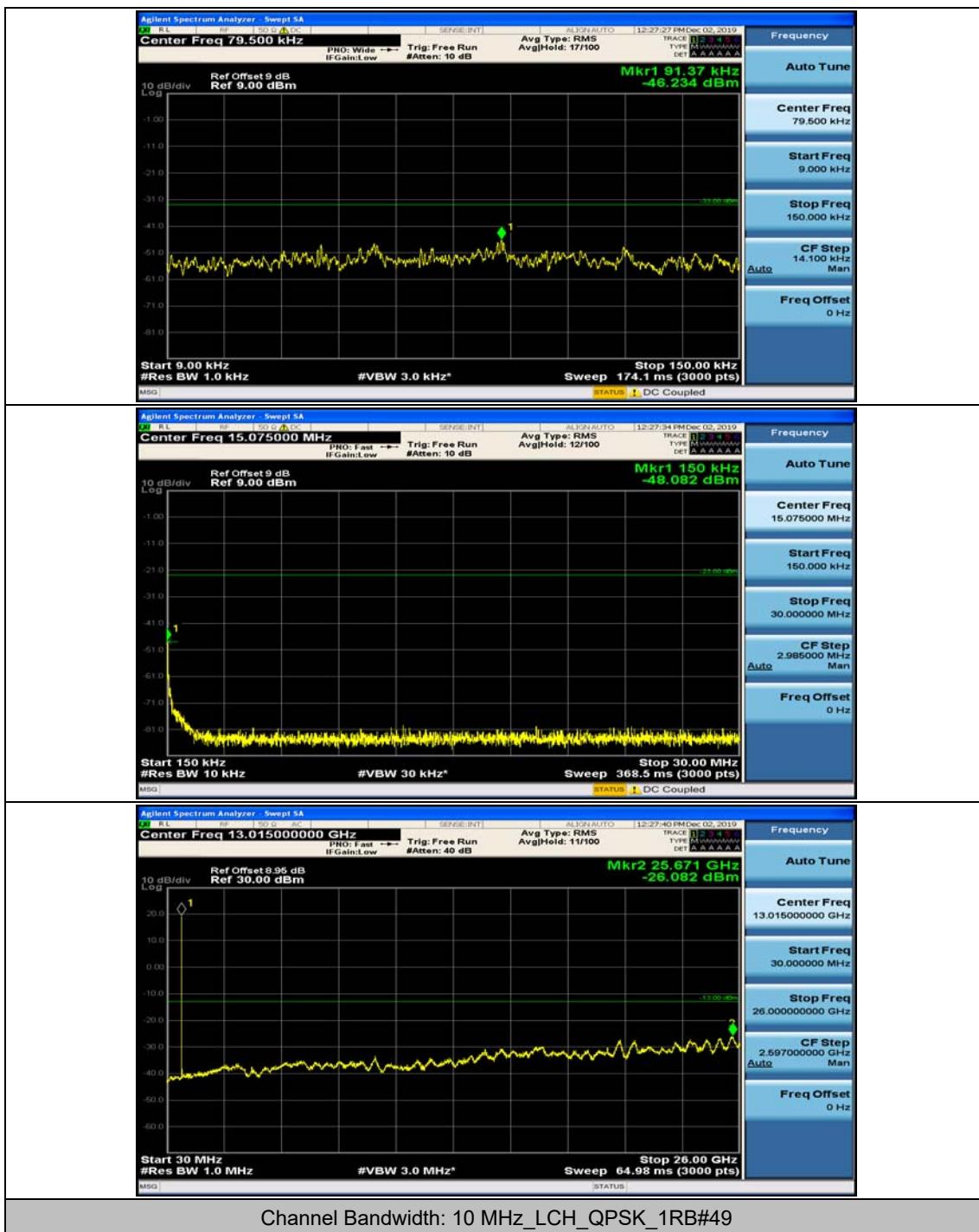


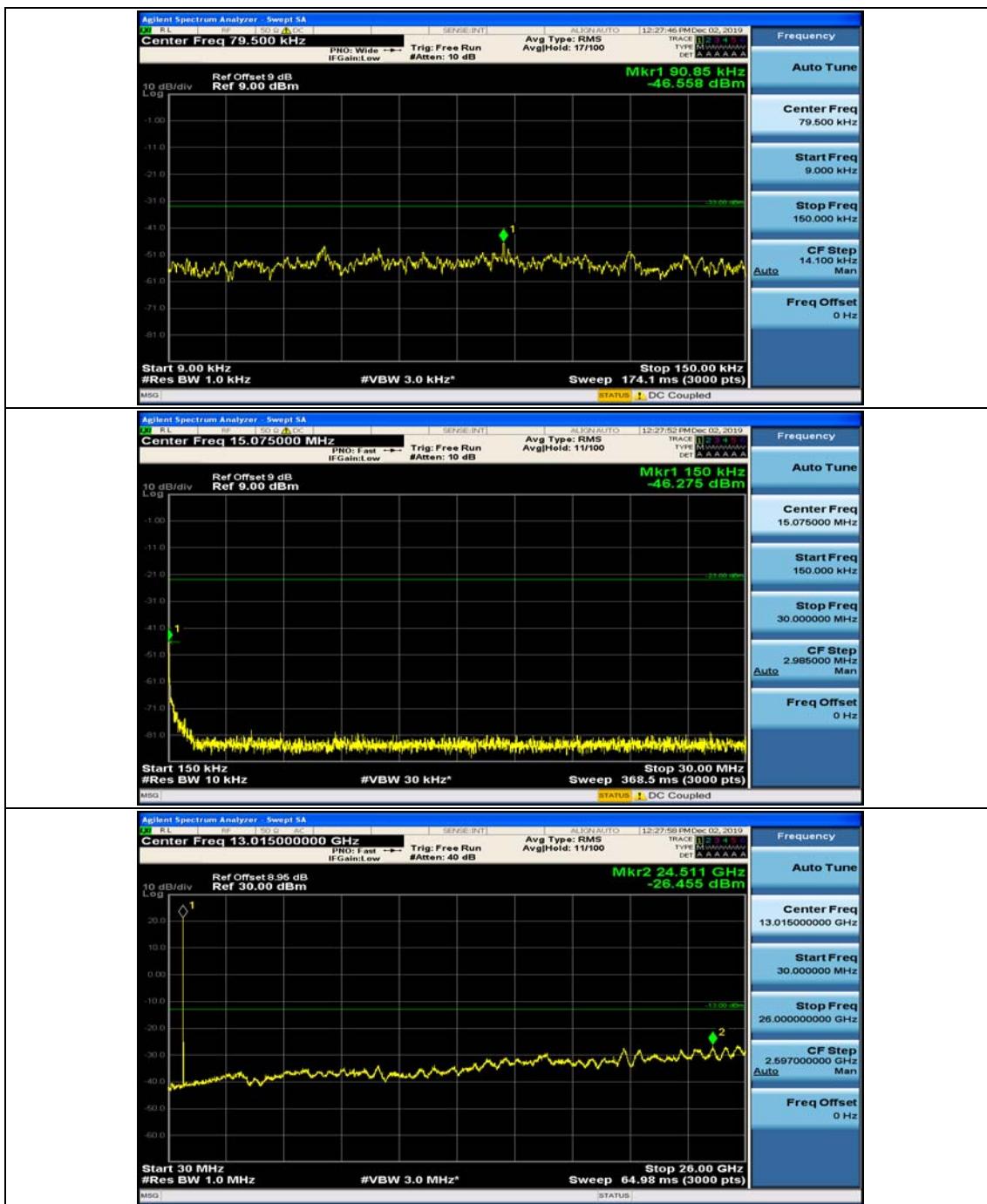


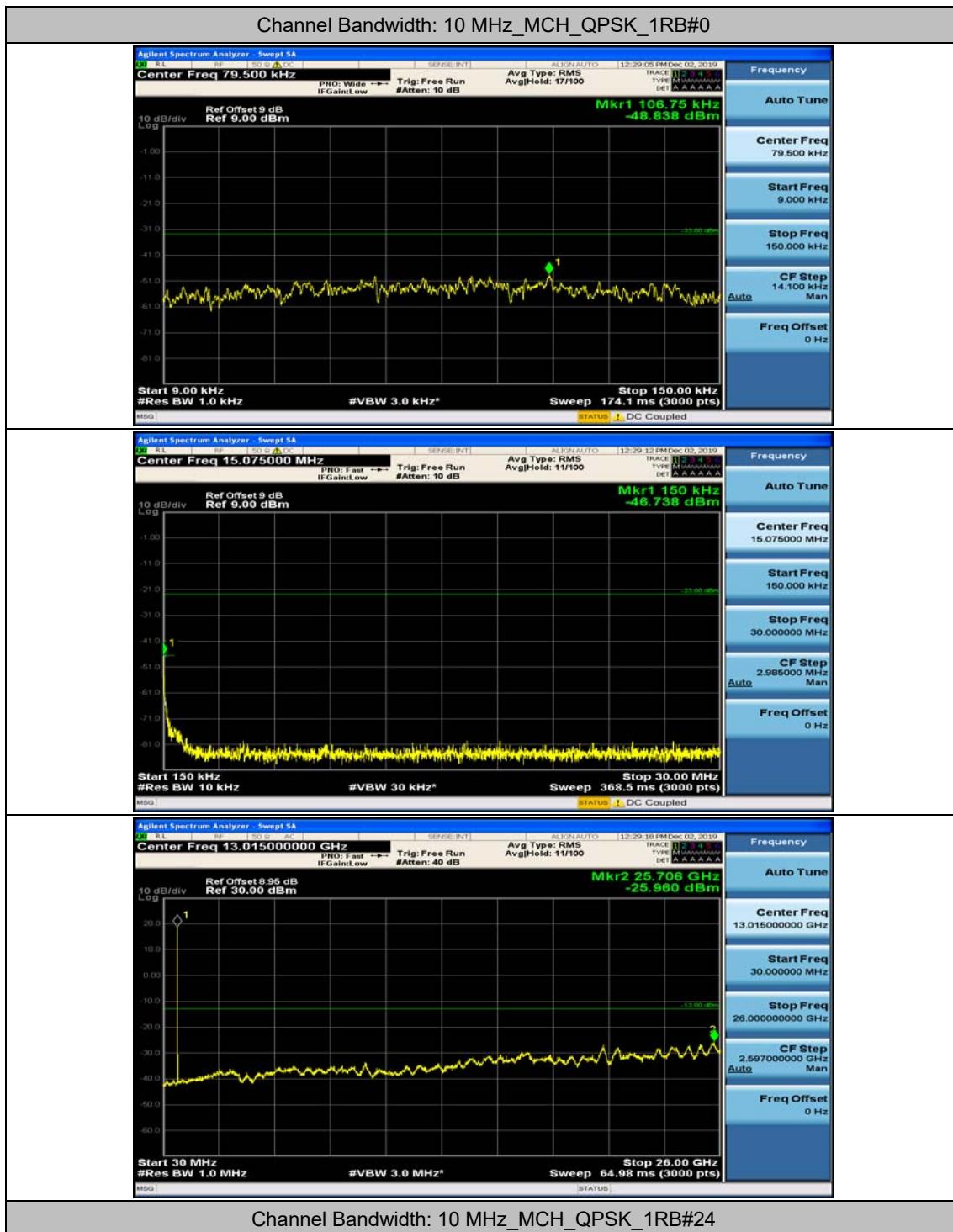


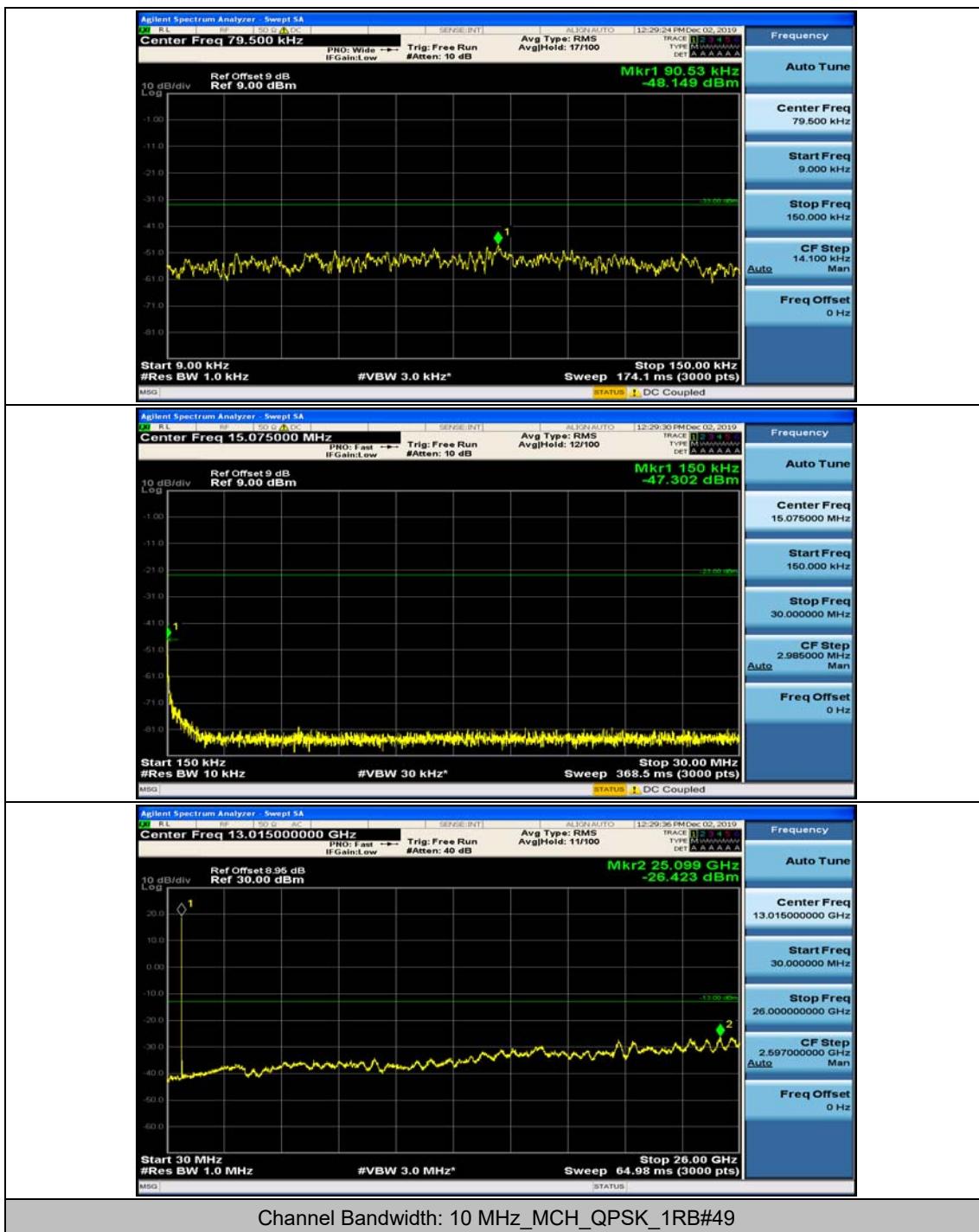
Channel Bandwidth: 10 MHz

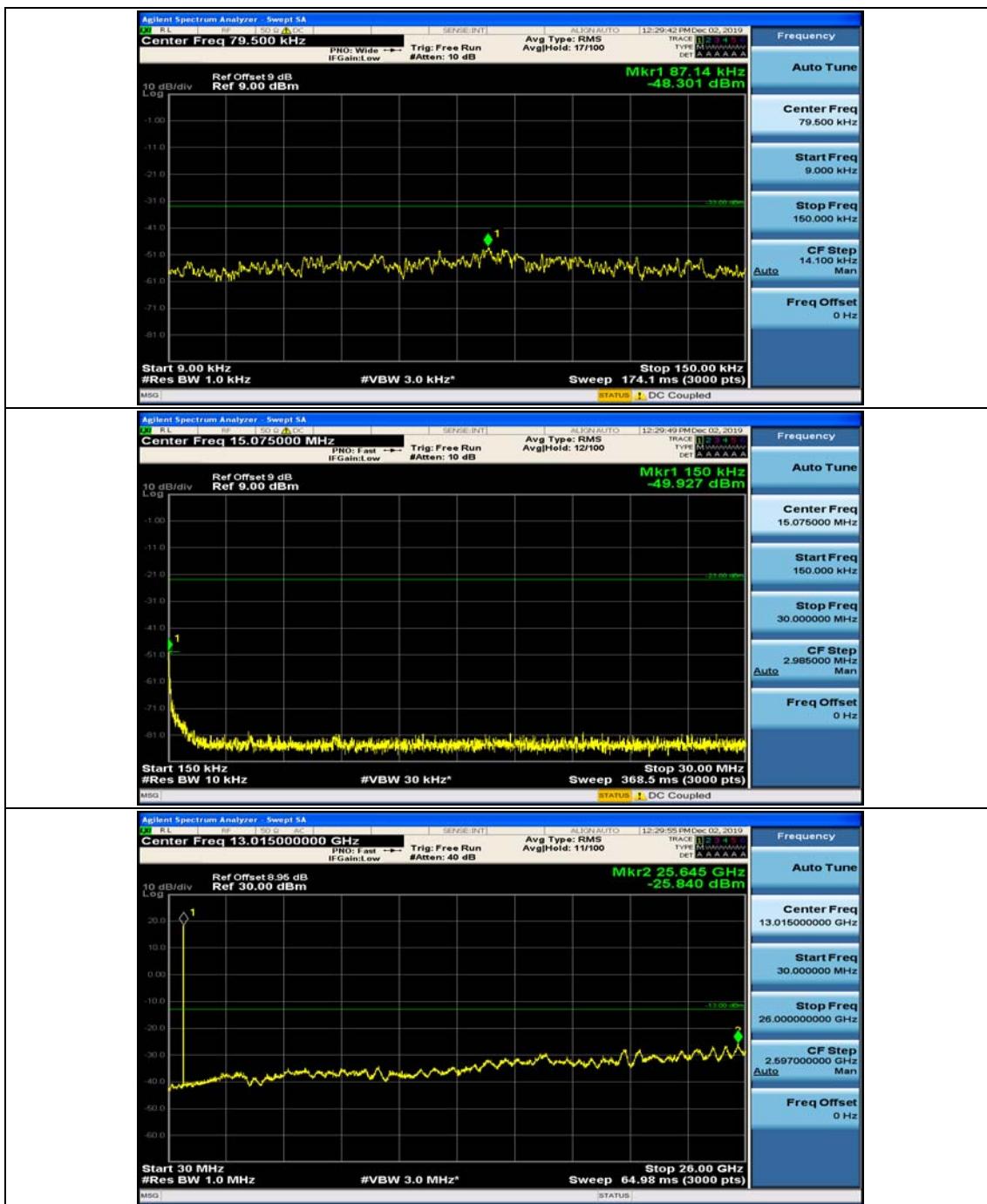


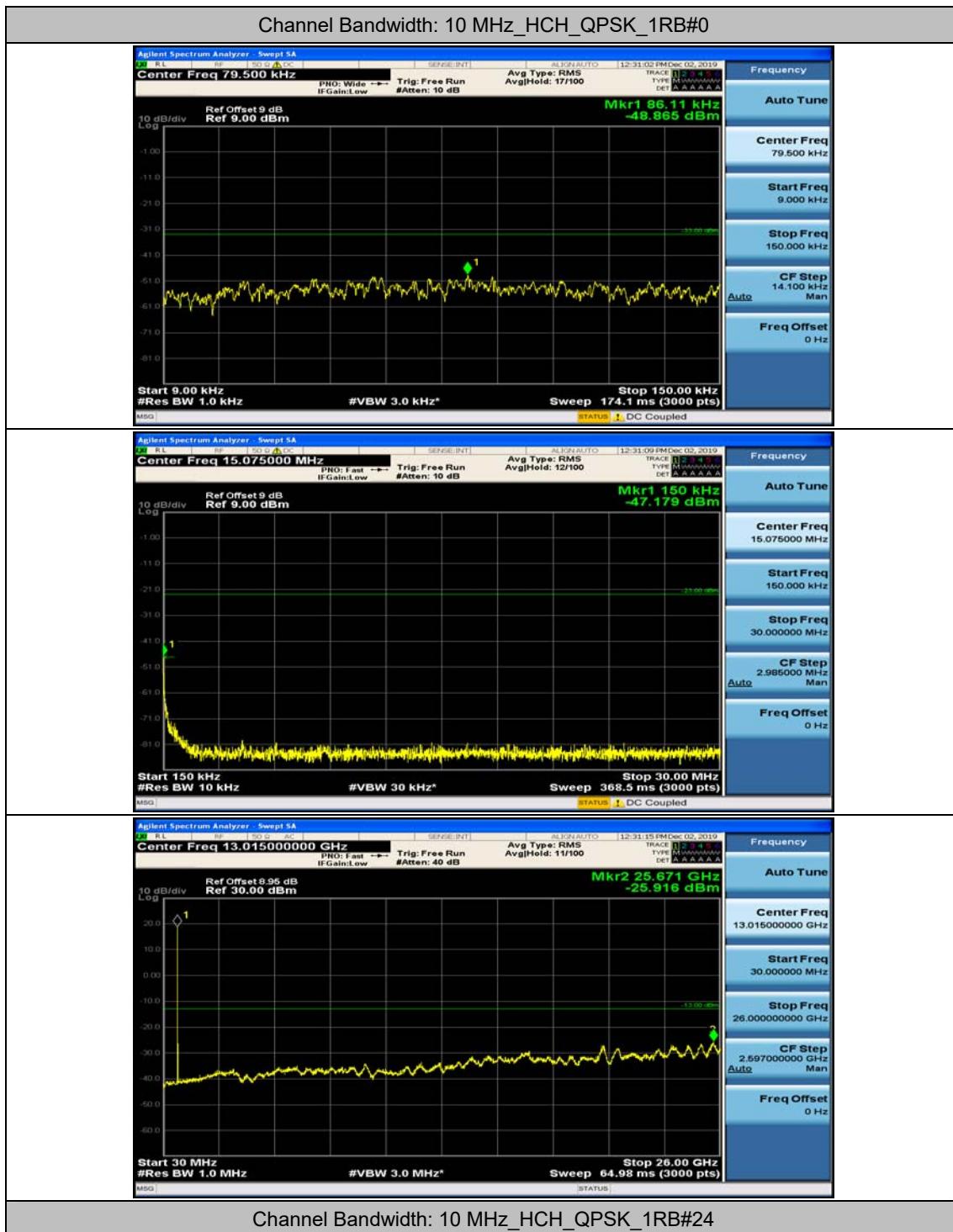


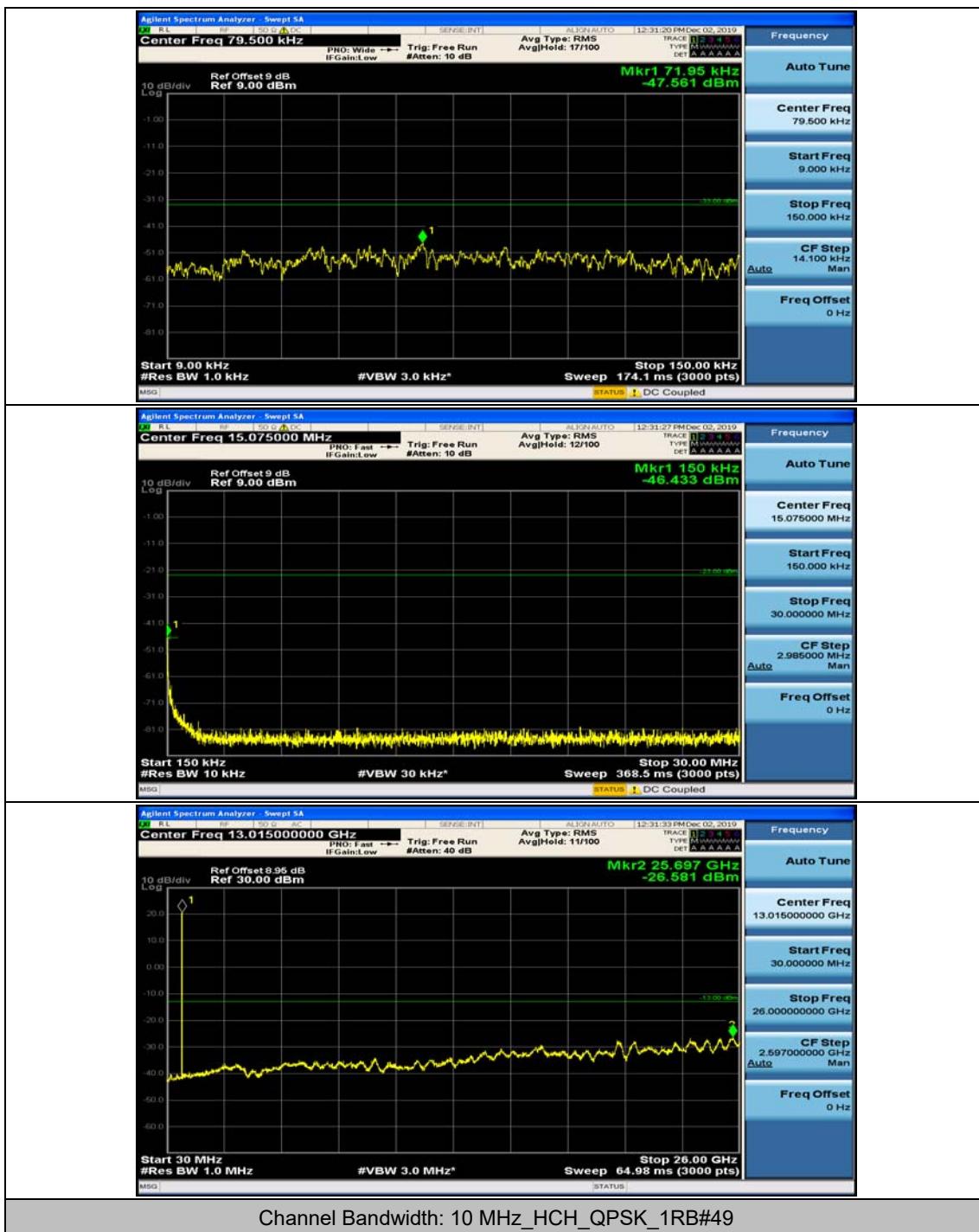


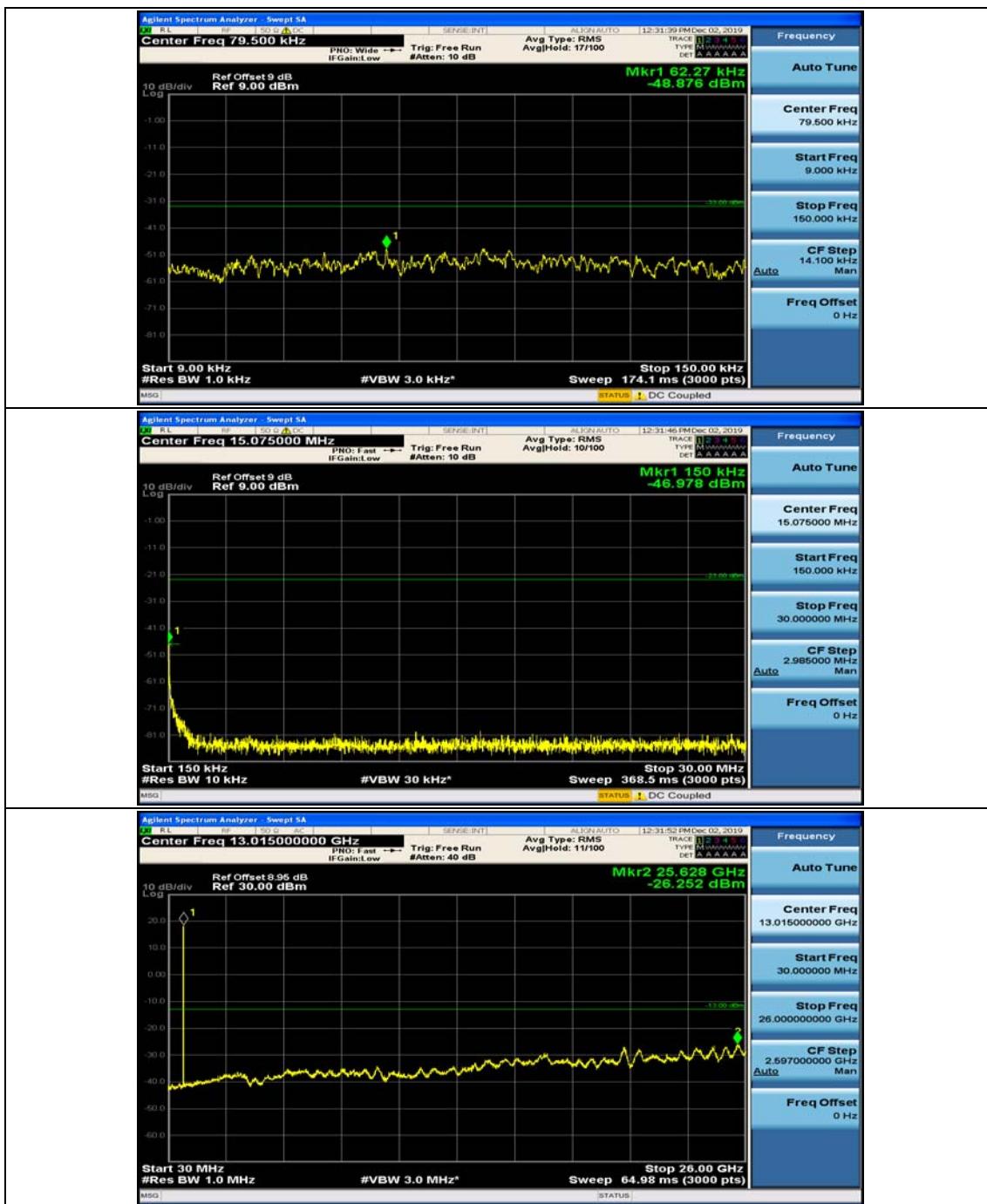


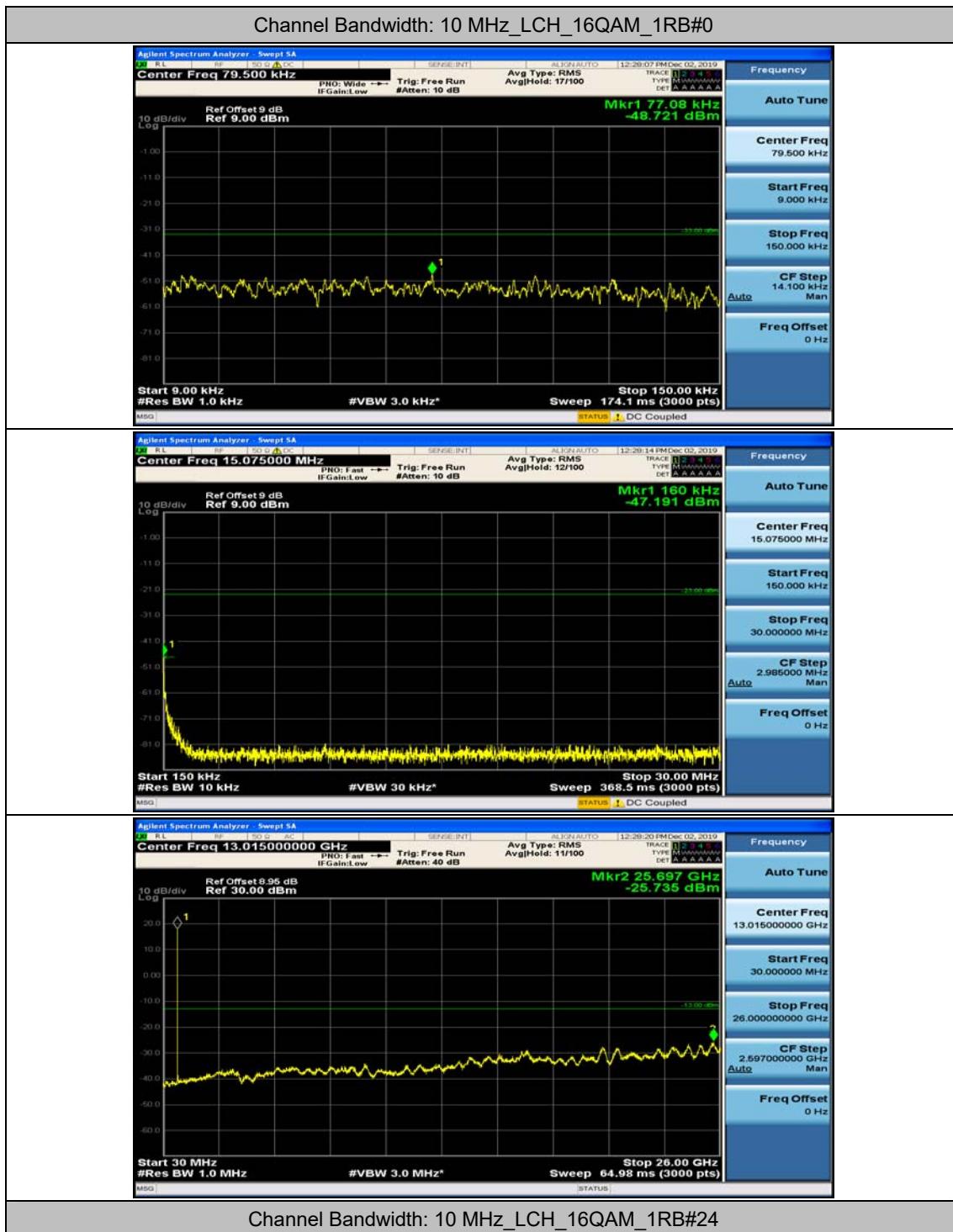


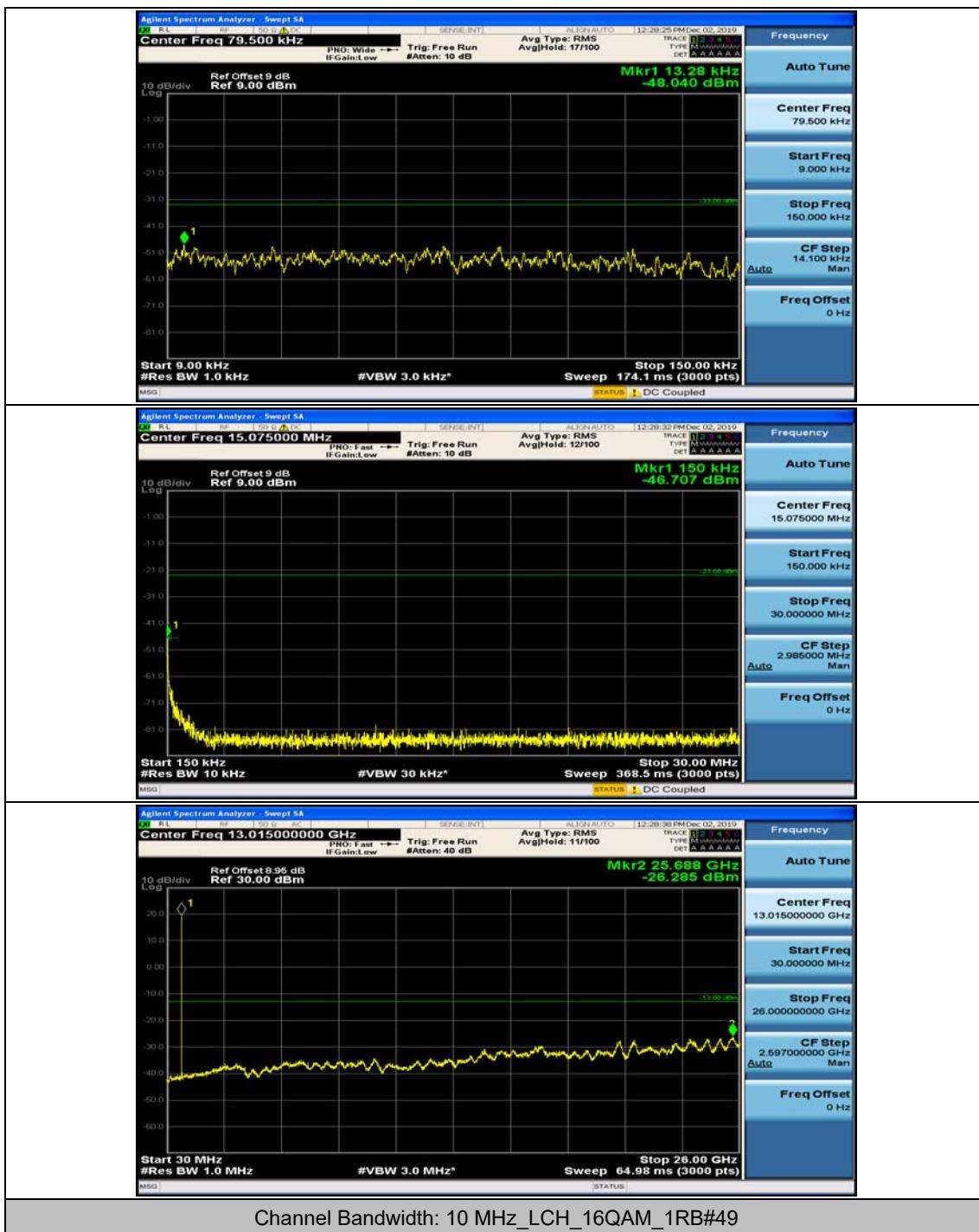


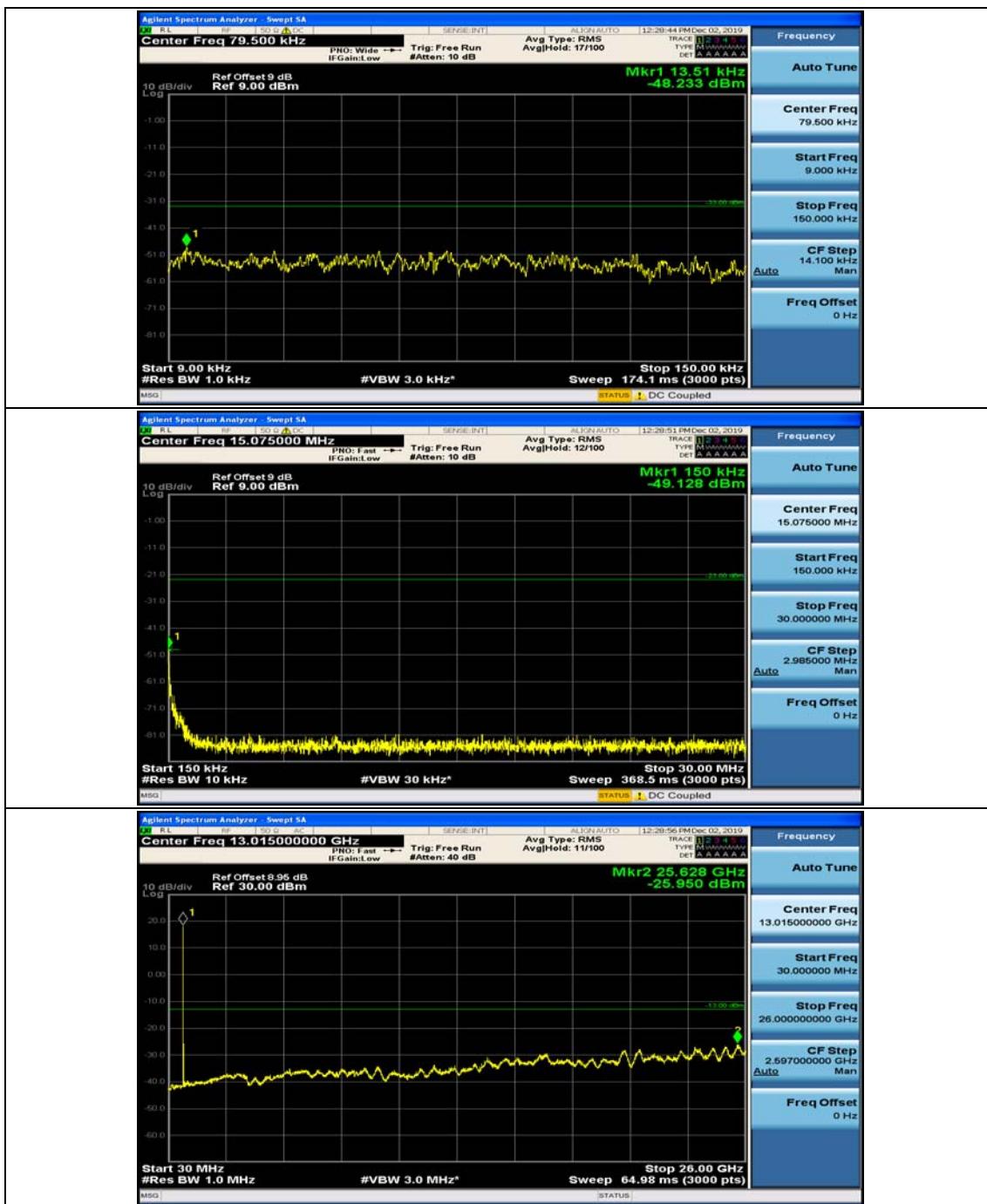


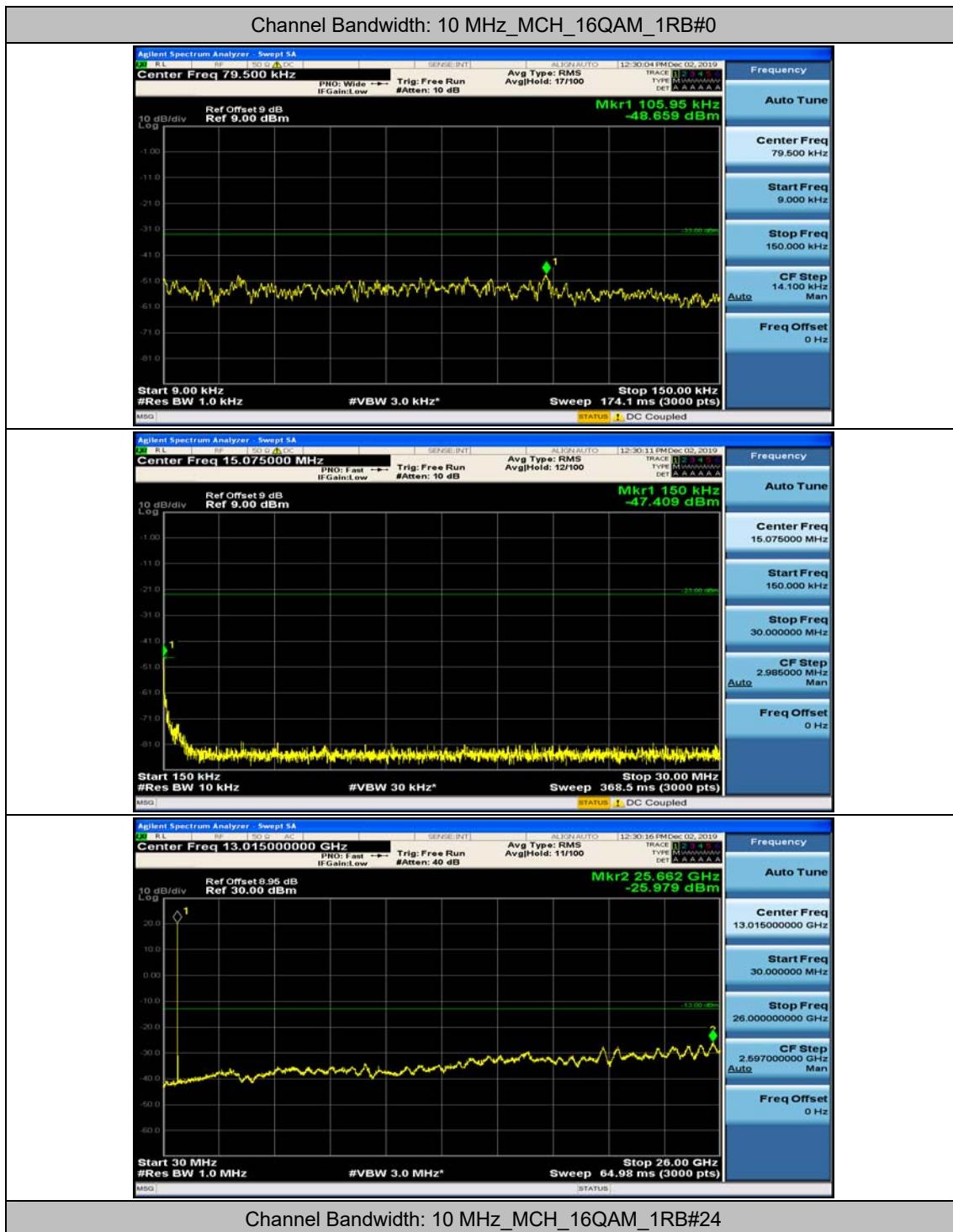


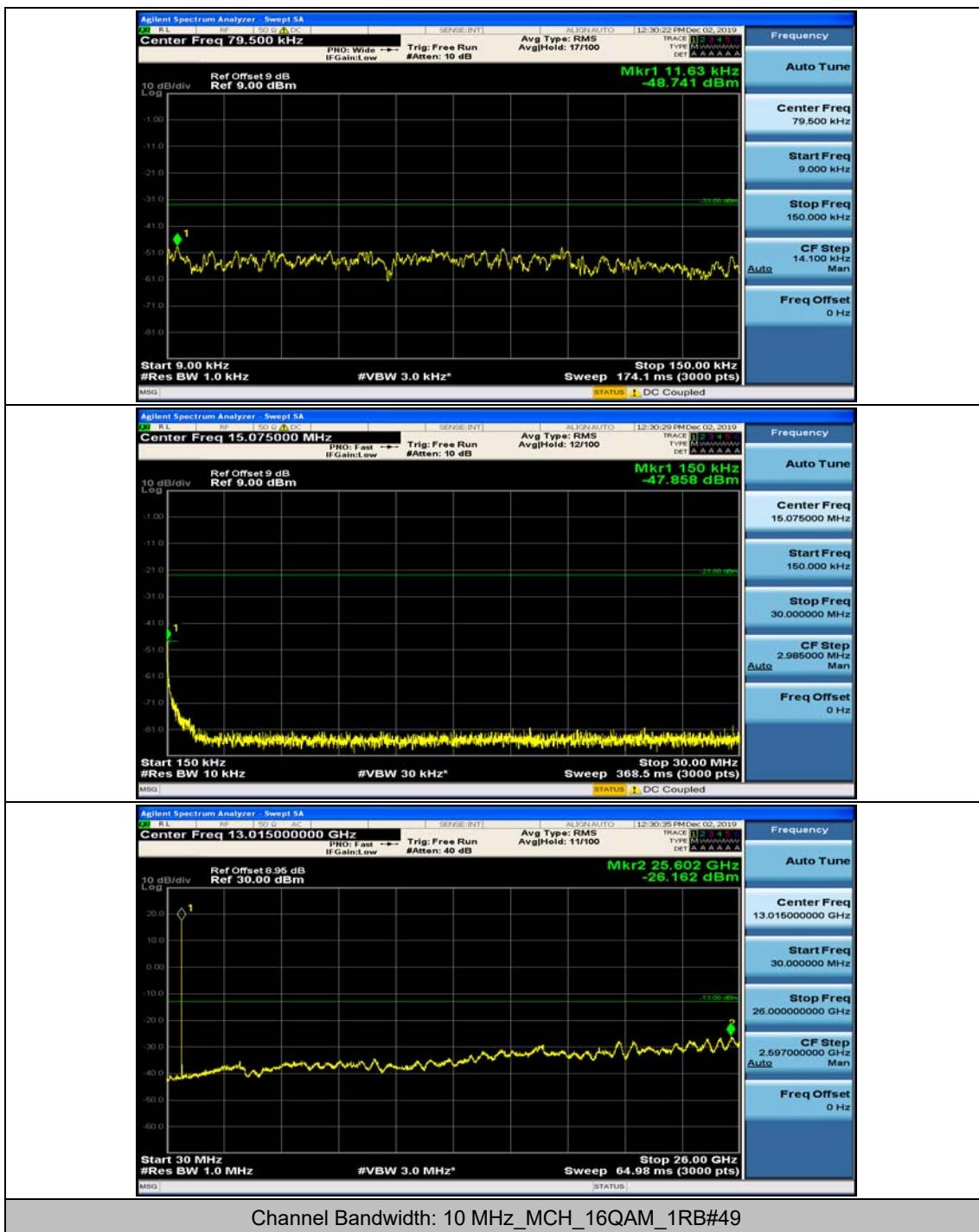


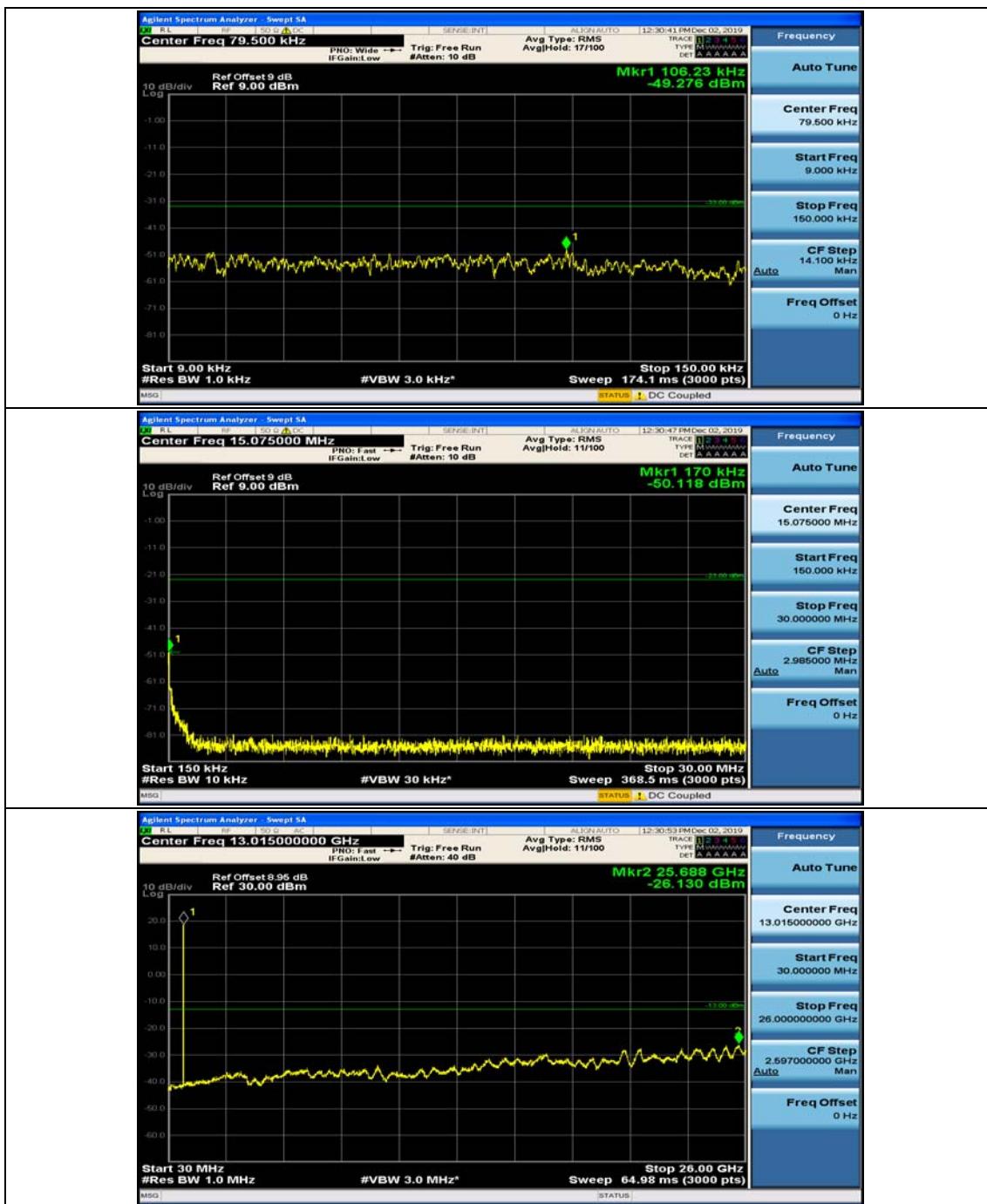


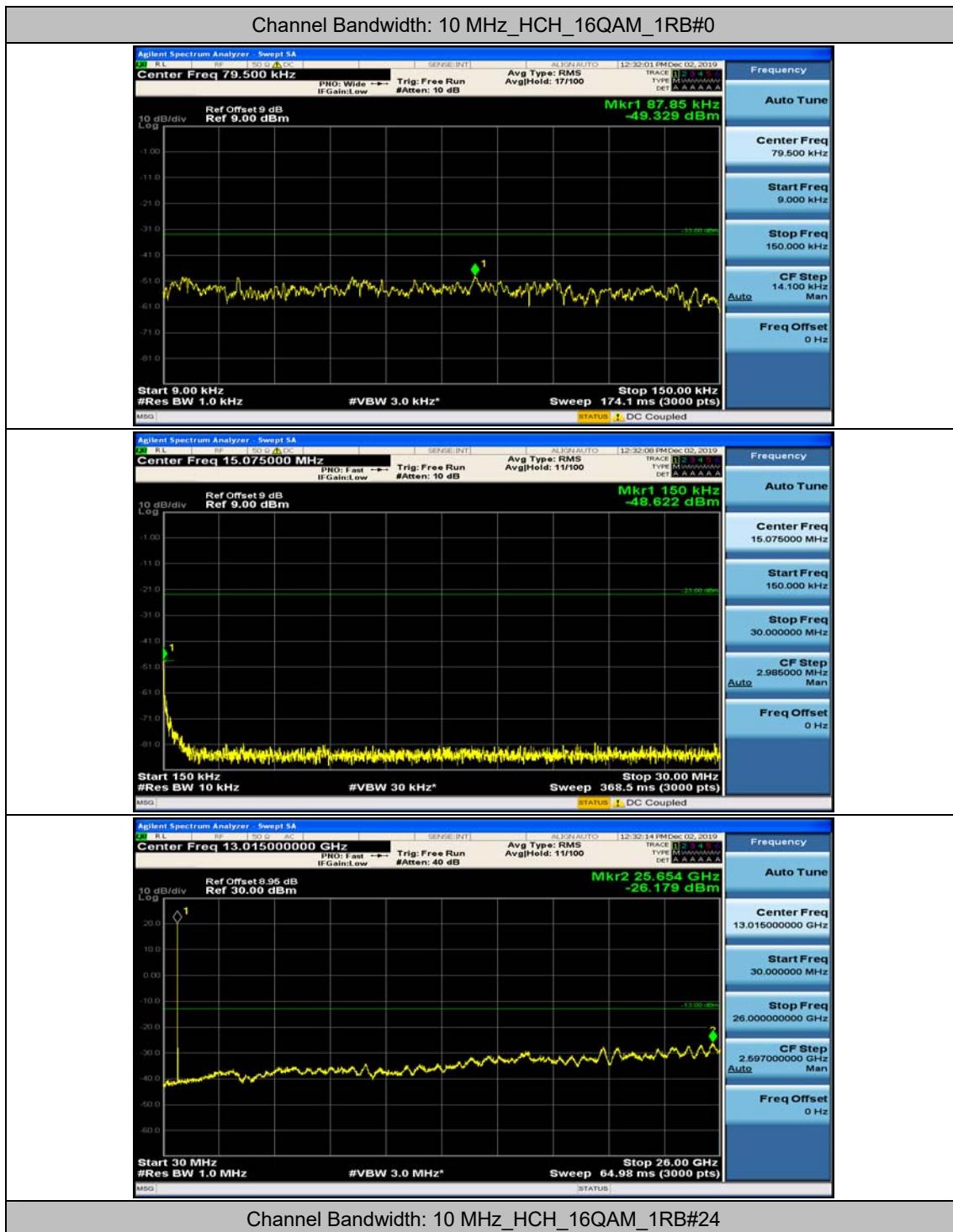


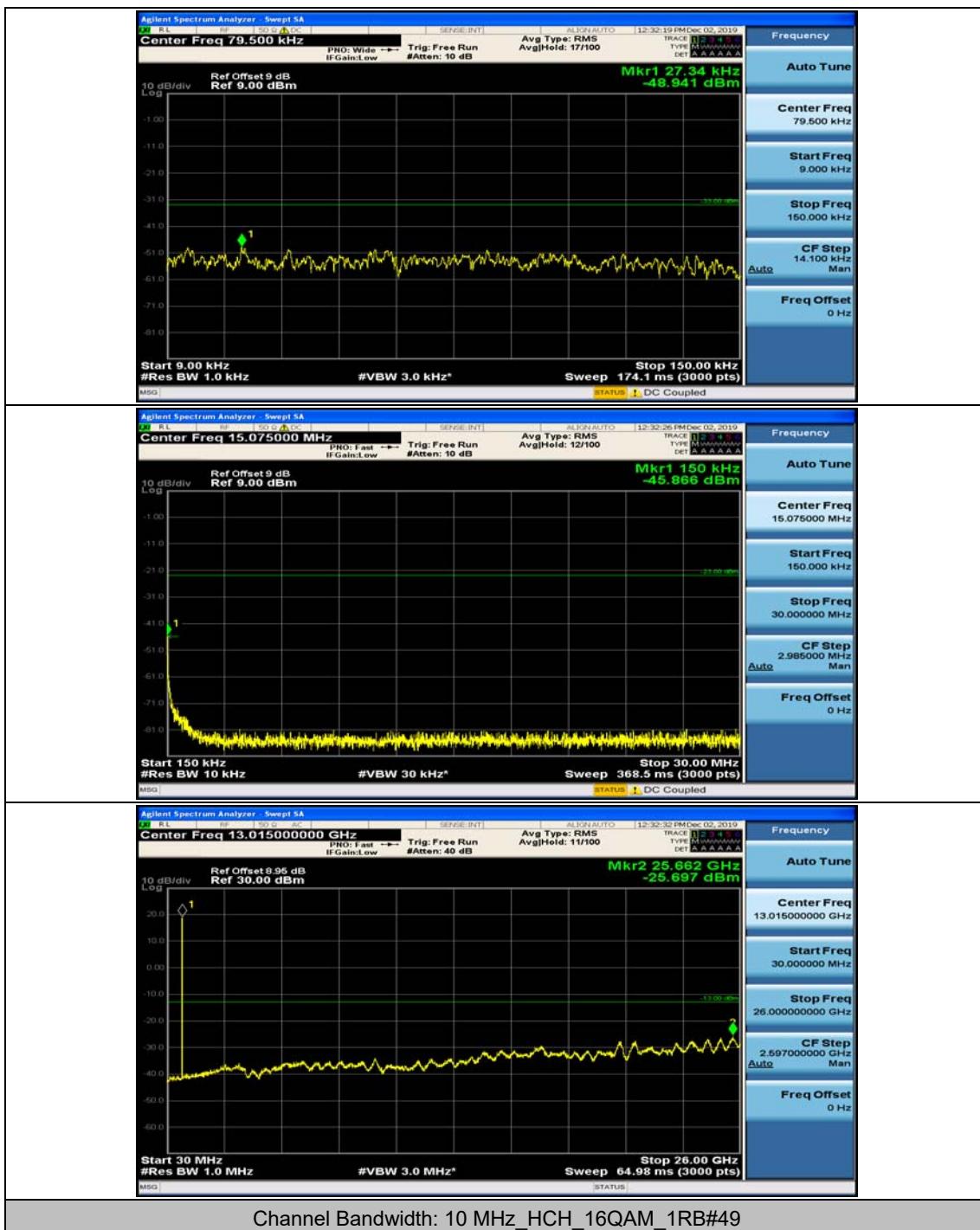


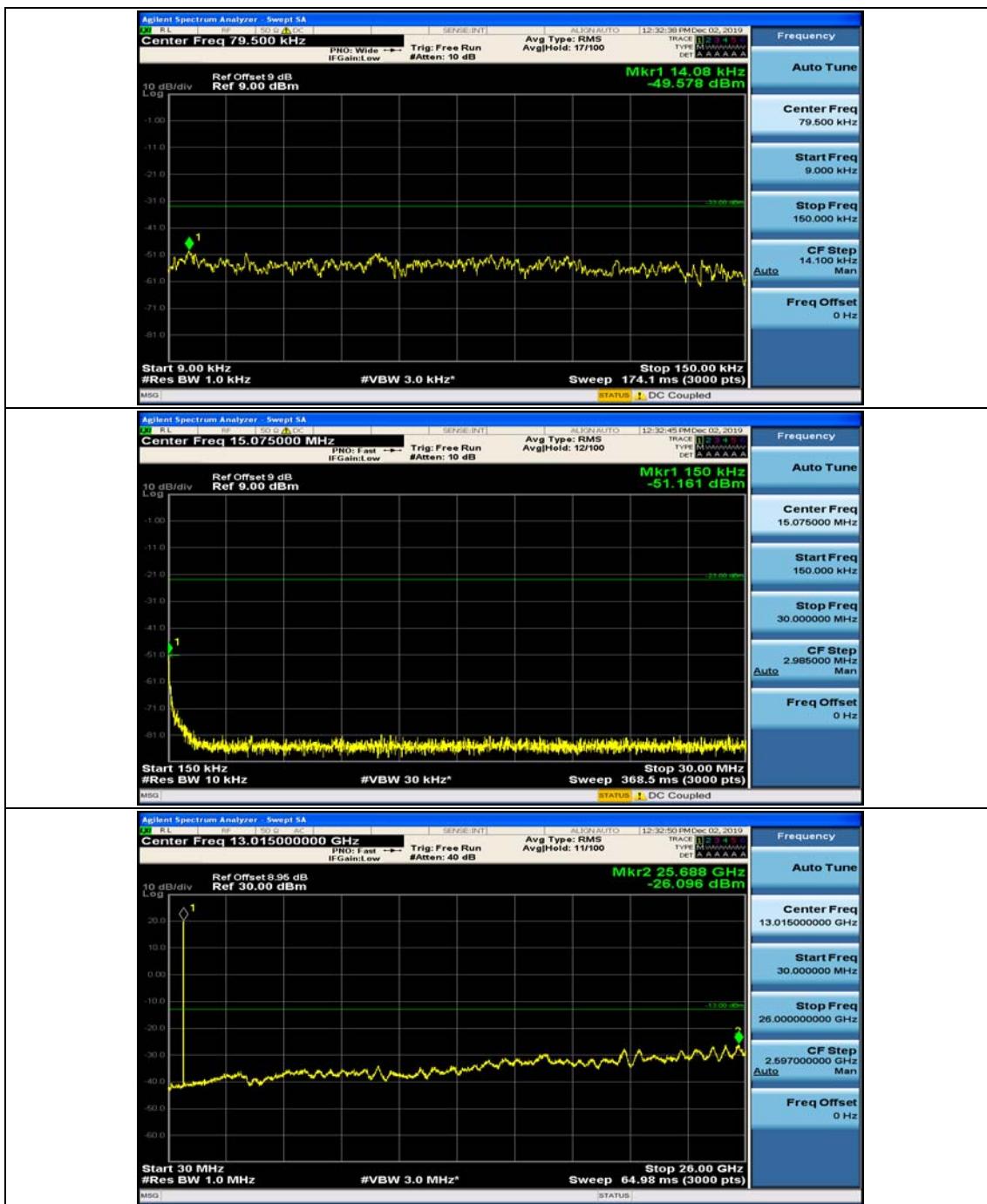












Appendix F: Frequency Stability

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	1.76	0.002515	± 2.5	PASS
		VN	TN	1.58	0.002258	± 2.5	PASS
		VH	TN	0.68	0.000972	± 2.5	PASS
	MCH	VL	TN	1.58	0.002233	± 2.5	PASS
		VN	TN	4.08	0.005767	± 2.5	PASS
		VH	TN	4.41	0.006233	± 2.5	PASS
	HCH	VL	TN	-1.13	-0.001580	± 2.5	PASS
		VN	TN	0.44	0.000615	± 2.5	PASS
		VH	TN	4.62	0.006459	± 2.5	PASS
16QAM	LCH	VL	TN	0.82	0.001172	± 2.5	PASS
		VN	TN	1.7	0.002430	± 2.5	PASS
		VH	TN	-0.78	-0.001115	± 2.5	PASS
	MCH	VL	TN	2.47	0.003491	± 2.5	PASS
		VN	TN	2.62	0.003703	± 2.5	PASS
		VH	TN	1.6	0.002261	± 2.5	PASS
	HCH	VL	TN	4.68	0.006543	± 2.5	PASS
		VN	TN	3.73	0.005215	± 2.5	PASS
		VH	TN	4.83	0.006752	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.94	0.004202	± 2.5	PASS
		VN	-20	-1.28	-0.001829	± 2.5	PASS
		VN	-10	0.07	0.000100	± 2.5	PASS
		VN	0	-1.86	-0.002658	± 2.5	PASS
		VN	10	4.23	0.006045	± 2.5	PASS
		VN	20	0.83	0.001186	± 2.5	PASS
		VN	30	4.56	0.006517	± 2.5	PASS
		VN	40	-1.55	-0.002215	± 2.5	PASS
		VN	50	-1.63	-0.002330	± 2.5	PASS
	MCH	VN	-30	0.64	0.000905	± 2.5	PASS
		VN	-20	4.47	0.006318	± 2.5	PASS

	HCH	VN	-10	0.72	0.001018	± 2.5	PASS
		VN	0	2.3	0.003251	± 2.5	PASS
		VN	10	1.47	0.002078	± 2.5	PASS
		VN	20	2.35	0.003322	± 2.5	PASS
		VN	30	3.45	0.004876	± 2.5	PASS
		VN	40	2.14	0.003025	± 2.5	PASS
		VN	50	0.85	0.001201	± 2.5	PASS
		VN	-30	0.82	0.001146	± 2.5	PASS
		VN	-20	-1.57	-0.002195	± 2.5	PASS
		VN	-10	2.37	0.003313	± 2.5	PASS
16QAM	LCH	VN	0	3.04	0.004250	± 2.5	PASS
		VN	10	2.68	0.003747	± 2.5	PASS
		VN	20	3.93	0.005494	± 2.5	PASS
		VN	30	4.88	0.006822	± 2.5	PASS
		VN	40	3.44	0.004809	± 2.5	PASS
		VN	50	3.57	0.004991	± 2.5	PASS
		VN	-30	-1.51	-0.002158	± 2.5	PASS
		VN	-20	-1.1	-0.001572	± 2.5	PASS
		VN	-10	0.22	0.000314	± 2.5	PASS
	MCH	VN	0	-1.36	-0.001944	± 2.5	PASS
		VN	10	1.86	0.002658	± 2.5	PASS
		VN	20	0.27	0.000386	± 2.5	PASS
		VN	30	0.55	0.000786	± 2.5	PASS
		VN	40	3.5	0.005002	± 2.5	PASS
		VN	50	2.82	0.004030	± 2.5	PASS
		VN	-30	4.72	0.006671	± 2.5	PASS
		VN	-20	4.33	0.006120	± 2.5	PASS
		VN	-10	0.99	0.001399	± 2.5	PASS
		VN	0	0.34	0.000481	± 2.5	PASS
	HCH	VN	10	-1.42	-0.002007	± 2.5	PASS
		VN	20	3.93	0.005555	± 2.5	PASS
		VN	30	1.99	0.002813	± 2.5	PASS
		VN	40	-1	-0.001413	± 2.5	PASS
		VN	50	0.27	0.000382	± 2.5	PASS
		VN	-30	0.38	0.000531	± 2.5	PASS
		VN	-20	1.16	0.001622	± 2.5	PASS

		VN	40	3.35	0.004683	± 2.5	PASS
		VN	50	-1.21	-0.001692	± 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	4.76	0.006795	± 2.5	PASS
		VN	TN	-0.95	-0.001356	± 2.5	PASS
		VH	TN	0.16	0.000228	± 2.5	PASS
	MCH	VL	TN	0.12	0.000170	± 2.5	PASS
		VN	TN	-1.54	-0.002177	± 2.5	PASS
		VH	TN	4.52	0.006389	± 2.5	PASS
	HCH	VL	TN	3.33	0.004661	± 2.5	PASS
		VN	TN	3.02	0.004227	± 2.5	PASS
		VH	TN	1.62	0.002267	± 2.5	PASS
16QAM	LCH	VL	TN	2.93	0.004183	± 2.5	PASS
		VN	TN	-0.83	-0.001185	± 2.5	PASS
		VH	TN	0.34	0.000485	± 2.5	PASS
	MCH	VL	TN	-1.31	-0.001852	± 2.5	PASS
		VN	TN	-1.32	-0.001866	± 2.5	PASS
		VH	TN	1.9	0.002686	± 2.5	PASS
	HCH	VL	TN	4.59	0.006424	± 2.5	PASS
		VN	TN	-0.59	-0.000826	± 2.5	PASS
		VH	TN	1.19	0.001666	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.34	-0.000485	± 2.5	PASS
		VN	-20	0.06	0.000086	± 2.5	PASS
		VN	-10	2.58	0.003683	± 2.5	PASS
		VN	0	3.22	0.004597	± 2.5	PASS
		VN	10	-0.91	-0.001299	± 2.5	PASS
		VN	20	3.18	0.004540	± 2.5	PASS
		VN	30	-1.25	-0.001784	± 2.5	PASS
		VN	40	-0.85	-0.001213	± 2.5	PASS
		VN	50	0.88	0.001256	± 2.5	PASS
	MCH	VN	-30	1.92	0.002714	± 2.5	PASS
		VN	-20	0.75	0.001060	± 2.5	PASS
		VN	-10	-0.32	-0.000452	± 2.5	PASS

		VN	0	-1.53	-0.002163	± 2.5	PASS
		VN	10	2.72	0.003845	± 2.5	PASS
		VN	20	0.78	0.001102	± 2.5	PASS
		VN	30	-0.8	-0.001131	± 2.5	PASS
		VN	40	0.79	0.001117	± 2.5	PASS
		VN	50	1.63	0.002304	± 2.5	PASS
		VN	-30	4.63	0.006480	± 2.5	PASS
		VN	-20	4.47	0.006256	± 2.5	PASS
		VN	-10	4.75	0.006648	± 2.5	PASS
		VN	0	-1.17	-0.001638	± 2.5	PASS
	HCH	VN	10	3.06	0.004283	± 2.5	PASS
		VN	20	0.83	0.001162	± 2.5	PASS
		VN	30	0.12	0.000168	± 2.5	PASS
		VN	40	4.68	0.006550	± 2.5	PASS
		VN	50	2.02	0.002827	± 2.5	PASS
		VN	-30	4.18	0.005967	± 2.5	PASS
		VN	-20	-0.24	-0.000343	± 2.5	PASS
		VN	-10	-1.91	-0.002727	± 2.5	PASS
		VN	0	2.68	0.003826	± 2.5	PASS
		VN	10	-0.57	-0.000814	± 2.5	PASS
	LCH	VN	20	-1.4	-0.001999	± 2.5	PASS
		VN	30	4.17	0.005953	± 2.5	PASS
		VN	40	-0.81	-0.001156	± 2.5	PASS
		VN	50	-1.12	-0.001599	± 2.5	PASS
		VN	-30	3.57	0.005046	± 2.5	PASS
		VN	-20	2.24	0.003166	± 2.5	PASS
		VN	-10	0.02	0.000028	± 2.5	PASS
		VN	0	1.59	0.002247	± 2.5	PASS
		VN	10	2.66	0.003760	± 2.5	PASS
		VN	20	-1.64	-0.002318	± 2.5	PASS
	MCH	VN	30	0.67	0.000947	± 2.5	PASS
		VN	40	0.84	0.001187	± 2.5	PASS
		VN	50	0.47	0.000664	± 2.5	PASS
		VN	-30	1.4	0.001959	± 2.5	PASS
		VN	-20	4.35	0.006088	± 2.5	PASS
		VN	-10	3.28	0.004591	± 2.5	PASS
		VN	0	3.9	0.005458	± 2.5	PASS
		VN	10	1.9	0.002659	± 2.5	PASS
		VN	20	2.91	0.004073	± 2.5	PASS
		VN	30	2.96	0.004143	± 2.5	PASS
	HCH	VN	40	3.12	0.004367	± 2.5	PASS

		VN	50	3.78	0.005290	± 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	2.46	0.003507	± 2.5	PASS
		VN	TN	4.92	0.007014	± 2.5	PASS
		VH	TN	1.43	0.002038	± 2.5	PASS
	MCH	VL	TN	2.7	0.003816	± 2.5	PASS
		VN	TN	-0.75	-0.001060	± 2.5	PASS
		VH	TN	4.53	0.006403	± 2.5	PASS
	HCH	VL	TN	-1.44	-0.002018	± 2.5	PASS
		VN	TN	3.42	0.004793	± 2.5	PASS
		VH	TN	2.78	0.003896	± 2.5	PASS
16QAM	LCH	VL	TN	1.94	0.002766	± 2.5	PASS
		VN	TN	1.3	0.001853	± 2.5	PASS
		VH	TN	2.32	0.003307	± 2.5	PASS
	MCH	VL	TN	1.43	0.002021	± 2.5	PASS
		VN	TN	2.85	0.004028	± 2.5	PASS
		VH	TN	4.45	0.006290	± 2.5	PASS
	HCH	VL	TN	3.87	0.005424	± 2.5	PASS
		VN	TN	3.37	0.004723	± 2.5	PASS
		VH	TN	3.69	0.005172	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.42	0.000599	± 2.5	PASS
		VN	-20	-0.41	-0.000584	± 2.5	PASS
		VN	-10	0.96	0.001368	± 2.5	PASS
		VN	0	-1.3	-0.001853	± 2.5	PASS
		VN	10	-1.76	-0.002509	± 2.5	PASS
		VN	20	-0.12	-0.000171	± 2.5	PASS
		VN	30	1.2	0.001711	± 2.5	PASS
		VN	40	-1.13	-0.001611	± 2.5	PASS
		VN	50	0.81	0.001155	± 2.5	PASS
	MCH	VN	-30	0.95	0.001343	± 2.5	PASS
		VN	-20	-1.37	-0.001936	± 2.5	PASS
		VN	-10	2.43	0.003435	± 2.5	PASS
		VN	0	4.31	0.006092	± 2.5	PASS

		VN	10	4.96	0.007011	± 2.5	PASS
		VN	20	4.74	0.006700	± 2.5	PASS
		VN	30	4.57	0.006459	± 2.5	PASS
		VN	40	-1.18	-0.001668	± 2.5	PASS
		VN	50	-1.47	-0.002078	± 2.5	PASS
		VN	-30	-1.44	-0.002018	± 2.5	PASS
		VN	-20	-1.97	-0.002761	± 2.5	PASS
		VN	-10	4.69	0.006573	± 2.5	PASS
		VN	0	-0.74	-0.001037	± 2.5	PASS
		VN	10	3.67	0.005144	± 2.5	PASS
		VN	20	-0.89	-0.001247	± 2.5	PASS
		VN	30	4.9	0.006868	± 2.5	PASS
		VN	40	3.27	0.004583	± 2.5	PASS
		VN	50	-0.57	-0.000799	± 2.5	PASS
		VN	-30	4.39	0.006258	± 2.5	PASS
		VN	-20	2.44	0.003478	± 2.5	PASS
		VN	-10	1.16	0.001654	± 2.5	PASS
		VN	0	1.57	0.002238	± 2.5	PASS
		VN	10	0.06	0.000086	± 2.5	PASS
		VN	20	-1.14	-0.001625	± 2.5	PASS
		VN	30	2.59	0.003692	± 2.5	PASS
		VN	40	2.74	0.003906	± 2.5	PASS
		VN	50	3.98	0.005674	± 2.5	PASS
		VN	-30	1.06	0.001498	± 2.5	PASS
		VN	-20	-0.64	-0.000905	± 2.5	PASS
		VN	-10	1.46	0.002064	± 2.5	PASS
		VN	0	-1.22	-0.001724	± 2.5	PASS
		VN	10	-1.45	-0.002049	± 2.5	PASS
		VN	20	-0.77	-0.001088	± 2.5	PASS
		VN	30	2.09	0.002954	± 2.5	PASS
		VN	40	3.91	0.005527	± 2.5	PASS
		VN	50	4.45	0.006290	± 2.5	PASS
		VN	-30	4.66	0.006531	± 2.5	PASS
		VN	-20	4.72	0.006615	± 2.5	PASS
		VN	-10	1.94	0.002719	± 2.5	PASS
		VN	0	0.88	0.001233	± 2.5	PASS
		VN	10	-0.53	-0.000743	± 2.5	PASS
		VN	20	-1.17	-0.001640	± 2.5	PASS
		VN	30	2.28	0.003196	± 2.5	PASS
		VN	40	3.71	0.005200	± 2.5	PASS
		VN	50	1.12	0.001570	± 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	0.4	0.000568	± 2.5	PASS
		VN	TN	0.59	0.000838	± 2.5	PASS
		VH	TN	-0.64	-0.000909	± 2.5	PASS
	MCH	VL	TN	4.12	0.005823	± 2.5	PASS
		VN	TN	3.6	0.005088	± 2.5	PASS
		VH	TN	2.93	0.004141	± 2.5	PASS
	HCH	VL	TN	-0.29	-0.000408	± 2.5	PASS
		VN	TN	-1.57	-0.002208	± 2.5	PASS
		VH	TN	3.06	0.004304	± 2.5	PASS
16QAM	LCH	VL	TN	1.98	0.002813	± 2.5	PASS
		VN	TN	-0.64	-0.000909	± 2.5	PASS
		VH	TN	1.29	0.001832	± 2.5	PASS
	MCH	VL	TN	3.64	0.005145	± 2.5	PASS
		VN	TN	3.45	0.004876	± 2.5	PASS
		VH	TN	-0.9	-0.001272	± 2.5	PASS
	HCH	VL	TN	-0.95	-0.001336	± 2.5	PASS
		VN	TN	3.24	0.004557	± 2.5	PASS
		VH	TN	2.92	0.004107	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.22	0.003153	± 2.5	PASS
		VN	-20	3.51	0.004986	± 2.5	PASS
		VN	-10	-1.6	-0.002273	± 2.5	PASS
		VN	0	0.12	0.000170	± 2.5	PASS
		VN	10	1.29	0.001832	± 2.5	PASS
		VN	20	1.19	0.001690	± 2.5	PASS
		VN	30	-1.85	-0.002628	± 2.5	PASS
		VN	40	1.75	0.002486	± 2.5	PASS
		VN	50	1.87	0.002656	± 2.5	PASS
	MCH	VN	-30	-0.92	-0.001300	± 2.5	PASS
		VN	-20	2.82	0.003986	± 2.5	PASS
		VN	-10	4.28	0.006049	± 2.5	PASS
		VN	0	-0.68	-0.000961	± 2.5	PASS
		VN	10	3.43	0.004848	± 2.5	PASS
		VN	20	2.46	0.003477	± 2.5	PASS
		VN	30	2.12	0.002996	± 2.5	PASS

	HCH	VN	40	-1.25	-0.001767	± 2.5	PASS
		VN	50	0.49	0.000693	± 2.5	PASS
		VN	-30	4.43	0.006231	± 2.5	PASS
		VN	-20	3.39	0.004768	± 2.5	PASS
		VN	-10	4.16	0.005851	± 2.5	PASS
		VN	0	3.86	0.005429	± 2.5	PASS
		VN	10	-1.42	-0.001997	± 2.5	PASS
		VN	20	4	0.005626	± 2.5	PASS
		VN	30	-1.19	-0.001674	± 2.5	PASS
		VN	40	3.62	0.005091	± 2.5	PASS
		VN	50	-1.49	-0.002096	± 2.5	PASS
	LCH	VN	-30	2.32	0.003295	± 2.5	PASS
		VN	-20	4.08	0.005795	± 2.5	PASS
		VN	-10	-1.91	-0.002713	± 2.5	PASS
		VN	0	-1.61	-0.002287	± 2.5	PASS
		VN	10	4.69	0.006662	± 2.5	PASS
		VN	20	0.64	0.000909	± 2.5	PASS
		VN	30	2.72	0.003864	± 2.5	PASS
		VN	40	4.51	0.006406	± 2.5	PASS
		VN	50	3.94	0.005597	± 2.5	PASS
		VN	-30	2.36	0.003336	± 2.5	PASS
	MCH	VN	-20	-0.83	-0.001173	± 2.5	PASS
		VN	-10	-0.33	-0.000466	± 2.5	PASS
		VN	0	-1.7	-0.002403	± 2.5	PASS
		VN	10	1.88	0.002657	± 2.5	PASS
		VN	20	2.3	0.003251	± 2.5	PASS
		VN	30	-0.58	-0.000820	± 2.5	PASS
		VN	40	0.32	0.000452	± 2.5	PASS
		VN	50	0.71	0.001004	± 2.5	PASS
		VN	-30	-1.8	-0.002532	± 2.5	PASS
		VN	-20	0.58	0.000816	± 2.5	PASS
	HCH	VN	-10	0.4	0.000563	± 2.5	PASS
		VN	0	0.73	0.001027	± 2.5	PASS
		VN	10	1.99	0.002799	± 2.5	PASS
		VN	20	4.54	0.006385	± 2.5	PASS
		VN	30	4.73	0.006653	± 2.5	PASS
		VN	40	-1.7	-0.002391	± 2.5	PASS
		VN	50	0.25	0.000352	± 2.5	PASS