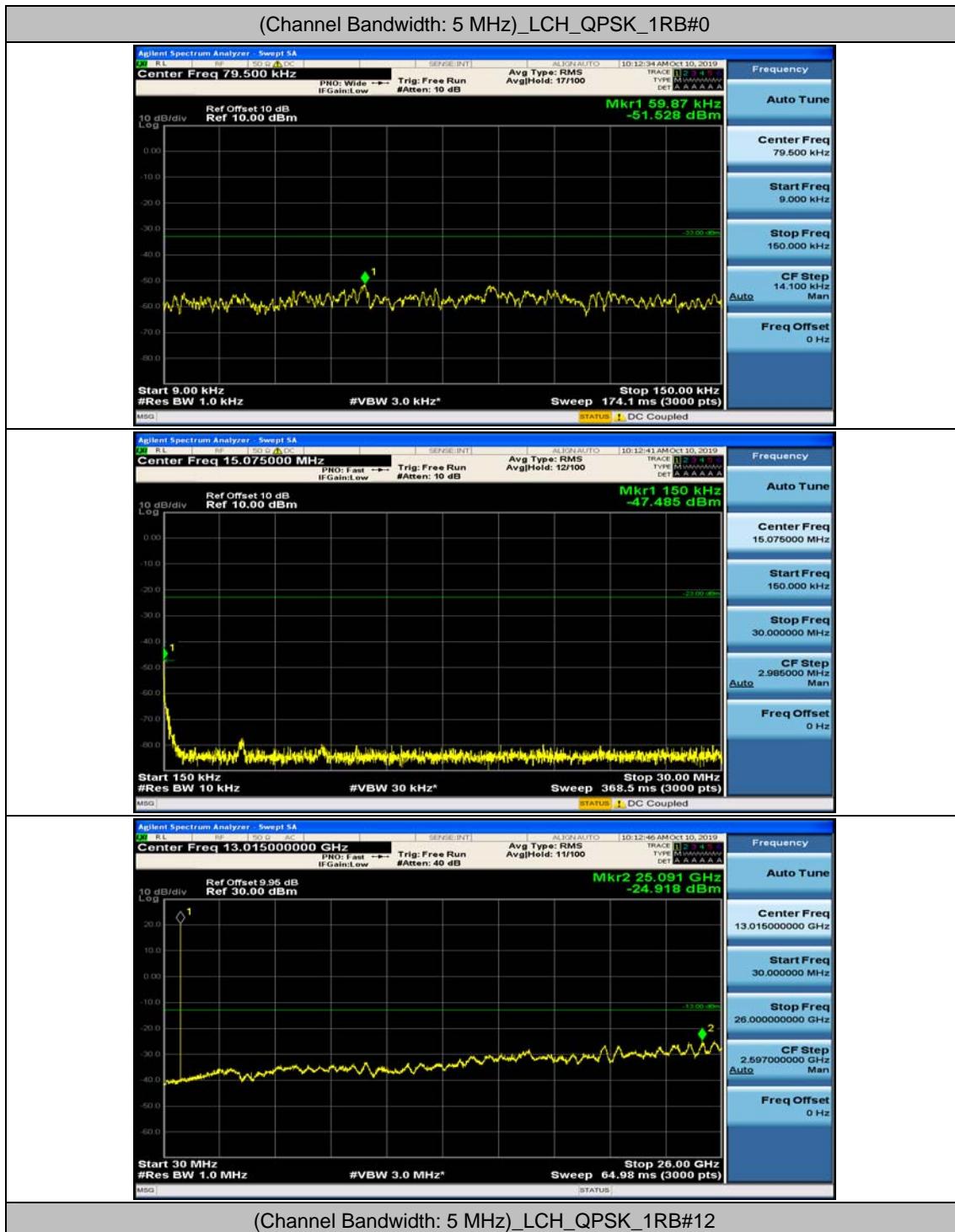
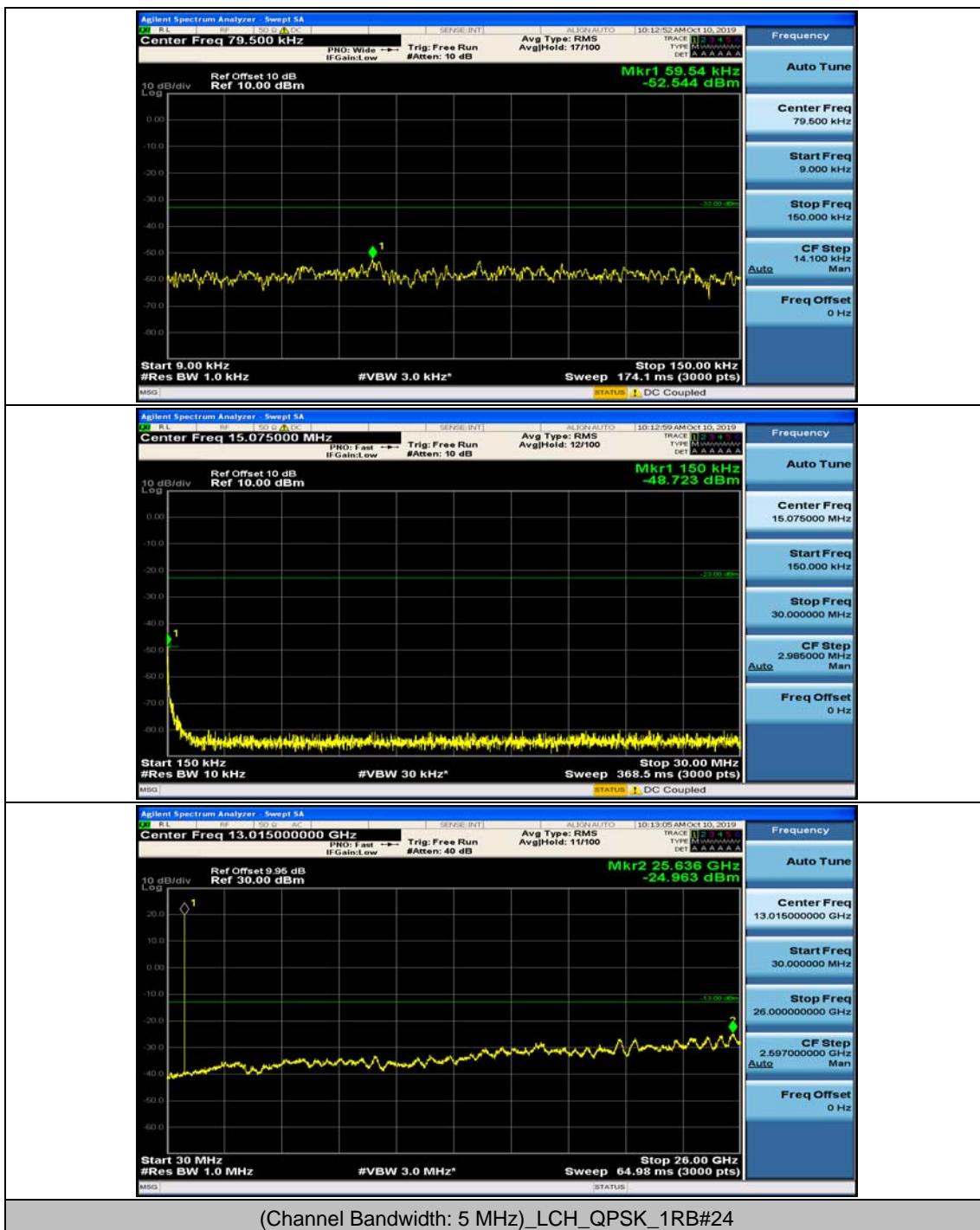
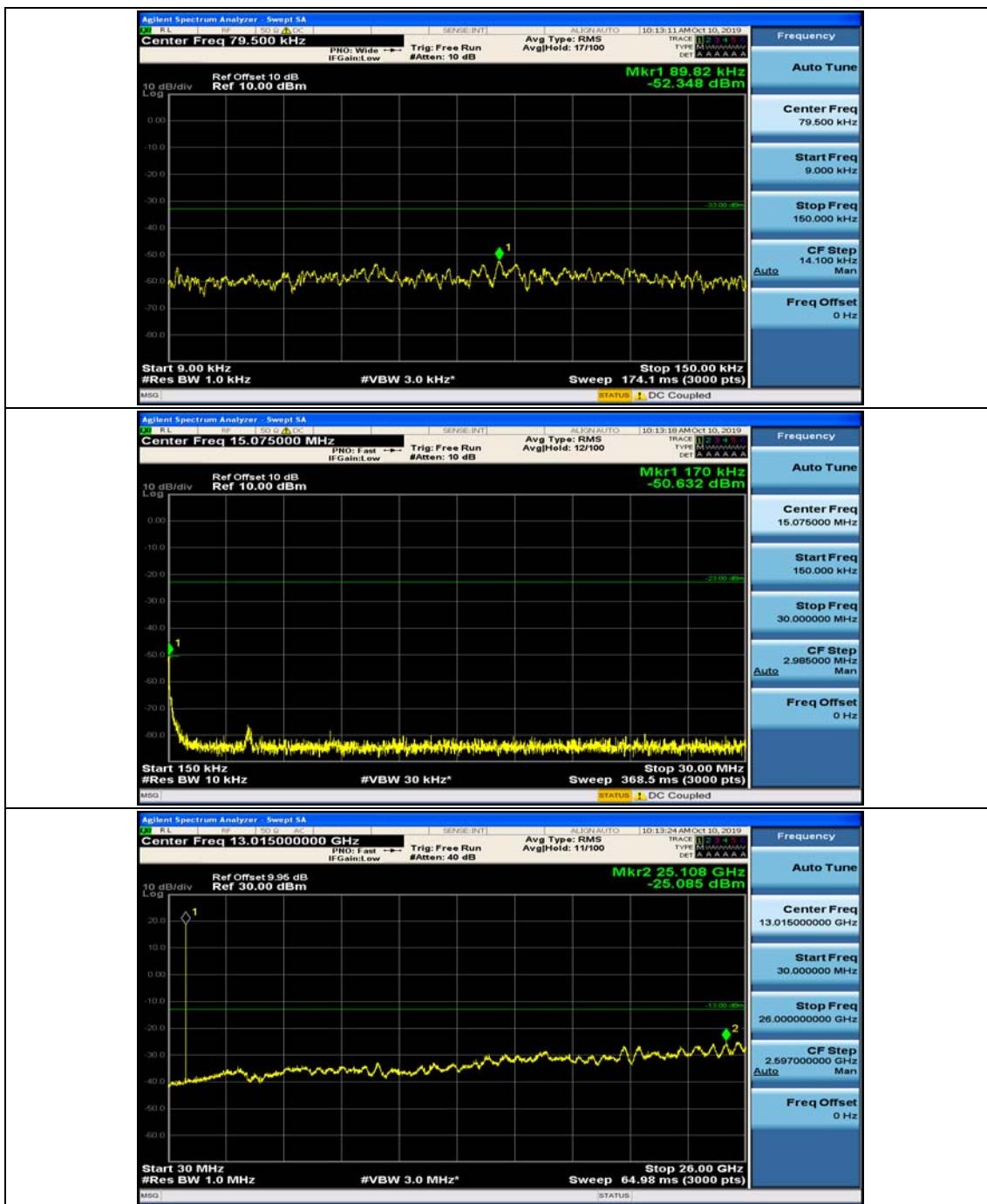
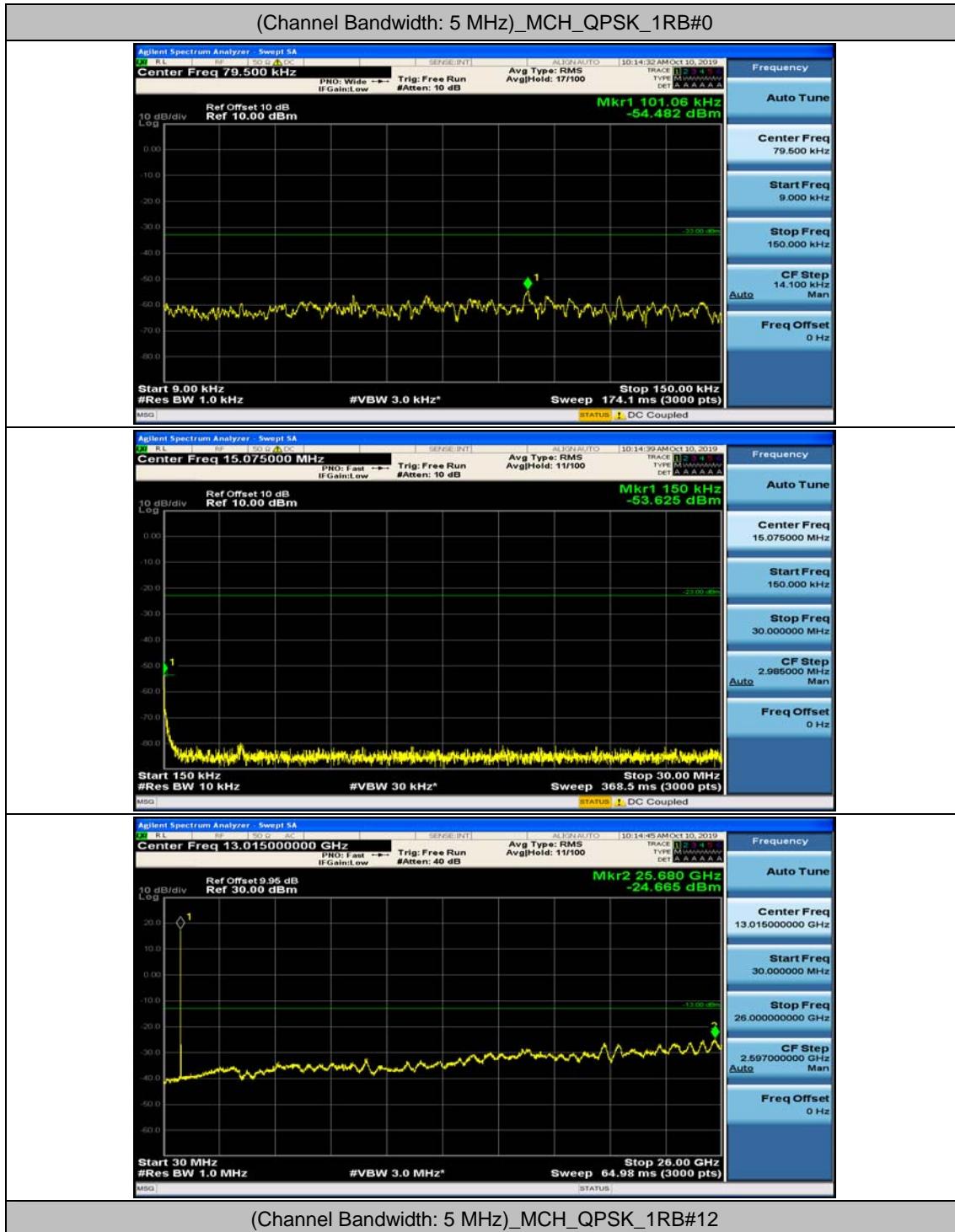


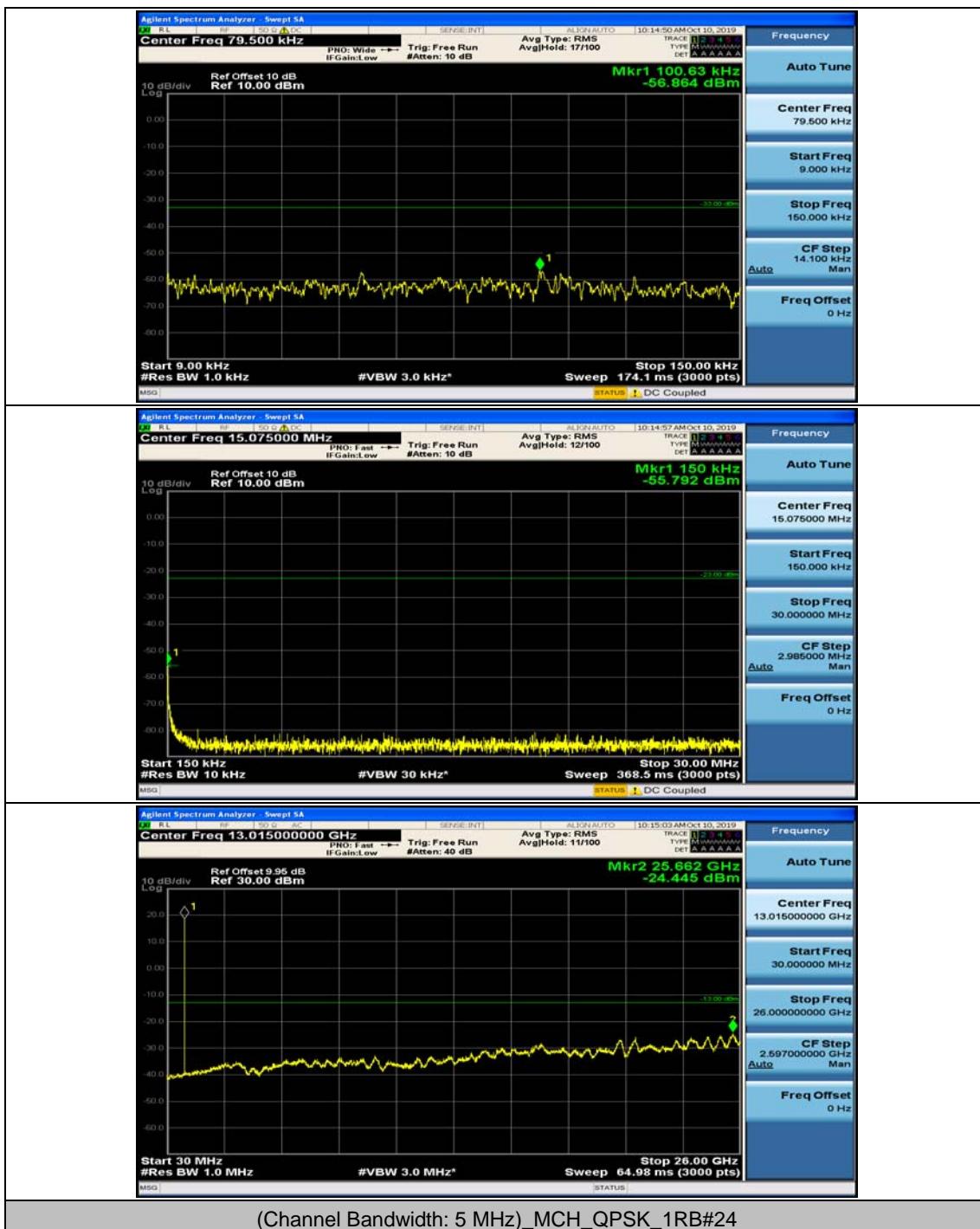
Channel Bandwidth: 5 MHz

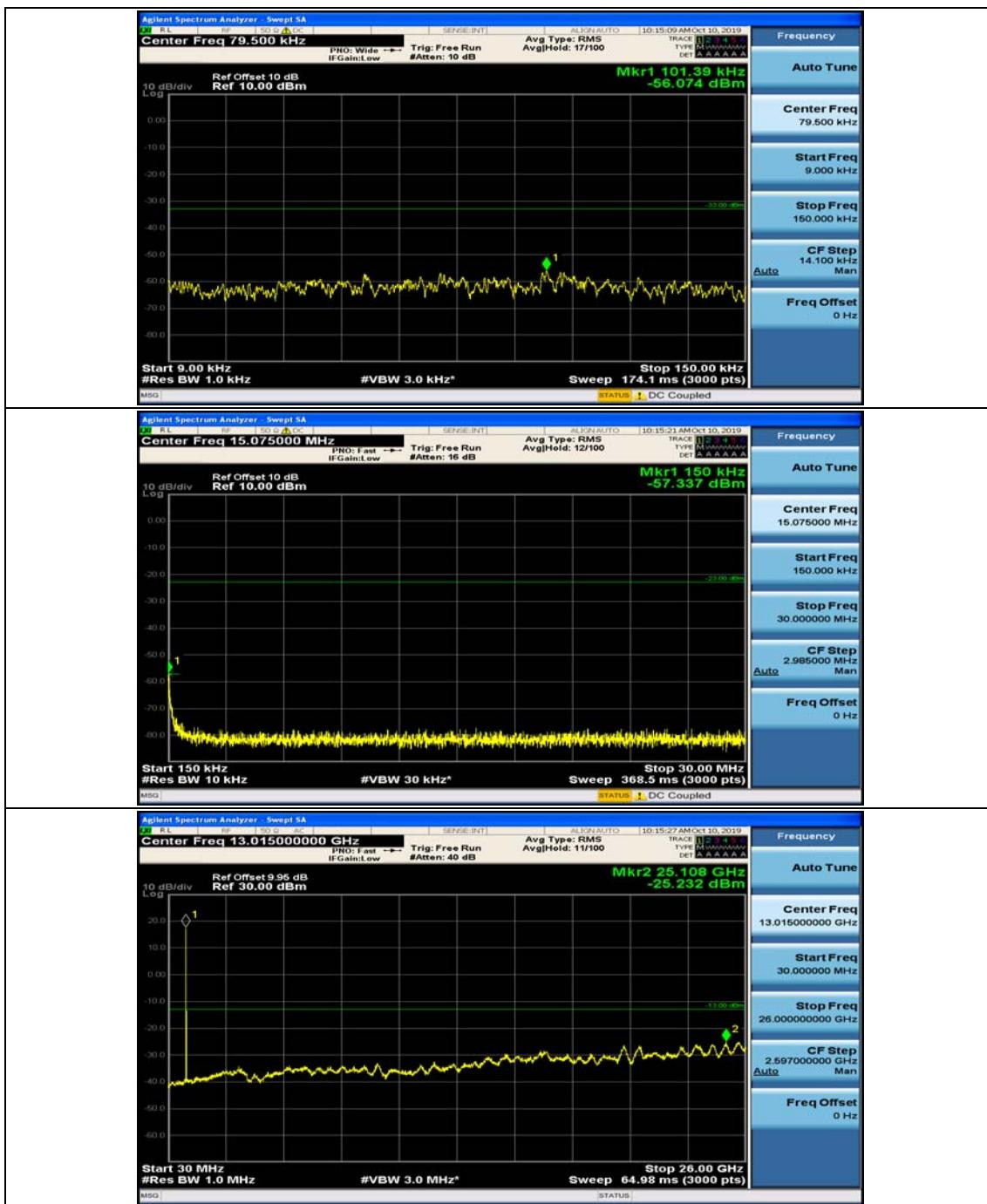


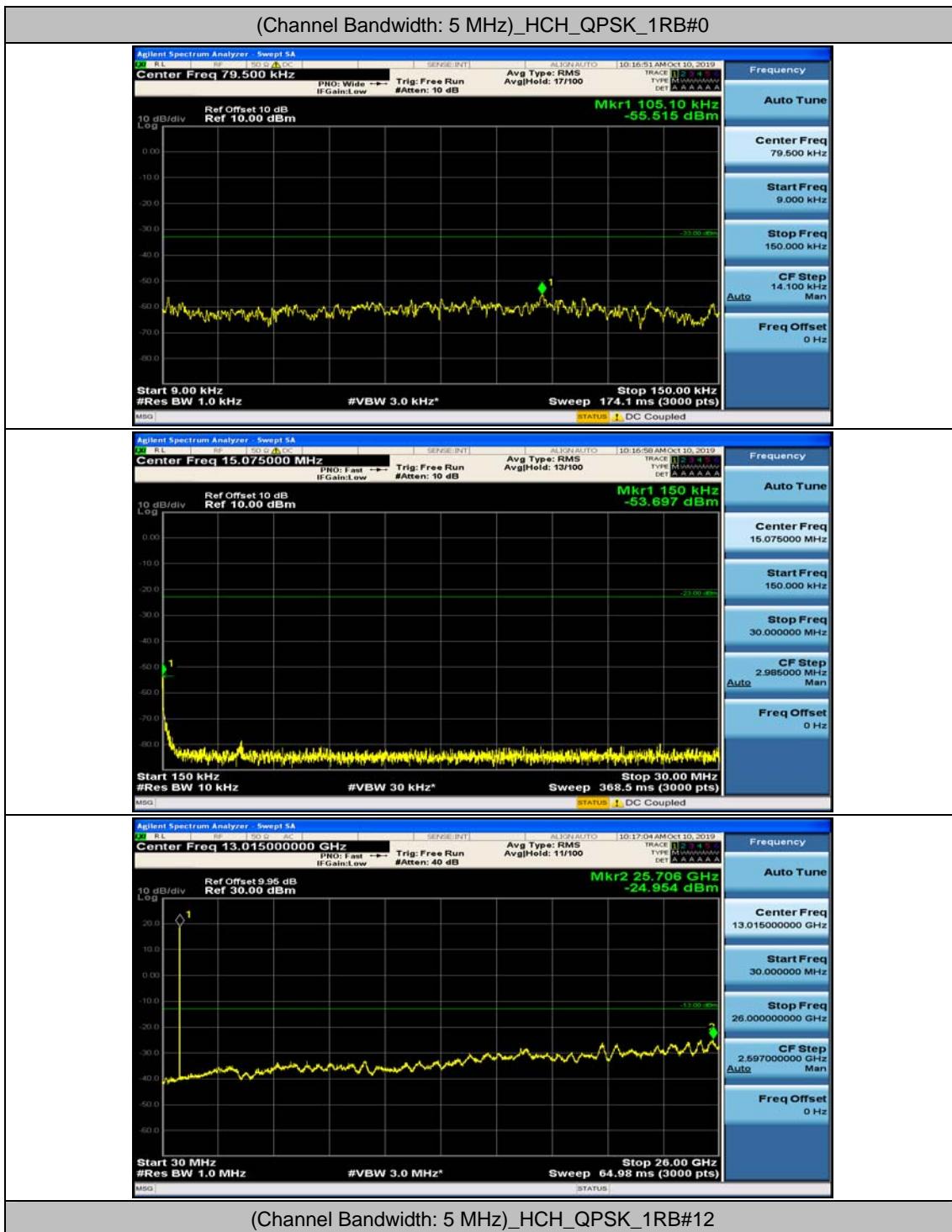


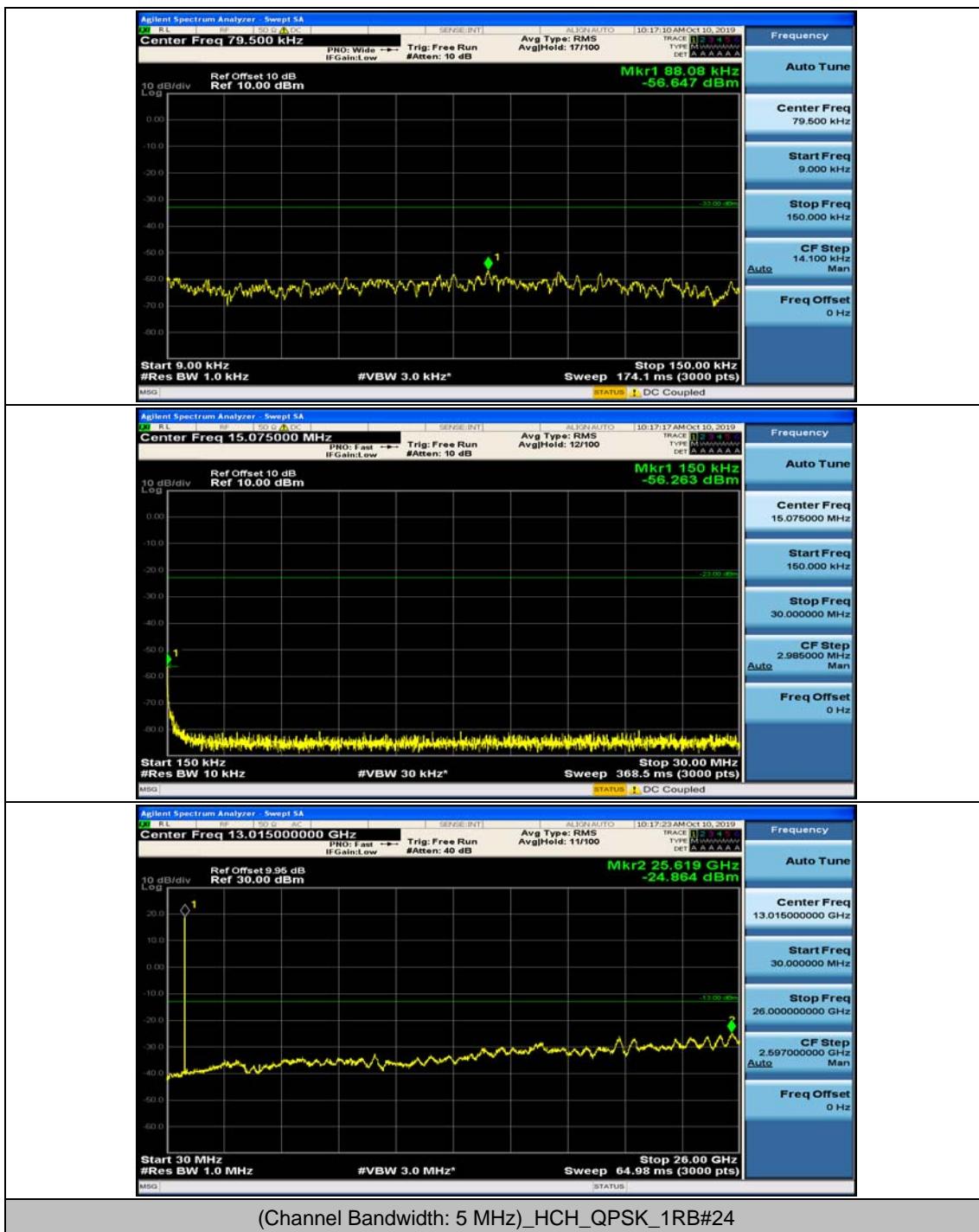


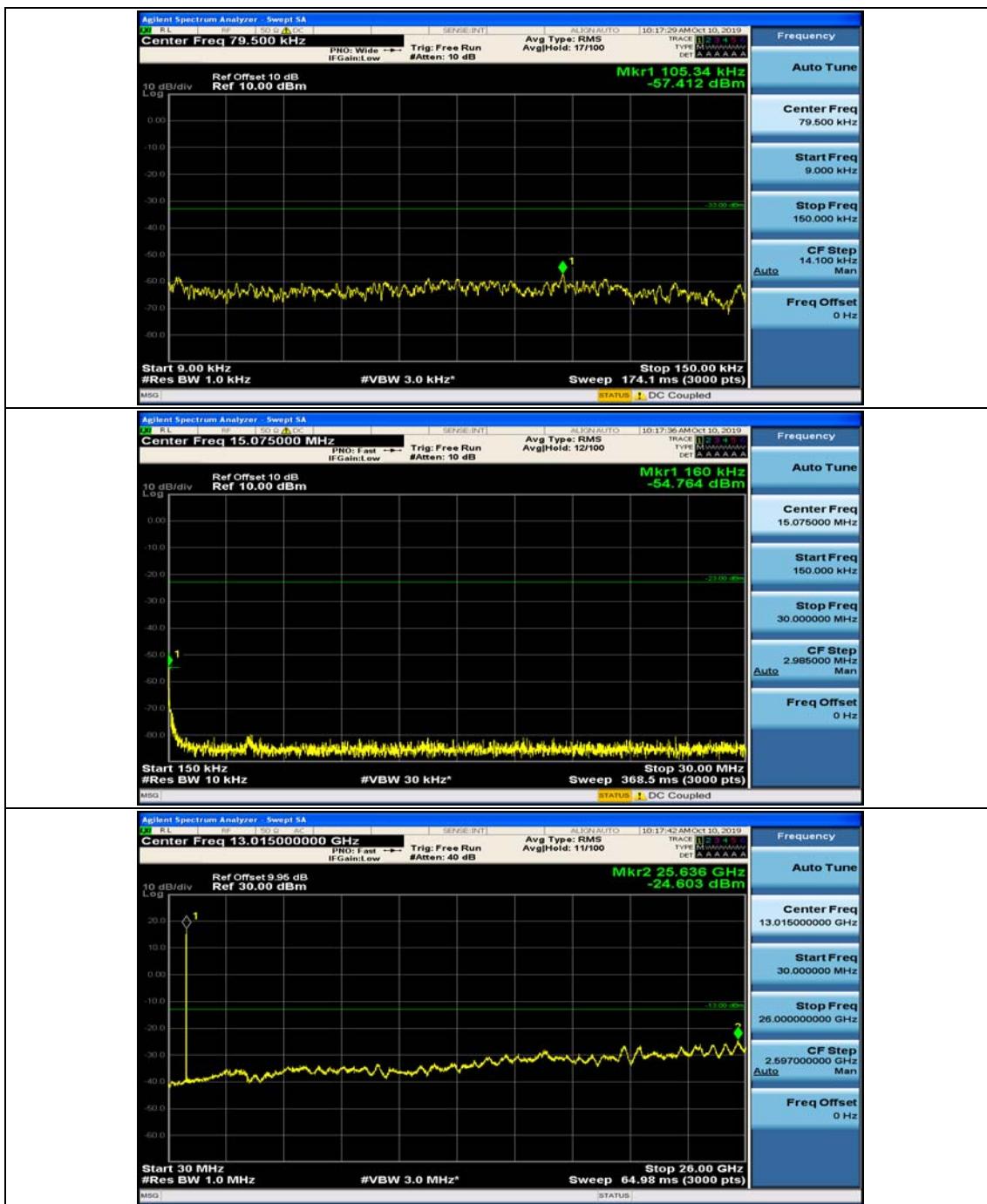


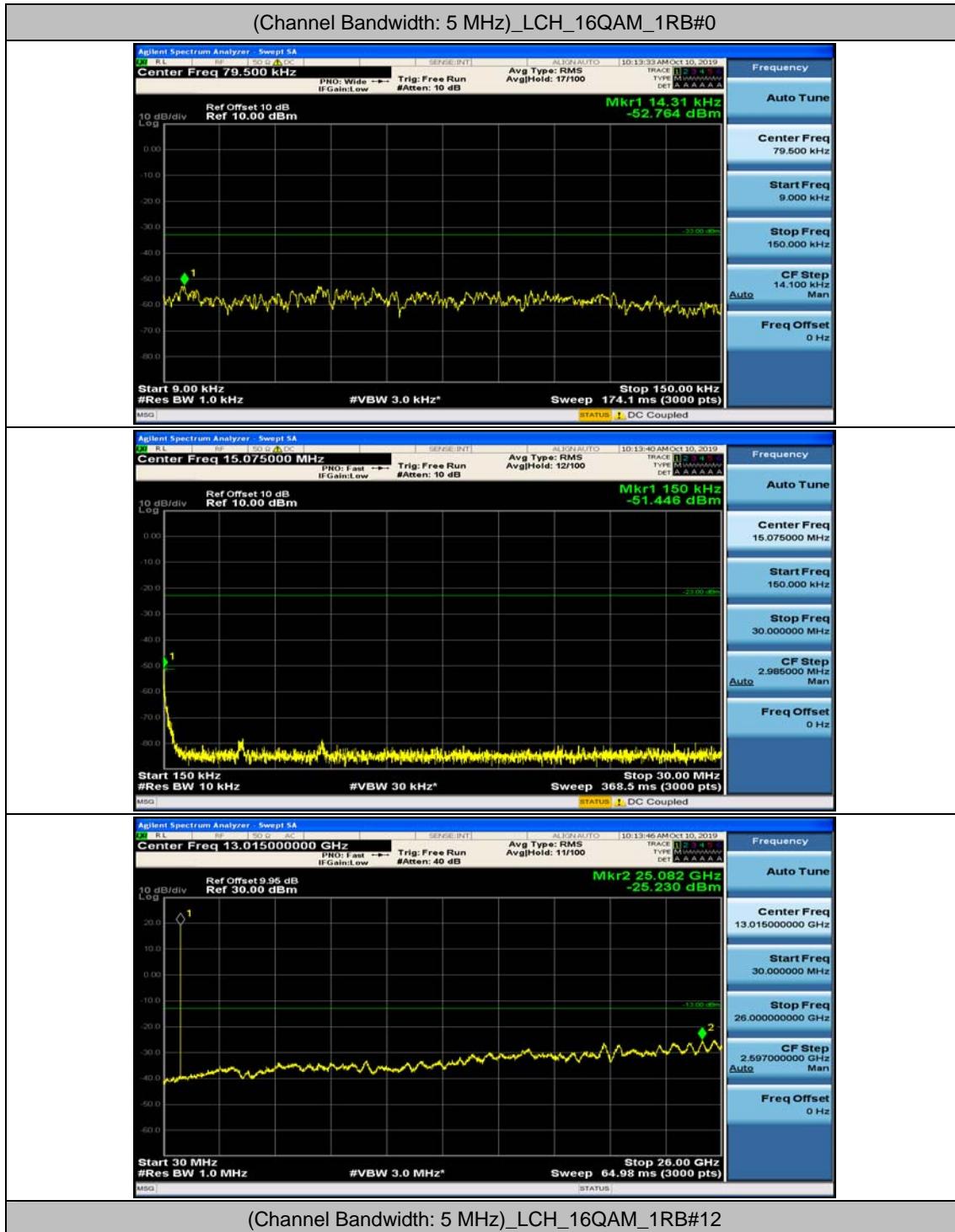


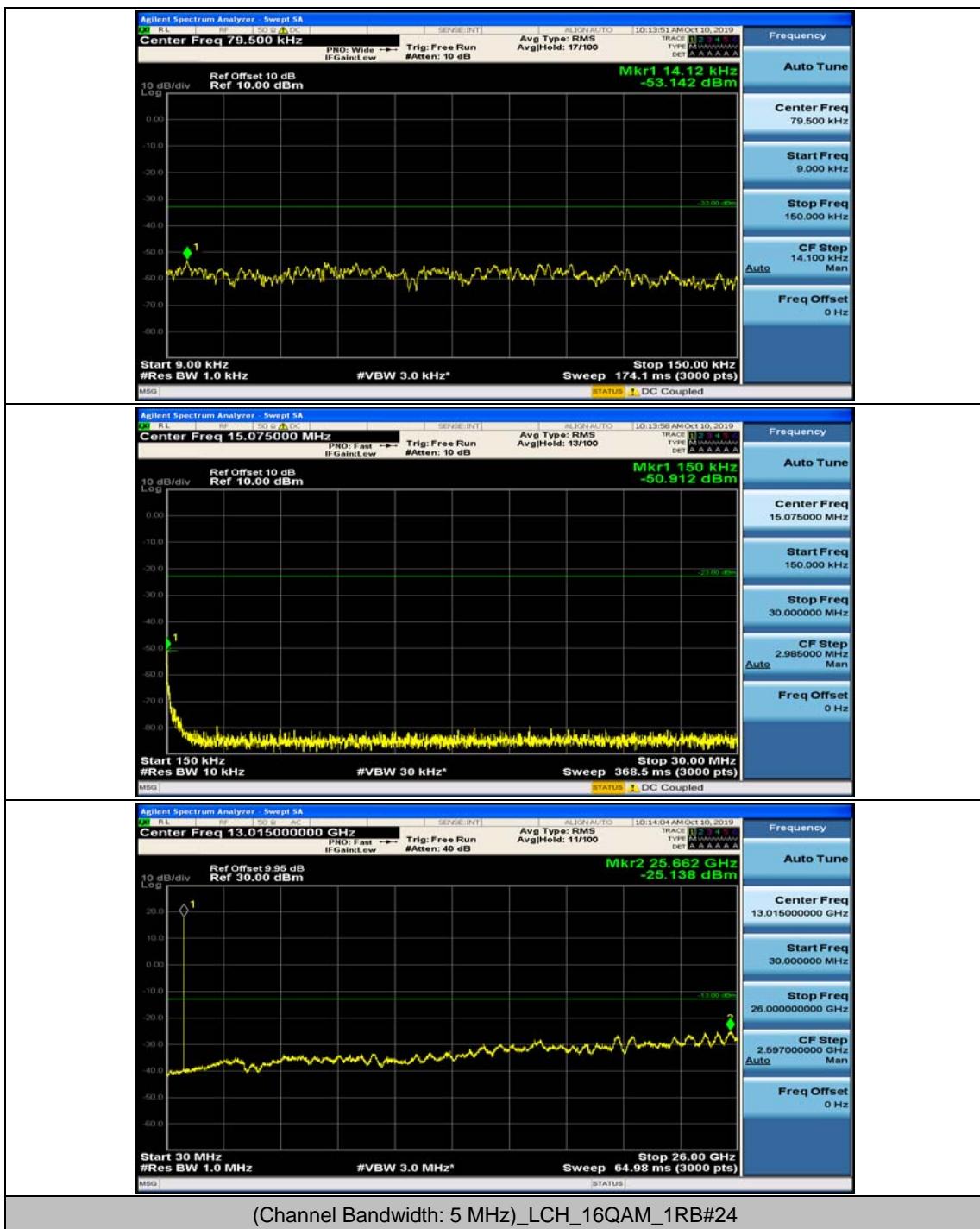


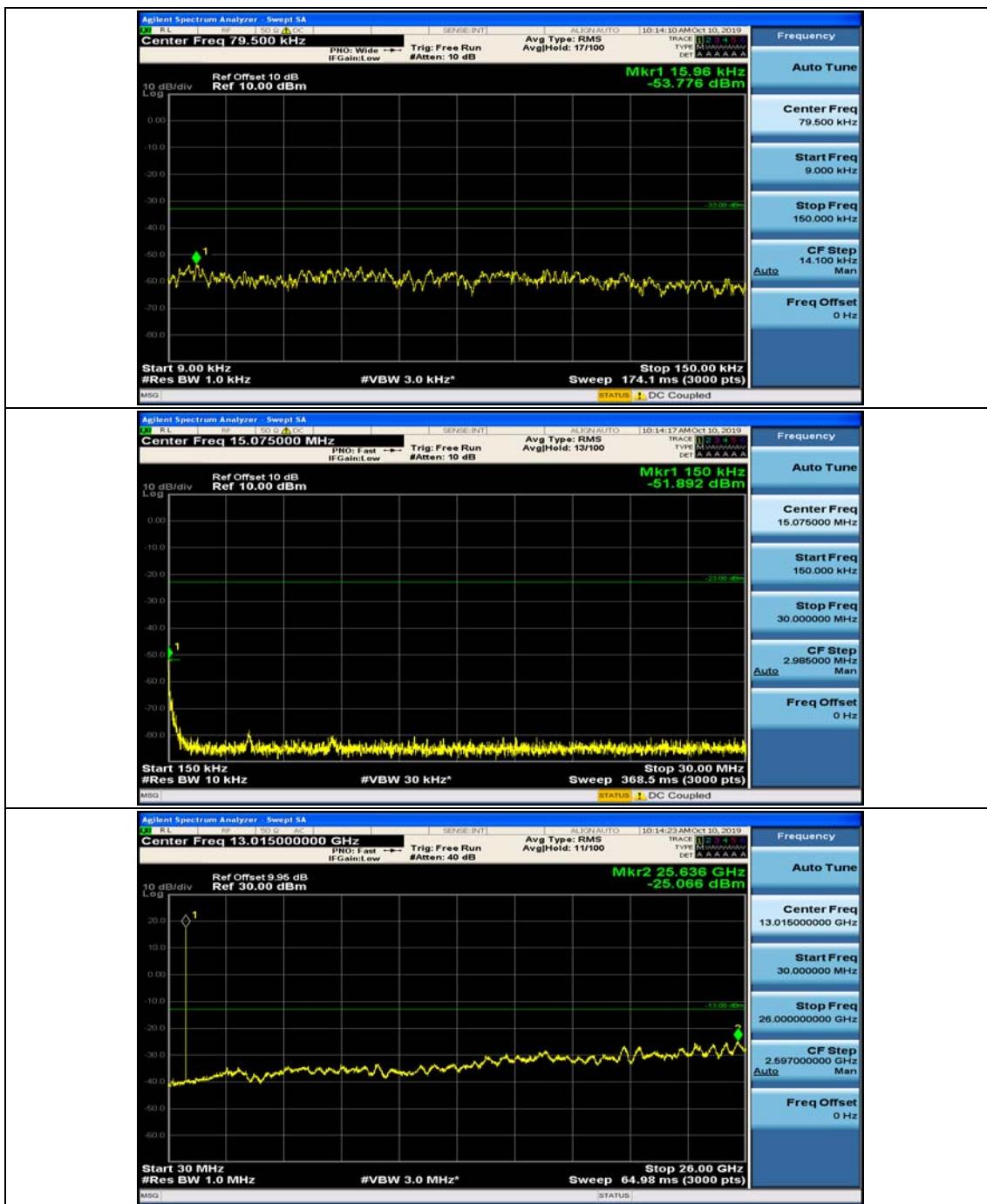


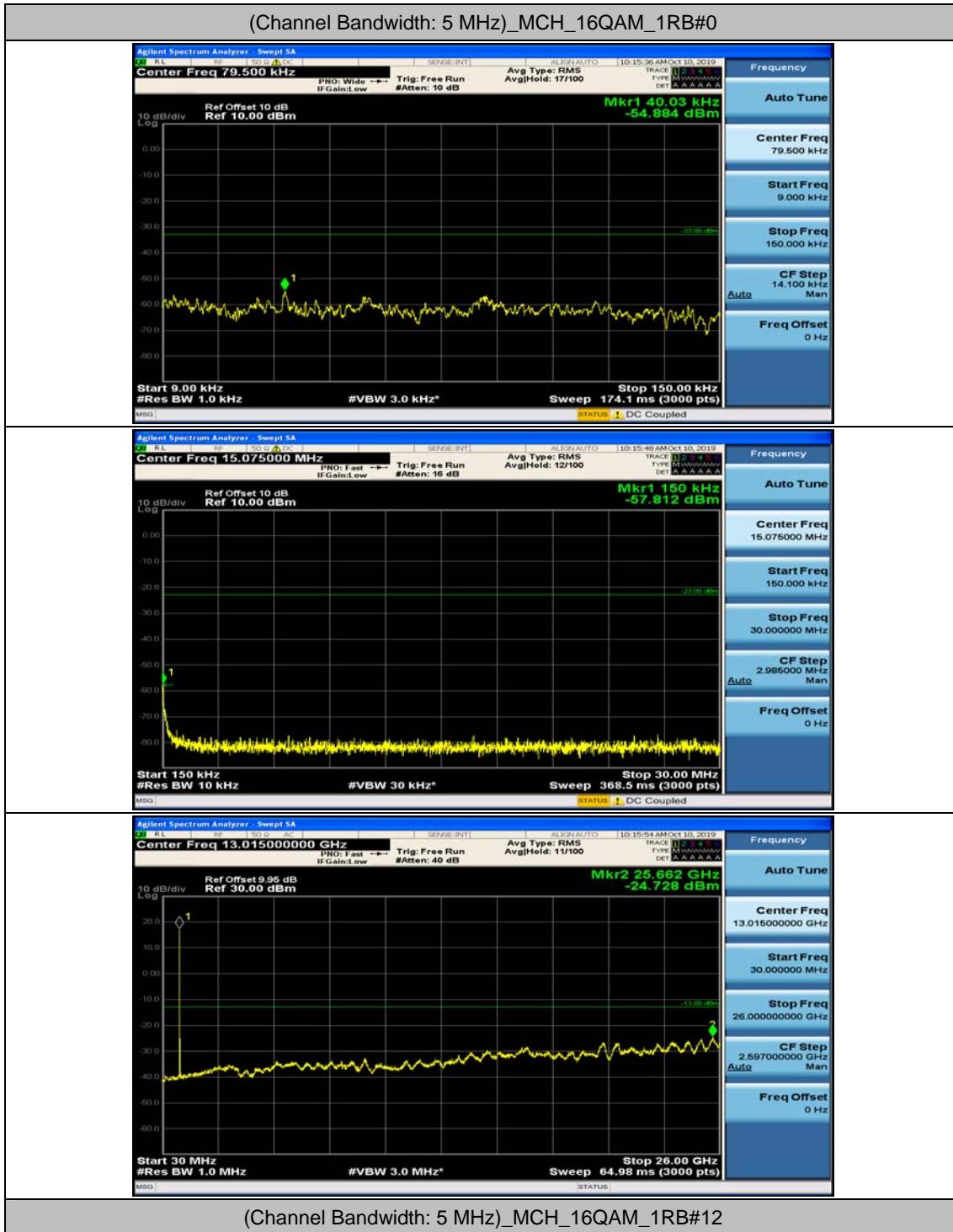


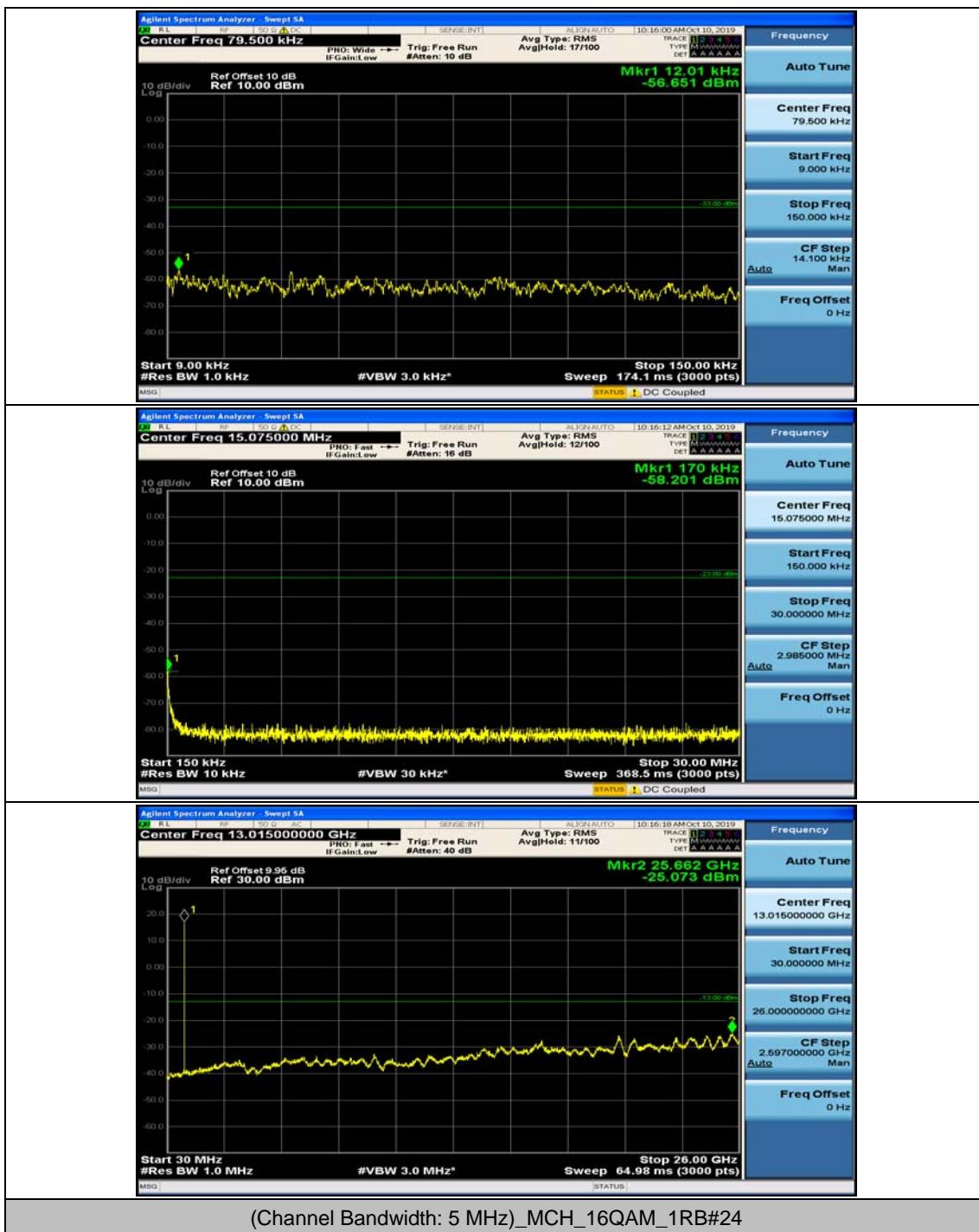


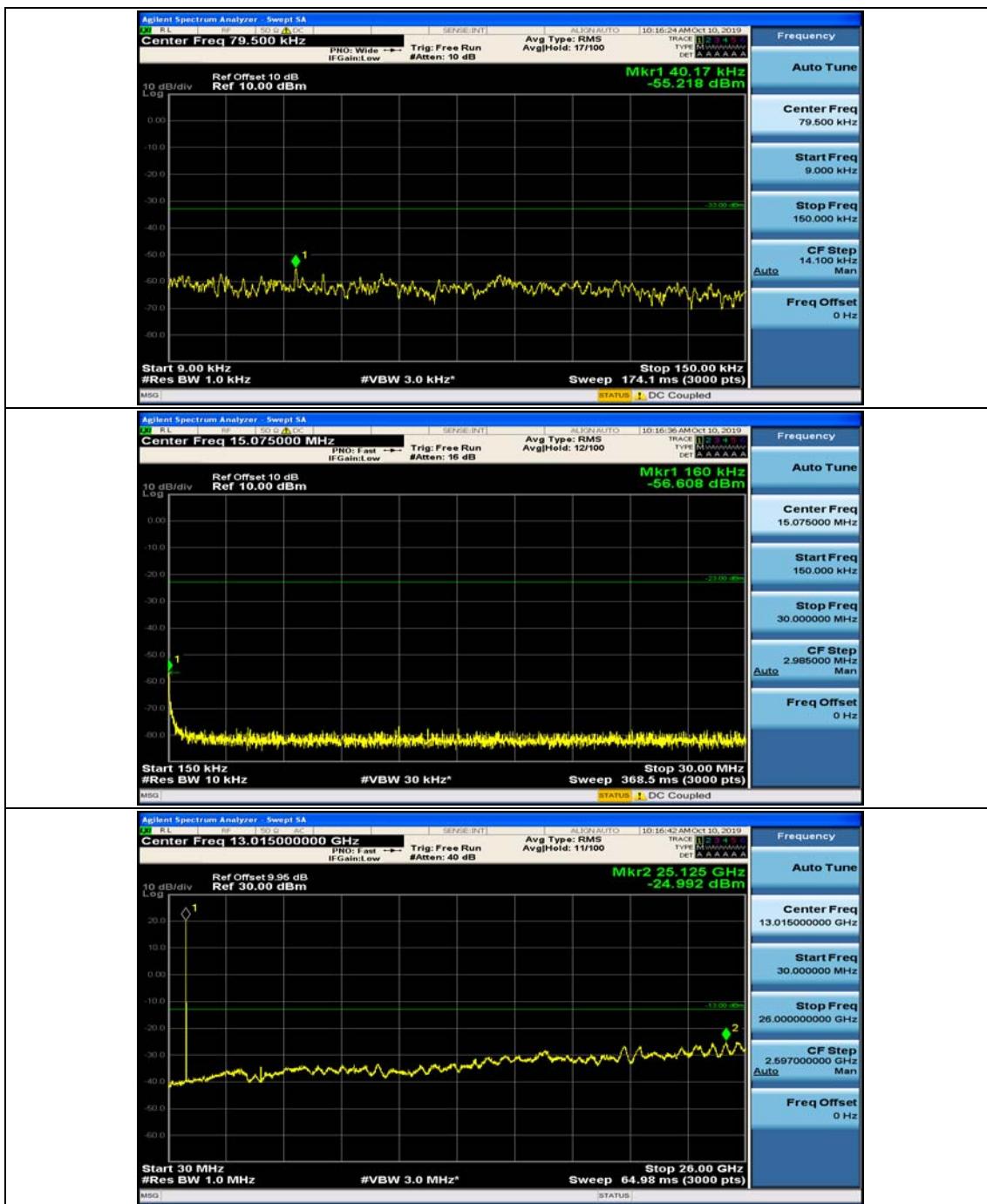


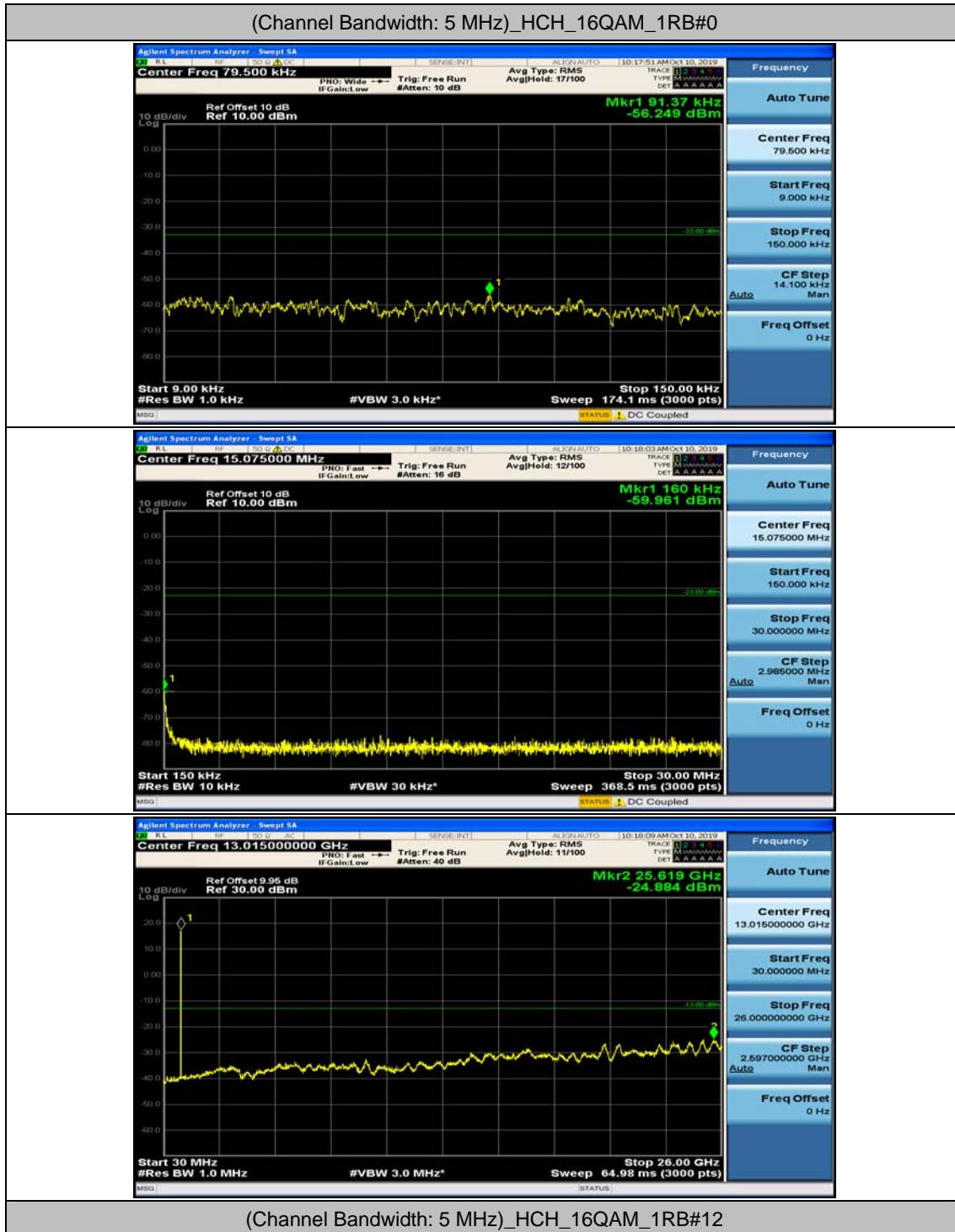


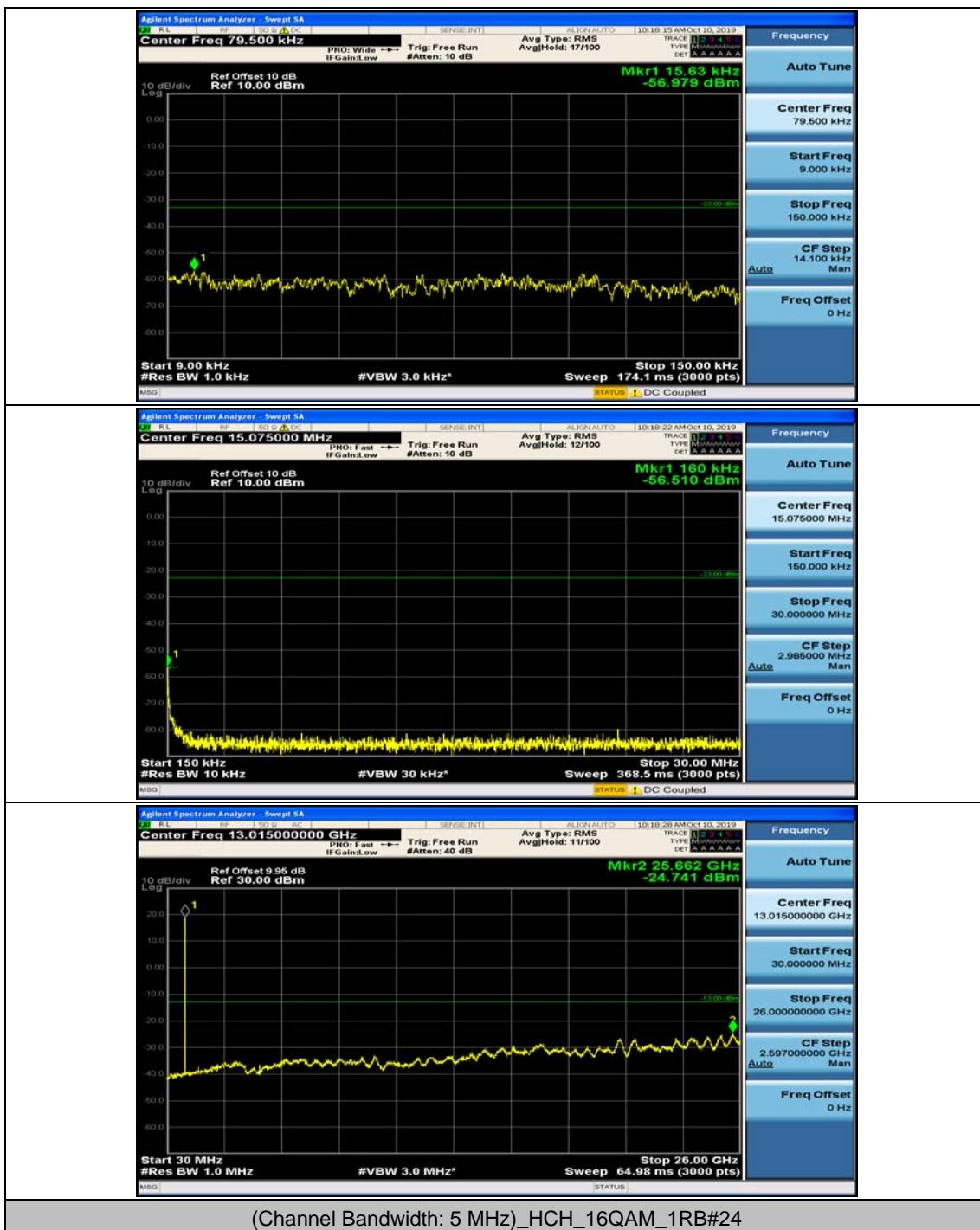


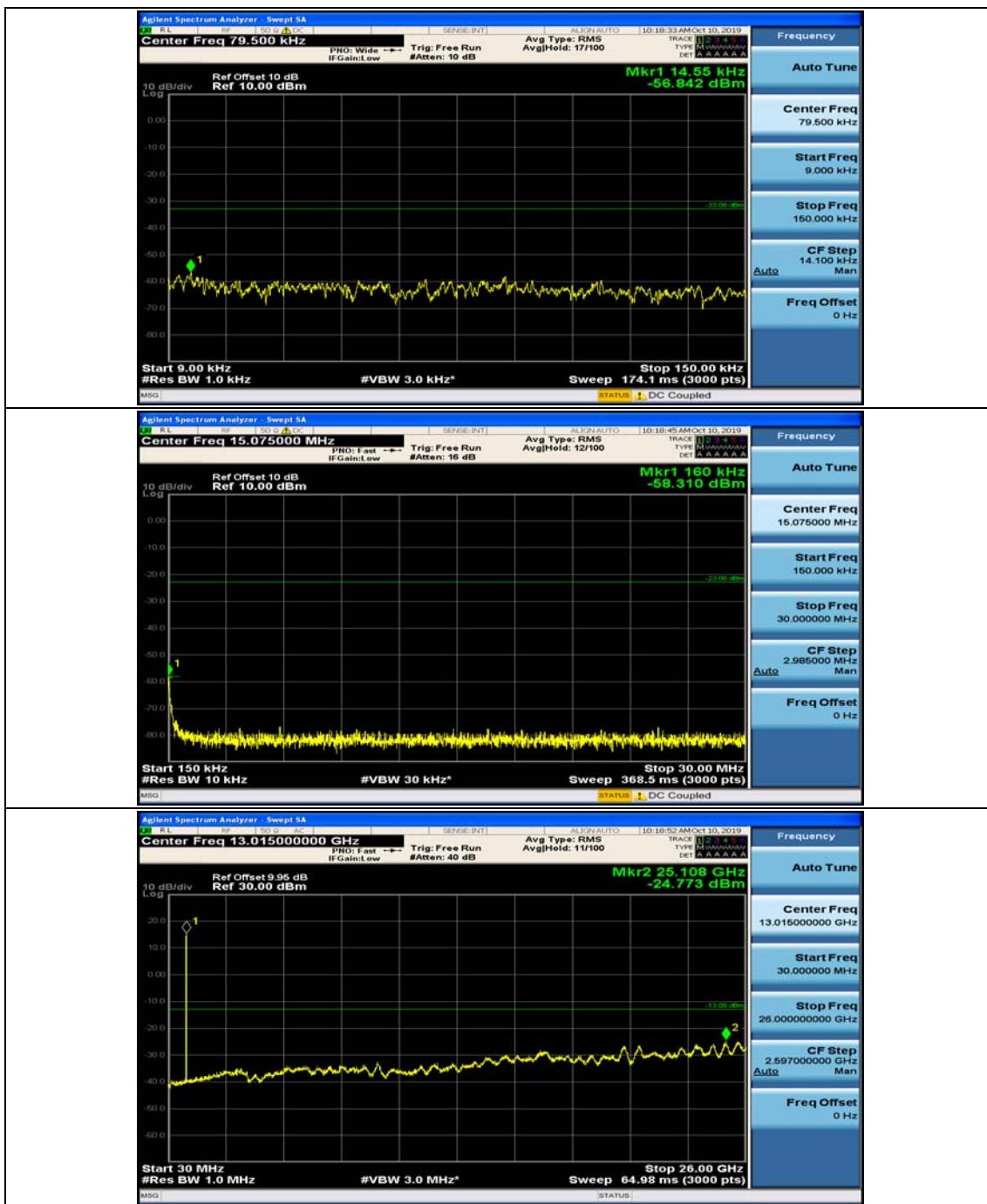




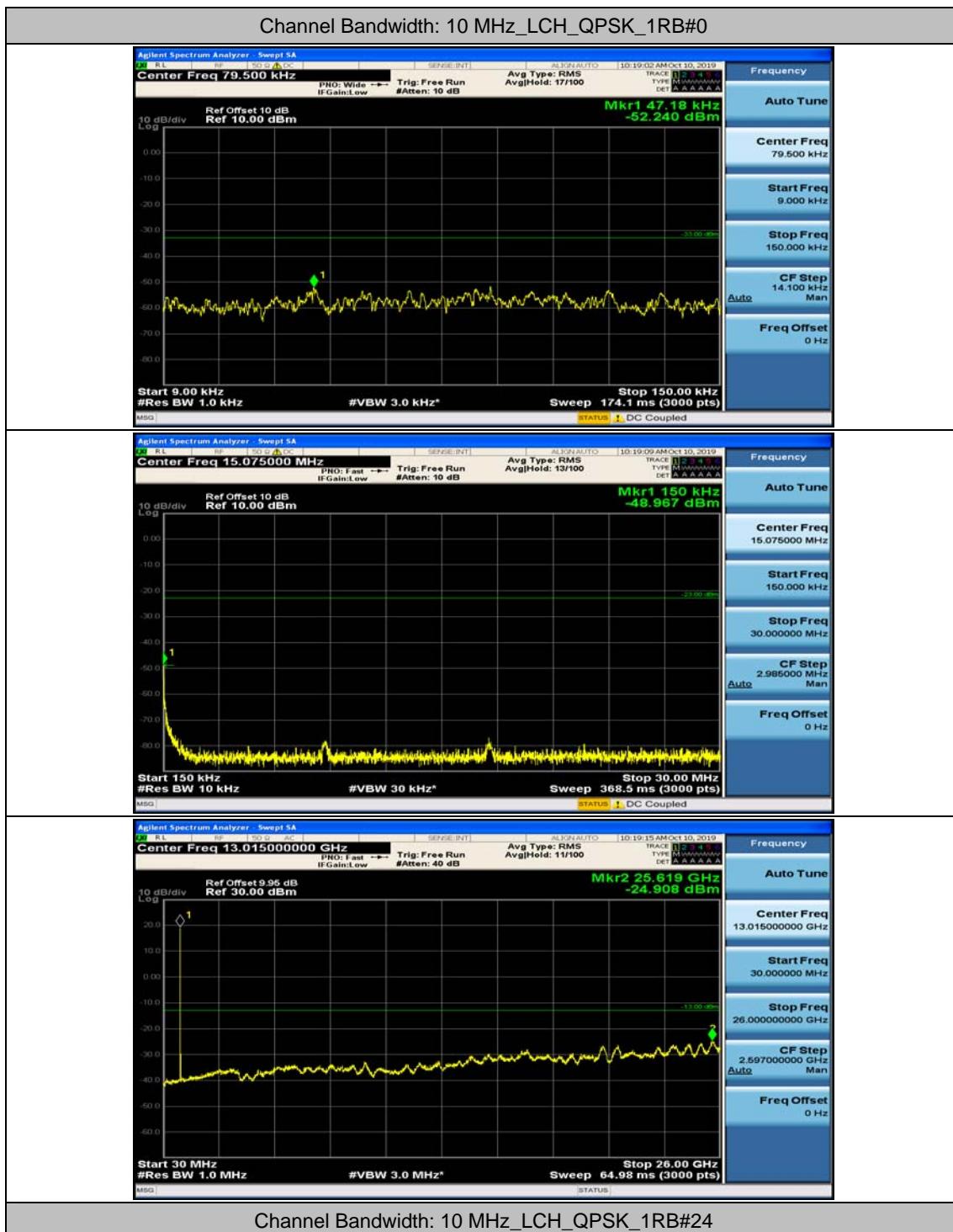


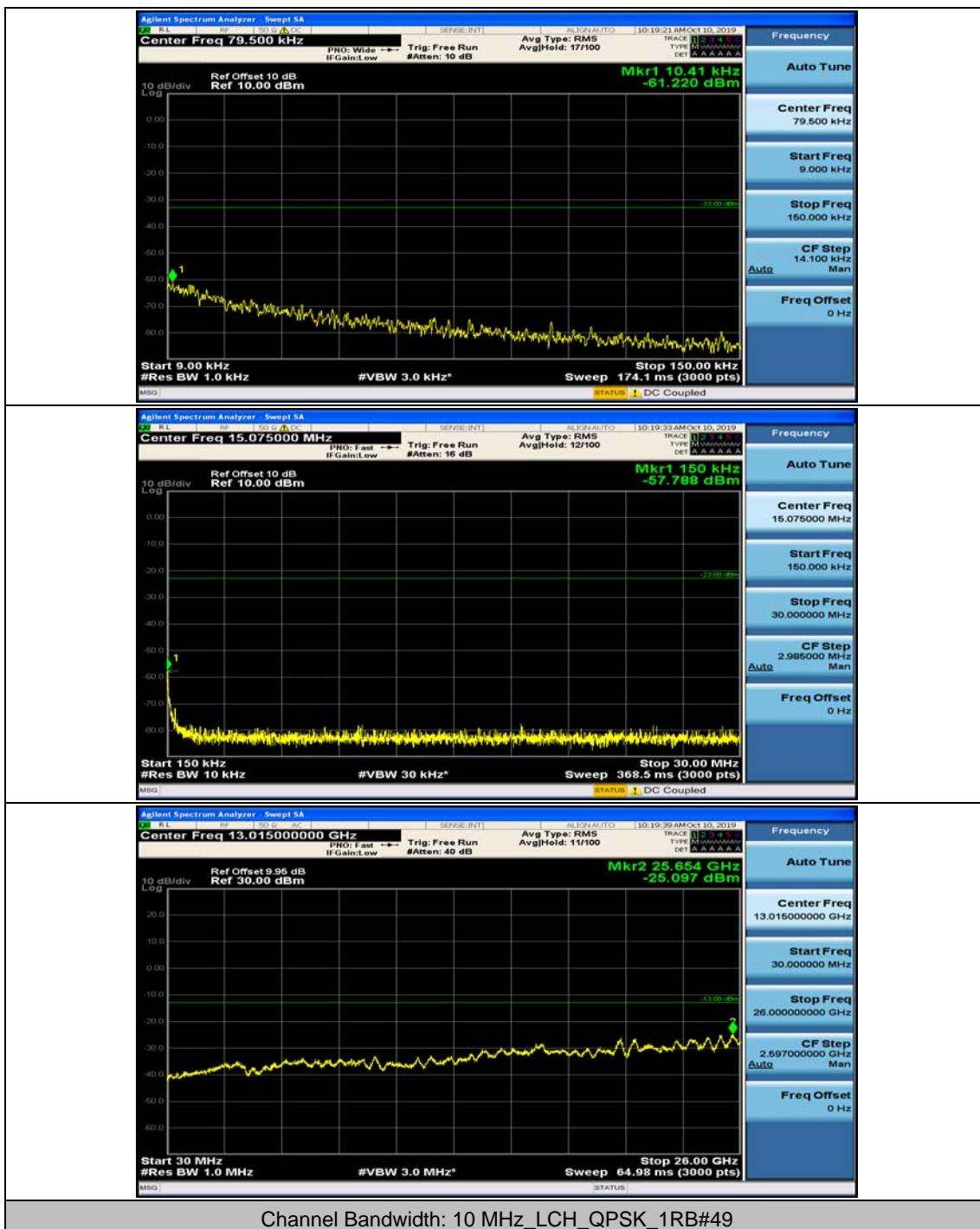


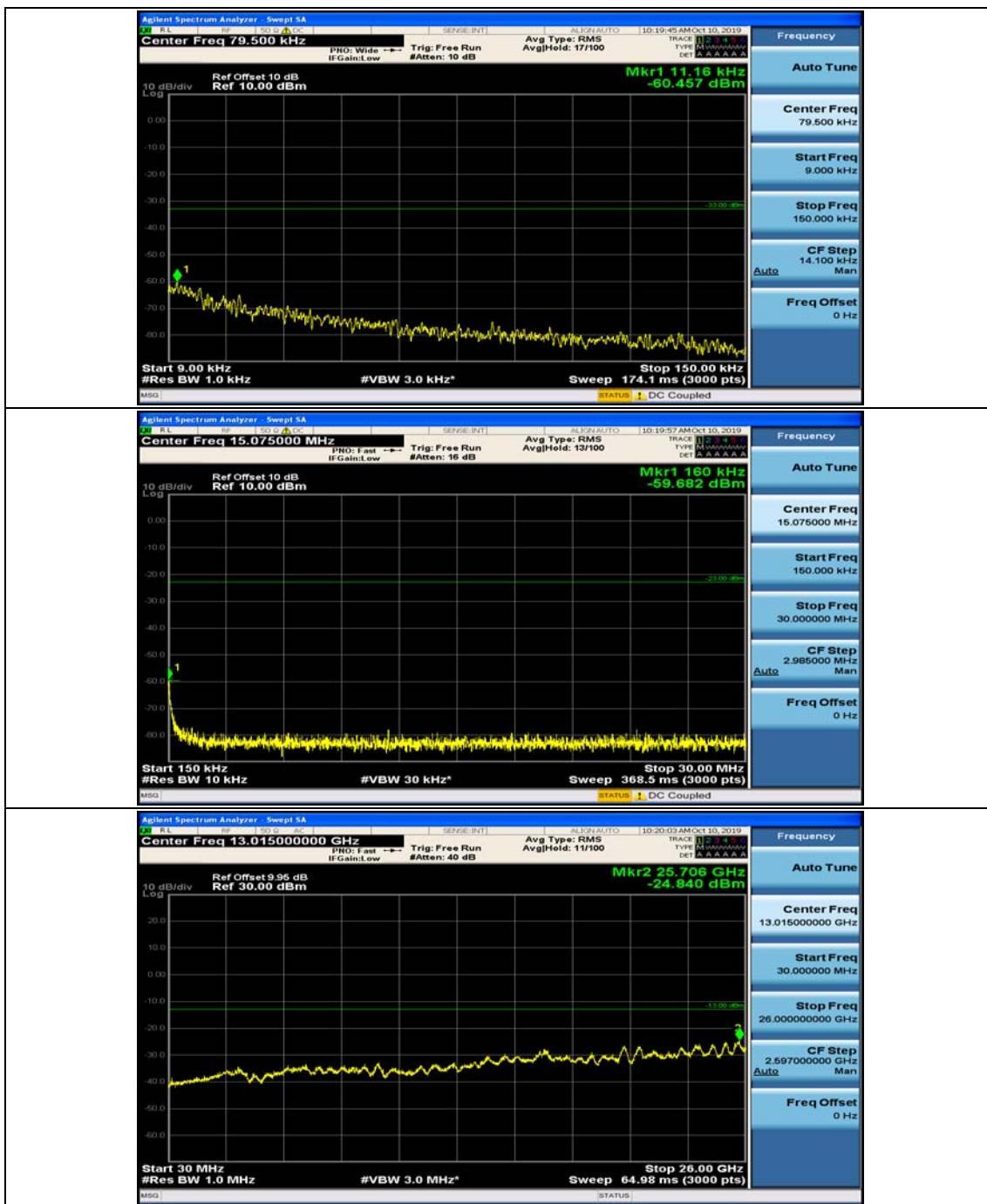


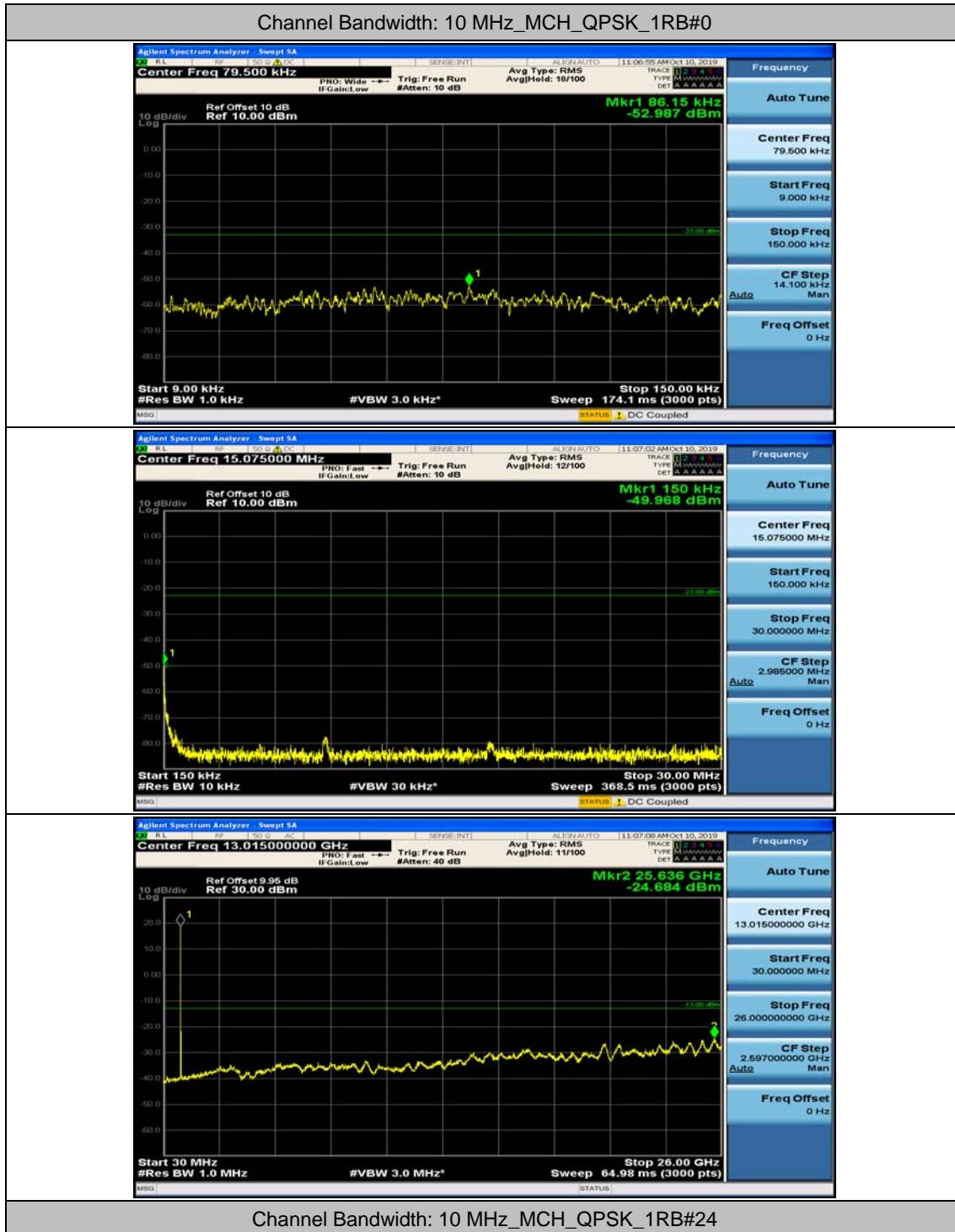


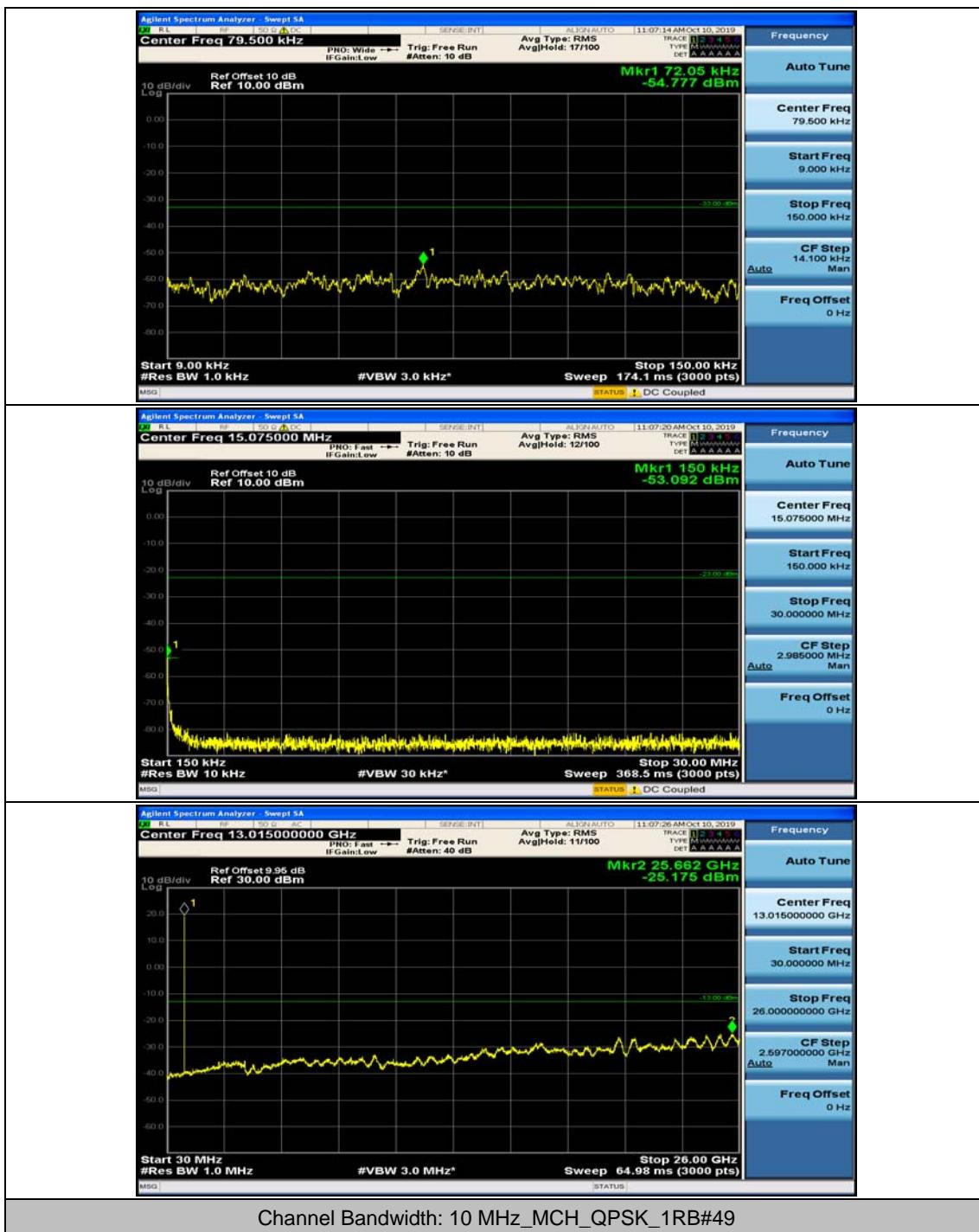
Channel Bandwidth: 10 MHz

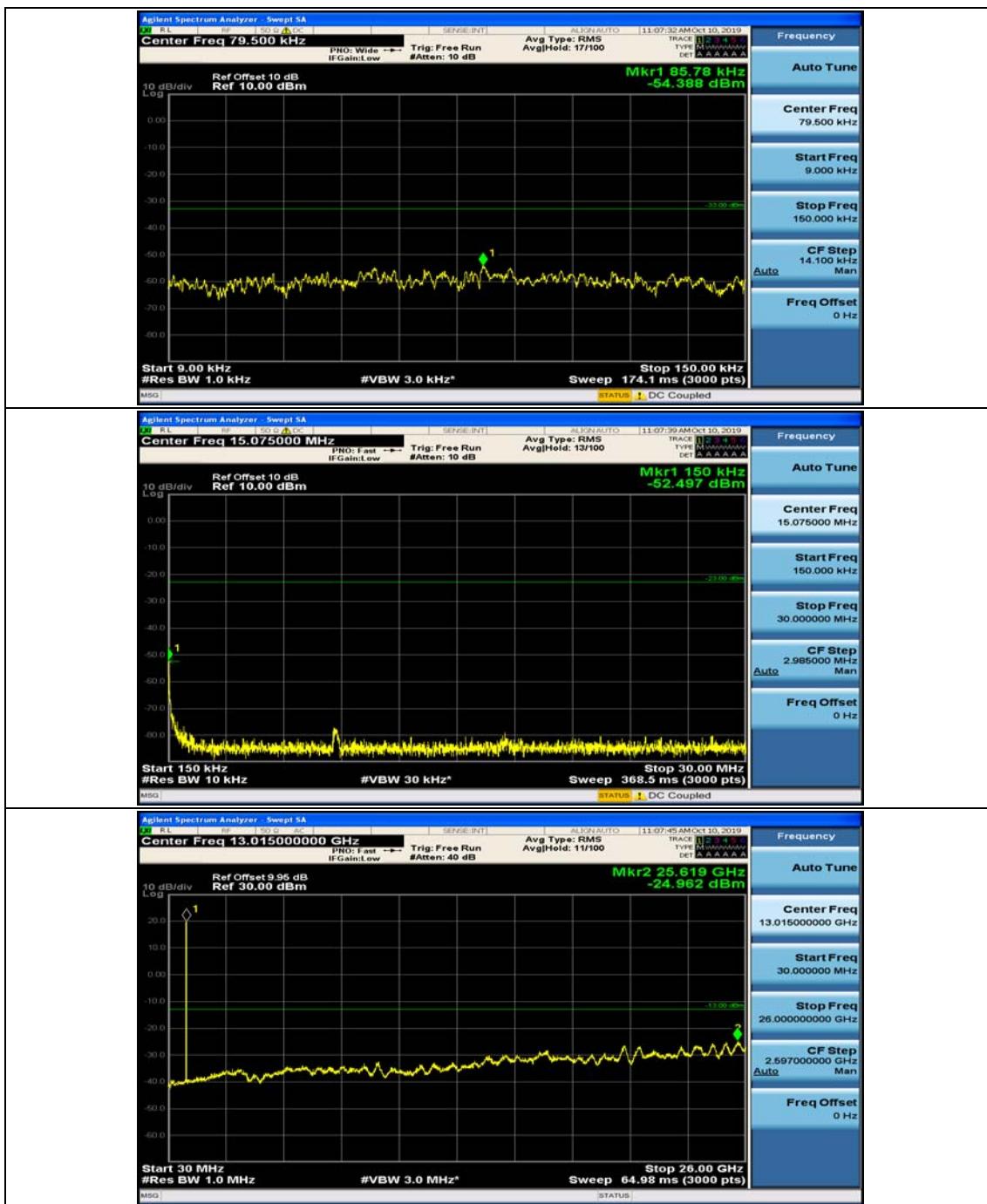


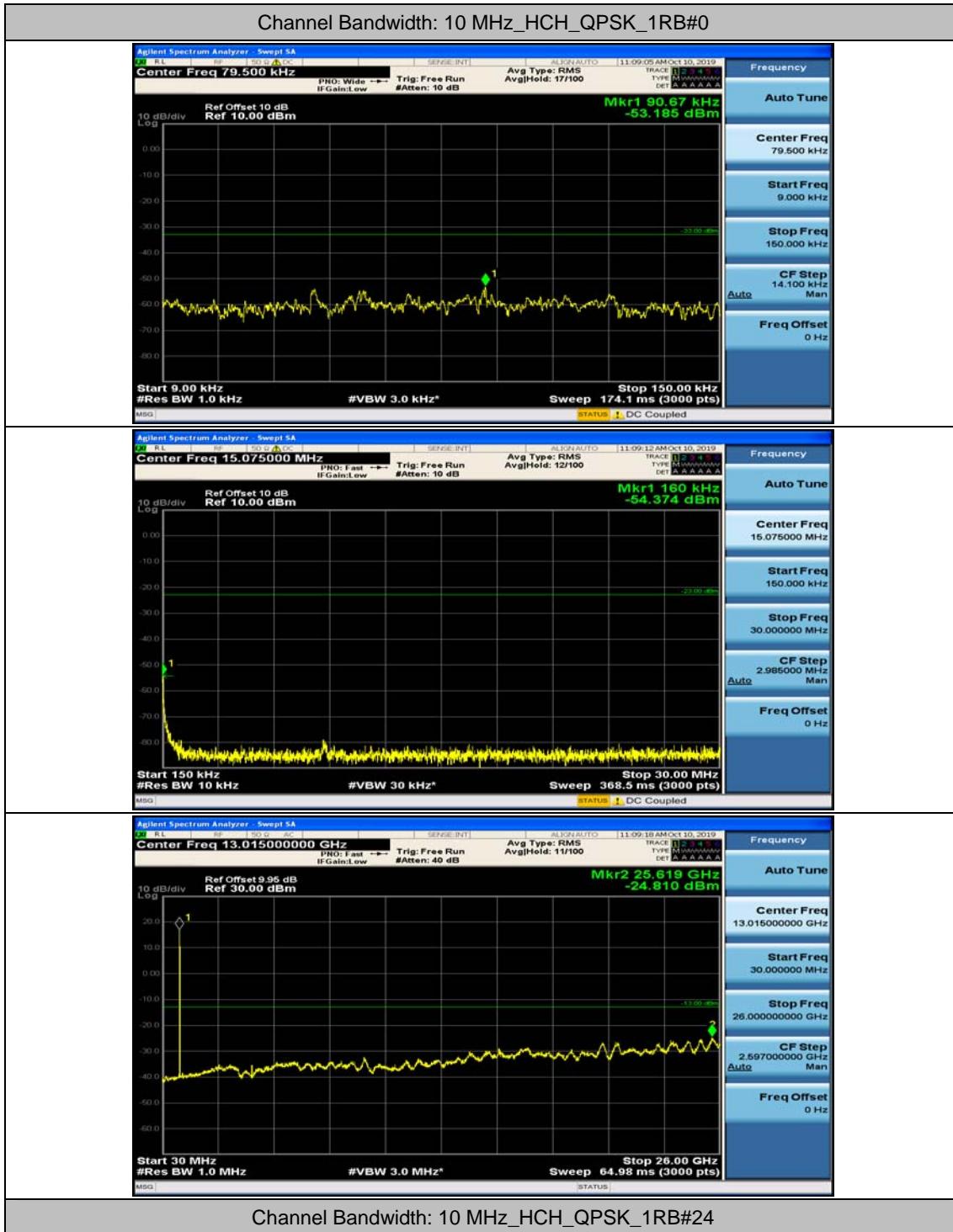


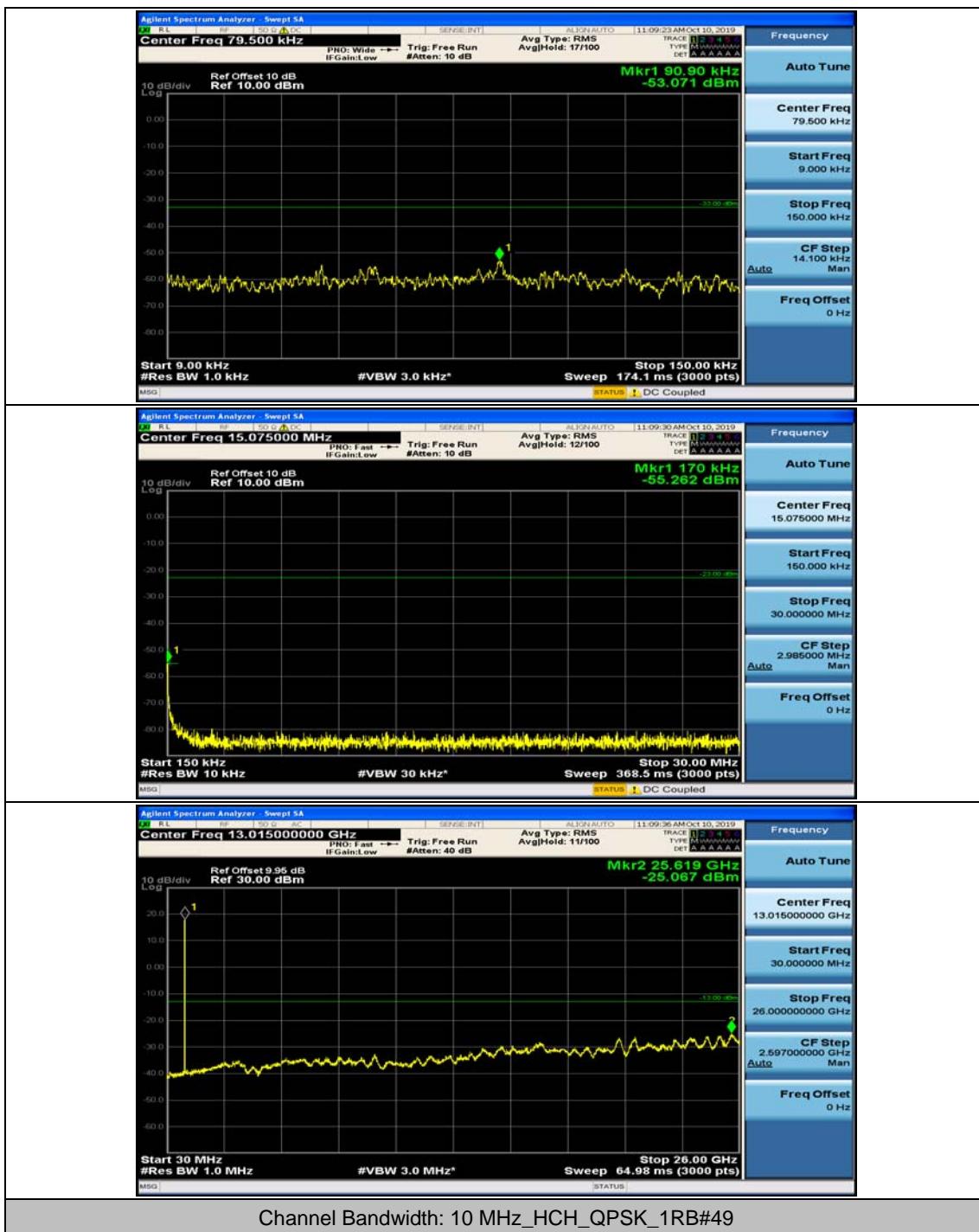


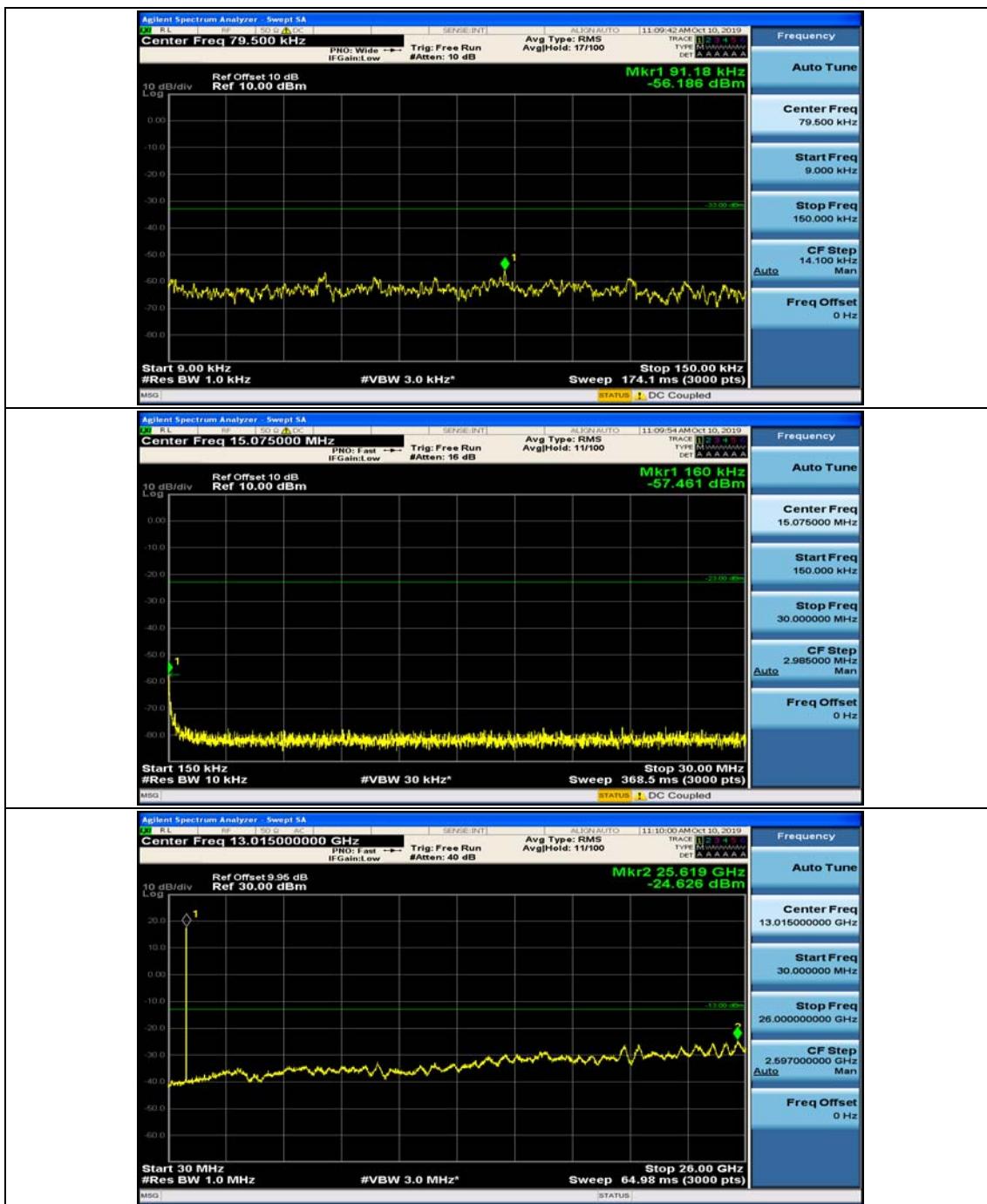


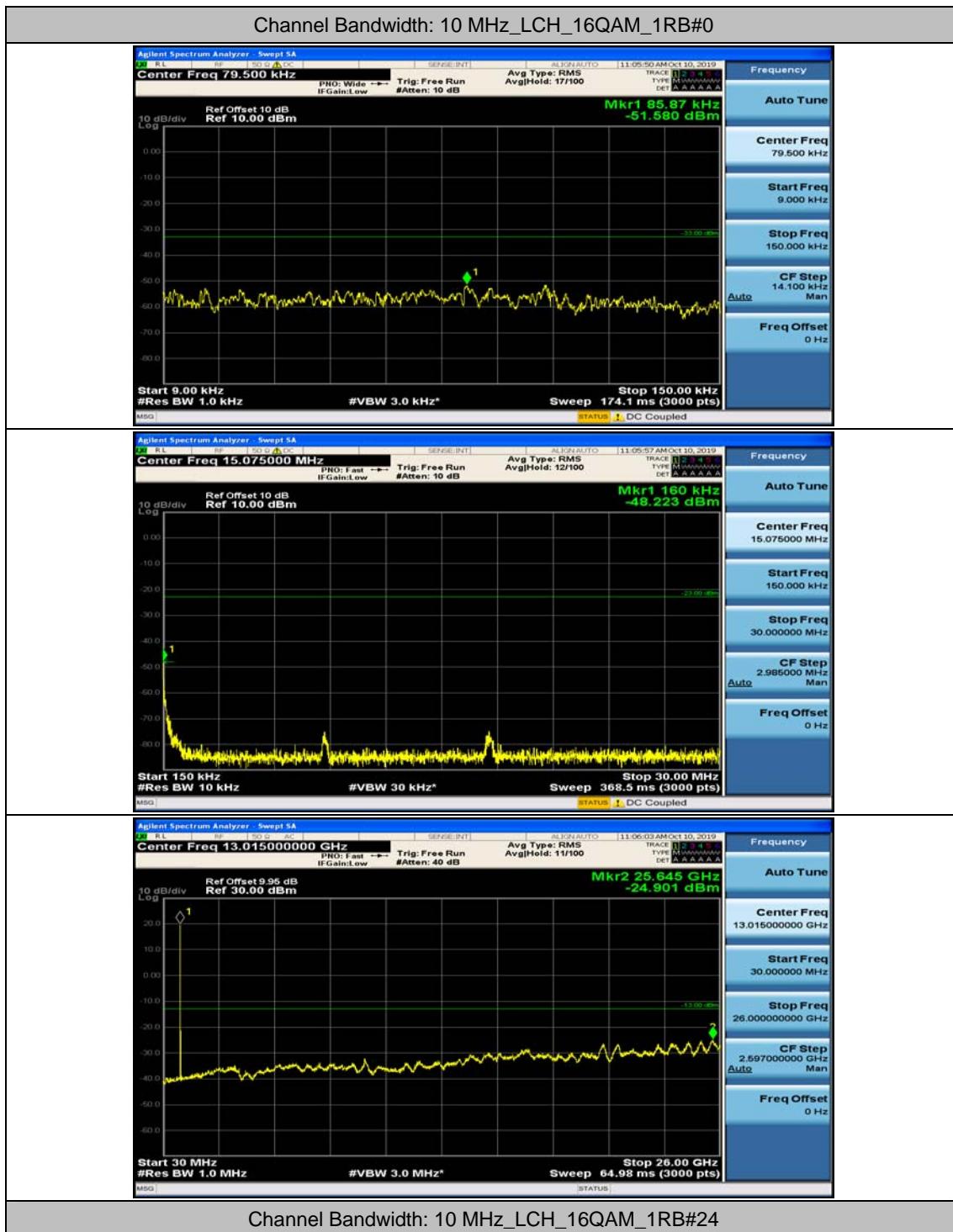


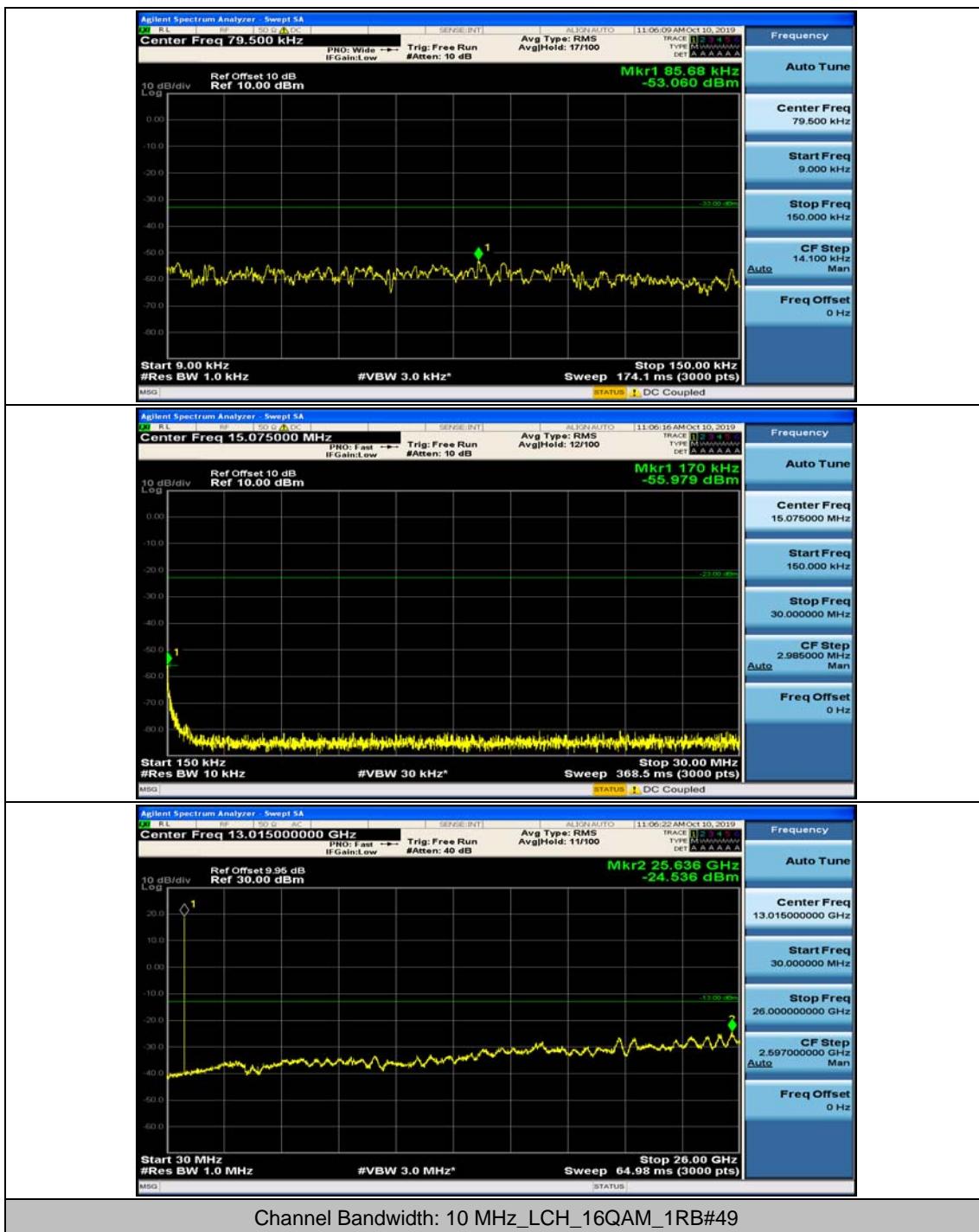


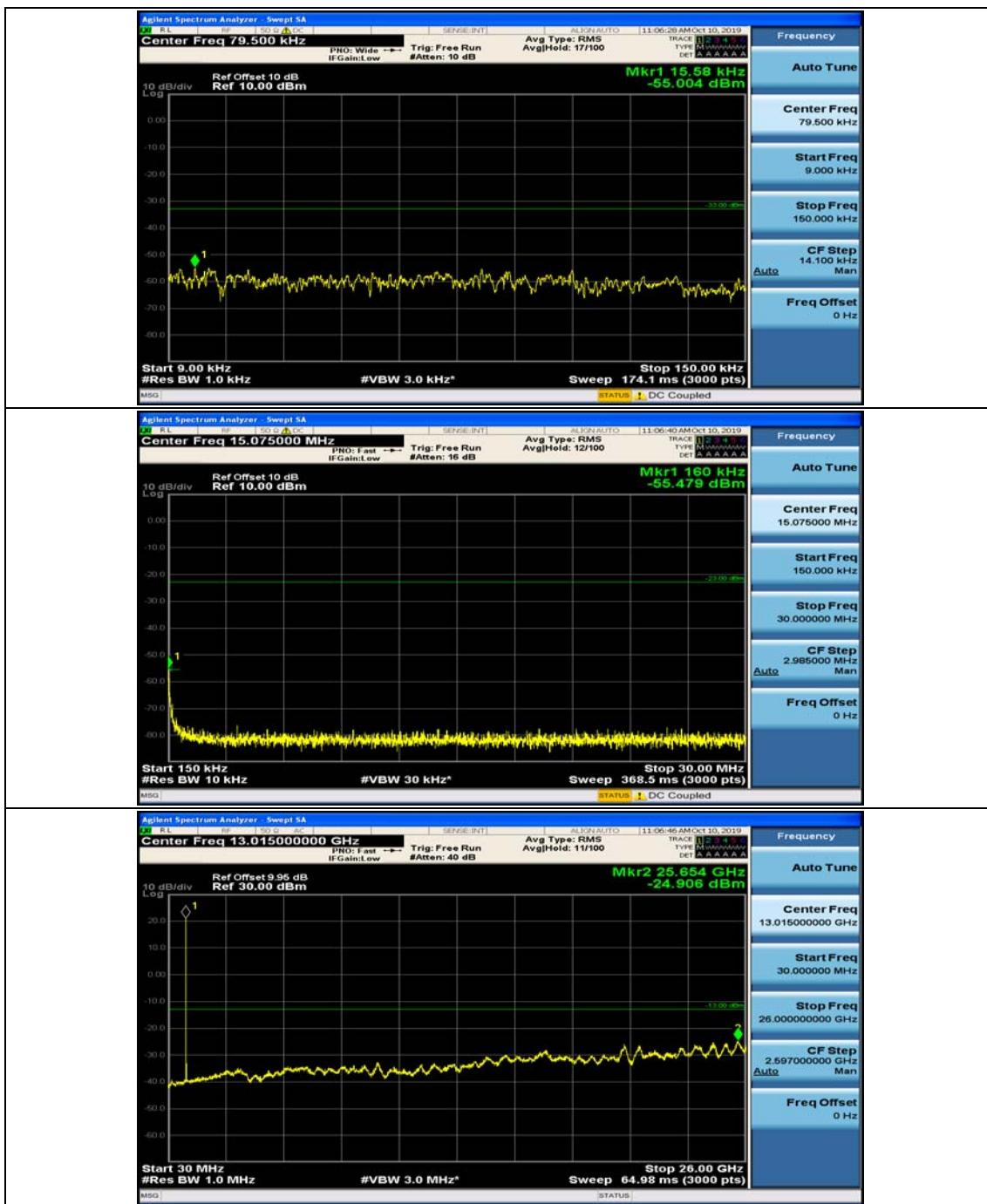


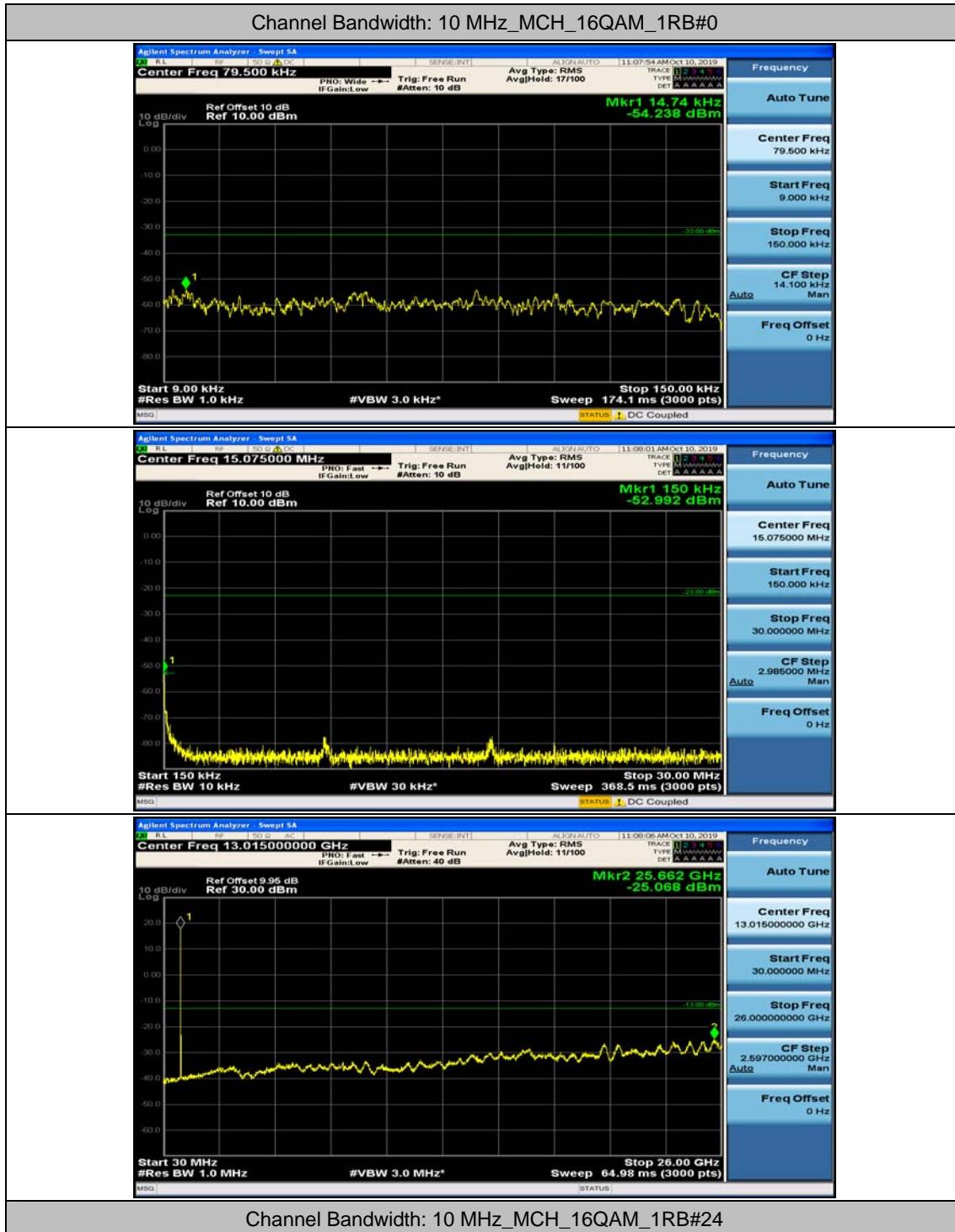


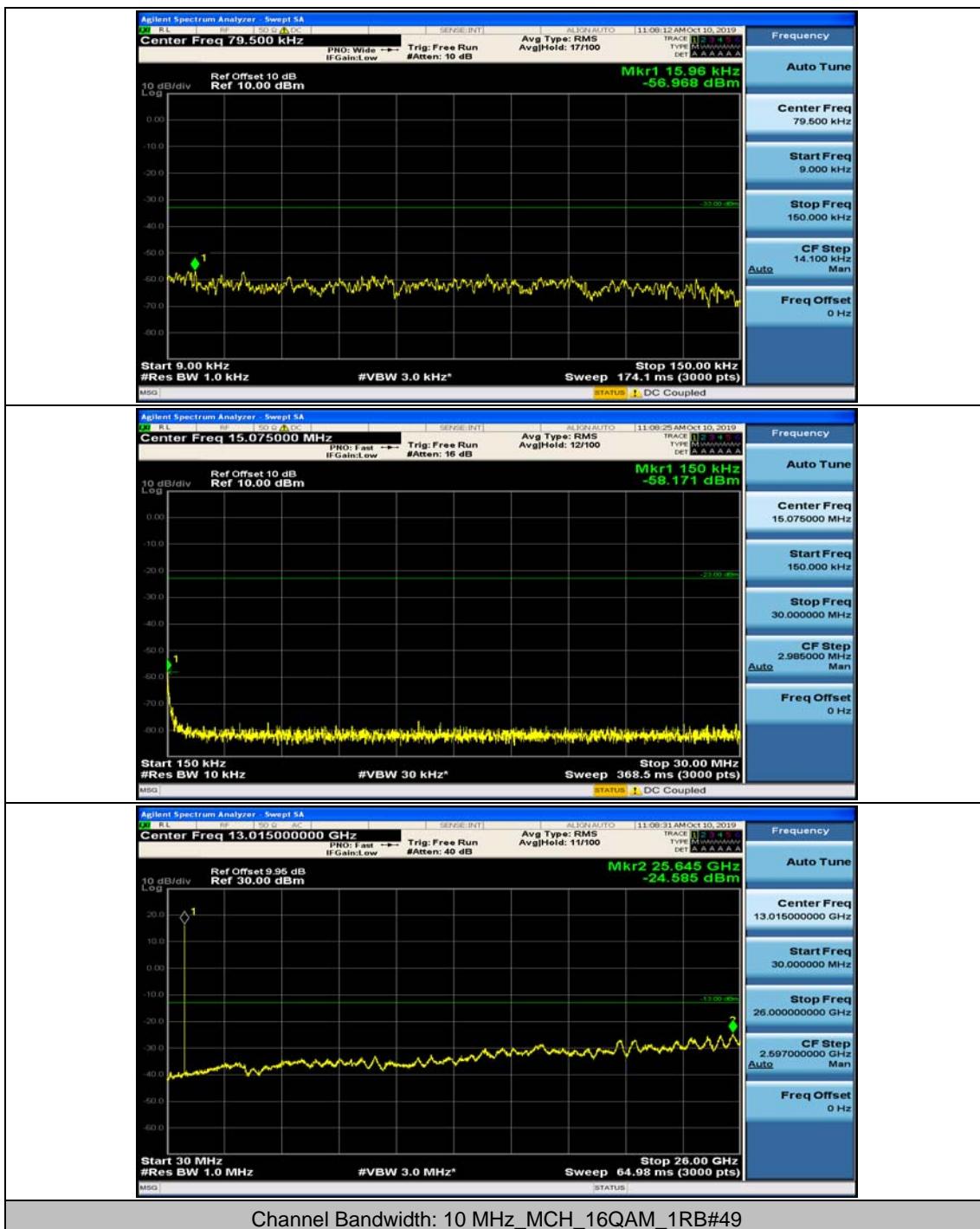


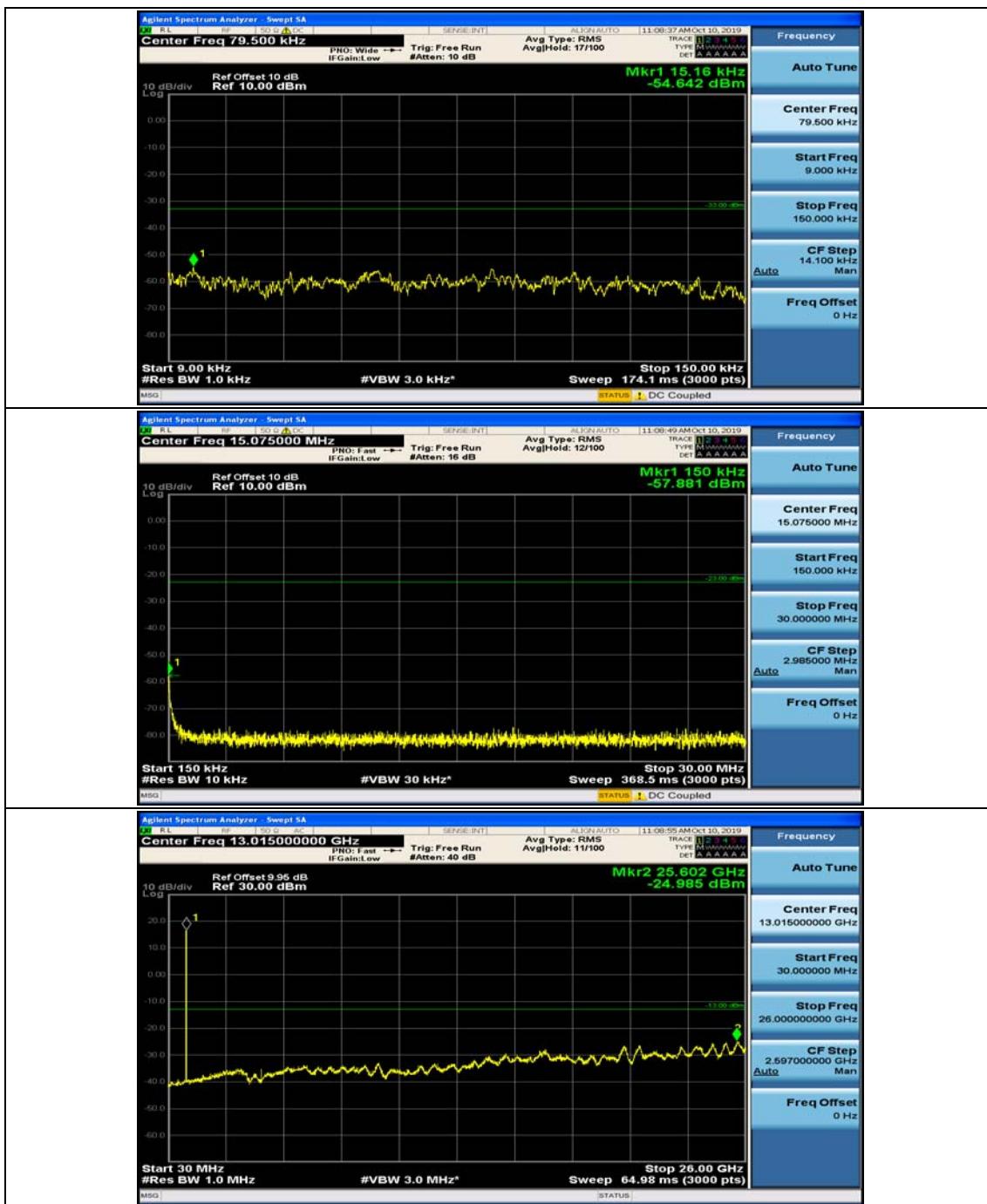


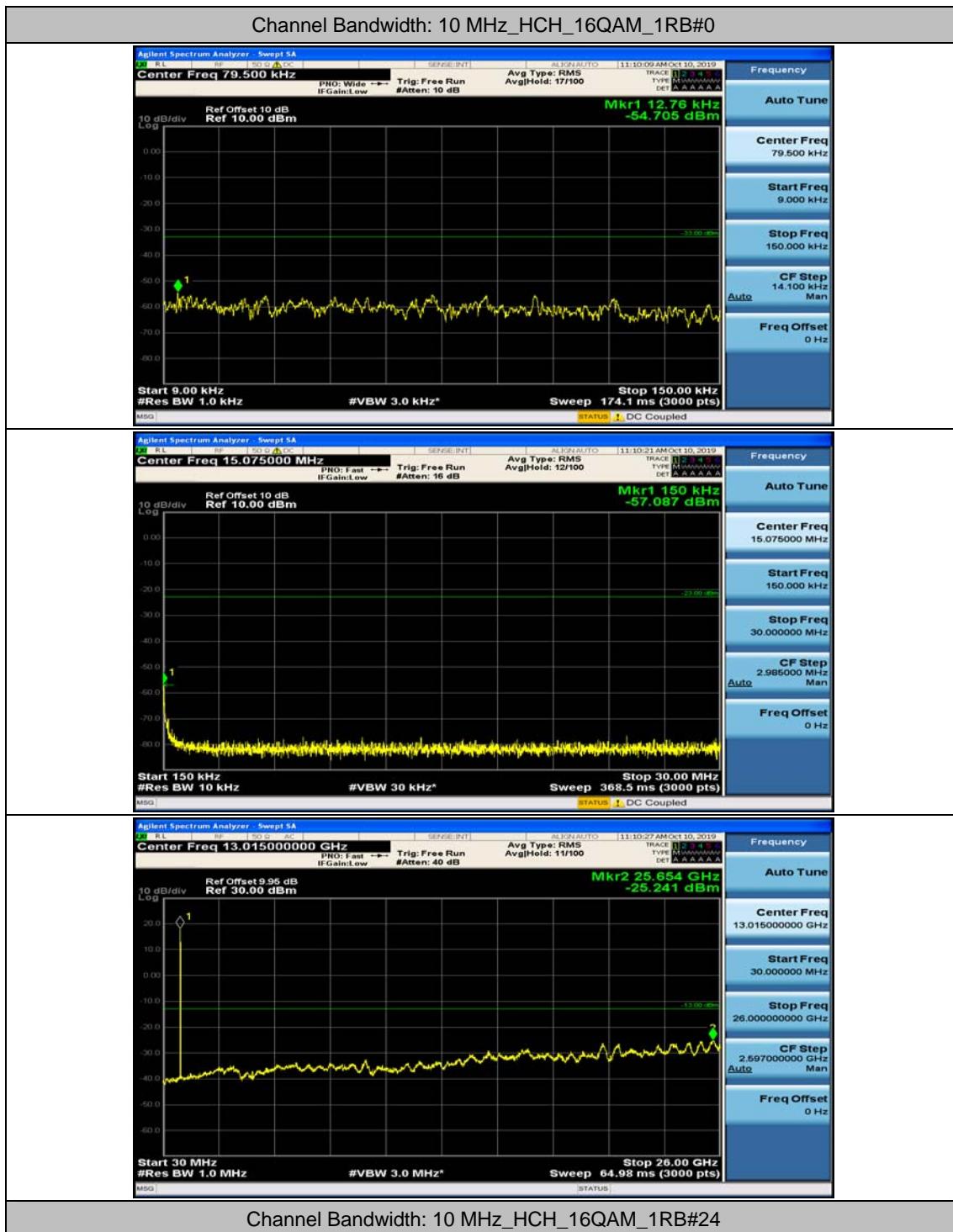


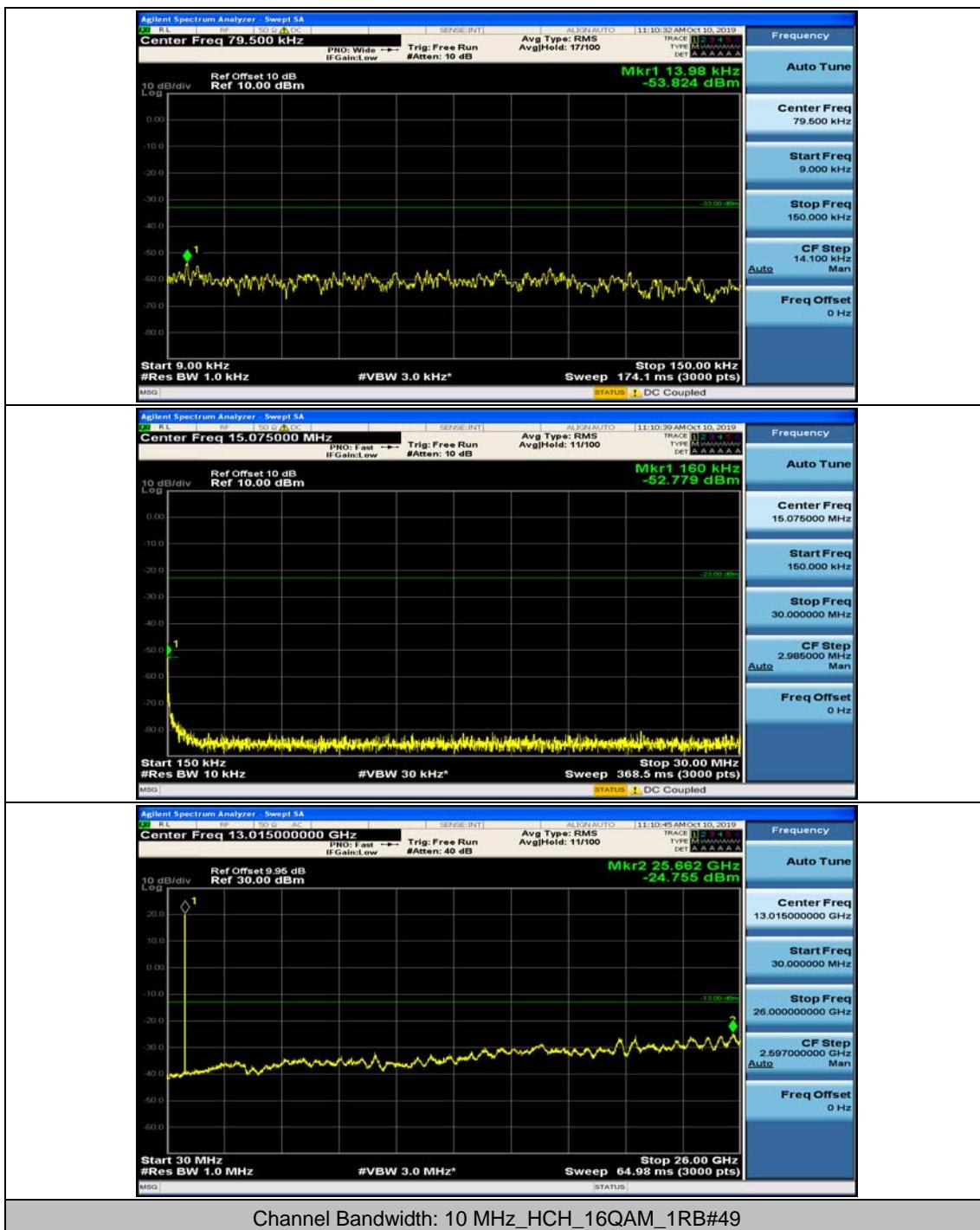


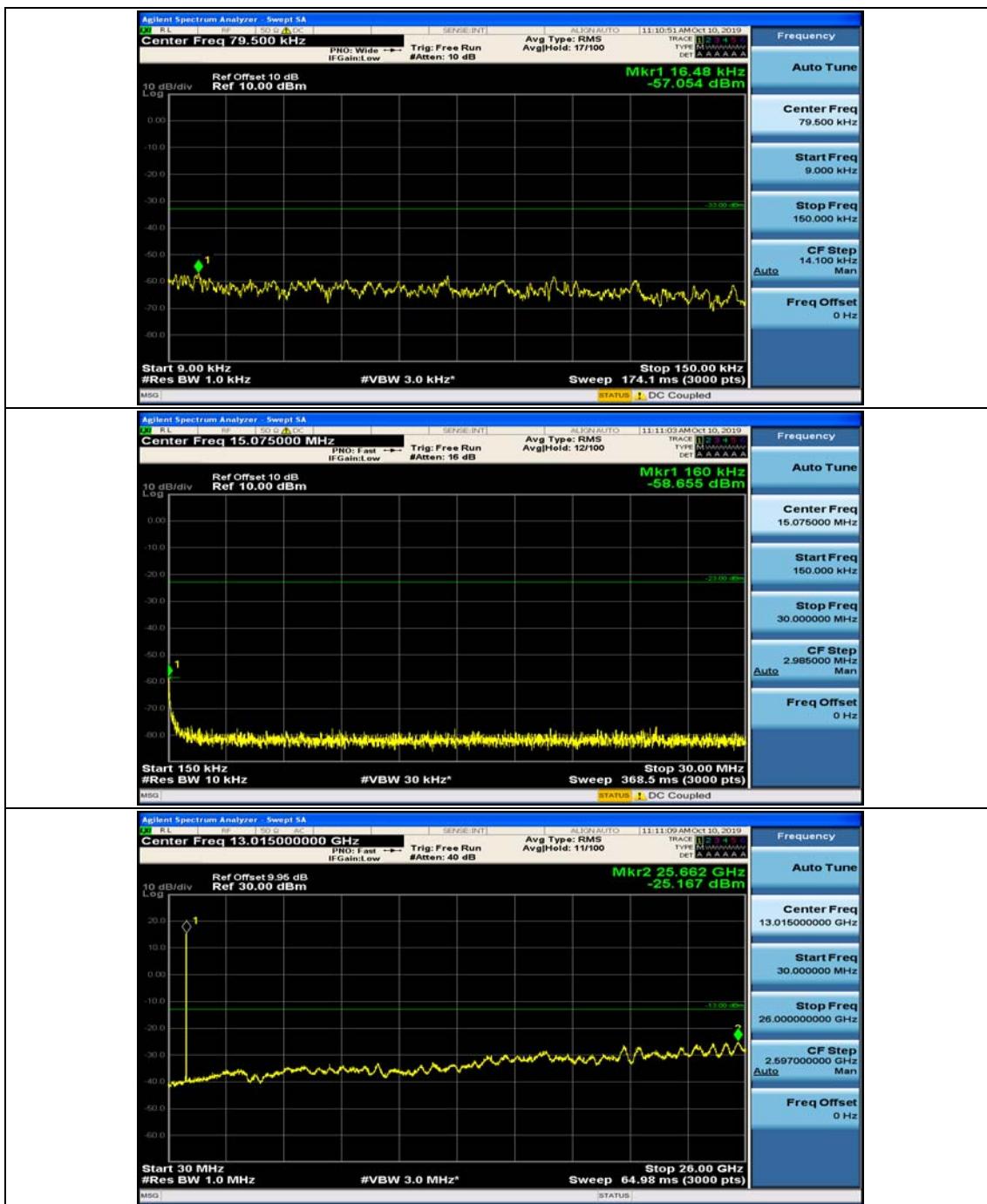












Appendix F: Frequency Stability

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	0.11	0.000133	± 2.5	PASS
		VN	TN	4.97	0.006026	± 2.5	PASS
		VH	TN	1.72	0.002086	± 2.5	PASS
	MCH	VL	TN	2.16	0.002582	± 2.5	PASS
		VN	TN	-0.61	-0.000729	± 2.5	PASS
		VH	TN	0.11	0.000132	± 2.5	PASS
	HCH	VL	TN	4.2	0.004951	± 2.5	PASS
		VN	TN	0.34	0.000401	± 2.5	PASS
		VH	TN	-1.95	-0.002299	± 2.5	PASS
16QAM	LCH	VL	TN	4.35	0.005275	± 2.5	PASS
		VN	TN	3.81	0.004620	± 2.5	PASS
		VH	TN	2.61	0.003165	± 2.5	PASS
	MCH	VL	TN	2.74	0.003276	± 2.5	PASS
		VN	TN	0.51	0.000610	± 2.5	PASS
		VH	TN	4.83	0.005774	± 2.5	PASS
	HCH	VL	TN	-0.76	-0.000896	± 2.5	PASS
		VN	TN	0.93	0.001096	± 2.5	PASS
		VH	TN	2.44	0.002876	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	4.46	0.005408	± 2.5	PASS
		VN	-20	3.88	0.004705	± 2.5	PASS
		VN	-10	-1.03	-0.001249	± 2.5	PASS
		VN	0	0.18	0.000218	± 2.5	PASS
		VN	10	0.1	0.000121	± 2.5	PASS
		VN	20	4.64	0.005626	± 2.5	PASS
		VN	30	0.61	0.000740	± 2.5	PASS
		VN	40	3.98	0.004826	± 2.5	PASS
		VN	50	2.97	0.003601	± 2.5	PASS
	MCH	VN	-30	4.49	0.005368	± 2.5	PASS
		VN	-20	2.36	0.002821	± 2.5	PASS

		VN	-10	0.39	0.000466	± 2.5	PASS
		VN	0	4.88	0.005834	± 2.5	PASS
		VN	10	2.05	0.002451	± 2.5	PASS
		VN	20	1.61	0.001925	± 2.5	PASS
		VN	30	0.32	0.000383	± 2.5	PASS
		VN	40	3.19	0.003814	± 2.5	PASS
		VN	50	2.97	0.003551	± 2.5	PASS
		VN	-30	3.87	0.004562	± 2.5	PASS
		VN	-20	1.09	0.001285	± 2.5	PASS
		VN	-10	0.44	0.000519	± 2.5	PASS
		VN	0	0.22	0.000259	± 2.5	PASS
		VN	10	4.02	0.004739	± 2.5	PASS
		VN	20	0.92	0.001085	± 2.5	PASS
		VN	30	-0.45	-0.000530	± 2.5	PASS
		VN	40	1.57	0.001851	± 2.5	PASS
		VN	50	0.23	0.000271	± 2.5	PASS
	LCH	VN	-30	-1.35	-0.001637	± 2.5	PASS
		VN	-20	-0.4	-0.000485	± 2.5	PASS
		VN	-10	-0.57	-0.000691	± 2.5	PASS
		VN	0	4.31	0.005226	± 2.5	PASS
		VN	10	1.49	0.001807	± 2.5	PASS
		VN	20	2.1	0.002546	± 2.5	PASS
		VN	30	-1.57	-0.001904	± 2.5	PASS
		VN	40	-1.1	-0.001334	± 2.5	PASS
		VN	50	2.41	0.002922	± 2.5	PASS
	MCH	VN	-30	2.4	0.002829	± 2.5	PASS
		VN	-20	1.05	0.001238	± 2.5	PASS
		VN	-10	3.75	0.004421	± 2.5	PASS
		VN	0	1.97	0.002322	± 2.5	PASS
		VN	10	2.07	0.002440	± 2.5	PASS
		VN	20	2.67	0.003147	± 2.5	PASS
		VN	30	0.06	0.000071	± 2.5	PASS
		VN	40	4.26	0.005022	± 2.5	PASS
	HCH	VN	50	-0.15	-0.000177	± 2.5	PASS
		VN	-30	0.79	0.000931	± 2.5	PASS
		VN	-20	-0.02	-0.000024	± 2.5	PASS
		VN	-10	0.59	0.000696	± 2.5	PASS
		VN	0	-0.18	-0.000212	± 2.5	PASS
		VN	10	3.66	0.004315	± 2.5	PASS
		VN	20	2.31	0.002723	± 2.5	PASS
		VN	30	-1.17	-0.001379	± 2.5	PASS

		VN	40	4.57	0.005387	± 2.5	PASS
		VN	50	2.13	0.002511	± 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	2.05	0.002483	± 2.5	PASS
		VN	TN	3.32	0.004022	± 2.5	PASS
		VH	TN	0.29	0.000351	± 2.5	PASS
	MCH	VL	TN	-0.09	-0.000108	± 2.5	PASS
		VN	TN	-0.26	-0.000311	± 2.5	PASS
		VH	TN	-1.79	-0.002140	± 2.5	PASS
	HCH	VL	TN	3.83	0.004519	± 2.5	PASS
		VN	TN	2.91	0.003434	± 2.5	PASS
		VH	TN	-0.14	-0.000165	± 2.5	PASS
16QAM	LCH	VL	TN	0.91	0.001102	± 2.5	PASS
		VN	TN	4.7	0.005694	± 2.5	PASS
		VH	TN	-0.17	-0.000206	± 2.5	PASS
	MCH	VL	TN	0.46	0.000550	± 2.5	PASS
		VN	TN	2.45	0.002929	± 2.5	PASS
		VH	TN	2.87	0.003431	± 2.5	PASS
	HCH	VL	TN	3.32	0.003917	± 2.5	PASS
		VN	TN	2.28	0.002690	± 2.5	PASS
		VH	TN	0.93	0.001097	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.71	0.004494	± 2.5	PASS
		VN	-20	1.68	0.002035	± 2.5	PASS
		VN	-10	2.99	0.003622	± 2.5	PASS
		VN	0	1.73	0.002096	± 2.5	PASS
		VN	10	-0.33	-0.000400	± 2.5	PASS
		VN	20	0.63	0.000763	± 2.5	PASS
		VN	30	-0.05	-0.000061	± 2.5	PASS
		VN	40	3.61	0.004373	± 2.5	PASS
		VN	50	1.53	0.001853	± 2.5	PASS
	MCH	VN	-30	0.87	0.001040	± 2.5	PASS
		VN	-20	3.48	0.004160	± 2.5	PASS
		VN	-10	2.05	0.002451	± 2.5	PASS

	HCH	VN	0	4.17	0.004985	± 2.5	PASS
		VN	10	-1.47	-0.001757	± 2.5	PASS
		VN	20	3.16	0.003778	± 2.5	PASS
		VN	30	2.83	0.003383	± 2.5	PASS
		VN	40	-1.12	-0.001339	± 2.5	PASS
		VN	50	2.12	0.002534	± 2.5	PASS
		VN	-30	1.83	0.002159	± 2.5	PASS
		VN	-20	3.05	0.003599	± 2.5	PASS
		VN	-10	-0.86	-0.001015	± 2.5	PASS
		VN	0	3.67	0.004330	± 2.5	PASS
16QAM	LCH	VN	10	1.61	0.001900	± 2.5	PASS
		VN	20	0.48	0.000566	± 2.5	PASS
		VN	30	-1.1	-0.001298	± 2.5	PASS
		VN	40	3.99	0.004708	± 2.5	PASS
		VN	50	-1.49	-0.001758	± 2.5	PASS
		VN	-30	1.22	0.001458	± 2.5	PASS
		VN	-20	4.19	0.005009	± 2.5	PASS
		VN	-10	-0.35	-0.000418	± 2.5	PASS
		VN	0	2.34	0.002797	± 2.5	PASS
16QAM	MCH	VN	10	-0.67	-0.000801	± 2.5	PASS
		VN	20	-0.15	-0.000179	± 2.5	PASS
		VN	30	-0.86	-0.001028	± 2.5	PASS
		VN	40	3.5	0.004184	± 2.5	PASS
		VN	50	2.69	0.003216	± 2.5	PASS
		VN	-30	-0.32	-0.000378	± 2.5	PASS
		VN	-20	4.43	0.005227	± 2.5	PASS
		VN	-10	1.36	0.001605	± 2.5	PASS
		VN	0	2.79	0.003292	± 2.5	PASS
16QAM	HCH	VN	10	0.84	0.000991	± 2.5	PASS
		VN	20	0.16	0.000189	± 2.5	PASS
		VN	30	2.67	0.003150	± 2.5	PASS
		VN	40	3.88	0.004578	± 2.5	PASS
		VN	50	1.2	0.001416	± 2.5	PASS
		VN	-30	1.08	0.001274	± 2.5	PASS
		VN	-20	-1.89	-0.002230	± 2.5	PASS
		VN	-10	4.07	0.004802	± 2.5	PASS
		VN	0	-1.68	-0.001982	± 2.5	PASS

		VN	50	4.07	0.004802	± 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	-0.57	-0.000690	± 2.5	PASS
		VN	TN	-0.05	-0.000060	± 2.5	PASS
		VH	TN	4.94	0.005977	± 2.5	PASS
	MCH	VL	TN	0.2	0.000239	± 2.5	PASS
		VN	TN	4.67	0.005583	± 2.5	PASS
		VH	TN	4.84	0.005786	± 2.5	PASS
	HCH	VL	TN	-0.82	-0.000969	± 2.5	PASS
		VN	TN	-0.12	-0.000142	± 2.5	PASS
		VH	TN	3.17	0.003745	± 2.5	PASS
16QAM	LCH	VL	TN	0.67	0.000811	± 2.5	PASS
		VN	TN	-0.42	-0.000508	± 2.5	PASS
		VH	TN	0.3	0.000363	± 2.5	PASS
	MCH	VL	TN	0.03	0.000036	± 2.5	PASS
		VN	TN	2.4	0.002869	± 2.5	PASS
		VH	TN	4.44	0.005308	± 2.5	PASS
	HCH	VL	TN	2.4	0.002835	± 2.5	PASS
		VN	TN	-0.79	-0.000933	± 2.5	PASS
		VH	TN	-1.87	-0.002209	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.44	-0.000532	± 2.5	PASS
		VN	-20	2.52	0.003049	± 2.5	PASS
		VN	-10	3.68	0.004453	± 2.5	PASS
		VN	0	2.05	0.002480	± 2.5	PASS
		VN	10	2.39	0.002892	± 2.5	PASS
		VN	20	2.08	0.002517	± 2.5	PASS
		VN	30	-0.44	-0.000532	± 2.5	PASS
		VN	40	4.36	0.005275	± 2.5	PASS
		VN	50	-1.49	-0.001803	± 2.5	PASS
	MCH	VN	-30	1.25	0.001494	± 2.5	PASS
		VN	-20	-0.77	-0.000921	± 2.5	PASS
		VN	-10	4.58	0.005475	± 2.5	PASS
		VN	0	1.41	0.001686	± 2.5	PASS

		VN	10	1.65	0.001973	± 2.5	PASS
		VN	20	2.74	0.003276	± 2.5	PASS
		VN	30	-0.71	-0.000849	± 2.5	PASS
		VN	40	3.94	0.004710	± 2.5	PASS
		VN	50	-1.35	-0.001614	± 2.5	PASS
	HCH	VN	-30	3.03	0.003579	± 2.5	PASS
		VN	-20	1.14	0.001347	± 2.5	PASS
		VN	-10	-1.13	-0.001335	± 2.5	PASS
		VN	0	-1.39	-0.001642	± 2.5	PASS
		VN	10	1.43	0.001689	± 2.5	PASS
		VN	20	-0.8	-0.000945	± 2.5	PASS
		VN	30	-1.65	-0.001949	± 2.5	PASS
		VN	40	-0.95	-0.001122	± 2.5	PASS
		VN	50	3.03	0.003579	± 2.5	PASS
16QAM	LCH	VN	-30	2.14	0.002558	± 2.5	PASS
		VN	-20	1.13	0.001351	± 2.5	PASS
		VN	-10	3.92	0.004686	± 2.5	PASS
		VN	0	3.05	0.003646	± 2.5	PASS
		VN	10	-1.72	-0.002056	± 2.5	PASS
		VN	20	-1.9	-0.002271	± 2.5	PASS
		VN	30	4.53	0.005415	± 2.5	PASS
		VN	40	2.32	0.002773	± 2.5	PASS
		VN	50	-0.78	-0.000932	± 2.5	PASS
	MCH	VN	-30	0.8	0.000945	± 2.5	PASS
		VN	-20	2.4	0.002835	± 2.5	PASS
		VN	-10	-1.49	-0.001760	± 2.5	PASS
		VN	0	3.42	0.004040	± 2.5	PASS
		VN	10	3.15	0.003721	± 2.5	PASS
		VN	20	1.72	0.002032	± 2.5	PASS
		VN	30	1.73	0.002044	± 2.5	PASS
		VN	40	2.8	0.003308	± 2.5	PASS
		VN	50	2.56	0.003024	± 2.5	PASS
	HCH	VN	-30	-1.22	-0.001441	± 2.5	PASS
		VN	-20	-0.78	-0.000921	± 2.5	PASS
		VN	-10	2.37	0.002800	± 2.5	PASS
		VN	0	3.74	0.004418	± 2.5	PASS
		VN	10	-0.99	-0.001170	± 2.5	PASS
		VN	20	-0.26	-0.000307	± 2.5	PASS
		VN	30	0.97	0.001146	± 2.5	PASS
		VN	40	2.87	0.003390	± 2.5	PASS
		VN	50	1.7	0.002008	± 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	-0.000820	-0.000820	± 2.5	PASS
		VN	TN	0.000157	0.000157	± 2.5	PASS
		VH	TN	0.000193	0.000193	± 2.5	PASS
	MCH	VL	TN	-0.001638	-0.001638	± 2.5	PASS
		VN	TN	-0.002331	-0.002331	± 2.5	PASS
		VH	TN	0.005643	0.005643	± 2.5	PASS
	HCH	VL	TN	0.004384	0.004384	± 2.5	PASS
		VN	TN	-0.002346	-0.002346	± 2.5	PASS
		VH	TN	-0.002299	-0.002299	± 2.5	PASS
16QAM	LCH	VL	TN	0.003269	0.003269	± 2.5	PASS
		VN	TN	-0.000398	-0.000398	± 2.5	PASS
		VH	TN	0.005223	0.005223	± 2.5	PASS
	MCH	VL	TN	0.003551	0.003551	± 2.5	PASS
		VN	TN	-0.000753	-0.000753	± 2.5	PASS
		VH	TN	0.003455	0.003455	± 2.5	PASS
	HCH	VL	TN	0.000118	0.000118	± 2.5	PASS
		VN	TN	-0.000533	-0.000533	± 2.5	PASS
		VH	TN	0.001588	0.001588	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.68	0.004439	± 2.5	PASS
		VN	-20	3.68	0.004439	± 2.5	PASS
		VN	-10	-0.71	-0.000856	± 2.5	PASS
		VN	0	1.28	0.001544	± 2.5	PASS
		VN	10	0.13	0.000157	± 2.5	PASS
		VN	20	0.26	0.000314	± 2.5	PASS
		VN	30	-0.14	-0.000169	± 2.5	PASS
		VN	40	0.58	0.000700	± 2.5	PASS
		VN	50	2.49	0.003004	± 2.5	PASS
	MCH	VN	-30	0.4	0.000478	± 2.5	PASS
		VN	-20	3.11	0.003718	± 2.5	PASS
		VN	-10	1.74	0.002080	± 2.5	PASS
		VN	0	-1.75	-0.002092	± 2.5	PASS
		VN	10	2.28	0.002726	± 2.5	PASS
		VN	20	-0.24	-0.000287	± 2.5	PASS

		VN	30	0.11	0.000132	± 2.5	PASS
		VN	40	4.95	0.005918	± 2.5	PASS
		VN	50	2.41	0.002881	± 2.5	PASS
	HCH	VN	-30	2.96	0.003507	± 2.5	PASS
		VN	-20	0.36	0.000427	± 2.5	PASS
		VN	-10	0.52	0.000616	± 2.5	PASS
		VN	0	-1.29	-0.001528	± 2.5	PASS
		VN	10	1.37	0.001623	± 2.5	PASS
		VN	20	-1.67	-0.001979	± 2.5	PASS
		VN	30	2.86	0.003389	± 2.5	PASS
16QAM	LCH	VN	40	3.35	0.003969	± 2.5	PASS
		VN	50	3.31	0.003922	± 2.5	PASS
	MCH	VN	-30	2.01	0.002403	± 2.5	PASS
		VN	-20	2.65	0.003168	± 2.5	PASS
		VN	-10	1.49	0.001781	± 2.5	PASS
		VN	0	3.86	0.004614	± 2.5	PASS
		VN	10	4.77	0.005702	± 2.5	PASS
		VN	20	2.18	0.002606	± 2.5	PASS
		VN	30	4.56	0.005451	± 2.5	PASS
		VN	40	0.5	0.000598	± 2.5	PASS
		VN	50	-0.97	-0.001160	± 2.5	PASS
	HCH	VN	-30	2.61	0.003092	± 2.5	PASS
		VN	-20	3.59	0.004254	± 2.5	PASS
		VN	-10	4.05	0.004799	± 2.5	PASS
		VN	0	2.95	0.003495	± 2.5	PASS
		VN	10	-1.7	-0.002014	± 2.5	PASS
		VN	20	4.14	0.004905	± 2.5	PASS
		VN	30	0.84	0.000995	± 2.5	PASS
		VN	40	-0.51	-0.000604	± 2.5	PASS
		VN	50	0.43	0.000509	± 2.5	PASS