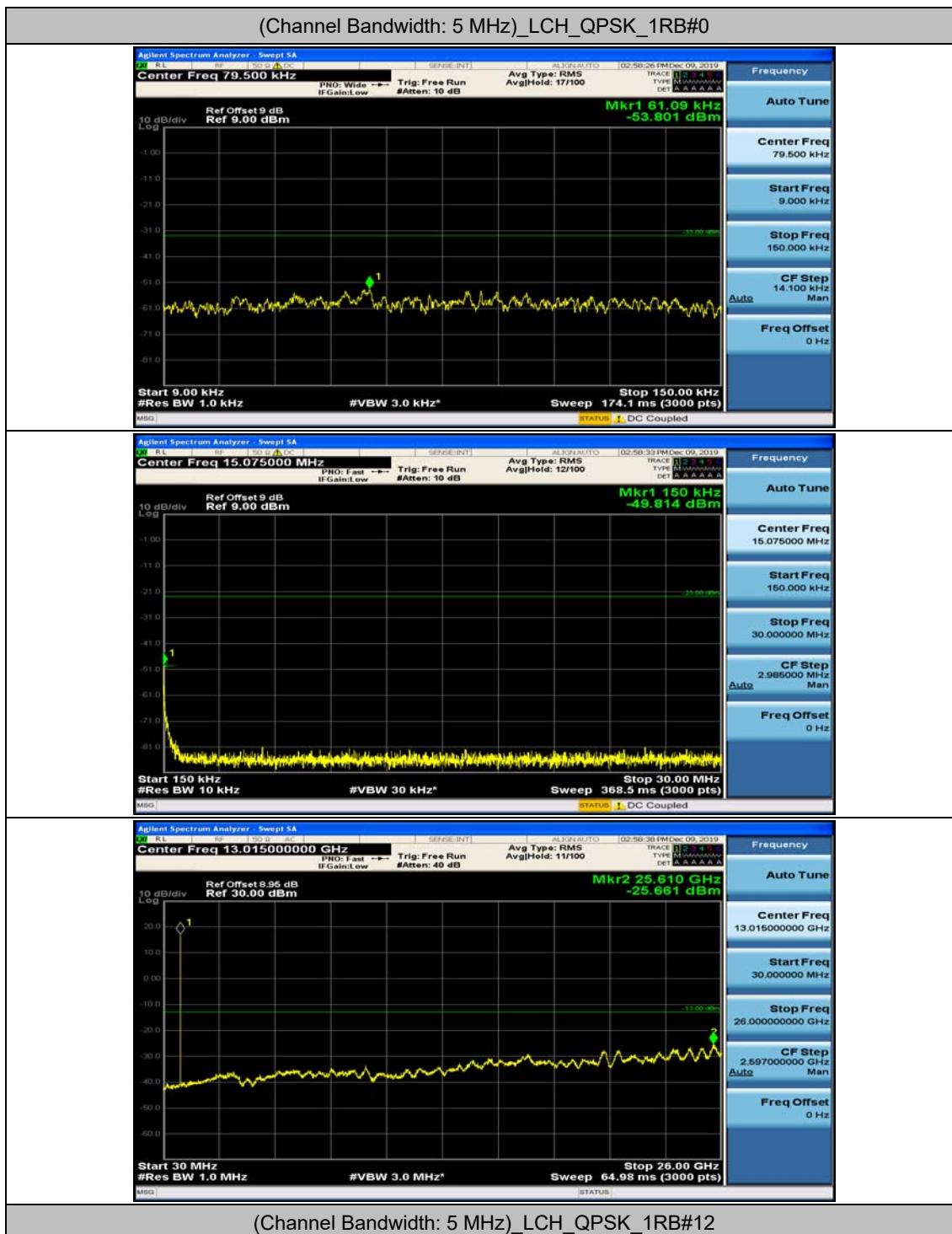
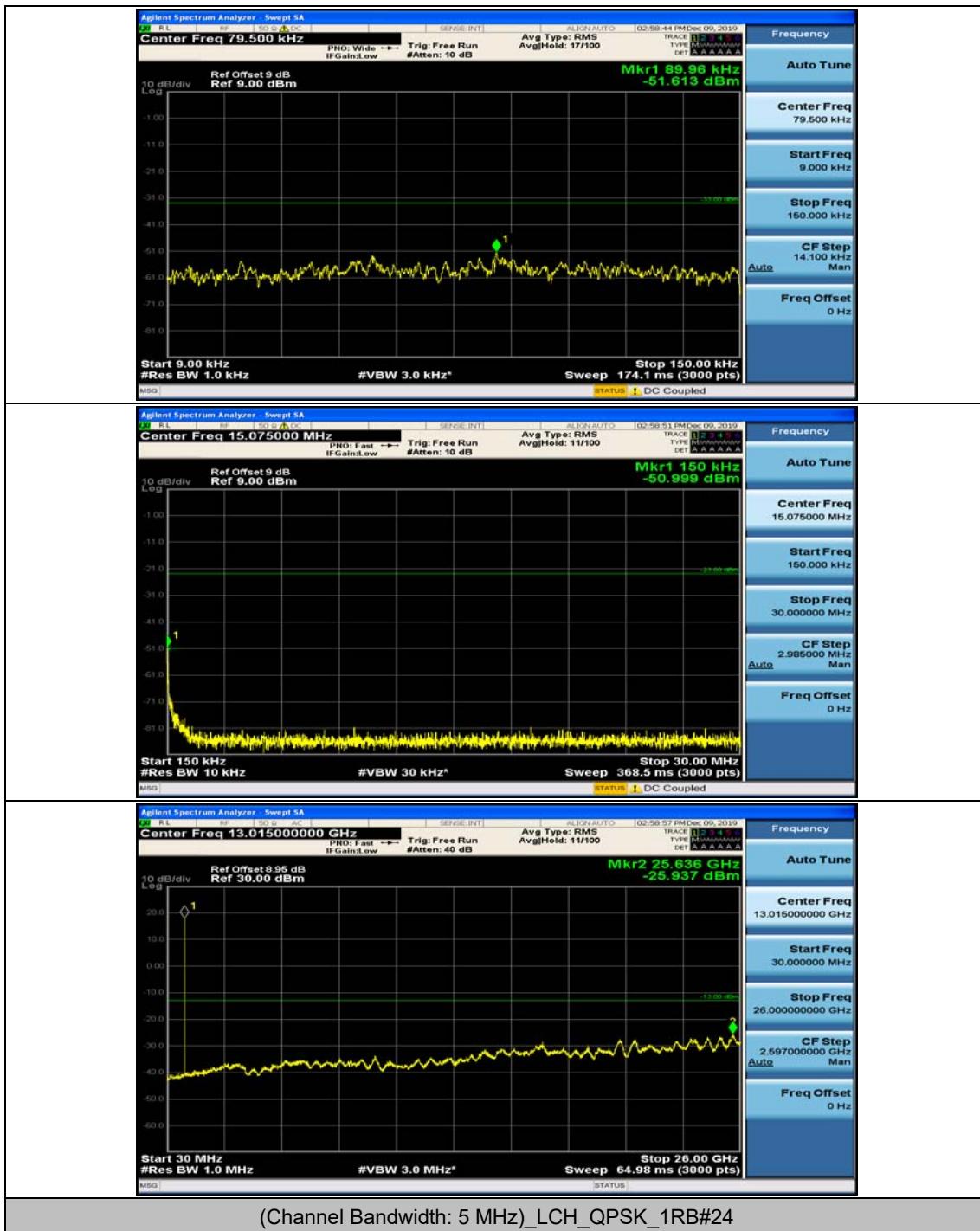
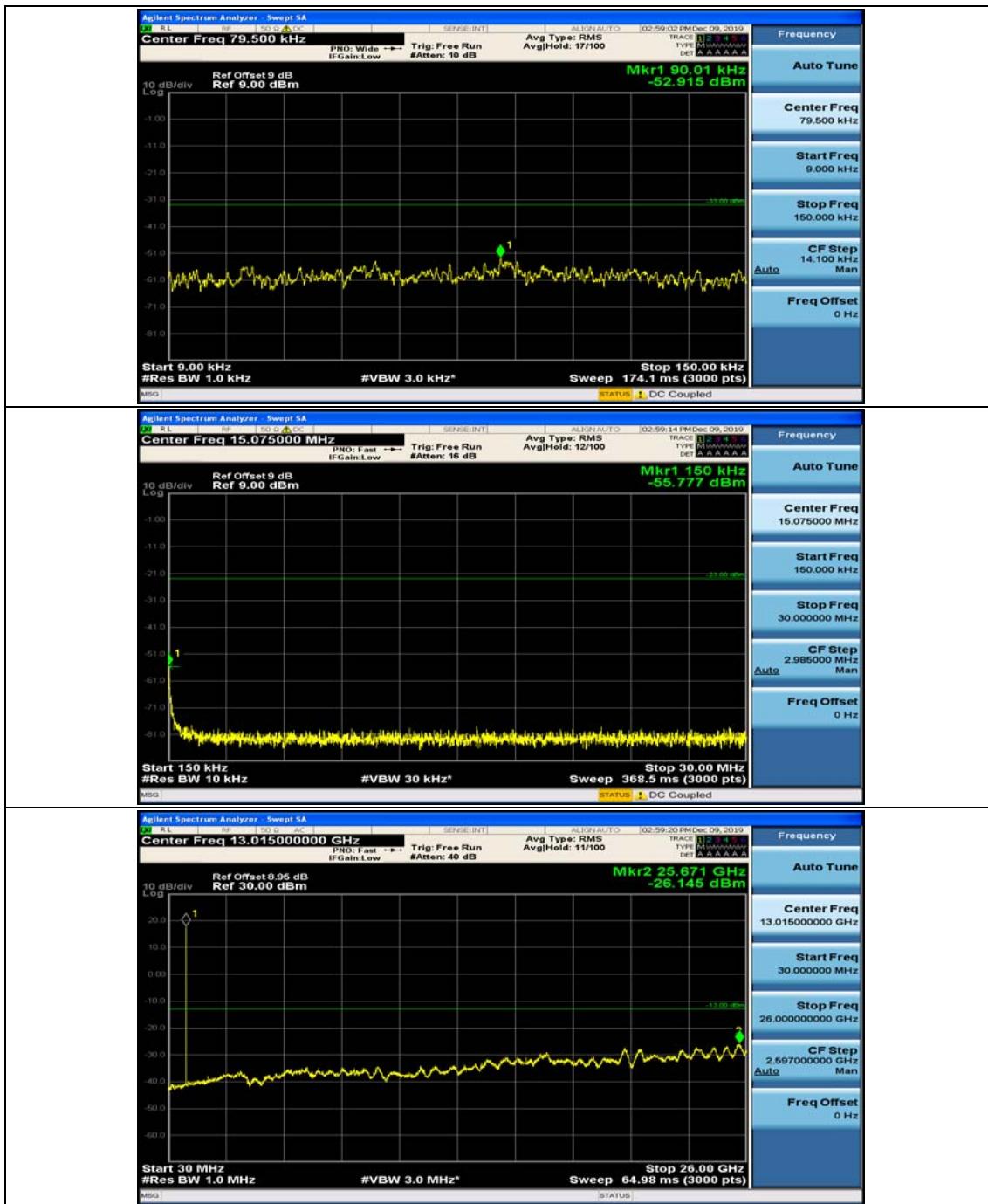
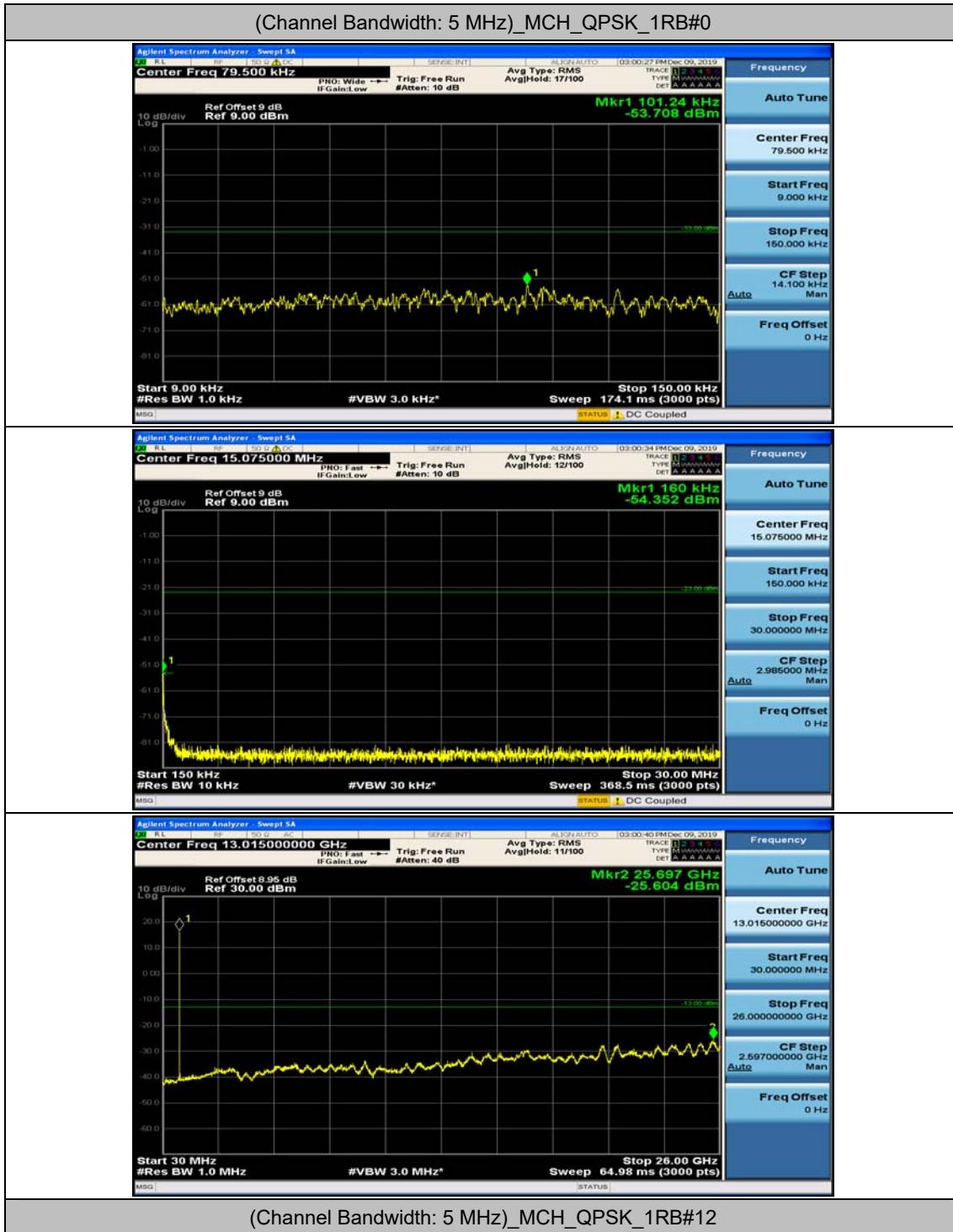


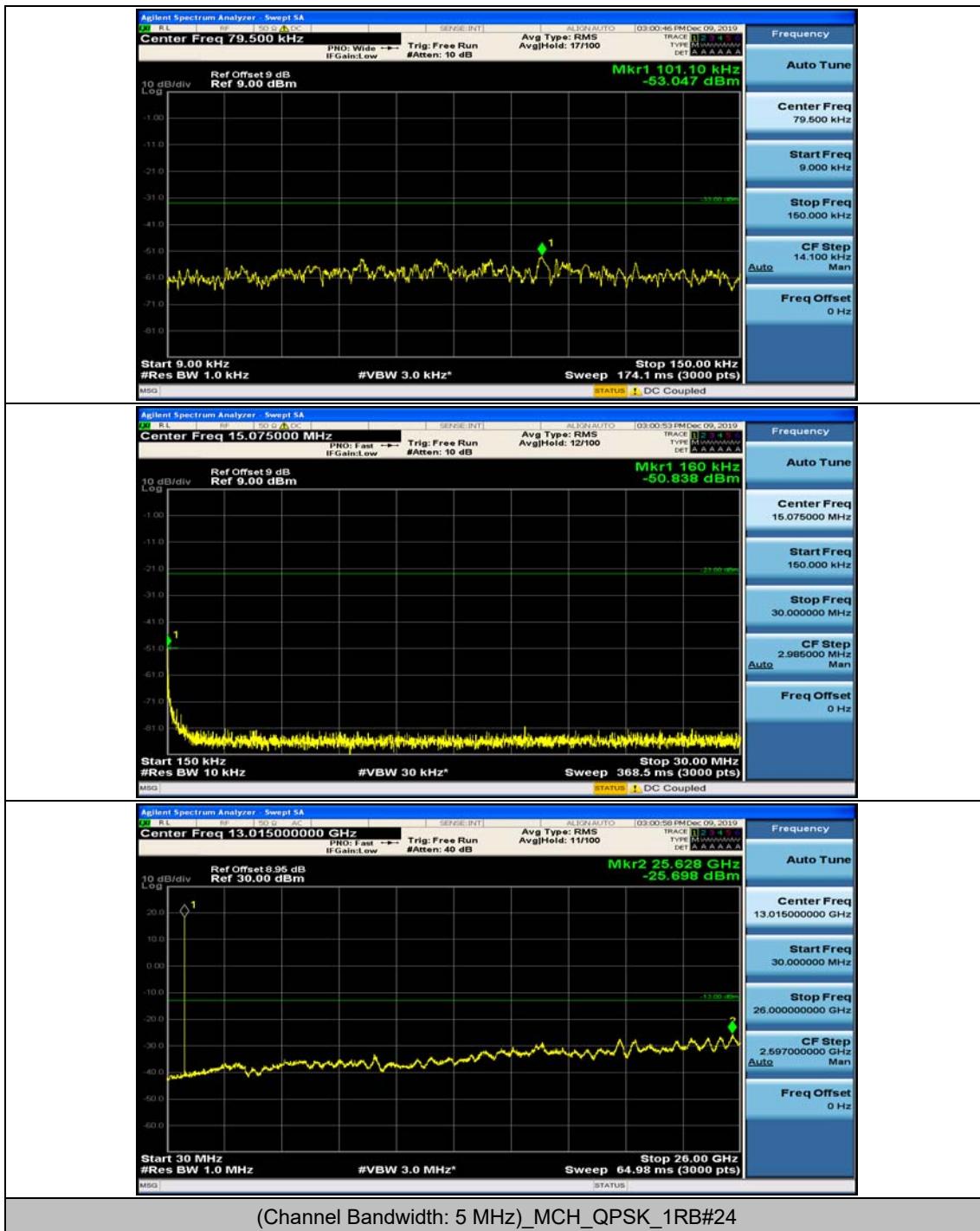
Channel Bandwidth: 5 MHz

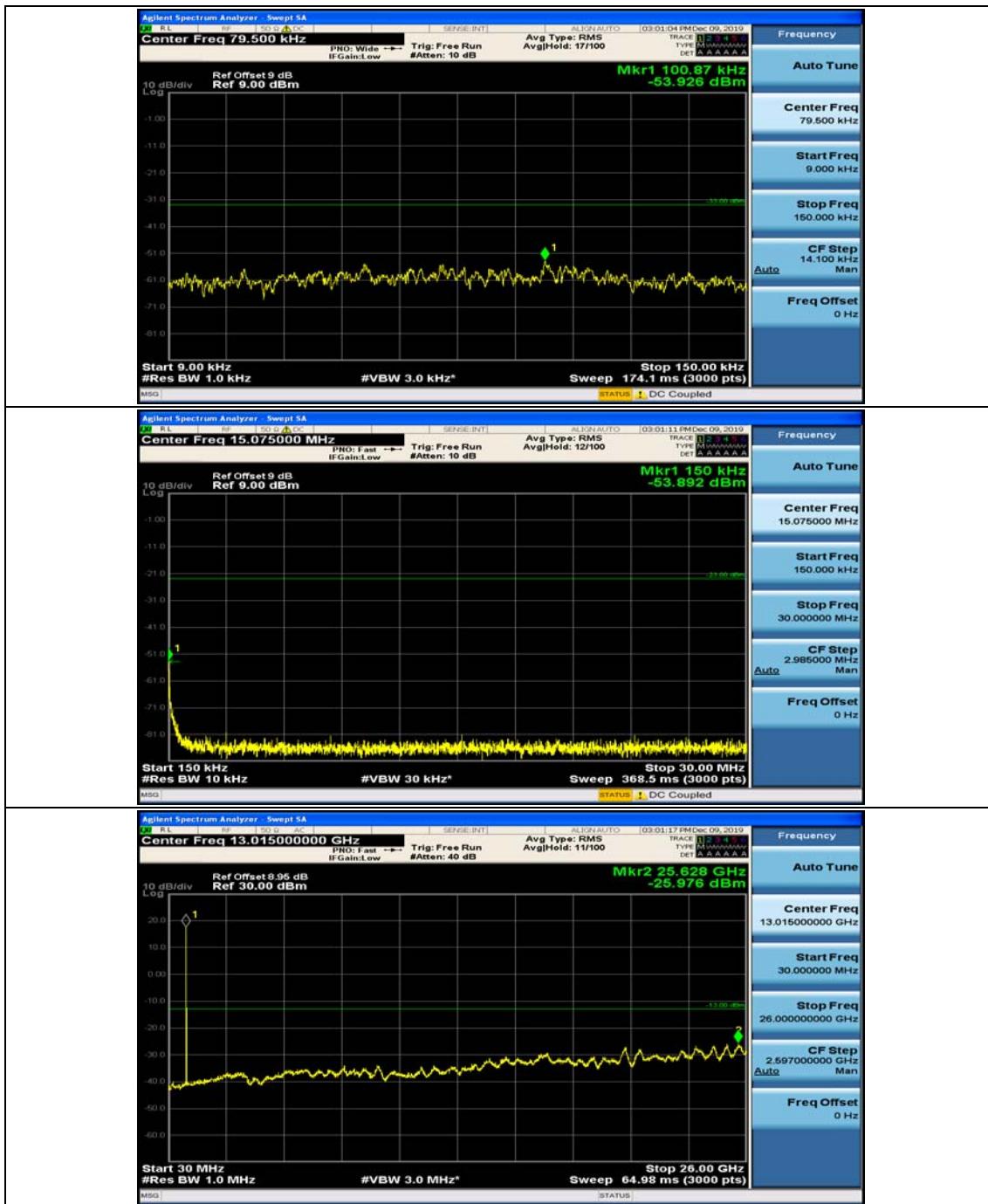


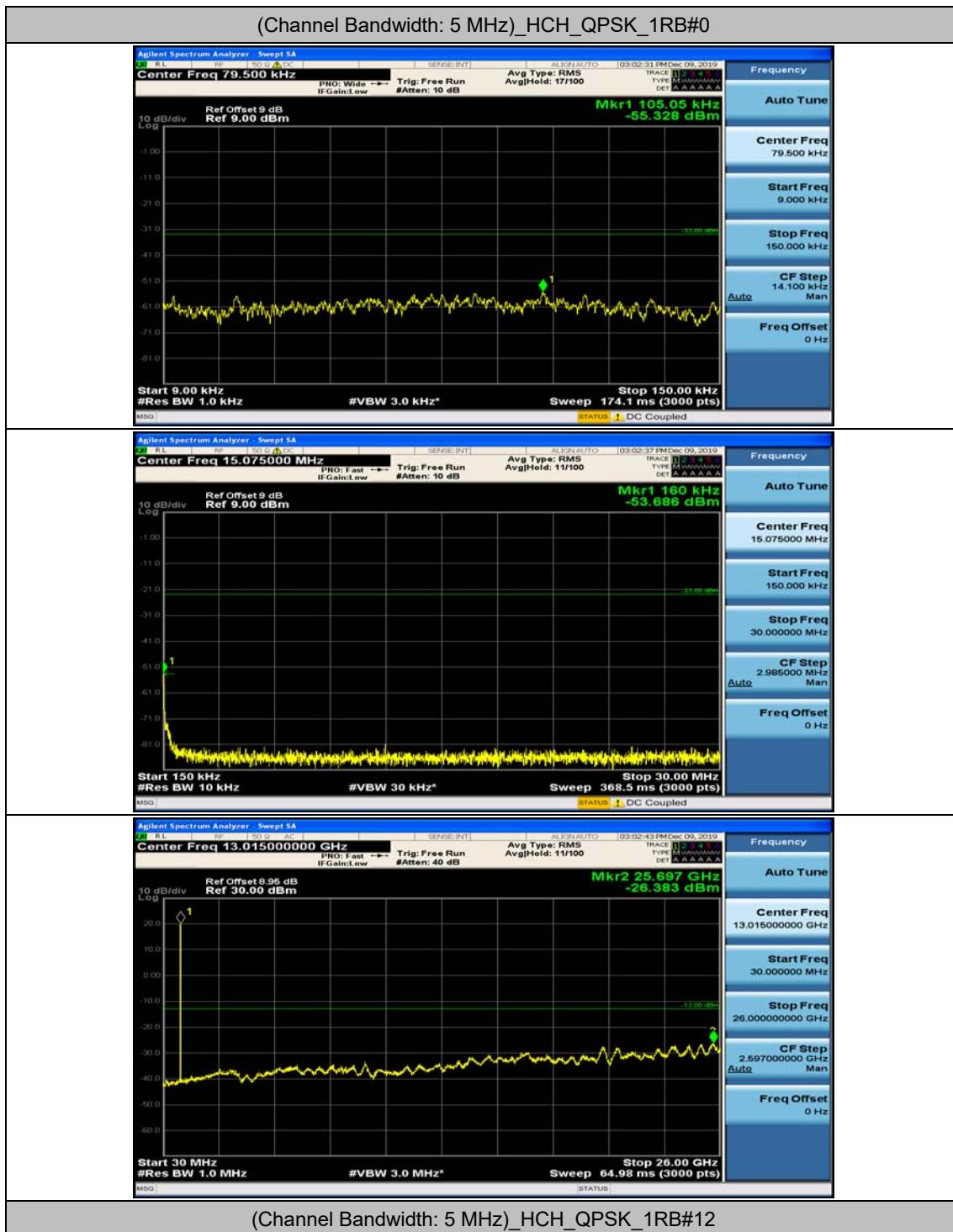


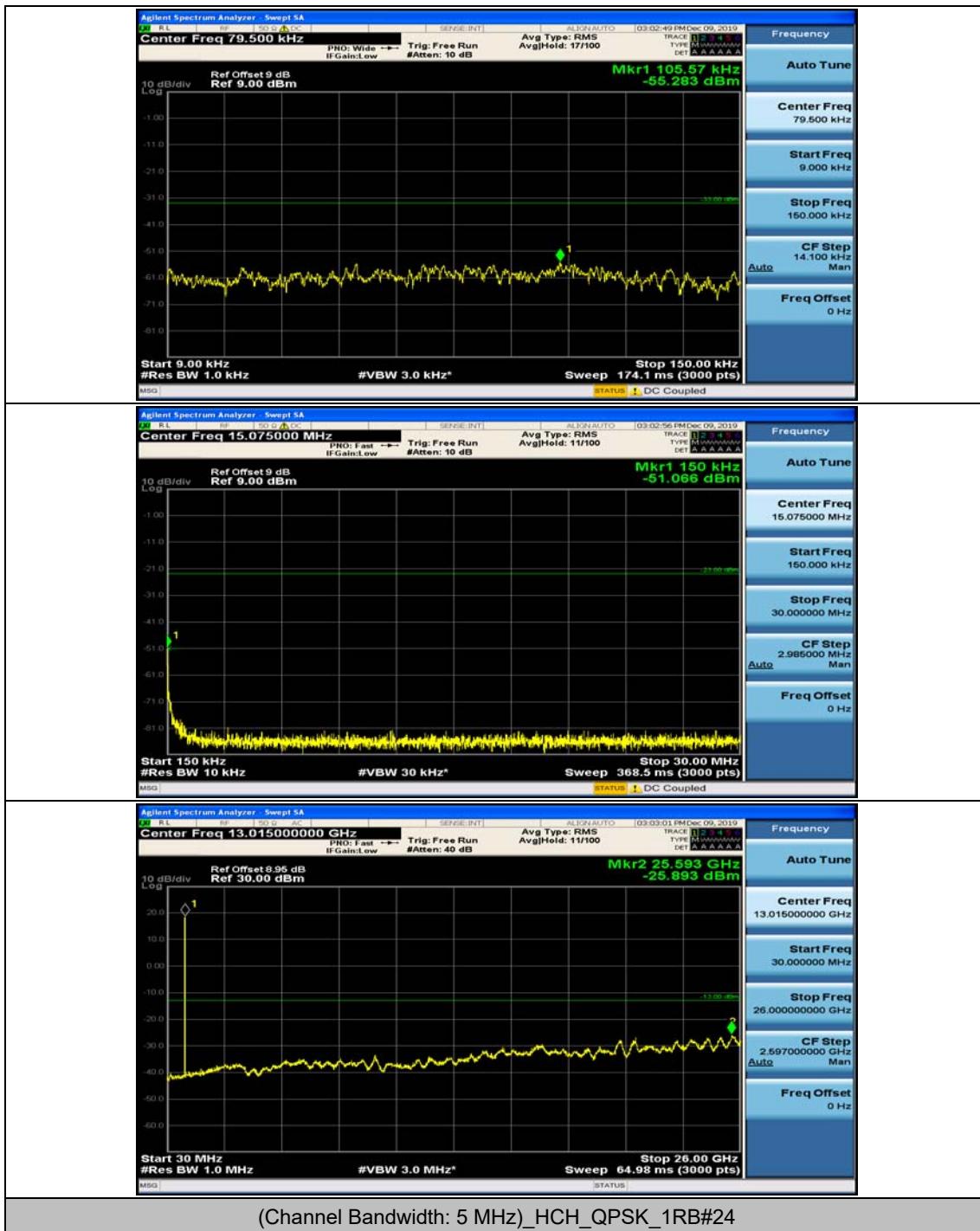


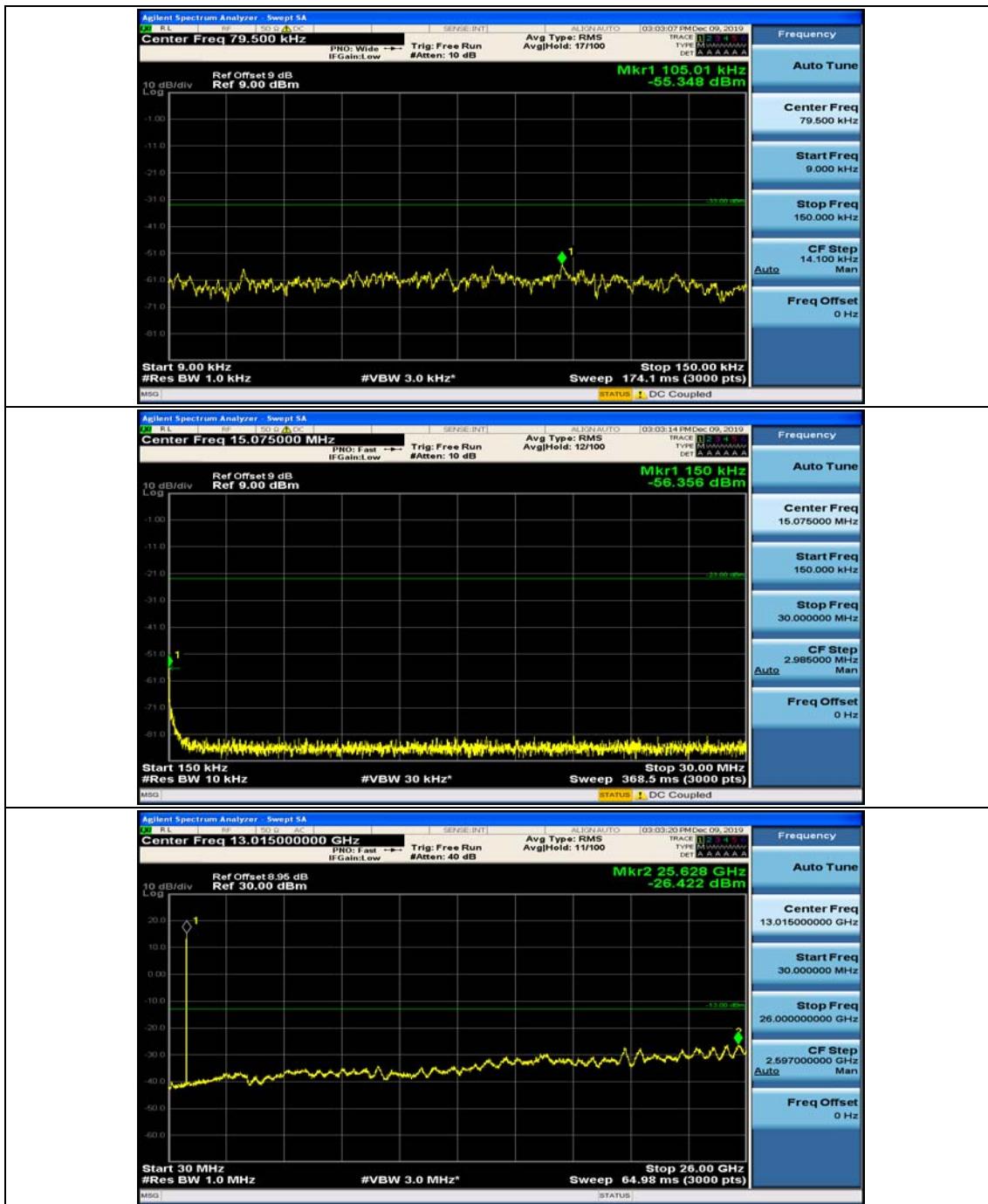


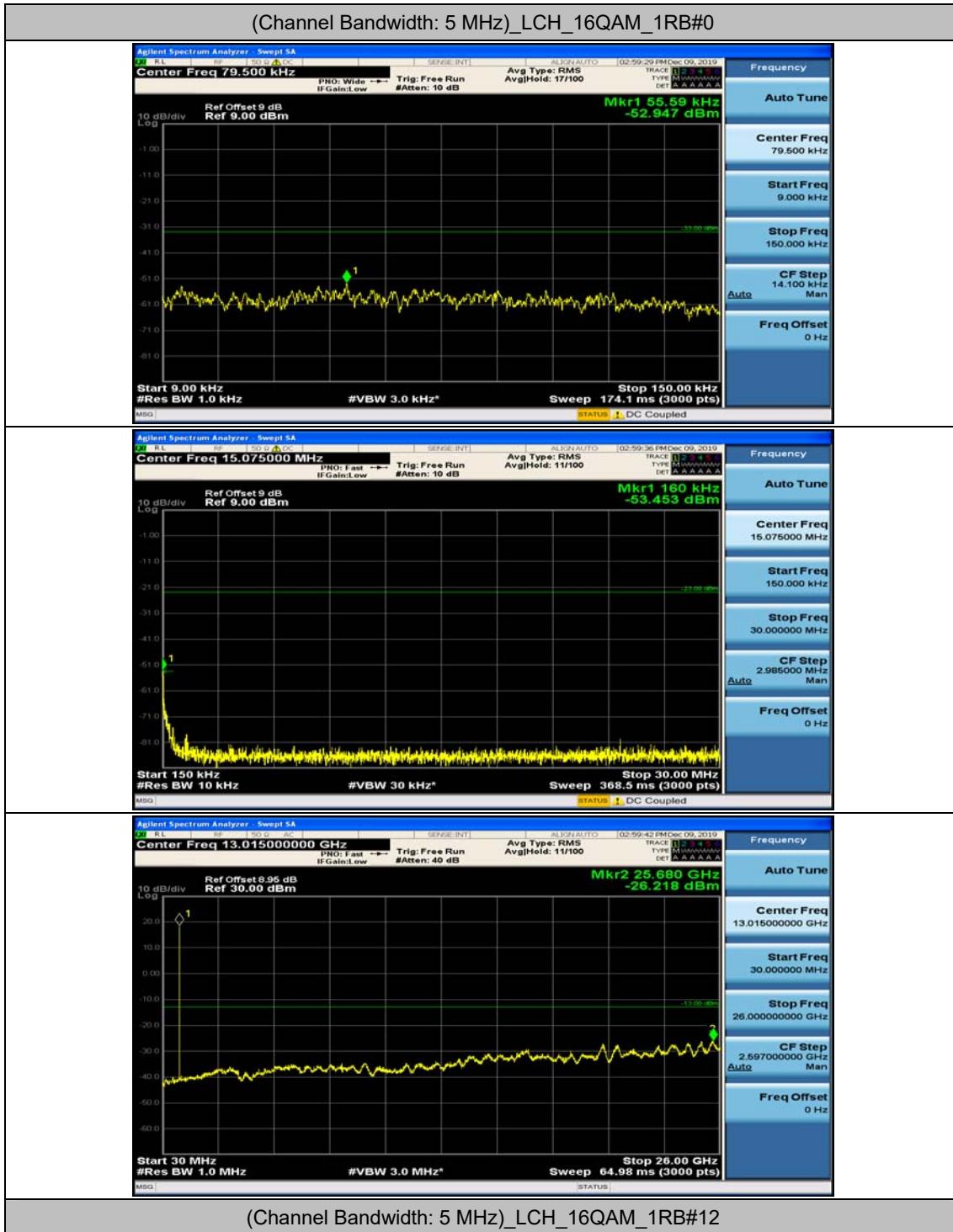


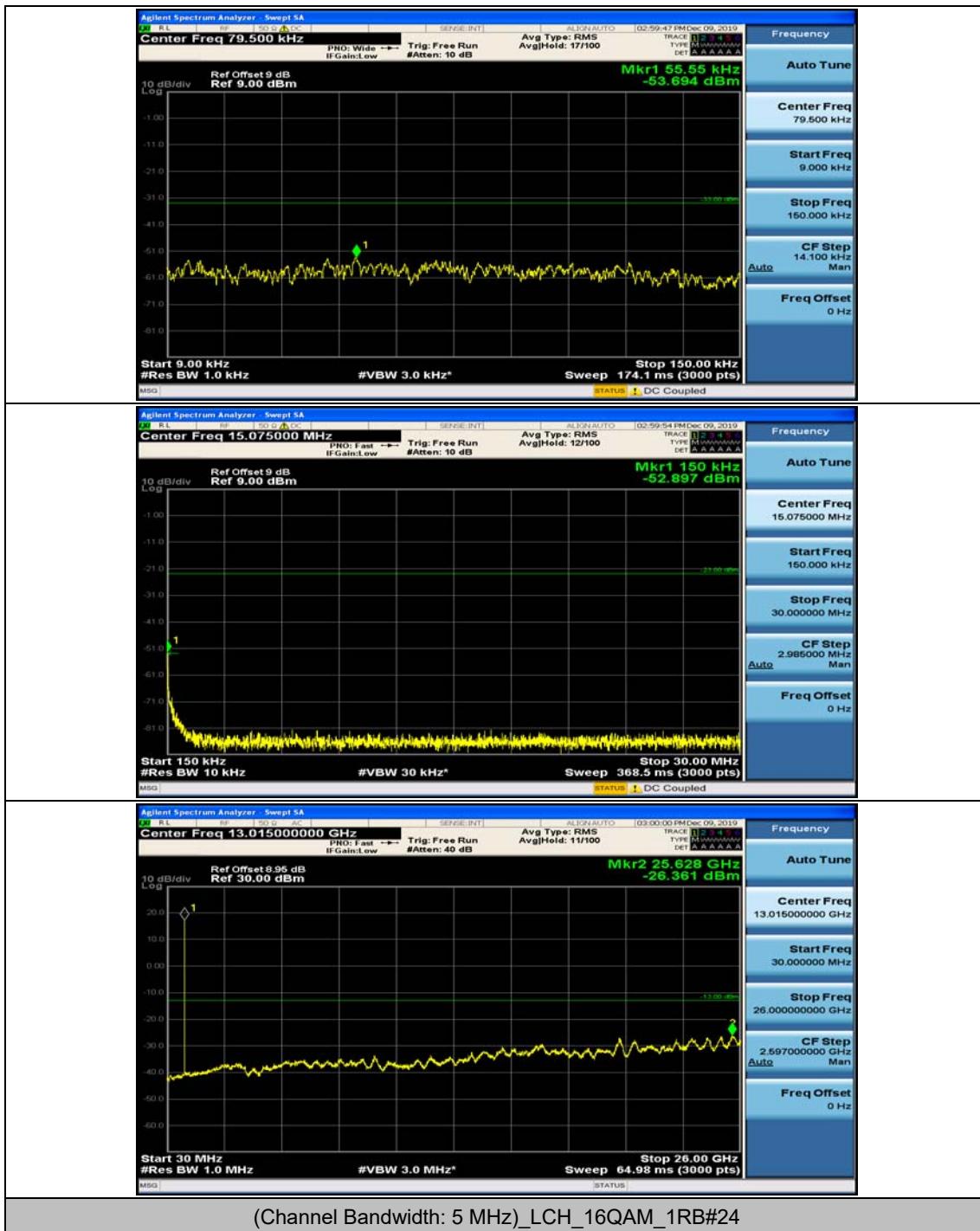


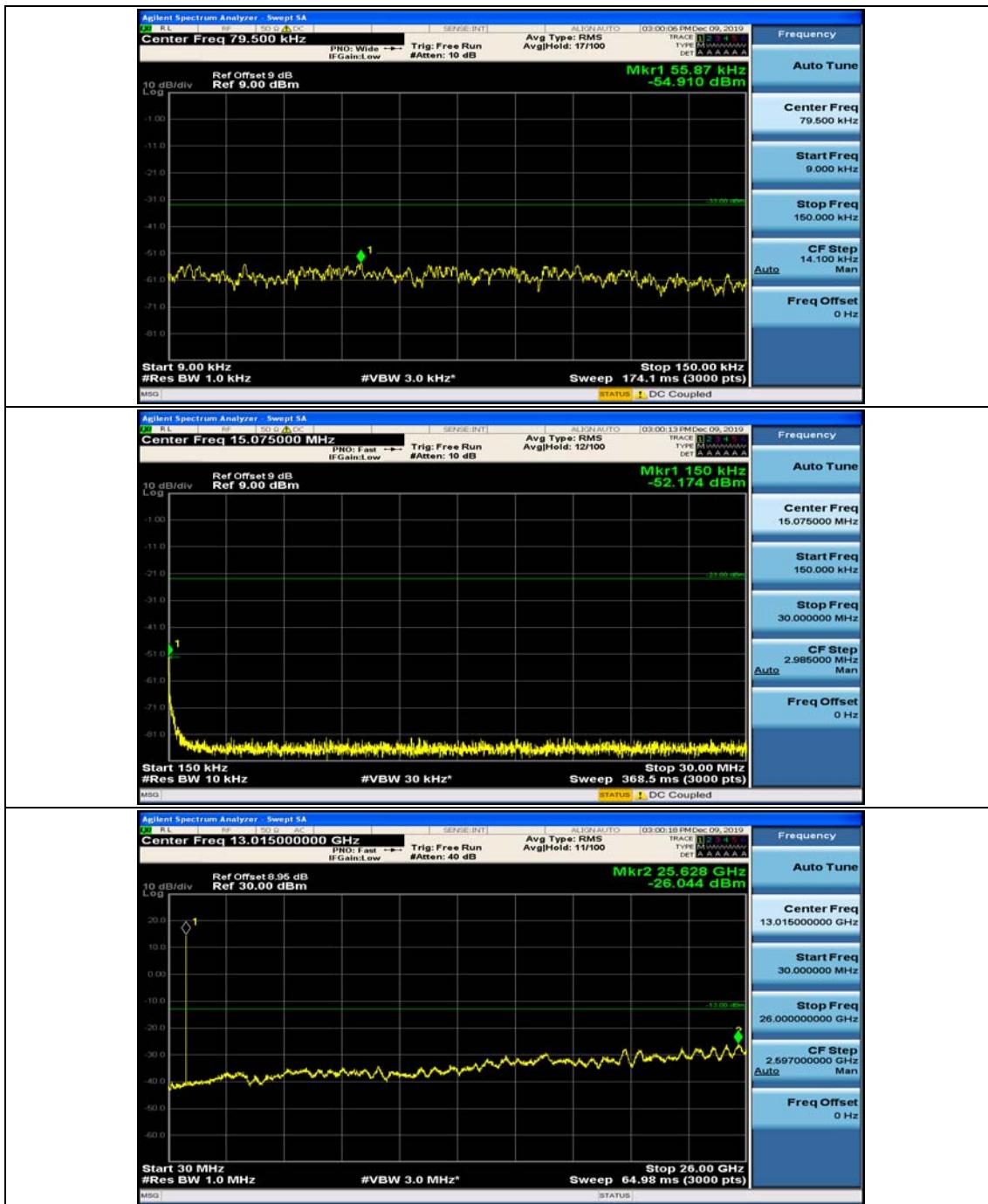


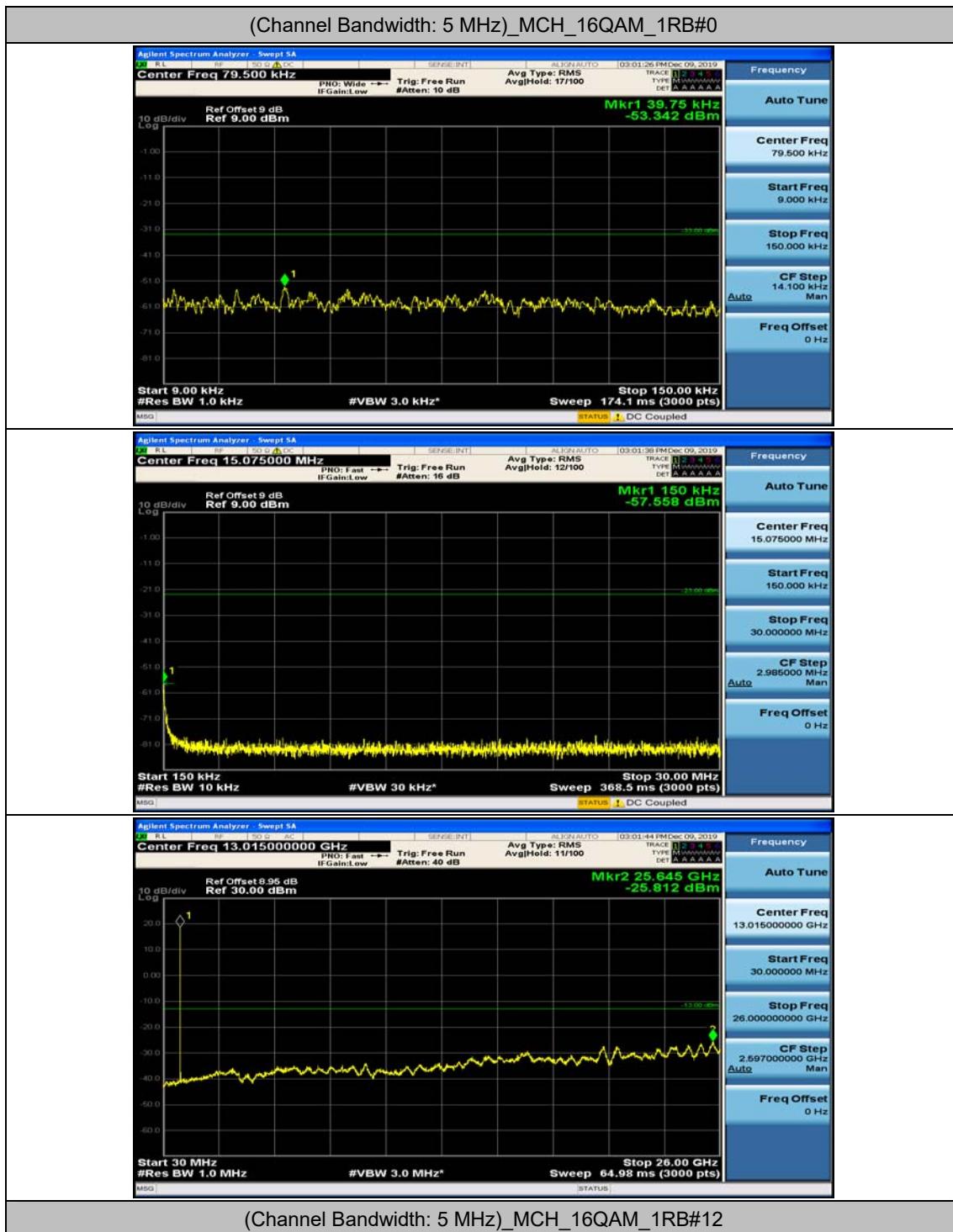


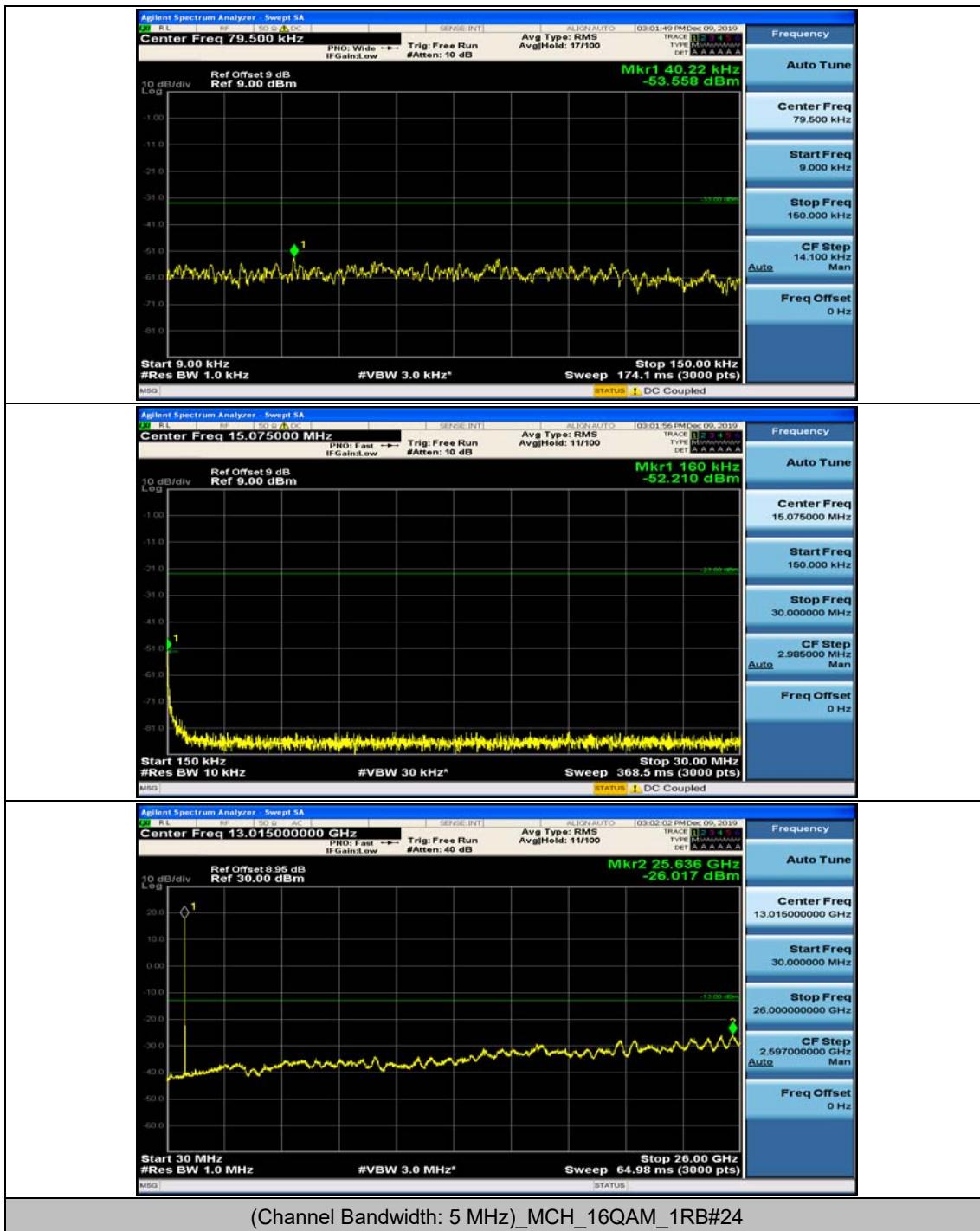


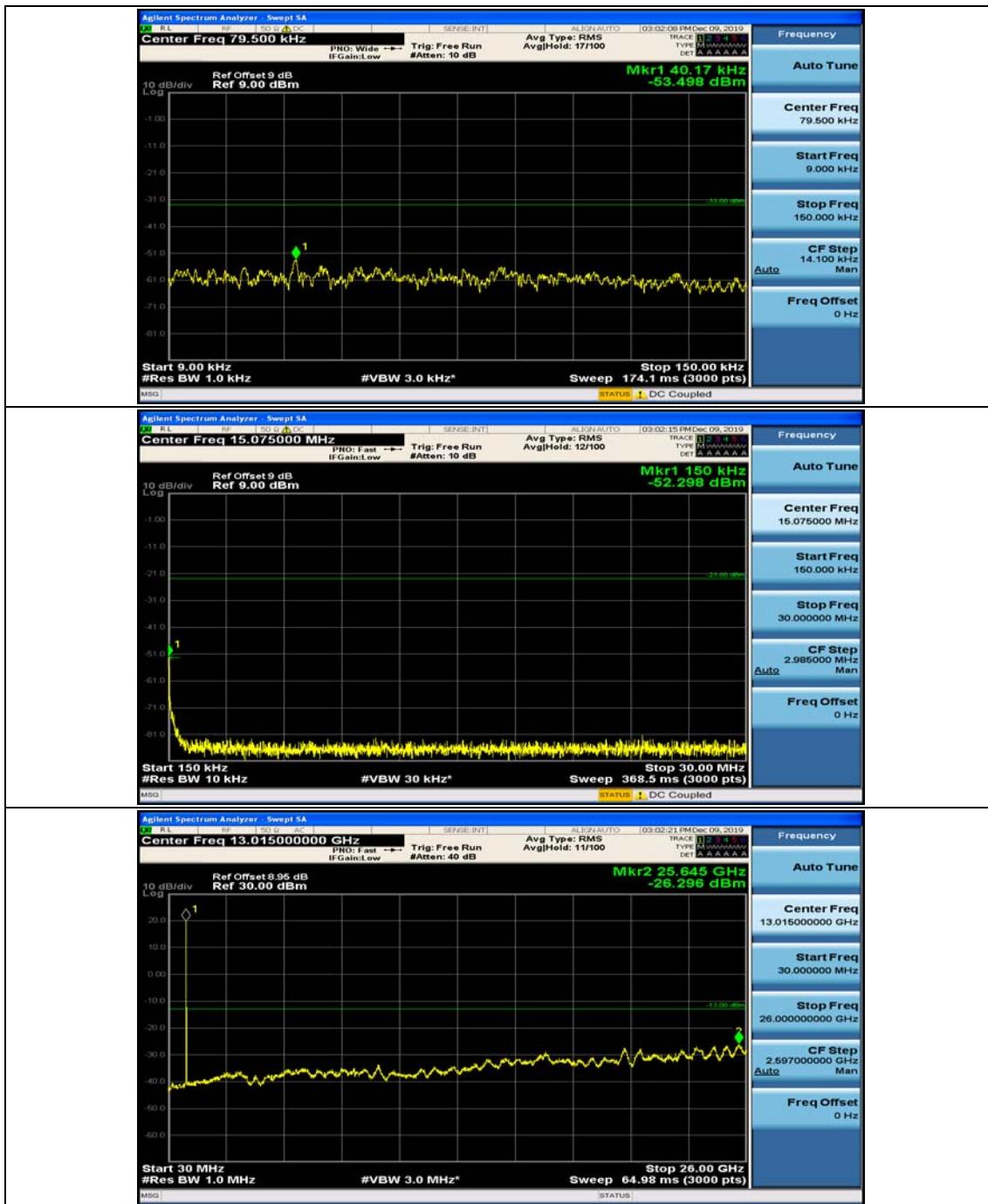


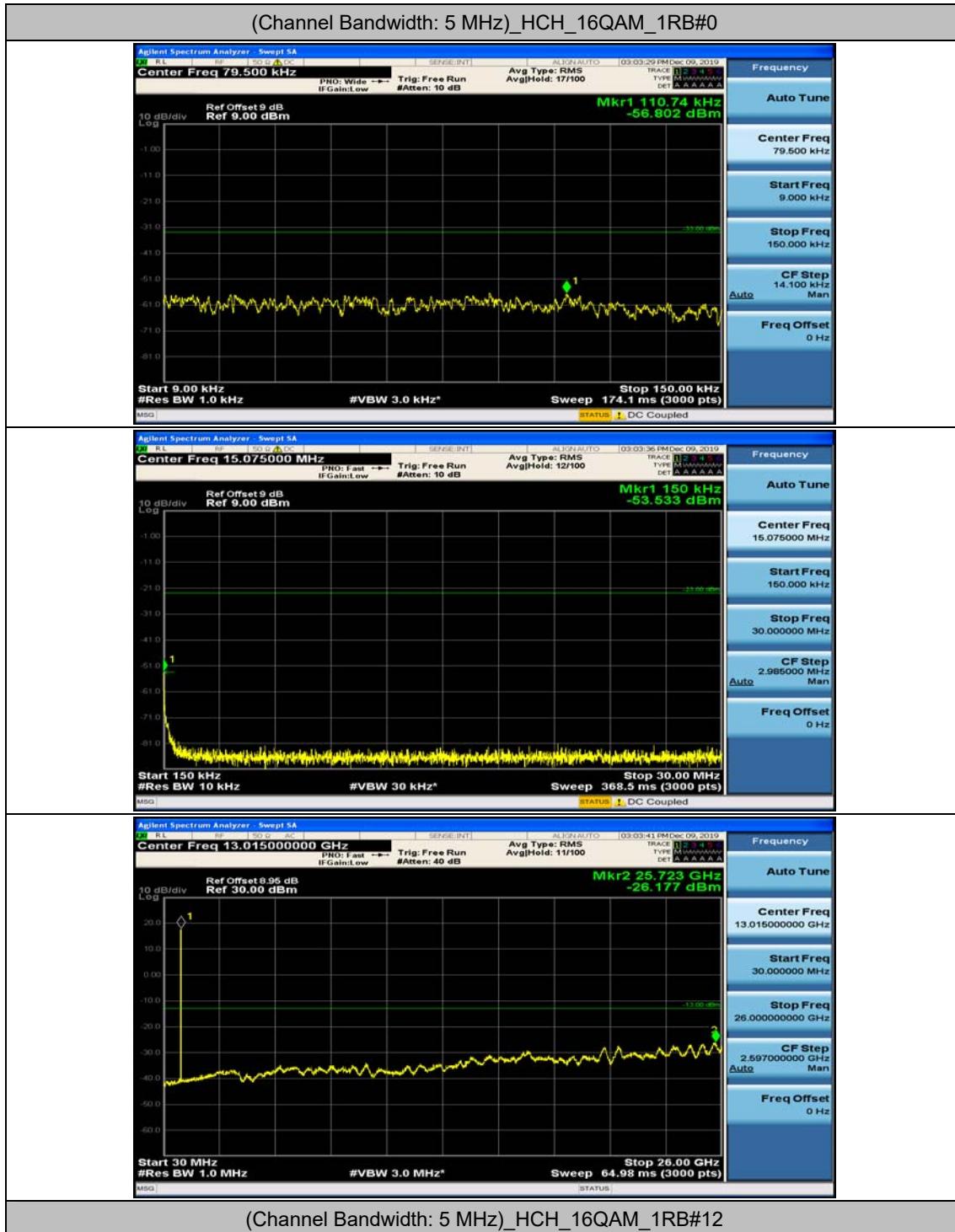


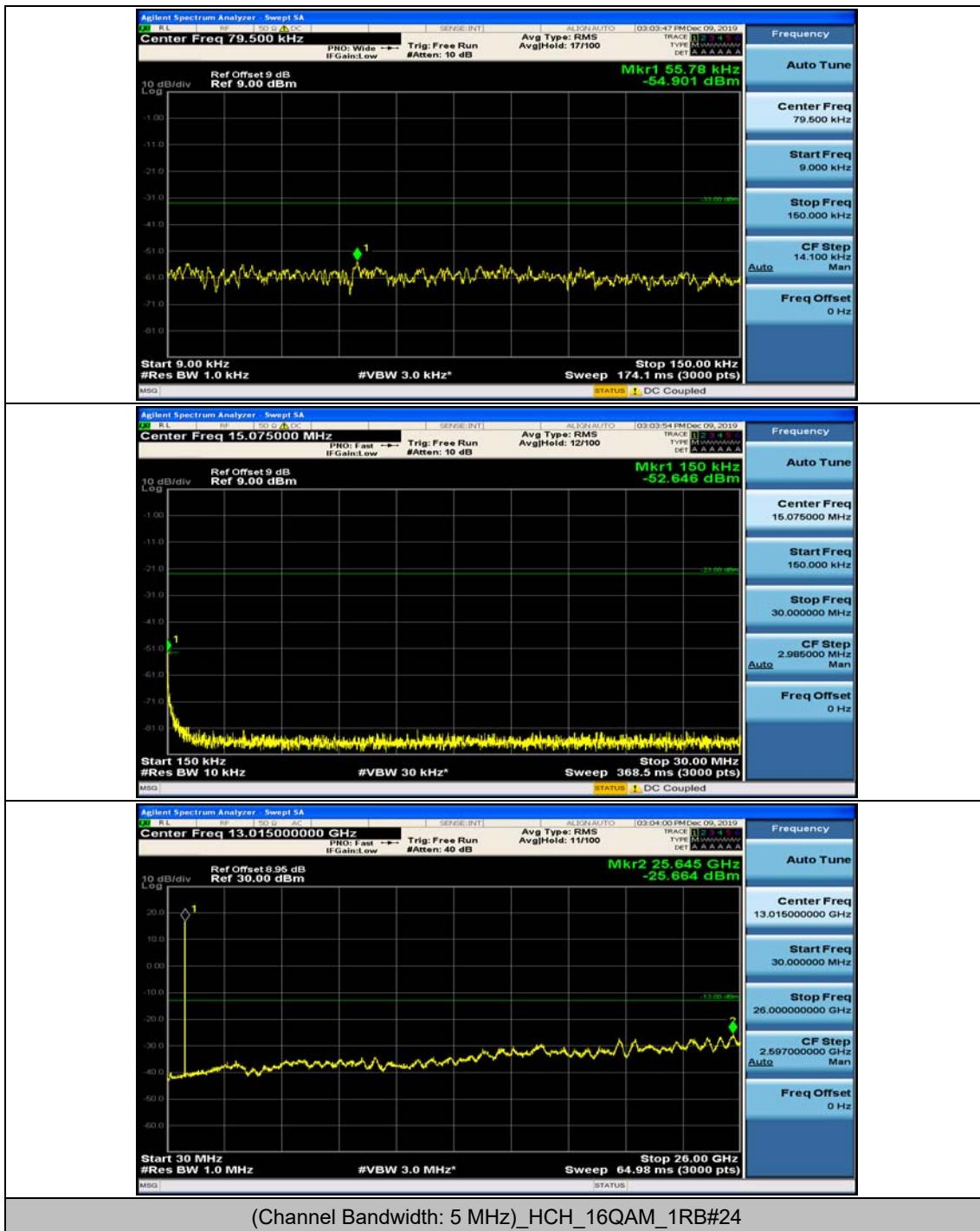


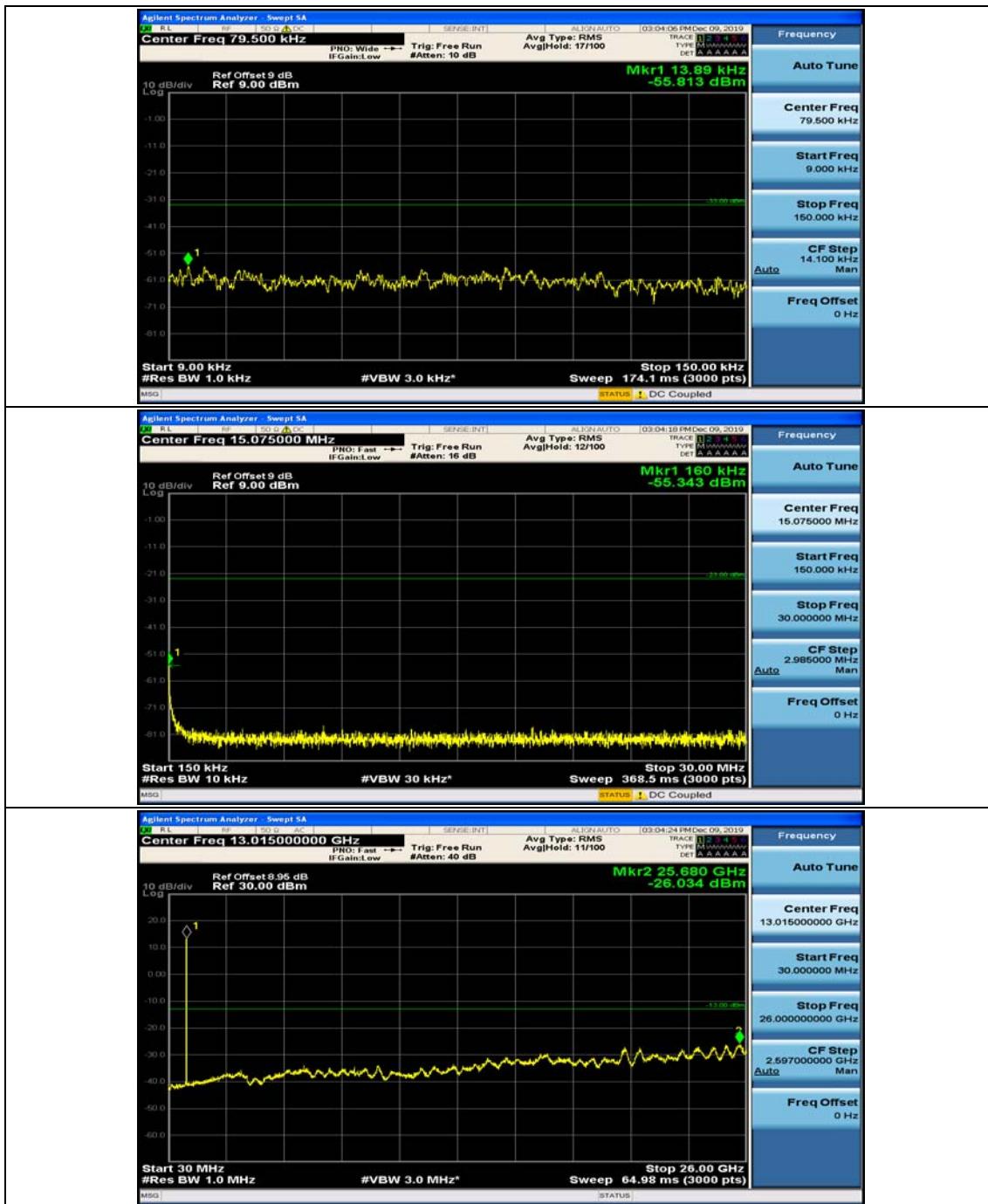




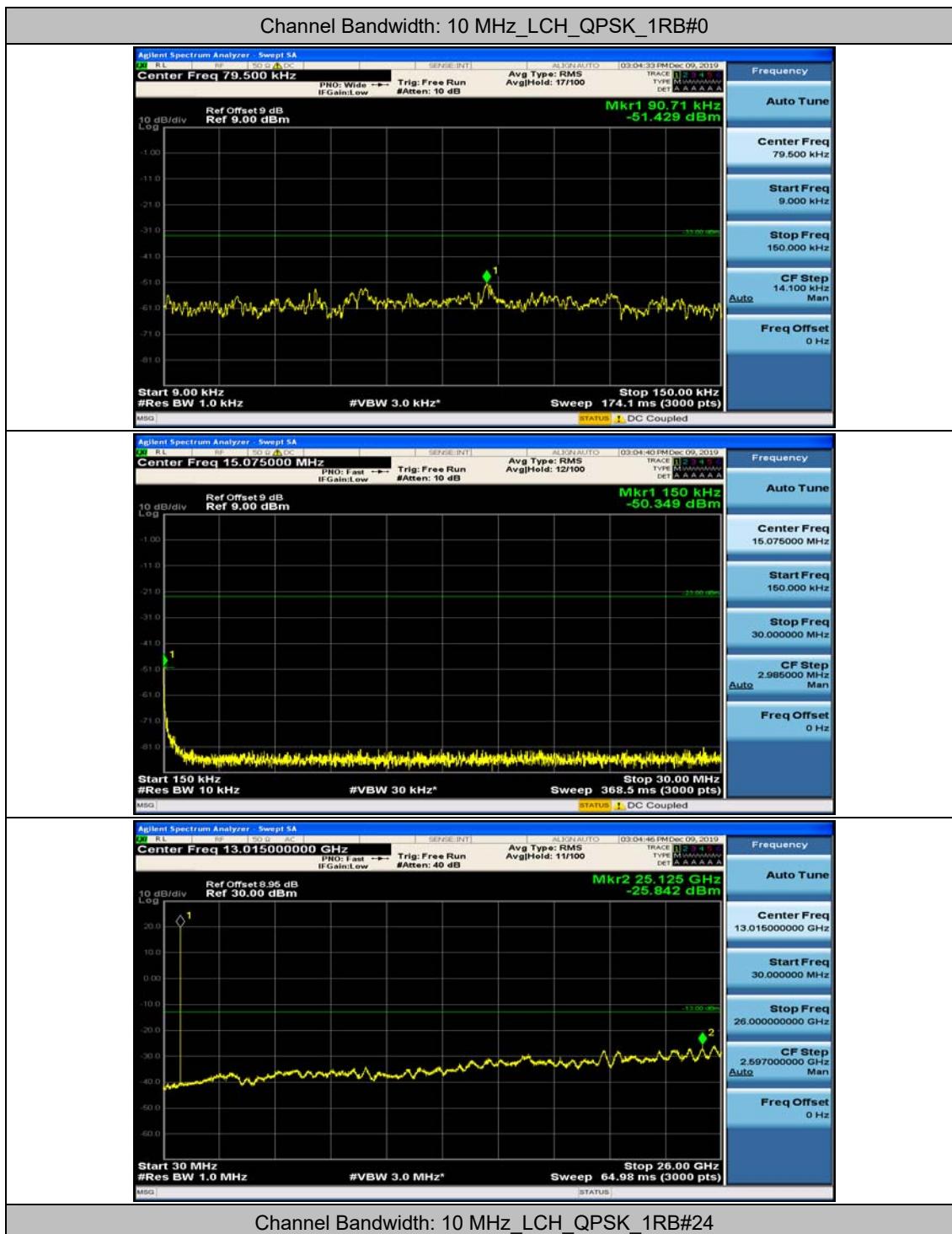


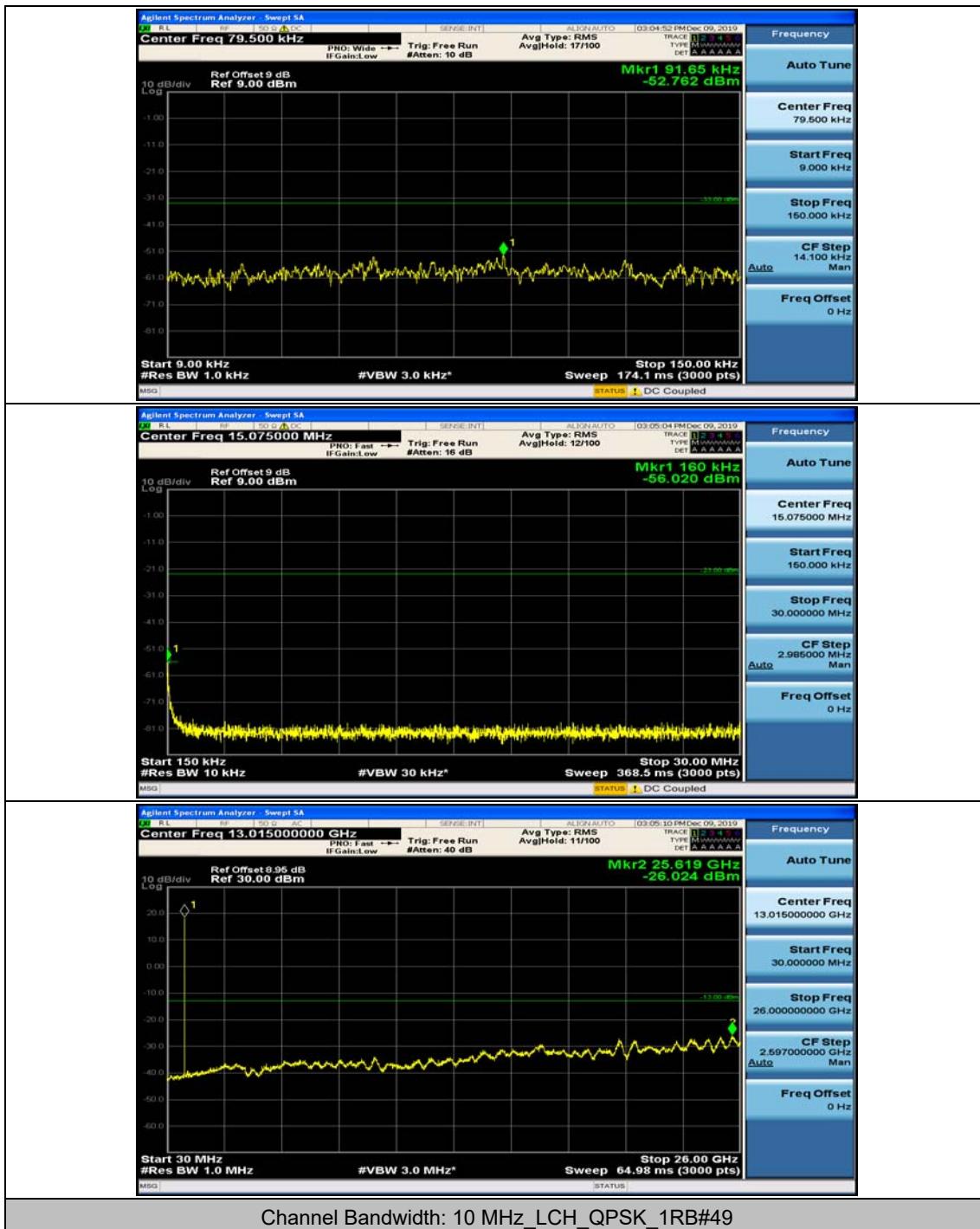


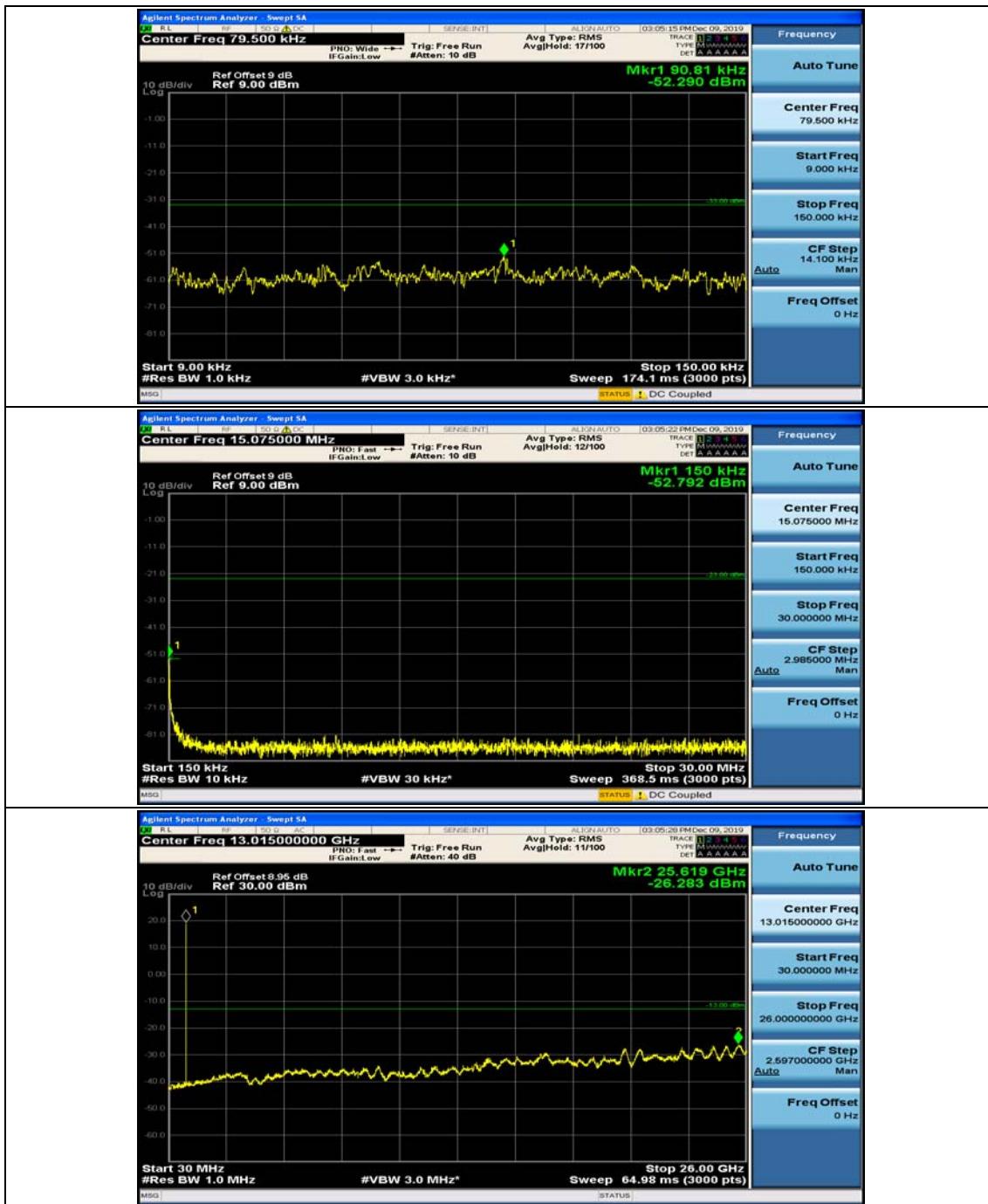


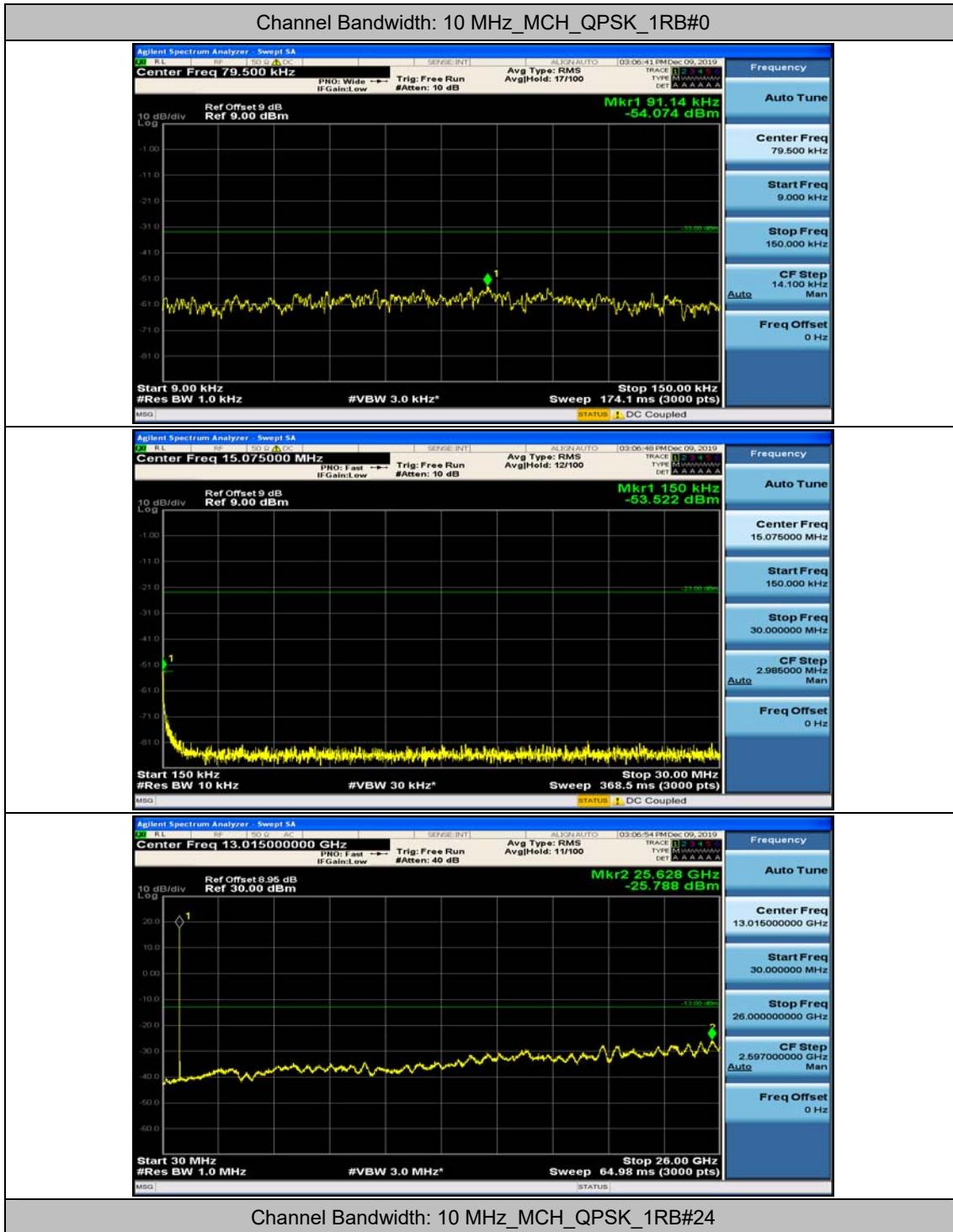


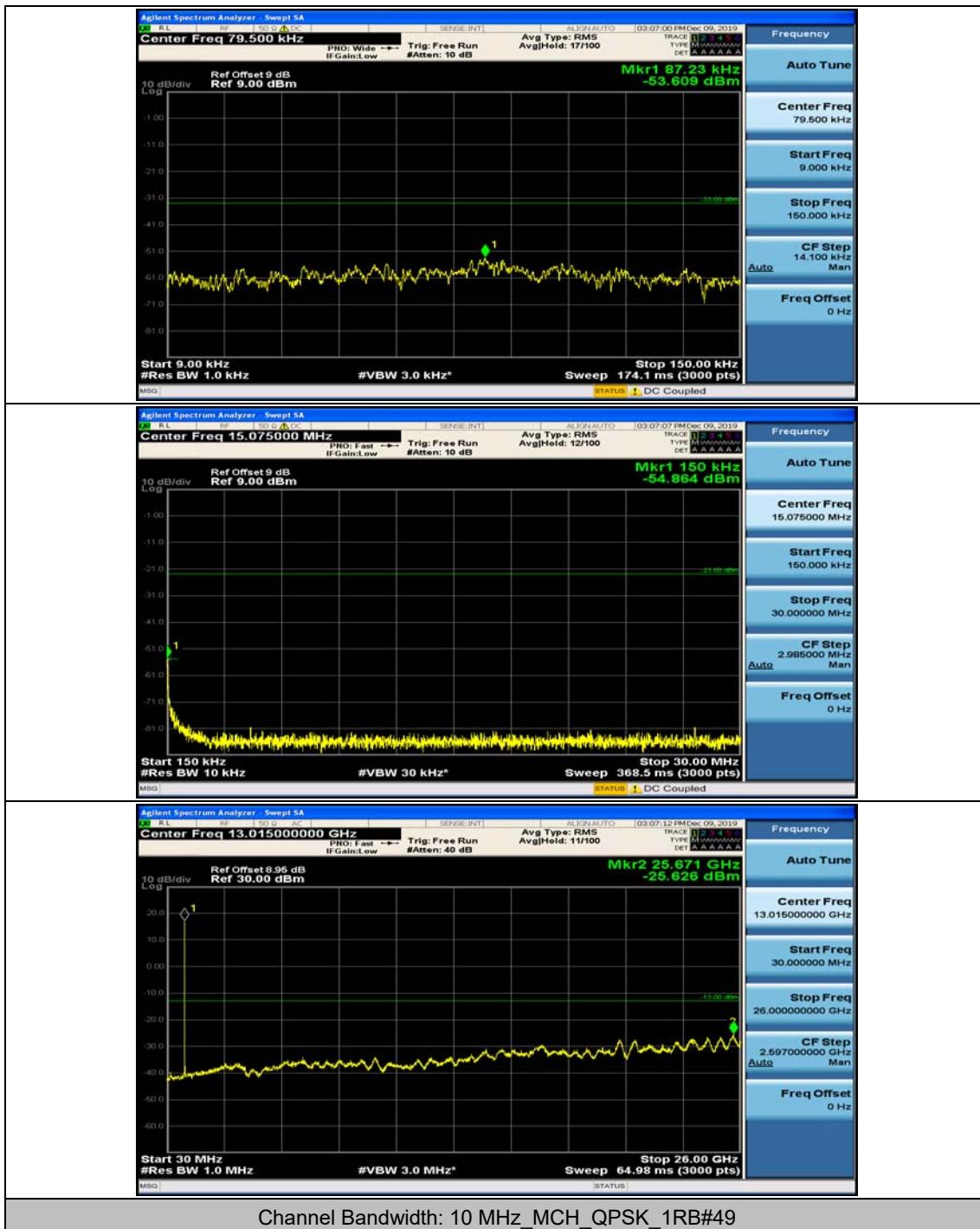
Channel Bandwidth: 10 MHz

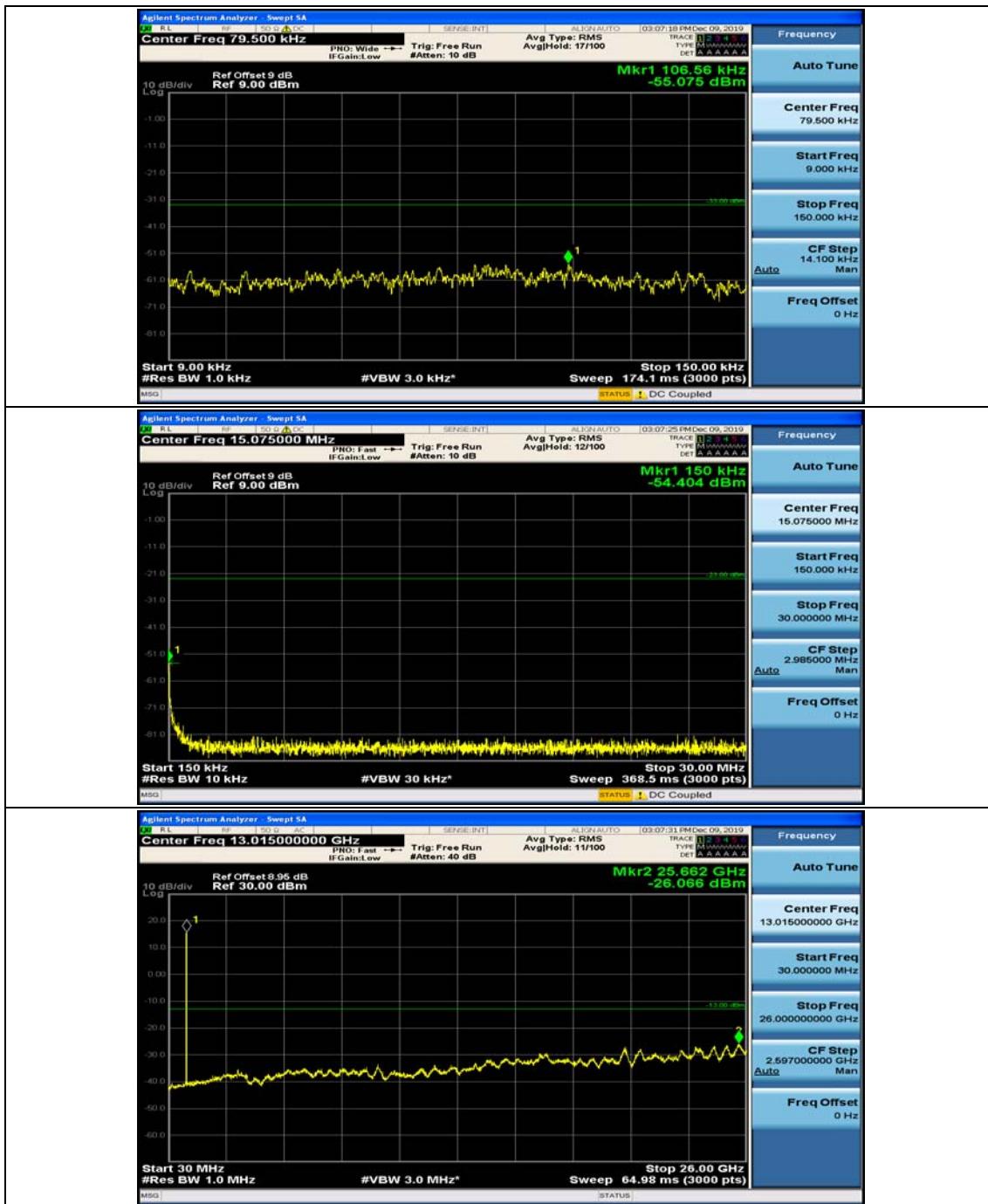


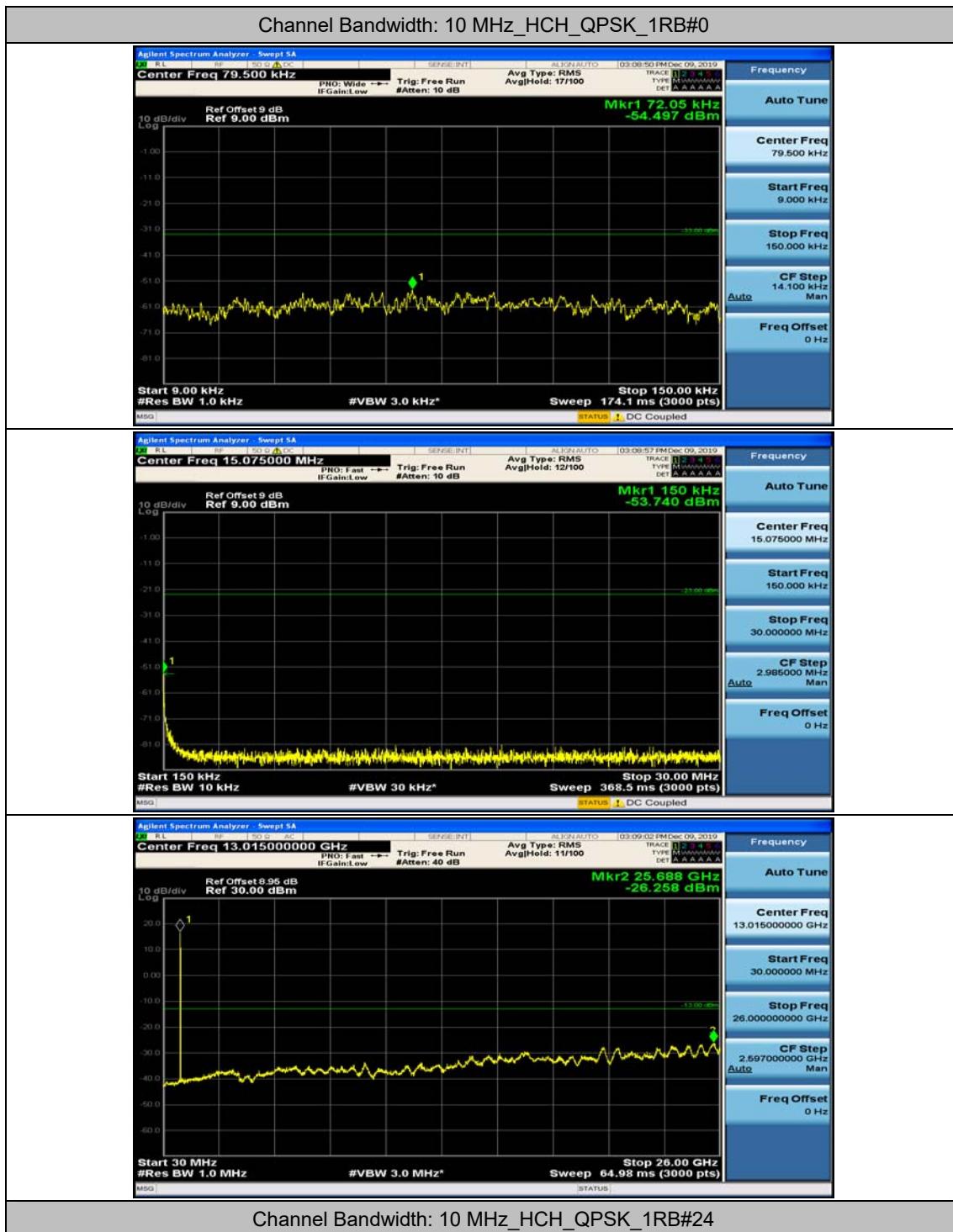


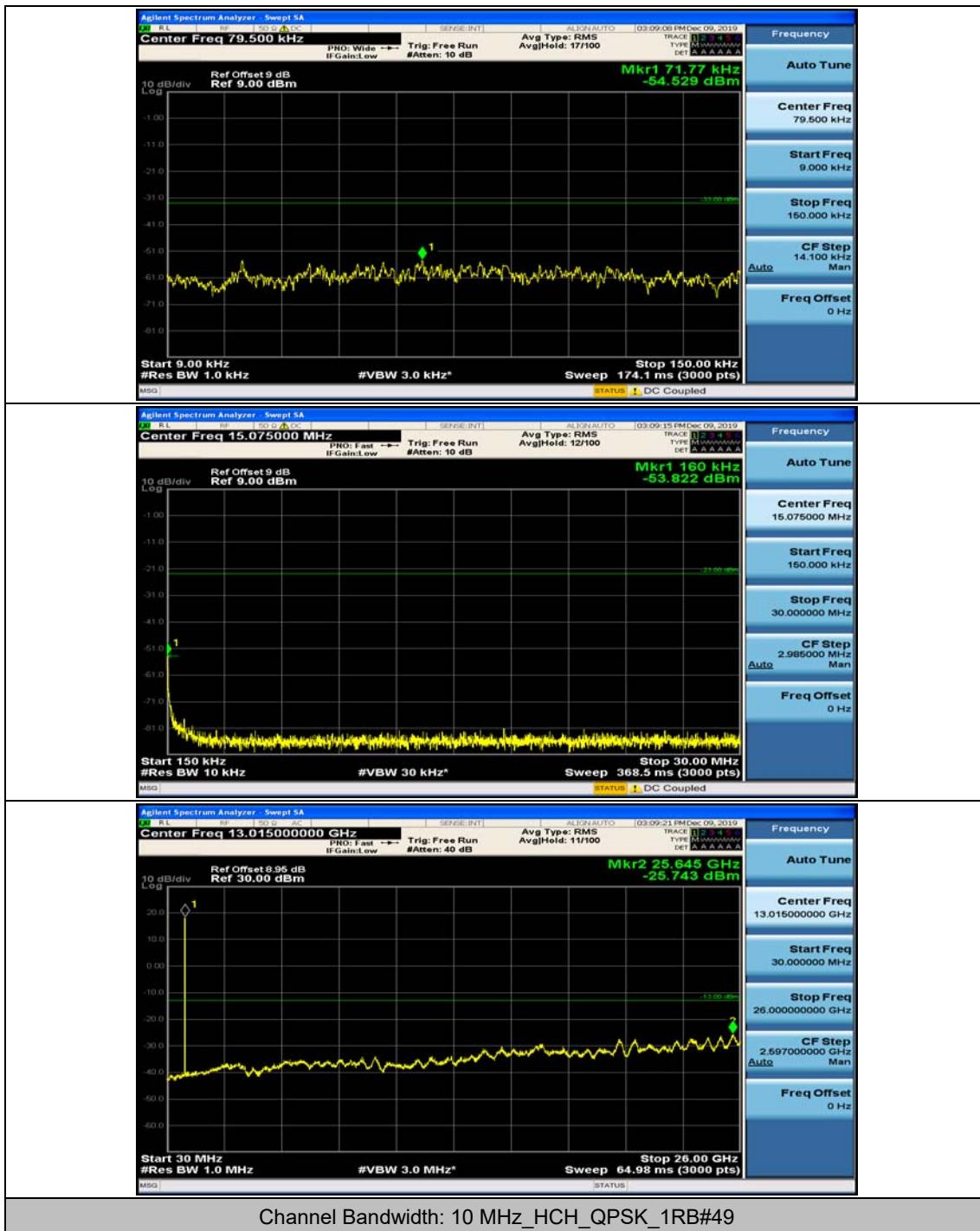


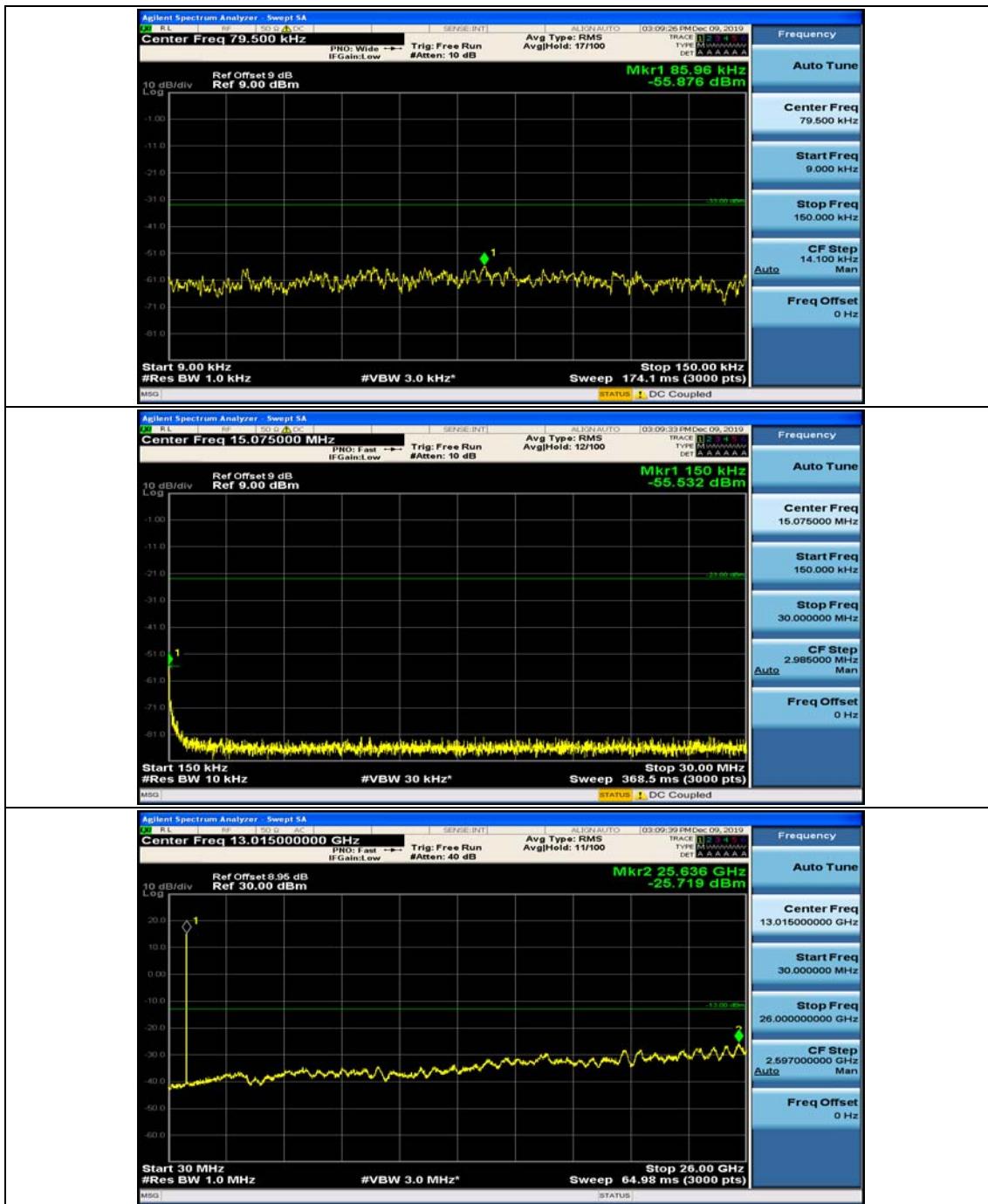


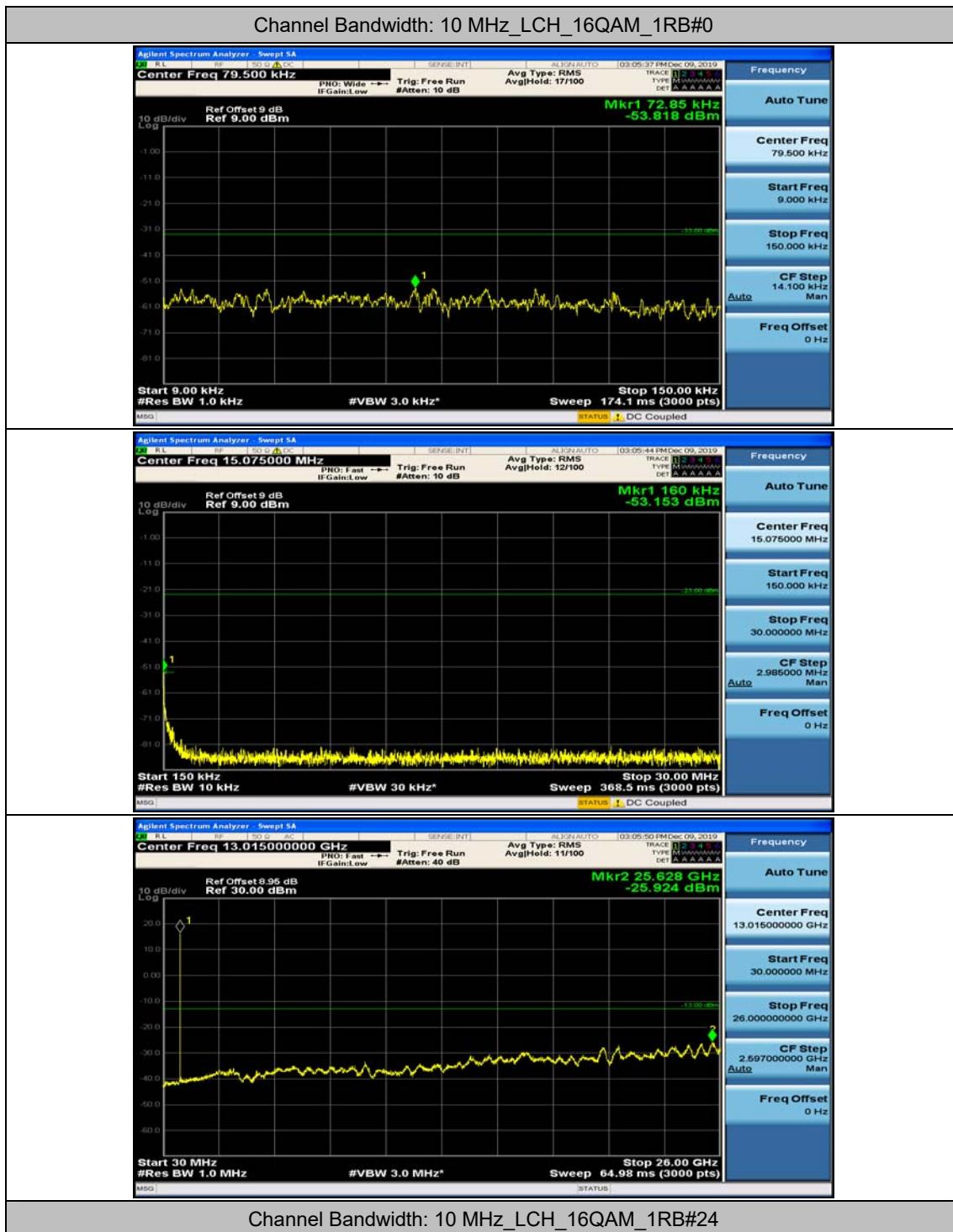


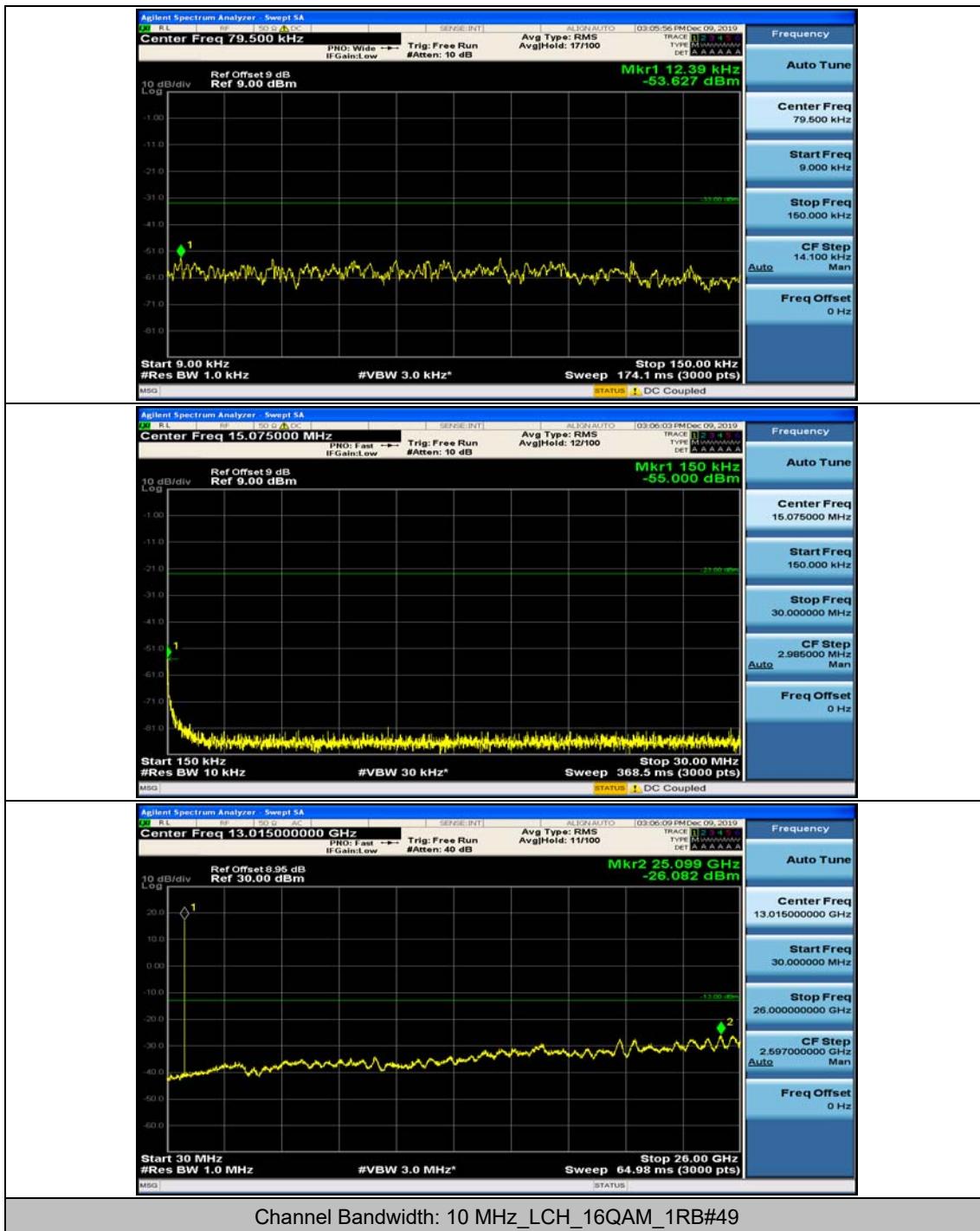


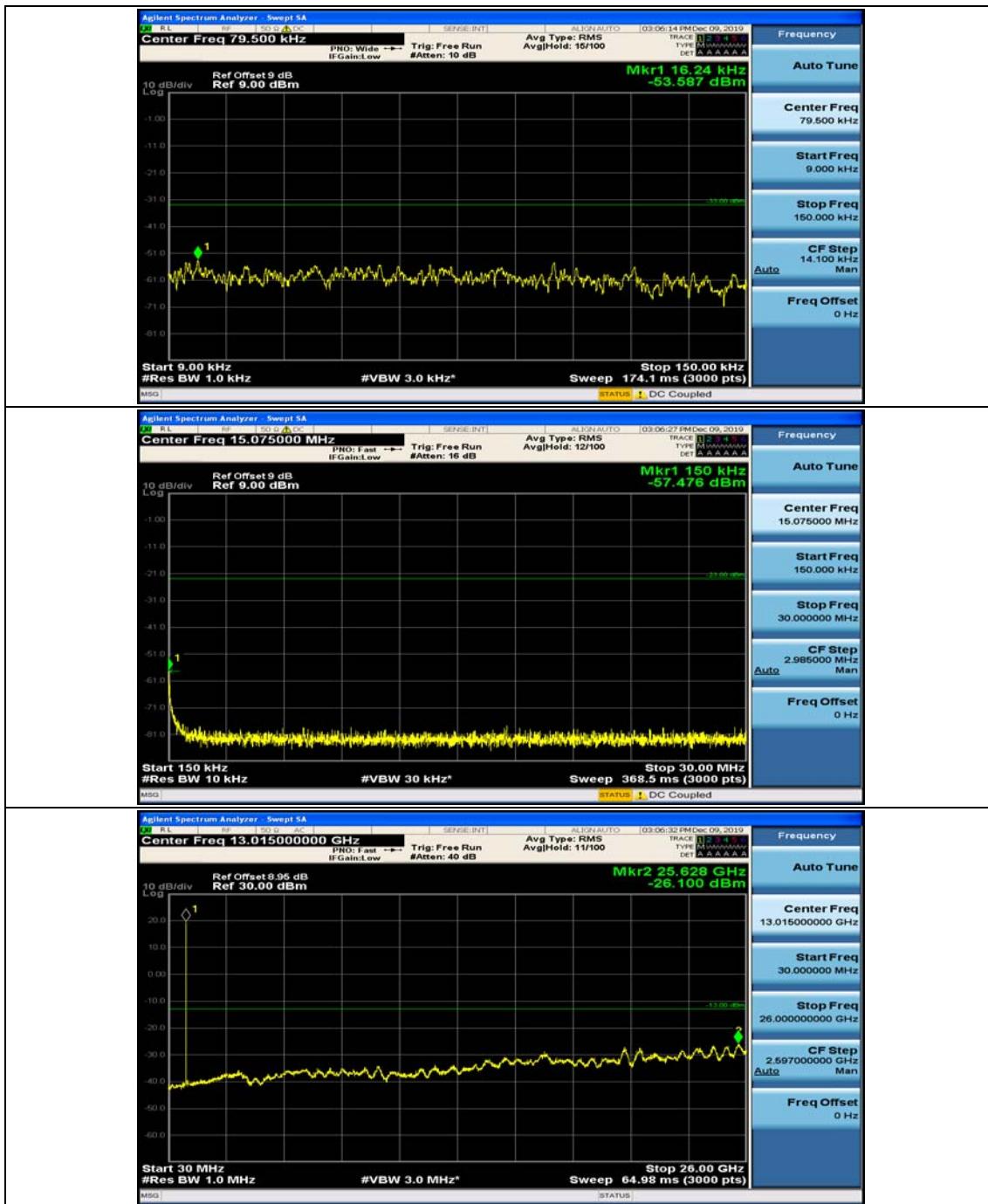


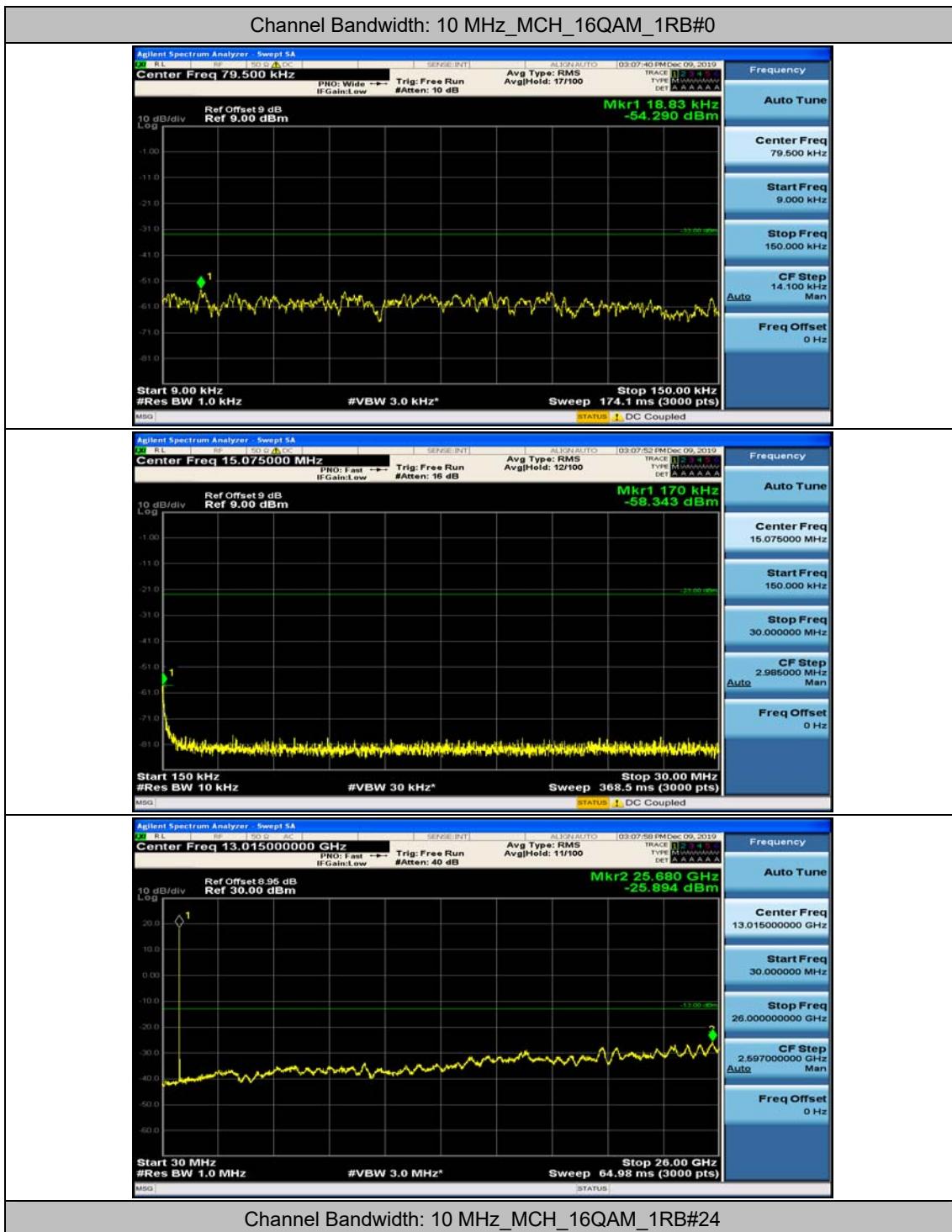


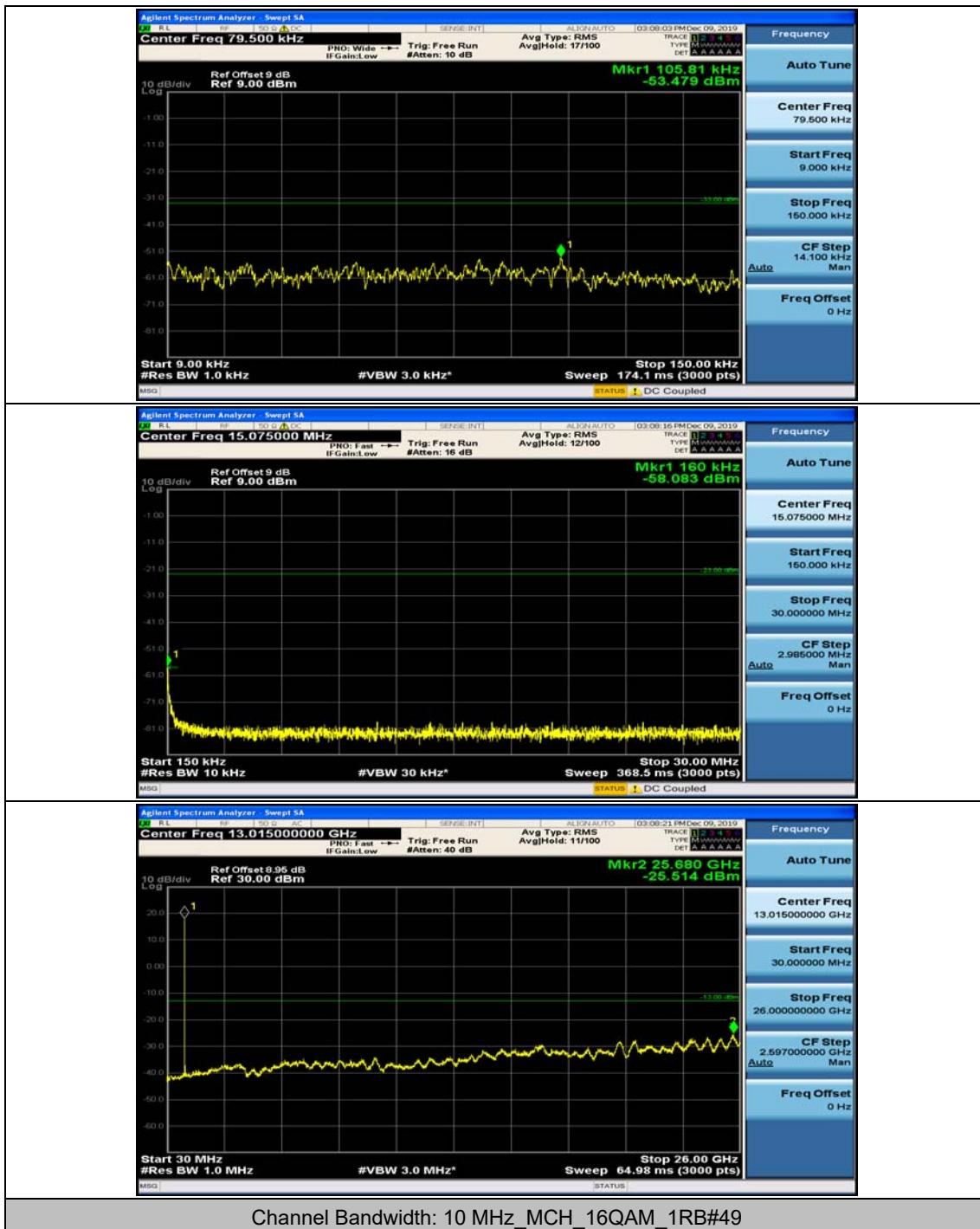


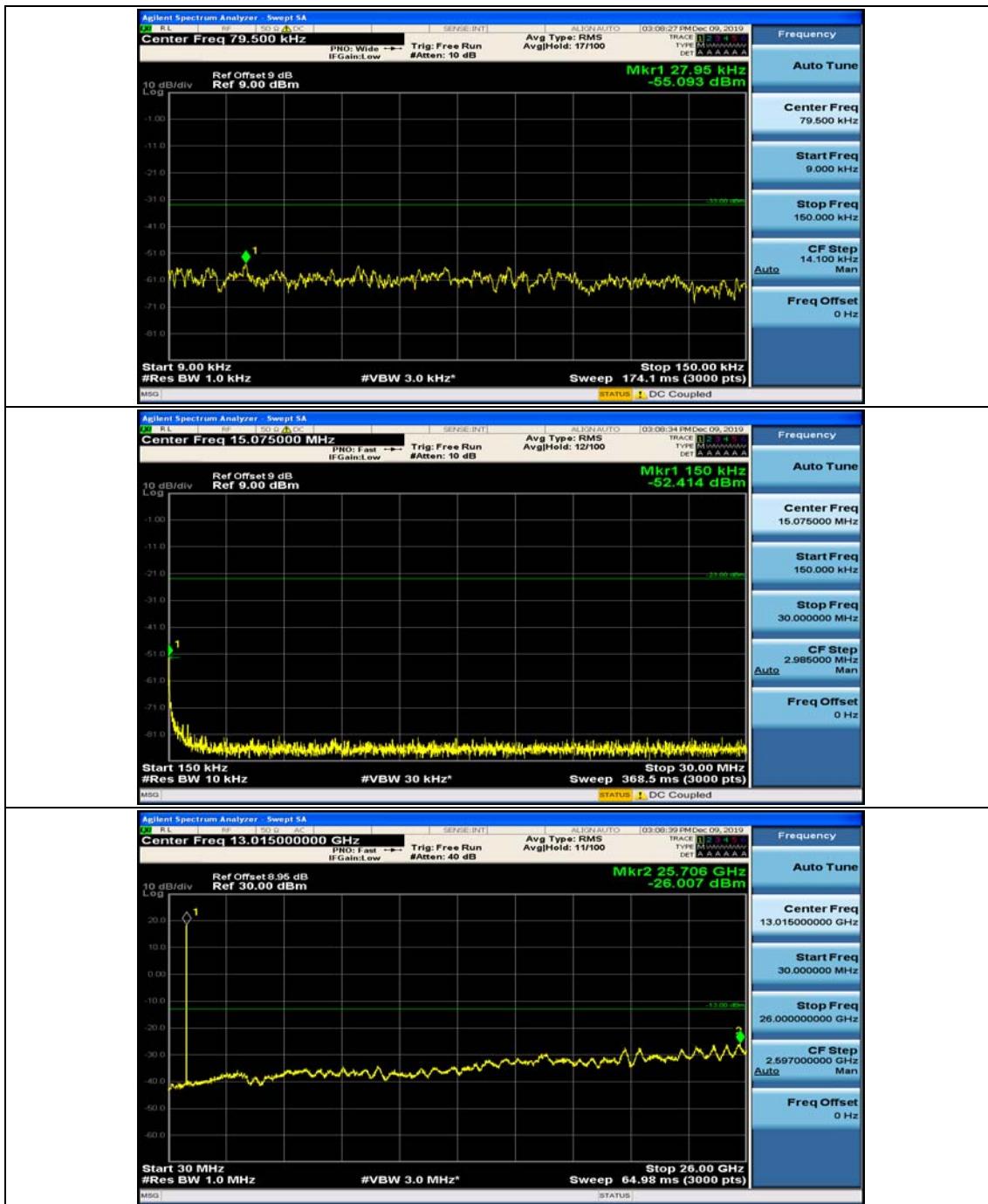


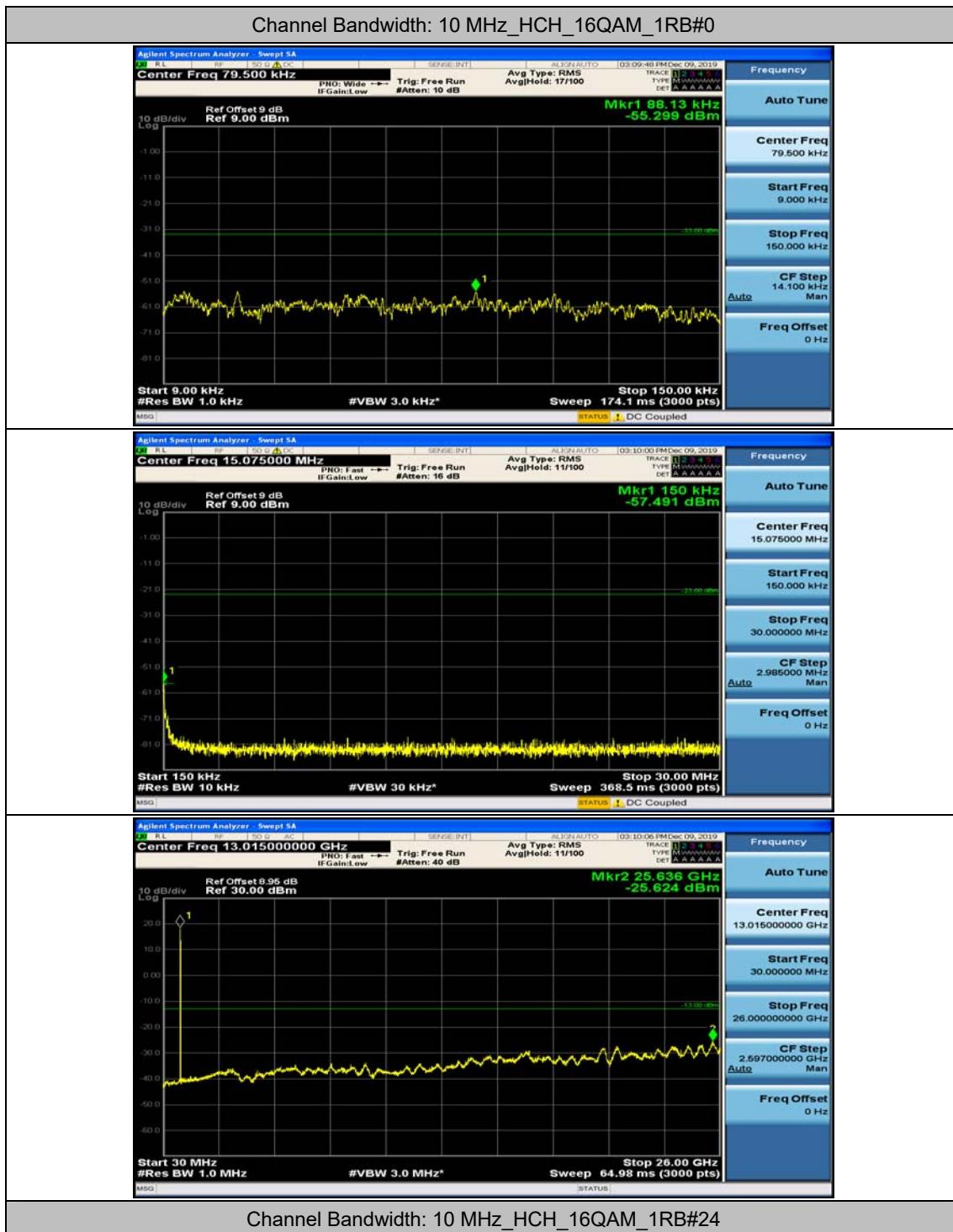


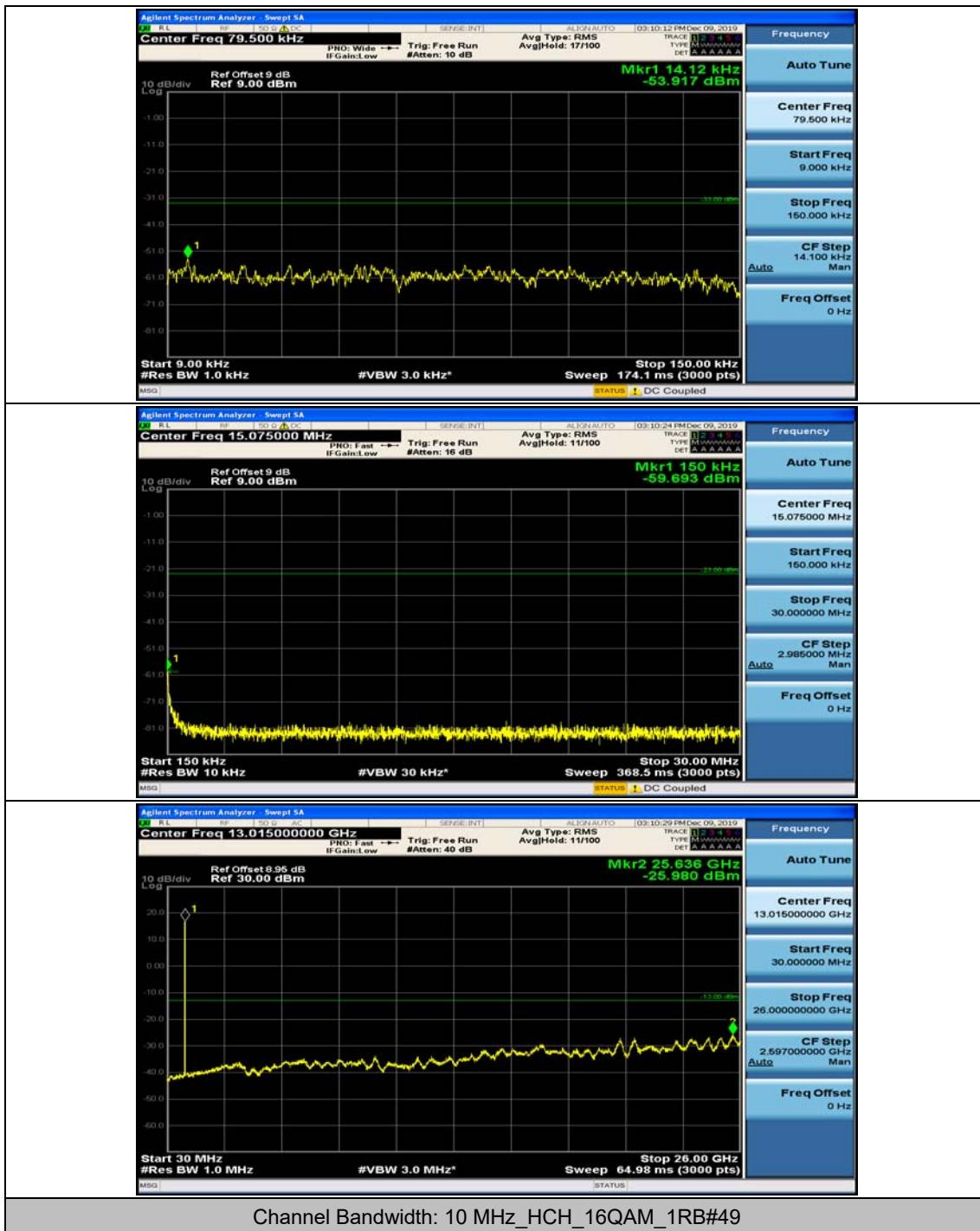


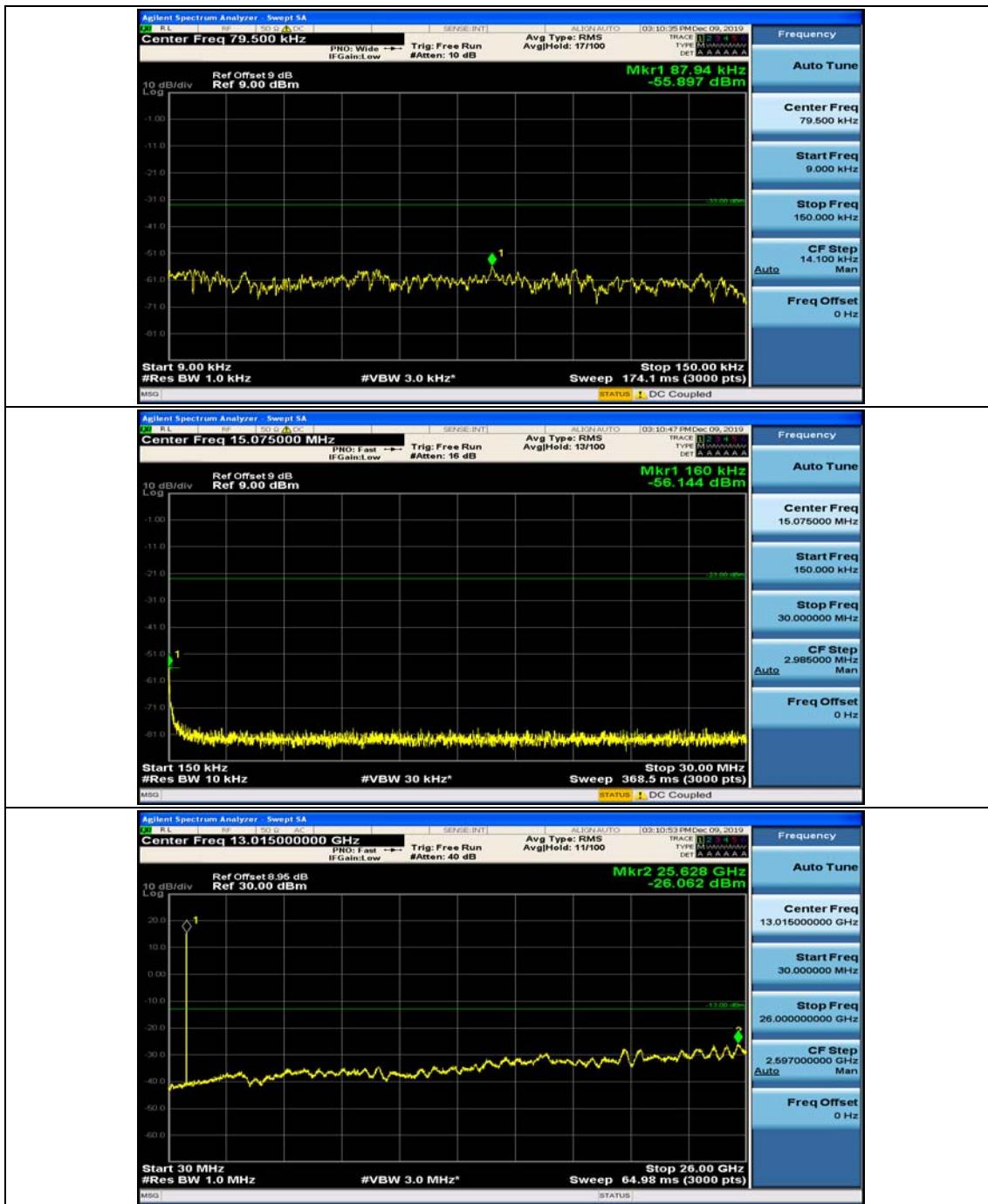












Appendix F: Frequency Stability

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	3.59	0.004353	± 2.5	PASS
		VN	TN	-0.19	-0.000230	± 2.5	PASS
		VH	TN	-1.7	-0.002061	± 2.5	PASS
	MCH	VL	TN	3.04	0.003634	± 2.5	PASS
		VN	TN	4.69	0.005607	± 2.5	PASS
		VH	TN	1.47	0.001757	± 2.5	PASS
	HCH	VL	TN	3.05	0.003595	± 2.5	PASS
		VN	TN	3.04	0.003584	± 2.5	PASS
		VH	TN	1.96	0.002311	± 2.5	PASS
16QAM	LCH	VL	TN	2.78	0.003371	± 2.5	PASS
		VN	TN	0.94	0.001140	± 2.5	PASS
		VH	TN	3.85	0.004668	± 2.5	PASS
	MCH	VL	TN	3.47	0.004148	± 2.5	PASS
		VN	TN	4.89	0.005846	± 2.5	PASS
		VH	TN	3.52	0.004208	± 2.5	PASS
	HCH	VL	TN	4.08	0.004810	± 2.5	PASS
		VN	TN	3.21	0.003784	± 2.5	PASS
		VH	TN	1.35	0.001591	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.38	0.004098	± 2.5	PASS
		VN	-20	-0.65	-0.000788	± 2.5	PASS
		VN	-10	4.06	0.004923	± 2.5	PASS
		VN	0	0.61	0.000740	± 2.5	PASS
		VN	10	-1.58	-0.001916	± 2.5	PASS
		VN	20	4.11	0.004984	± 2.5	PASS
		VN	30	-0.81	-0.000982	± 2.5	PASS
		VN	40	3.15	0.003820	± 2.5	PASS
		VN	50	2.76	0.003347	± 2.5	PASS
	MCH	VN	-30	0.09	0.000108	± 2.5	PASS
		VN	-20	1.84	0.002200	± 2.5	PASS

	HCH	VN	-10	-0.46	-0.000550	± 2.5	PASS
		VN	0	3.02	0.003610	± 2.5	PASS
		VN	10	4.41	0.005272	± 2.5	PASS
		VN	20	0.99	0.001184	± 2.5	PASS
		VN	30	-1.97	-0.002355	± 2.5	PASS
		VN	40	-1.69	-0.002020	± 2.5	PASS
		VN	50	0.73	0.000873	± 2.5	PASS
		VN	-30	1.01	0.001191	± 2.5	PASS
		VN	-20	-1.41	-0.001662	± 2.5	PASS
		VN	-10	0.58	0.000684	± 2.5	PASS
16QAM	LCH	VN	0	-1.39	-0.001639	± 2.5	PASS
		VN	10	-0.47	-0.000554	± 2.5	PASS
		VN	20	0	0.000000	± 2.5	PASS
		VN	30	2.76	0.003254	± 2.5	PASS
		VN	40	4.61	0.005434	± 2.5	PASS
		VN	50	3.84	0.004527	± 2.5	PASS
		VN	-30	-0.21	-0.000255	± 2.5	PASS
		VN	-20	-1.67	-0.002025	± 2.5	PASS
		VN	-10	2.82	0.003419	± 2.5	PASS
	MCH	VN	0	1.63	0.001976	± 2.5	PASS
		VN	10	-0.95	-0.001152	± 2.5	PASS
		VN	20	-0.76	-0.000922	± 2.5	PASS
		VN	30	2.75	0.003335	± 2.5	PASS
		VN	40	1.74	0.002110	± 2.5	PASS
		VN	50	0.68	0.000825	± 2.5	PASS
		VN	-30	3.32	0.003914	± 2.5	PASS
		VN	-20	-0.13	-0.000153	± 2.5	PASS
		VN	-10	-1.91	-0.002252	± 2.5	PASS
		VN	0	2.4	0.002829	± 2.5	PASS
	HCH	VN	10	1.22	0.001438	± 2.5	PASS
		VN	20	-1.16	-0.001367	± 2.5	PASS
		VN	30	-0.17	-0.000200	± 2.5	PASS
		VN	40	0.79	0.000931	± 2.5	PASS
		VN	50	-0.82	-0.000967	± 2.5	PASS
		VN	-30	1.46	0.001721	± 2.5	PASS
		VN	-20	-1.16	-0.001367	± 2.5	PASS

		VN	40	0.23	0.000271	± 2.5	PASS
		VN	50	2.75	0.003242	± 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	0.39	0.000472	± 2.5	PASS
		VN	TN	1.53	0.001853	± 2.5	PASS
		VH	TN	0.38	0.000460	± 2.5	PASS
	MCH	VL	TN	-1.49	-0.001781	± 2.5	PASS
		VN	TN	4.02	0.004806	± 2.5	PASS
		VH	TN	3.22	0.003849	± 2.5	PASS
	HCH	VL	TN	1.01	0.001192	± 2.5	PASS
		VN	TN	0.84	0.000991	± 2.5	PASS
		VH	TN	4.17	0.004920	± 2.5	PASS
16QAM	LCH	VL	TN	2.01	0.002435	± 2.5	PASS
		VN	TN	-1.35	-0.001635	± 2.5	PASS
		VH	TN	2.69	0.003259	± 2.5	PASS
	MCH	VL	TN	-1.74	-0.002080	± 2.5	PASS
		VN	TN	4.84	0.005786	± 2.5	PASS
		VH	TN	2.36	0.002821	± 2.5	PASS
	HCH	VL	TN	-0.32	-0.000378	± 2.5	PASS
		VN	TN	-1.43	-0.001687	± 2.5	PASS
		VH	TN	1.61	0.001900	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.96	0.003586	± 2.5	PASS
		VN	-20	2.02	0.002447	± 2.5	PASS
		VN	-10	-0.88	-0.001066	± 2.5	PASS
		VN	0	2.16	0.002617	± 2.5	PASS
		VN	10	4.18	0.005064	± 2.5	PASS
		VN	20	-1.87	-0.002265	± 2.5	PASS
		VN	30	4.22	0.005112	± 2.5	PASS
		VN	40	-1.34	-0.001623	± 2.5	PASS
		VN	50	-0.39	-0.000472	± 2.5	PASS
	MCH	VN	-30	1.56	0.001865	± 2.5	PASS
		VN	-20	0.25	0.000299	± 2.5	PASS
		VN	-10	2.92	0.003491	± 2.5	PASS

	HCH	VN	0	4.76	0.005690	± 2.5	PASS
		VN	10	3.37	0.004029	± 2.5	PASS
		VN	20	-0.62	-0.000741	± 2.5	PASS
		VN	30	-0.66	-0.000789	± 2.5	PASS
		VN	40	1.13	0.001351	± 2.5	PASS
		VN	50	-0.86	-0.001028	± 2.5	PASS
		VN	-30	1.06	0.001251	± 2.5	PASS
		VN	-20	1.66	0.001959	± 2.5	PASS
		VN	-10	0.29	0.000342	± 2.5	PASS
		VN	0	4.25	0.005015	± 2.5	PASS
		VN	10	-1.81	-0.002136	± 2.5	PASS
		VN	20	3.78	0.004460	± 2.5	PASS
		VN	30	-1.44	-0.001699	± 2.5	PASS
		VN	40	0.98	0.001156	± 2.5	PASS
		VN	50	1.05	0.001239	± 2.5	PASS
16QAM	LCH	VN	-30	2.89	0.003455	± 2.5	PASS
		VN	-20	0.26	0.000311	± 2.5	PASS
		VN	-10	1.45	0.001733	± 2.5	PASS
		VN	0	-0.76	-0.000909	± 2.5	PASS
		VN	10	-1.43	-0.001710	± 2.5	PASS
		VN	20	0.29	0.000347	± 2.5	PASS
		VN	30	1.26	0.001506	± 2.5	PASS
		VN	40	1.92	0.002295	± 2.5	PASS
		VN	50	0.45	0.000538	± 2.5	PASS
	MCH	VN	-30	3.78	0.004460	± 2.5	PASS
		VN	-20	2.38	0.002808	± 2.5	PASS
		VN	-10	-1.56	-0.001841	± 2.5	PASS
		VN	0	0.94	0.001109	± 2.5	PASS
		VN	10	0.1	0.000118	± 2.5	PASS
		VN	20	-1.56	-0.001841	± 2.5	PASS
		VN	30	2.71	0.003198	± 2.5	PASS
		VN	40	-0.46	-0.000543	± 2.5	PASS
		VN	50	0.12	0.000142	± 2.5	PASS
	HCH	VN	-30	-1.31	-0.001546	± 2.5	PASS
		VN	-20	3.85	0.004543	± 2.5	PASS
		VN	-10	-1.73	-0.002041	± 2.5	PASS
		VN	0	2.58	0.003044	± 2.5	PASS
		VN	10	-0.19	-0.000224	± 2.5	PASS
		VN	20	3.42	0.004035	± 2.5	PASS
		VN	30	4.42	0.005215	± 2.5	PASS
		VN	40	0.75	0.000885	± 2.5	PASS

		VN	50	-1.48	-0.001746	± 2.5	PASS
--	--	----	----	-------	-----------	-----------	------

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	-1.45	-0.001754	± 2.5	PASS
		VN	TN	-1.04	-0.001258	± 2.5	PASS
		VH	TN	0.83	0.001004	± 2.5	PASS
	MCH	VL	TN	-1.65	-0.001973	± 2.5	PASS
		VN	TN	-1.57	-0.001877	± 2.5	PASS
		VH	TN	3.07	0.003670	± 2.5	PASS
	HCH	VL	TN	0.54	0.000638	± 2.5	PASS
		VN	TN	-0.17	-0.000201	± 2.5	PASS
		VH	TN	0	0.000000	± 2.5	PASS
16QAM	LCH	VL	TN	-1.63	-0.001972	± 2.5	PASS
		VN	TN	-1.17	-0.001416	± 2.5	PASS
		VH	TN	1.48	0.001791	± 2.5	PASS
	MCH	VL	TN	4.72	0.005643	± 2.5	PASS
		VN	TN	-0.12	-0.000143	± 2.5	PASS
		VH	TN	3.6	0.004304	± 2.5	PASS
	HCH	VL	TN	3.48	0.004111	± 2.5	PASS
		VN	TN	0.11	0.000130	± 2.5	PASS
		VH	TN	0.36	0.000425	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.22	-0.000266	± 2.5	PASS
		VN	-20	4.63	0.005602	± 2.5	PASS
		VN	-10	0.23	0.000278	± 2.5	PASS
		VN	0	1.46	0.001766	± 2.5	PASS
		VN	10	4.41	0.005336	± 2.5	PASS
		VN	20	-1.89	-0.002287	± 2.5	PASS
		VN	30	2.54	0.003073	± 2.5	PASS
		VN	40	3.43	0.004150	± 2.5	PASS
		VN	50	2.25	0.002722	± 2.5	PASS
	MCH	VN	-30	3.73	0.004459	± 2.5	PASS
		VN	-20	0.79	0.000944	± 2.5	PASS
		VN	-10	-0.48	-0.000574	± 2.5	PASS
		VN	0	-1	-0.001195	± 2.5	PASS

		VN	10	2.12	0.002534	± 2.5	PASS
		VN	20	-1.67	-0.001996	± 2.5	PASS
		VN	30	1.74	0.002080	± 2.5	PASS
		VN	40	0.86	0.001028	± 2.5	PASS
		VN	50	2.13	0.002546	± 2.5	PASS
	HCH	VN	-30	3	0.003544	± 2.5	PASS
		VN	-20	0.76	0.000898	± 2.5	PASS
		VN	-10	1.54	0.001819	± 2.5	PASS
		VN	0	1.65	0.001949	± 2.5	PASS
		VN	10	4.96	0.005859	± 2.5	PASS
		VN	20	1	0.001181	± 2.5	PASS
		VN	30	4.97	0.005871	± 2.5	PASS
		VN	40	0.13	0.000154	± 2.5	PASS
		VN	50	0.52	0.000614	± 2.5	PASS
16QAM	LCH	VN	-30	-1.05	-0.001255	± 2.5	PASS
		VN	-20	4	0.004782	± 2.5	PASS
		VN	-10	3.77	0.004507	± 2.5	PASS
		VN	0	-1.37	-0.001638	± 2.5	PASS
		VN	10	-0.66	-0.000789	± 2.5	PASS
		VN	20	3.51	0.004196	± 2.5	PASS
		VN	30	3.14	0.003754	± 2.5	PASS
		VN	40	1.91	0.002283	± 2.5	PASS
		VN	50	4.7	0.005619	± 2.5	PASS
	MCH	VN	-30	0.57	0.000673	± 2.5	PASS
		VN	-20	-1.97	-0.002327	± 2.5	PASS
		VN	-10	4.64	0.005481	± 2.5	PASS
		VN	0	4.79	0.005659	± 2.5	PASS
		VN	10	2.9	0.003426	± 2.5	PASS
		VN	20	3.34	0.003946	± 2.5	PASS
		VN	30	3.24	0.003828	± 2.5	PASS
		VN	40	1.14	0.001347	± 2.5	PASS
		VN	50	4.31	0.005092	± 2.5	PASS
	HCH	VN	-30	0.93	0.001099	± 2.5	PASS
		VN	-20	3.29	0.003887	± 2.5	PASS
		VN	-10	-1.08	-0.001276	± 2.5	PASS
		VN	0	-1.2	-0.001418	± 2.5	PASS
		VN	10	4.28	0.005056	± 2.5	PASS
		VN	20	0.17	0.000201	± 2.5	PASS
		VN	30	0.38	0.000449	± 2.5	PASS
		VN	40	-1.09	-0.001288	± 2.5	PASS
		VN	50	-0.36	-0.000425	± 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	0.52	0.000627	± 2.5	PASS
		VN	TN	-0.78	-0.000941	± 2.5	PASS
		VH	TN	0.88	0.001062	± 2.5	PASS
	MCH	VL	TN	2.89	0.003455	± 2.5	PASS
		VN	TN	2.27	0.002714	± 2.5	PASS
		VH	TN	-1.93	-0.002307	± 2.5	PASS
	HCH	VL	TN	1.29	0.001528	± 2.5	PASS
		VN	TN	4.05	0.004799	± 2.5	PASS
		VH	TN	-1.96	-0.002322	± 2.5	PASS
16QAM	LCH	VL	TN	-1.22	-0.001472	± 2.5	PASS
		VN	TN	0.69	0.000832	± 2.5	PASS
		VH	TN	0.4	0.000483	± 2.5	PASS
	MCH	VL	TN	3.37	0.004029	± 2.5	PASS
		VN	TN	1.98	0.002367	± 2.5	PASS
		VH	TN	2.35	0.002809	± 2.5	PASS
	HCH	VL	TN	-0.48	-0.000569	± 2.5	PASS
		VN	TN	4.61	0.005462	± 2.5	PASS
		VH	TN	1.48	0.001754	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.43	-0.000519	± 2.5	PASS
		VN	-20	3.99	0.004813	± 2.5	PASS
		VN	-10	3.73	0.004499	± 2.5	PASS
		VN	0	0.25	0.000302	± 2.5	PASS
		VN	10	2.52	0.003040	± 2.5	PASS
		VN	20	-0.89	-0.001074	± 2.5	PASS
		VN	30	-1.24	-0.001496	± 2.5	PASS
		VN	40	-1.71	-0.002063	± 2.5	PASS
		VN	50	-0.03	-0.000036	± 2.5	PASS
	MCH	VN	-30	-0.47	-0.000562	± 2.5	PASS
		VN	-20	2.75	0.003288	± 2.5	PASS
		VN	-10	0.32	0.000383	± 2.5	PASS
		VN	0	-1.27	-0.001518	± 2.5	PASS
		VN	10	3.03	0.003622	± 2.5	PASS
		VN	20	0.76	0.000909	± 2.5	PASS

	HCH	VN	30	1	0.001195	± 2.5	PASS	
		VN	40	-0.2	-0.000239	± 2.5	PASS	
		VN	50	3.22	0.003849	± 2.5	PASS	
		VN	-30	4.39	0.005201	± 2.5	PASS	
		VN	-20	0.91	0.001078	± 2.5	PASS	
		VN	-10	-1.02	-0.001209	± 2.5	PASS	
		VN	0	4.42	0.005237	± 2.5	PASS	
		VN	10	3.56	0.004218	± 2.5	PASS	
		VN	20	-1.9	-0.002251	± 2.5	PASS	
		VN	30	1.09	0.001291	± 2.5	PASS	
	LCH	VN	40	1.93	0.002287	± 2.5	PASS	
		VN	50	4.26	0.005047	± 2.5	PASS	
		VN	-30	0.19	0.000227	± 2.5	PASS	
		VN	-20	3.54	0.004232	± 2.5	PASS	
		VN	-10	1.81	0.002164	± 2.5	PASS	
		VN	0	1.62	0.001937	± 2.5	PASS	
		VN	10	-1.47	-0.001757	± 2.5	PASS	
		VN	20	-0.13	-0.000155	± 2.5	PASS	
		VN	30	2.93	0.003503	± 2.5	PASS	
	MCH	VN	40	-1.84	-0.002200	± 2.5	PASS	
		VN	50	1.55	0.001853	± 2.5	PASS	
		VN	-30	-0.04	-0.000047	± 2.5	PASS	
		VN	-20	0.69	0.000818	± 2.5	PASS	
		VN	-10	-0.29	-0.000344	± 2.5	PASS	
		VN	0	2.31	0.002737	± 2.5	PASS	
		VN	10	1.63	0.001931	± 2.5	PASS	
		VN	20	0.97	0.001149	± 2.5	PASS	
		VN	30	2.74	0.003246	± 2.5	PASS	
	HCH	VN	40	4.92	0.005829	± 2.5	PASS	
		VN	50	2.72	0.003223	± 2.5	PASS	
		VN	-30	2.65	0.003140	± 2.5	PASS	
		VN	-20	2.72	0.003223	± 2.5	PASS	
		VN	-10	3.33	0.003945	± 2.5	PASS	
		VN	0	-1.94	-0.002299	± 2.5	PASS	
		VN	10	4.07	0.004822	± 2.5	PASS	
		VN	20	-1.95	-0.002310	± 2.5	PASS	
		VN	30	2.85	0.003377	± 2.5	PASS	
		VN	40	3.22	0.003815	± 2.5	PASS	
		VN	50	3.25	0.003851	± 2.5	PASS	