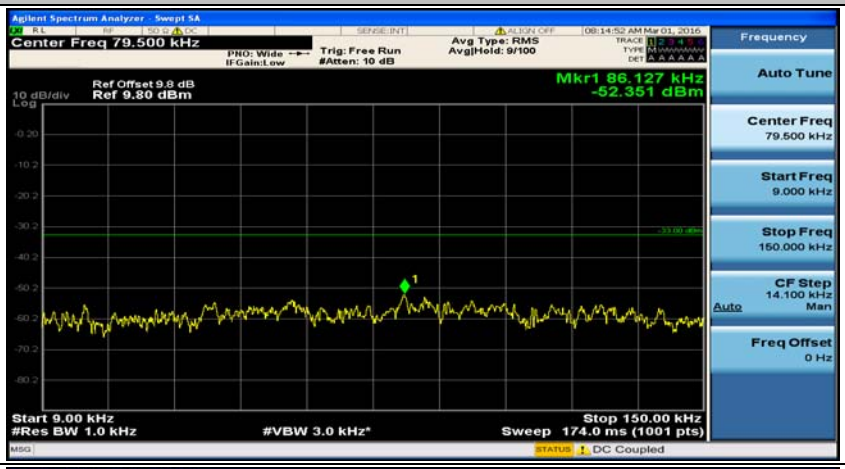
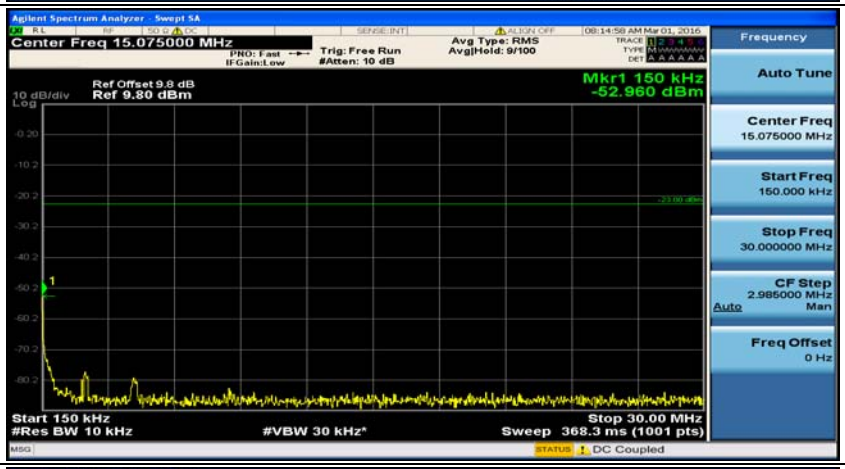
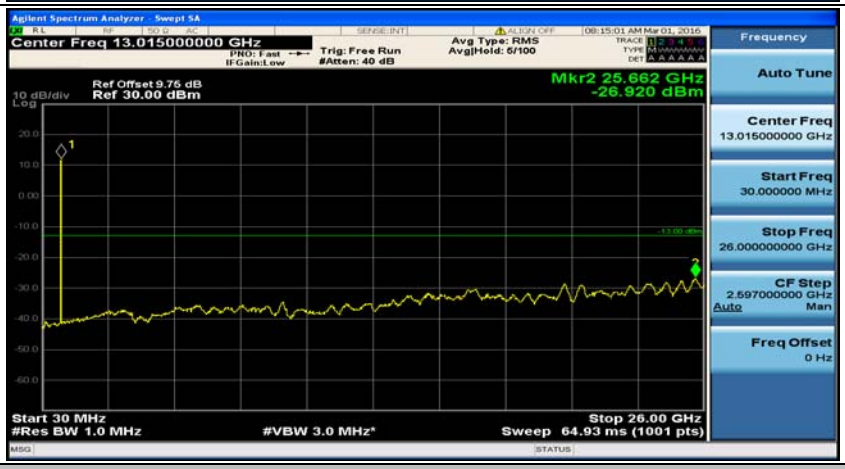
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



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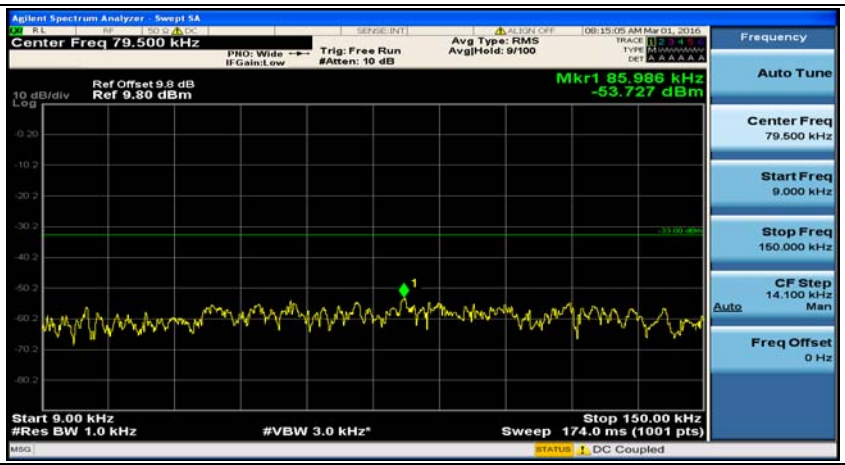
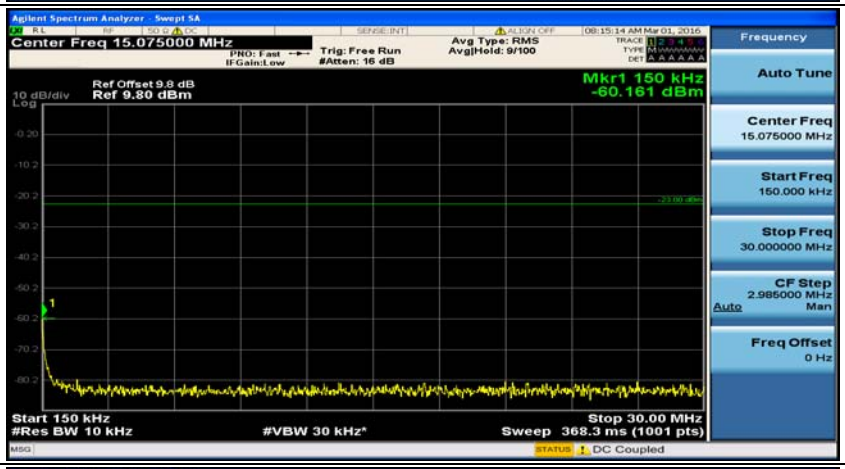
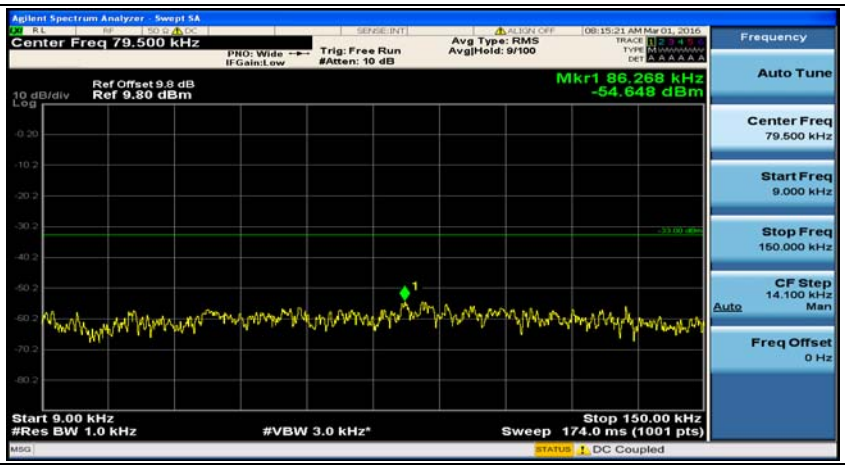
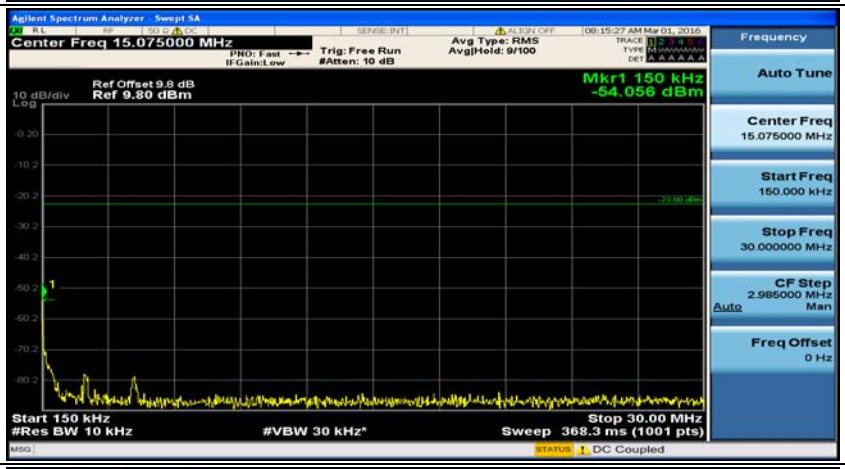
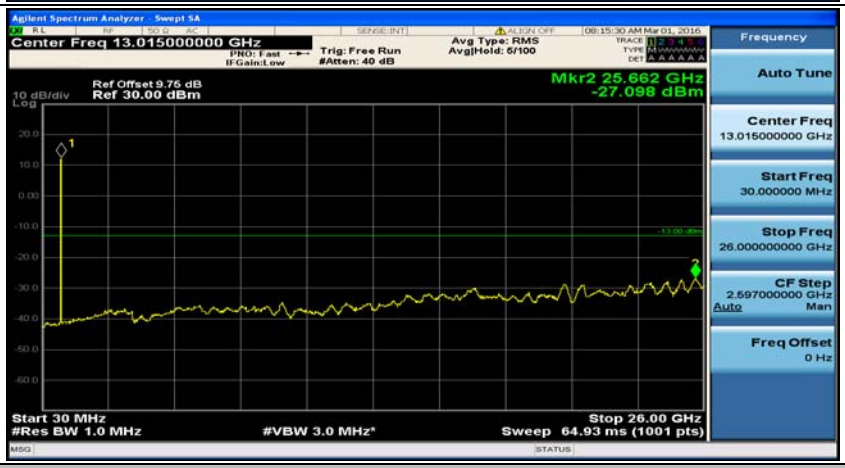




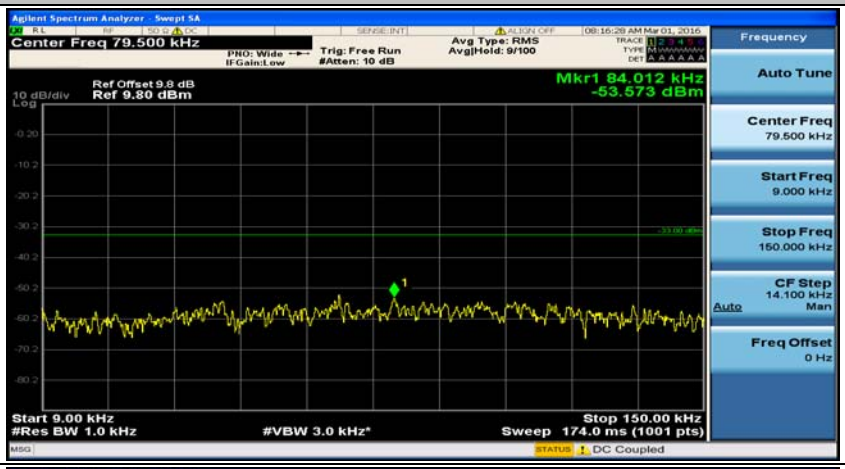
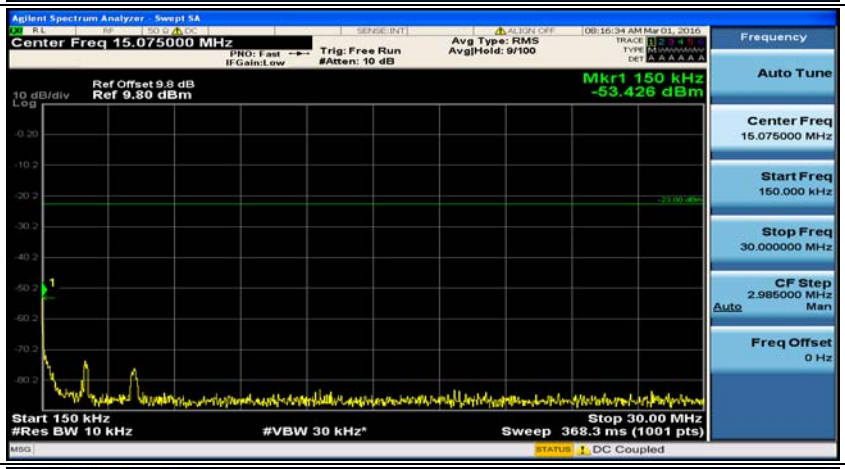
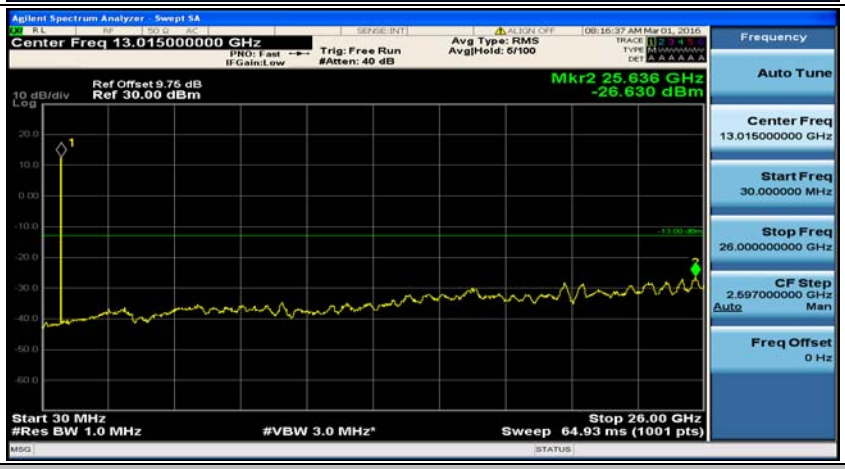
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24

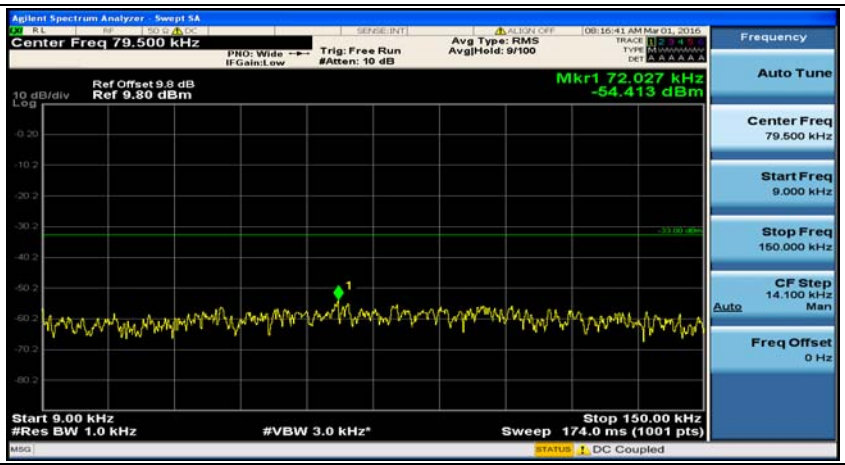


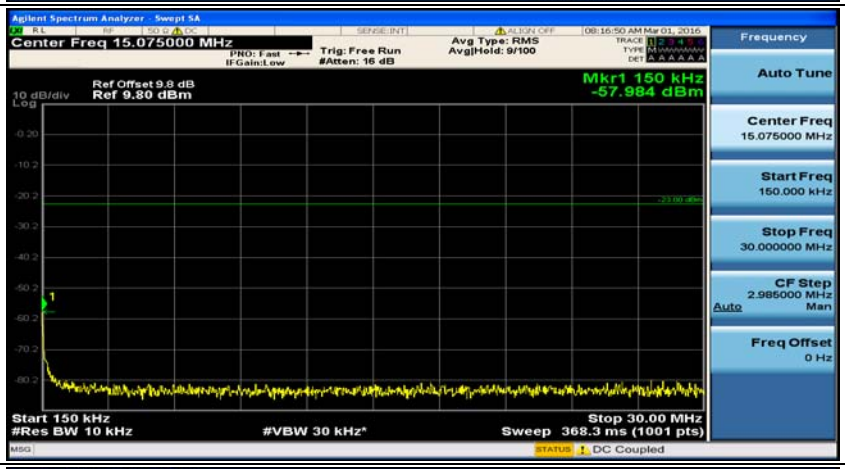


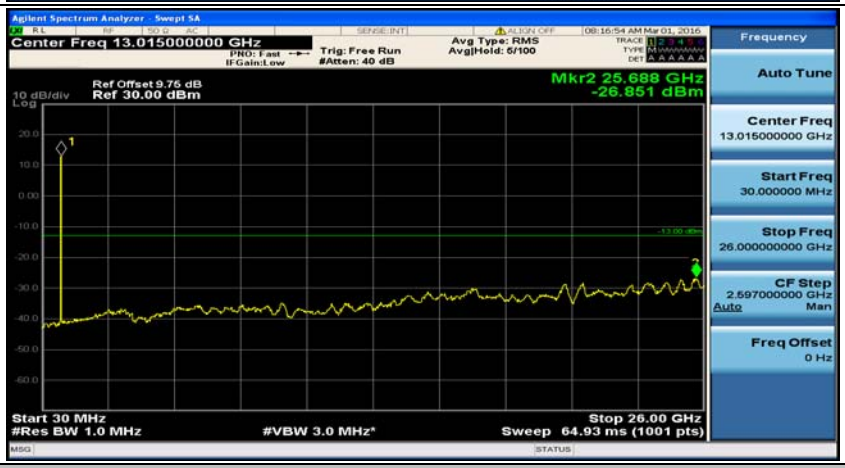


(Channel Bandwidth: 5 MHz)_MCH_QPSK_12RB#0

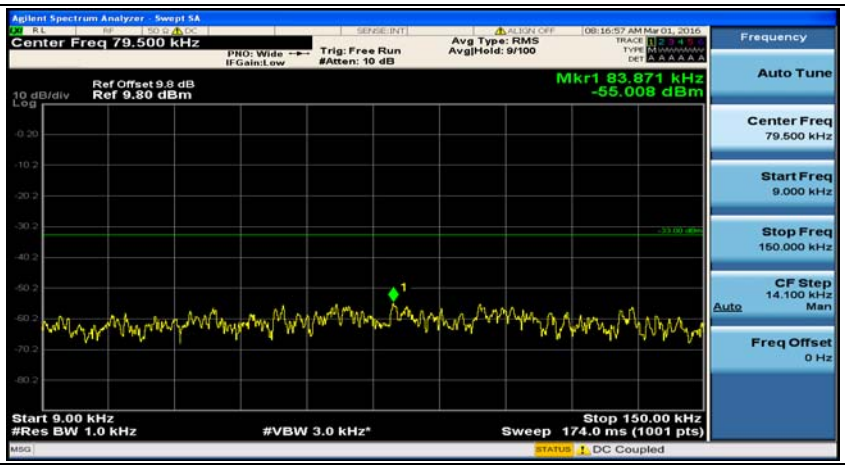
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12

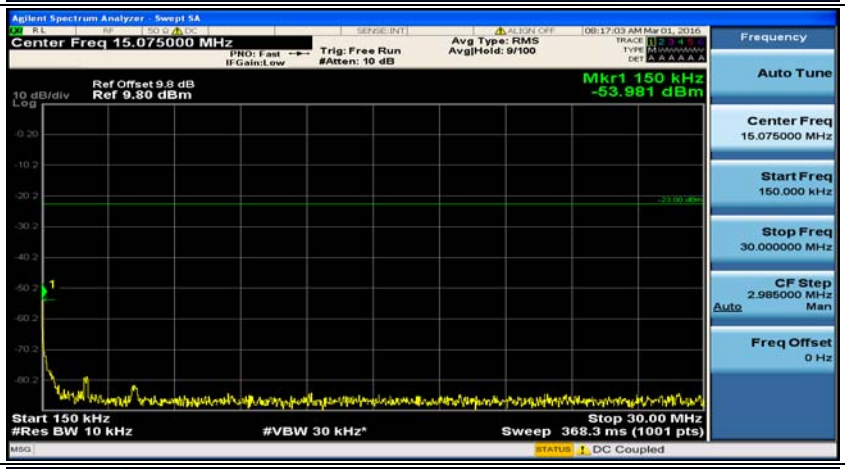


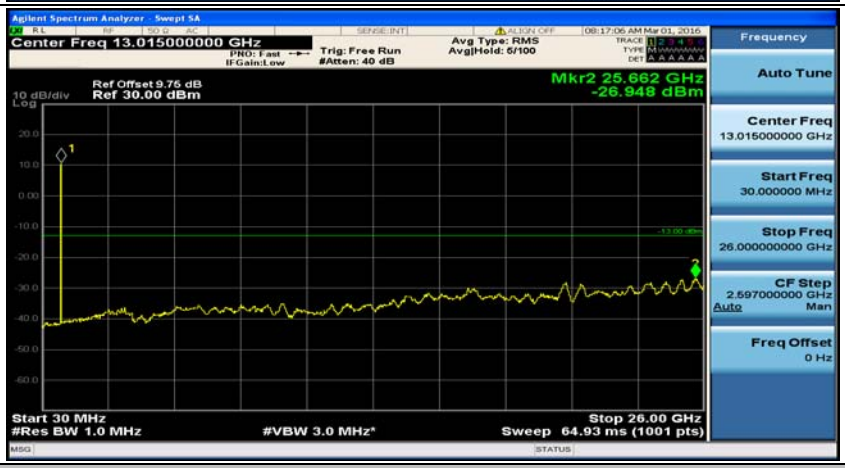




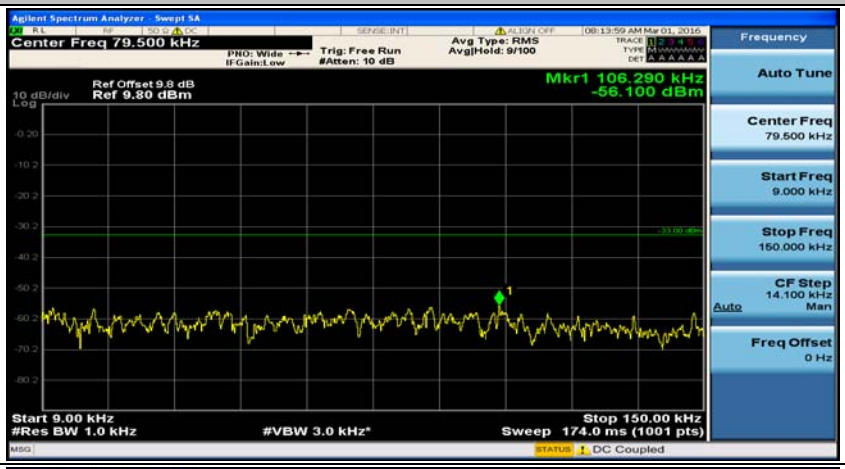
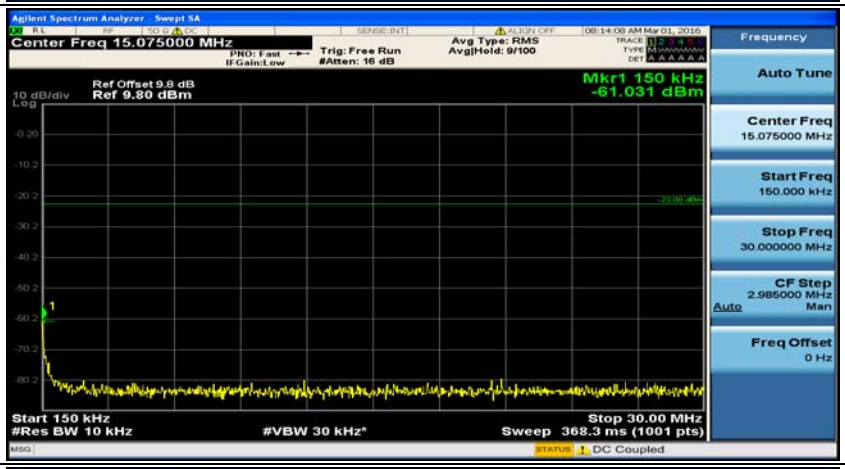
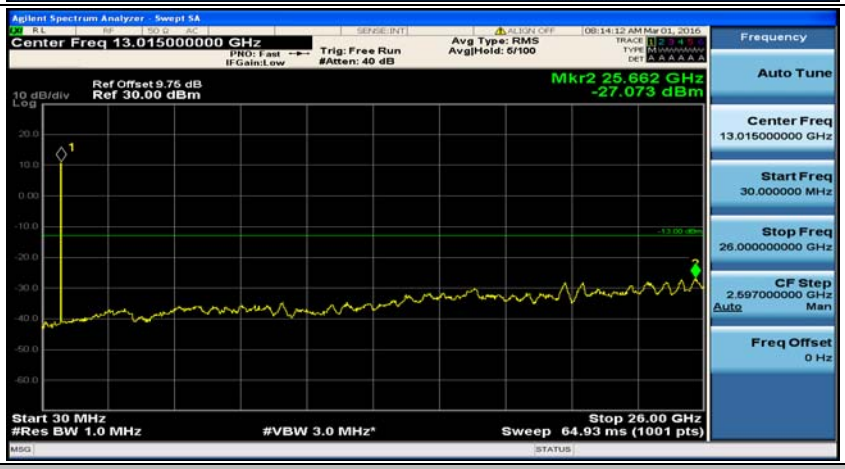
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24

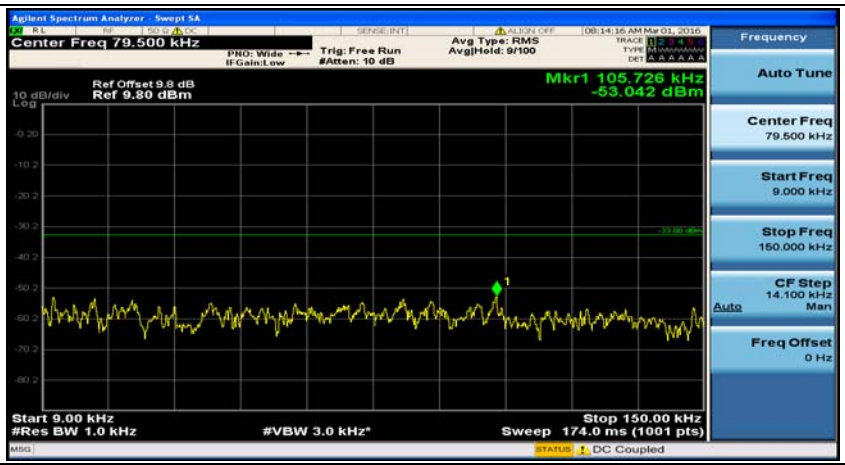


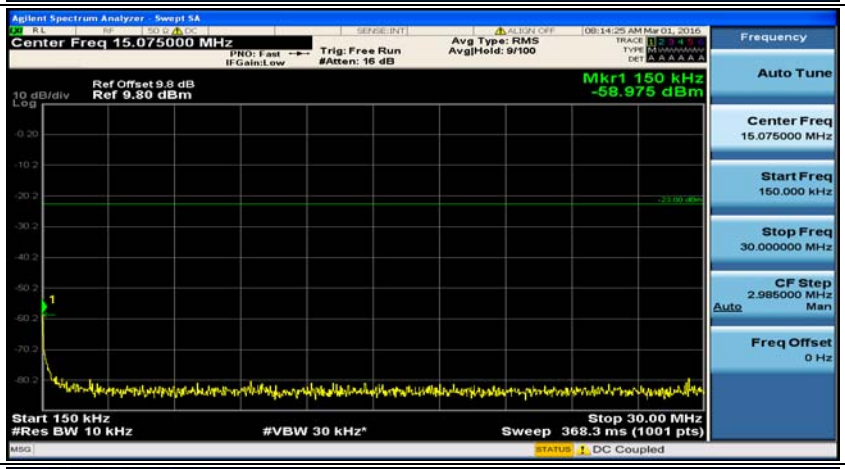


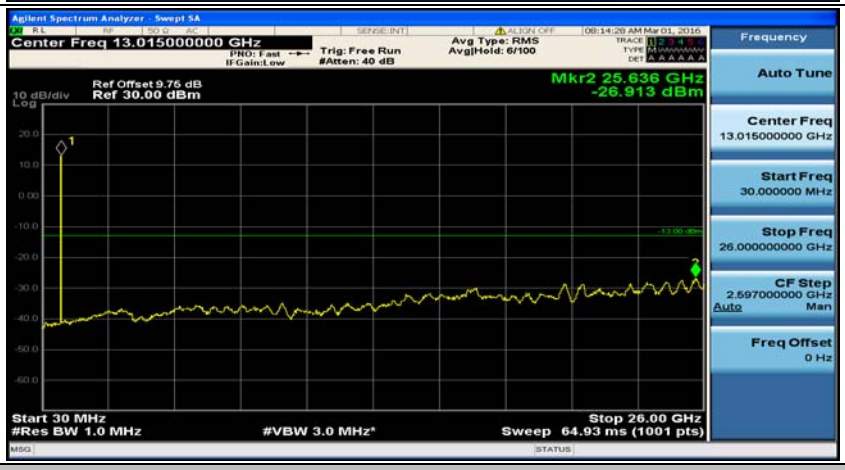


(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#0

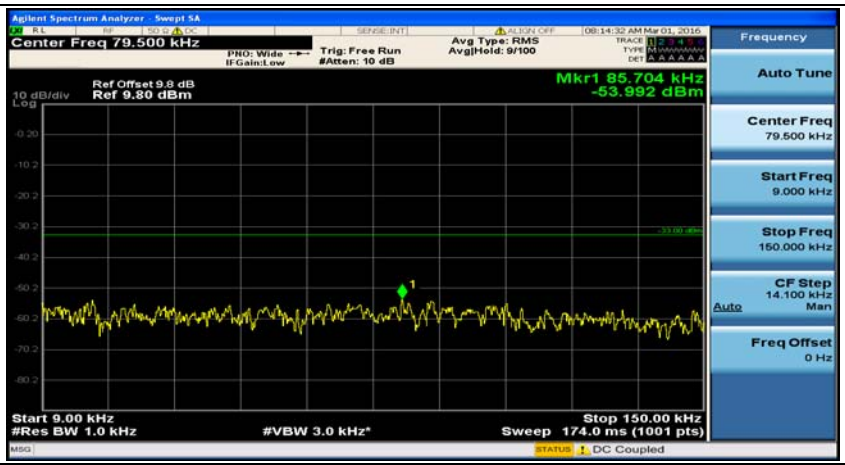
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#12

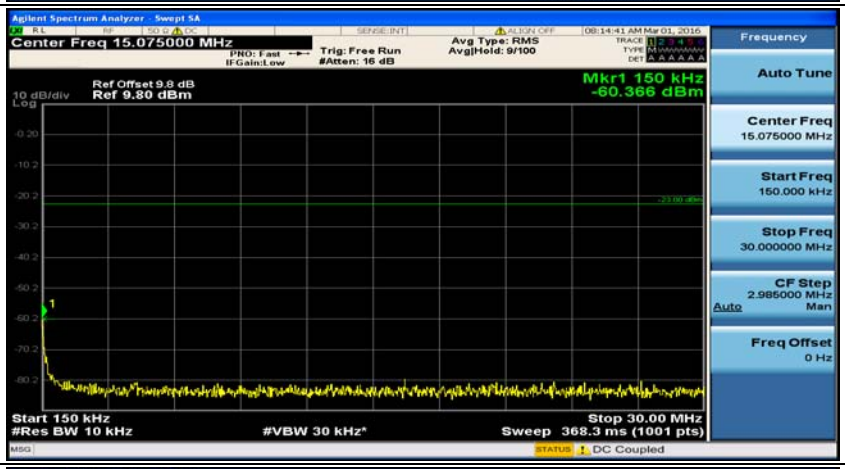


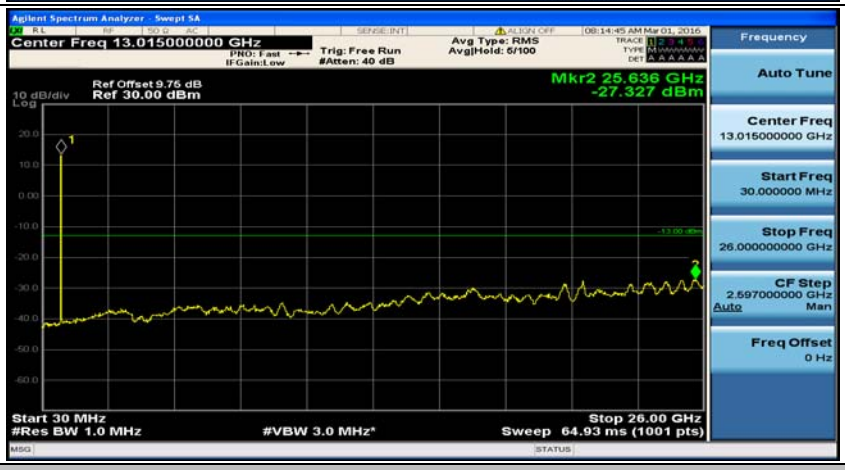




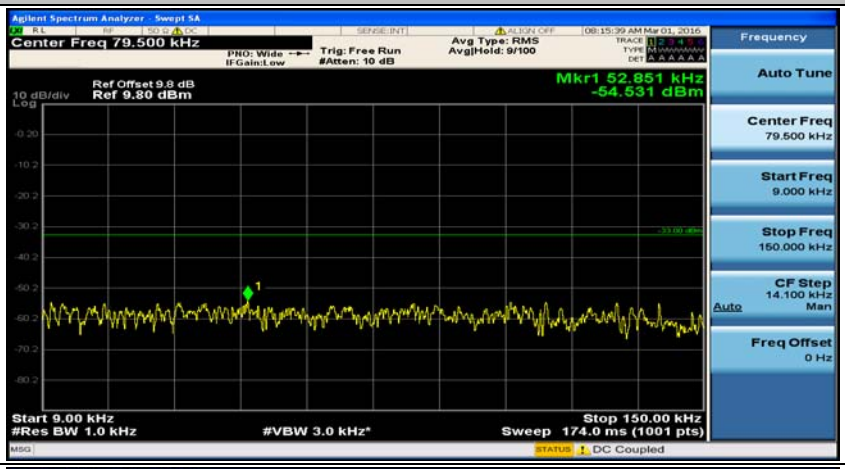
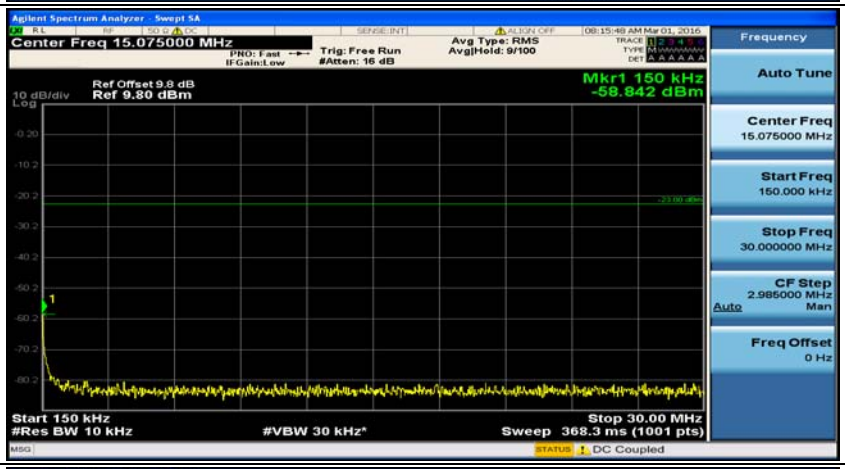
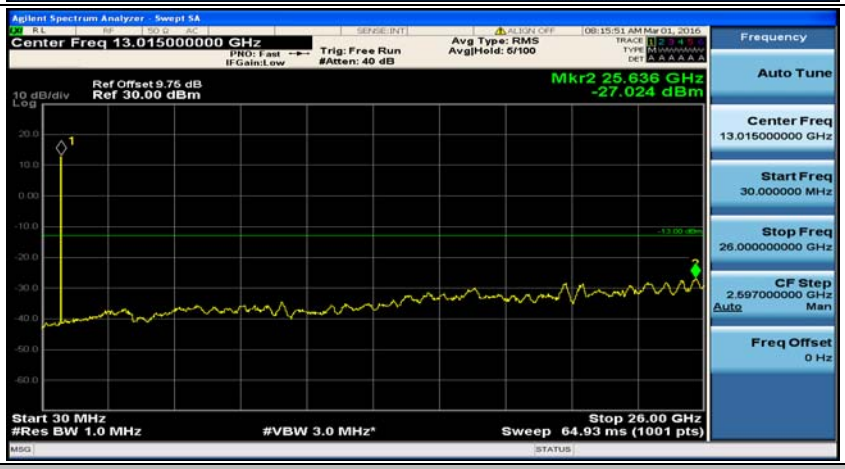
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24

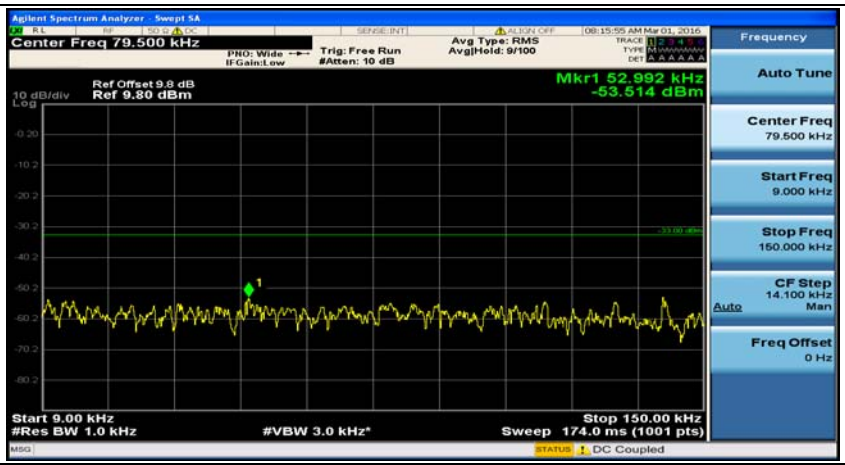


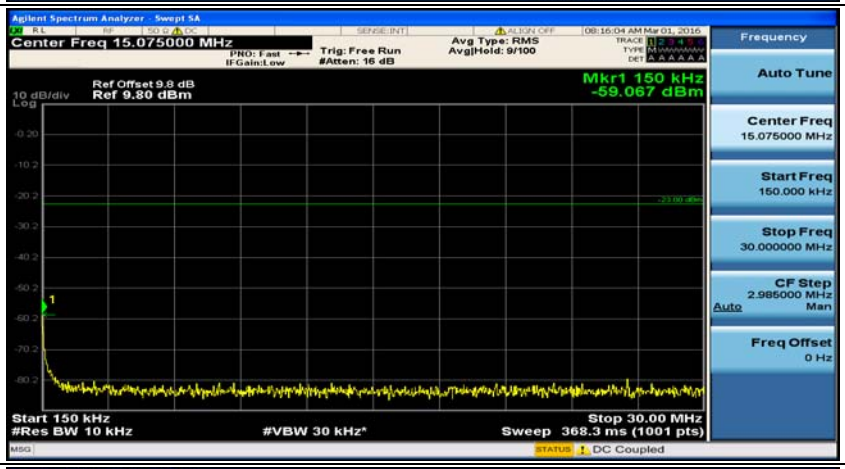




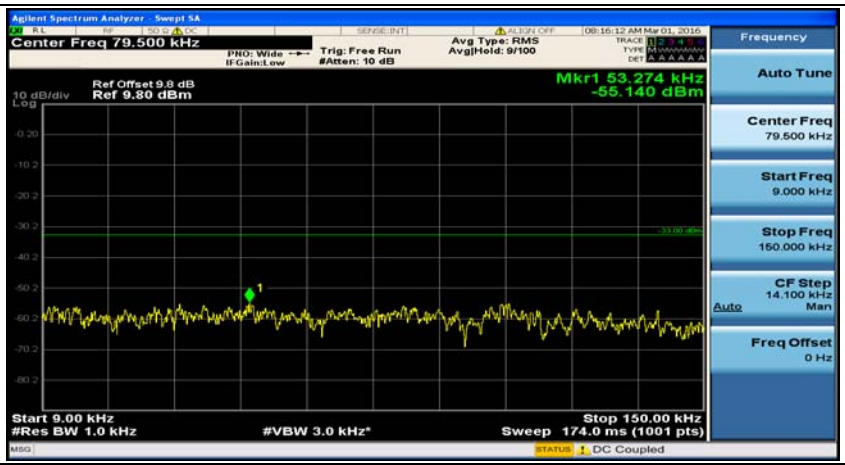
(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#0

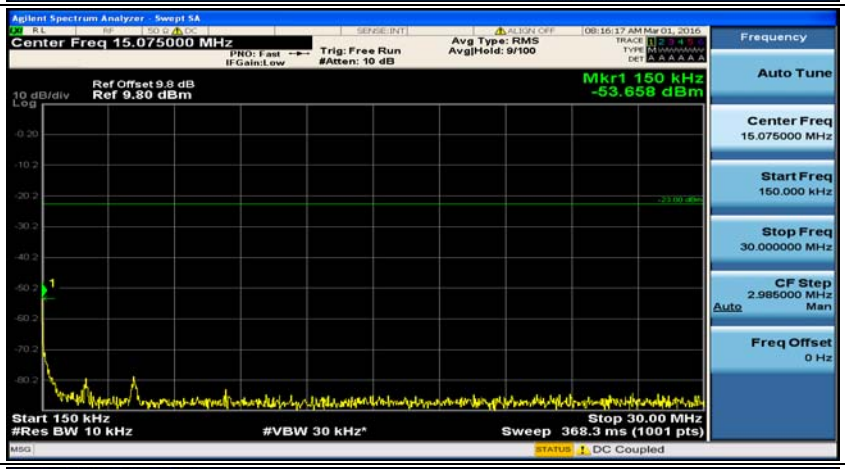
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12

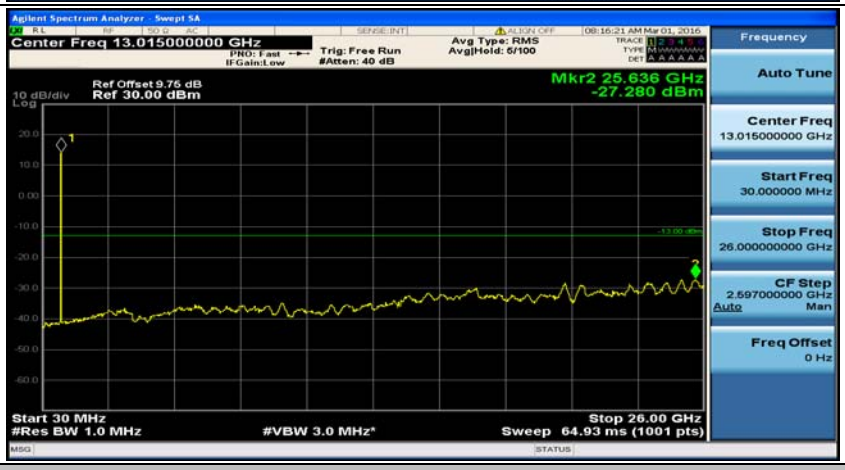




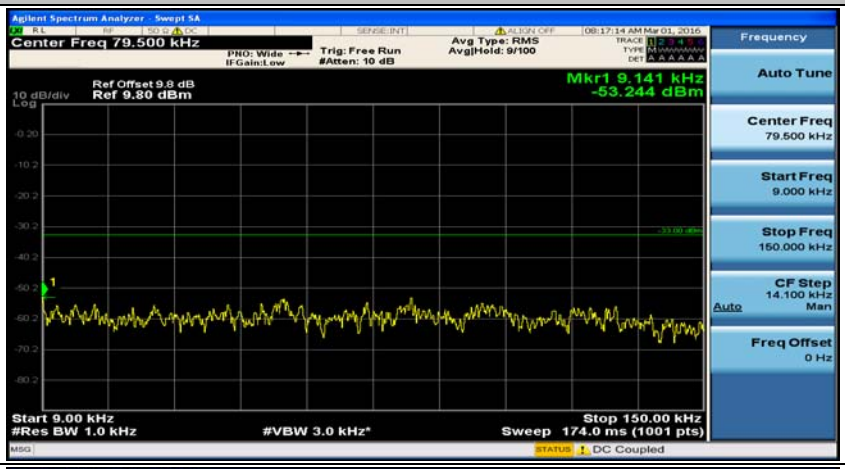
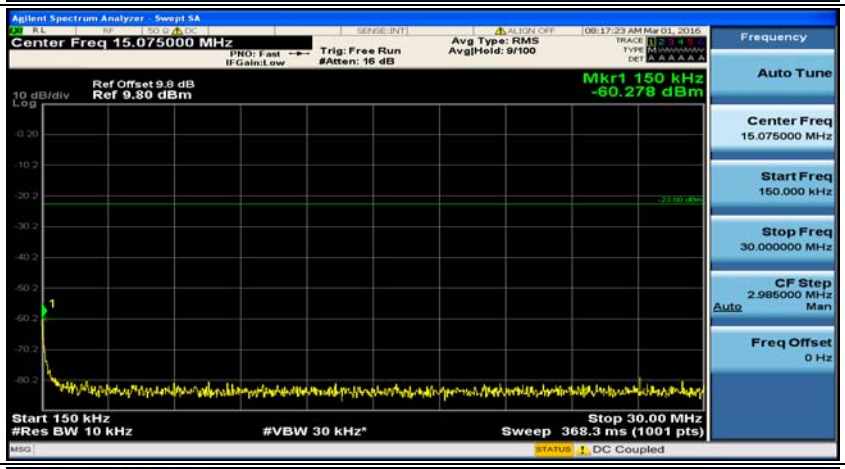
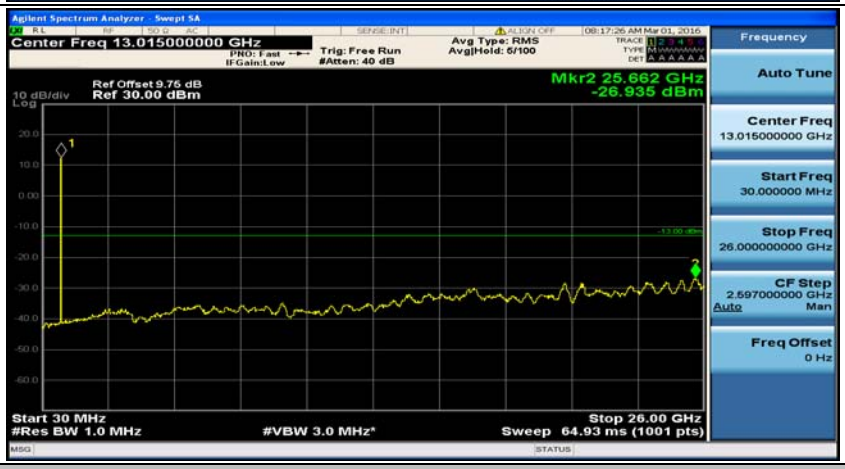
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24

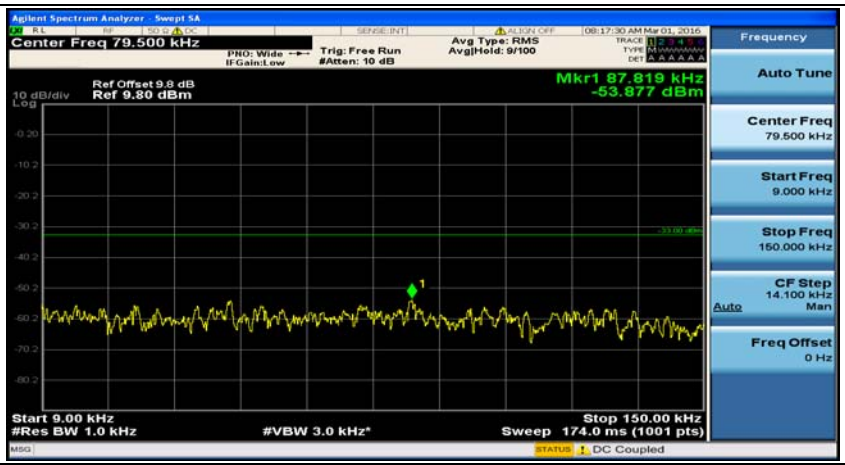


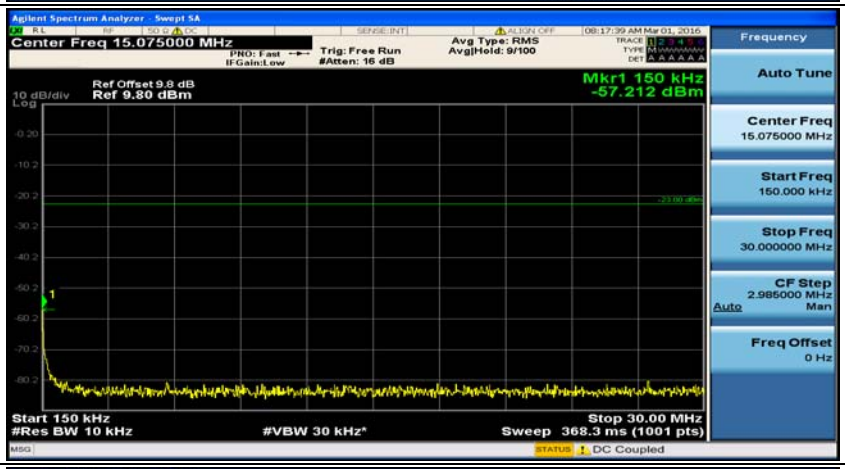


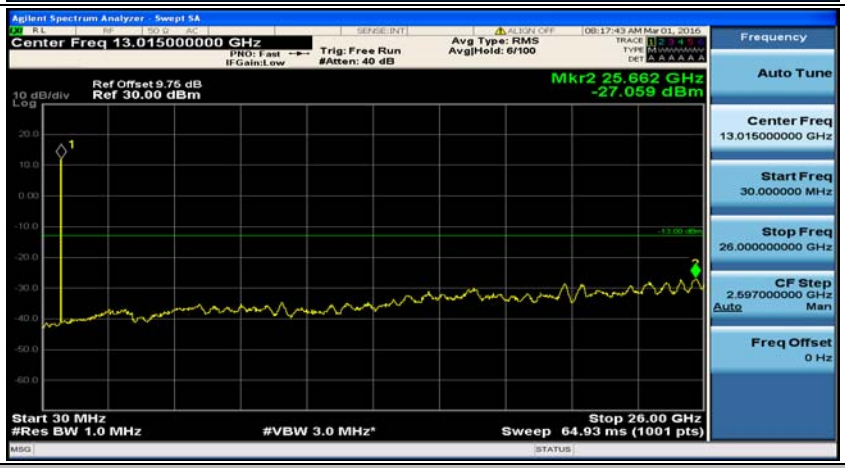


(Channel Bandwidth: 5 MHz)_MCH_16QAM_12RB#0

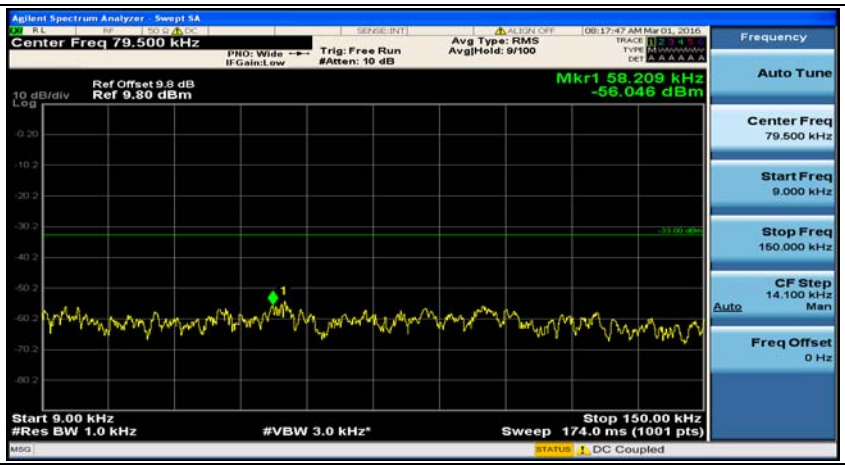
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12

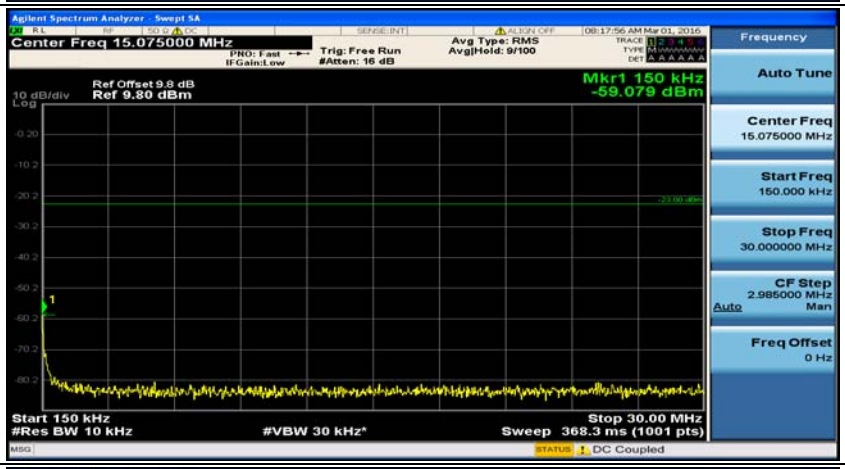


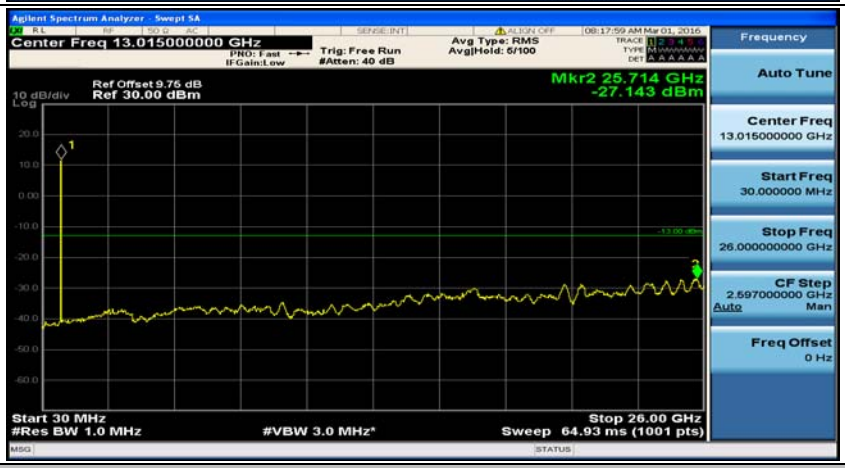




(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24

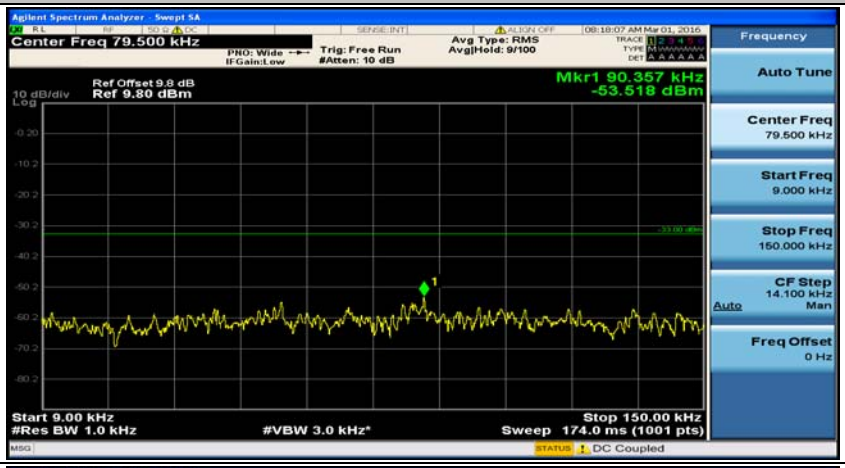
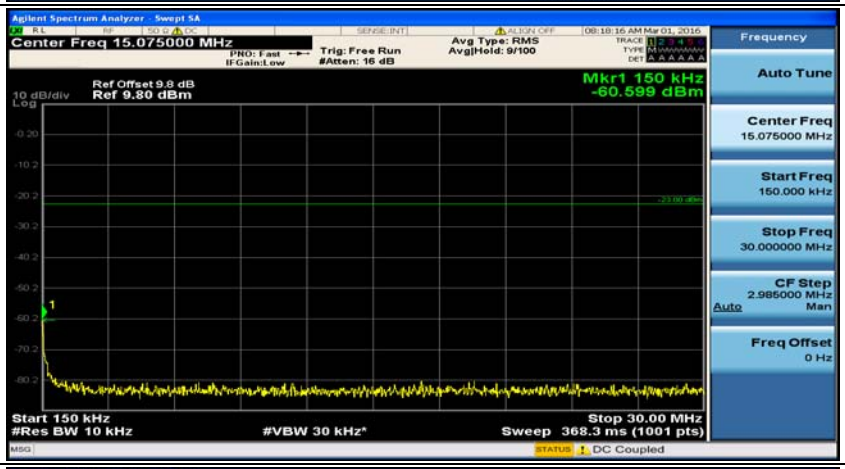
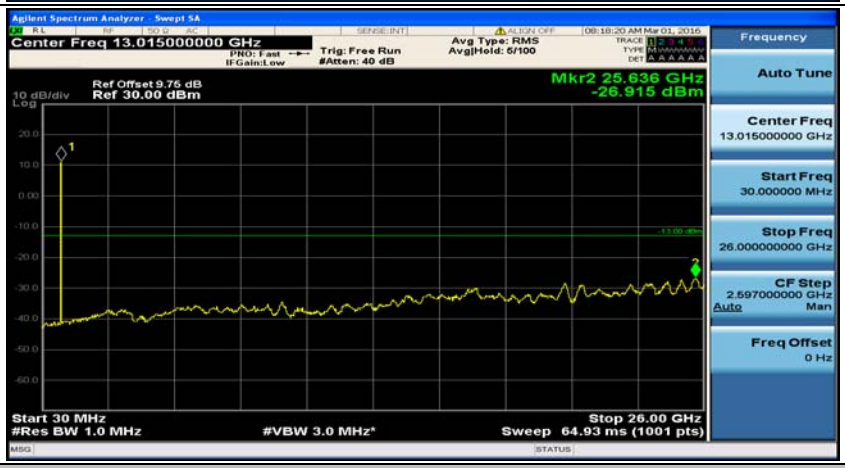


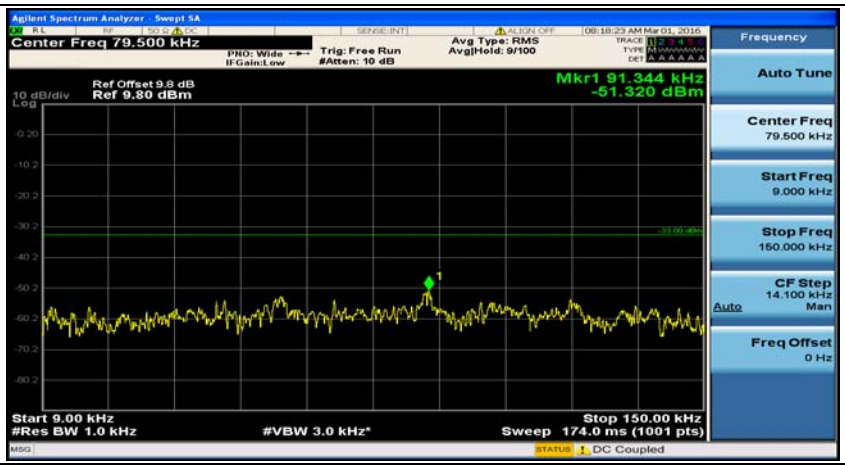


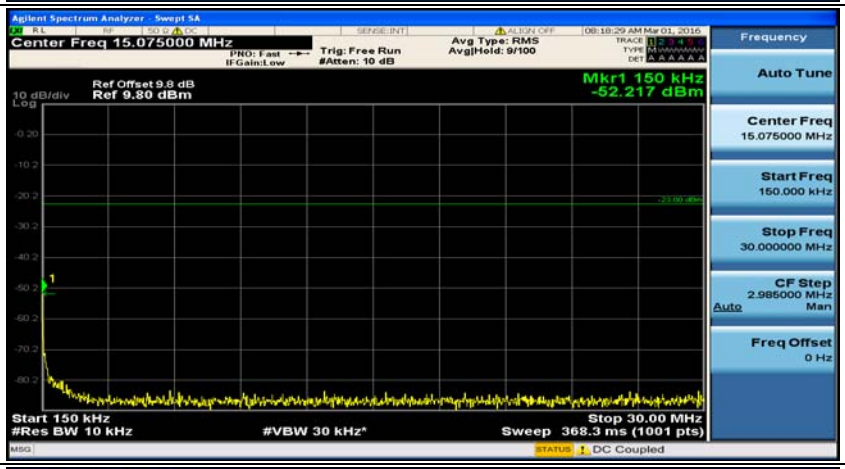


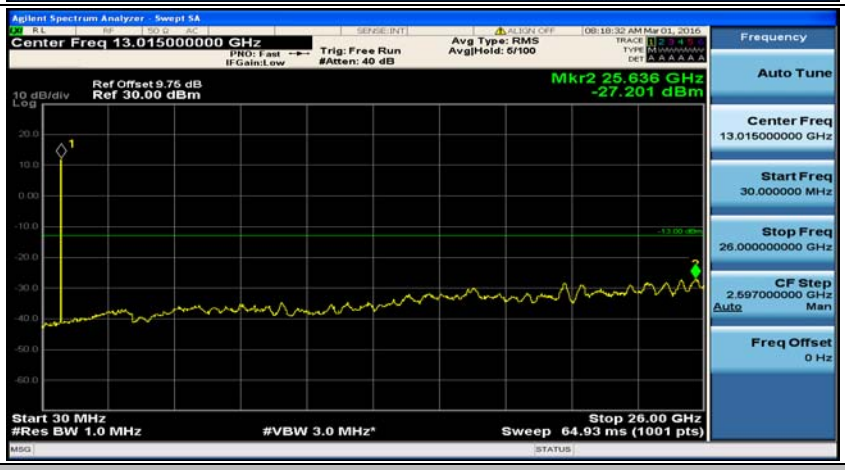
(Channel Bandwidth: 5 MHz)_HCH_16QAM_12RB#0

Channel Bandwidth: 10 MHz

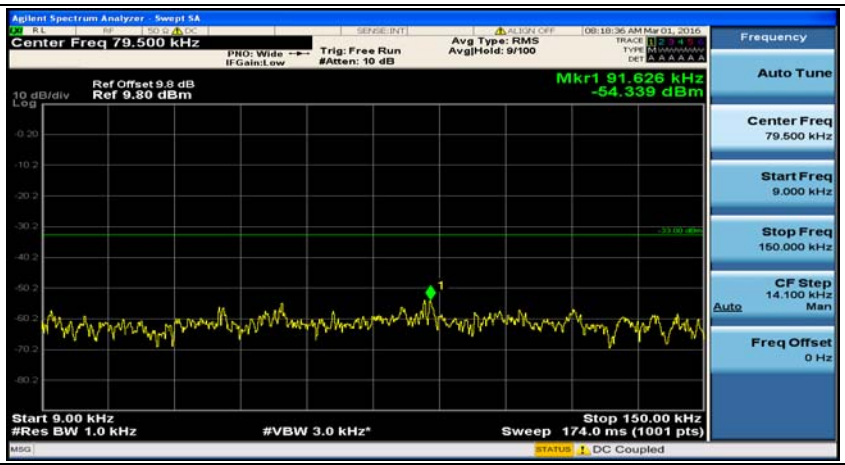
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#24

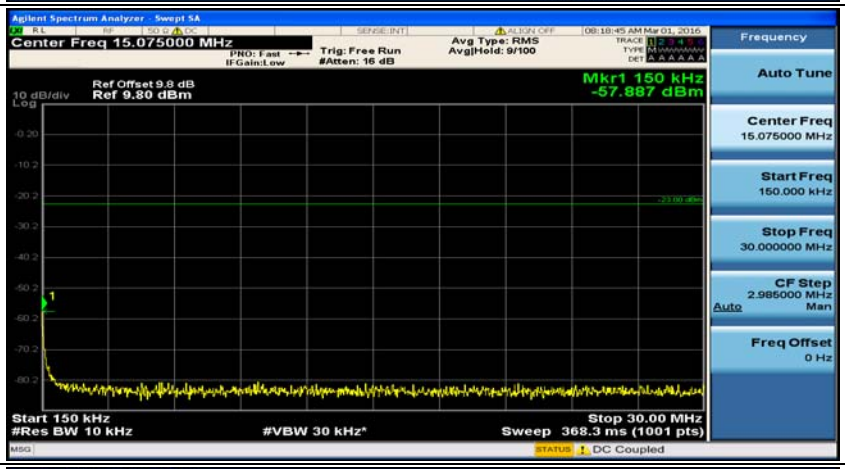


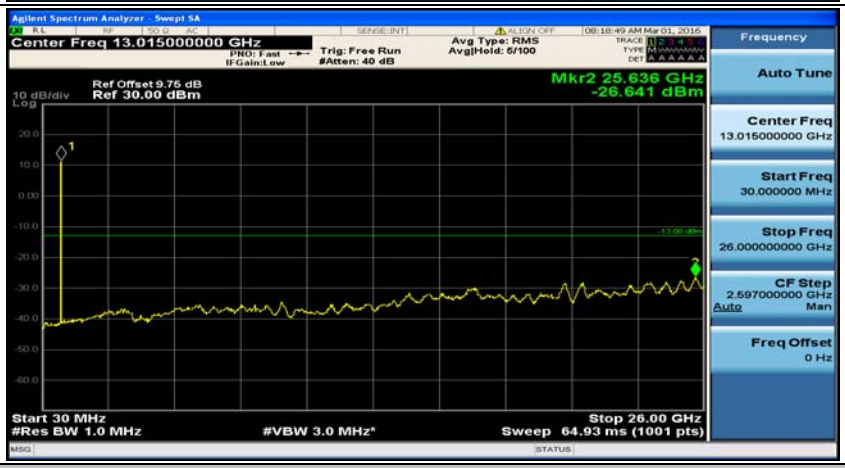




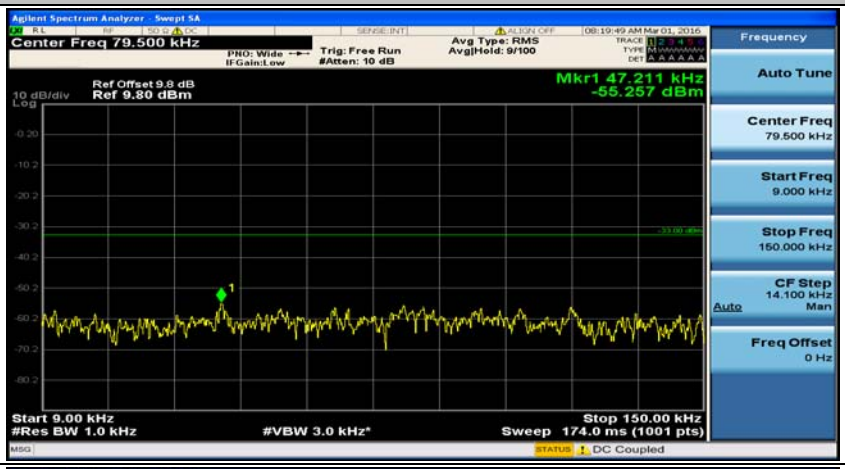
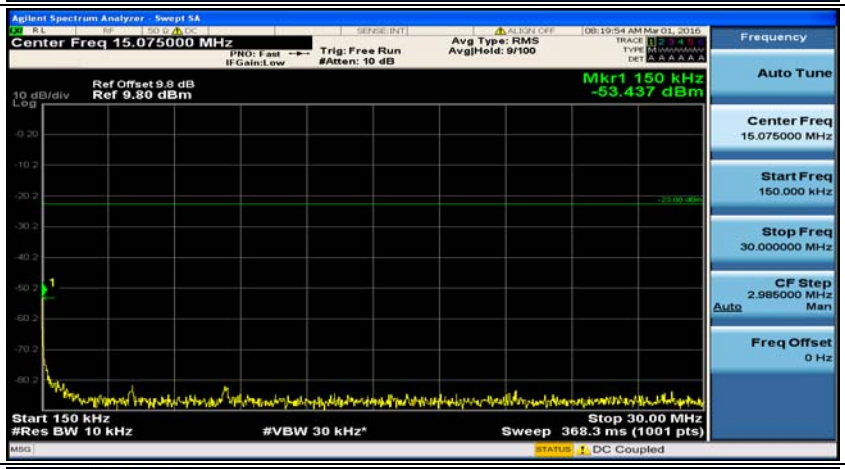
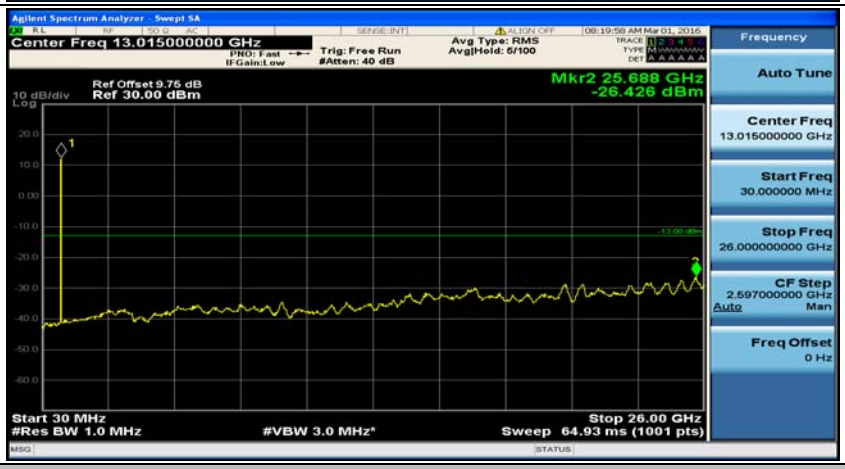
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#49

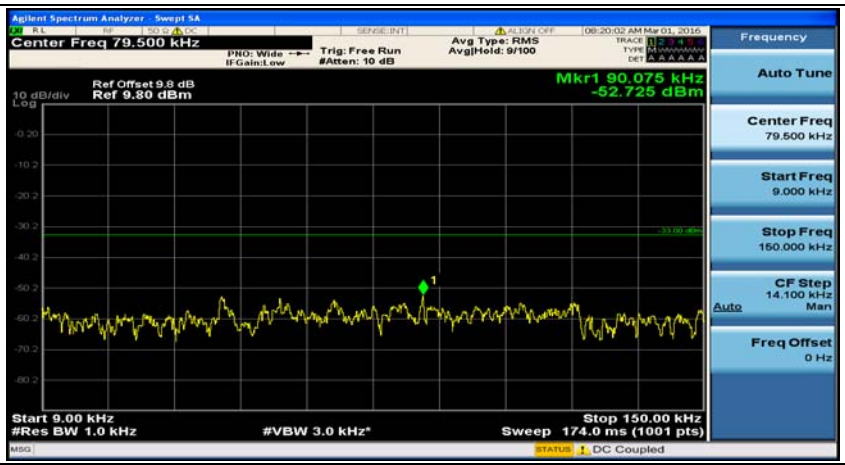


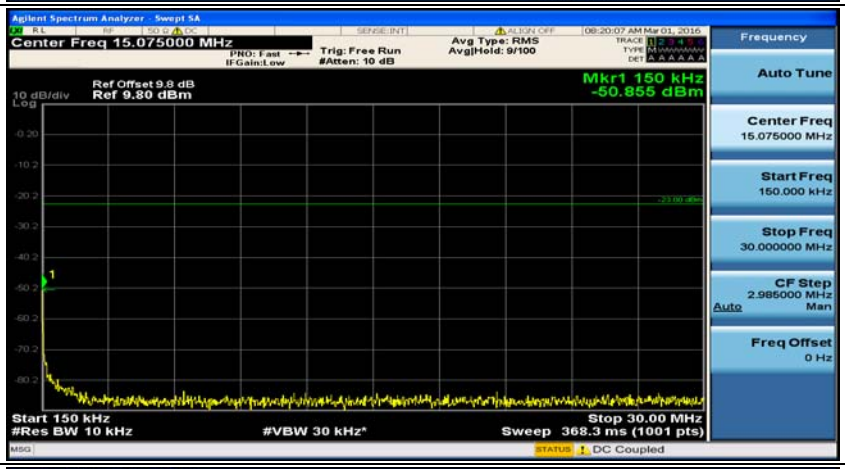


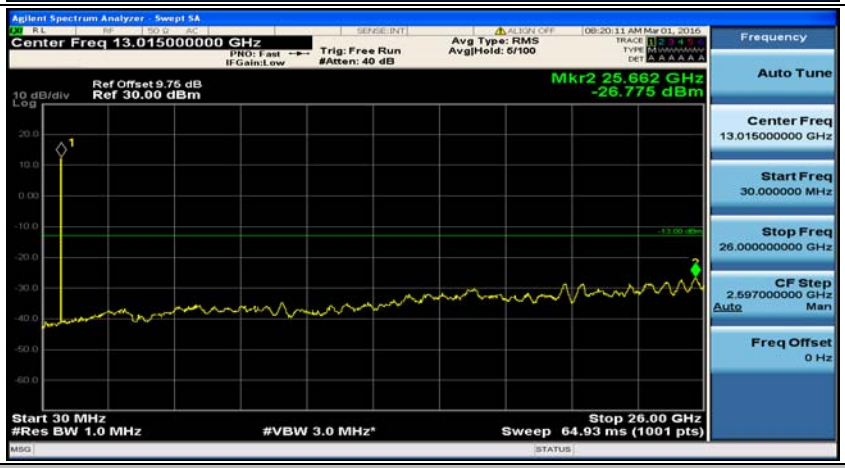


Channel Bandwidth: 10 MHz_LCH_QPSK_25RB#0

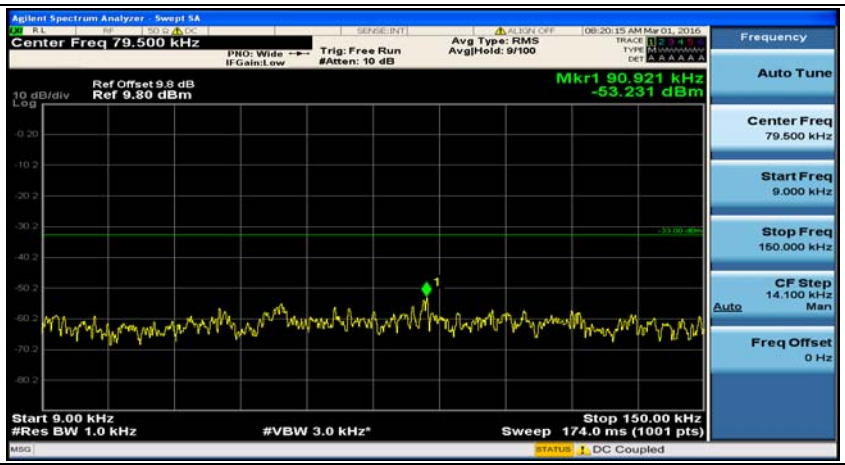
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

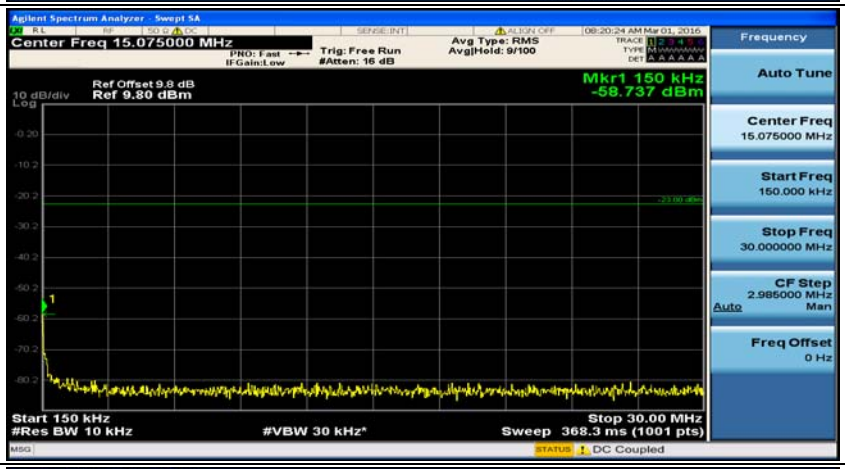


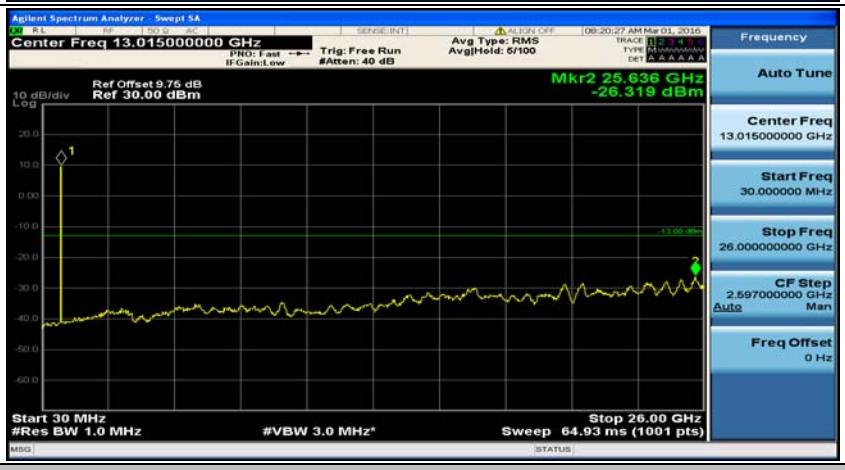




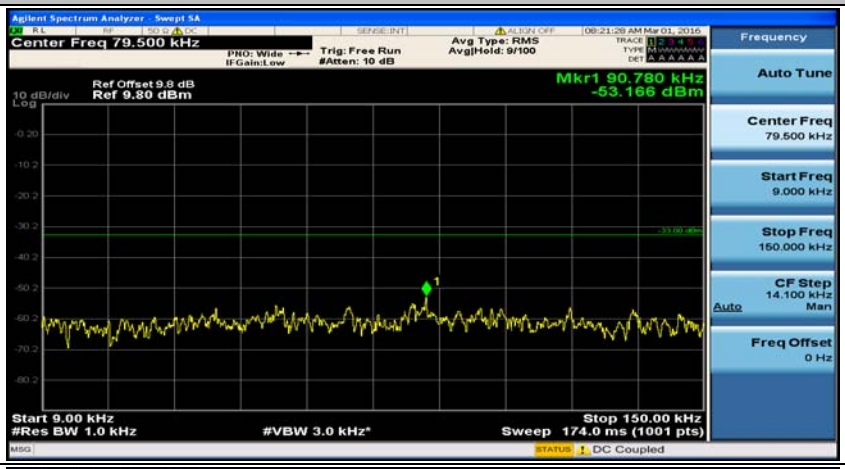
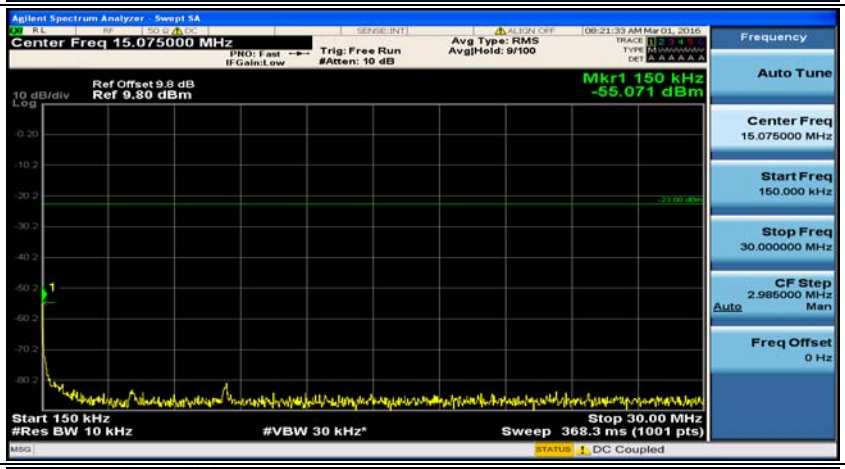
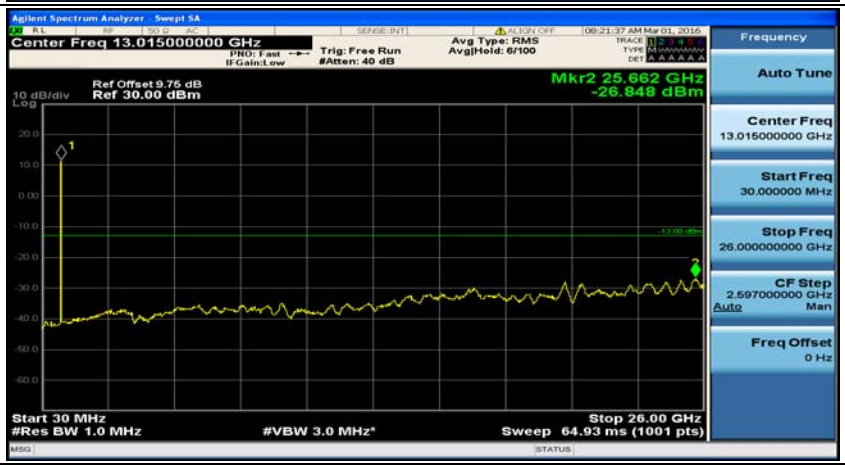
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49

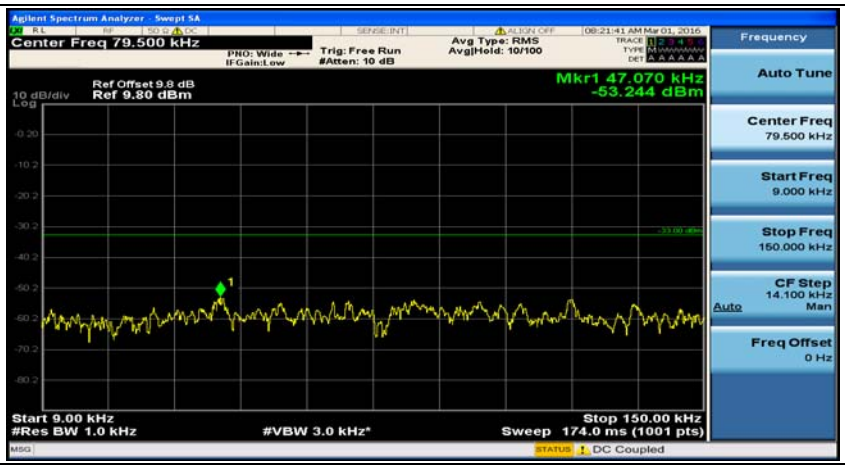


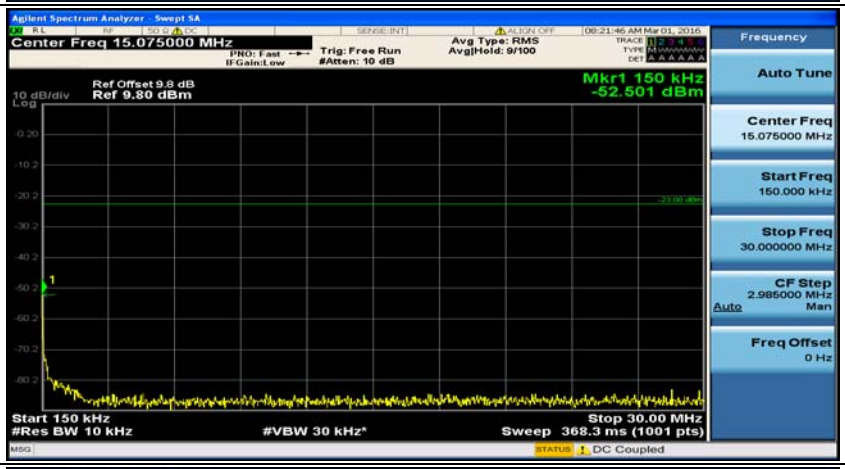


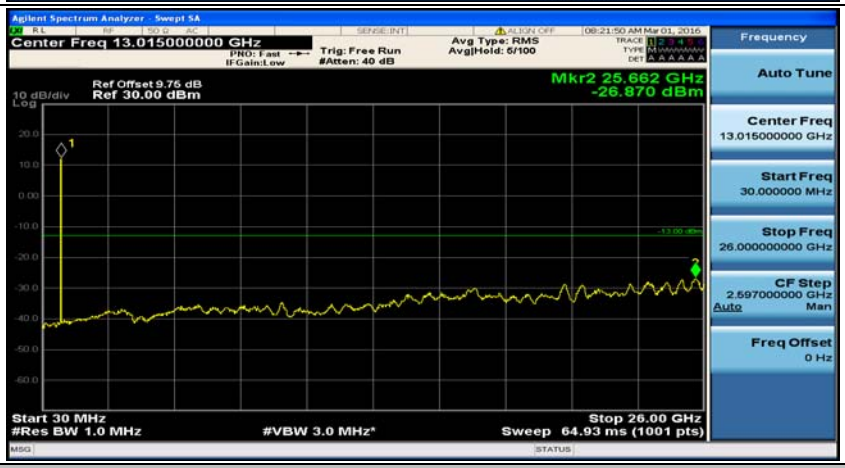


Channel Bandwidth: 10 MHz_MCH_QPSK_25RB#0

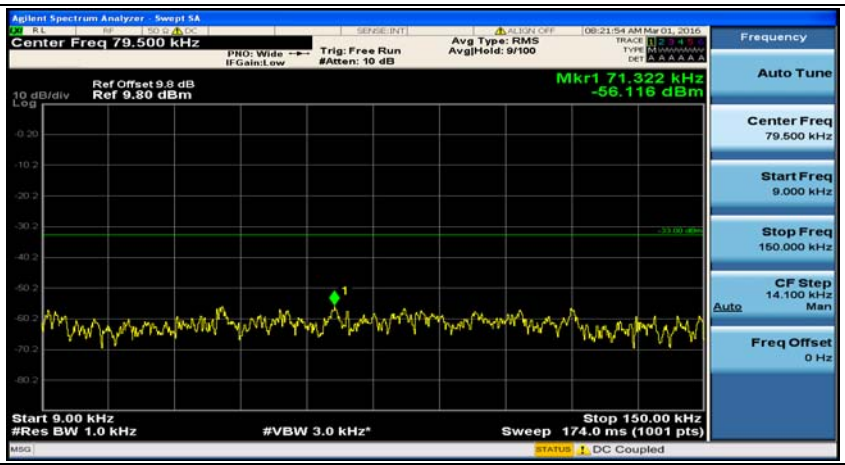
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#24

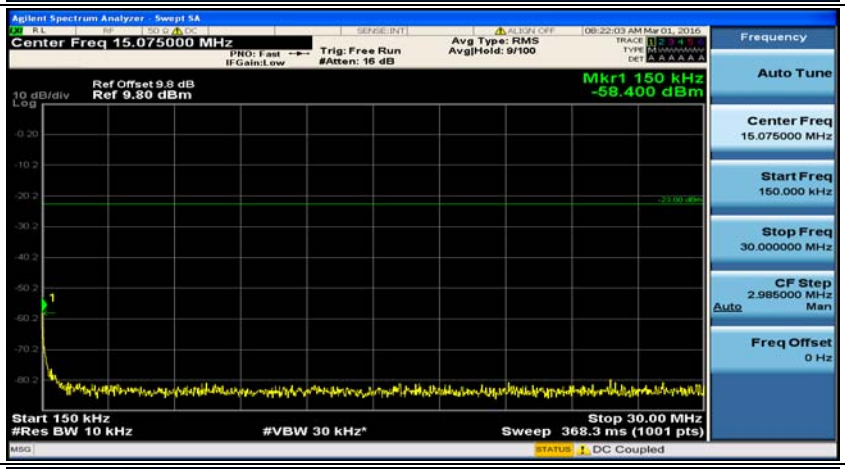




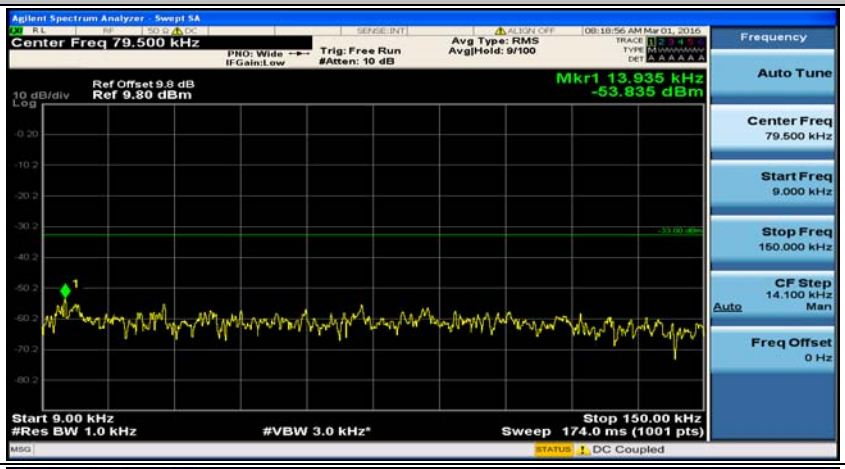
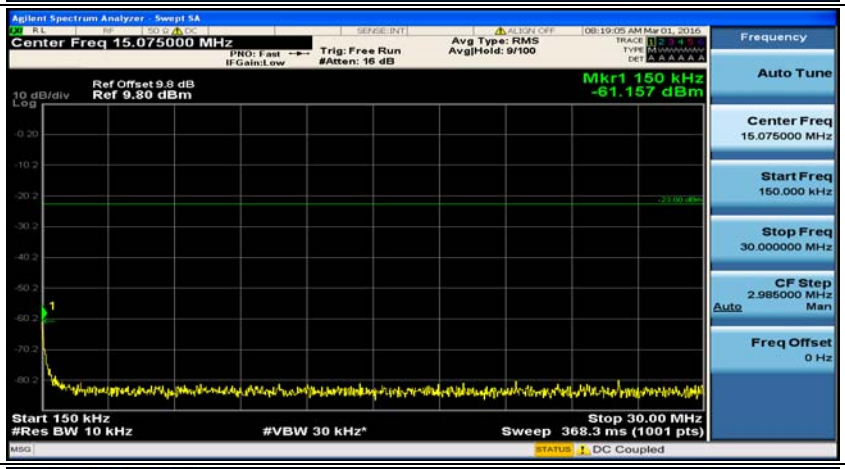
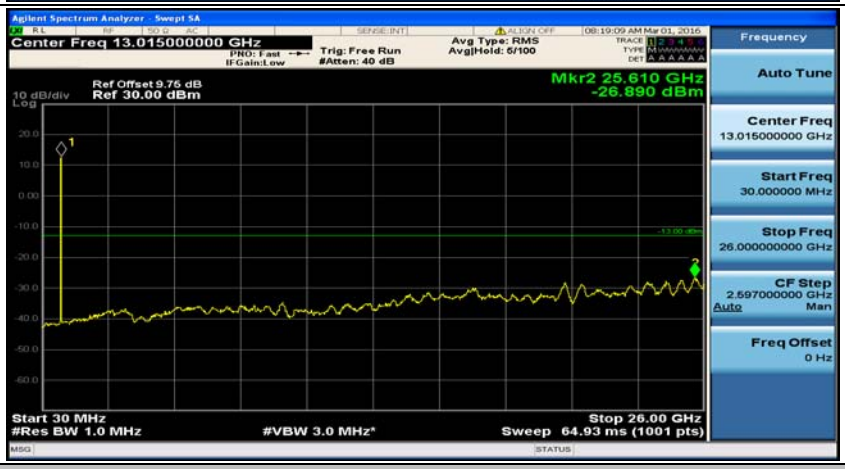


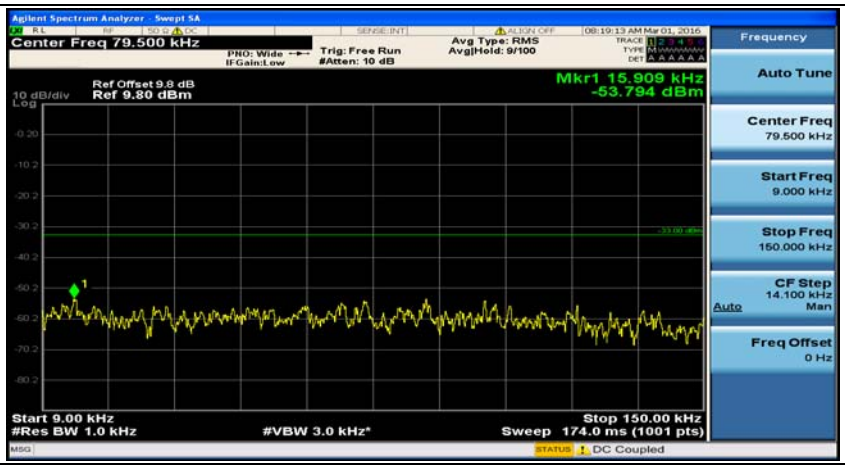
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#49

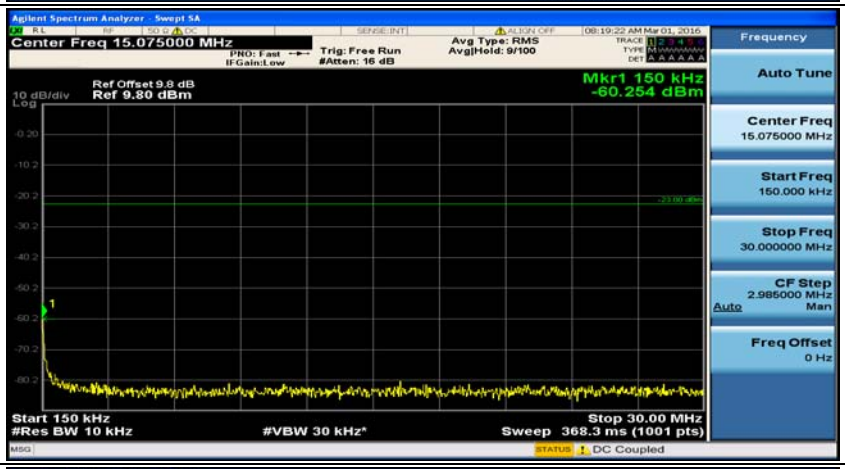


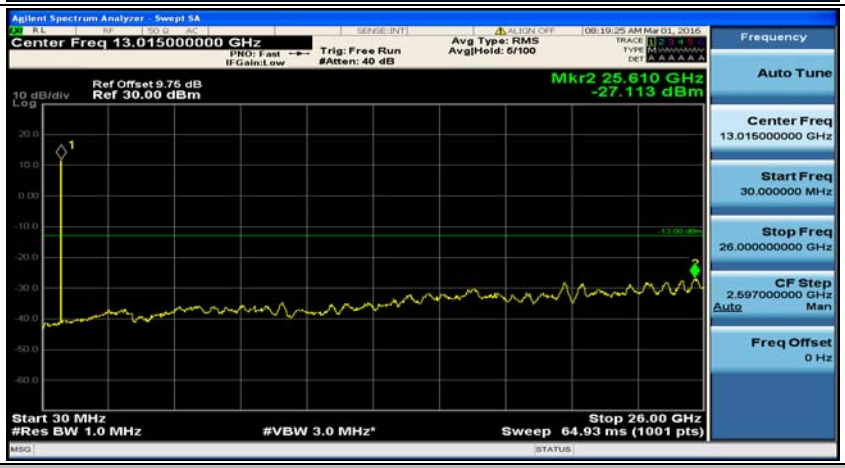


Channel Bandwidth: 10 MHz_HCH_QPSK_25RB#0

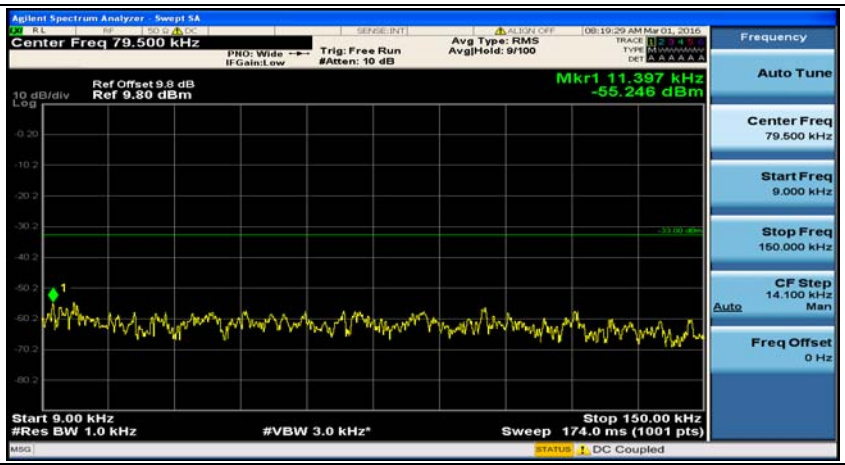
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

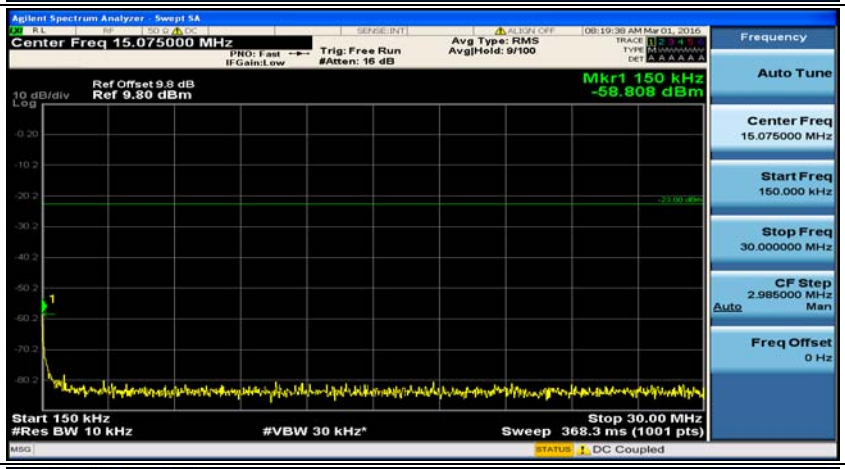


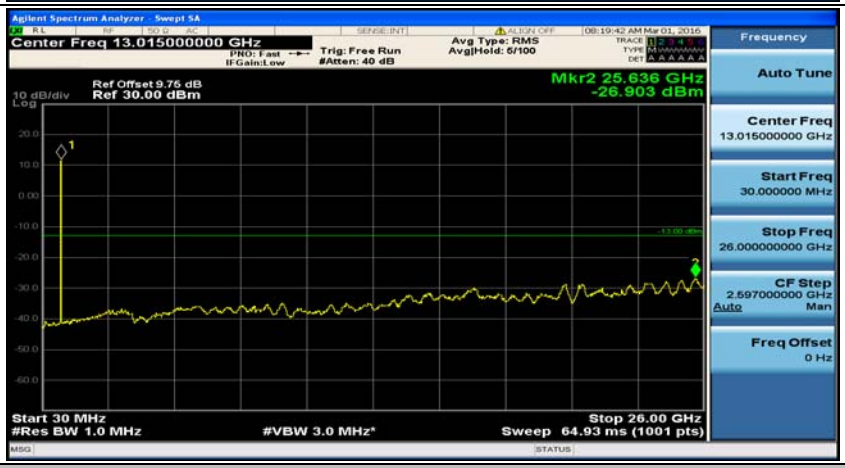




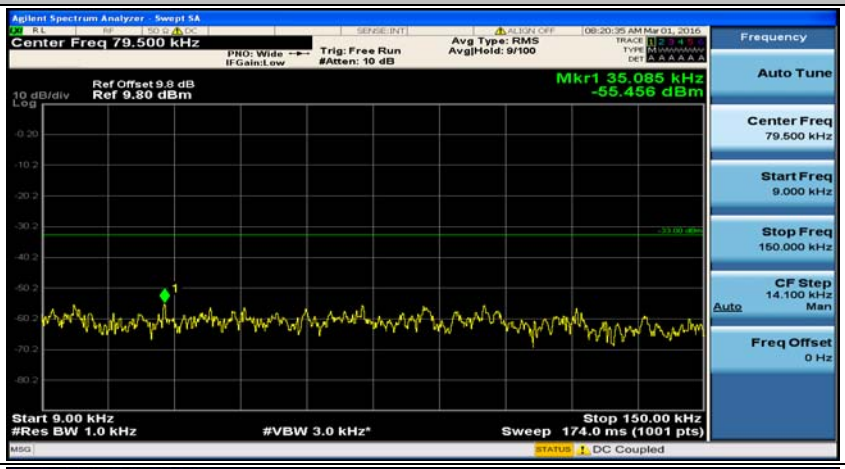
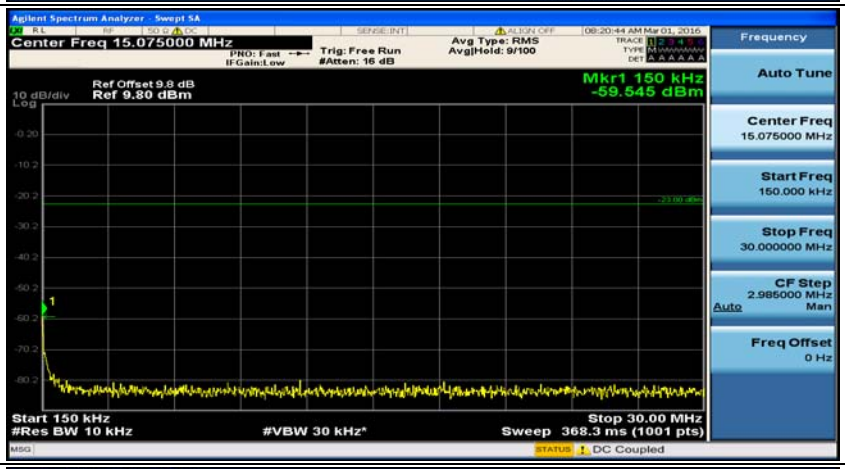
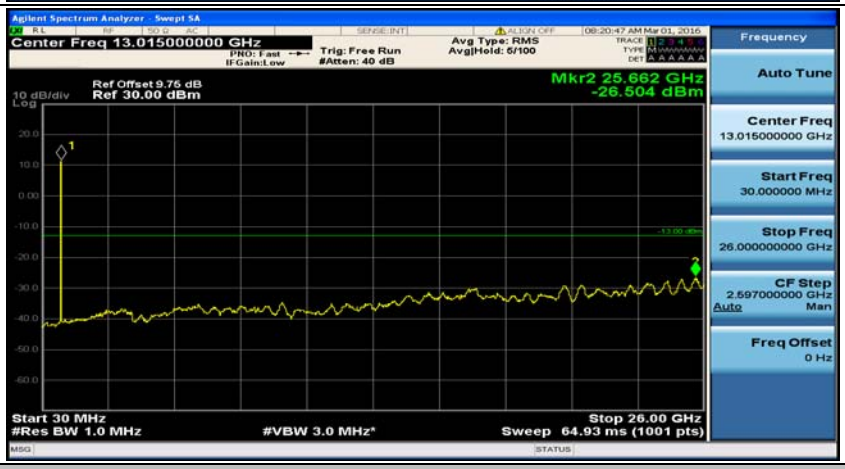
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#49

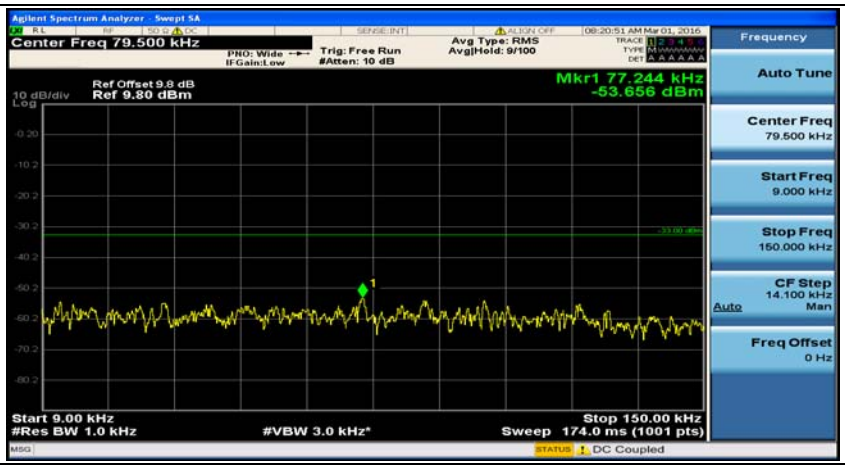


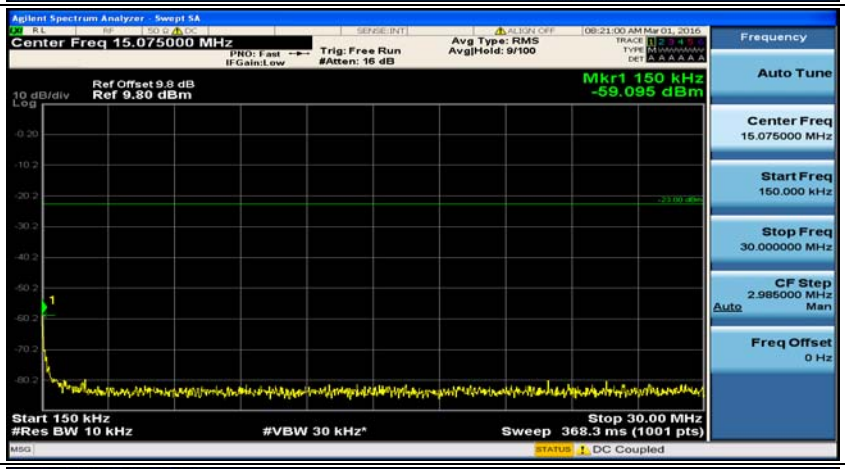




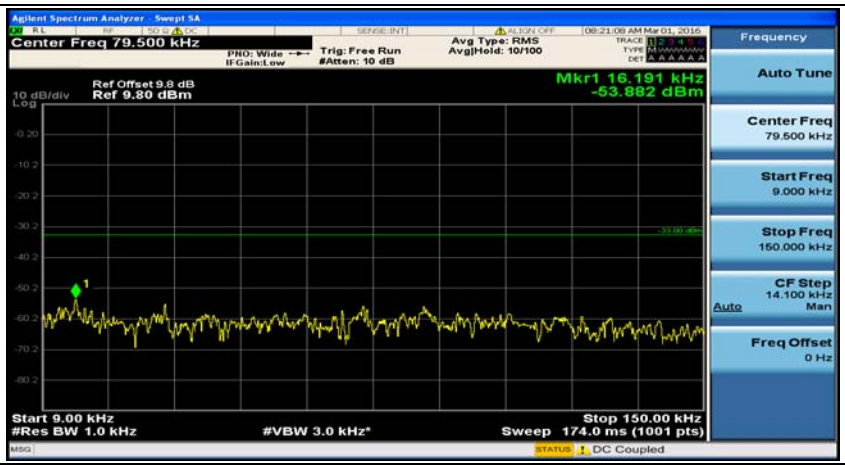
Channel Bandwidth: 10 MHz_LCH_16QAM_25RB#0

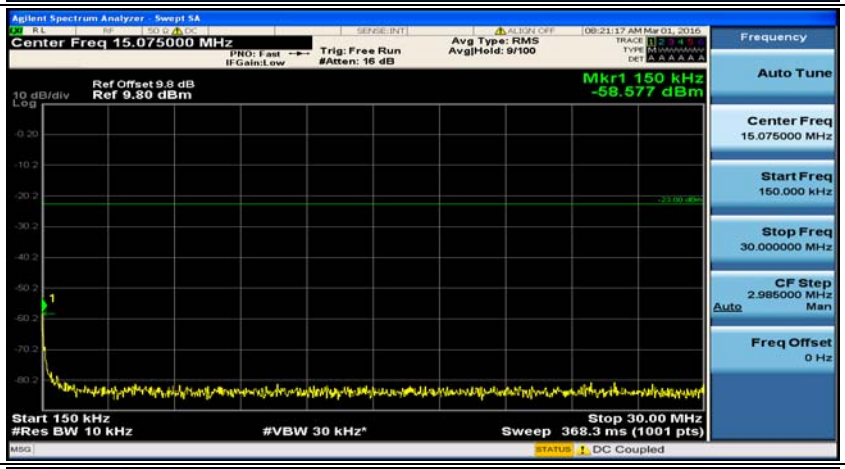
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24



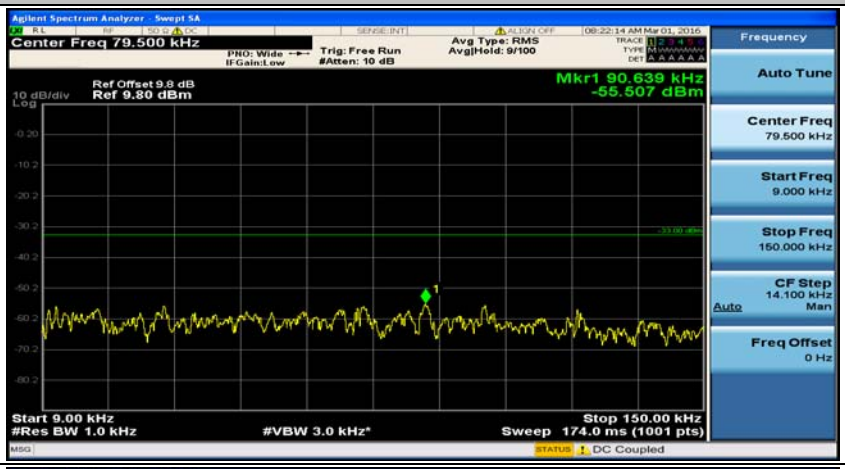
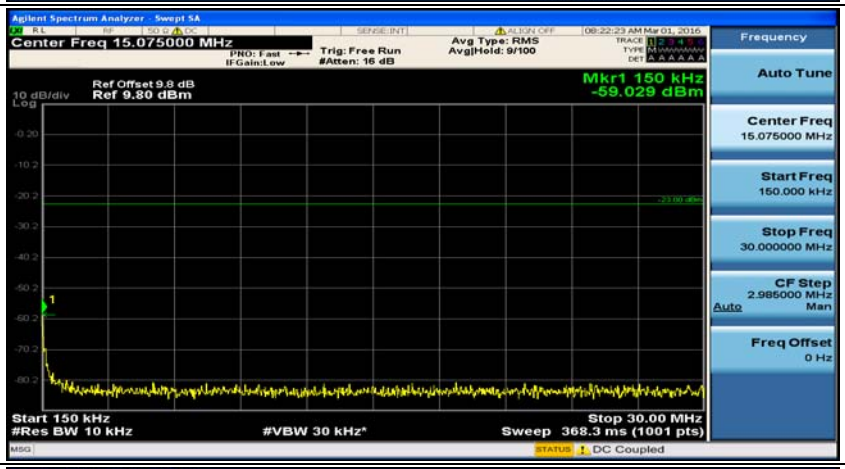
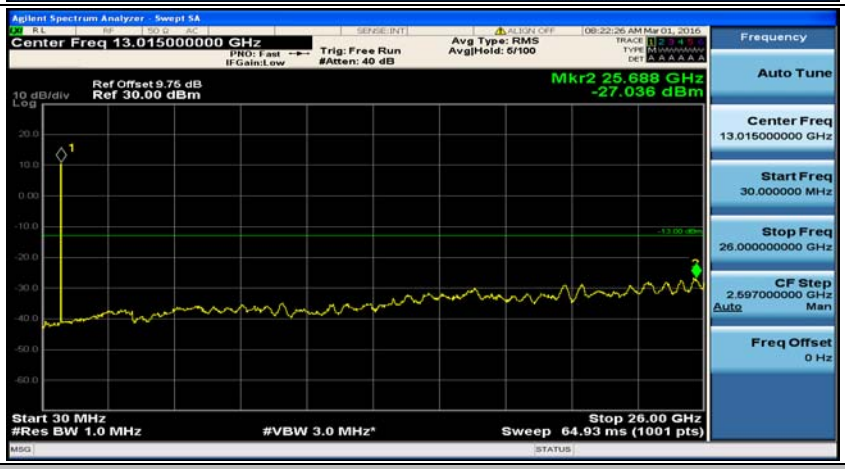


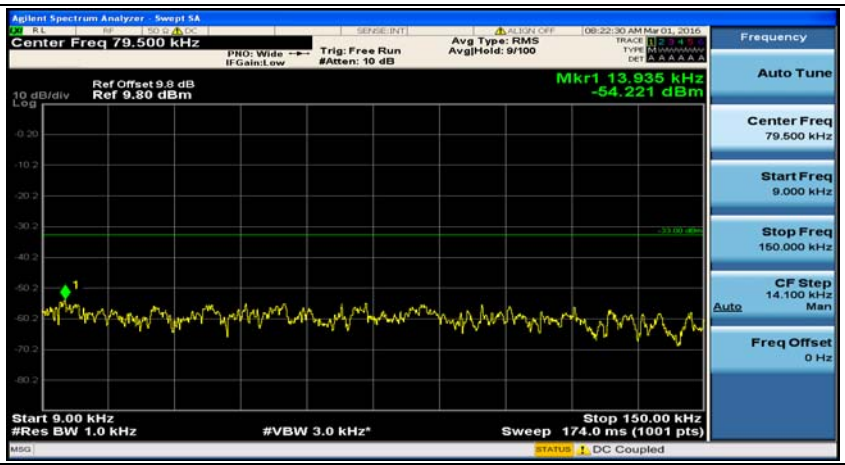
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49

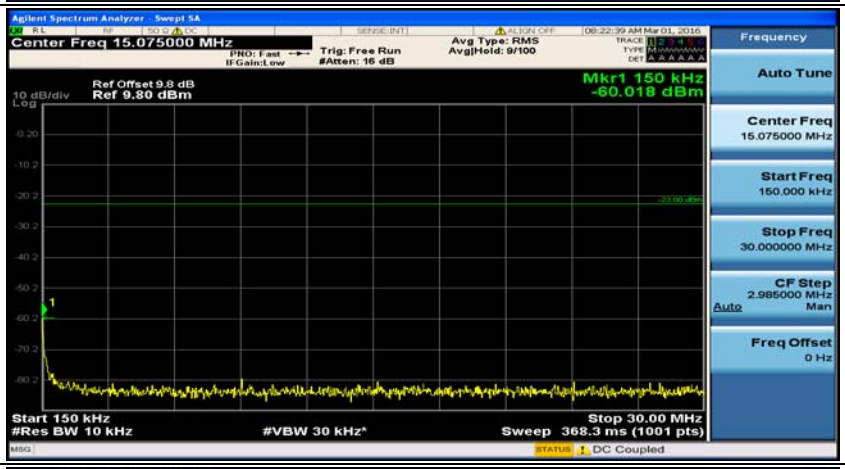




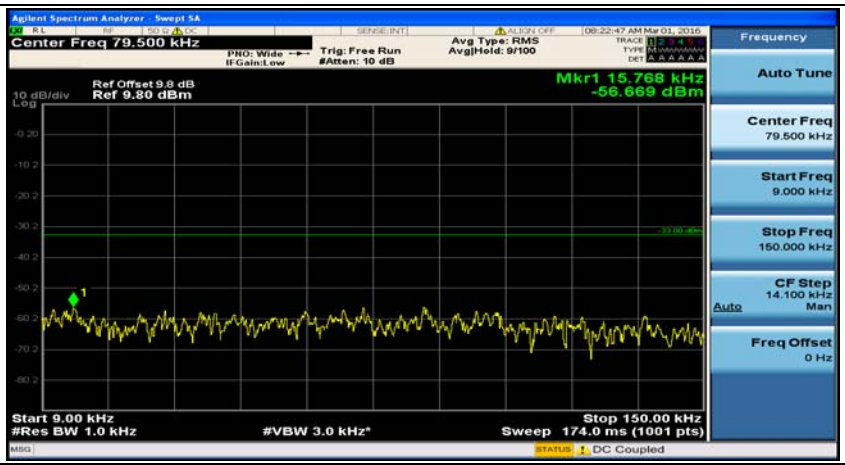
Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#0

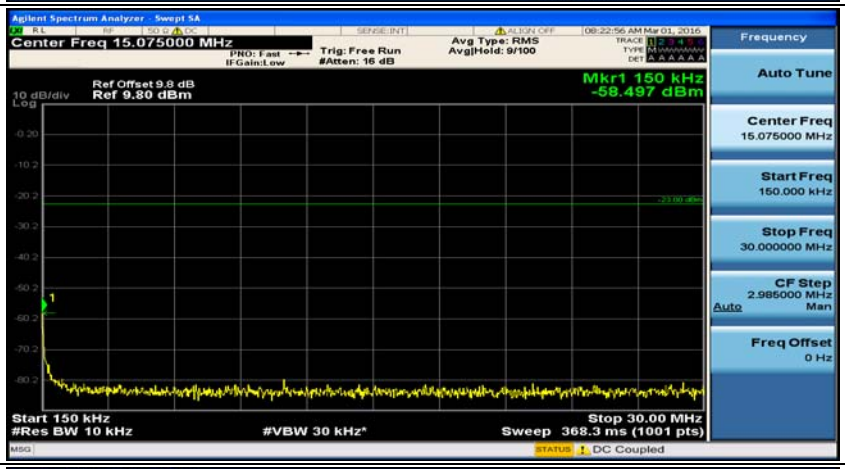
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24

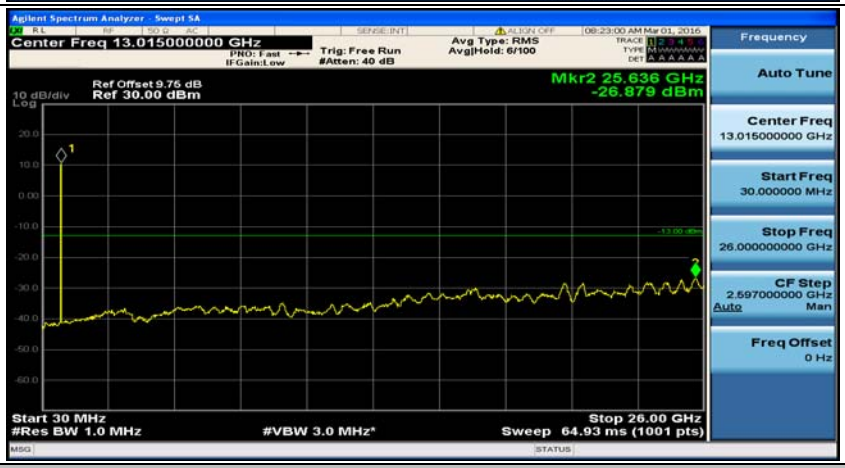




Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49







Channel Bandwidth: 10 MHz_HCH_16QAM_25RB#0

Appendix E: Frequency Stability

Test Result

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	0.57	0.000810	± 2.5	PASS
		VN	TN	0.21	0.000304	± 2.5	PASS
		VH	TN	1.22	0.001721	± 2.5	PASS
	MCH	VL	TN	3.36	0.004735	± 2.5	PASS
		VN	TN	1.73	0.002438	± 2.5	PASS
		VH	TN	2.07	0.002921	± 2.5	PASS
	HCH	VL	TN	0.13	0.000180	± 2.5	PASS
		VN	TN	-2.15	-0.003007	± 2.5	PASS
		VH	TN	0.86	0.001203	± 2.5	PASS
16QAM	LCH	VL	TN	0.34	0.000486	± 2.5	PASS
		VN	TN	3.30	0.004677	± 2.5	PASS
		VH	TN	-0.84	-0.001195	± 2.5	PASS
	MCH	VL	TN	1.54	0.002176	± 2.5	PASS
		VN	TN	1.40	0.001975	± 2.5	PASS
		VH	TN	4.76	0.006709	± 2.5	PASS
	HCH	VL	TN	0.39	0.000541	± 2.5	PASS
		VN	TN	-0.21	-0.000301	± 2.5	PASS
		VH	TN	-0.39	-0.000541	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-2.45	-0.003462	± 2.5	PASS
		VN	-20	-1.40	-0.001984	± 2.5	PASS
		VN	-10	0.79	0.001114	± 2.5	PASS
		VN	0	3.08	0.004353	± 2.5	PASS
		VN	10	0.82	0.001154	± 2.5	PASS
		VN	20	-1.43	-0.002025	± 2.5	PASS
		VN	30	-0.43	-0.000607	± 2.5	PASS
		VN	40	0.04	0.000061	± 2.5	PASS
		VN	50	-0.04	-0.000061	± 2.5	PASS
	MCH	VN	-30	1.80	0.002539	± 2.5	PASS
		VN	-20	-0.07	-0.000101	± 2.5	PASS
		VN	-10	0.23	0.000322	± 2.5	PASS
		VN	0	0.53	0.000745	± 2.5	PASS
		VN	10	0.62	0.000866	± 2.5	PASS
		VN	20	0.60	0.000846	± 2.5	PASS
		VN	30	0.90	0.001269	± 2.5	PASS
		VN	40	0.19	0.000262	± 2.5	PASS

		VN	50	-1.04	-0.001471	± 2.5	PASS
	HCH	VN	-30	0.29	0.000401	± 2.5	PASS
		VN	-20	3.36	0.004712	± 2.5	PASS
		VN	-10	3.23	0.004531	± 2.5	PASS
		VN	0	-0.56	-0.000782	± 2.5	PASS
		VN	10	-1.92	-0.002687	± 2.5	PASS
		VN	20	0.36	0.000501	± 2.5	PASS
		VN	30	1.86	0.002606	± 2.5	PASS
		VN	40	0.29	0.000401	± 2.5	PASS
		VN	50	1.76	0.002466	± 2.5	PASS
16QAM	LCH	VN	-30	0.86	0.001215	± 2.5	PASS
		VN	-20	-1.49	-0.002106	± 2.5	PASS
		VN	-10	-1.82	-0.002571	± 2.5	PASS
		VN	0	-0.89	-0.001255	± 2.5	PASS
		VN	10	2.56	0.003624	± 2.5	PASS
		VN	20	1.10	0.001559	± 2.5	PASS
		VN	30	1.27	0.001802	± 2.5	PASS
		VN	40	0.51	0.000729	± 2.5	PASS
		VN	50	1.39	0.001964	± 2.5	PASS
	MCH	VN	-30	4.05	0.005702	± 2.5	PASS
		VN	-20	-0.79	-0.001108	± 2.5	PASS
		VN	-10	0.01	0.000020	± 2.5	PASS
		VN	0	1.20	0.001692	± 2.5	PASS
		VN	10	-2.25	-0.003163	± 2.5	PASS
		VN	20	0.79	0.001108	± 2.5	PASS
		VN	30	2.62	0.003687	± 2.5	PASS
		VN	40	1.93	0.002720	± 2.5	PASS
		VN	50	-2.37	-0.003345	± 2.5	PASS
	HCH	VN	-30	-1.56	-0.002185	± 2.5	PASS
		VN	-20	0.39	0.000541	± 2.5	PASS
		VN	-10	1.75	0.002446	± 2.5	PASS
		VN	0	-1.03	-0.001444	± 2.5	PASS
		VN	10	0.82	0.001143	± 2.5	PASS
		VN	20	2.13	0.002717	± 2.5	PASS
		VN	30	2.65	0.003373	± 2.5	PASS
		VN	40	2.39	0.003045	± 2.5	PASS
		VN	50	2.98	0.003793	± 2.5	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	0.96	0.001352	± 2.5	PASS
		VN	TN	-0.01	-0.000020	± 2.5	PASS
		VH	TN	0.63	0.000888	± 2.5	PASS
	MCH	VL	TN	-0.62	-0.000866	± 2.5	PASS
		VN	TN	1.13	0.001592	± 2.5	PASS

		VH	TN	-0.92	-0.001289	± 2.5	PASS
	HCH	VL	TN	0.86	0.001207	± 2.5	PASS
		VN	TN	-0.40	-0.000563	± 2.5	PASS
		VH	TN	0.53	0.000744	± 2.5	PASS
16QAM	LCH	VL	TN	1.36	0.001917	± 2.5	PASS
		VN	TN	-0.07	-0.000101	± 2.5	PASS
		VH	TN	-0.69	-0.000968	± 2.5	PASS
	MCH	VL	TN	0.56	0.000786	± 2.5	PASS
		VN	TN	-0.43	-0.000604	± 2.5	PASS
		VH	TN	-0.01	-0.000020	± 2.5	PASS
	HCH	VL	TN	-0.33	-0.000463	± 2.5	PASS
		VN	TN	-0.37	-0.000523	± 2.5	PASS
		VH	TN	-0.41	-0.000583	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
16QAM	LCH	VN	-30	-0.56	-0.000787	± 2.5	PASS
		VN	-20	0.56	0.000787	± 2.5	PASS
		VN	-10	-0.44	-0.000625	± 2.5	PASS
		VN	0	0.17	0.000242	± 2.5	PASS
		VN	10	0.72	0.001009	± 2.5	PASS
		VN	20	1.03	0.001453	± 2.5	PASS
		VN	30	-0.11	-0.000161	± 2.5	PASS
		VN	40	1.13	0.001594	± 2.5	PASS
		VN	50	0.50	0.000706	± 2.5	PASS
	MCH	VN	-30	-0.39	-0.000544	± 2.5	PASS
		VN	-20	1.32	0.001854	± 2.5	PASS
		VN	-10	0.37	0.000524	± 2.5	PASS
		VN	0	-0.43	-0.000604	± 2.5	PASS
		VN	10	1.49	0.002095	± 2.5	PASS
		VN	20	-0.23	-0.000322	± 2.5	PASS
		VN	30	0.14	0.000201	± 2.5	PASS
		VN	40	0.76	0.001068	± 2.5	PASS
		VN	50	0.44	0.000625	± 2.5	PASS
	HCH	VN	-30	1.34	0.001891	± 2.5	PASS
		VN	-20	-0.51	-0.000724	± 2.5	PASS
		VN	-10	1.67	0.002354	± 2.5	PASS
		VN	0	1.57	0.002213	± 2.5	PASS
		VN	10	-0.66	-0.000926	± 2.5	PASS
		VN	20	1.06	0.001489	± 2.5	PASS
		VN	30	0.40	0.000563	± 2.5	PASS
		VN	40	0.94	0.001328	± 2.5	PASS
		VN	50	-1.12	-0.001569	± 2.5	PASS
QPSK	LCH	VN	-30	0.49	0.000686	± 2.5	PASS
		VN	-20	0.37	0.000525	± 2.5	PASS
		VN	-10	-0.39	-0.000545	± 2.5	PASS
		VN	0	0.50	0.000706	± 2.5	PASS
		VN	10	1.49	0.002098	± 2.5	PASS
		VN	20	1.24	0.001755	± 2.5	PASS
		VN	30	-0.76	-0.001069	± 2.5	PASS

		VN	40	-0.56	-0.000787	± 2.5	PASS
		VN	50	1.16	0.001634	± 2.5	PASS
	MCH	VN	-30	-1.33	-0.001874	± 2.5	PASS
		VN	-20	1.52	0.002136	± 2.5	PASS
		VN	-10	-0.06	-0.000081	± 2.5	PASS
		VN	0	0.93	0.001310	± 2.5	PASS
		VN	10	1.75	0.002458	± 2.5	PASS
		VN	20	0.44	0.000625	± 2.5	PASS
		VN	30	-0.06	-0.000081	± 2.5	PASS
		VN	40	0.51	0.000725	± 2.5	PASS
		VN	50	1.49	0.002095	± 2.5	PASS
	HCH	VN	-30	0.10	0.000141	± 2.5	PASS
		VN	-20	-0.21	-0.000302	± 2.5	PASS
		VN	-10	0.92	0.001288	± 2.5	PASS
		VN	0	0.37	0.000523	± 2.5	PASS
		VN	10	0.49	0.000684	± 2.5	PASS
		VN	20	-0.13	-0.000181	± 2.5	PASS
		VN	30	-0.20	-0.000282	± 2.5	PASS
		VN	40	-0.67	-0.000946	± 2.5	PASS
		VN	50	0.26	0.000362	± 2.5	PASS