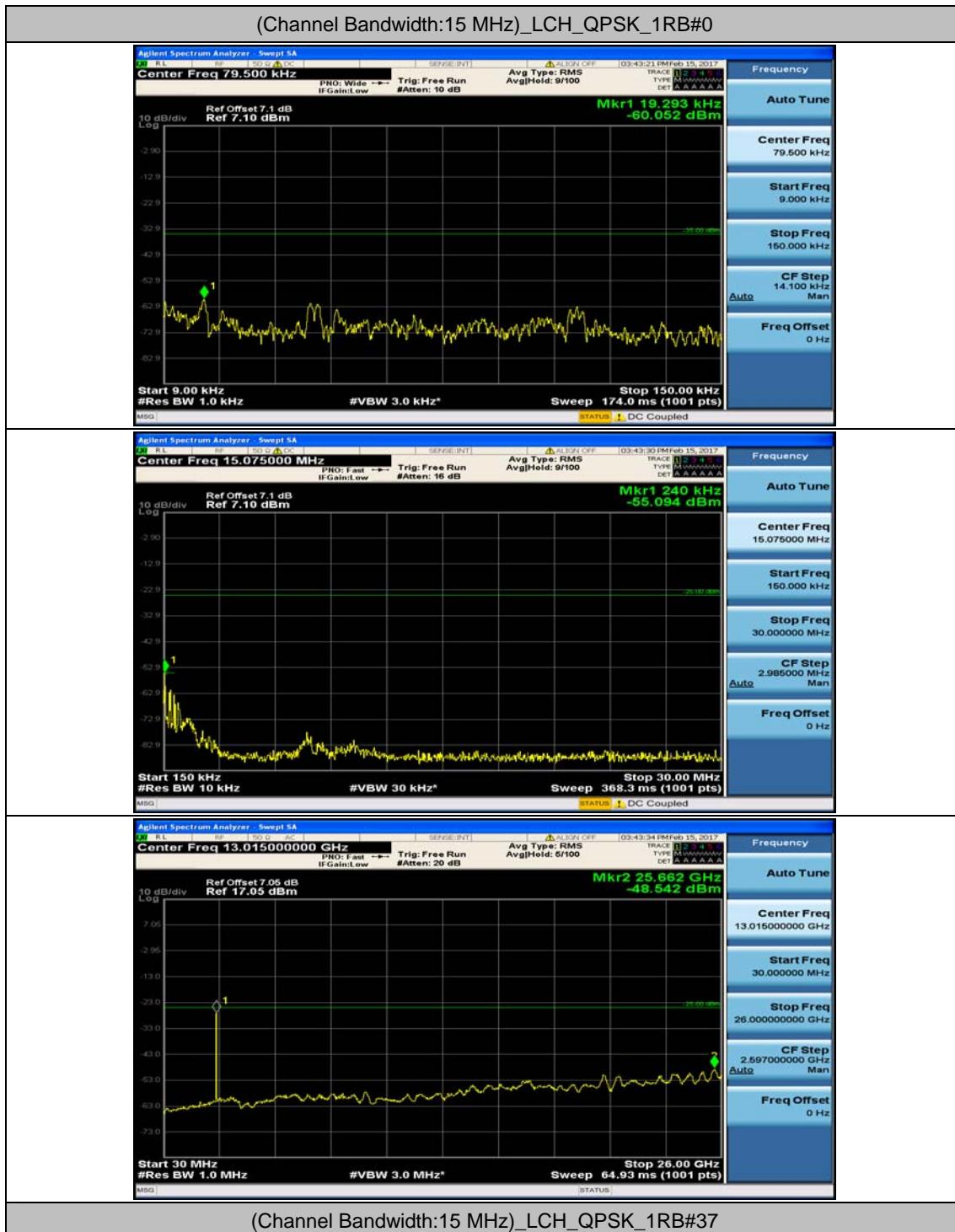
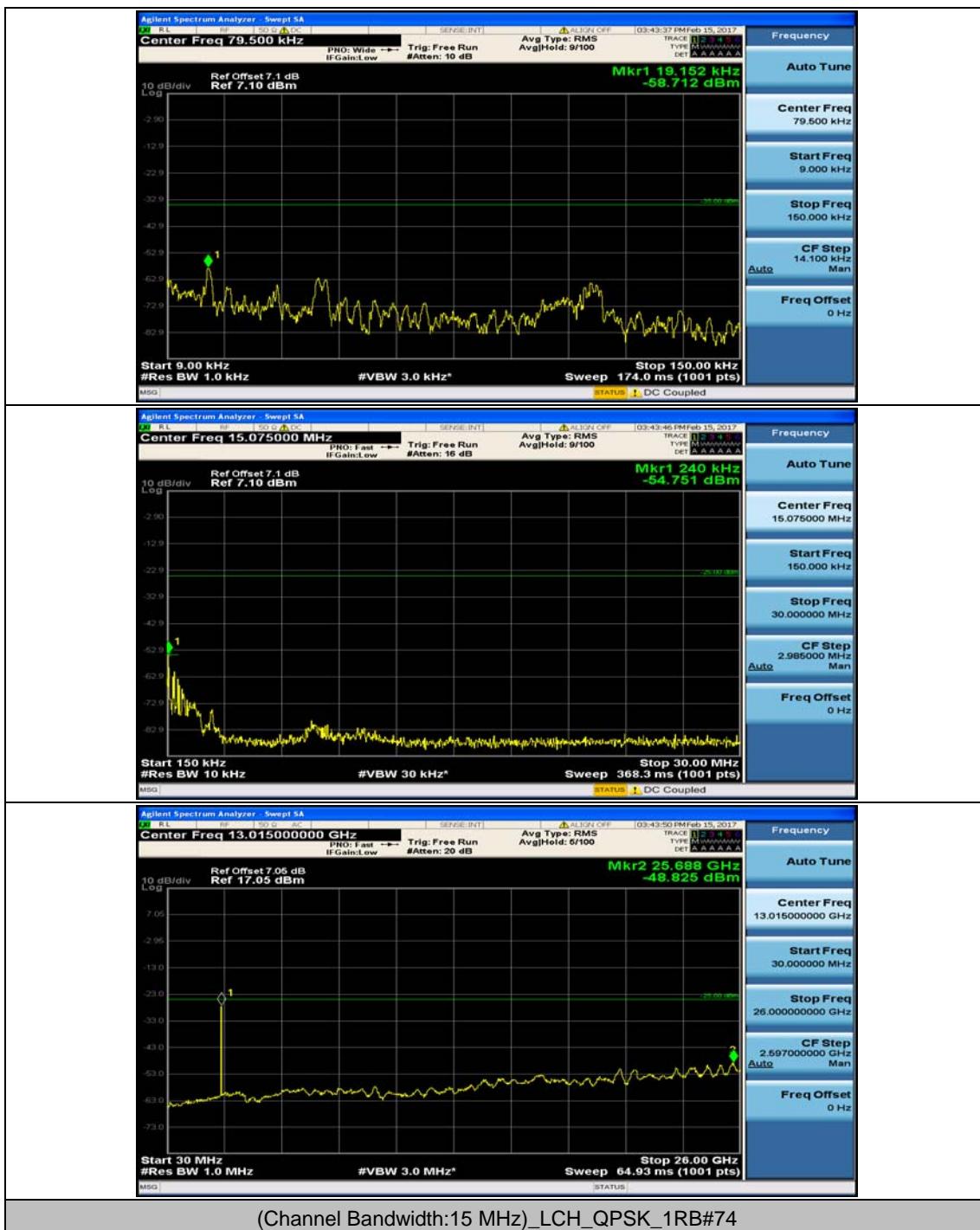
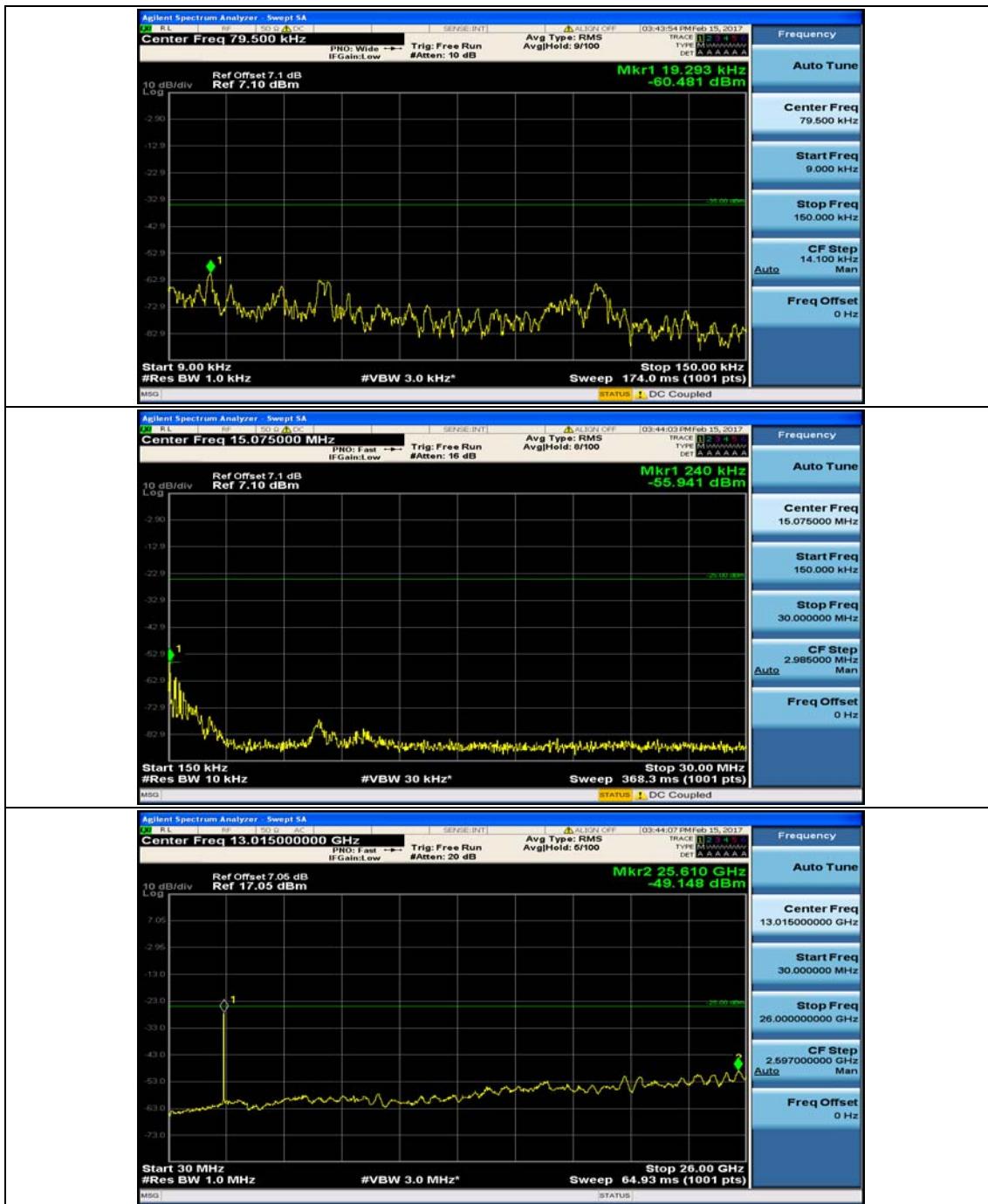
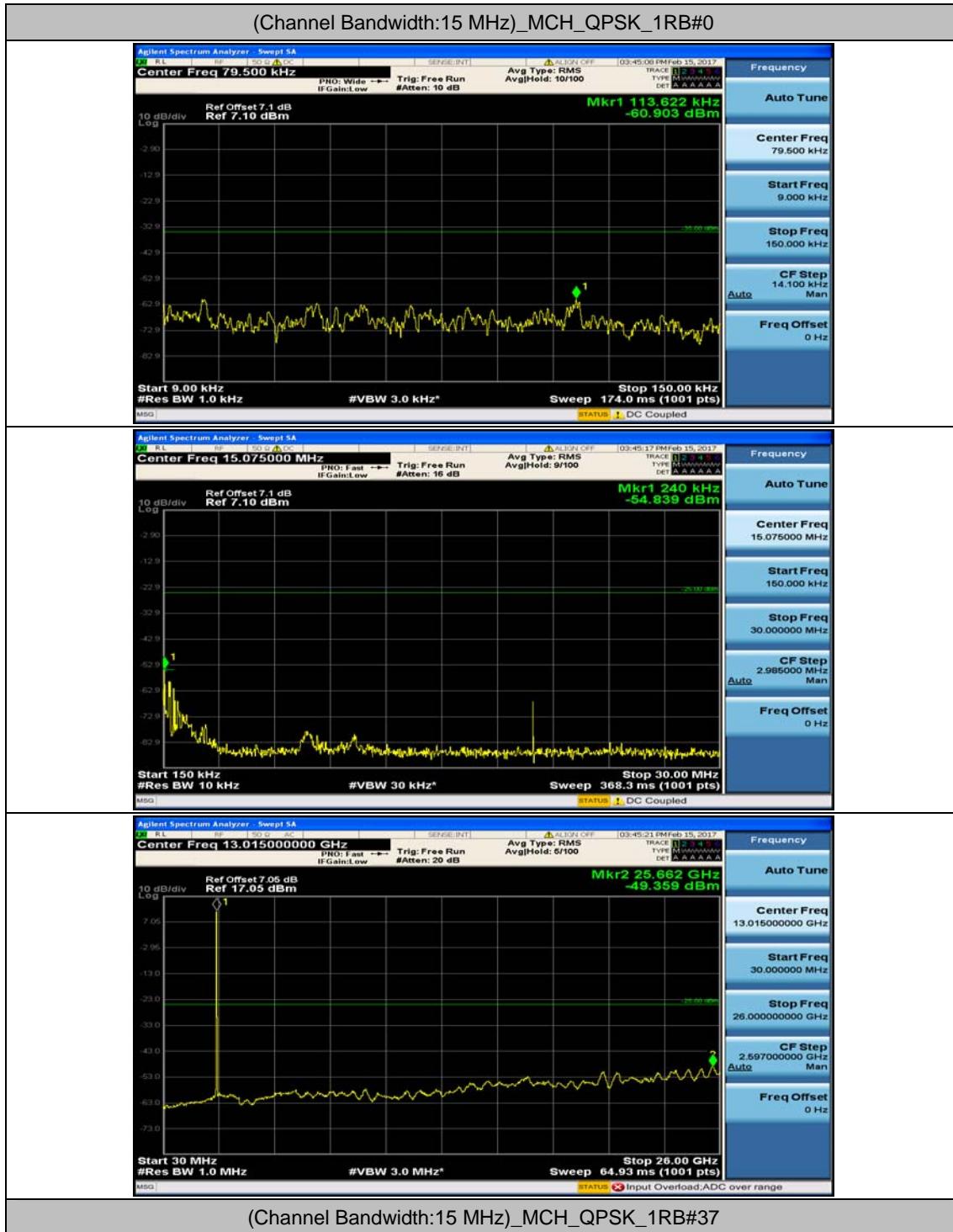


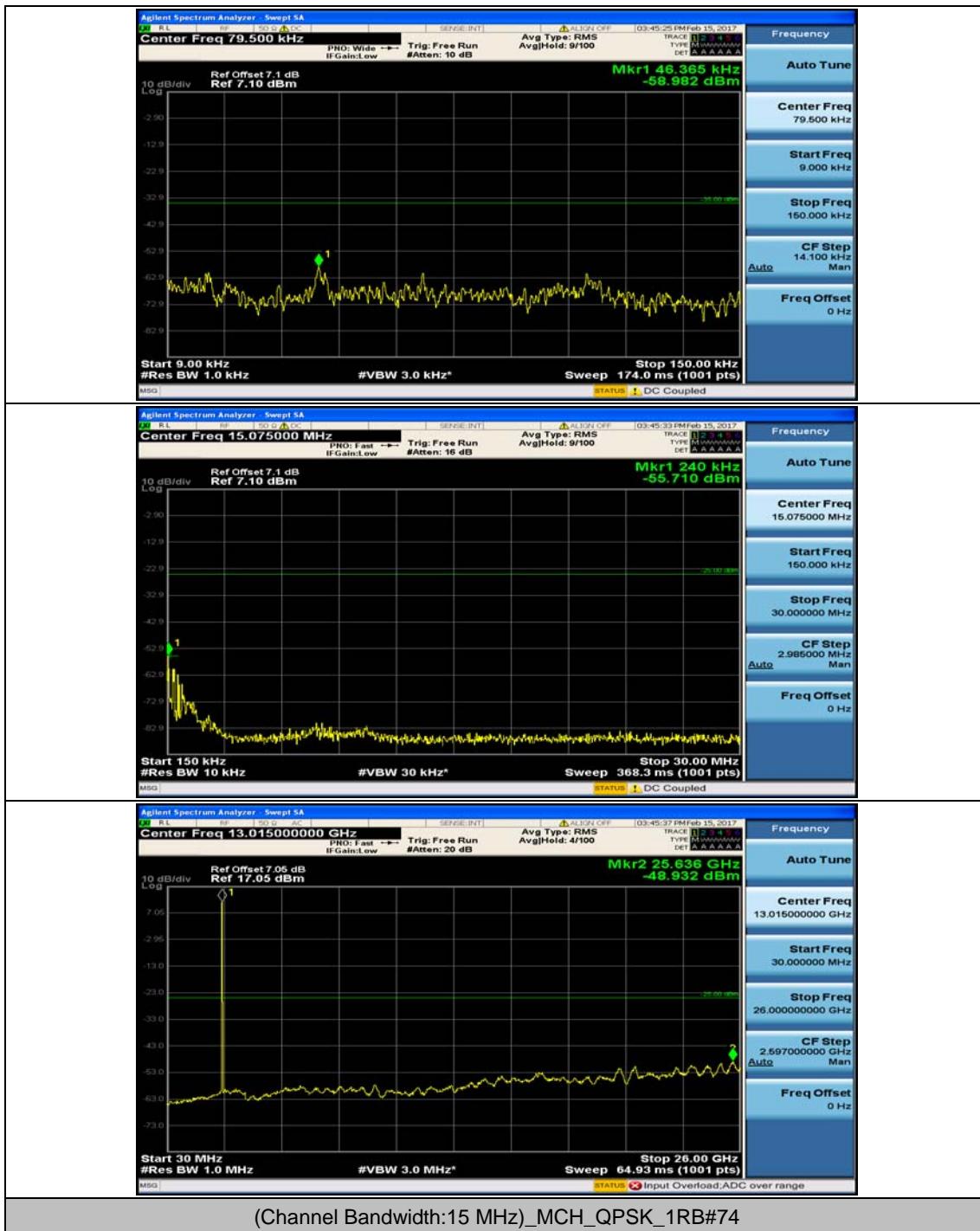
## Channel Bandwidth: 15 MHz



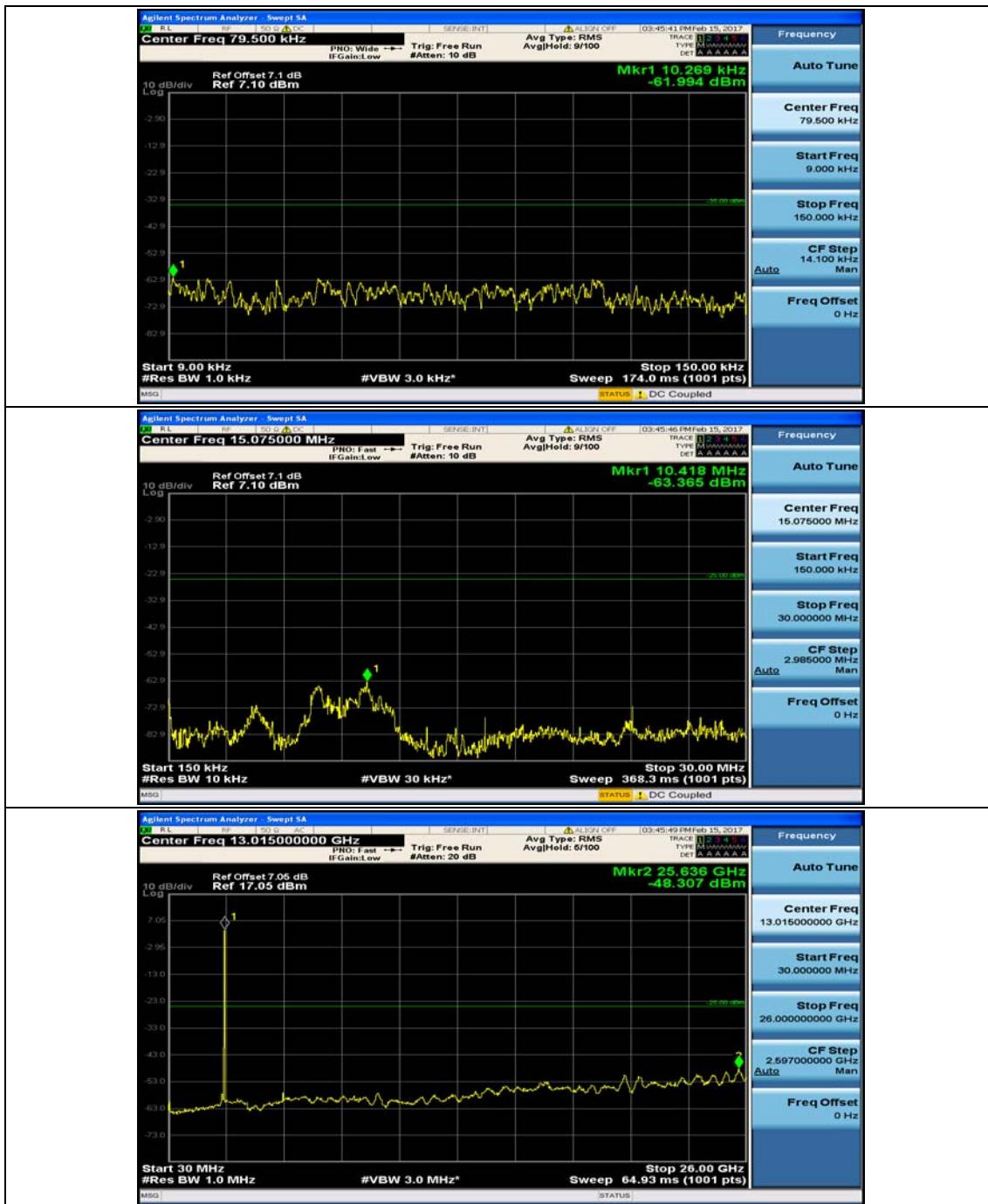


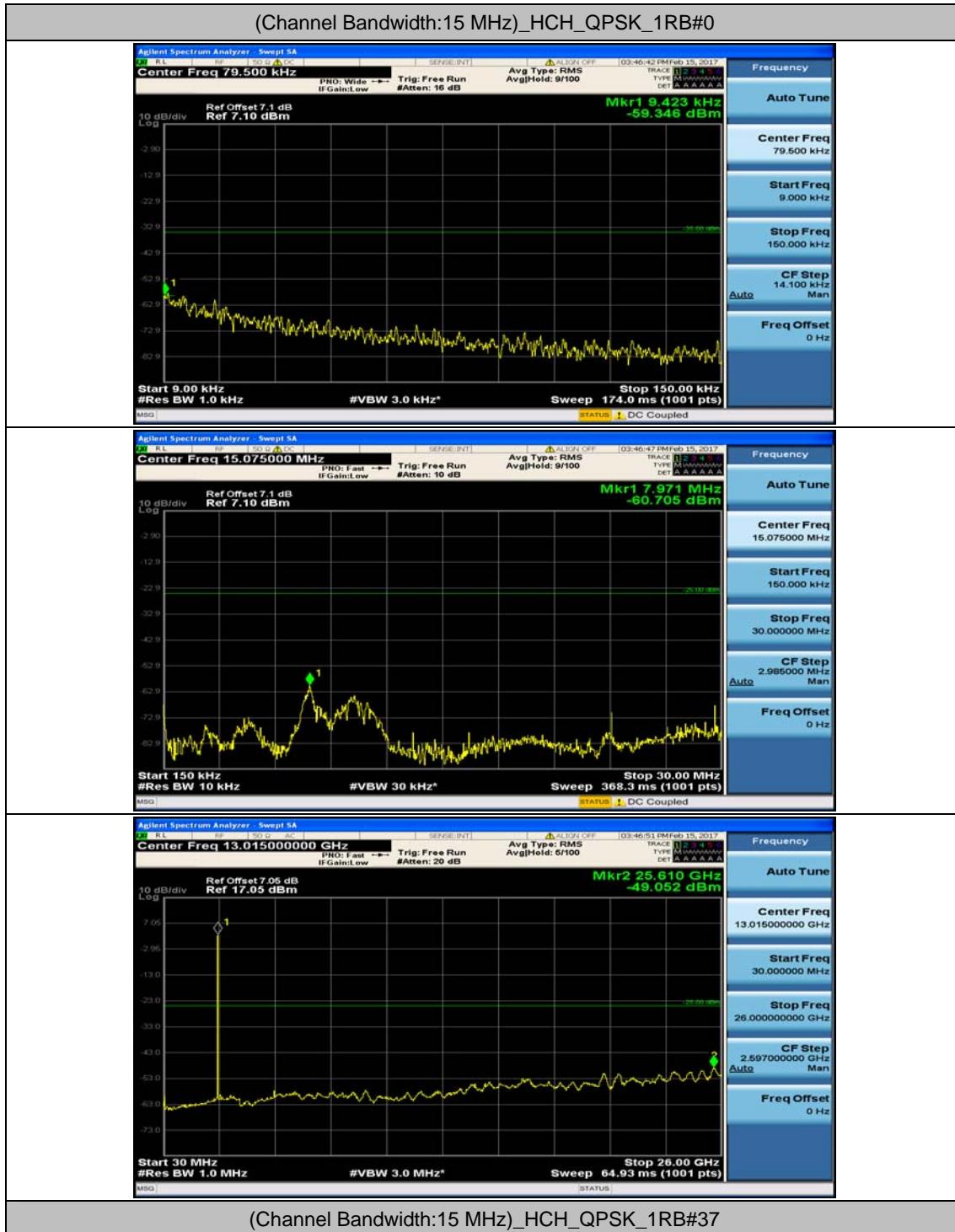


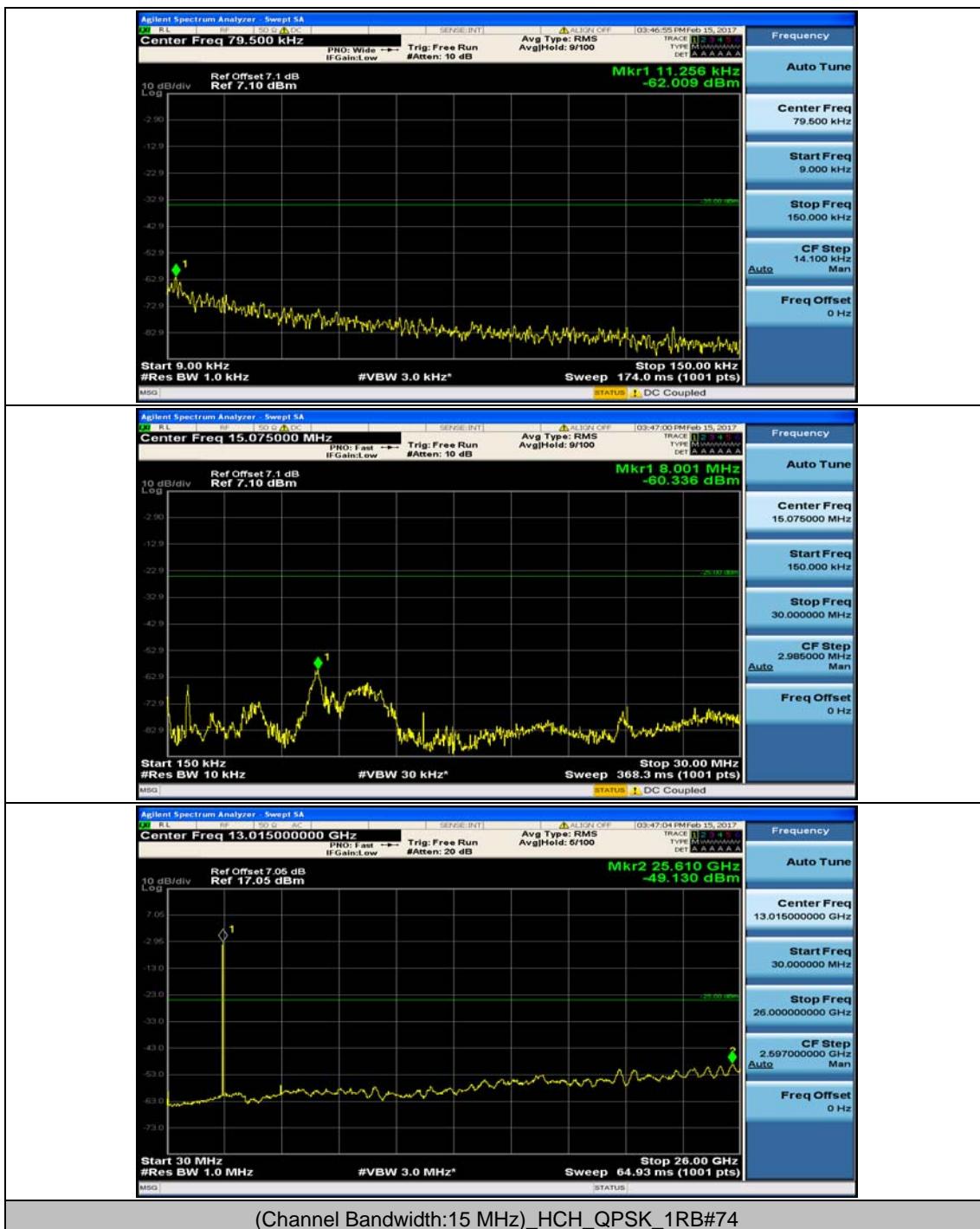


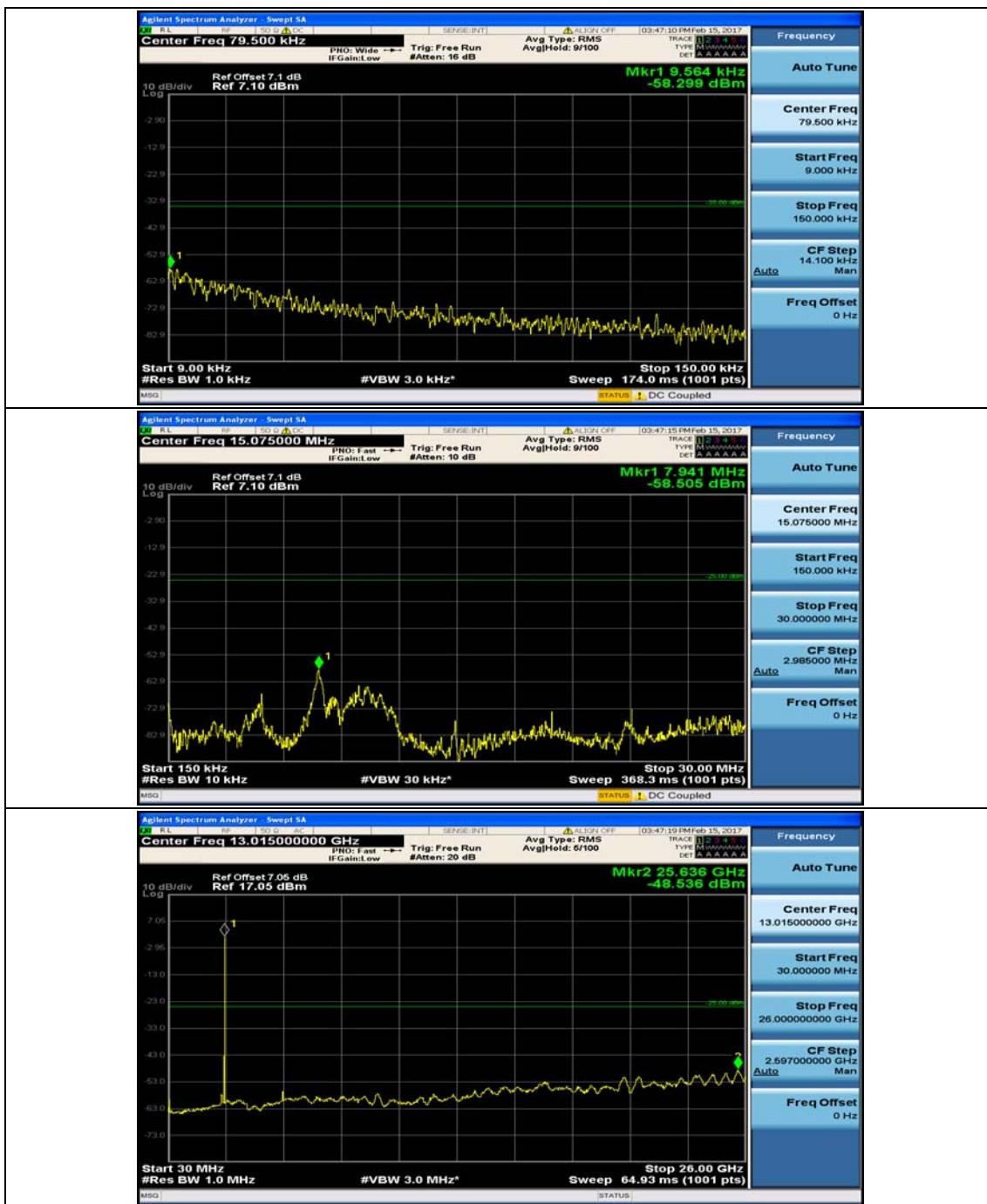


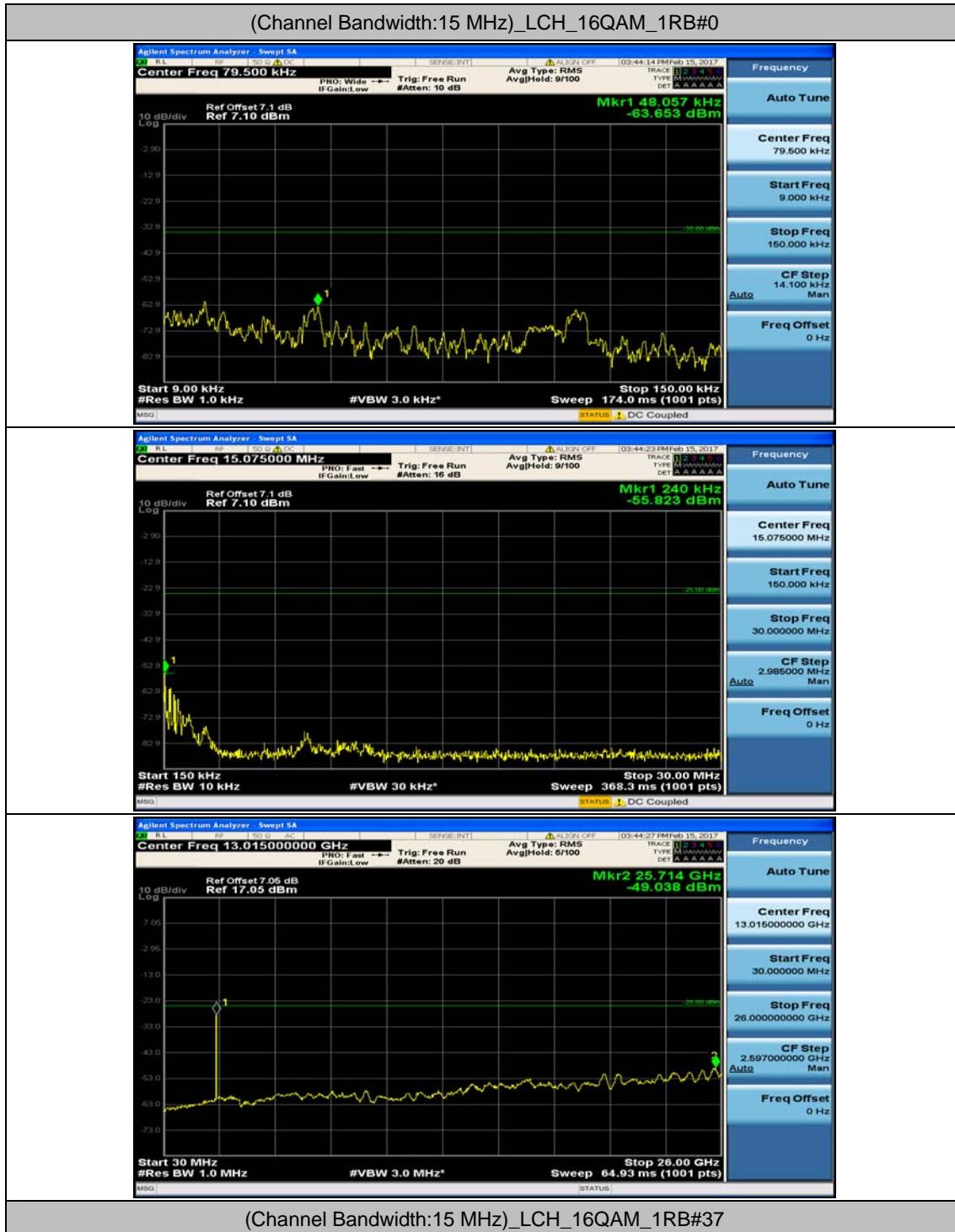
(Channel Bandwidth:15 MHz)\_MCH\_QPSK\_1RB#74

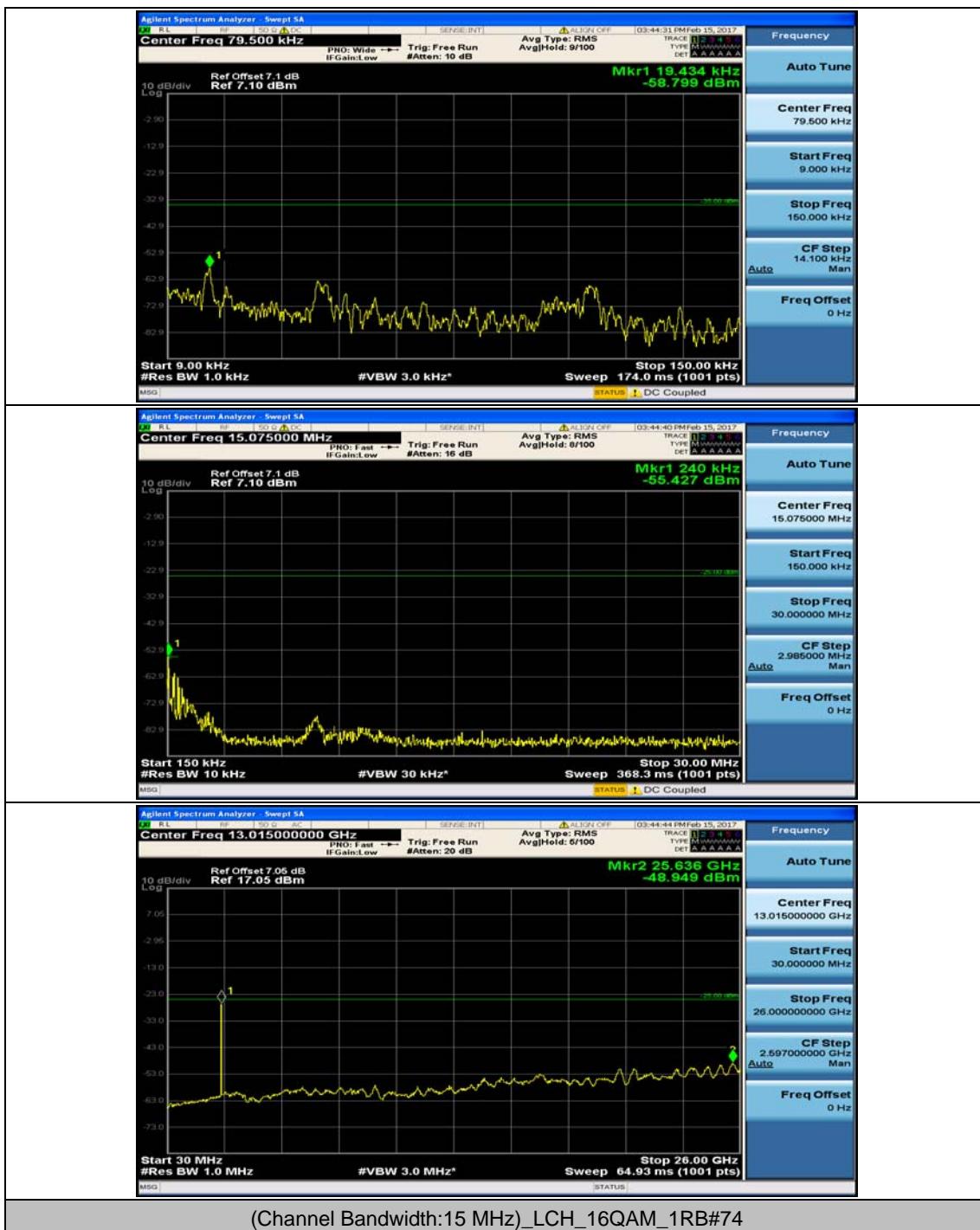




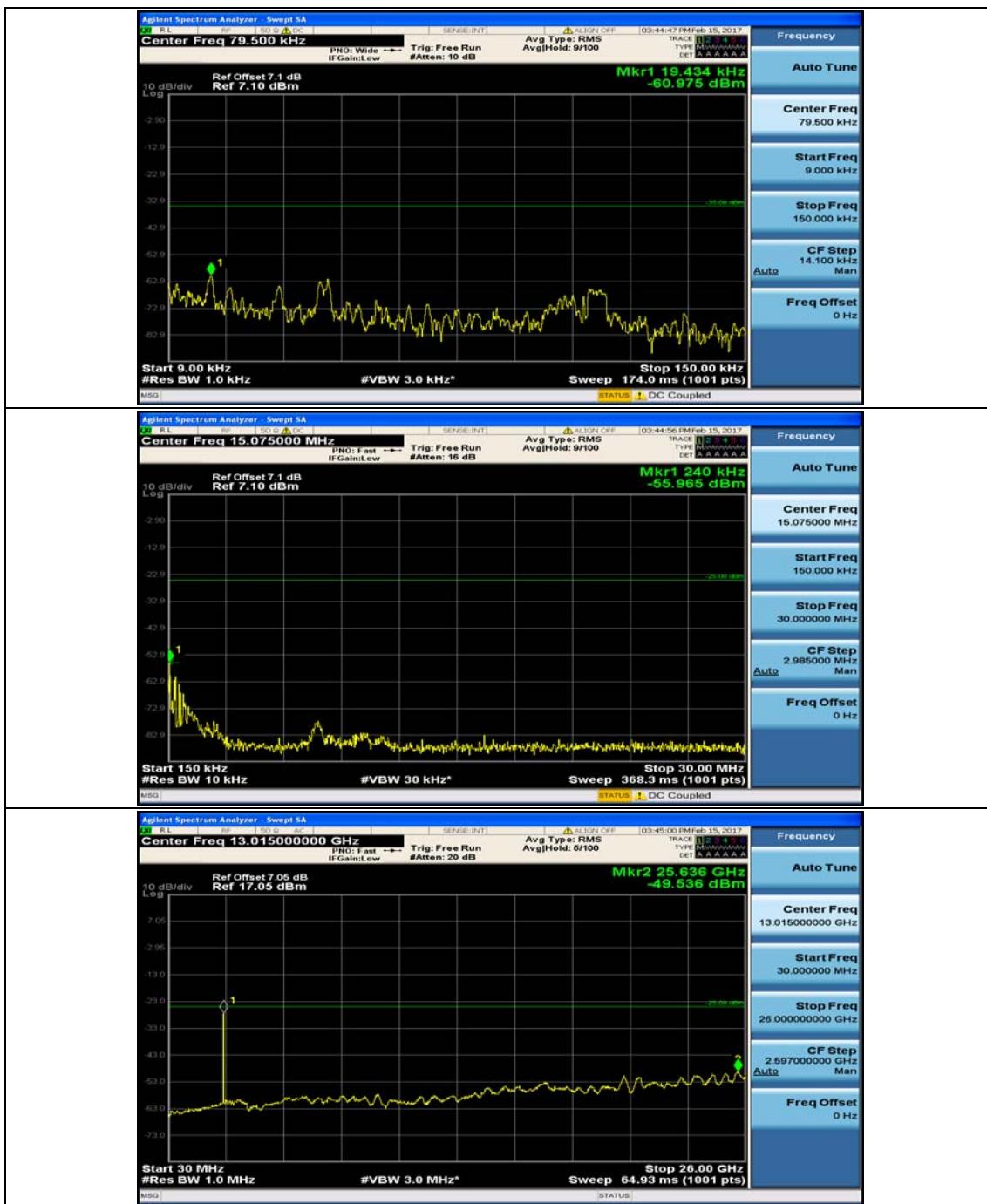


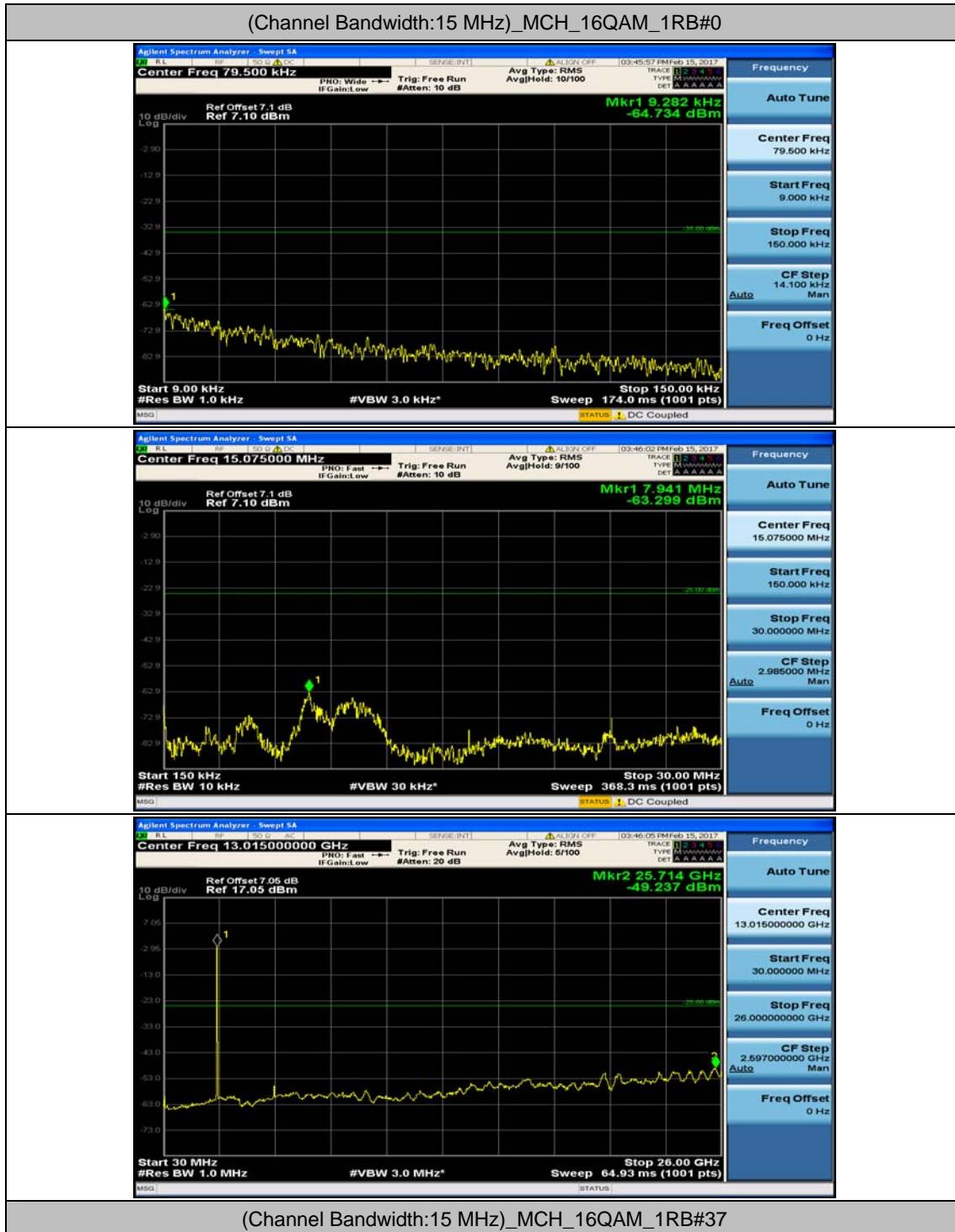


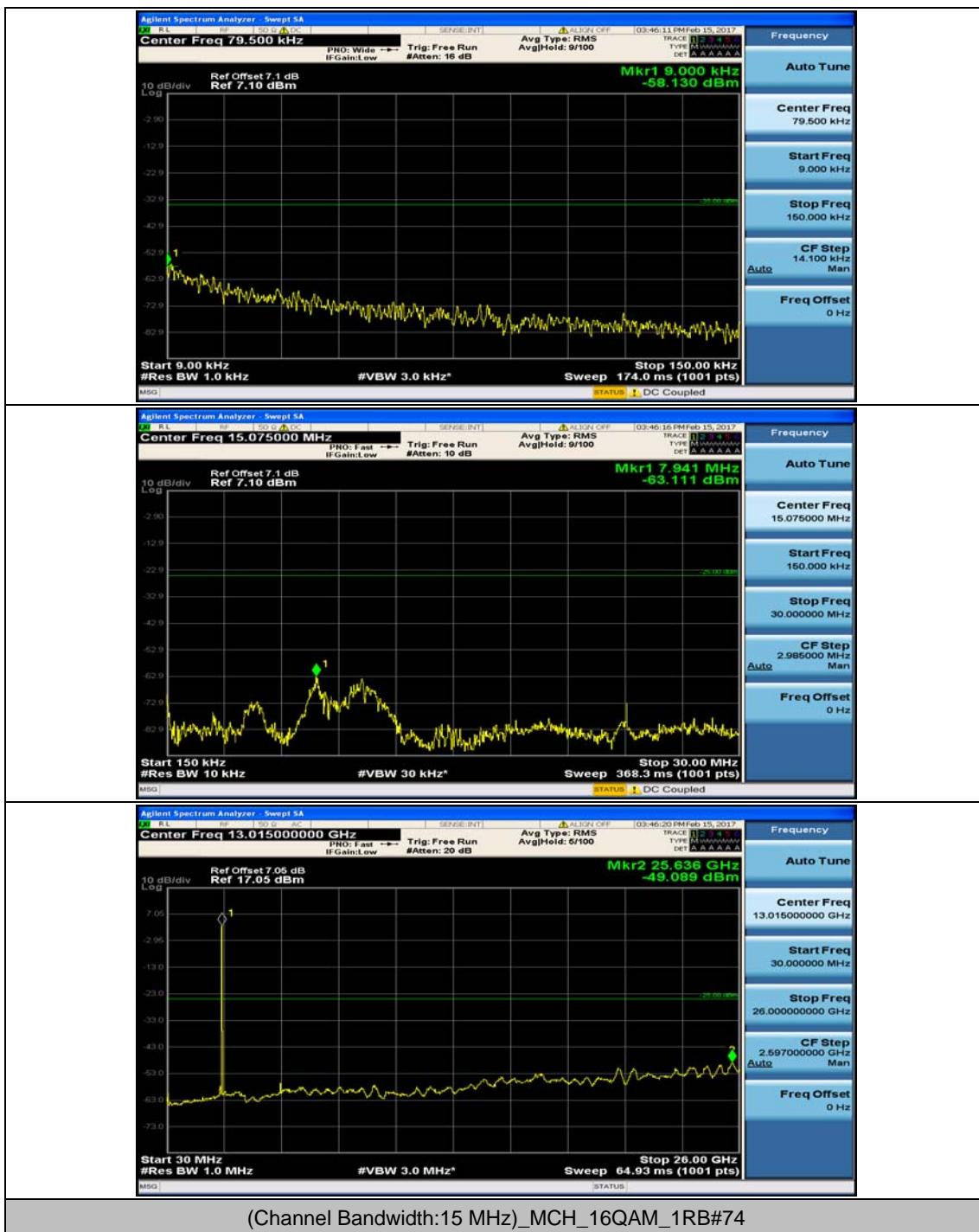


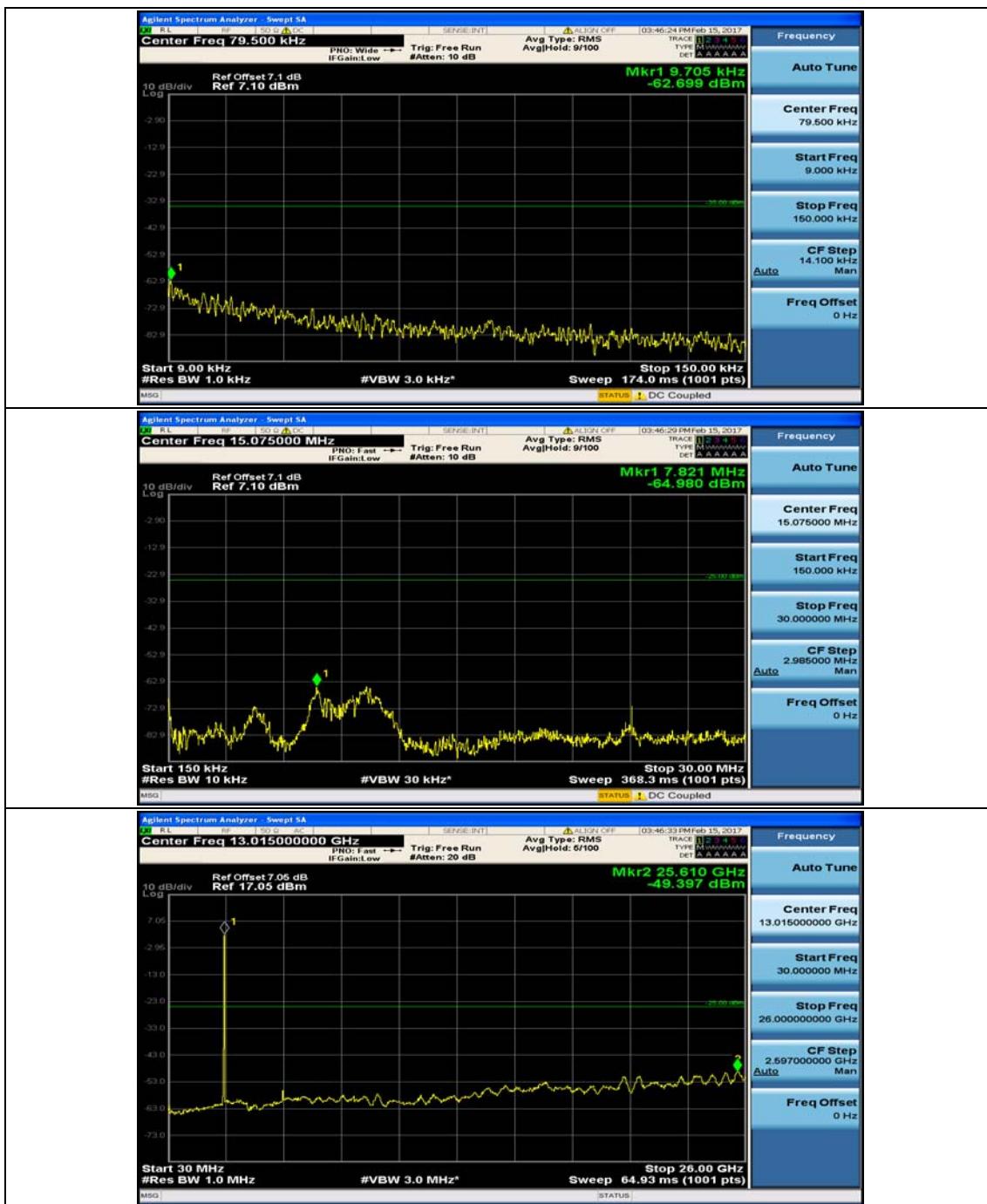


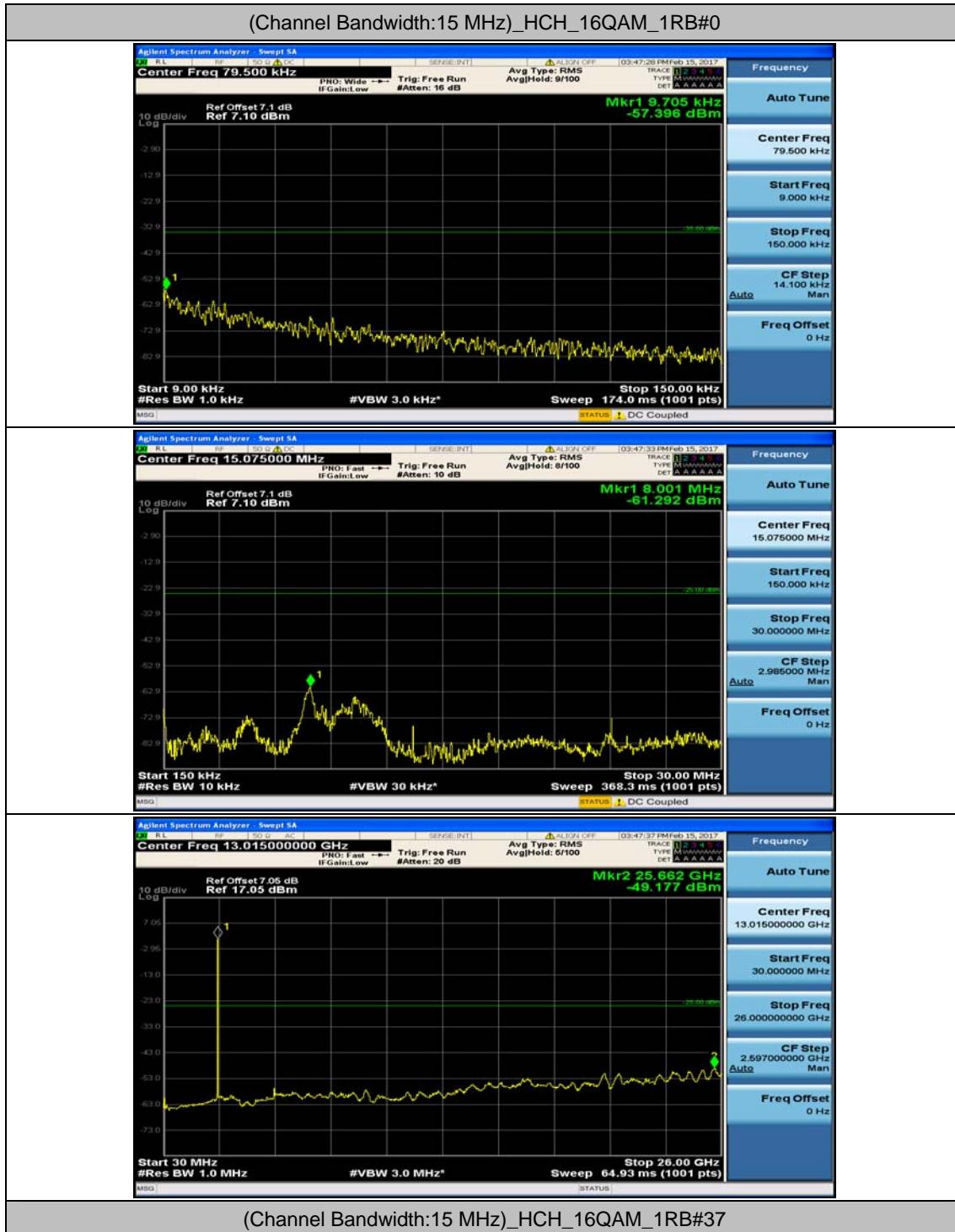
(Channel Bandwidth:15 MHz)\_LCH\_16QAM\_1RB#74

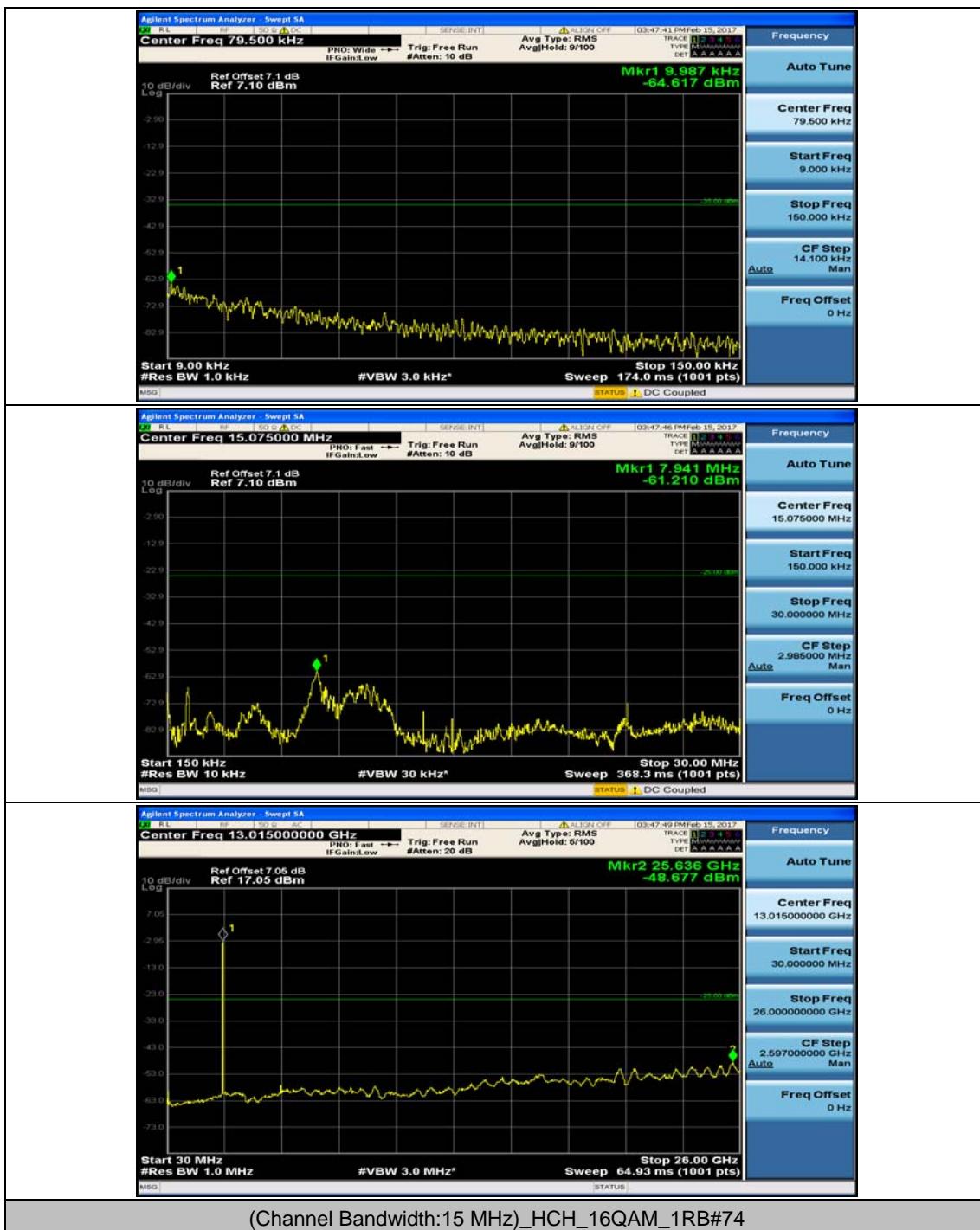


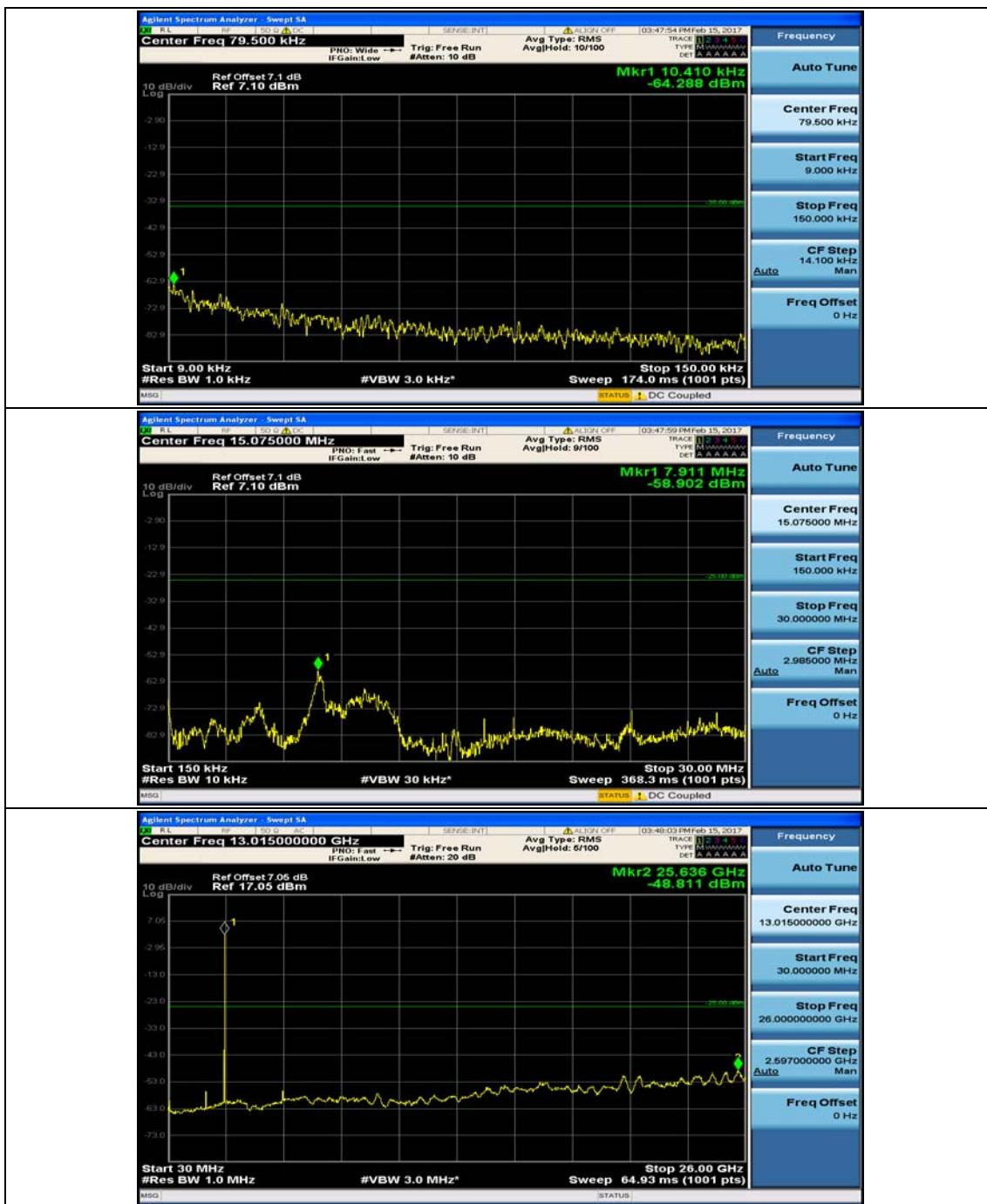




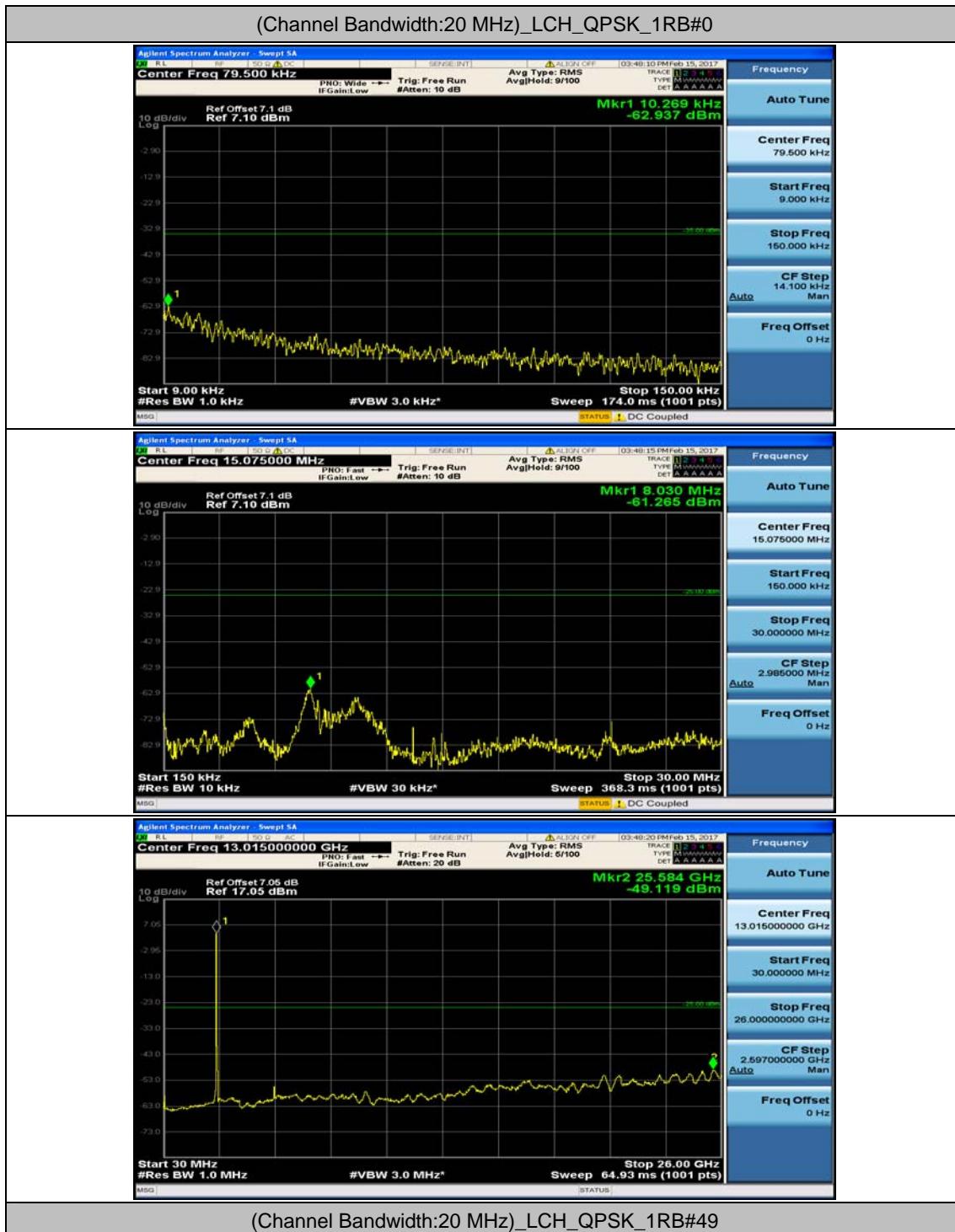


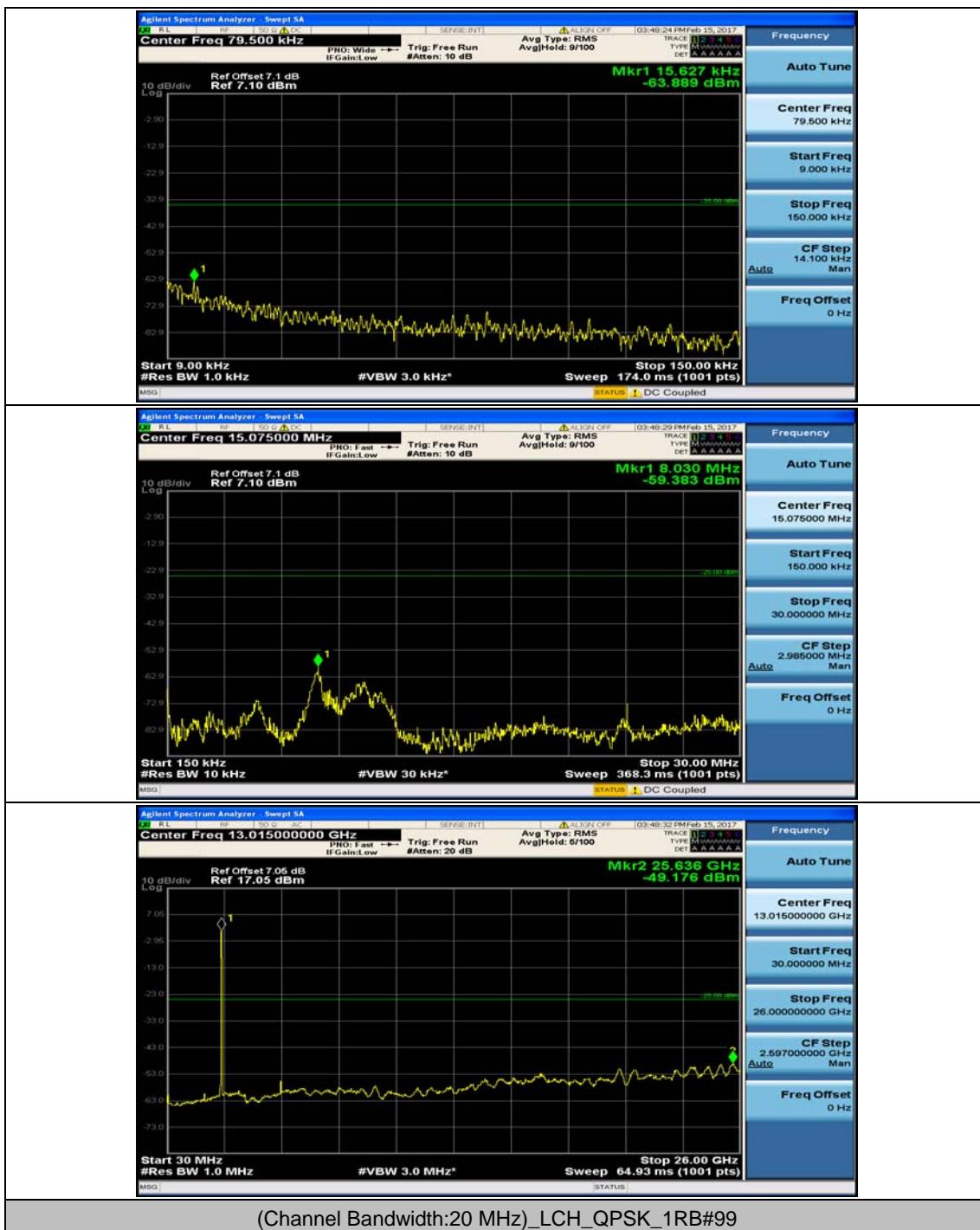


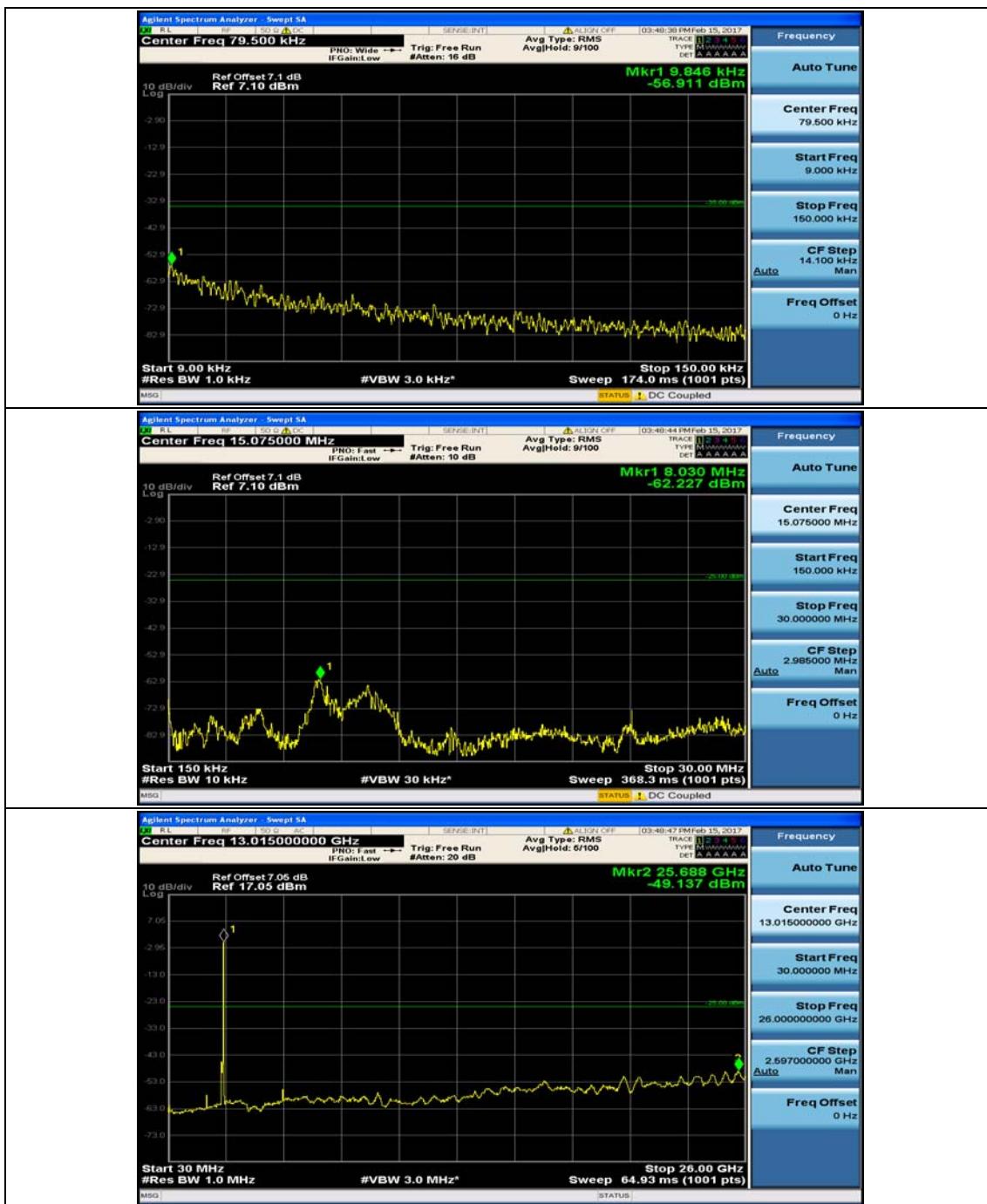


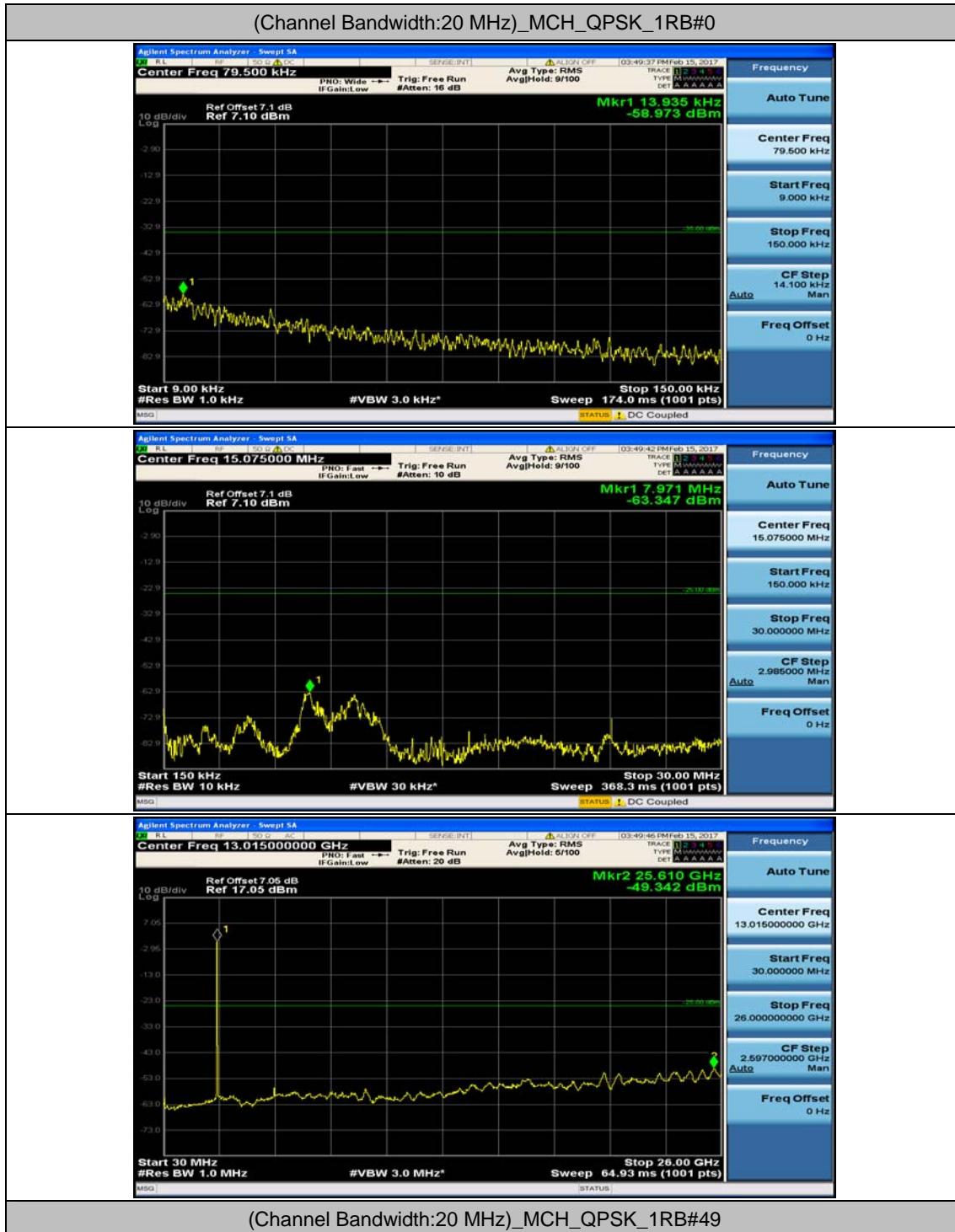


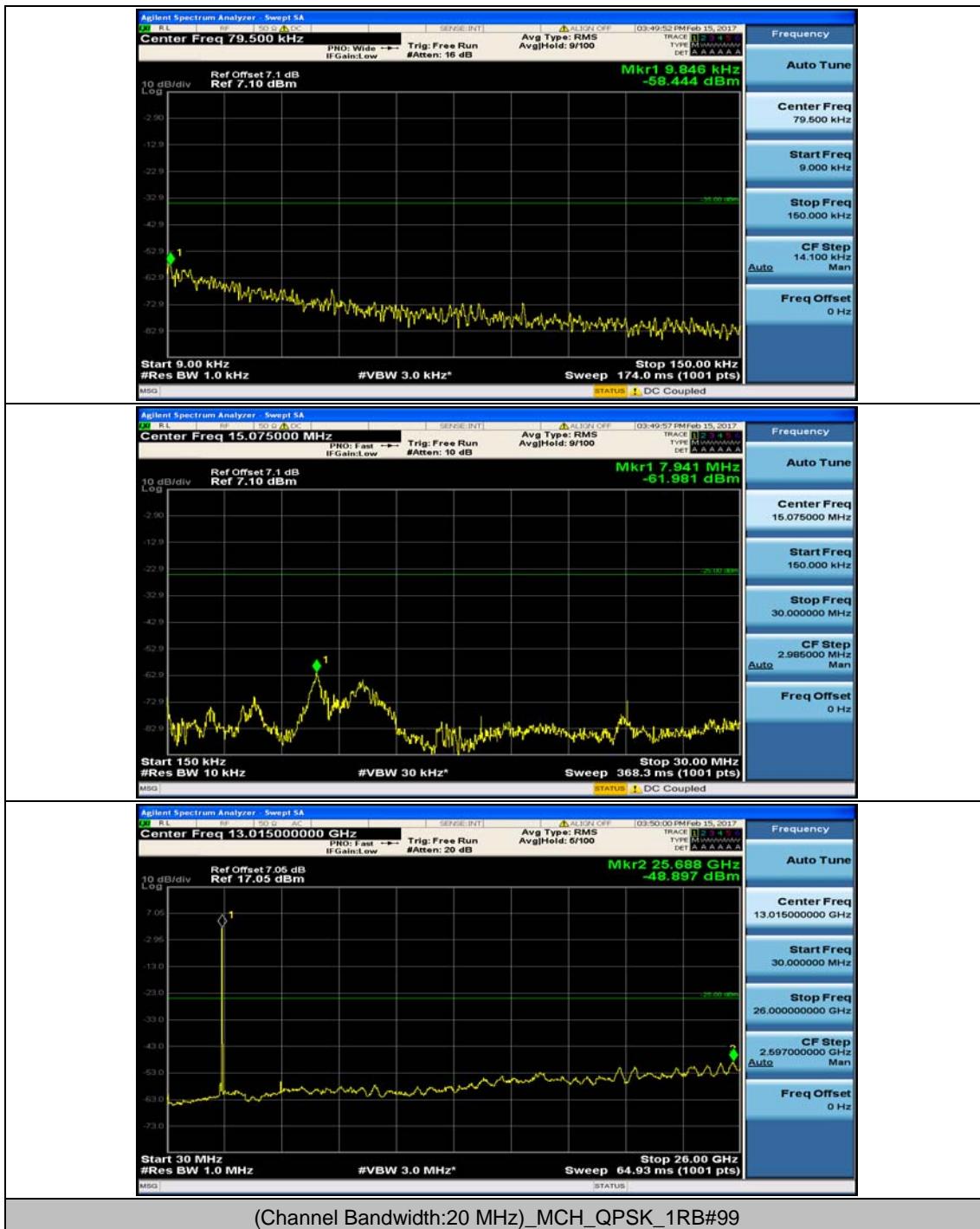
## Channel Bandwidth: 20 MHz

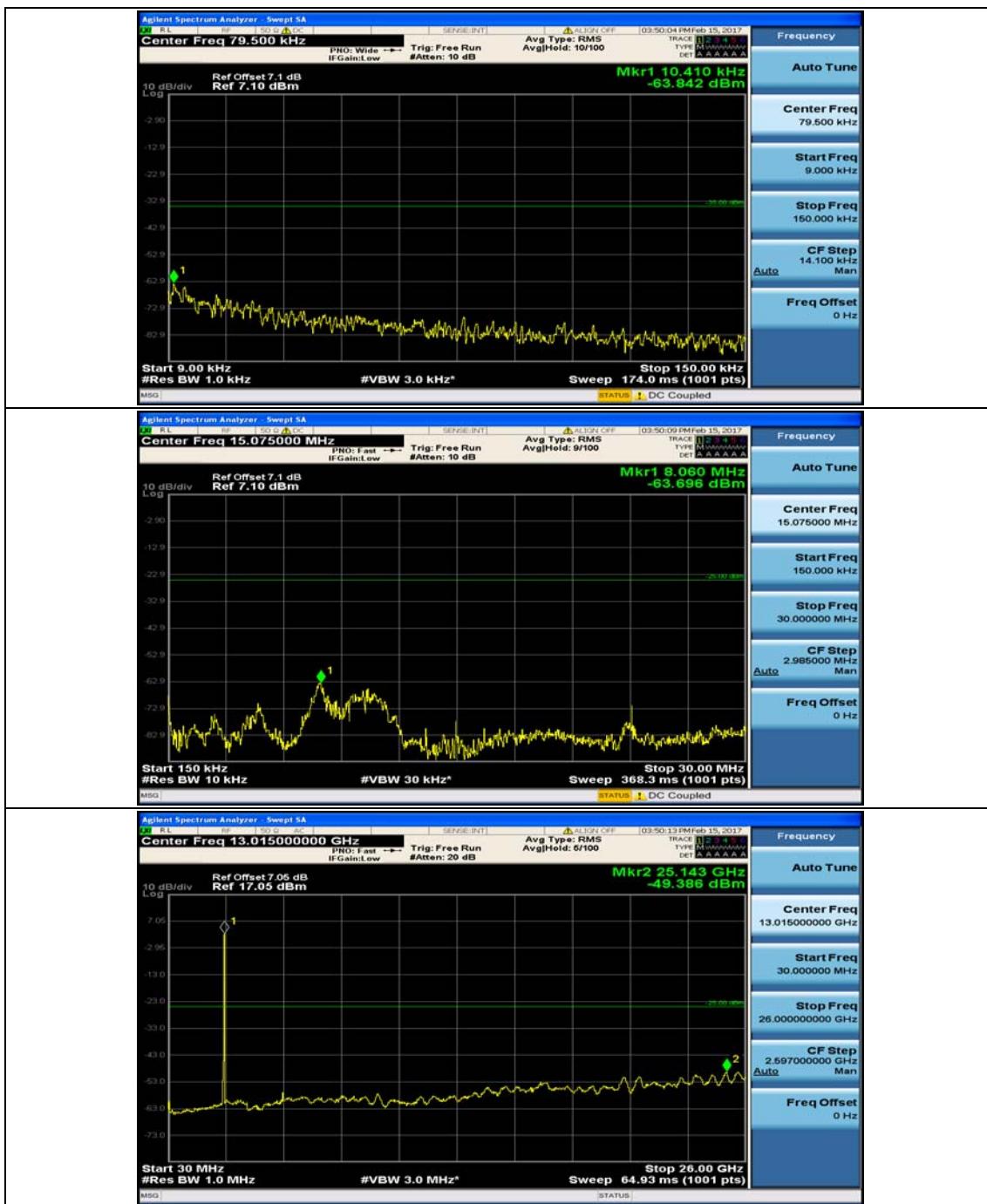


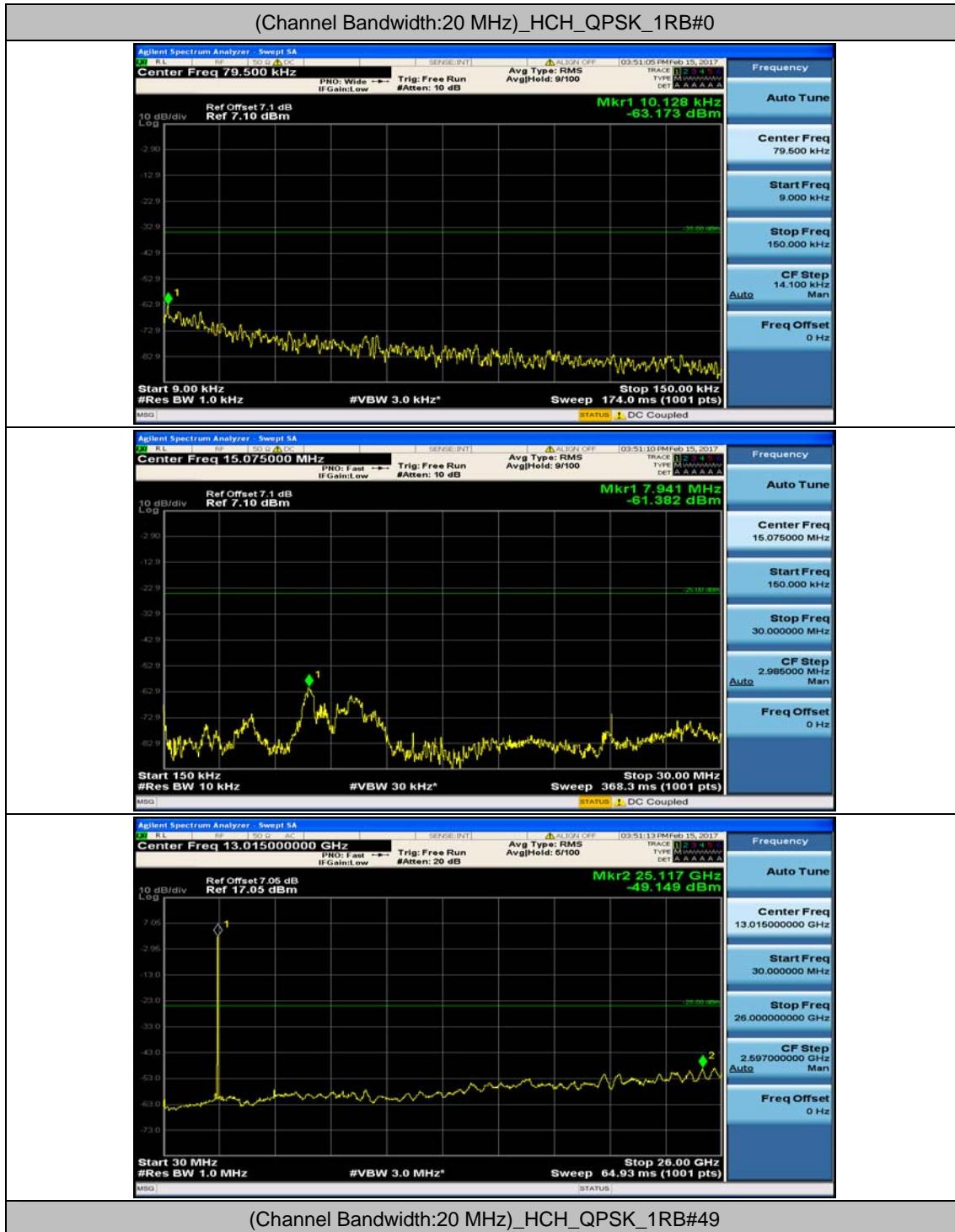


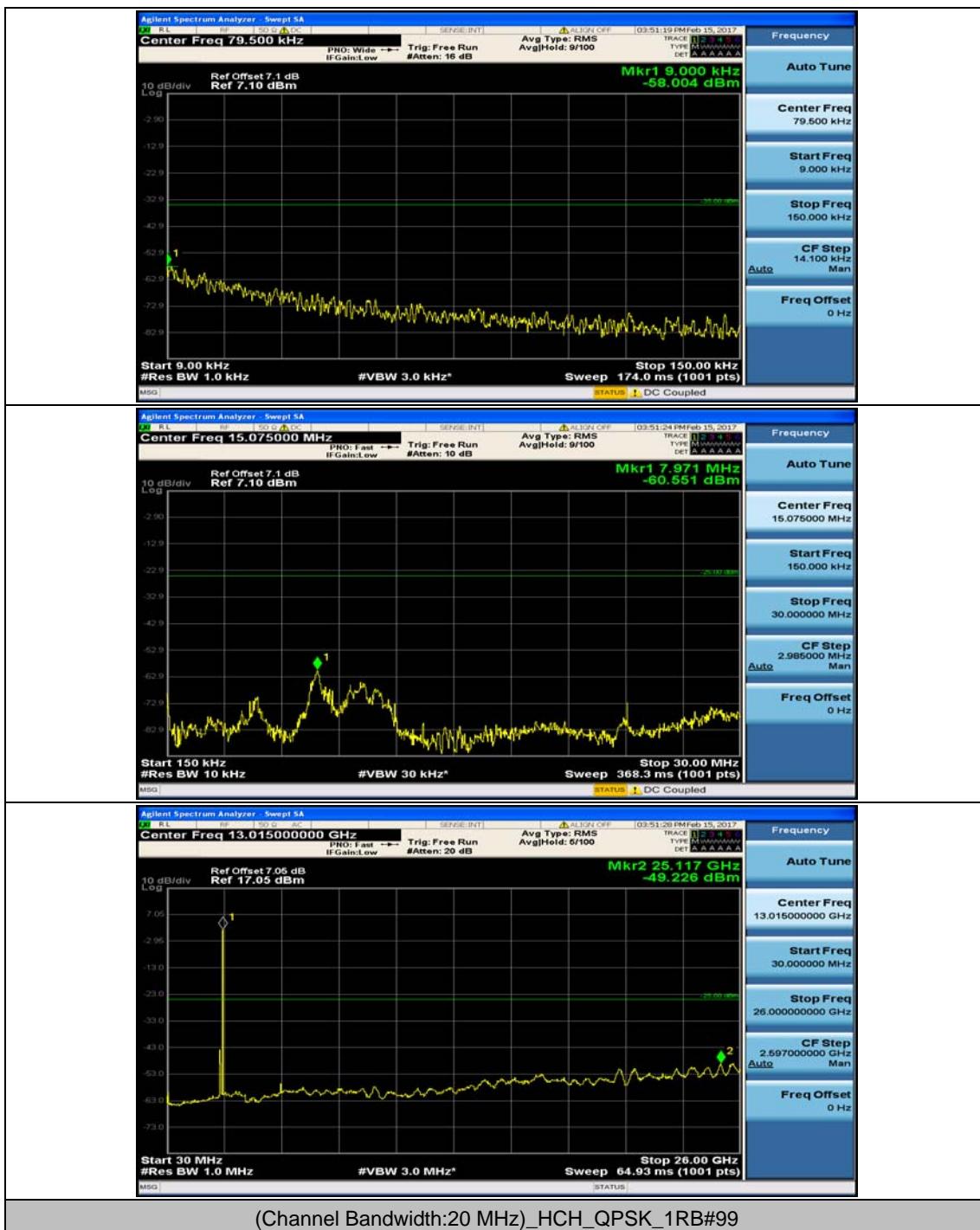


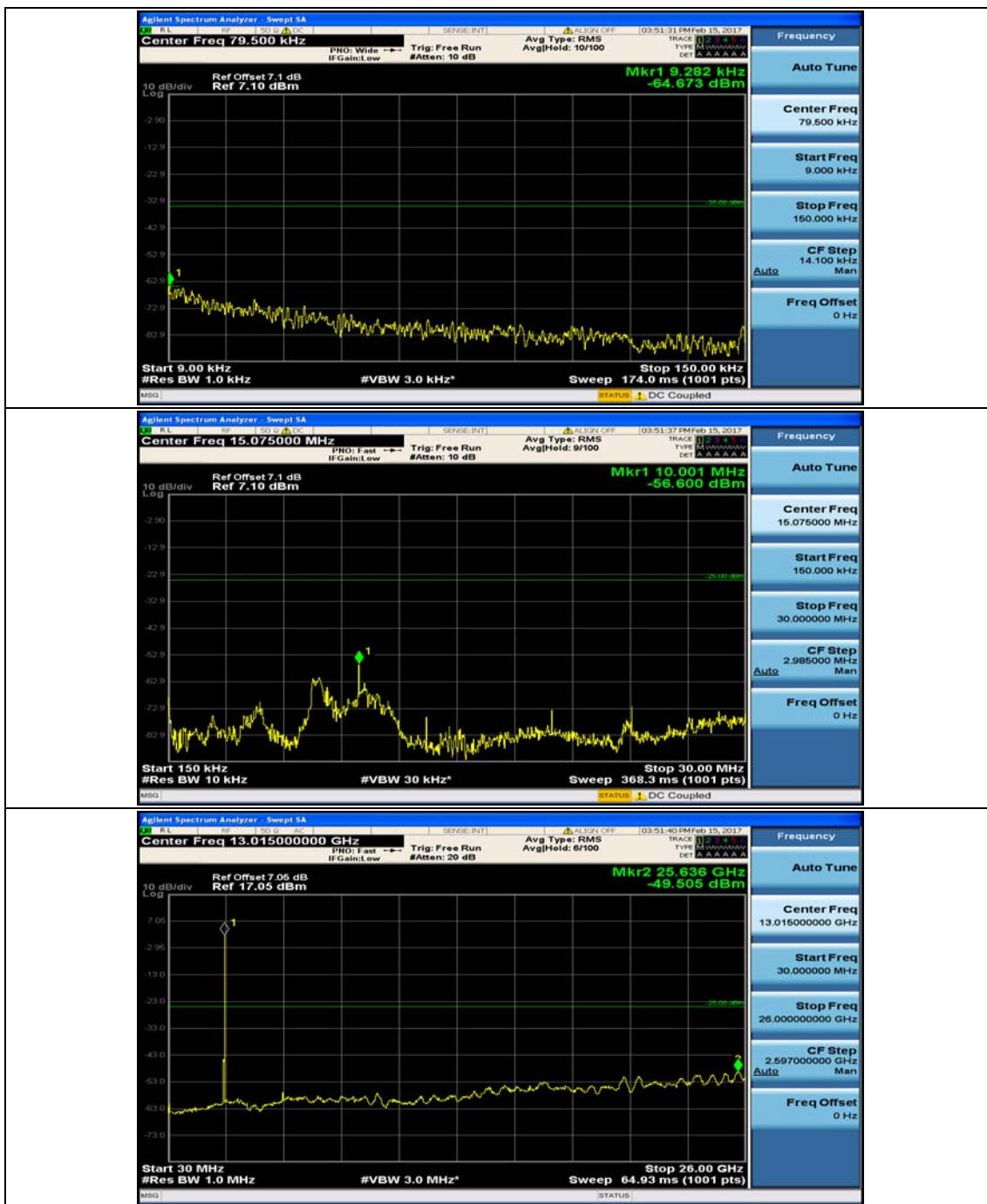


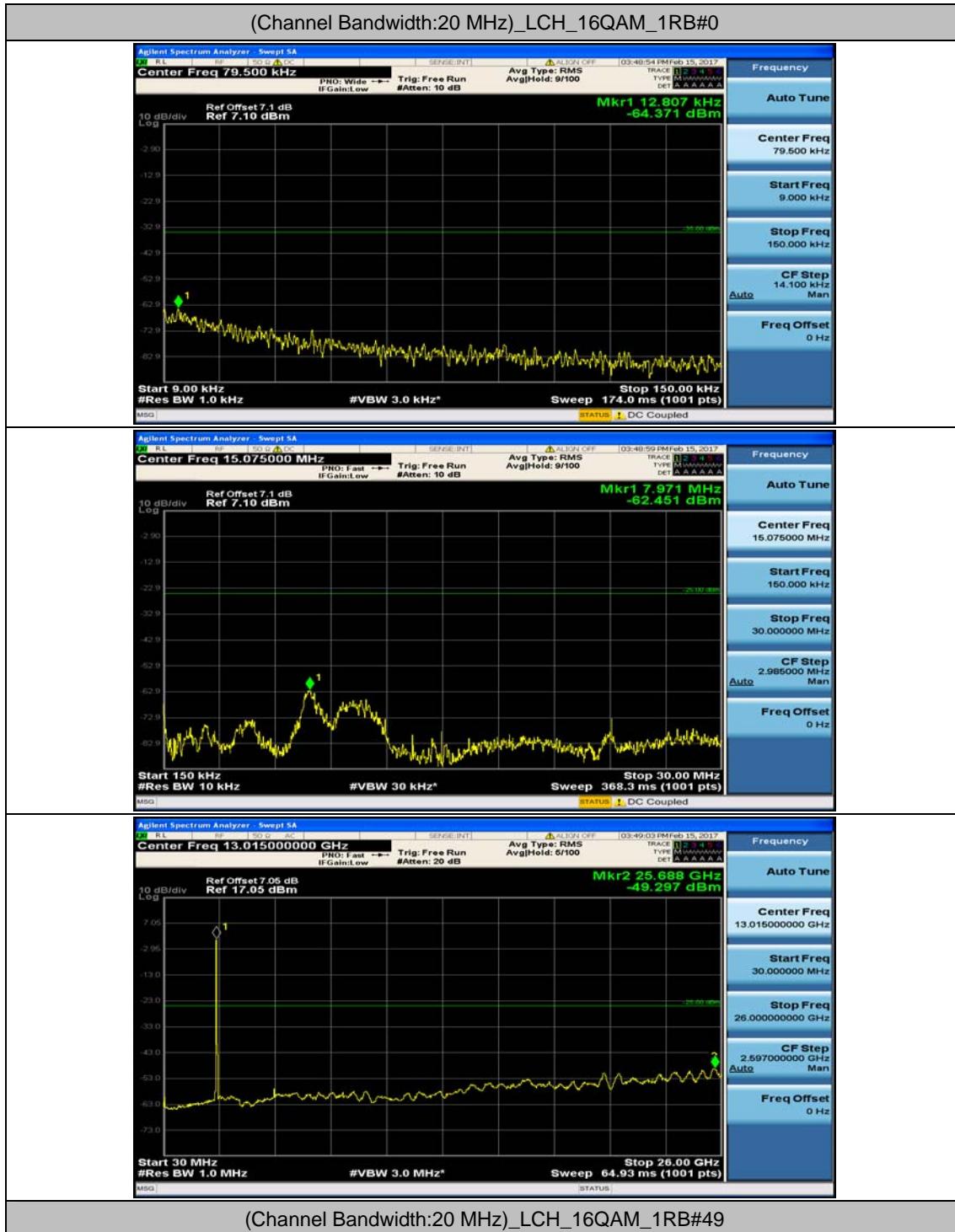


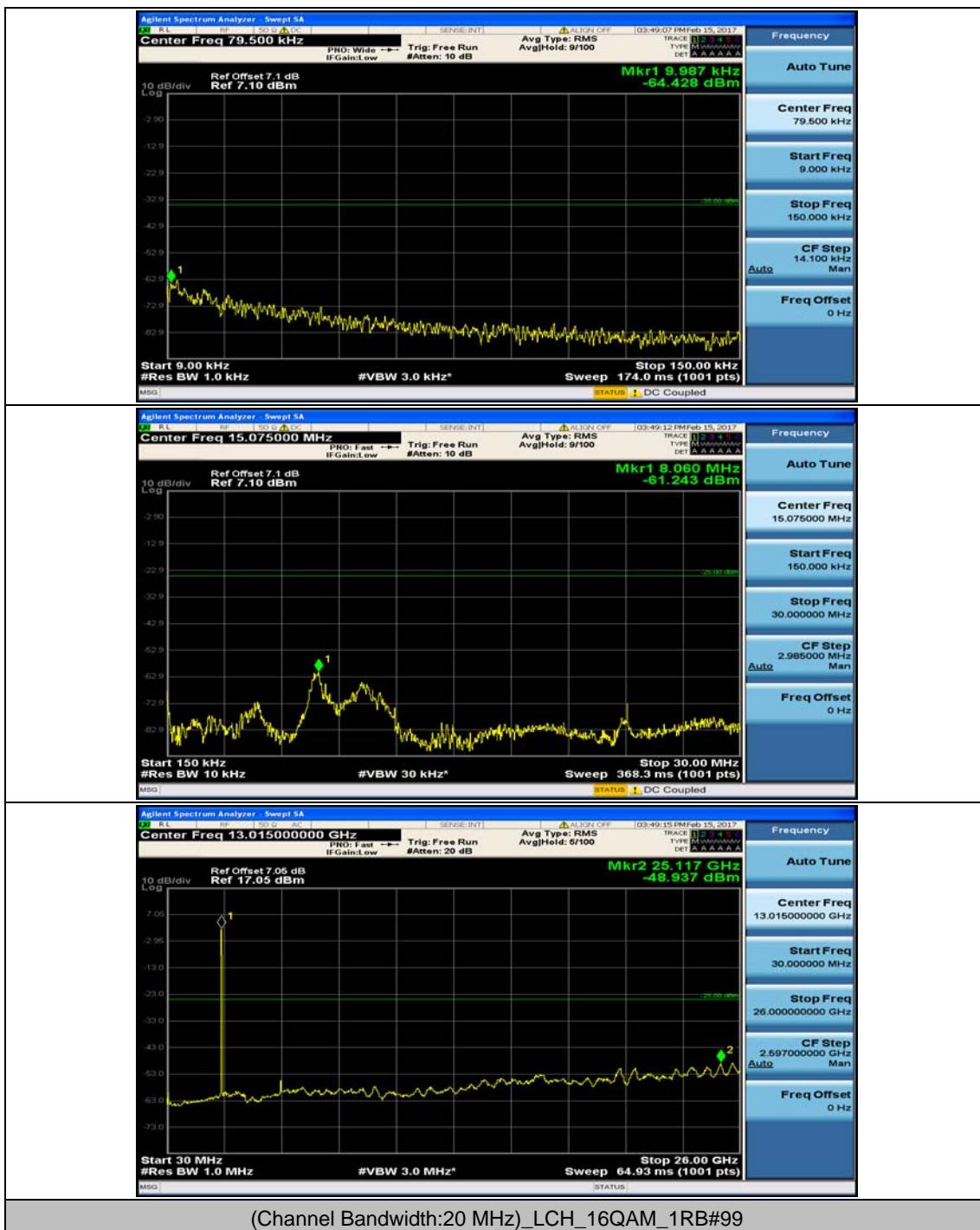


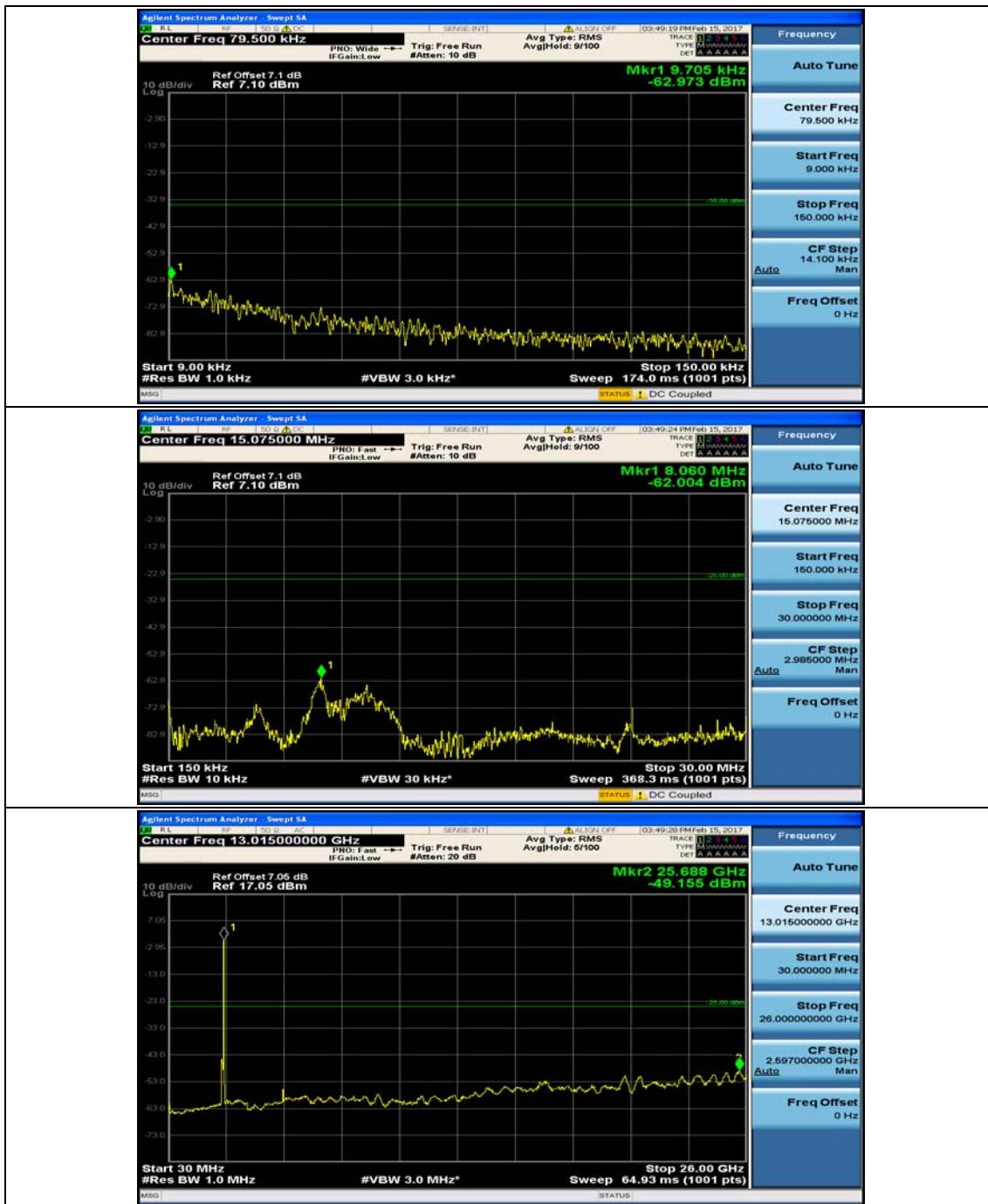


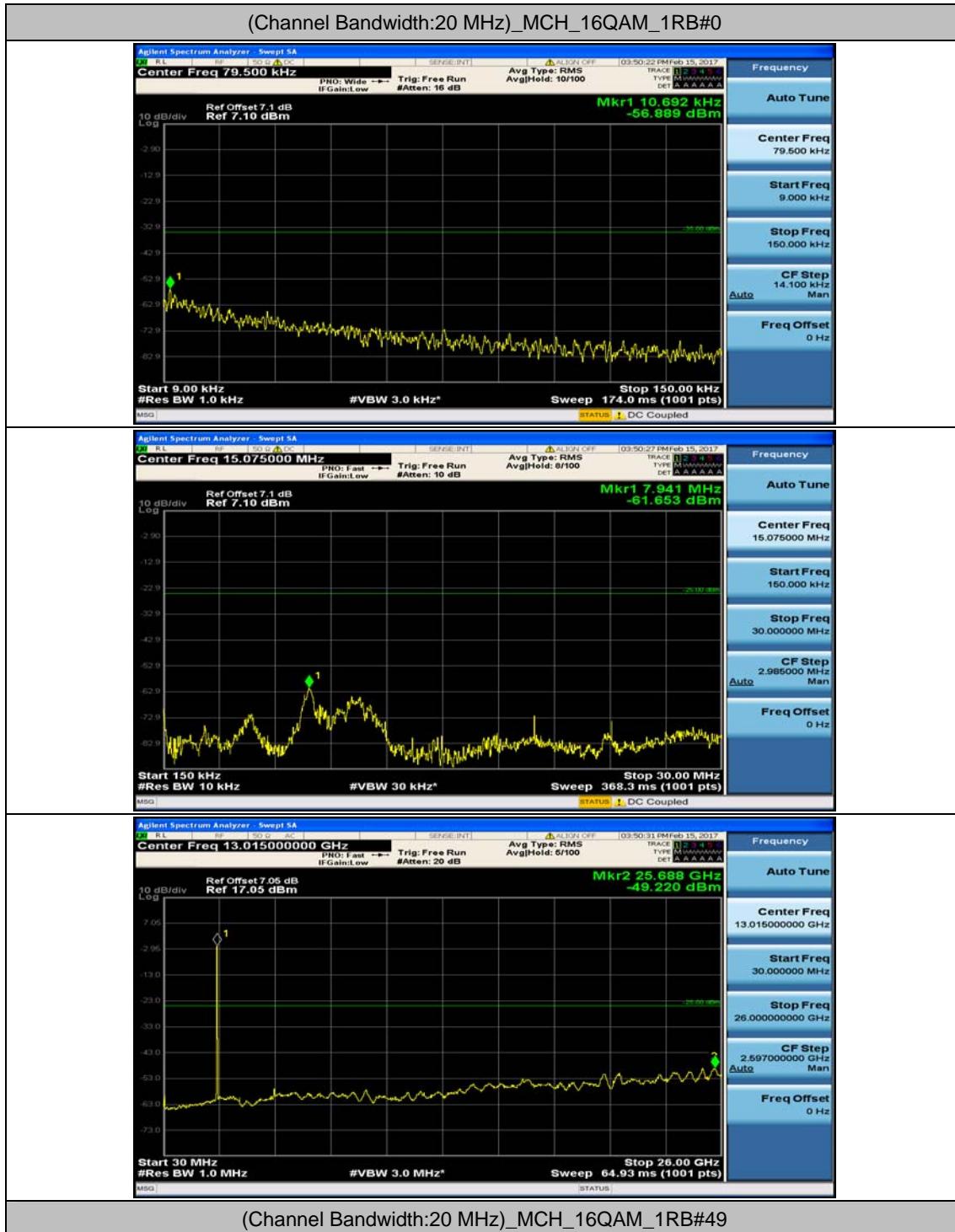


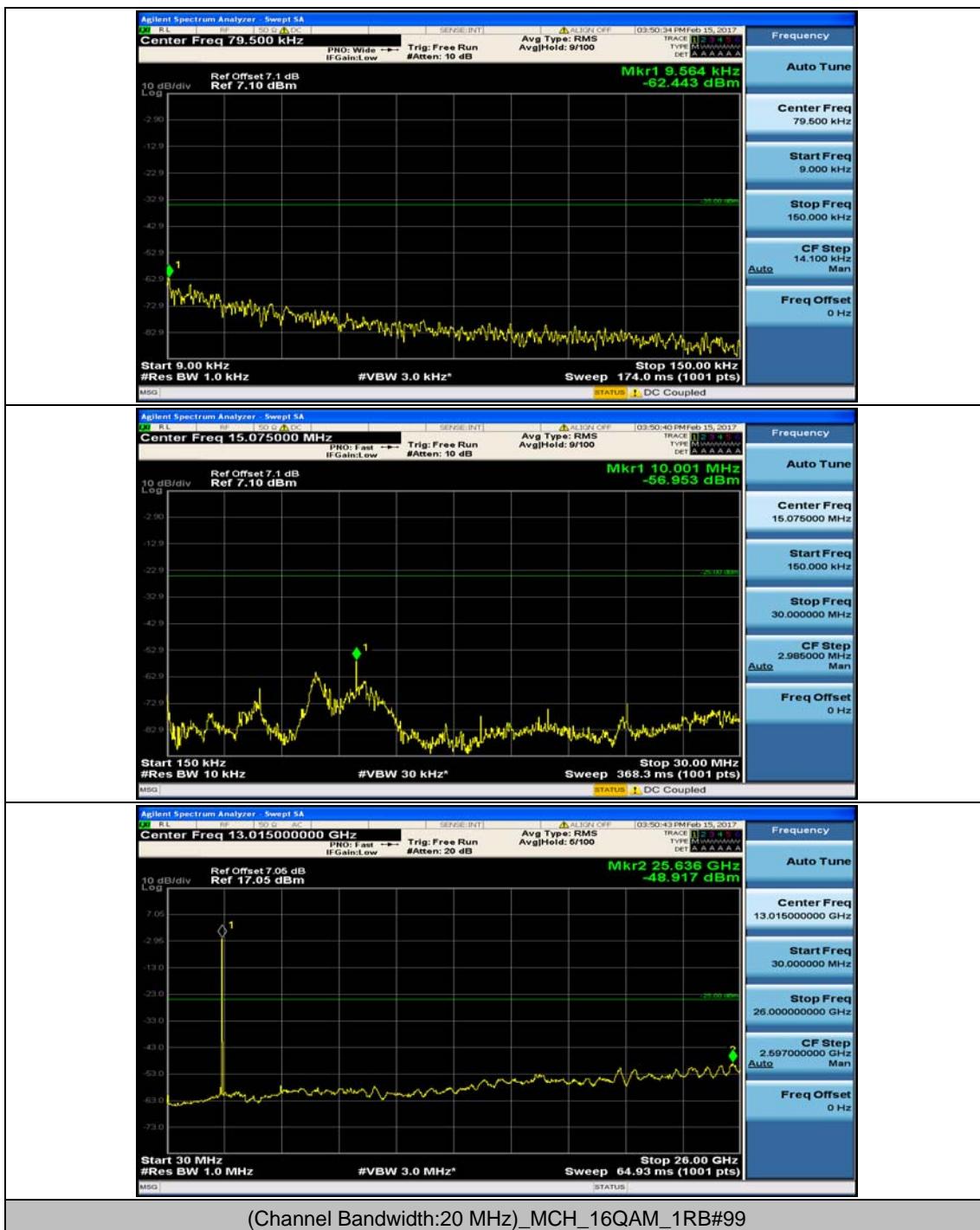


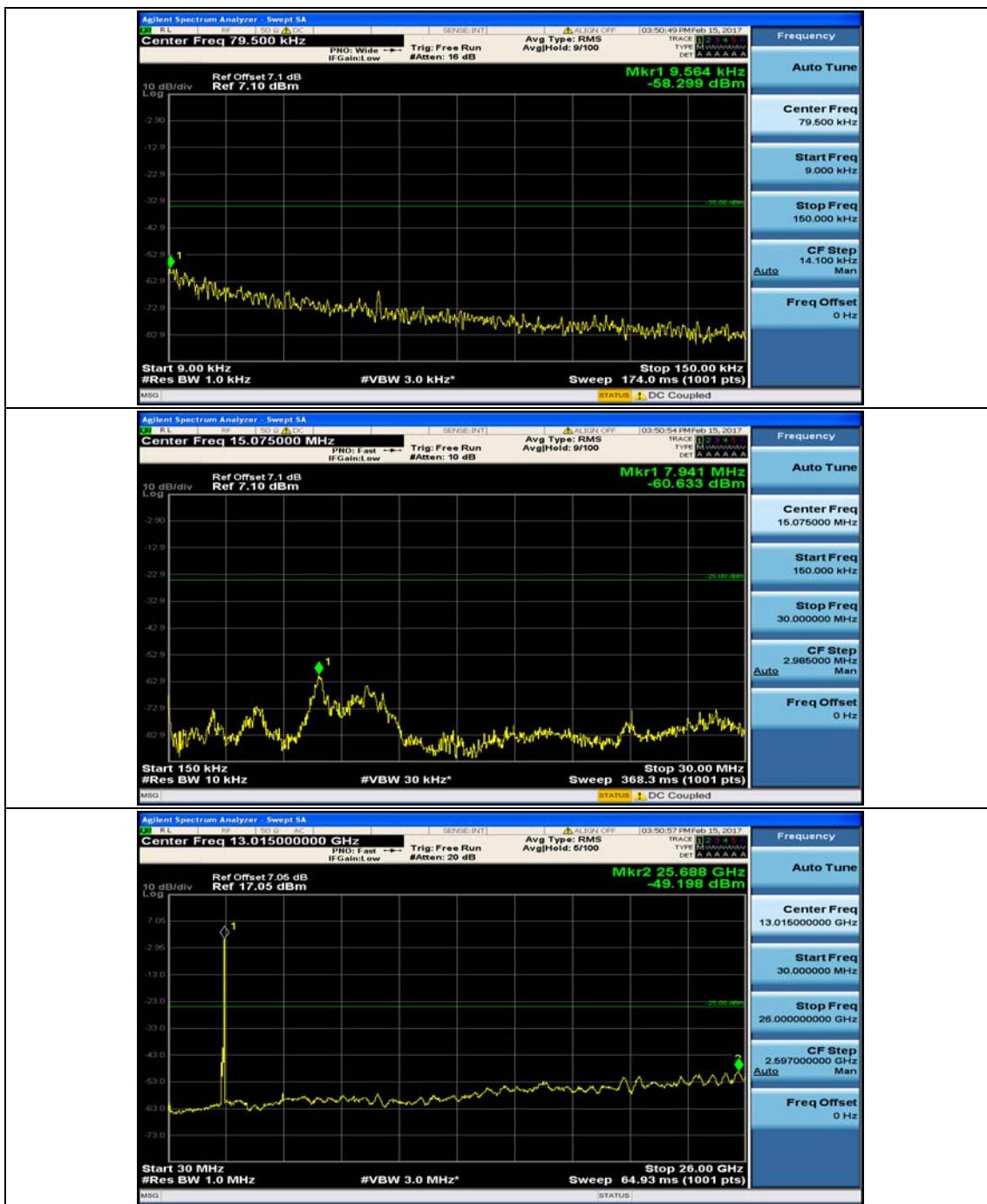


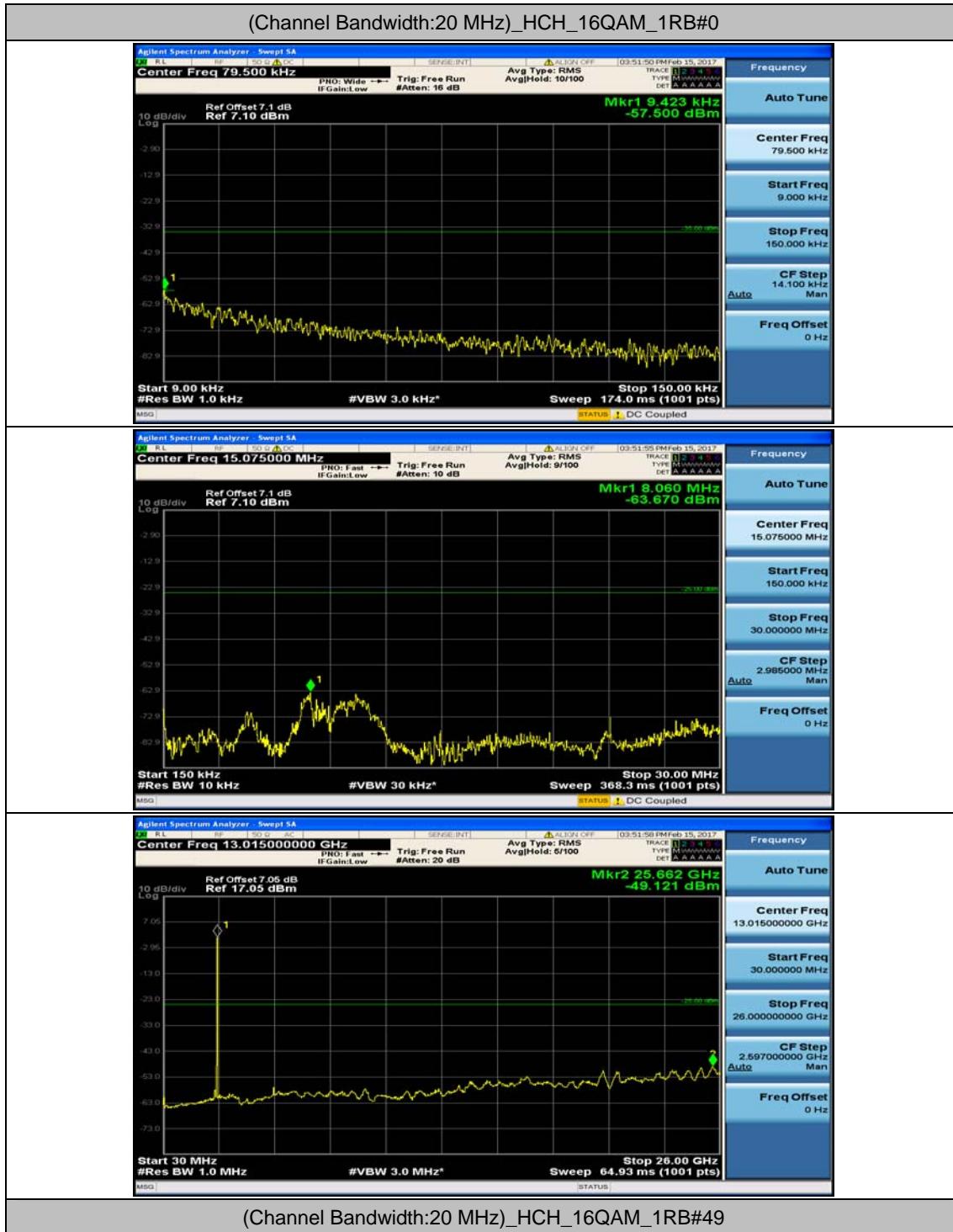


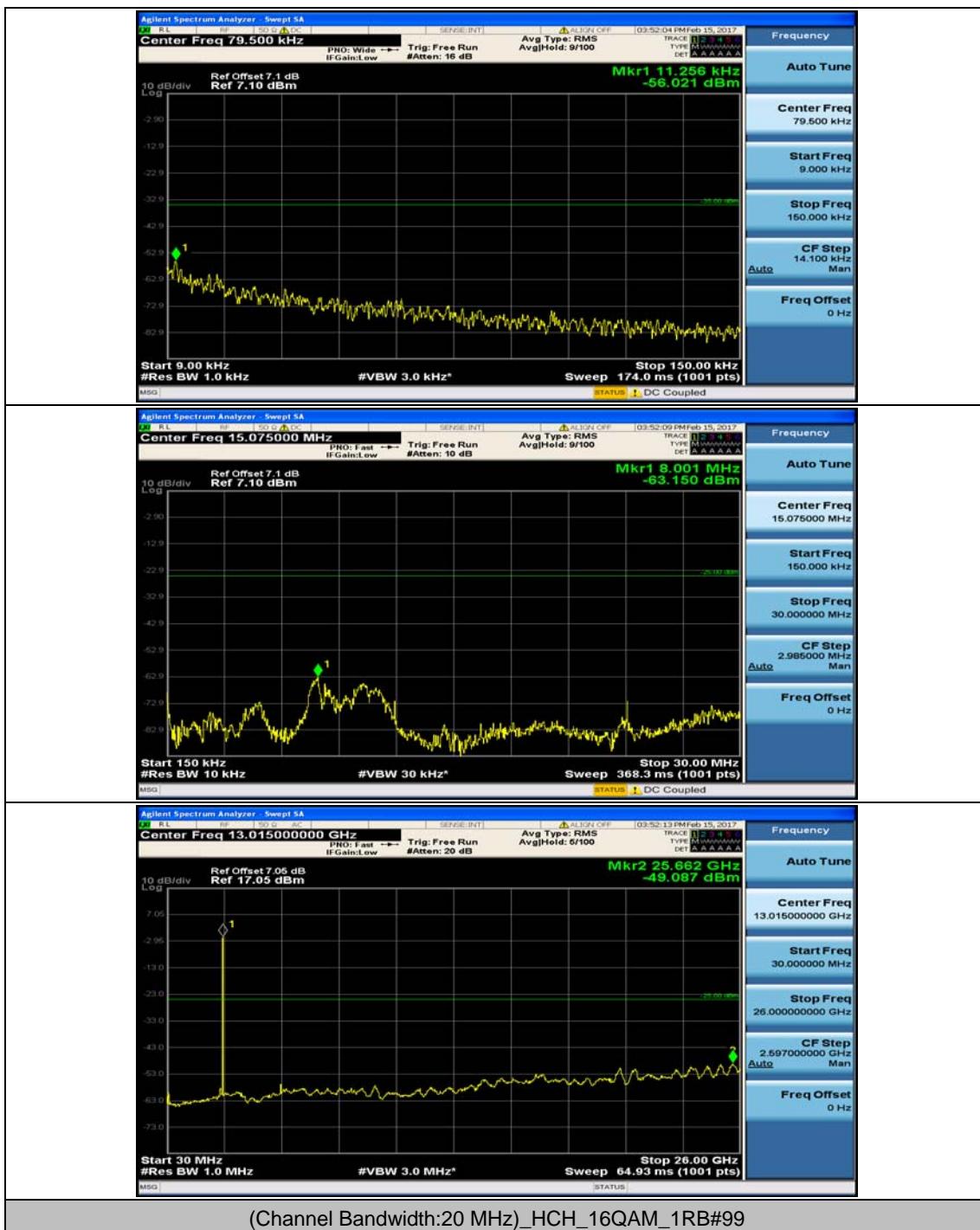


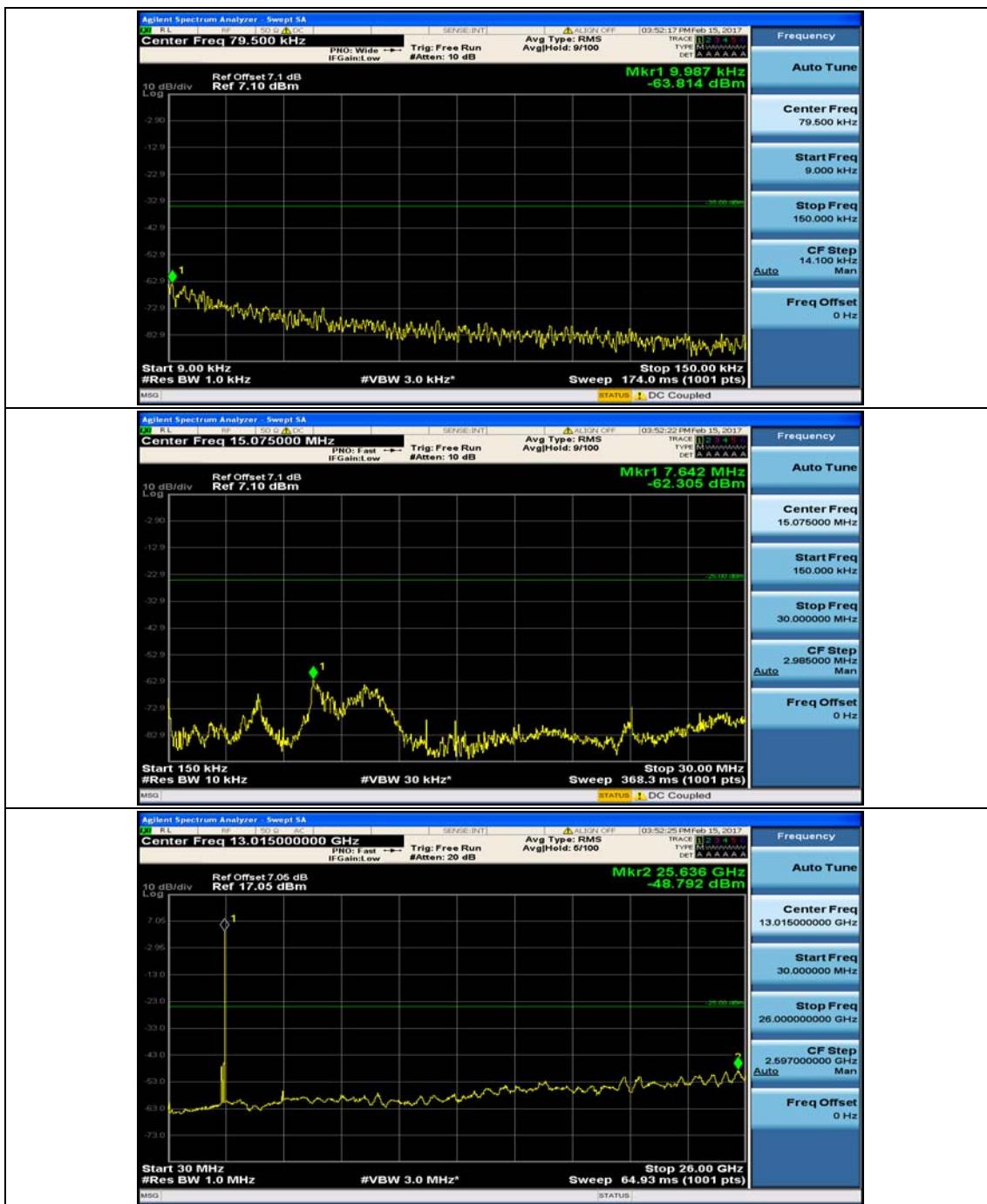












## Appendix F: Frequency Stability

### Test Result

#### 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	1.12	0.000654	± 2.5	PASS
		VN	TN	-0.34	-0.000199	± 2.5	PASS
		VH	TN	-1.19	-0.000695	± 2.5	PASS
	MCH	VL	TN	3.74	0.002159	± 2.5	PASS
		VN	TN	0.28	0.000162	± 2.5	PASS
		VH	TN	-0.19	-0.000110	± 2.5	PASS
	HCH	VL	TN	-1.23	-0.000702	± 2.5	PASS
		VN	TN	0.82	0.000468	± 2.5	PASS
		VH	TN	4.5	0.002568	± 2.5	PASS
16QAM	LCH	VL	TN	0.04	0.000023	± 2.5	PASS
		VN	TN	1.19	0.000695	± 2.5	PASS
		VH	TN	2.68	0.001565	± 2.5	PASS
	MCH	VL	TN	-0.91	-0.000525	± 2.5	PASS
		VN	TN	4.14	0.002390	± 2.5	PASS
		VH	TN	0.67	0.000387	± 2.5	PASS
	HCH	VL	TN	3.46	0.001974	± 2.5	PASS
		VN	TN	-0.53	-0.000302	± 2.5	PASS
		VH	TN	4.09	0.002334	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.29	0.000169	± 2.5	PASS
		VN	-20	3.12	0.001822	± 2.5	PASS
		VN	-10	-1.85	-0.001080	± 2.5	PASS
		VN	0	4.85	0.002832	± 2.5	PASS
		VN	10	3.37	0.001968	± 2.5	PASS
		VN	20	1.26	0.000736	± 2.5	PASS
		VN	30	0.66	0.000385	± 2.5	PASS
		VN	40	-0.85	-0.000496	± 2.5	PASS
		VN	50	2.17	0.001267	± 2.5	PASS
	MCH	VN	-30	1.84	0.001062	± 2.5	PASS
		VN	-20	2.97	0.001714	± 2.5	PASS
		VN	-10	1.65	0.000952	± 2.5	PASS

		VN	0	0.82	0.000473	$\pm 2.5$	PASS
		VN	10	2.85	0.001645	$\pm 2.5$	PASS
		VN	20	3.76	0.002170	$\pm 2.5$	PASS
		VN	30	1.96	0.001131	$\pm 2.5$	PASS
		VN	40	1.87	0.001079	$\pm 2.5$	PASS
		VN	50	5	0.002886	$\pm 2.5$	PASS
		VN	-30	0.11	0.000063	$\pm 2.5$	PASS
		VN	-20	1.2	0.000629	$\pm 2.5$	PASS
		VN	-10	4.61	0.002417	$\pm 2.5$	PASS
		VN	0	-0.1	-0.000052	$\pm 2.5$	PASS
	HCH	VN	10	0.18	0.000094	$\pm 2.5$	PASS
		VN	20	0.98	0.000514	$\pm 2.5$	PASS
		VN	30	1.9	0.000996	$\pm 2.5$	PASS
		VN	40	3.36	0.001761	$\pm 2.5$	PASS
		VN	50	3.36	0.001761	$\pm 2.5$	PASS
		VN	-30	-0.98	-0.000566	$\pm 2.5$	PASS
		VN	-20	-0.25	-0.000144	$\pm 2.5$	PASS
		VN	-10	-1.99	-0.001149	$\pm 2.5$	PASS
		VN	0	-1.95	-0.001126	$\pm 2.5$	PASS
		VN	10	4.28	0.002470	$\pm 2.5$	PASS
	LCH	VN	20	1.98	0.001143	$\pm 2.5$	PASS
		VN	30	4.61	0.002661	$\pm 2.5$	PASS
		VN	40	-0.62	-0.000358	$\pm 2.5$	PASS
		VN	50	-1.94	-0.001120	$\pm 2.5$	PASS
		VN	-30	-1.29	-0.000736	$\pm 2.5$	PASS
		VN	-20	0.82	0.000468	$\pm 2.5$	PASS
		VN	-10	2.28	0.001301	$\pm 2.5$	PASS
		VN	0	-0.64	-0.000365	$\pm 2.5$	PASS
		VN	10	-0.21	-0.000120	$\pm 2.5$	PASS
		VN	20	0.01	0.000006	$\pm 2.5$	PASS
	MCH	VN	30	-0.05	-0.000029	$\pm 2.5$	PASS
		VN	40	2.35	0.001341	$\pm 2.5$	PASS
		VN	50	0.74	0.000422	$\pm 2.5$	PASS
		VN	-30	2.6	0.001363	$\pm 2.5$	PASS
		VN	-20	0.46	0.000241	$\pm 2.5$	PASS
		VN	-10	3.2	0.001678	$\pm 2.5$	PASS
		VN	0	-0.35	-0.000183	$\pm 2.5$	PASS
		VN	10	3.6	0.001887	$\pm 2.5$	PASS
		VN	20	-1.23	-0.000645	$\pm 2.5$	PASS
		VN	30	4.08	0.002139	$\pm 2.5$	PASS
	HCH	VN	40	-1.61	-0.000844	$\pm 2.5$	PASS

		VN	50	3.53	0.001851	$\pm 2.5$	PASS
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## 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	-1.95	-0.001137	$\pm 2.5$	PASS
		VN	TN	3.71	0.002163	$\pm 2.5$	PASS
		VH	TN	2.15	0.001254	$\pm 2.5$	PASS
	MCH	VL	TN	-0.87	-0.000502	$\pm 2.5$	PASS
		VN	TN	2.03	0.001172	$\pm 2.5$	PASS
		VH	TN	0.44	0.000254	$\pm 2.5$	PASS
	HCH	VL	TN	1.52	0.000869	$\pm 2.5$	PASS
		VN	TN	-1.04	-0.000594	$\pm 2.5$	PASS
		VH	TN	3.27	0.001869	$\pm 2.5$	PASS
16QAM	LCH	VL	TN	0.52	0.000303	$\pm 2.5$	PASS
		VN	TN	2.57	0.001499	$\pm 2.5$	PASS
		VH	TN	1.55	0.000904	$\pm 2.5$	PASS
	MCH	VL	TN	3.41	0.001968	$\pm 2.5$	PASS
		VN	TN	2.33	0.001345	$\pm 2.5$	PASS
		VH	TN	-0.98	-0.000566	$\pm 2.5$	PASS
	HCH	VL	TN	4.22	0.002411	$\pm 2.5$	PASS
		VN	TN	0.23	0.000131	$\pm 2.5$	PASS
		VH	TN	2.78	0.001589	$\pm 2.5$	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	0.32	0.000187	$\pm 2.5$	PASS
		VN	-20	-0.95	-0.000554	$\pm 2.5$	PASS
		VN	-10	-2	-0.001166	$\pm 2.5$	PASS
		VN	0	0.25	0.000146	$\pm 2.5$	PASS
		VN	10	1.53	0.000892	$\pm 2.5$	PASS
		VN	20	2.2	0.001283	$\pm 2.5$	PASS
		VN	30	1.68	0.000980	$\pm 2.5$	PASS
		VN	40	-0.49	-0.000286	$\pm 2.5$	PASS
		VN	50	-0.37	-0.000216	$\pm 2.5$	PASS
	MCH	VN	-30	0.03	0.000017	$\pm 2.5$	PASS
		VN	-20	0.8	0.000462	$\pm 2.5$	PASS
		VN	-10	0.85	0.000491	$\pm 2.5$	PASS
		VN	0	2.04	0.001177	$\pm 2.5$	PASS

		VN	10	-0.13	-0.000075	$\pm 2.5$	PASS
		VN	20	-0.71	-0.000410	$\pm 2.5$	PASS
		VN	30	-1.69	-0.000975	$\pm 2.5$	PASS
		VN	40	-1.36	-0.000785	$\pm 2.5$	PASS
		VN	50	1.79	0.001033	$\pm 2.5$	PASS
		VN	-30	1.8	0.001029	$\pm 2.5$	PASS
		VN	-20	0.36	0.000206	$\pm 2.5$	PASS
		VN	-10	3.13	0.001789	$\pm 2.5$	PASS
		VN	0	3.59	0.002051	$\pm 2.5$	PASS
		VN	10	3.84	0.002194	$\pm 2.5$	PASS
		VN	20	4.11	0.002349	$\pm 2.5$	PASS
		VN	30	-0.71	-0.000406	$\pm 2.5$	PASS
		VN	40	-1.41	-0.000806	$\pm 2.5$	PASS
		VN	50	-0.61	-0.000349	$\pm 2.5$	PASS
		VN	-30	4.9	0.002828	$\pm 2.5$	PASS
		VN	-20	-0.91	-0.000525	$\pm 2.5$	PASS
		VN	-10	1.07	0.000618	$\pm 2.5$	PASS
		VN	0	-1.19	-0.000687	$\pm 2.5$	PASS
		VN	10	-1.15	-0.000664	$\pm 2.5$	PASS
		VN	20	1.27	0.000733	$\pm 2.5$	PASS
		VN	30	-0.2	-0.000115	$\pm 2.5$	PASS
		VN	40	-1.48	-0.000854	$\pm 2.5$	PASS
		VN	50	3.58	0.002066	$\pm 2.5$	PASS
		VN	-30	4.16	0.002377	$\pm 2.5$	PASS
		VN	-20	1.09	0.000623	$\pm 2.5$	PASS
		VN	-10	-1.67	-0.000954	$\pm 2.5$	PASS
		VN	0	2.71	0.001549	$\pm 2.5$	PASS
		VN	10	0.39	0.000223	$\pm 2.5$	PASS
		VN	20	2.28	0.001303	$\pm 2.5$	PASS
		VN	30	1.73	0.000989	$\pm 2.5$	PASS
		VN	40	-0.49	-0.000280	$\pm 2.5$	PASS
		VN	50	2.05	0.001171	$\pm 2.5$	PASS
		VN	-30	1.98	0.001131	$\pm 2.5$	PASS
		VN	-20	0.33	0.000189	$\pm 2.5$	PASS
		VN	-10	1.3	0.000743	$\pm 2.5$	PASS
		VN	0	3.88	0.002217	$\pm 2.5$	PASS
		VN	10	0.28	0.000160	$\pm 2.5$	PASS
		VN	20	-0.86	-0.000491	$\pm 2.5$	PASS
		VN	30	-0.51	-0.000291	$\pm 2.5$	PASS
		VN	40	-1.5	-0.000857	$\pm 2.5$	PASS
		VN	50	0.26	0.000149	$\pm 2.5$	PASS

## Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	2.17	0.001263	± 2.5	PASS
		VN	TN	-0.41	-0.000239	± 2.5	PASS
		VH	TN	-0.92	-0.000536	± 2.5	PASS
	MCH	VL	TN	-1.35	-0.000779	± 2.5	PASS
		VN	TN	-1.72	-0.000993	± 2.5	PASS
		VH	TN	1.41	0.000814	± 2.5	PASS
	HCH	VL	TN	0.69	0.000395	± 2.5	PASS
		VN	TN	1.9	0.001087	± 2.5	PASS
		VH	TN	1.69	0.000967	± 2.5	PASS
16QAM	LCH	VL	TN	-1.3	-0.000757	± 2.5	PASS
		VN	TN	4.27	0.002486	± 2.5	PASS
		VH	TN	-1.99	-0.001159	± 2.5	PASS
	MCH	VL	TN	0.86	0.000496	± 2.5	PASS
		VN	TN	1.86	0.001074	± 2.5	PASS
		VH	TN	3.12	0.001801	± 2.5	PASS
	HCH	VL	TN	-0.68	-0.000389	± 2.5	PASS
		VN	TN	1.72	0.000984	± 2.5	PASS
		VH	TN	-0.56	-0.000320	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.23	0.000716	± 2.5	PASS
		VN	-20	2	0.001164	± 2.5	PASS
		VN	-10	3.25	0.001892	± 2.5	PASS
		VN	0	0.55	0.000320	± 2.5	PASS
		VN	10	0.17	0.000099	± 2.5	PASS
		VN	20	3.14	0.001828	± 2.5	PASS
		VN	30	0.31	0.000180	± 2.5	PASS
		VN	40	4.43	0.002579	± 2.5	PASS
		VN	50	1.37	0.000798	± 2.5	PASS
	MCH	VN	-30	4.43	0.002557	± 2.5	PASS
		VN	-20	2.14	0.001235	± 2.5	PASS
		VN	-10	3.66	0.002113	± 2.5	PASS
		VN	0	0.68	0.000392	± 2.5	PASS
		VN	10	4.91	0.002834	± 2.5	PASS
		VN	20	4.53	0.002615	± 2.5	PASS

	HCH	VN	30	4.59	0.002649	$\pm 2.5$	PASS
		VN	40	2.26	0.001304	$\pm 2.5$	PASS
		VN	50	3.15	0.001818	$\pm 2.5$	PASS
		VN	-30	4.01	0.002295	$\pm 2.5$	PASS
		VN	-20	4.7	0.002690	$\pm 2.5$	PASS
		VN	-10	0.47	0.000269	$\pm 2.5$	PASS
		VN	0	3.53	0.002020	$\pm 2.5$	PASS
		VN	10	-0.45	-0.000258	$\pm 2.5$	PASS
		VN	20	3.54	0.002026	$\pm 2.5$	PASS
		VN	30	1.13	0.000647	$\pm 2.5$	PASS
	LCH	VN	40	1.78	0.001019	$\pm 2.5$	PASS
		VN	50	3.28	0.001877	$\pm 2.5$	PASS
		VN	-30	-0.23	-0.000133	$\pm 2.5$	PASS
		VN	-20	1.02	0.000589	$\pm 2.5$	PASS
		VN	-10	3.89	0.002245	$\pm 2.5$	PASS
		VN	0	0.82	0.000473	$\pm 2.5$	PASS
		VN	10	1.41	0.000814	$\pm 2.5$	PASS
		VN	20	2.36	0.001362	$\pm 2.5$	PASS
		VN	30	0.99	0.000571	$\pm 2.5$	PASS
	MCH	VN	40	-0.81	-0.000468	$\pm 2.5$	PASS
		VN	50	-0.87	-0.000502	$\pm 2.5$	PASS
		VN	-30	1.59	0.000910	$\pm 2.5$	PASS
		VN	-20	1.89	0.001082	$\pm 2.5$	PASS
		VN	-10	3.34	0.001911	$\pm 2.5$	PASS
		VN	0	2.38	0.001362	$\pm 2.5$	PASS
		VN	10	1.2	0.000687	$\pm 2.5$	PASS
		VN	20	4.8	0.002747	$\pm 2.5$	PASS
		VN	30	1.71	0.000979	$\pm 2.5$	PASS
	HCH	VN	40	2.24	0.001282	$\pm 2.5$	PASS
		VN	50	3.21	0.001837	$\pm 2.5$	PASS
		VN	-30	1.26	0.000721	$\pm 2.5$	PASS
		VN	-20	0.96	0.000549	$\pm 2.5$	PASS
		VN	-10	1.91	0.001093	$\pm 2.5$	PASS
		VN	0	4.84	0.002770	$\pm 2.5$	PASS
		VN	10	0.06	0.000034	$\pm 2.5$	PASS
		VN	20	3.98	0.002278	$\pm 2.5$	PASS
		VN	30	-0.42	-0.000240	$\pm 2.5$	PASS

## Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-1	-0.000581	± 2.5	PASS
		VN	TN	2.76	0.001605	± 2.5	PASS
		VH	TN	0.74	0.000430	± 2.5	PASS
	MCH	VL	TN	-0.32	-0.000185	± 2.5	PASS
		VN	TN	3.54	0.002043	± 2.5	PASS
		VH	TN	0.23	0.000133	± 2.5	PASS
	HCH	VL	TN	-1.14	-0.000653	± 2.5	PASS
		VN	TN	3.29	0.001885	± 2.5	PASS
		VH	TN	2.59	0.001484	± 2.5	PASS
16QAM	LCH	VL	TN	1.74	0.001012	± 2.5	PASS
		VN	TN	4.78	0.002779	± 2.5	PASS
		VH	TN	-0.69	-0.000401	± 2.5	PASS
	MCH	VL	TN	3.49	0.002014	± 2.5	PASS
		VN	TN	-0.8	-0.000462	± 2.5	PASS
		VH	TN	2.93	0.001691	± 2.5	PASS
	HCH	VL	TN	3.42	0.001960	± 2.5	PASS
		VN	TN	-1.56	-0.000894	± 2.5	PASS
		VH	TN	4.7	0.002693	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.2	-0.000698	± 2.5	PASS
		VN	-20	3.04	0.001767	± 2.5	PASS
		VN	-10	-1.08	-0.000628	± 2.5	PASS
		VN	0	3.37	0.001959	± 2.5	PASS
		VN	10	1.34	0.000779	± 2.5	PASS
		VN	20	-0.9	-0.000523	± 2.5	PASS
		VN	30	-0.05	-0.000029	± 2.5	PASS
		VN	40	-0.2	-0.000116	± 2.5	PASS
		VN	50	0.13	0.000076	± 2.5	PASS
	MCH	VN	-30	1.96	0.001131	± 2.5	PASS
		VN	-20	-1.86	-0.001074	± 2.5	PASS
		VN	-10	-1.96	-0.001131	± 2.5	PASS
		VN	0	-1.2	-0.000693	± 2.5	PASS
		VN	10	1.37	0.000791	± 2.5	PASS
		VN	20	4.21	0.002430	± 2.5	PASS

	HCH	VN	30	3.1	0.001789	$\pm 2.5$	PASS
		VN	40	-0.79	-0.000456	$\pm 2.5$	PASS
		VN	50	0.61	0.000352	$\pm 2.5$	PASS
		VN	-30	-0.17	-0.000097	$\pm 2.5$	PASS
		VN	-20	-1.42	-0.000814	$\pm 2.5$	PASS
		VN	-10	-0.57	-0.000327	$\pm 2.5$	PASS
		VN	0	0.88	0.000504	$\pm 2.5$	PASS
		VN	10	-1.65	-0.000946	$\pm 2.5$	PASS
		VN	20	-1.78	-0.001020	$\pm 2.5$	PASS
		VN	30	3.78	0.002166	$\pm 2.5$	PASS
	LCH	VN	40	-0.77	-0.000441	$\pm 2.5$	PASS
		VN	50	3.12	0.001788	$\pm 2.5$	PASS
		VN	-30	2.33	0.001345	$\pm 2.5$	PASS
		VN	-20	0.7	0.000404	$\pm 2.5$	PASS
		VN	-10	3.58	0.002066	$\pm 2.5$	PASS
		VN	0	1.24	0.000716	$\pm 2.5$	PASS
		VN	10	4.94	0.002851	$\pm 2.5$	PASS
		VN	20	-0.55	-0.000317	$\pm 2.5$	PASS
		VN	30	0.98	0.000566	$\pm 2.5$	PASS
	MCH	VN	40	3.38	0.001951	$\pm 2.5$	PASS
		VN	50	2.15	0.001241	$\pm 2.5$	PASS
		VN	-30	-0.41	-0.000235	$\pm 2.5$	PASS
		VN	-20	-0.35	-0.000201	$\pm 2.5$	PASS
		VN	-10	3.92	0.002246	$\pm 2.5$	PASS
		VN	0	1.6	0.000917	$\pm 2.5$	PASS
		VN	10	-1.88	-0.001077	$\pm 2.5$	PASS
		VN	20	-1.29	-0.000739	$\pm 2.5$	PASS
		VN	30	3.09	0.001771	$\pm 2.5$	PASS
	HCH	VN	40	4.69	0.002688	$\pm 2.5$	PASS
		VN	50	2.84	0.001628	$\pm 2.5$	PASS
		VN	-30	1.49	0.000854	$\pm 2.5$	PASS
		VN	-20	2.37	0.001358	$\pm 2.5$	PASS
		VN	-10	-1.46	-0.000837	$\pm 2.5$	PASS
		VN	0	-0.96	-0.000550	$\pm 2.5$	PASS
		VN	10	4.24	0.002430	$\pm 2.5$	PASS
		VN	20	3.94	0.002258	$\pm 2.5$	PASS
		VN	30	4.19	0.002401	$\pm 2.5$	PASS
		VN	40	-0.85	-0.000487	$\pm 2.5$	PASS
		VN	50	4.15	0.002378	$\pm 2.5$	PASS