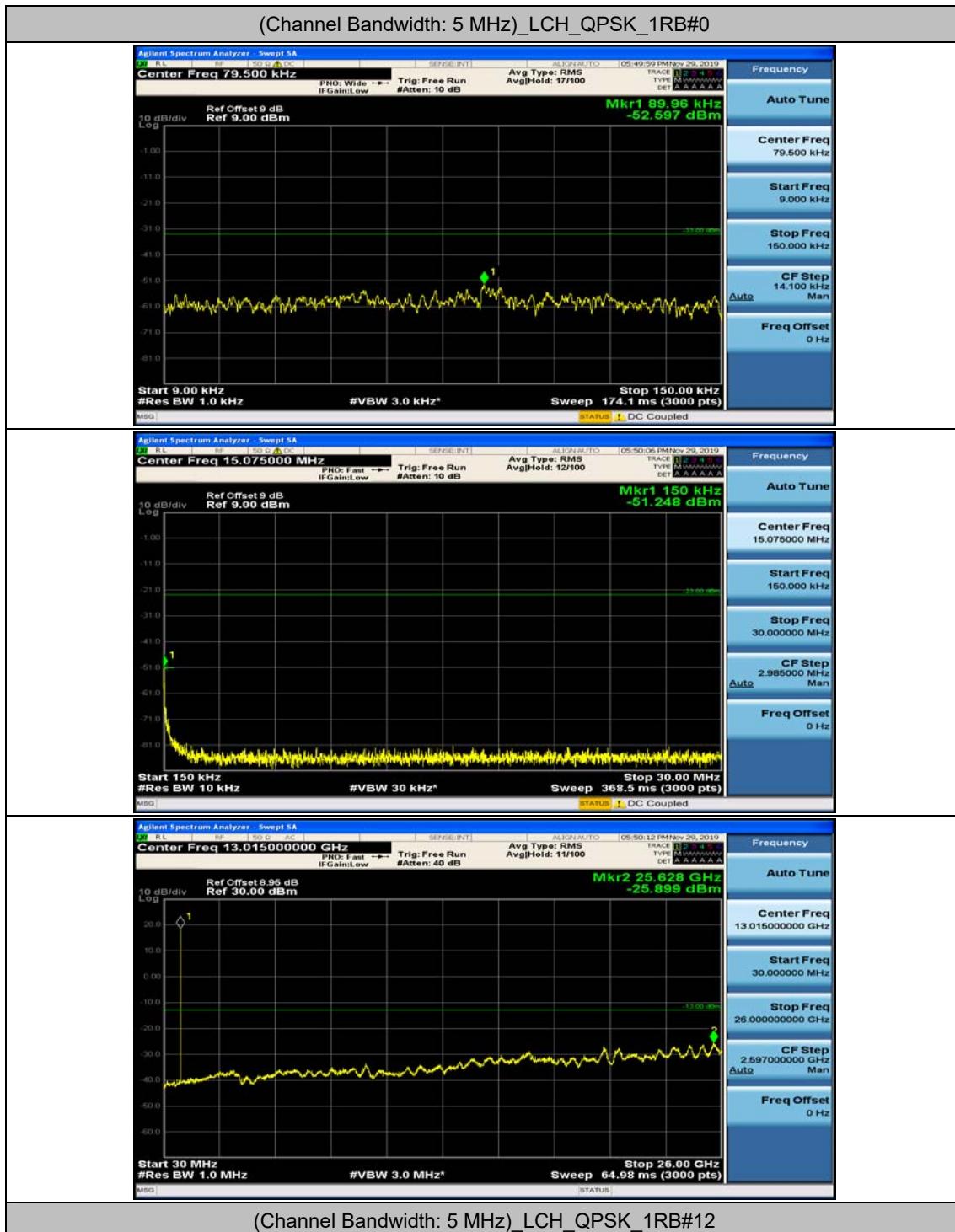
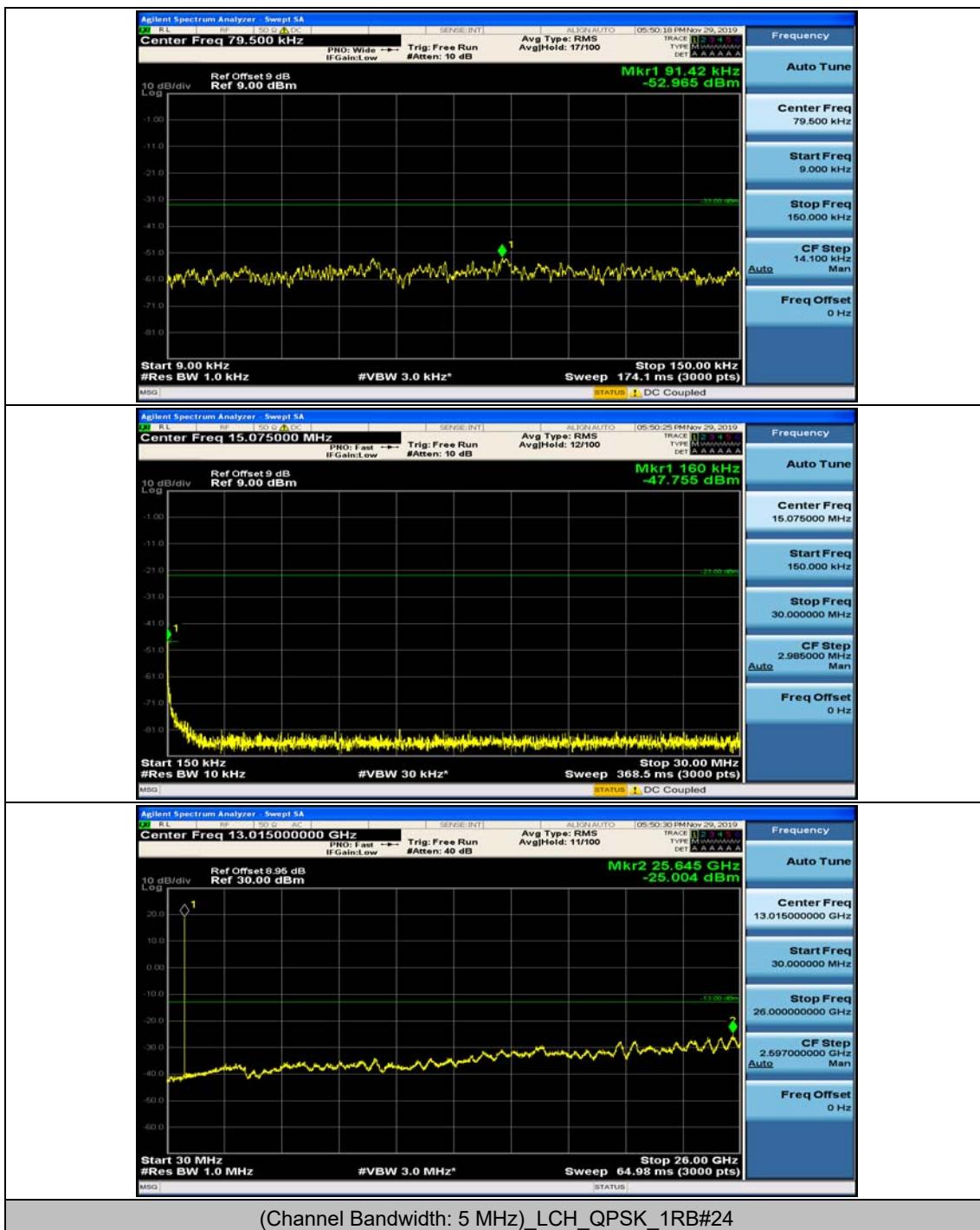
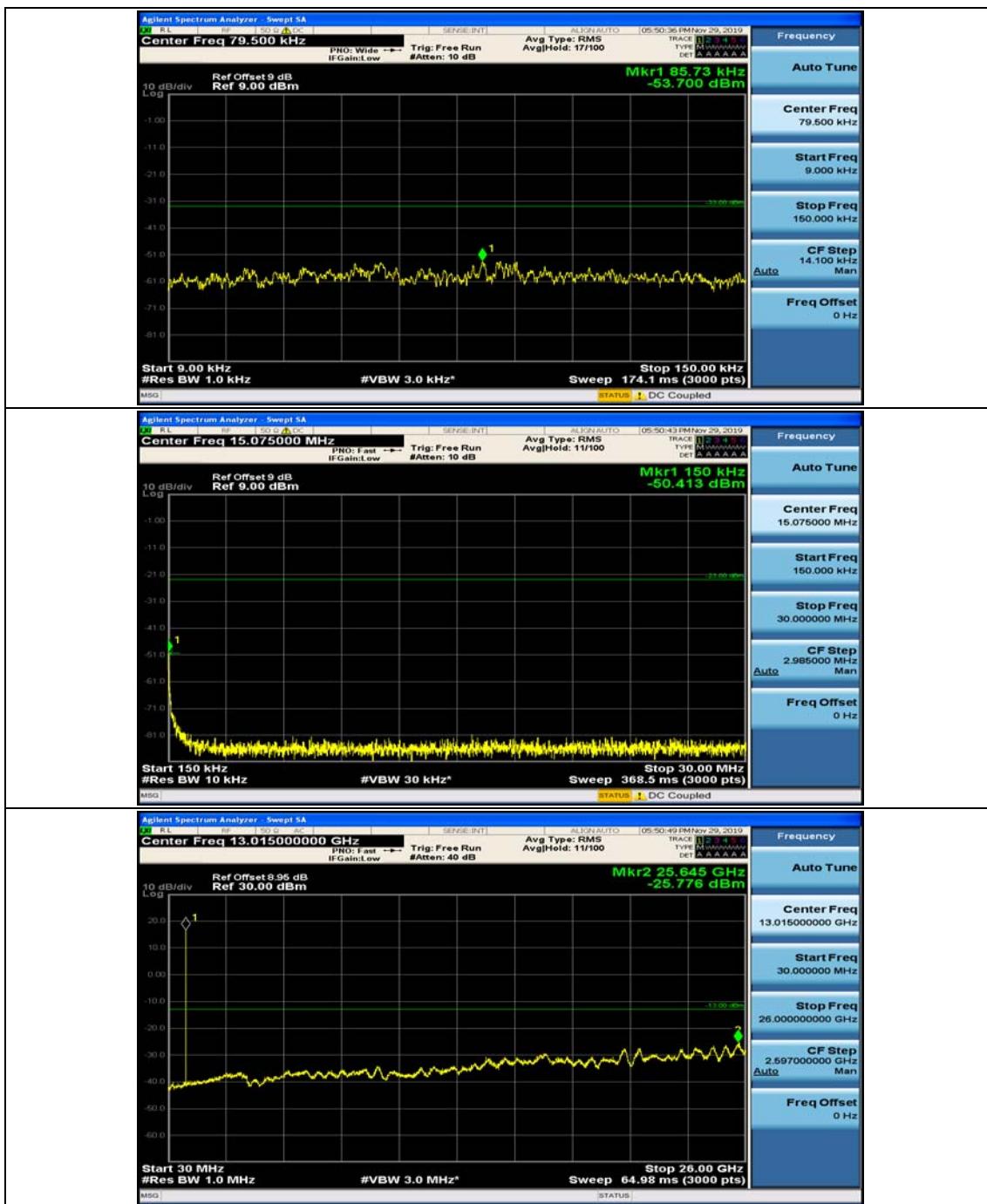
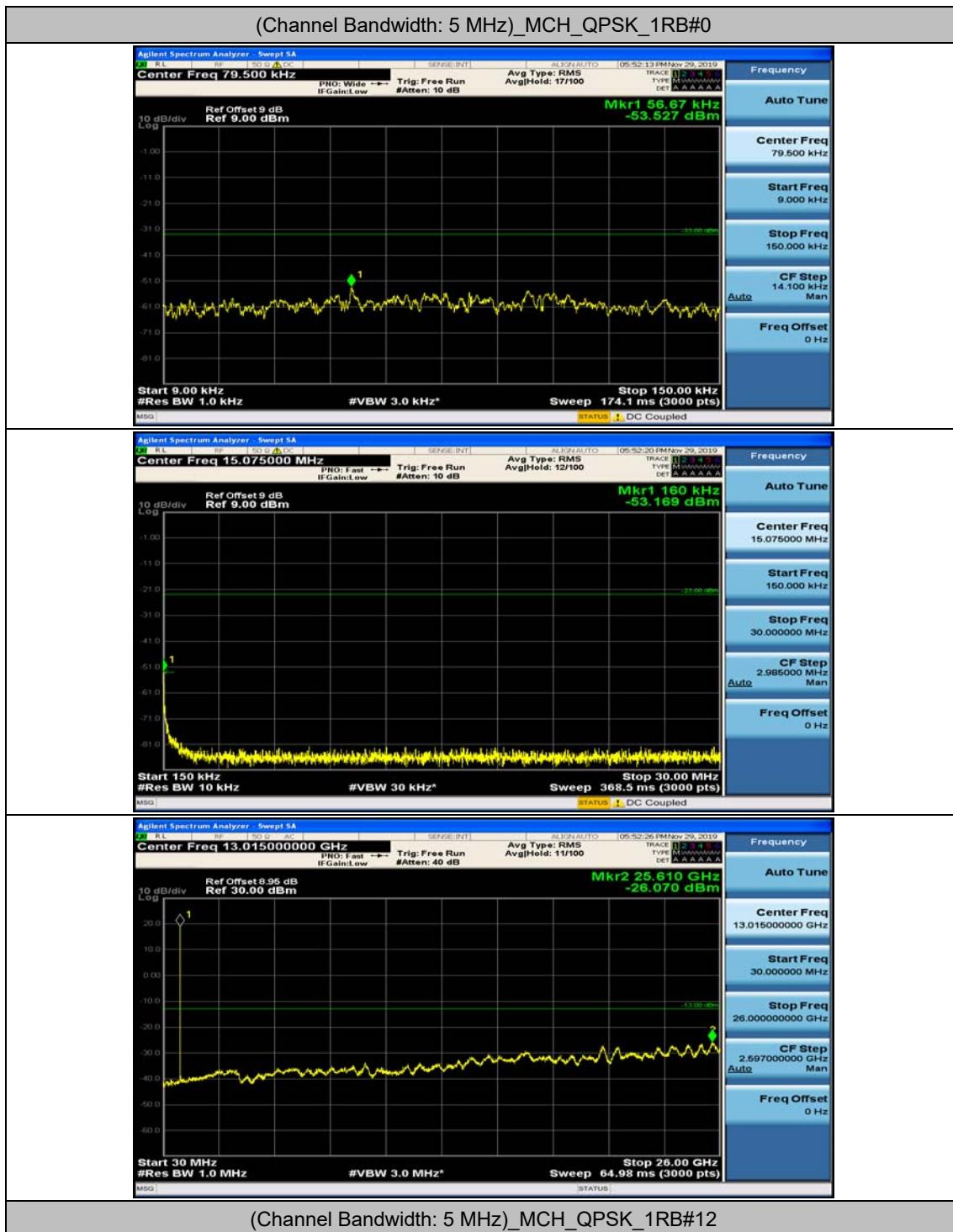


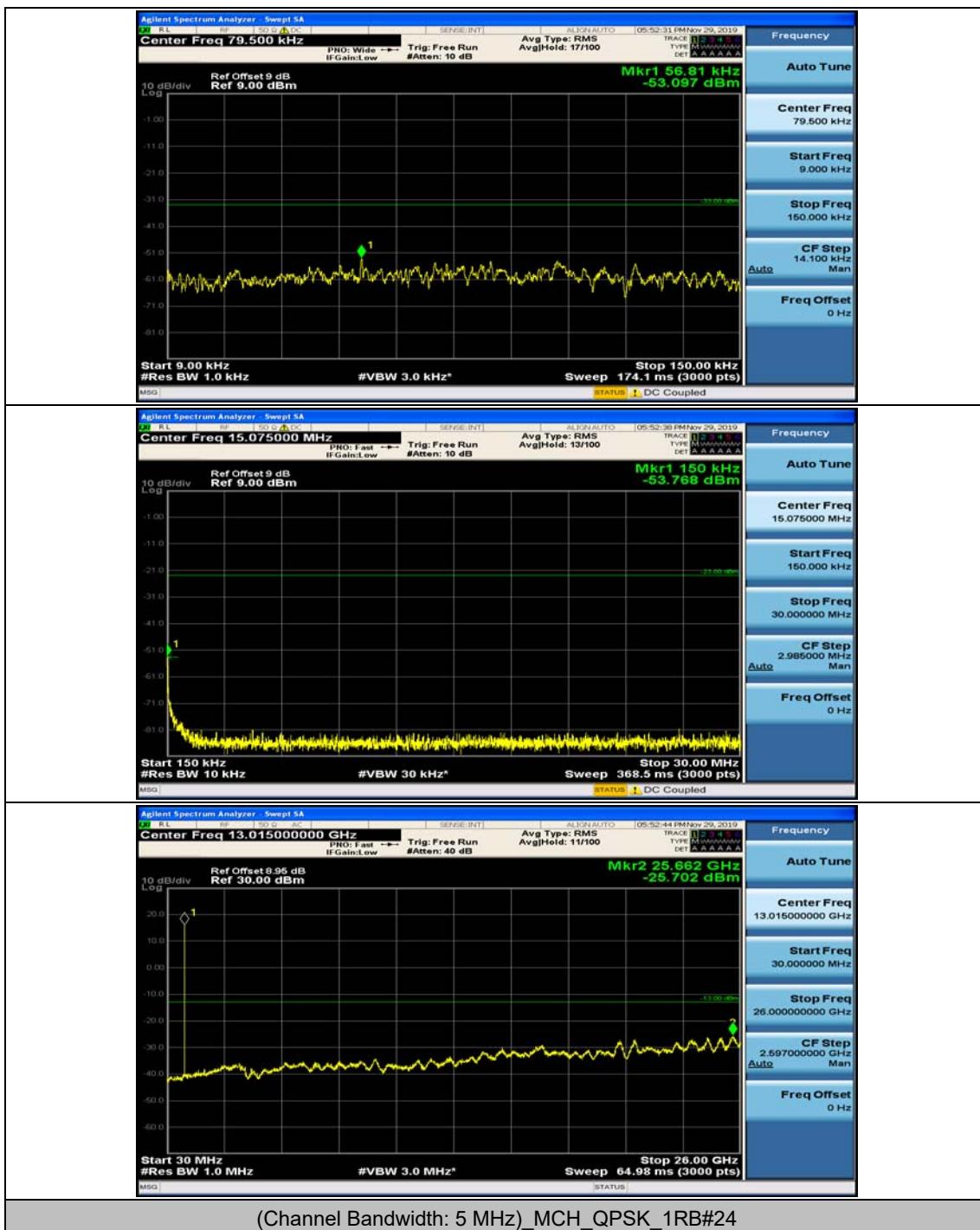
## Channel Bandwidth: 5 MHz

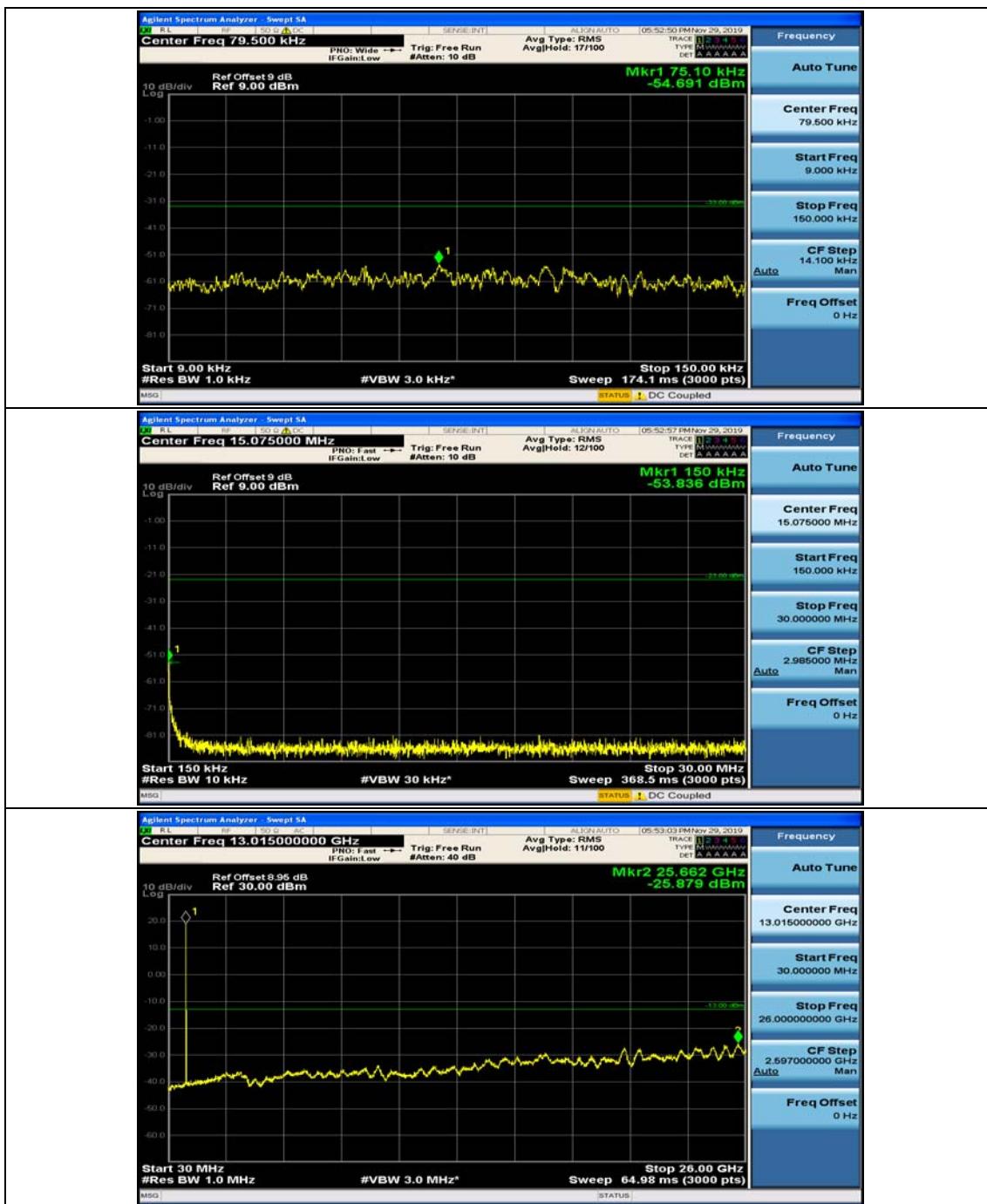


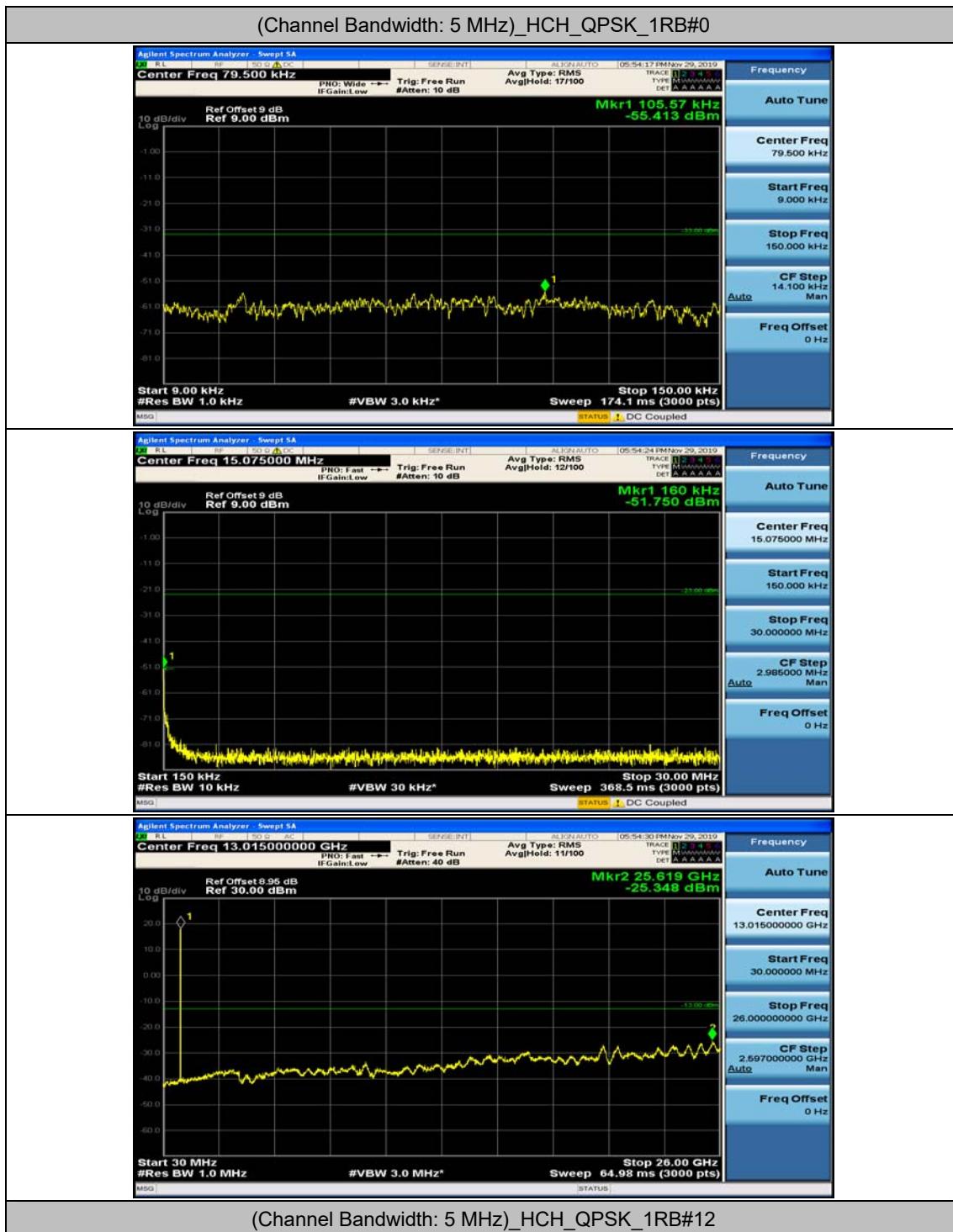


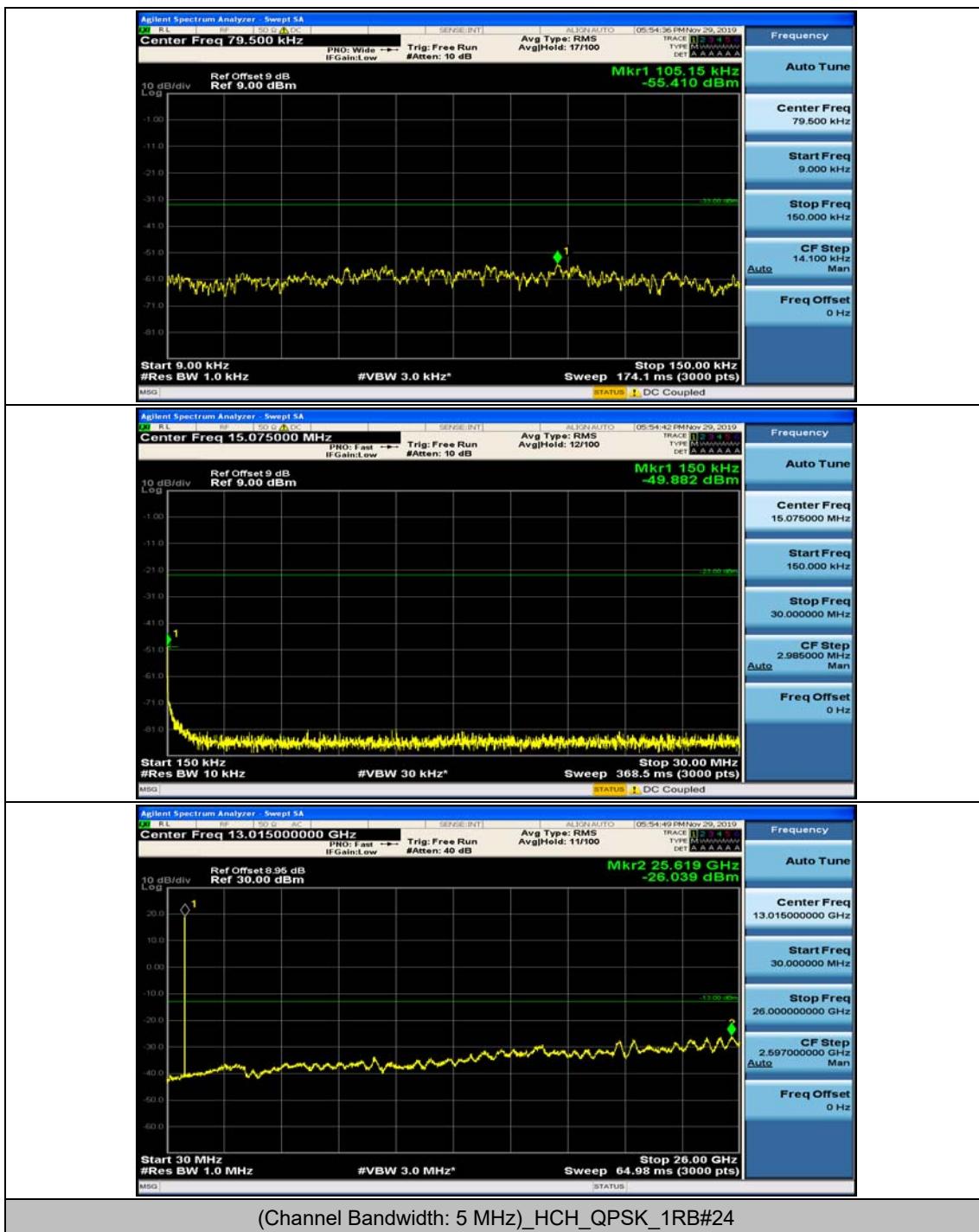


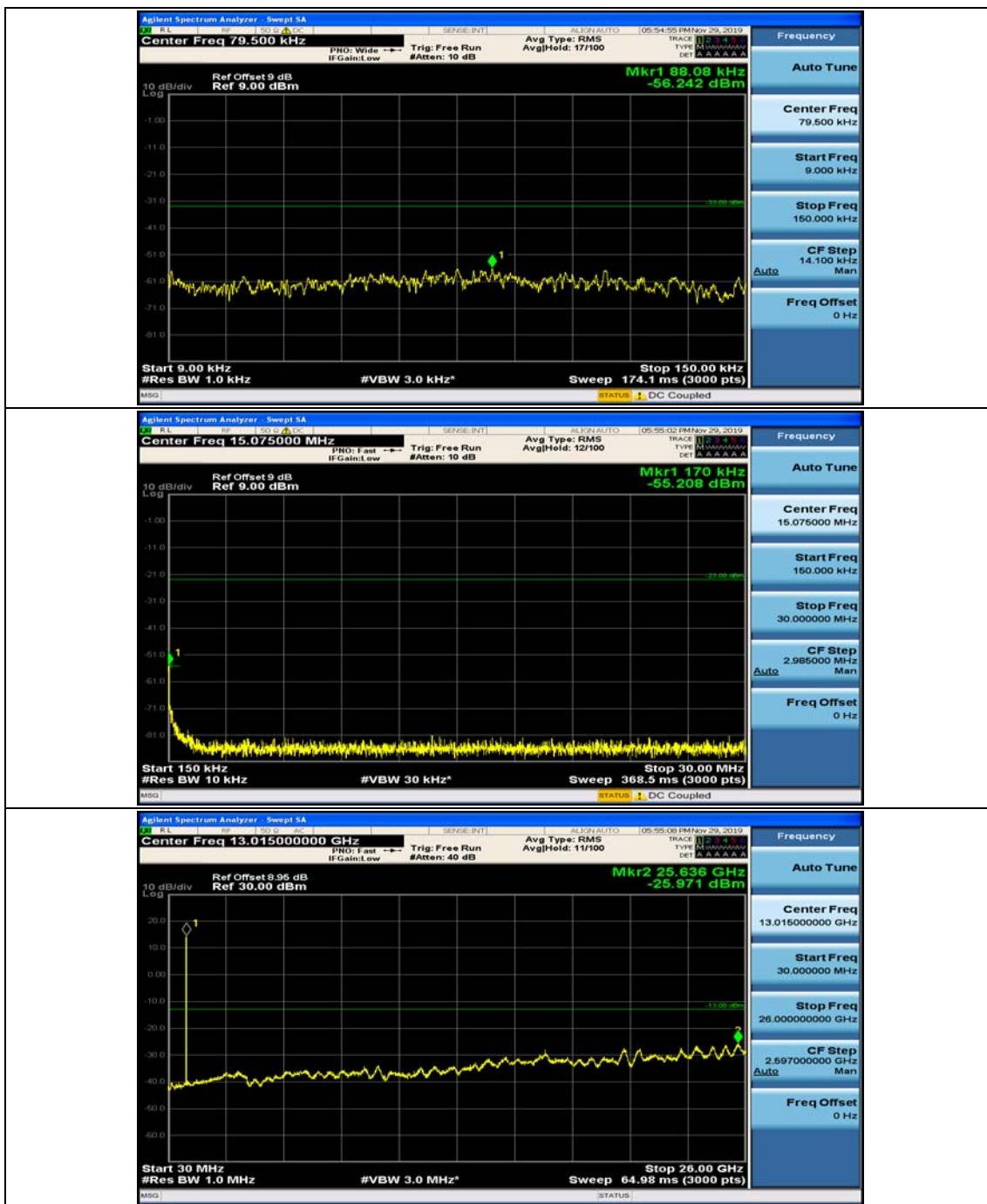


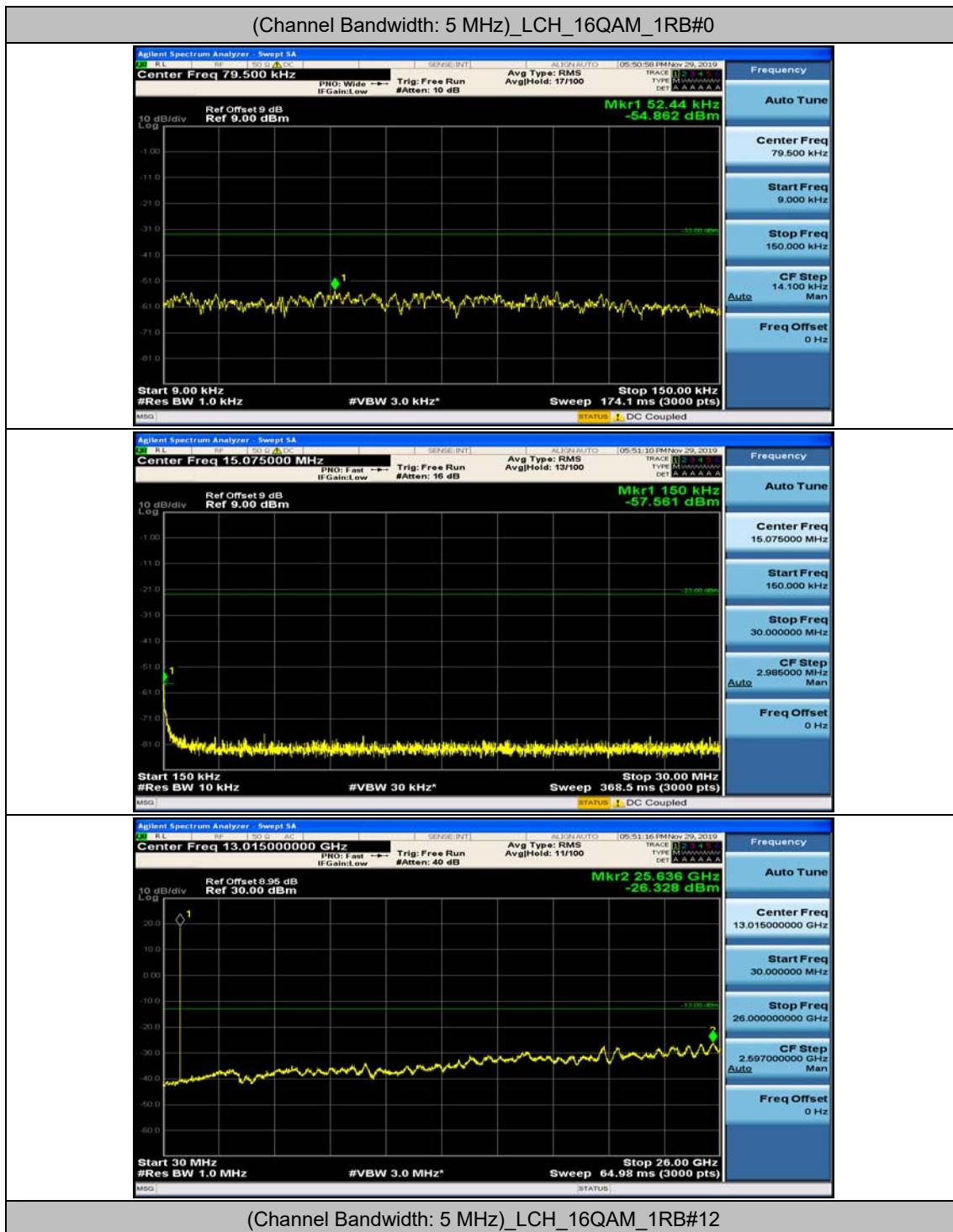


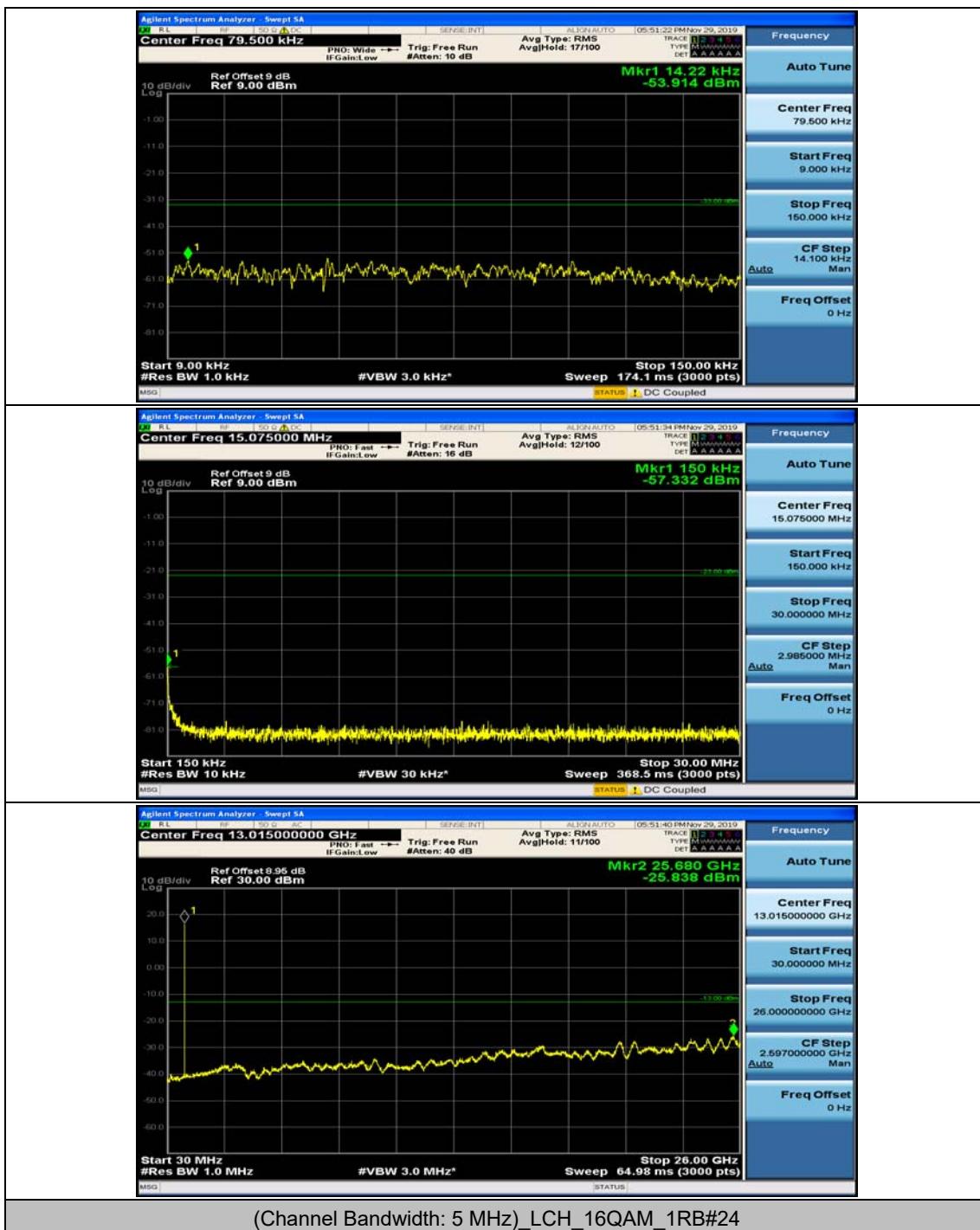


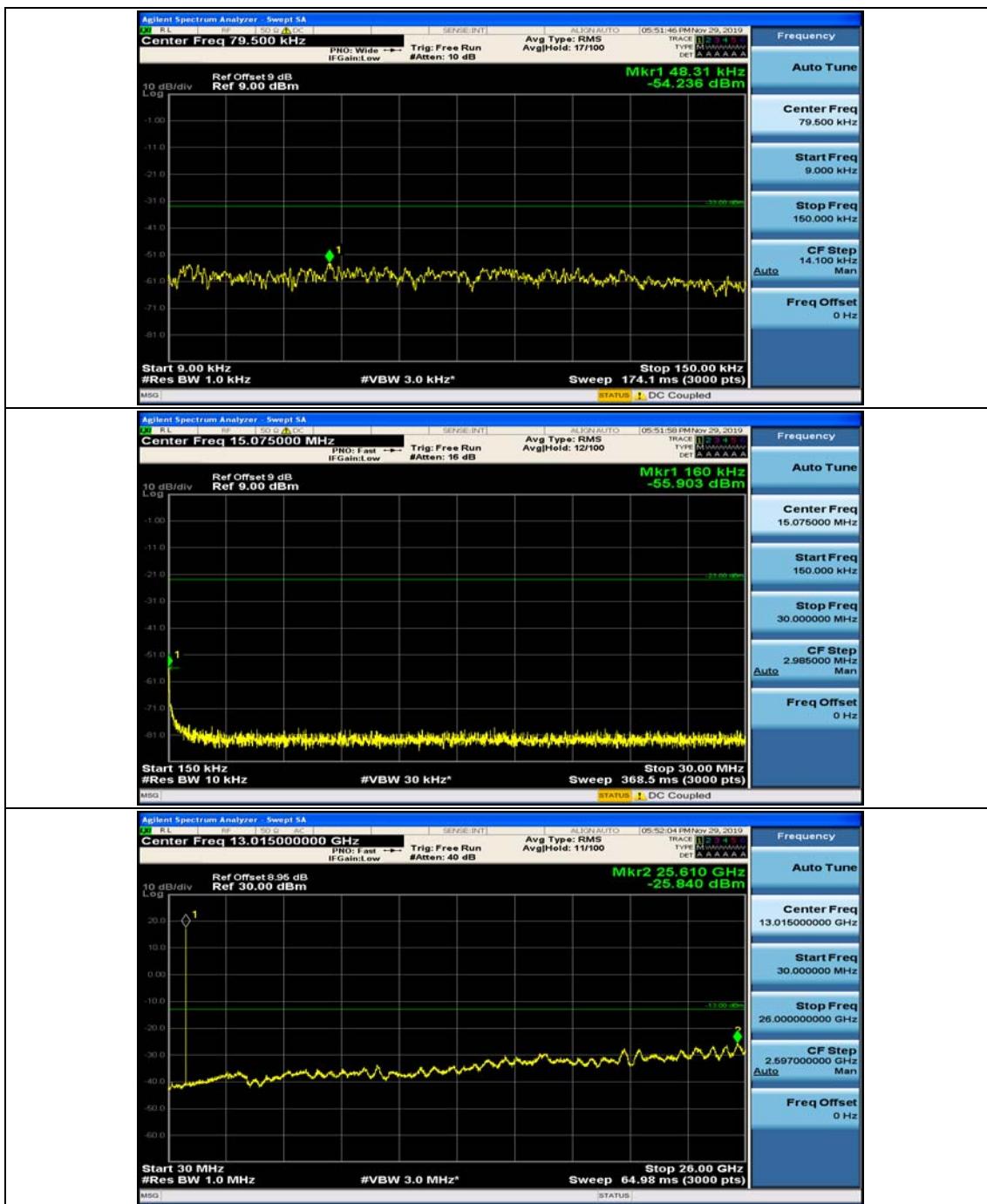


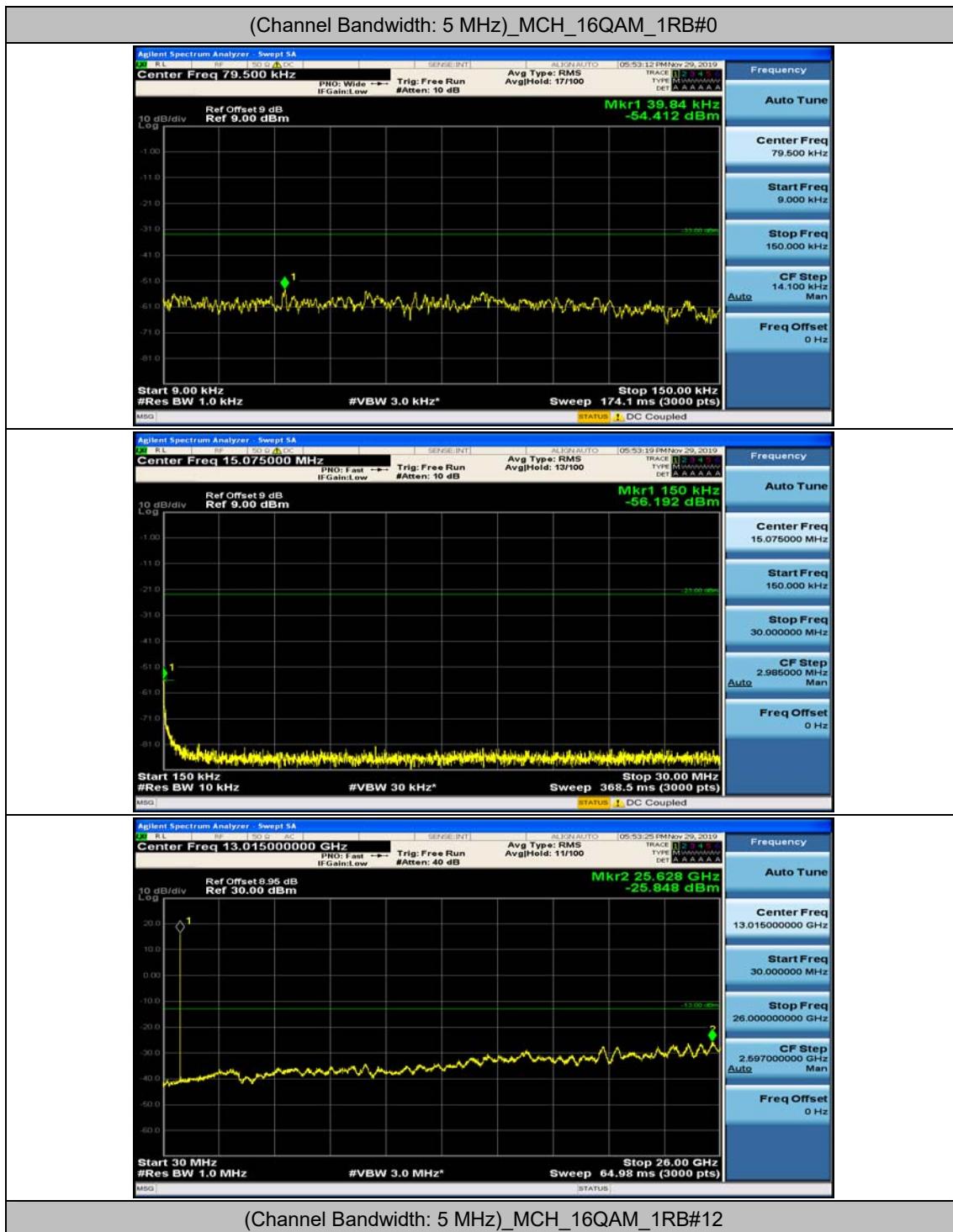


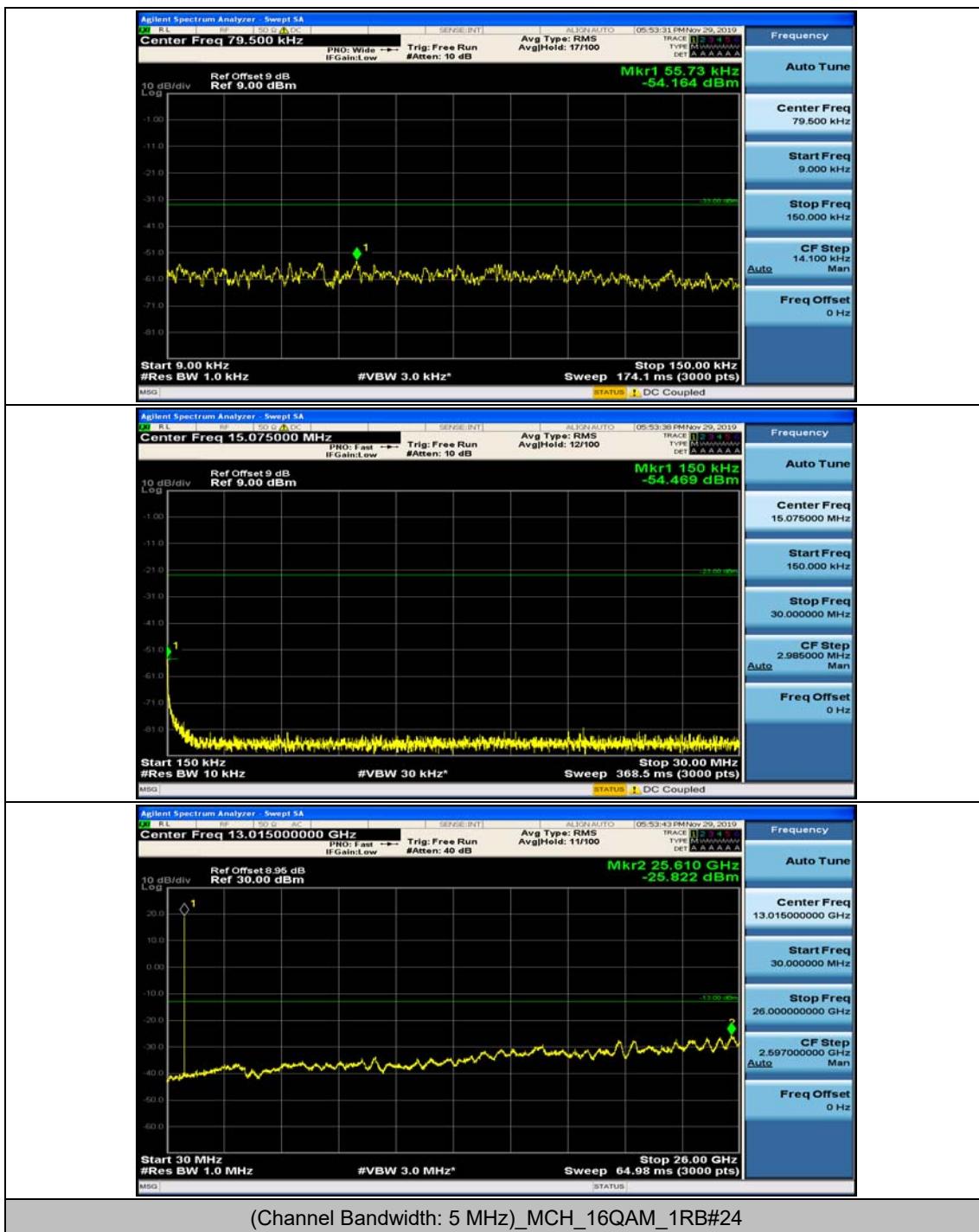


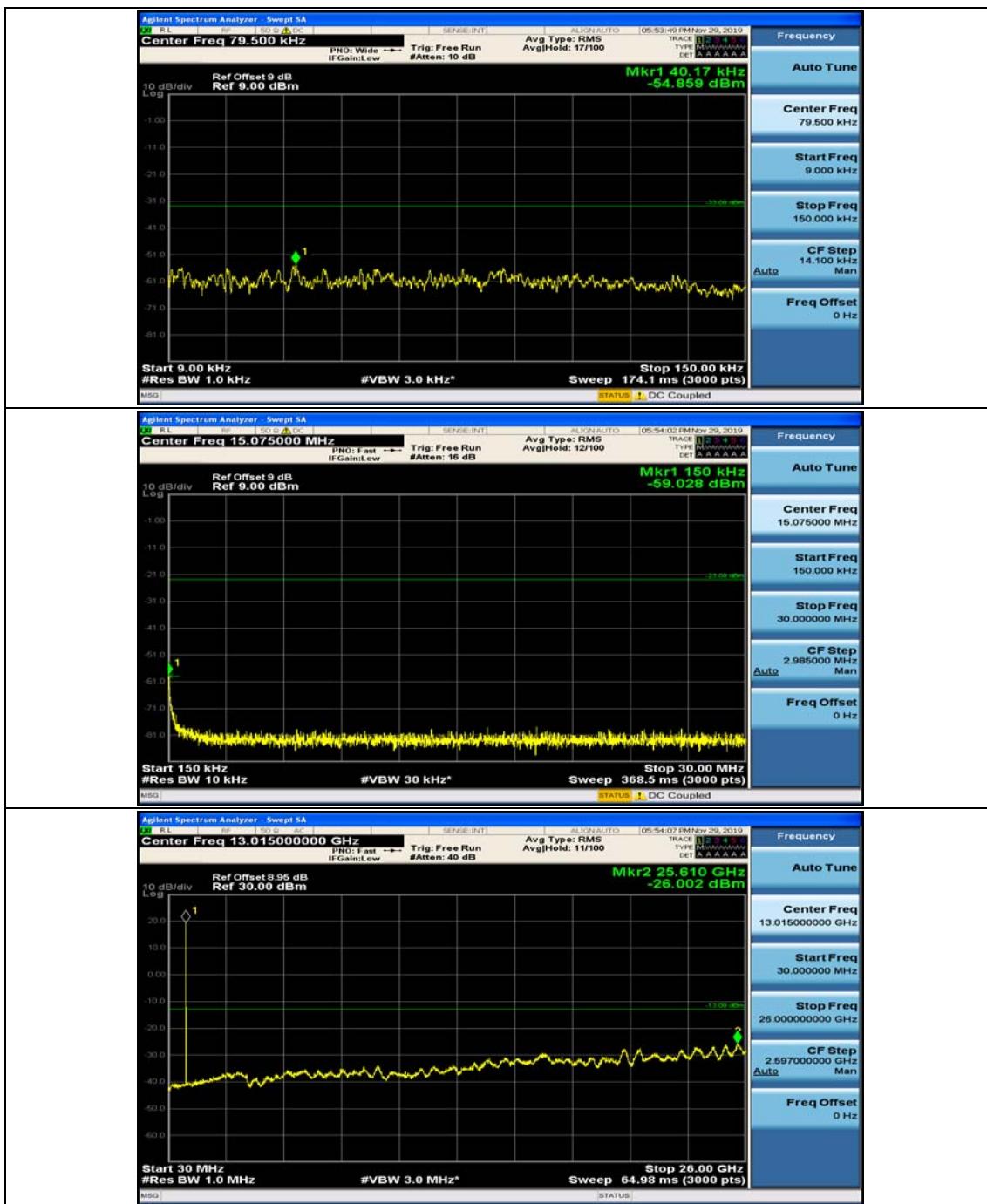


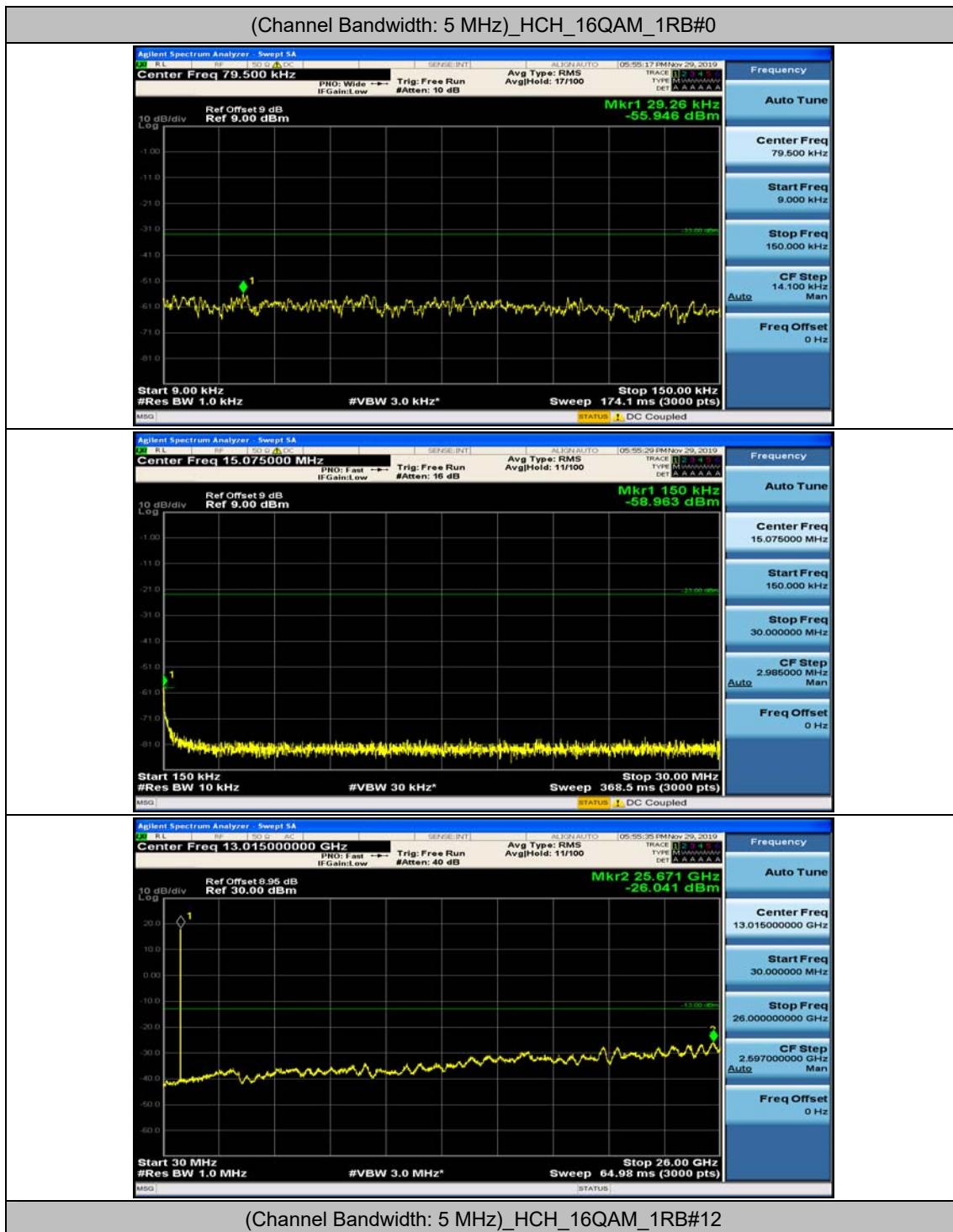


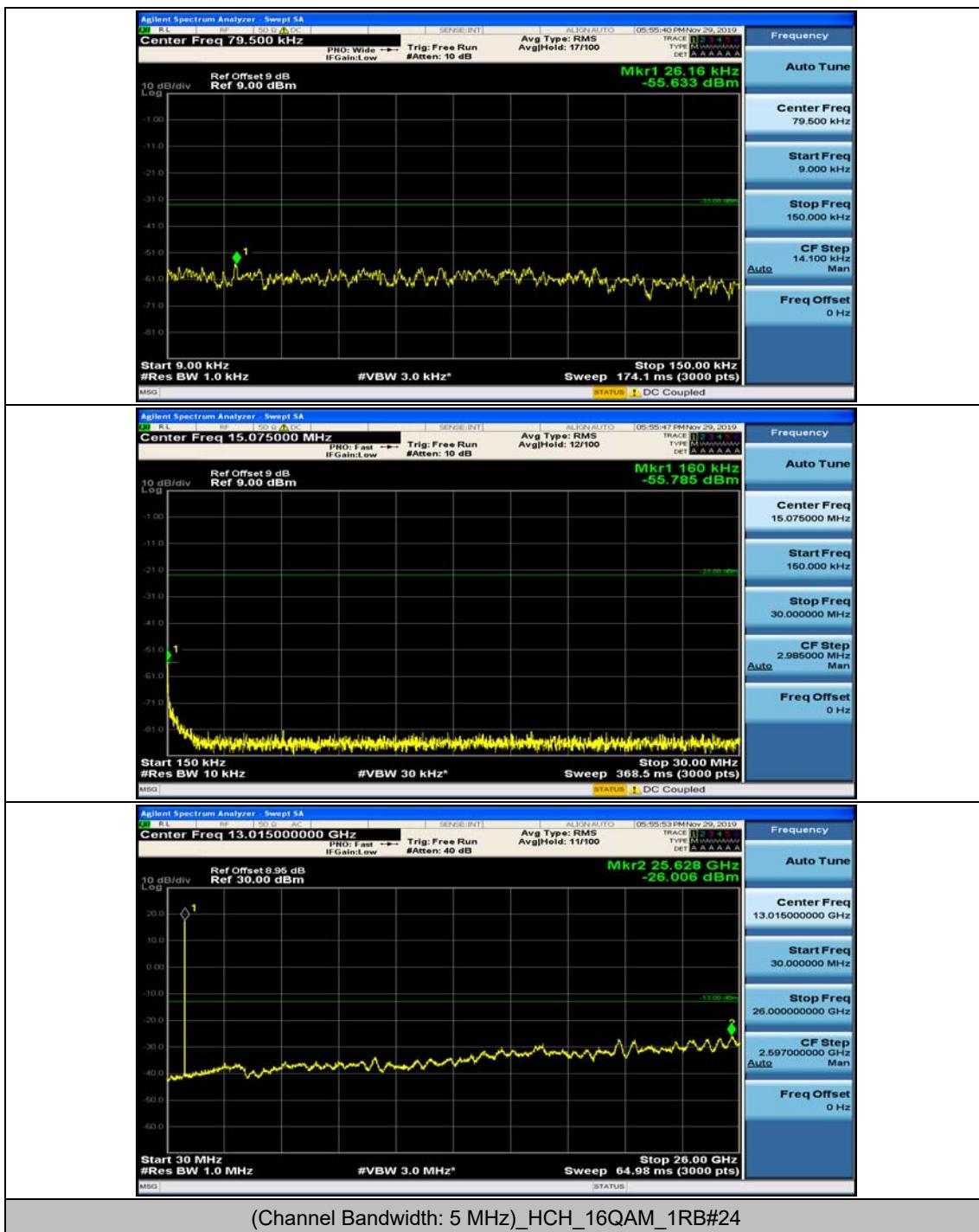


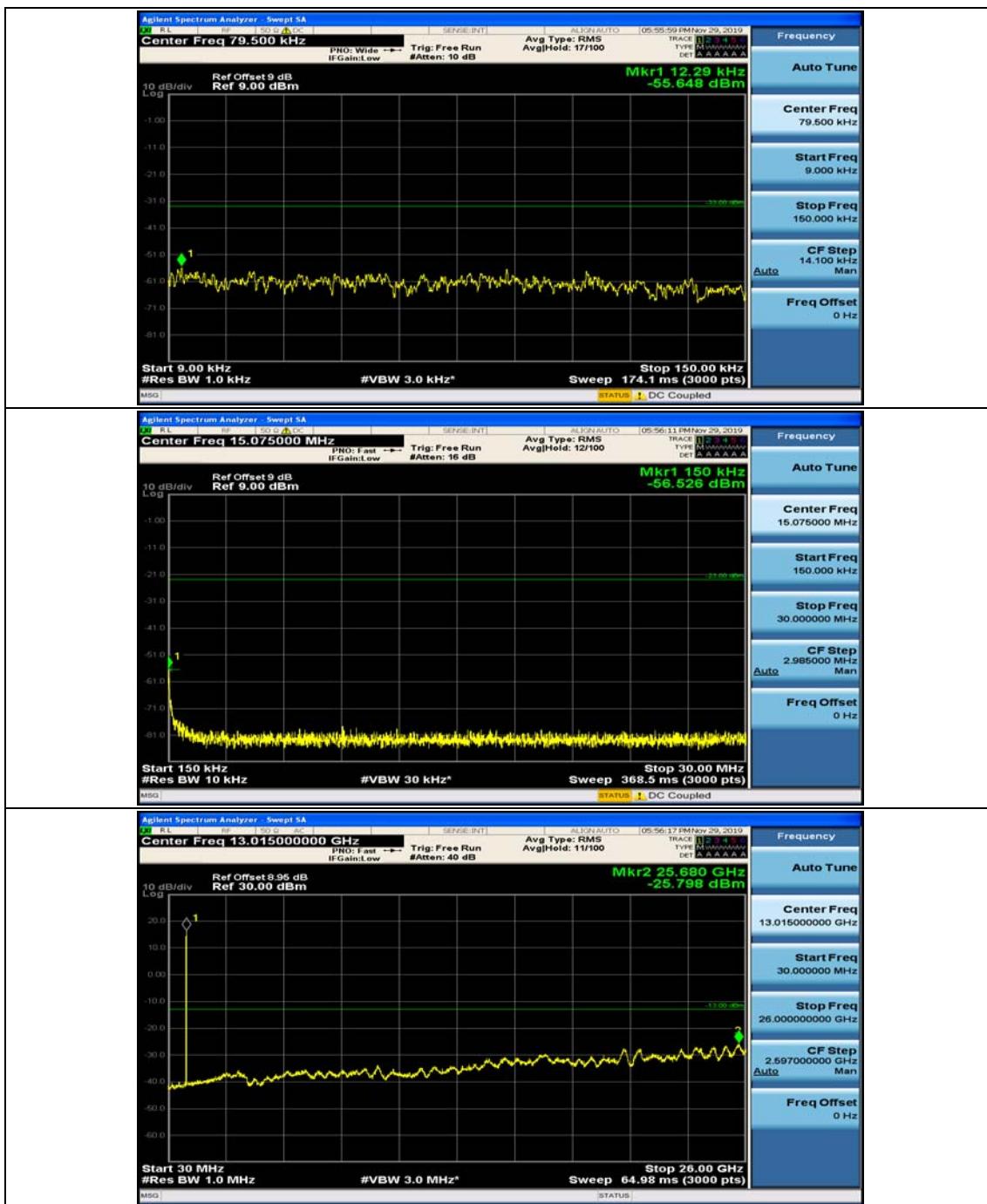




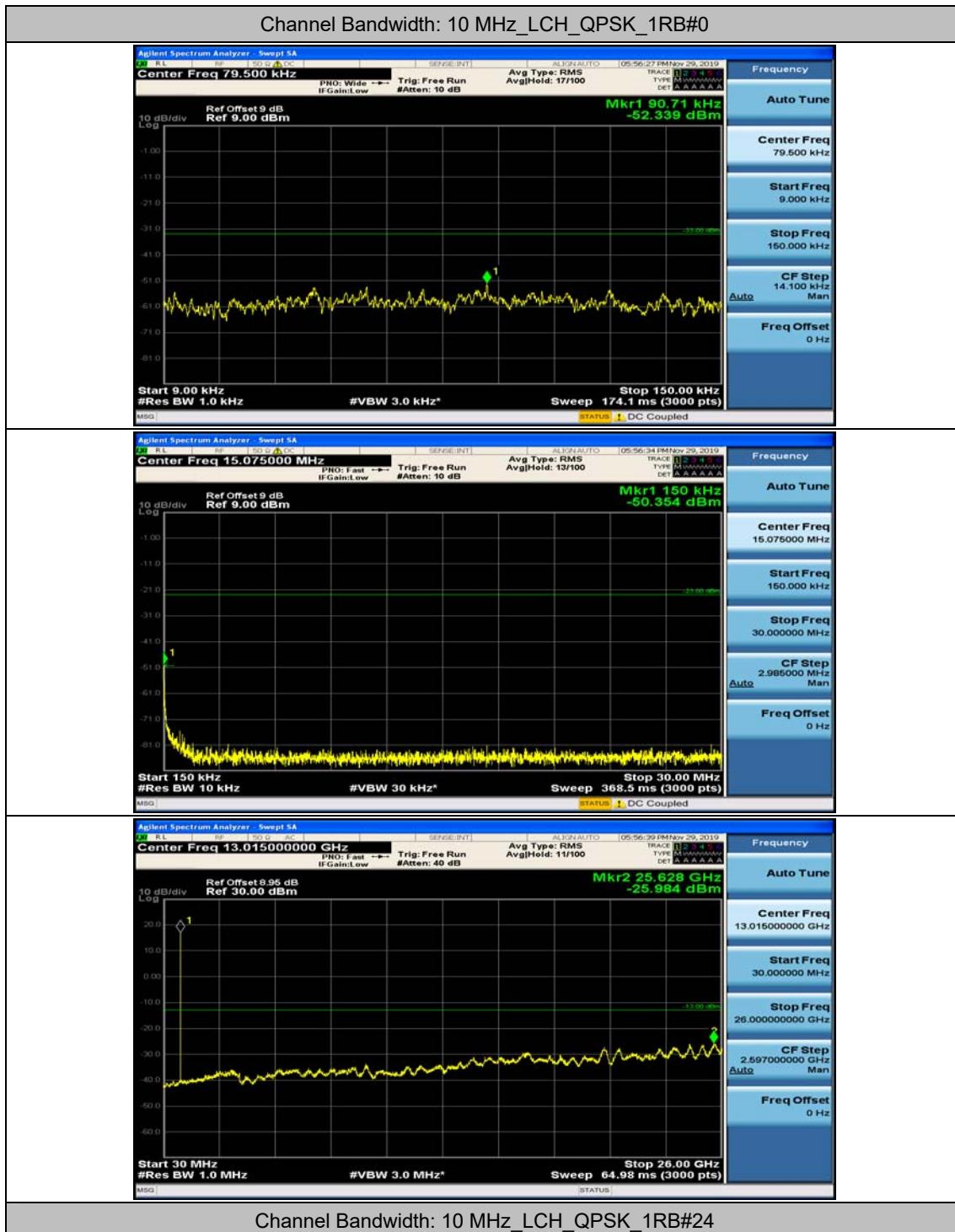


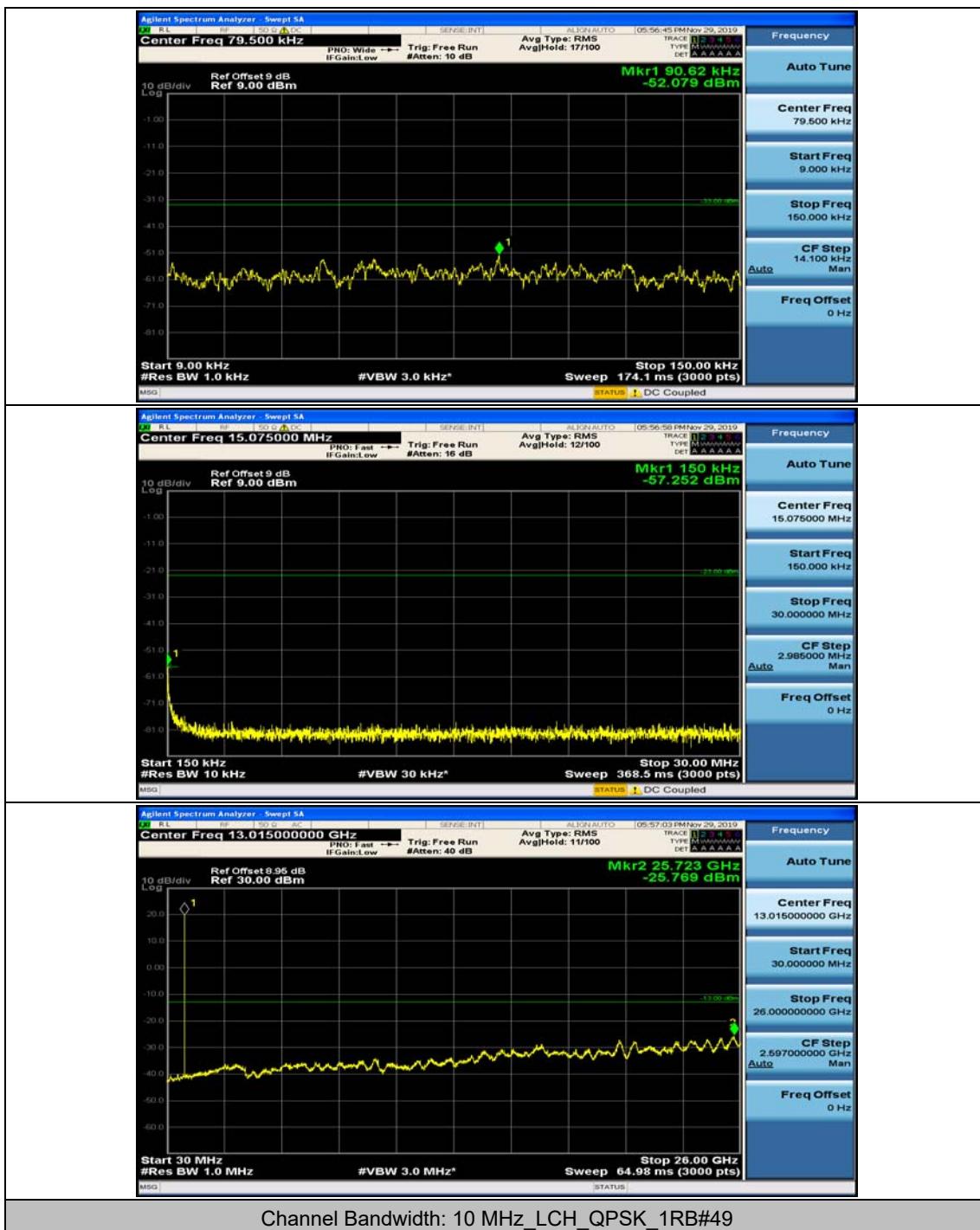


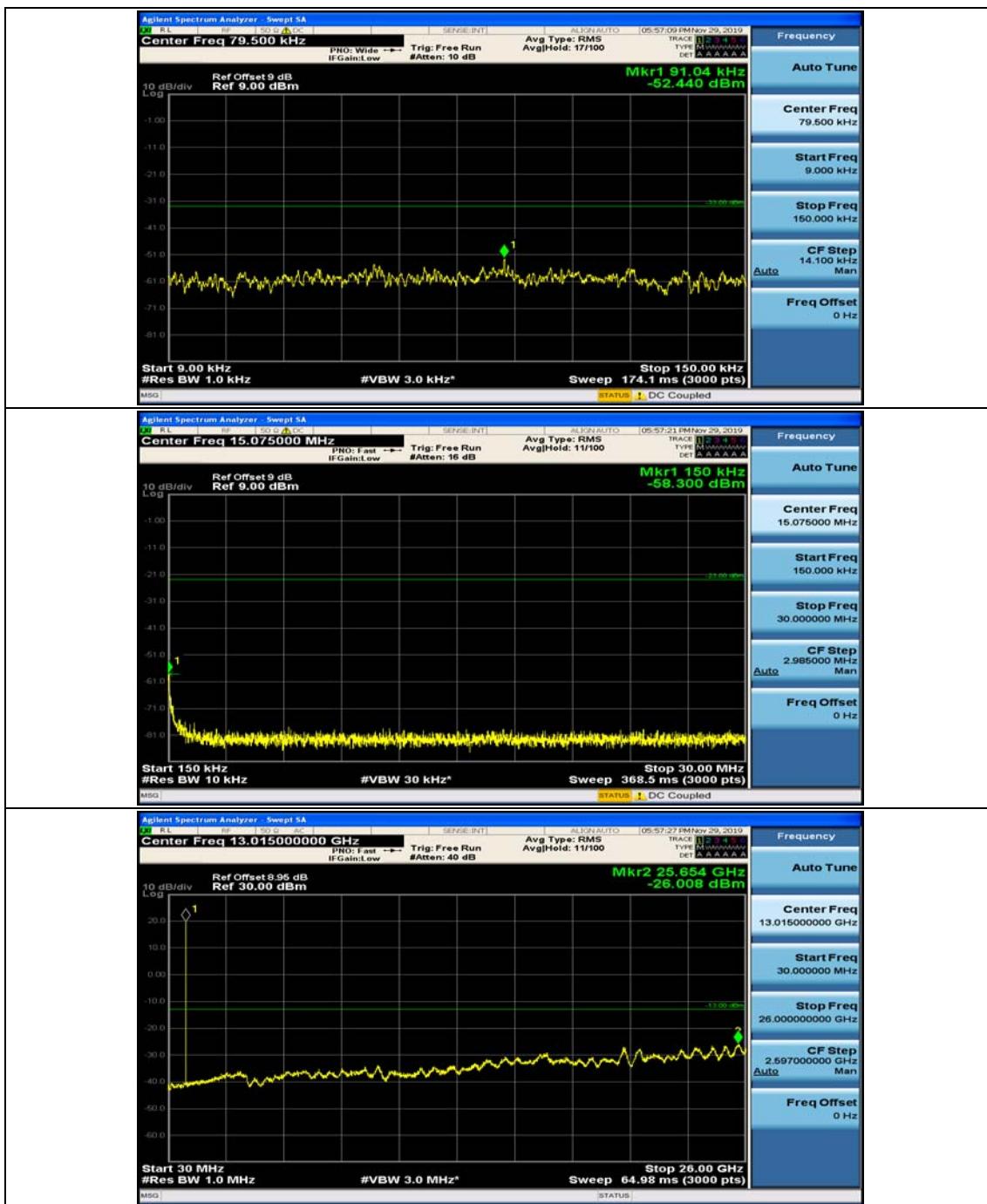


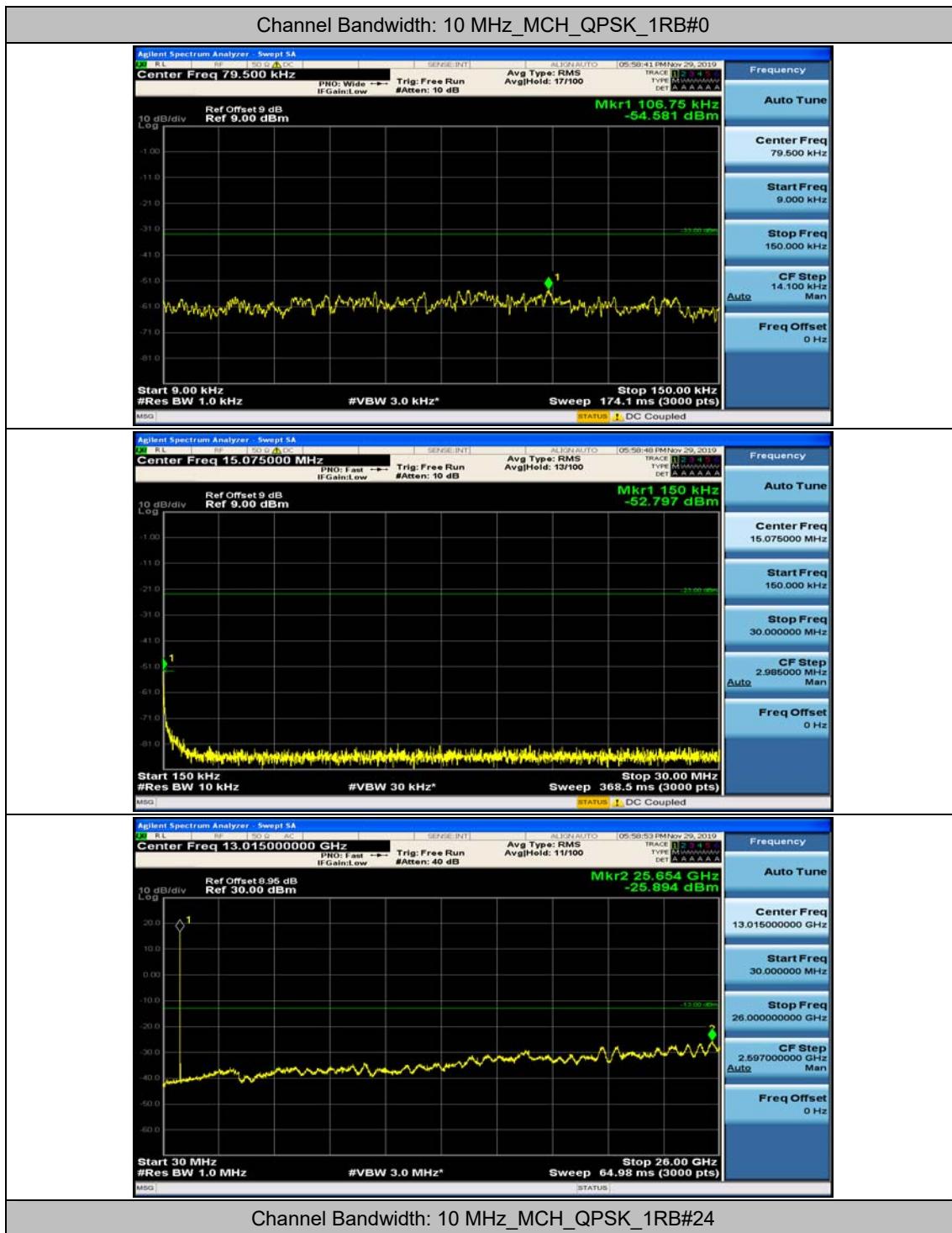


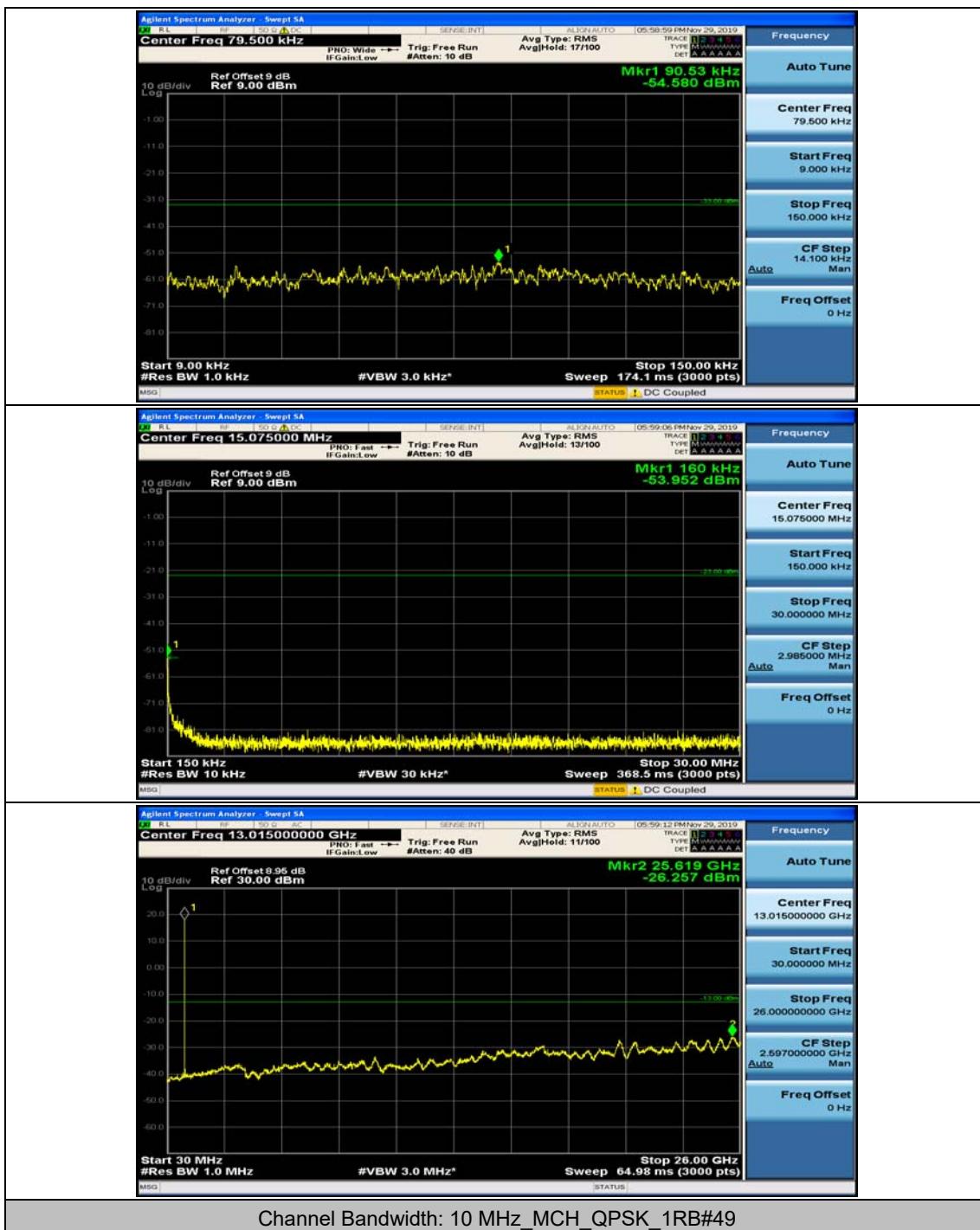
## Channel Bandwidth: 10 MHz



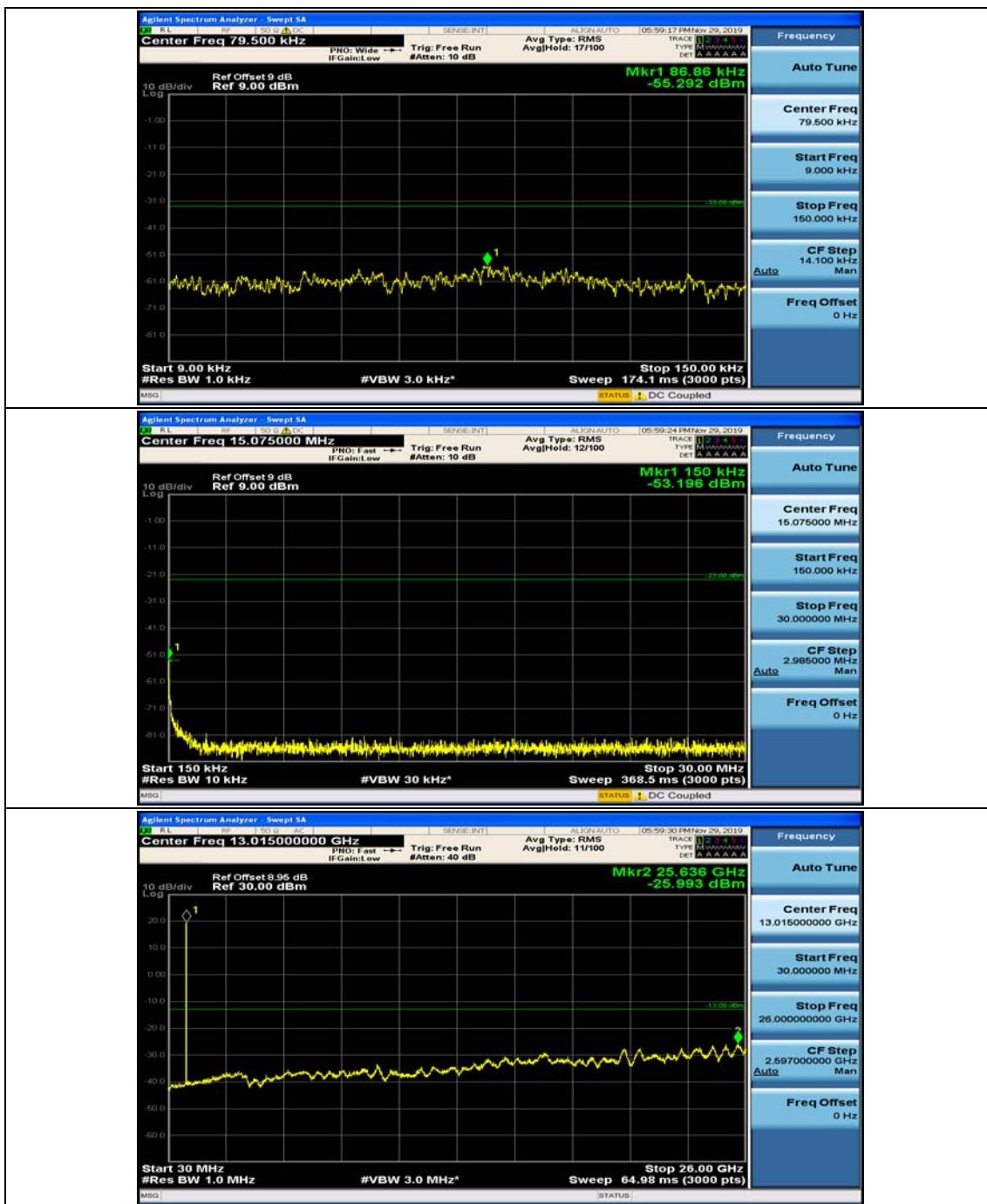


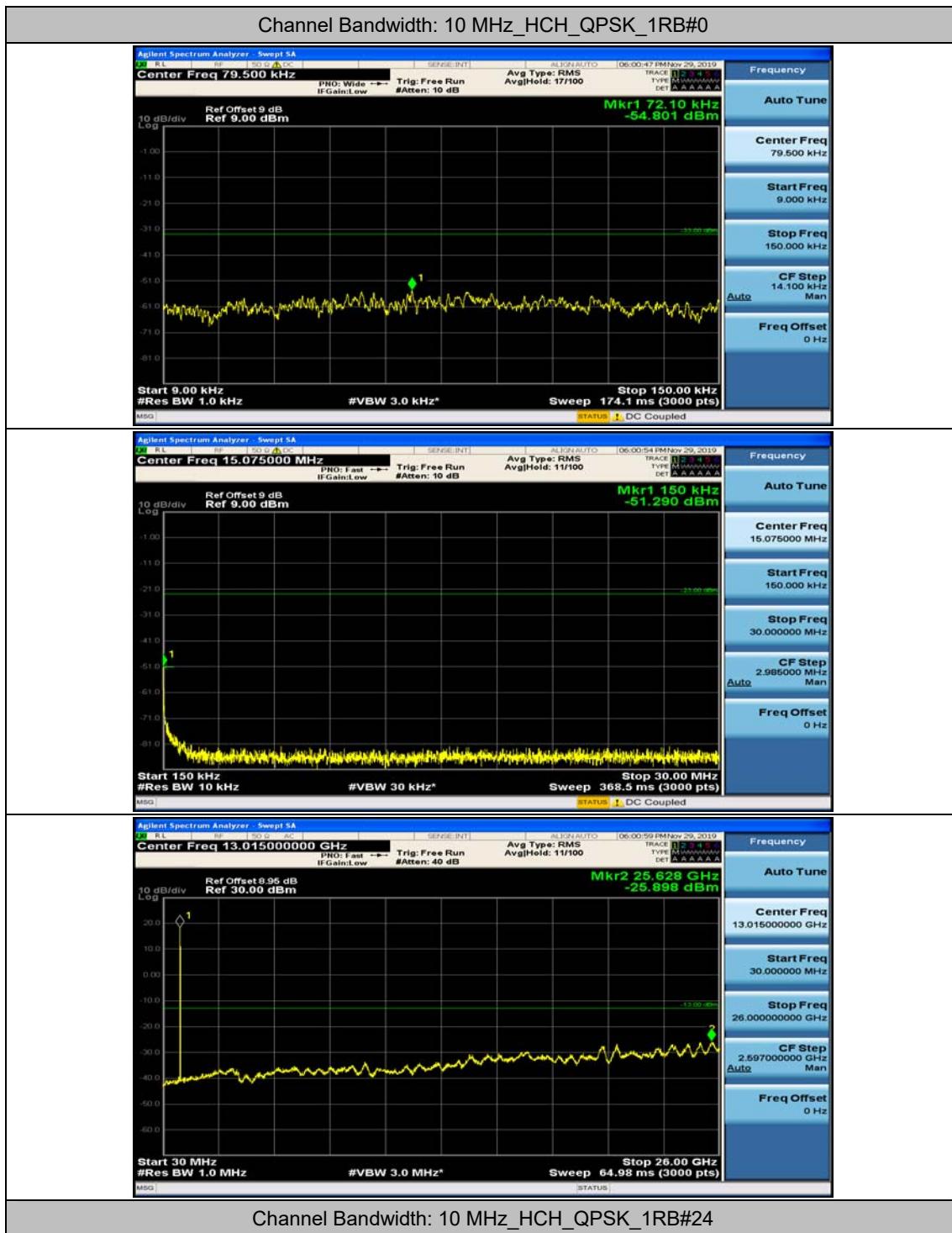


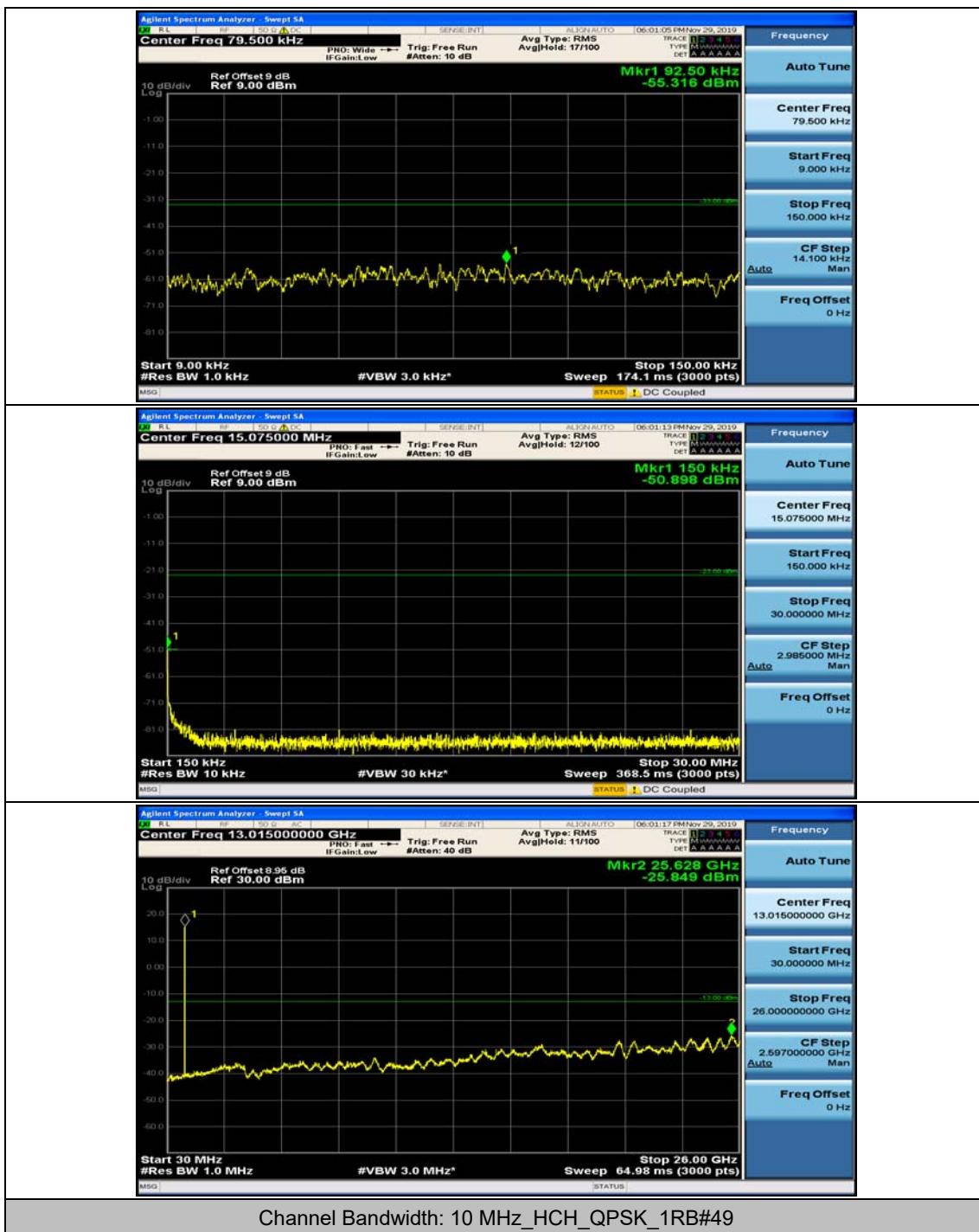


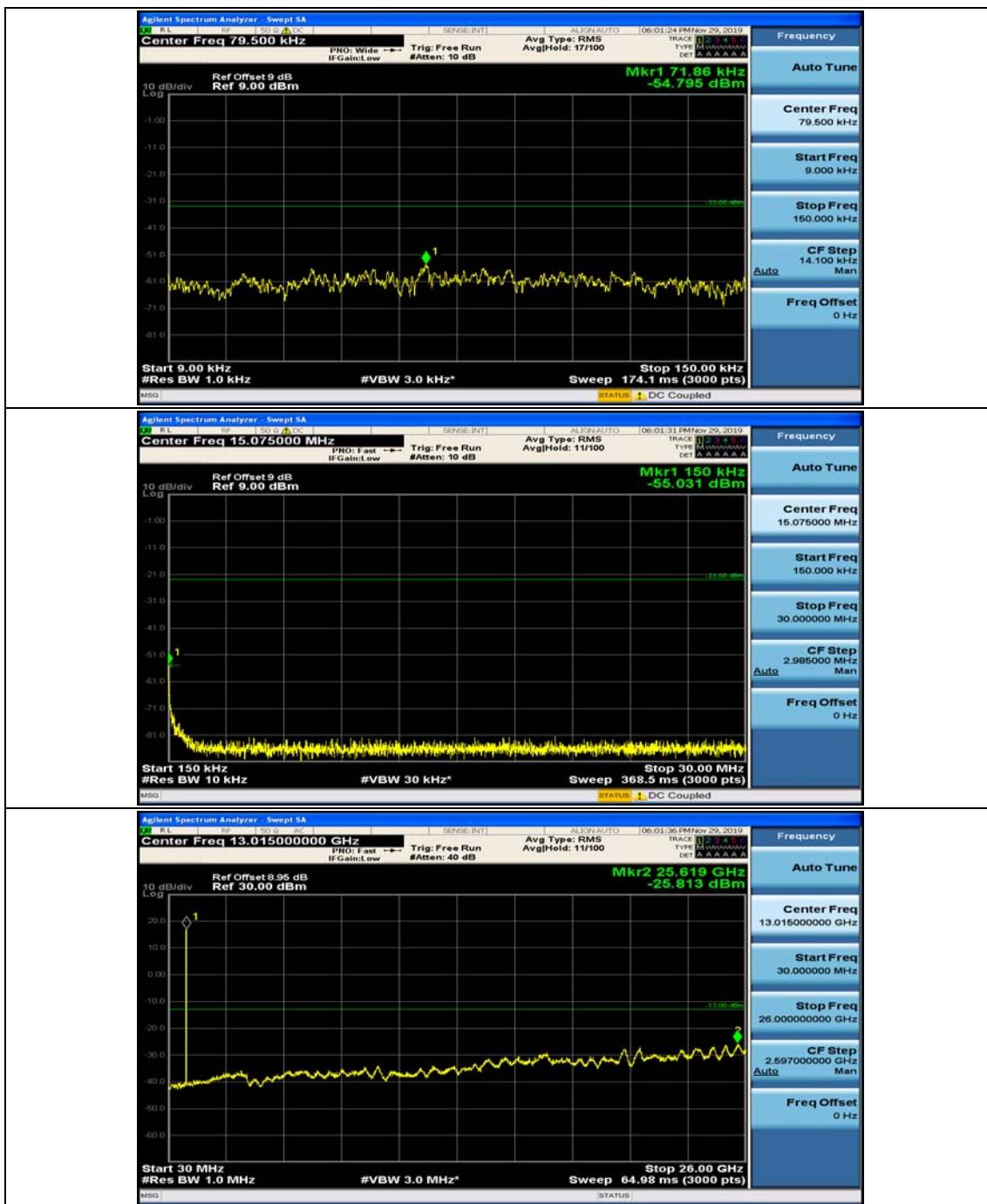


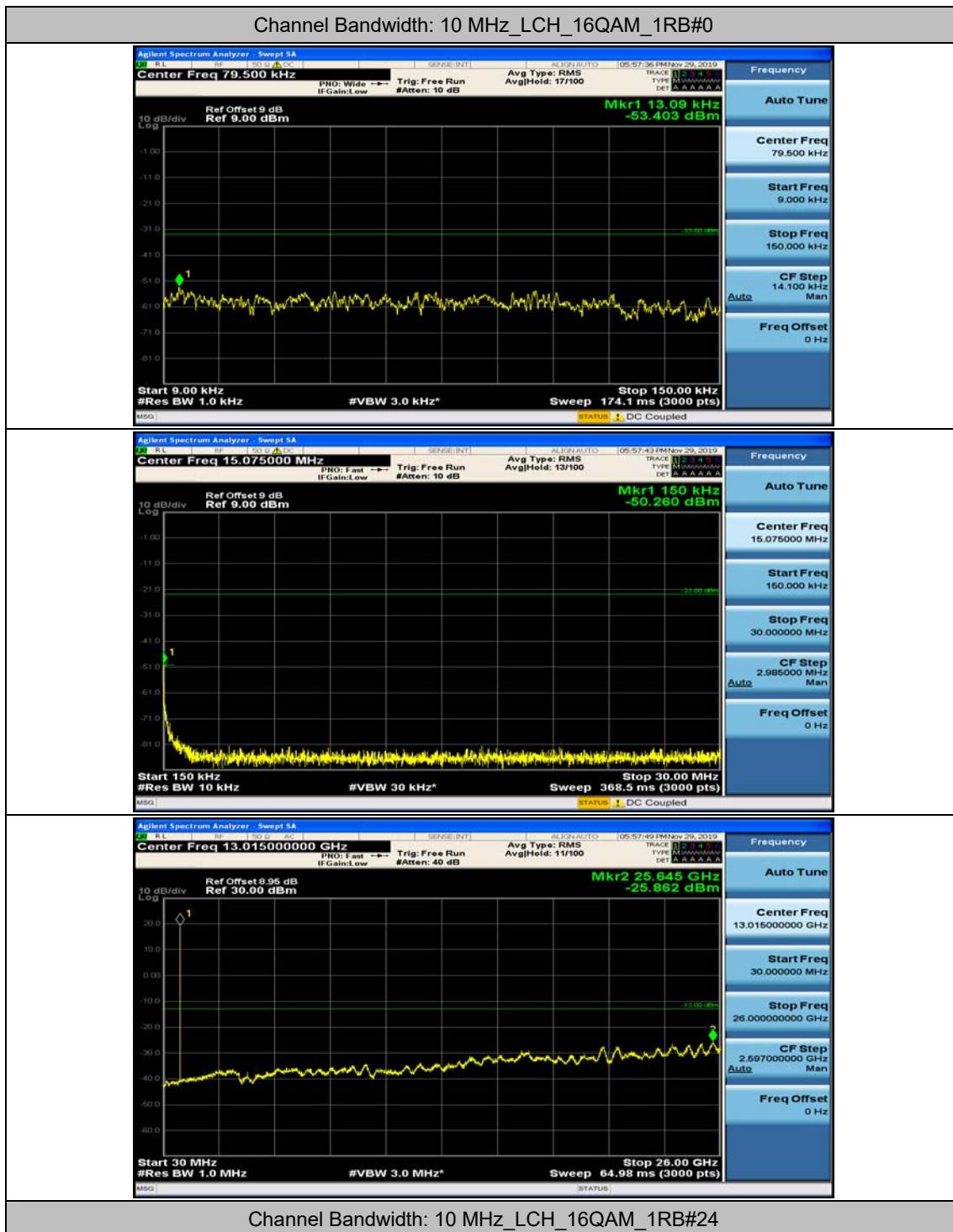
Channel Bandwidth: 10 MHz\_MCH\_QPSK\_1RB#49

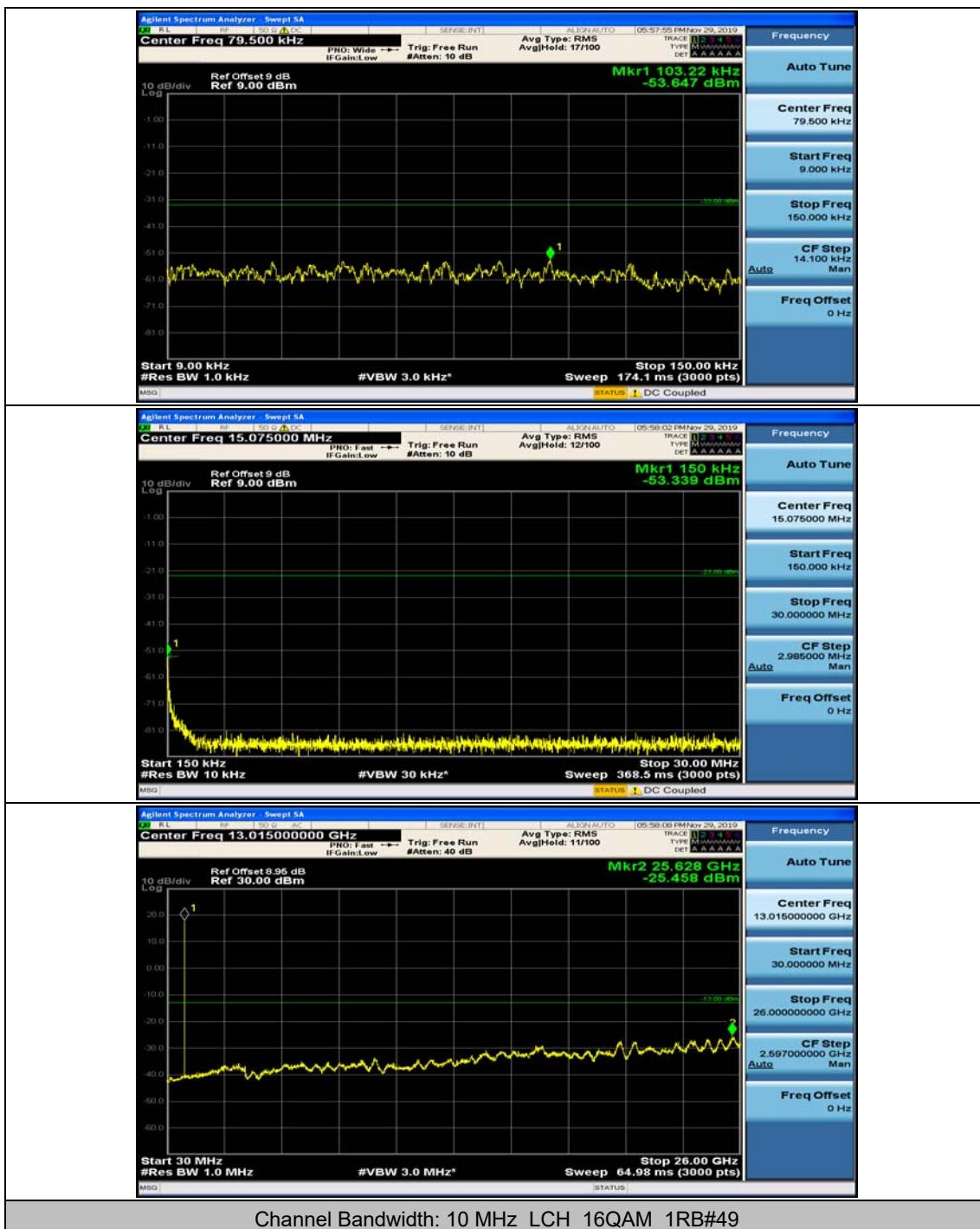


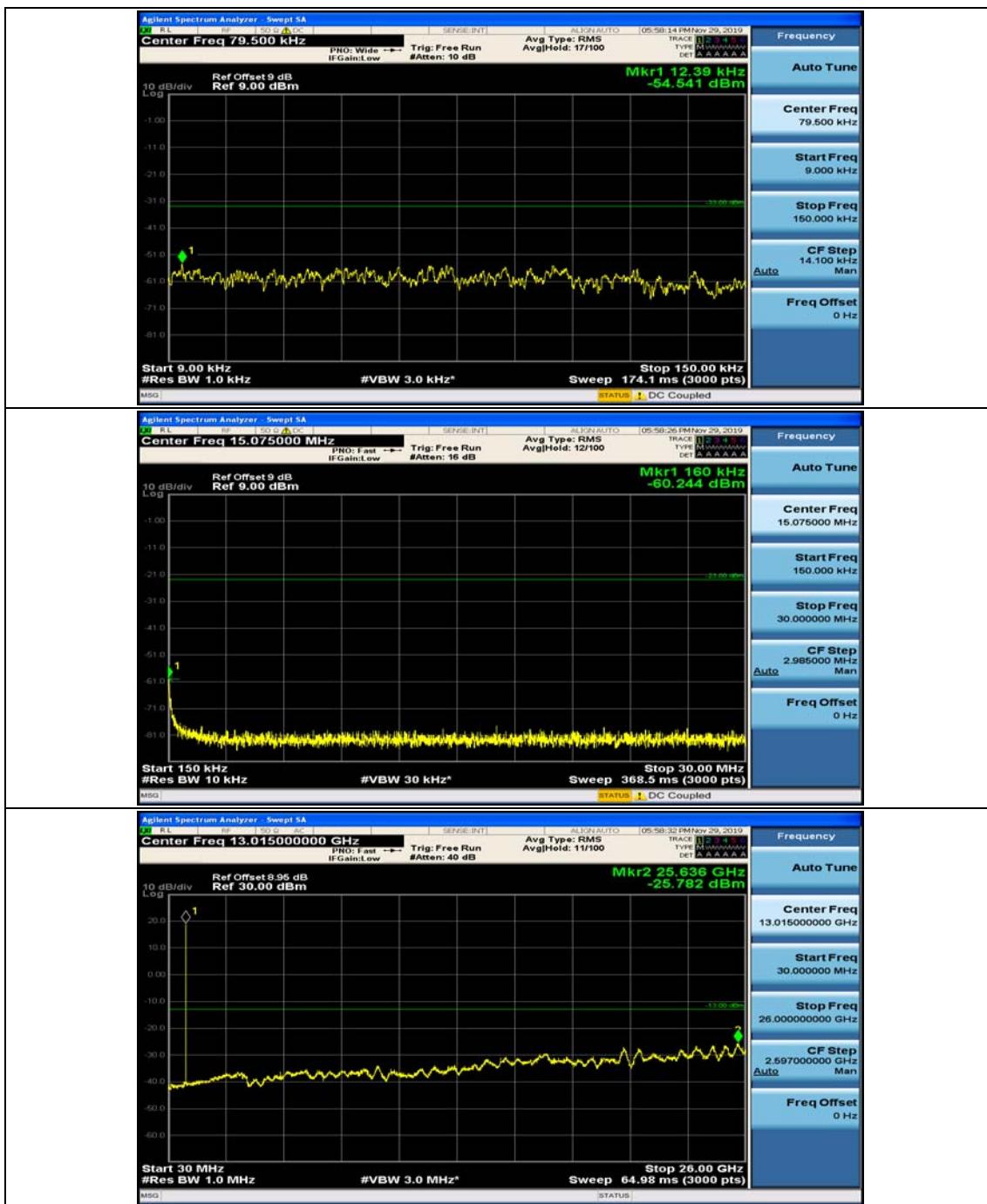


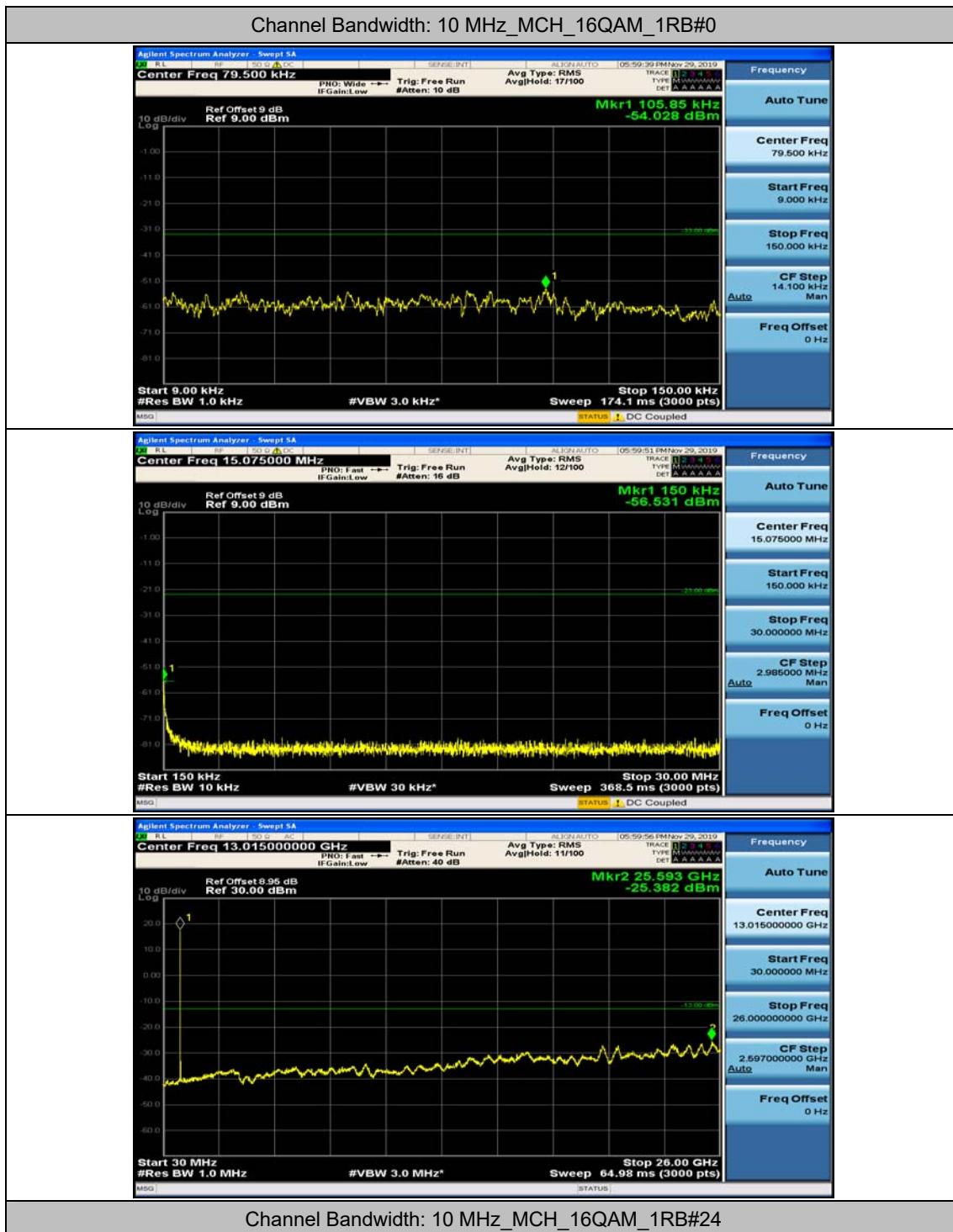


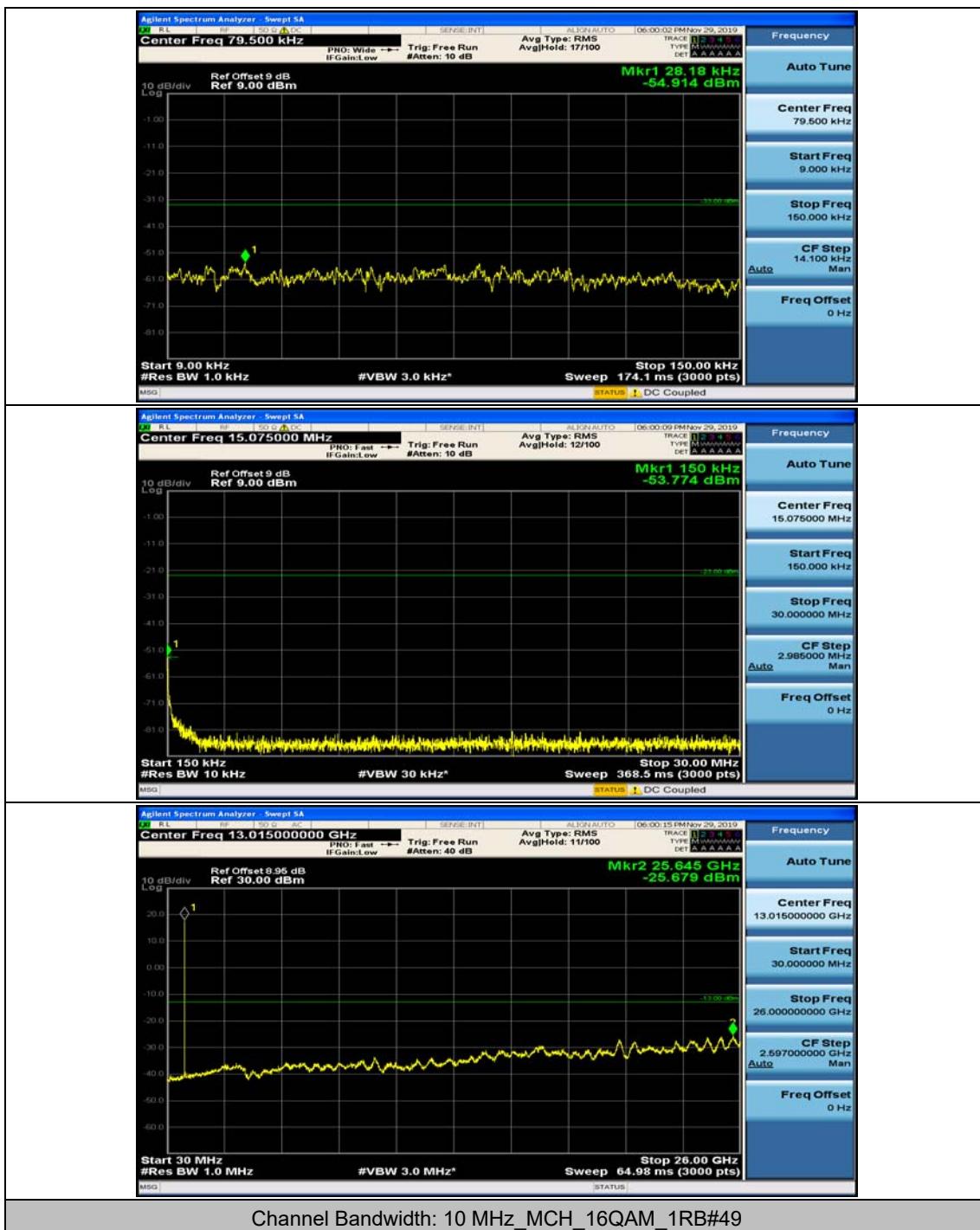


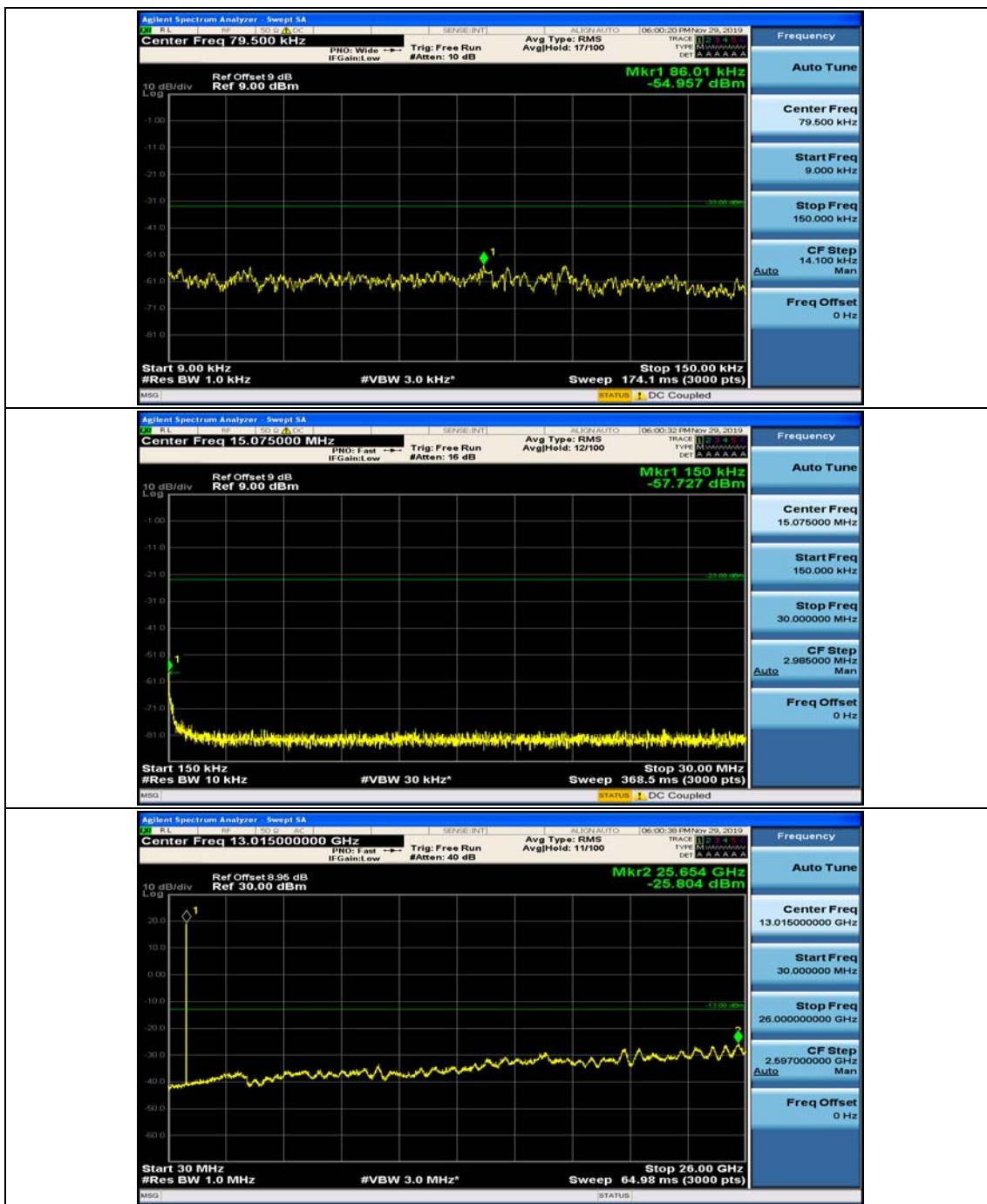


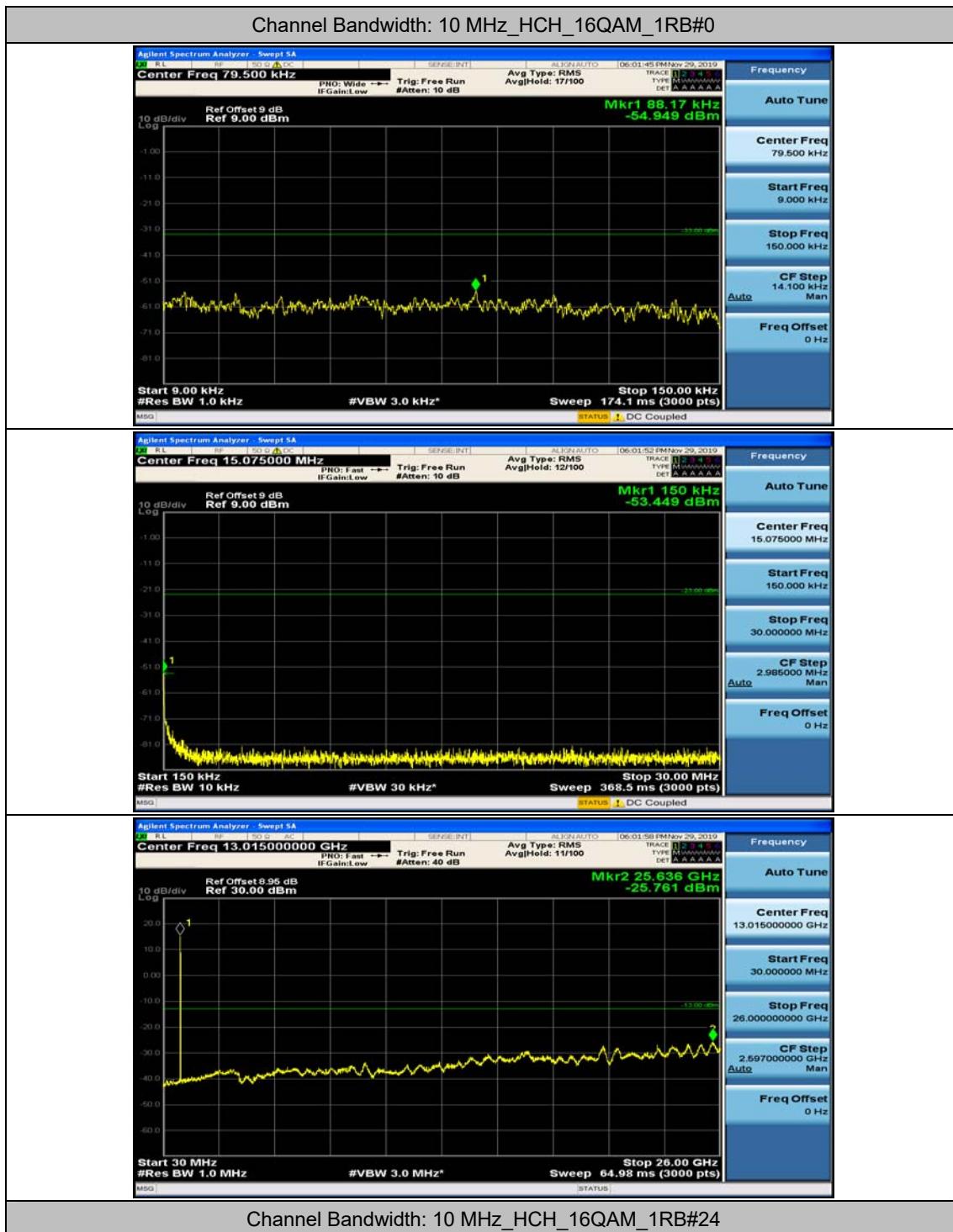


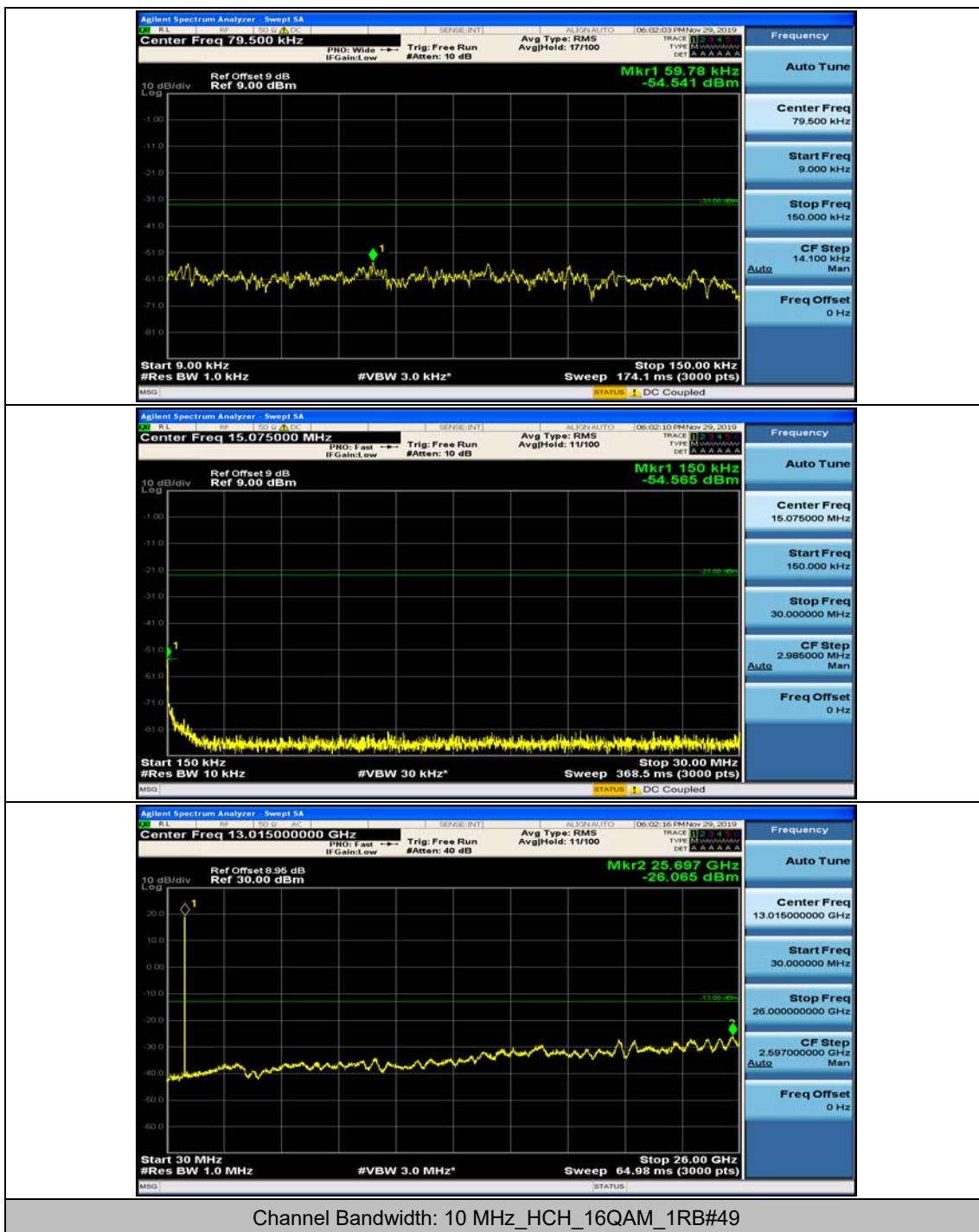


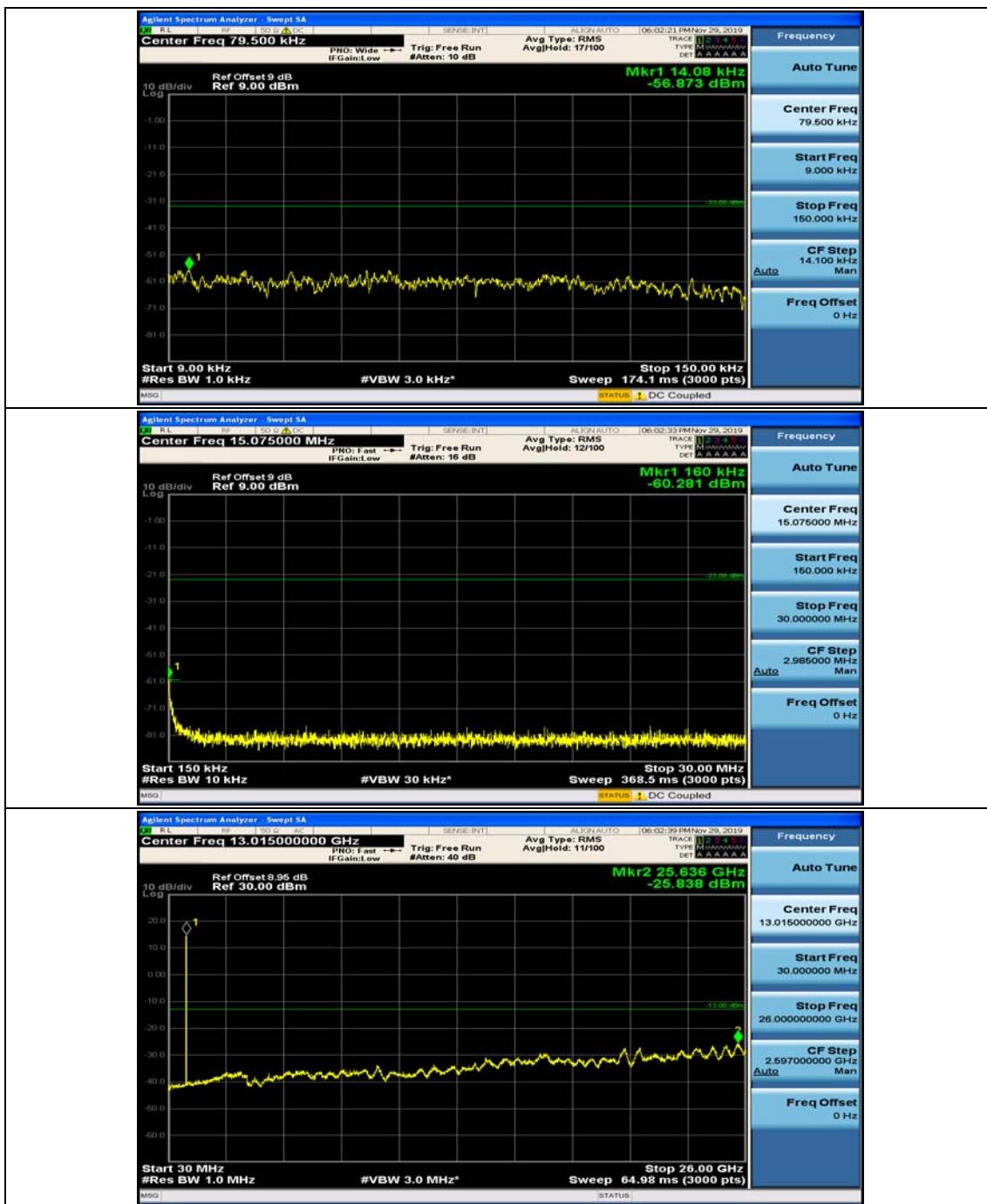












## Appendix F: Frequency Stability

### 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	0.48	0.000582	± 2.5	PASS
		VN	TN	0.62	0.000752	± 2.5	PASS
		VH	TN	-0.19	-0.000230	± 2.5	PASS
	MCH	VL	TN	3.36	0.004017	± 2.5	PASS
		VN	TN	3.61	0.004316	± 2.5	PASS
		VH	TN	0.35	0.000418	± 2.5	PASS
	HCH	VL	TN	-0.32	-0.000377	± 2.5	PASS
		VN	TN	-1.94	-0.002287	± 2.5	PASS
		VH	TN	3.35	0.003949	± 2.5	PASS
16QAM	LCH	VL	TN	1.7	0.002061	± 2.5	PASS
		VN	TN	4.3	0.005214	± 2.5	PASS
		VH	TN	-1.19	-0.001443	± 2.5	PASS
	MCH	VL	TN	0.48	0.000574	± 2.5	PASS
		VN	TN	3.42	0.004088	± 2.5	PASS
		VH	TN	3.9	0.004662	± 2.5	PASS
	HCH	VL	TN	-0.07	-0.000083	± 2.5	PASS
		VN	TN	2.7	0.003183	± 2.5	PASS
		VH	TN	0.11	0.000130	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2	0.002425	± 2.5	PASS
		VN	-20	3.44	0.004171	± 2.5	PASS
		VN	-10	-0.24	-0.000291	± 2.5	PASS
		VN	0	0.51	0.000618	± 2.5	PASS
		VN	10	4.97	0.006026	± 2.5	PASS
		VN	20	3.25	0.003941	± 2.5	PASS
		VN	30	0.77	0.000934	± 2.5	PASS
		VN	40	1.35	0.001637	± 2.5	PASS
		VN	50	0.84	0.001019	± 2.5	PASS
	MCH	VN	-30	2.54	0.003036	± 2.5	PASS
		VN	-20	0.33	0.000395	± 2.5	PASS

	HCH	VN	-10	-0.09	-0.000108	$\pm 2.5$	PASS
		VN	0	2.35	0.002809	$\pm 2.5$	PASS
		VN	10	1.74	0.002080	$\pm 2.5$	PASS
		VN	20	1.27	0.001518	$\pm 2.5$	PASS
		VN	30	-1.65	-0.001973	$\pm 2.5$	PASS
		VN	40	4.44	0.005308	$\pm 2.5$	PASS
		VN	50	4.72	0.005643	$\pm 2.5$	PASS
		VN	-30	2	0.002358	$\pm 2.5$	PASS
		VN	-20	-1.13	-0.001332	$\pm 2.5$	PASS
		VN	-10	0.03	0.000035	$\pm 2.5$	PASS
16QAM	LCH	VN	0	-0.52	-0.000613	$\pm 2.5$	PASS
		VN	10	1.93	0.002275	$\pm 2.5$	PASS
		VN	20	4.18	0.004928	$\pm 2.5$	PASS
		VN	30	1.1	0.001297	$\pm 2.5$	PASS
		VN	40	-1.03	-0.001214	$\pm 2.5$	PASS
		VN	50	3.66	0.004315	$\pm 2.5$	PASS
		VN	-30	-1.95	-0.002364	$\pm 2.5$	PASS
		VN	-20	-0.2	-0.000243	$\pm 2.5$	PASS
		VN	-10	1.65	0.002001	$\pm 2.5$	PASS
	MCH	VN	0	0.89	0.001079	$\pm 2.5$	PASS
		VN	10	0.13	0.000158	$\pm 2.5$	PASS
		VN	20	-0.2	-0.000243	$\pm 2.5$	PASS
		VN	30	0.25	0.000303	$\pm 2.5$	PASS
		VN	40	4.79	0.005808	$\pm 2.5$	PASS
		VN	50	-0.98	-0.001188	$\pm 2.5$	PASS
		VN	-30	4.61	0.005434	$\pm 2.5$	PASS
		VN	-20	0.72	0.000849	$\pm 2.5$	PASS
		VN	-10	2.44	0.002876	$\pm 2.5$	PASS
		VN	0	1.53	0.001804	$\pm 2.5$	PASS
	HCH	VN	10	-0.26	-0.000306	$\pm 2.5$	PASS
		VN	20	4.49	0.005293	$\pm 2.5$	PASS
		VN	30	0.45	0.000530	$\pm 2.5$	PASS
		VN	40	2.76	0.003254	$\pm 2.5$	PASS
		VN	50	4.54	0.005352	$\pm 2.5$	PASS
		VN	-30	3.61	0.004256	$\pm 2.5$	PASS
		VN	-20	2.82	0.003324	$\pm 2.5$	PASS

		VN	40	-0.03	-0.000035	$\pm 2.5$	PASS
		VN	50	2.06	0.002428	$\pm 2.5$	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	2.57	0.003113	$\pm 2.5$	PASS
		VN	TN	0.18	0.000218	$\pm 2.5$	PASS
		VH	TN	3.74	0.004531	$\pm 2.5$	PASS
	MCH	VL	TN	0.63	0.000753	$\pm 2.5$	PASS
		VN	TN	2.7	0.003228	$\pm 2.5$	PASS
		VH	TN	-1.56	-0.001865	$\pm 2.5$	PASS
	HCH	VL	TN	4.16	0.004909	$\pm 2.5$	PASS
		VN	TN	2.68	0.003162	$\pm 2.5$	PASS
		VH	TN	-0.98	-0.001156	$\pm 2.5$	PASS
16QAM	LCH	VL	TN	2.52	0.003053	$\pm 2.5$	PASS
		VN	TN	1.44	0.001744	$\pm 2.5$	PASS
		VH	TN	0.78	0.000945	$\pm 2.5$	PASS
	MCH	VL	TN	2.6	0.003108	$\pm 2.5$	PASS
		VN	TN	2.55	0.003048	$\pm 2.5$	PASS
		VH	TN	2.53	0.003025	$\pm 2.5$	PASS
	HCH	VL	TN	4.52	0.005333	$\pm 2.5$	PASS
		VN	TN	-1.92	-0.002265	$\pm 2.5$	PASS
		VH	TN	4.36	0.005145	$\pm 2.5$	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.62	-0.001962	$\pm 2.5$	PASS
		VN	-20	4.29	0.005197	$\pm 2.5$	PASS
		VN	-10	0.46	0.000557	$\pm 2.5$	PASS
		VN	0	0.51	0.000618	$\pm 2.5$	PASS
		VN	10	1.81	0.002193	$\pm 2.5$	PASS
		VN	20	0.62	0.000751	$\pm 2.5$	PASS
		VN	30	3.28	0.003973	$\pm 2.5$	PASS
		VN	40	4.58	0.005548	$\pm 2.5$	PASS
		VN	50	1	0.001211	$\pm 2.5$	PASS
	MCH	VN	-30	-0.17	-0.000203	$\pm 2.5$	PASS
		VN	-20	-0.39	-0.000466	$\pm 2.5$	PASS
		VN	-10	-0.74	-0.000885	$\pm 2.5$	PASS

		VN	0	-1.75	-0.002092	$\pm 2.5$	PASS
		VN	10	2.21	0.002642	$\pm 2.5$	PASS
		VN	20	2.2	0.002630	$\pm 2.5$	PASS
		VN	30	2.17	0.002594	$\pm 2.5$	PASS
		VN	40	3.56	0.004256	$\pm 2.5$	PASS
		VN	50	4.21	0.005033	$\pm 2.5$	PASS
		VN	-30	-0.4	-0.000472	$\pm 2.5$	PASS
		VN	-20	2.7	0.003186	$\pm 2.5$	PASS
		VN	-10	-1.03	-0.001215	$\pm 2.5$	PASS
		VN	0	-1.66	-0.001959	$\pm 2.5$	PASS
	HCH	VN	10	4.69	0.005534	$\pm 2.5$	PASS
		VN	20	-1.95	-0.002301	$\pm 2.5$	PASS
		VN	30	-1.44	-0.001699	$\pm 2.5$	PASS
		VN	40	4.05	0.004779	$\pm 2.5$	PASS
		VN	50	-1.26	-0.001487	$\pm 2.5$	PASS
		VN	-30	1.74	0.002080	$\pm 2.5$	PASS
		VN	-20	0.94	0.001124	$\pm 2.5$	PASS
		VN	-10	4.23	0.005057	$\pm 2.5$	PASS
		VN	0	2.74	0.003276	$\pm 2.5$	PASS
		VN	10	2.57	0.003072	$\pm 2.5$	PASS
	LCH	VN	20	2.85	0.003407	$\pm 2.5$	PASS
		VN	30	3.37	0.004029	$\pm 2.5$	PASS
		VN	40	0.48	0.000574	$\pm 2.5$	PASS
		VN	50	-0.05	-0.000060	$\pm 2.5$	PASS
		VN	-30	0.29	0.000342	$\pm 2.5$	PASS
		VN	-20	2.16	0.002549	$\pm 2.5$	PASS
		VN	-10	4.46	0.005263	$\pm 2.5$	PASS
		VN	0	4.78	0.005640	$\pm 2.5$	PASS
		VN	10	3.12	0.003681	$\pm 2.5$	PASS
		VN	20	0.35	0.000413	$\pm 2.5$	PASS
	MCH	VN	30	2.05	0.002419	$\pm 2.5$	PASS
		VN	40	1.17	0.001381	$\pm 2.5$	PASS
		VN	50	1.34	0.001581	$\pm 2.5$	PASS
		VN	-30	-0.1	-0.000118	$\pm 2.5$	PASS
		VN	-20	2.09	0.002466	$\pm 2.5$	PASS
		VN	-10	-0.49	-0.000578	$\pm 2.5$	PASS
		VN	0	2.17	0.002560	$\pm 2.5$	PASS
		VN	10	1.54	0.001817	$\pm 2.5$	PASS
		VN	20	3.79	0.004472	$\pm 2.5$	PASS
		VN	30	-1.96	-0.002313	$\pm 2.5$	PASS
	HCH	VN	40	3.12	0.003681	$\pm 2.5$	PASS

		VN	50	-1.25	-0.001475	± 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	3.66	0.004428	± 2.5	PASS
		VN	TN	2.47	0.002989	± 2.5	PASS
		VH	TN	1.09	0.001319	± 2.5	PASS
	MCH	VL	TN	3.12	0.003730	± 2.5	PASS
		VN	TN	0.82	0.000980	± 2.5	PASS
		VH	TN	-1.89	-0.002259	± 2.5	PASS
	HCH	VL	TN	-1.28	-0.001512	± 2.5	PASS
		VN	TN	0.37	0.000437	± 2.5	PASS
		VH	TN	2.46	0.002906	± 2.5	PASS
16QAM	LCH	VL	TN	4.09	0.004949	± 2.5	PASS
		VN	TN	1.87	0.002263	± 2.5	PASS
		VH	TN	1.64	0.001984	± 2.5	PASS
	MCH	VL	TN	0.41	0.000490	± 2.5	PASS
		VN	TN	-1.8	-0.002152	± 2.5	PASS
		VH	TN	-0.07	-0.000084	± 2.5	PASS
	HCH	VL	TN	0.7	0.000827	± 2.5	PASS
		VN	TN	1.13	0.001335	± 2.5	PASS
		VH	TN	3.98	0.004702	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.2	-0.001452	± 2.5	PASS
		VN	-20	0.41	0.000496	± 2.5	PASS
		VN	-10	3.93	0.004755	± 2.5	PASS
		VN	0	3.33	0.004029	± 2.5	PASS
		VN	10	2.83	0.003424	± 2.5	PASS
		VN	20	3.52	0.004259	± 2.5	PASS
		VN	30	3.33	0.004029	± 2.5	PASS
		VN	40	1.15	0.001391	± 2.5	PASS
		VN	50	3.11	0.003763	± 2.5	PASS
	MCH	VN	-30	-1.64	-0.001961	± 2.5	PASS
		VN	-20	-0.99	-0.001184	± 2.5	PASS
		VN	-10	-0.2	-0.000239	± 2.5	PASS
		VN	0	2.32	0.002773	± 2.5	PASS

		VN	10	-1.66	-0.001984	$\pm 2.5$	PASS
		VN	20	0.17	0.000203	$\pm 2.5$	PASS
		VN	30	0.15	0.000179	$\pm 2.5$	PASS
		VN	40	4.57	0.005463	$\pm 2.5$	PASS
		VN	50	3.2	0.003825	$\pm 2.5$	PASS
		VN	-30	0.16	0.000189	$\pm 2.5$	PASS
		VN	-20	2.24	0.002646	$\pm 2.5$	PASS
		VN	-10	-1.2	-0.001418	$\pm 2.5$	PASS
		VN	0	0.97	0.001146	$\pm 2.5$	PASS
		VN	10	0.15	0.000177	$\pm 2.5$	PASS
		VN	20	0.61	0.000721	$\pm 2.5$	PASS
		VN	30	1.2	0.001418	$\pm 2.5$	PASS
		VN	40	0.23	0.000272	$\pm 2.5$	PASS
		VN	50	4.69	0.005540	$\pm 2.5$	PASS
		VN	-30	3.7	0.004423	$\pm 2.5$	PASS
		VN	-20	2.98	0.003562	$\pm 2.5$	PASS
		VN	-10	3.77	0.004507	$\pm 2.5$	PASS
		VN	0	-0.42	-0.000502	$\pm 2.5$	PASS
		VN	10	0.1	0.000120	$\pm 2.5$	PASS
		VN	20	-0.12	-0.000143	$\pm 2.5$	PASS
		VN	30	4.83	0.005774	$\pm 2.5$	PASS
		VN	40	0.34	0.000406	$\pm 2.5$	PASS
		VN	50	1.68	0.002008	$\pm 2.5$	PASS
		VN	-30	0.35	0.000413	$\pm 2.5$	PASS
		VN	-20	3.47	0.004099	$\pm 2.5$	PASS
		VN	-10	1.17	0.001382	$\pm 2.5$	PASS
		VN	0	-1.67	-0.001973	$\pm 2.5$	PASS
		VN	10	0.28	0.000331	$\pm 2.5$	PASS
		VN	20	3.81	0.004501	$\pm 2.5$	PASS
		VN	30	-1.5	-0.001772	$\pm 2.5$	PASS
		VN	40	-1.42	-0.001677	$\pm 2.5$	PASS
		VN	50	4.21	0.004973	$\pm 2.5$	PASS
		VN	-30	-0.41	-0.000484	$\pm 2.5$	PASS
		VN	-20	3.3	0.003898	$\pm 2.5$	PASS
		VN	-10	1.65	0.001949	$\pm 2.5$	PASS
		VN	0	2.19	0.002587	$\pm 2.5$	PASS
		VN	10	-1.54	-0.001819	$\pm 2.5$	PASS
		VN	20	0.66	0.000780	$\pm 2.5$	PASS
		VN	30	4.24	0.005009	$\pm 2.5$	PASS
		VN	40	4.94	0.005836	$\pm 2.5$	PASS
		VN	50	-1.97	-0.002327	$\pm 2.5$	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	-1.13	-0.001363	± 2.5	PASS
		VN	TN	2.16	0.002606	± 2.5	PASS
		VH	TN	2.88	0.003474	± 2.5	PASS
	MCH	VL	TN	-0.4	-0.000478	± 2.5	PASS
		VN	TN	-1.77	-0.002116	± 2.5	PASS
		VH	TN	-1.44	-0.001721	± 2.5	PASS
	HCH	VL	TN	4.26	0.005047	± 2.5	PASS
		VN	TN	-1.14	-0.001351	± 2.5	PASS
		VH	TN	-1.15	-0.001363	± 2.5	PASS
16QAM	LCH	VL	TN	4.7	0.005669	± 2.5	PASS
		VN	TN	0.69	0.000832	± 2.5	PASS
		VH	TN	-1.55	-0.001870	± 2.5	PASS
	MCH	VL	TN	-0.44	-0.000526	± 2.5	PASS
		VN	TN	4.47	0.005344	± 2.5	PASS
		VH	TN	-0.07	-0.000084	± 2.5	PASS
	HCH	VL	TN	3.4	0.004028	± 2.5	PASS
		VN	TN	-1.05	-0.001244	± 2.5	PASS
		VH	TN	0.36	0.000427	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	3.95	0.004765	± 2.5	PASS
		VN	-20	0.45	0.000543	± 2.5	PASS
		VN	-10	-0.36	-0.000434	± 2.5	PASS
		VN	0	-1.78	-0.002147	± 2.5	PASS
		VN	10	0.08	0.000097	± 2.5	PASS
		VN	20	1.53	0.001846	± 2.5	PASS
		VN	30	0.58	0.000700	± 2.5	PASS
		VN	40	3.17	0.003824	± 2.5	PASS
		VN	50	-0.99	-0.001194	± 2.5	PASS
	MCH	VN	-30	2.26	0.002702	± 2.5	PASS
		VN	-20	4.87	0.005822	± 2.5	PASS
		VN	-10	-1.48	-0.001769	± 2.5	PASS
		VN	0	-1.24	-0.001482	± 2.5	PASS
		VN	10	-0.22	-0.000263	± 2.5	PASS
		VN	20	0.29	0.000347	± 2.5	PASS

	HCH	VN	30	1.54	0.001841	$\pm 2.5$	PASS
		VN	40	1.36	0.001626	$\pm 2.5$	PASS
		VN	50	1.31	0.001566	$\pm 2.5$	PASS
		VN	-30	-1.62	-0.001919	$\pm 2.5$	PASS
		VN	-20	0.83	0.000983	$\pm 2.5$	PASS
		VN	-10	0.2	0.000237	$\pm 2.5$	PASS
		VN	0	0.15	0.000178	$\pm 2.5$	PASS
		VN	10	-1.59	-0.001884	$\pm 2.5$	PASS
		VN	20	-0.52	-0.000616	$\pm 2.5$	PASS
		VN	30	-1.97	-0.002334	$\pm 2.5$	PASS
	LCH	VN	40	2.68	0.003175	$\pm 2.5$	PASS
		VN	50	0.28	0.000332	$\pm 2.5$	PASS
		VN	-30	2.85	0.003407	$\pm 2.5$	PASS
		VN	-20	-0.09	-0.000108	$\pm 2.5$	PASS
		VN	-10	0.77	0.000921	$\pm 2.5$	PASS
		VN	0	1.07	0.001279	$\pm 2.5$	PASS
		VN	10	-0.84	-0.001004	$\pm 2.5$	PASS
		VN	20	1.8	0.002152	$\pm 2.5$	PASS
		VN	30	-0.59	-0.000705	$\pm 2.5$	PASS
	MCH	VN	40	1.9	0.002271	$\pm 2.5$	PASS
		VN	50	4.31	0.005152	$\pm 2.5$	PASS
		VN	-30	3.88	0.004597	$\pm 2.5$	PASS
		VN	-20	4.79	0.005675	$\pm 2.5$	PASS
		VN	-10	-1.95	-0.002310	$\pm 2.5$	PASS
		VN	0	4.39	0.005201	$\pm 2.5$	PASS
		VN	10	1.49	0.001765	$\pm 2.5$	PASS
		VN	20	4.31	0.005107	$\pm 2.5$	PASS
		VN	30	-1.77	-0.002097	$\pm 2.5$	PASS
	HCH	VN	40	-1.63	-0.001931	$\pm 2.5$	PASS
		VN	50	2.02	0.002393	$\pm 2.5$	PASS
		VN	-30	-1.15	-0.001363	$\pm 2.5$	PASS
		VN	-20	3.52	0.004171	$\pm 2.5$	PASS
		VN	-10	3.76	0.004455	$\pm 2.5$	PASS
		VN	0	0.67	0.000794	$\pm 2.5$	PASS
		VN	10	1.44	0.001706	$\pm 2.5$	PASS
		VN	20	3	0.003555	$\pm 2.5$	PASS
		VN	30	1.42	0.001682	$\pm 2.5$	PASS
		VN	40	-0.45	-0.000533	$\pm 2.5$	PASS
		VN	50	2.55	0.003021	$\pm 2.5$	PASS