

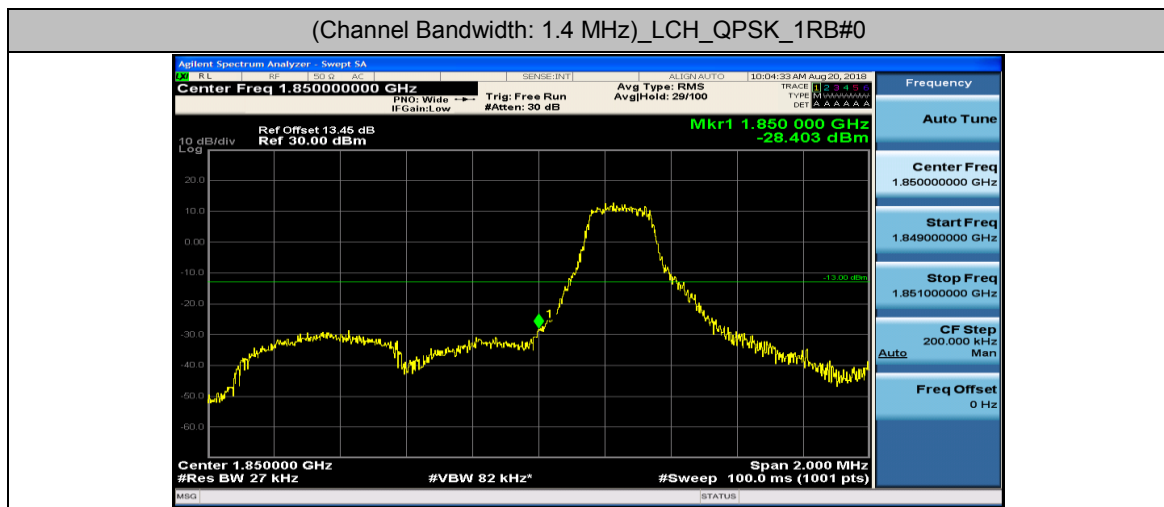


Appendix D: Band Edge

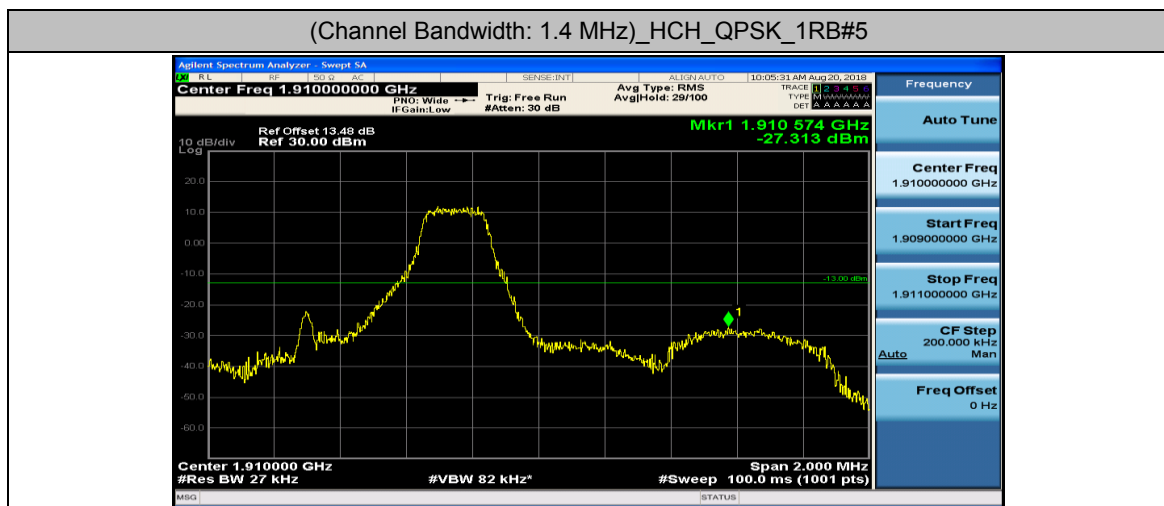
Test Graphs

Channel Bandwidth: 1.4 MHz

(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#0

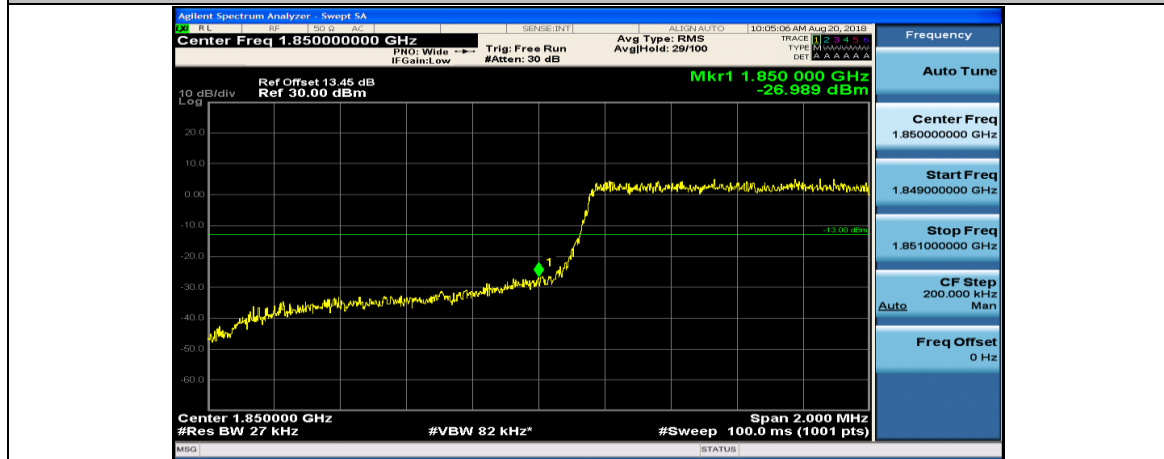


(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#5

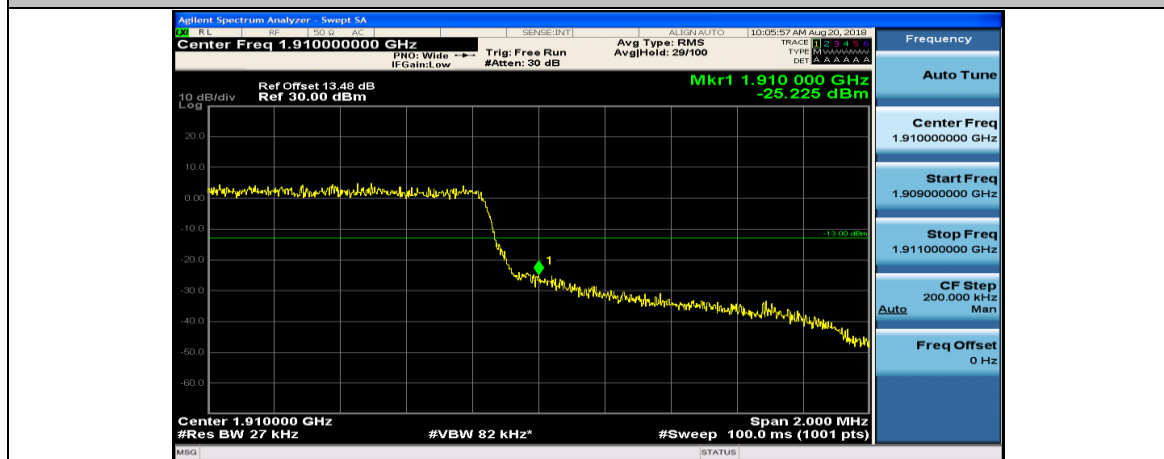




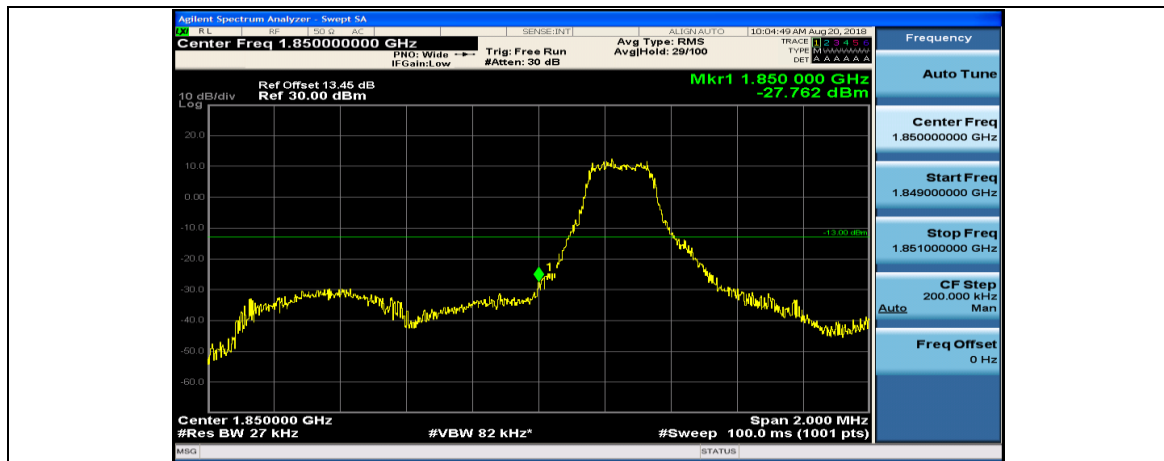
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_6RB#0



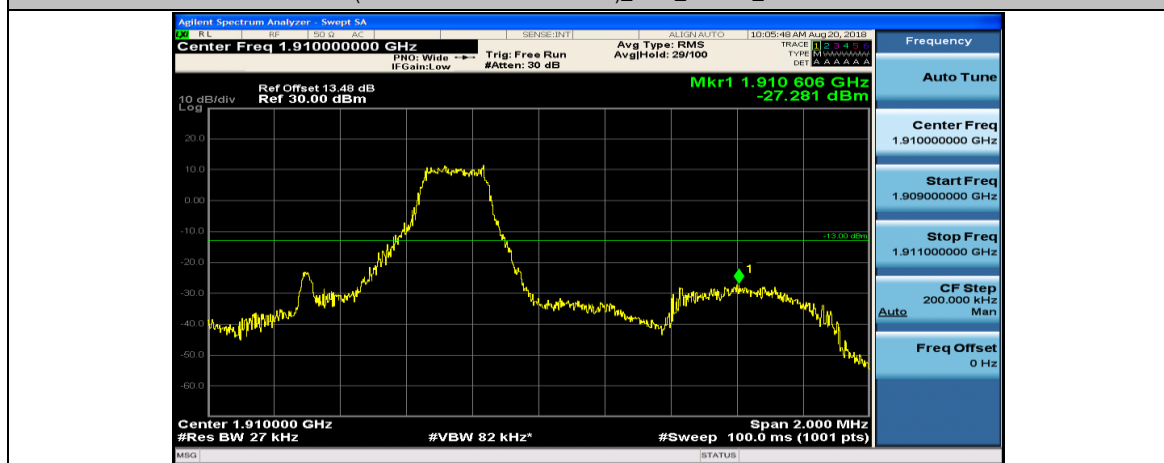
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_6RB#0



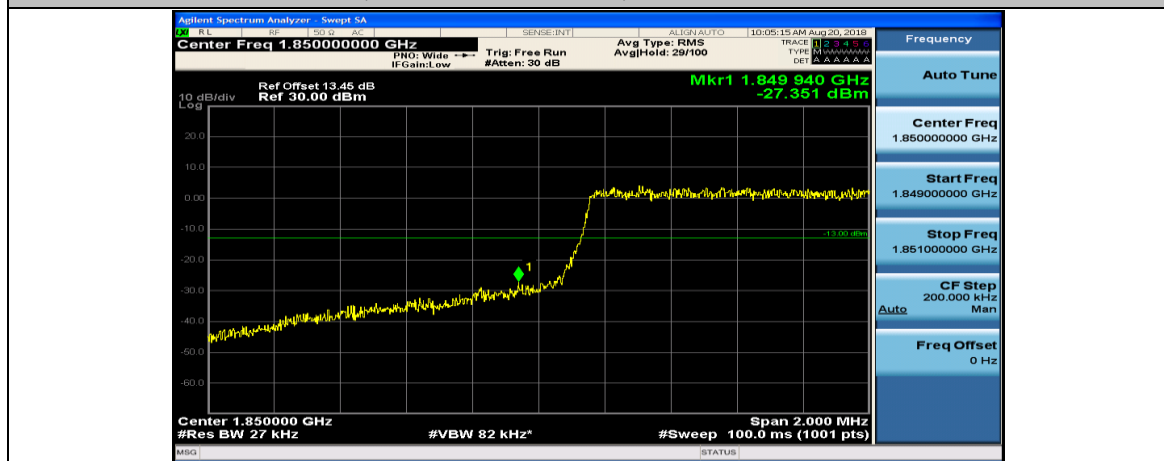
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#0



(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#5

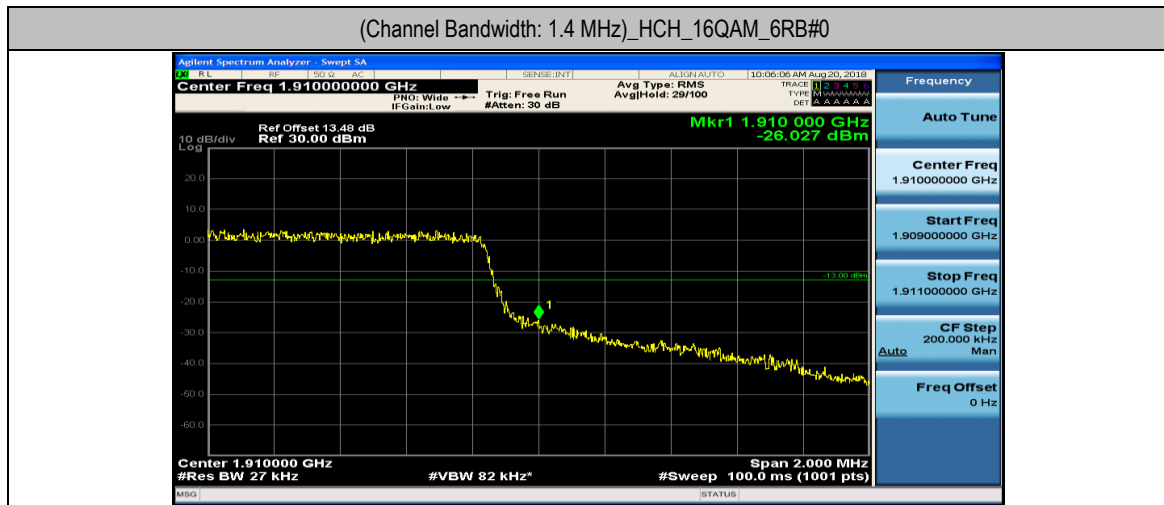


(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_6RB#0



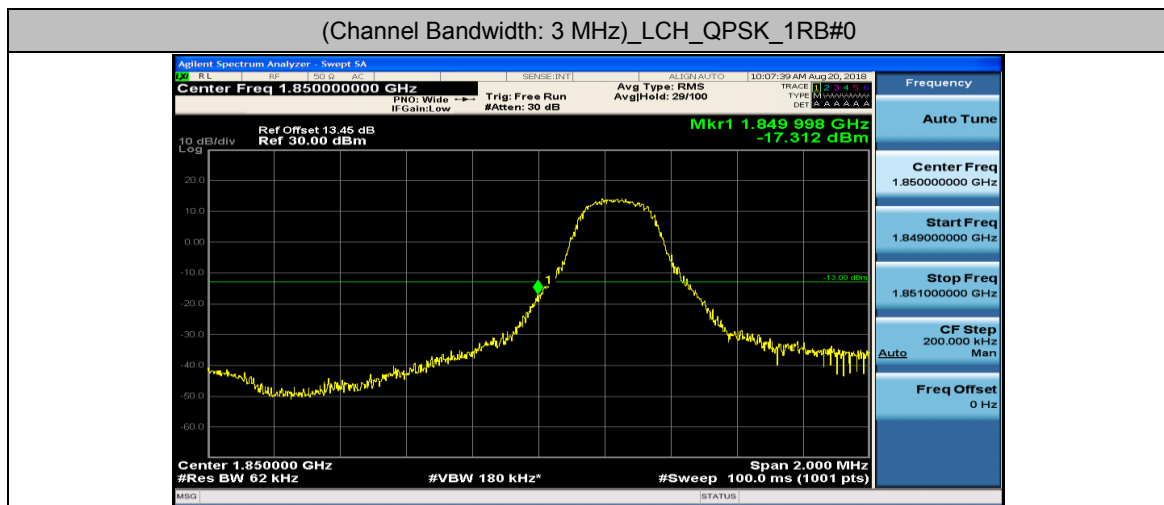


(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_6RB#0

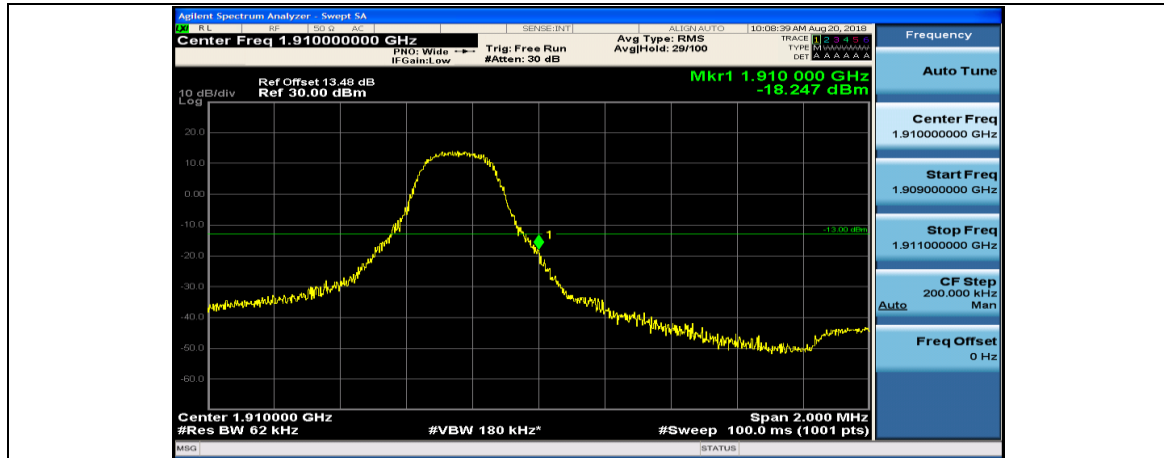


Channel Bandwidth: 3 MHz

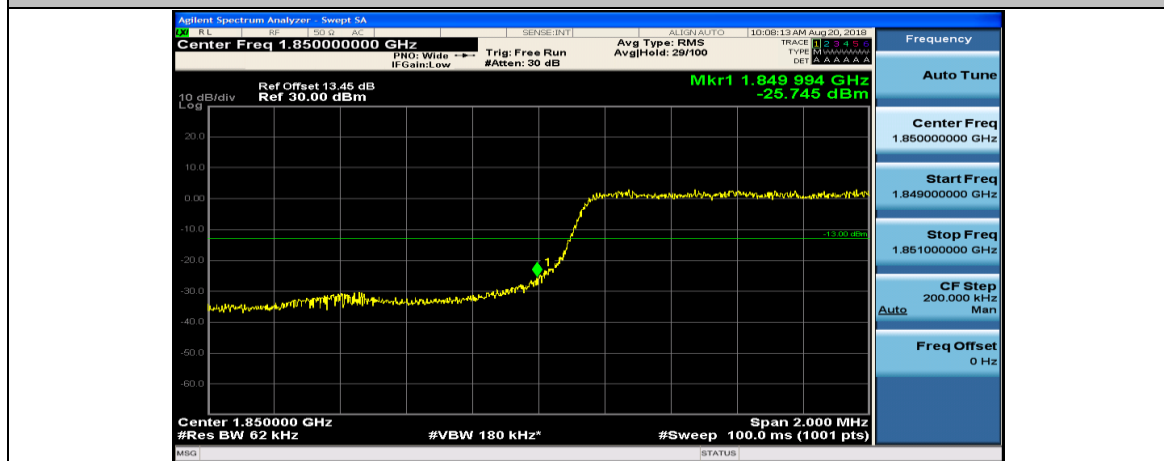
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#0



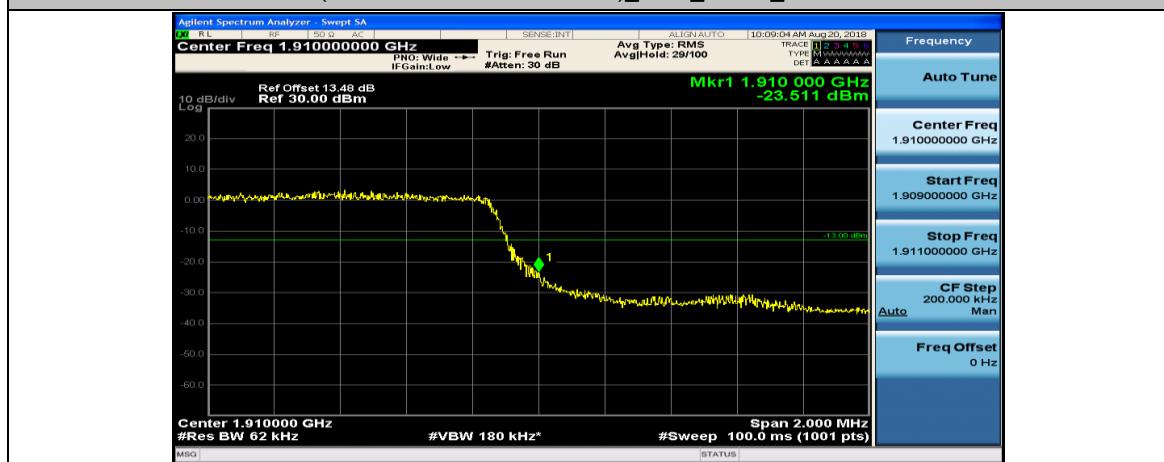
(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#14



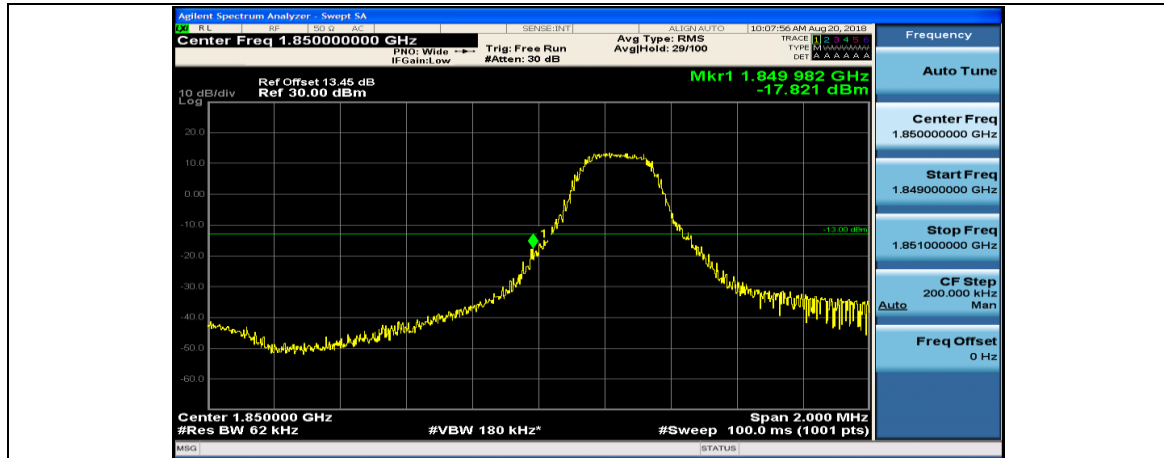
(Channel Bandwidth: 3 MHz)_LCH_QPSK_15RB#0



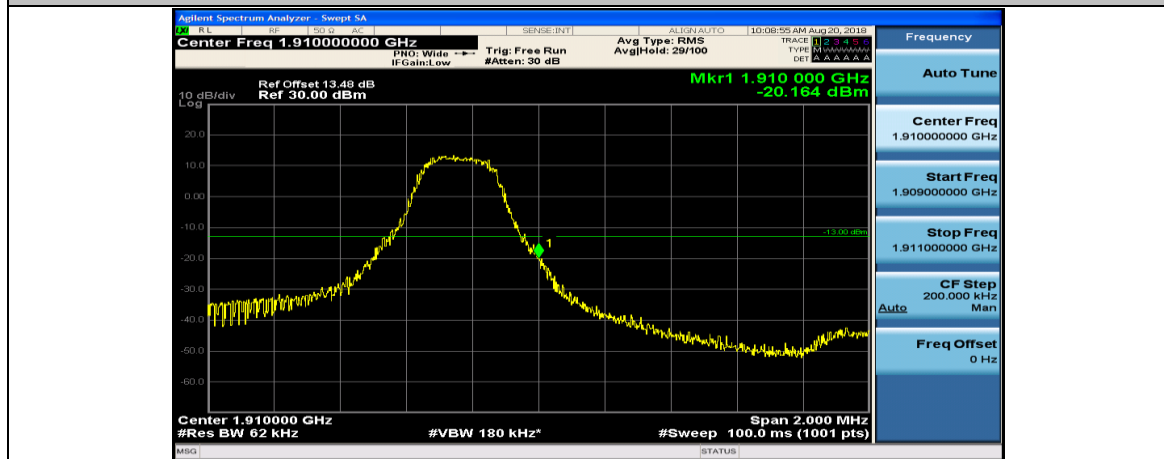
(Channel Bandwidth: 3 MHz)_HCH_QPSK_15RB#0



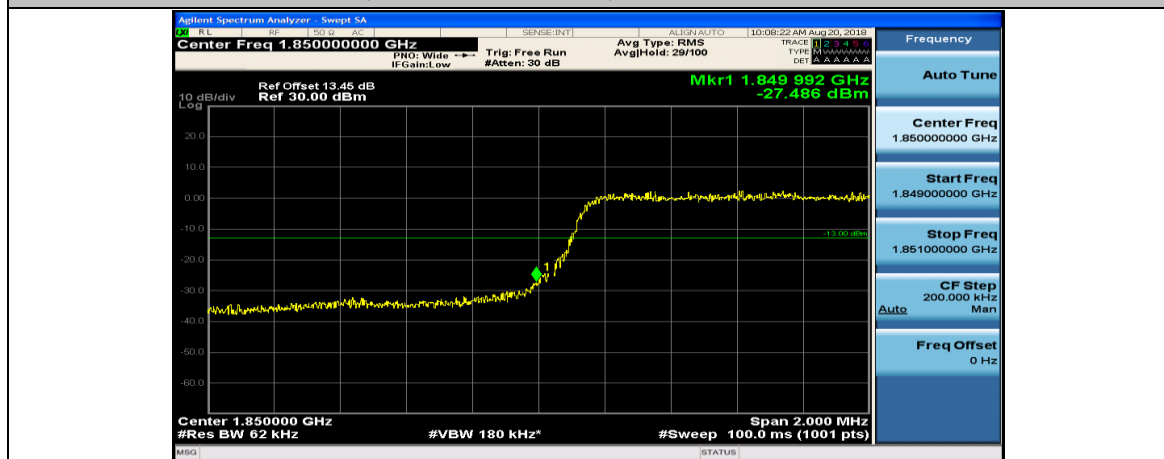
(Channel Bandwidth: 3 MHz)_LCH_16QAM_1RB#0



(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#14

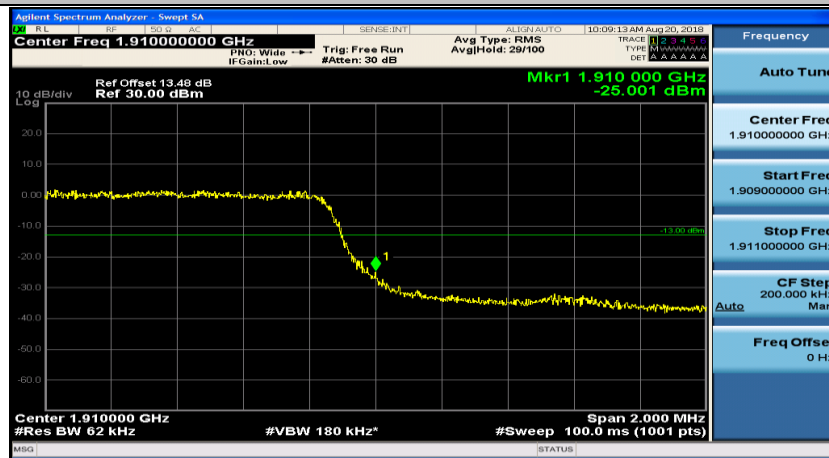


(Channel Bandwidth: 3 MHz)_LCH_16QAM_15RB#0



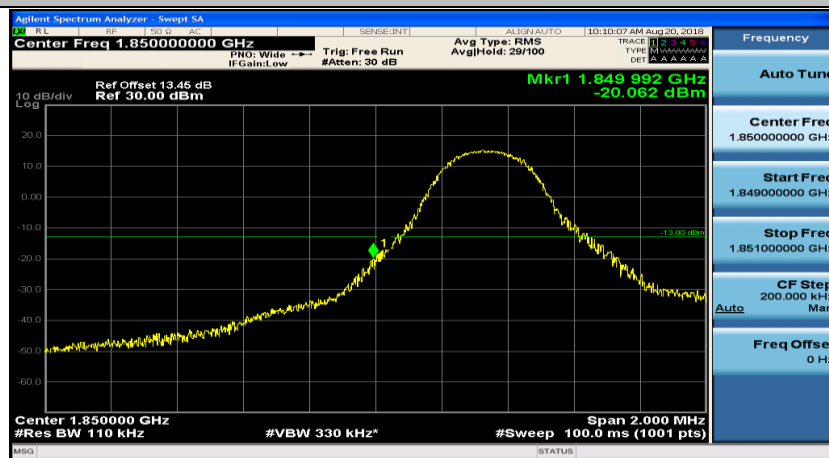


(Channel Bandwidth: 3 MHz)_HCH_16QAM_15RB#0

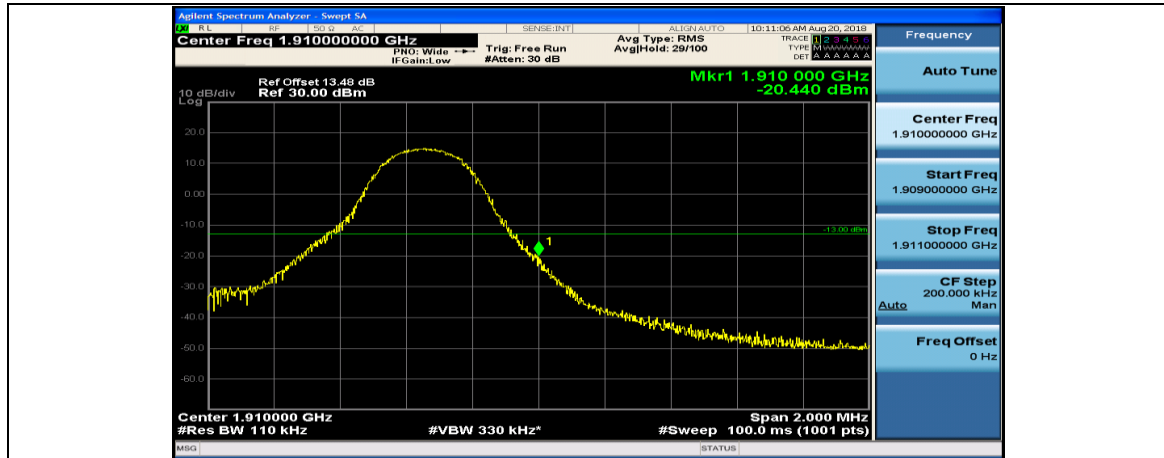


Channel Bandwidth: 5 MHz

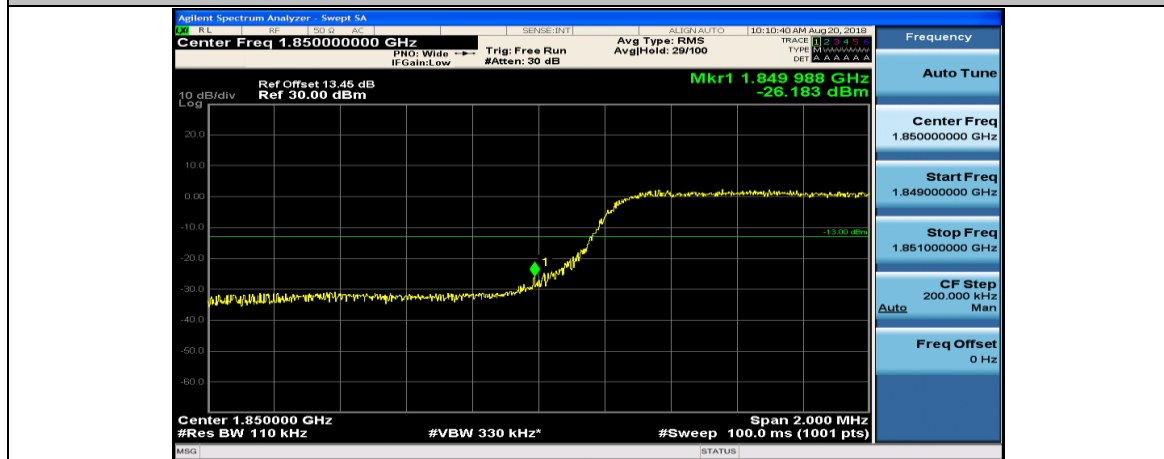
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



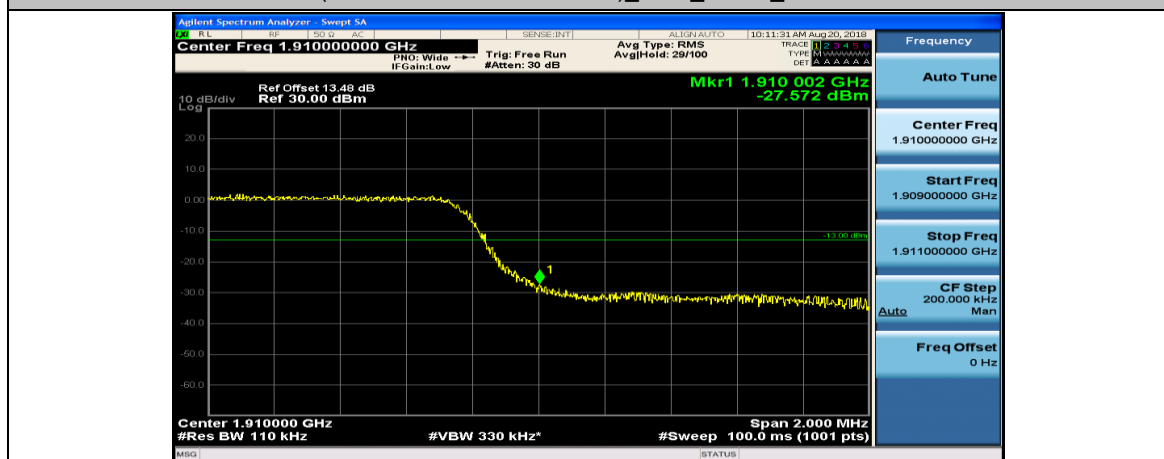
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24



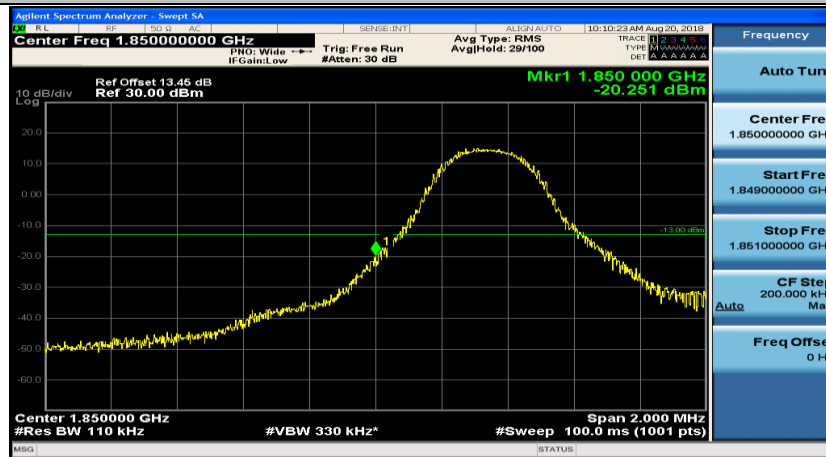
(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0



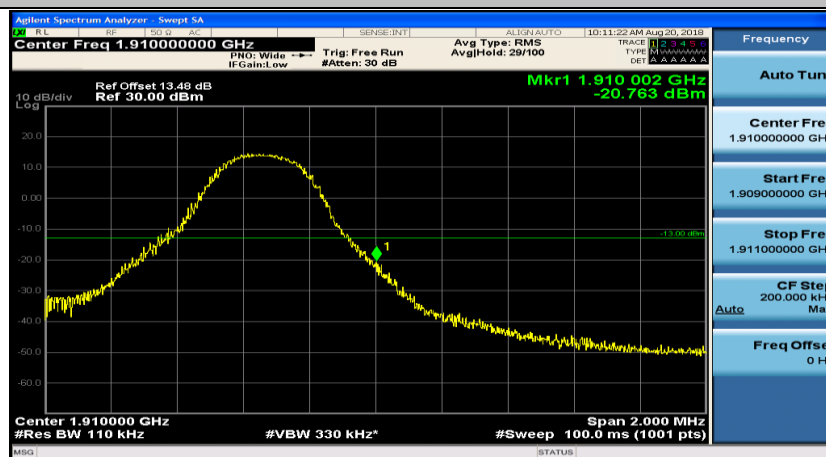
(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0



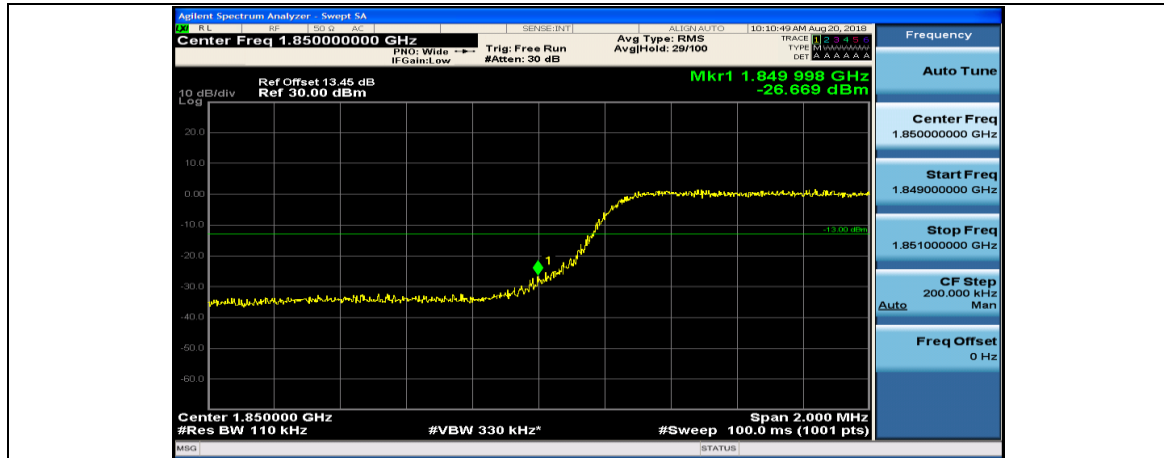
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



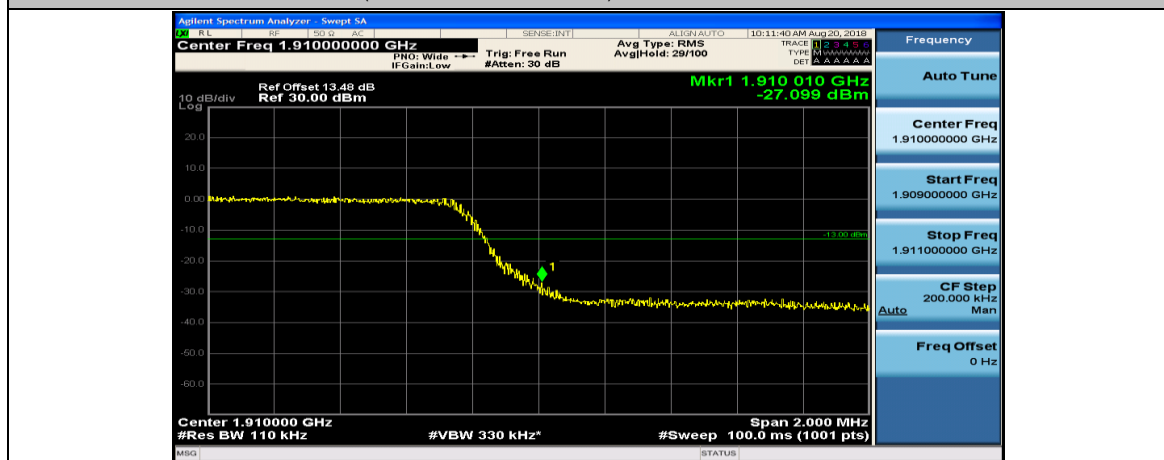
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24



(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0

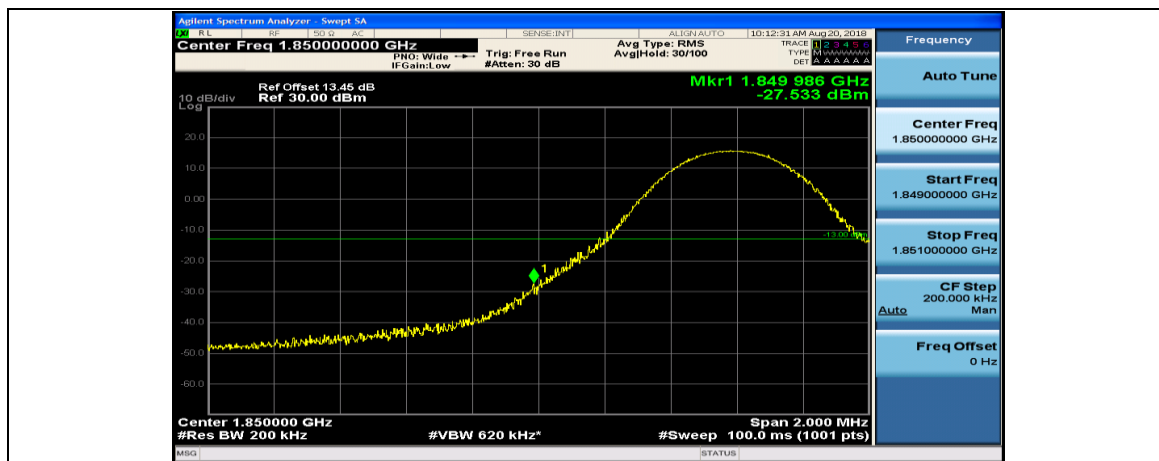


(Channel Bandwidth: 5 MHz)_HCH_16QAM_25RB#0

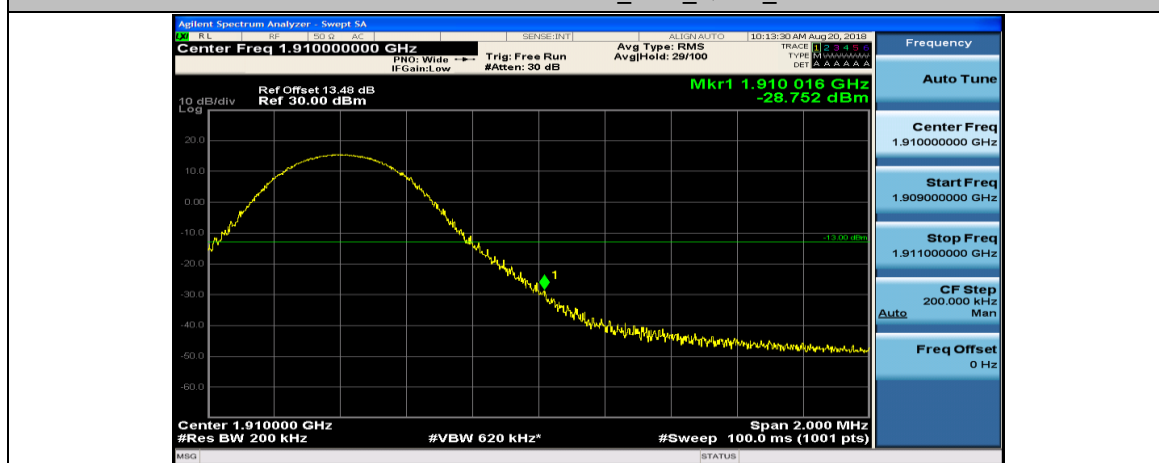


Channel Bandwidth: 10 MHz

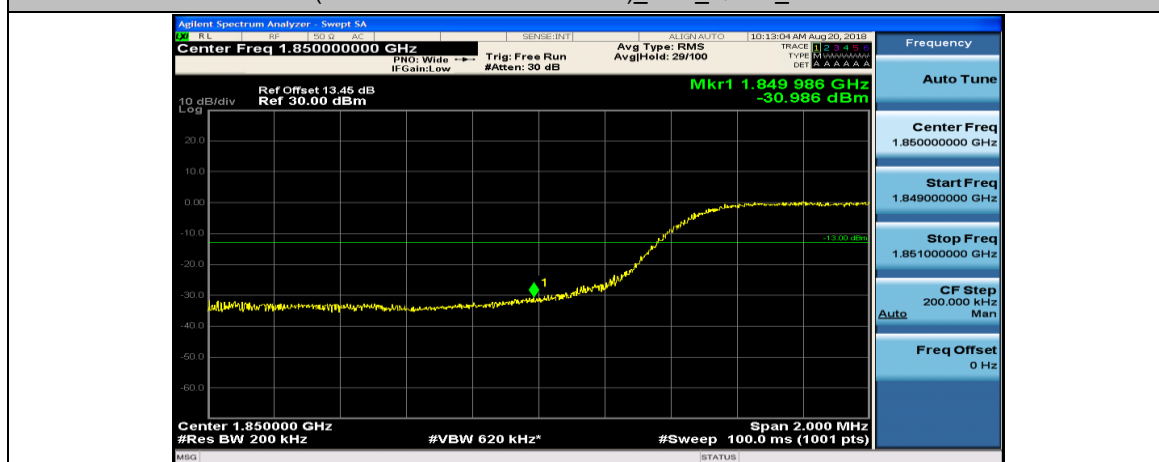
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#0



Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#49

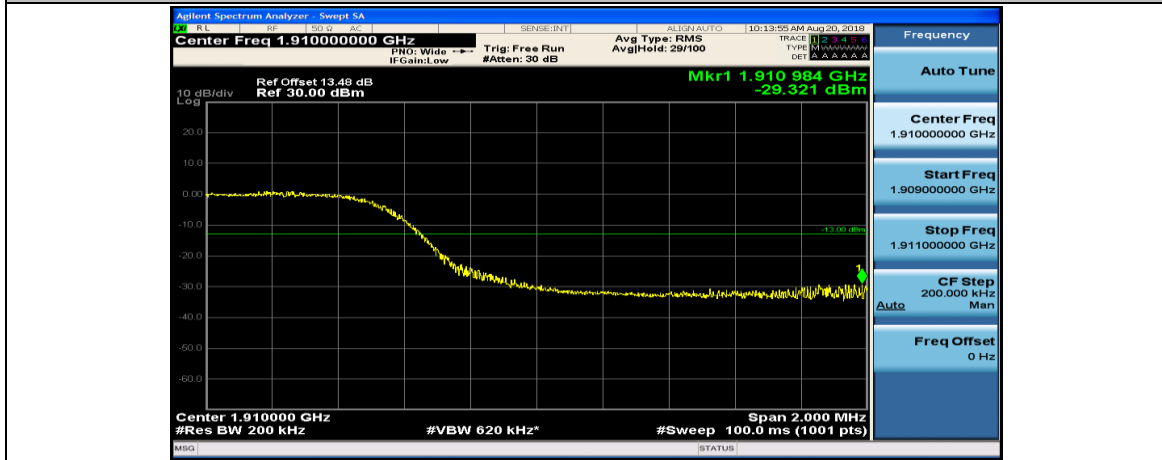


(Channel Bandwidth: 10 MHz)_LCH_QPSK_50RB#0

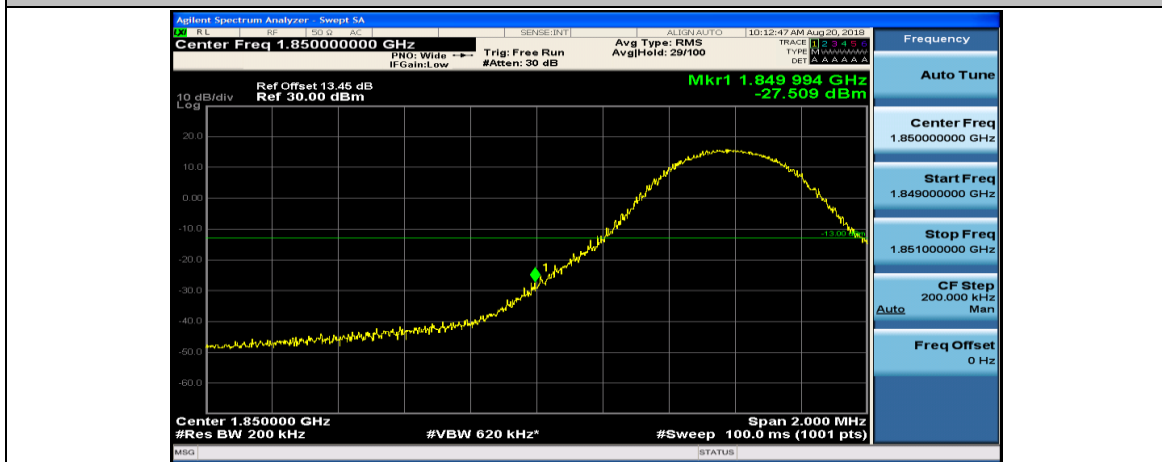




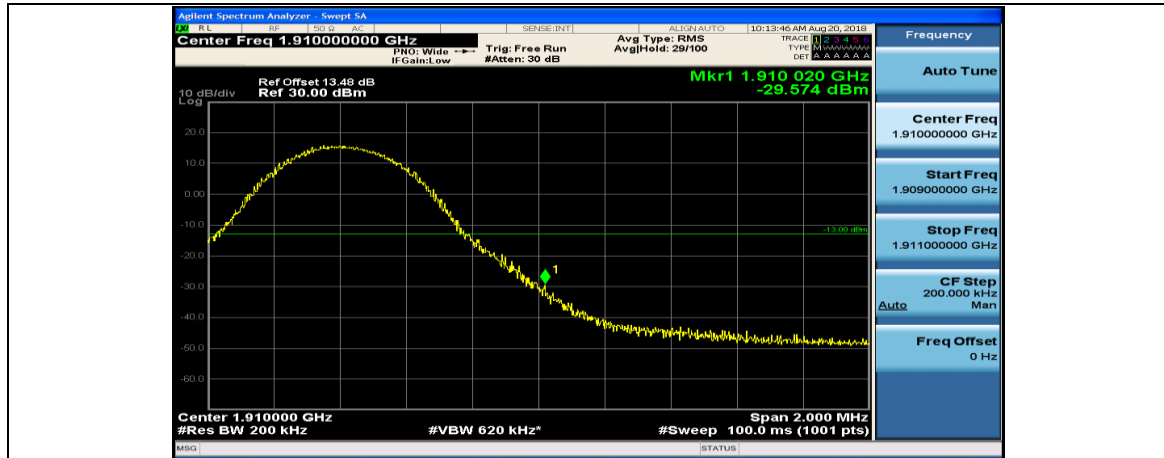
(Channel Bandwidth: 10 MHz)_HCH_QPSK_50RB#0



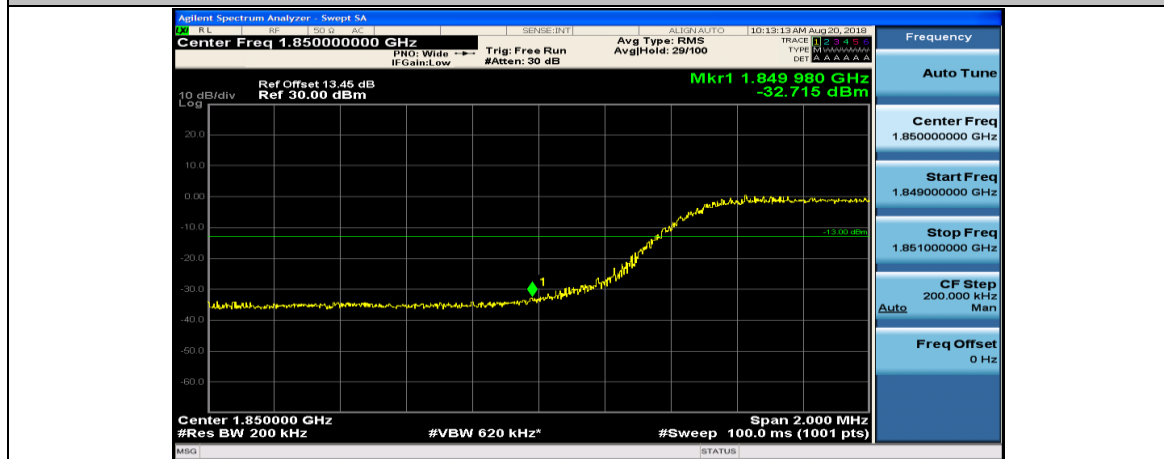
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0



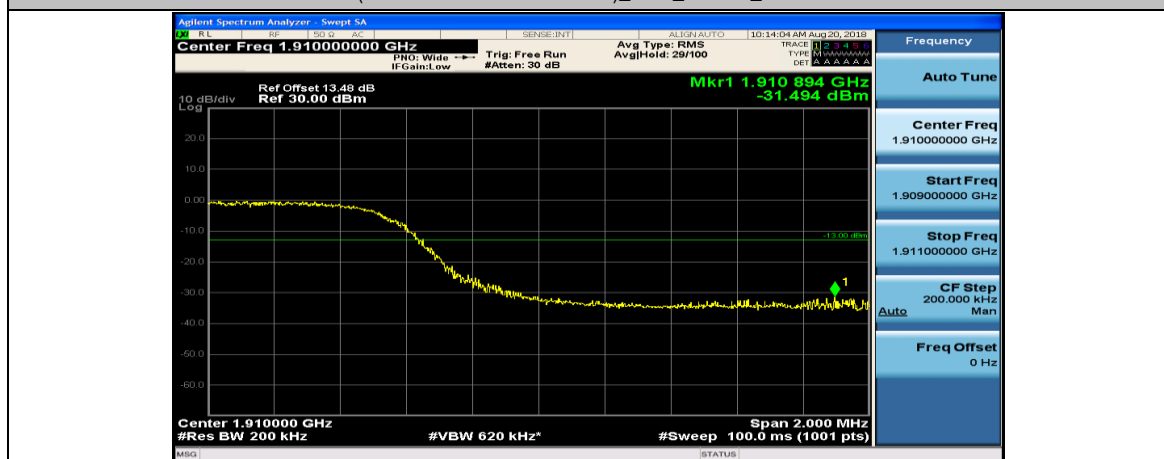
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49



(Channel Bandwidth: 10 MHz)_LCH_16QAM_50RB#0



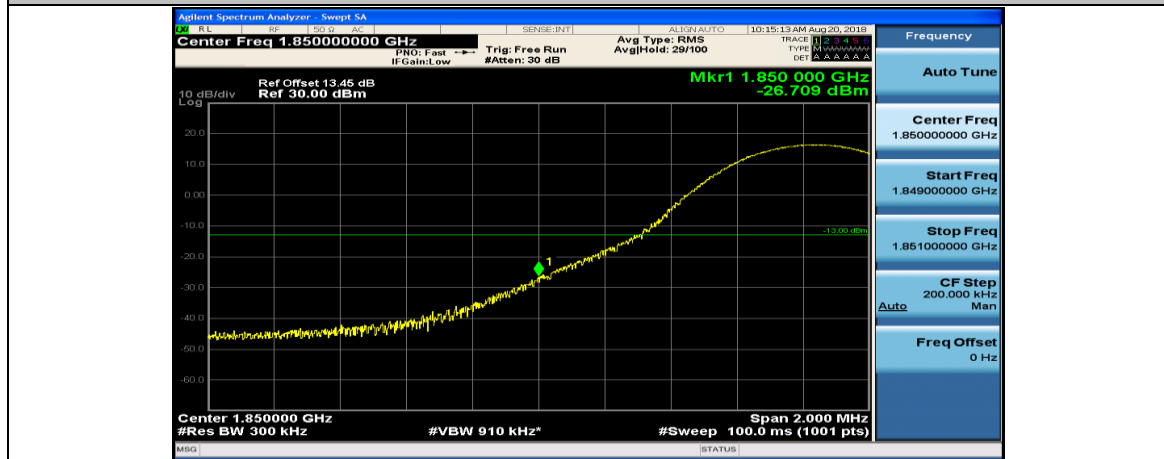
(Channel Bandwidth: 10 MHz)_HCH_16QAM_50RB#0



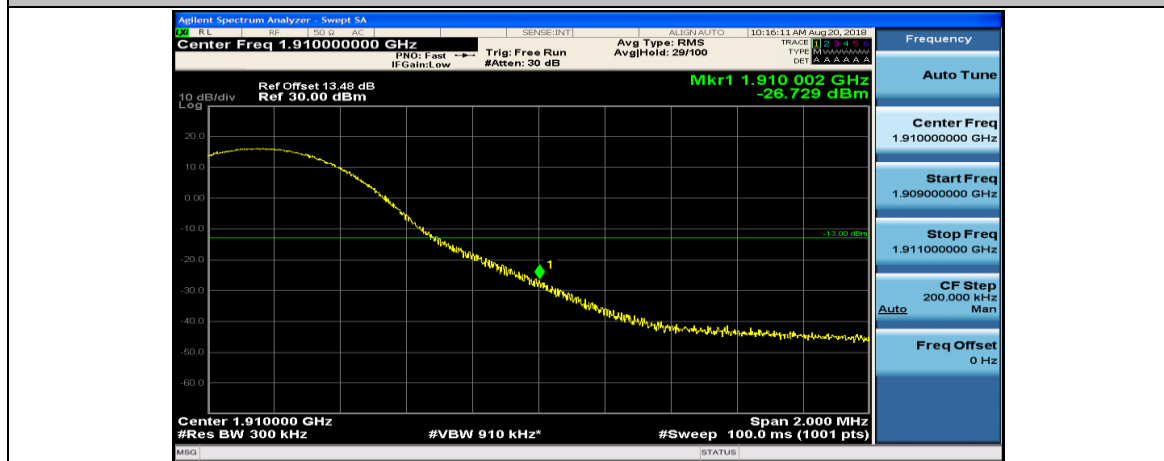


Channel Bandwidth: 15 MHz

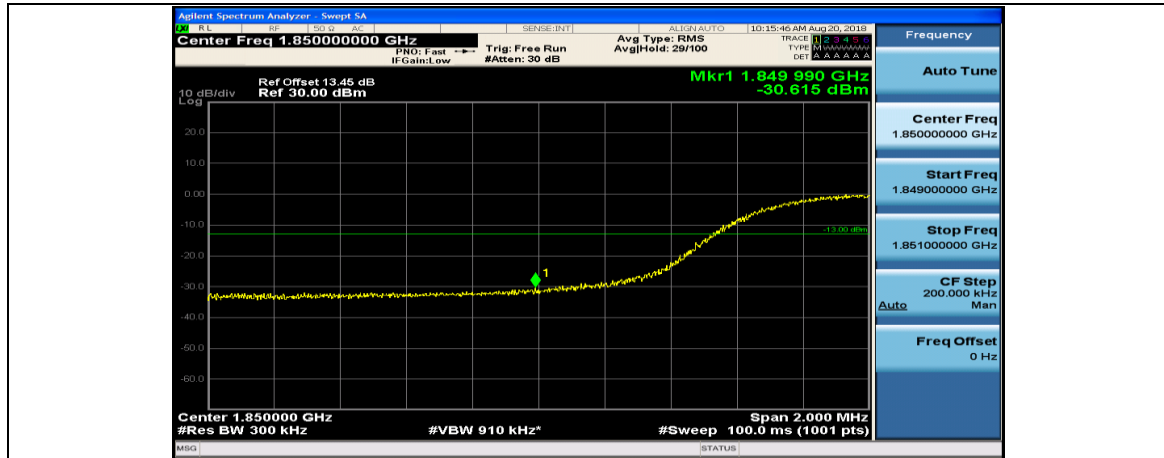
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#0



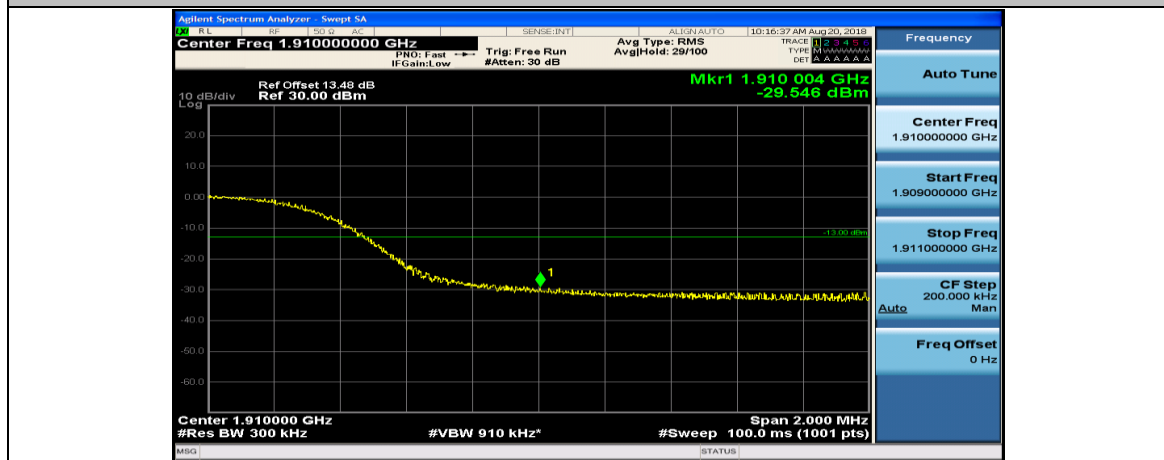
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#74



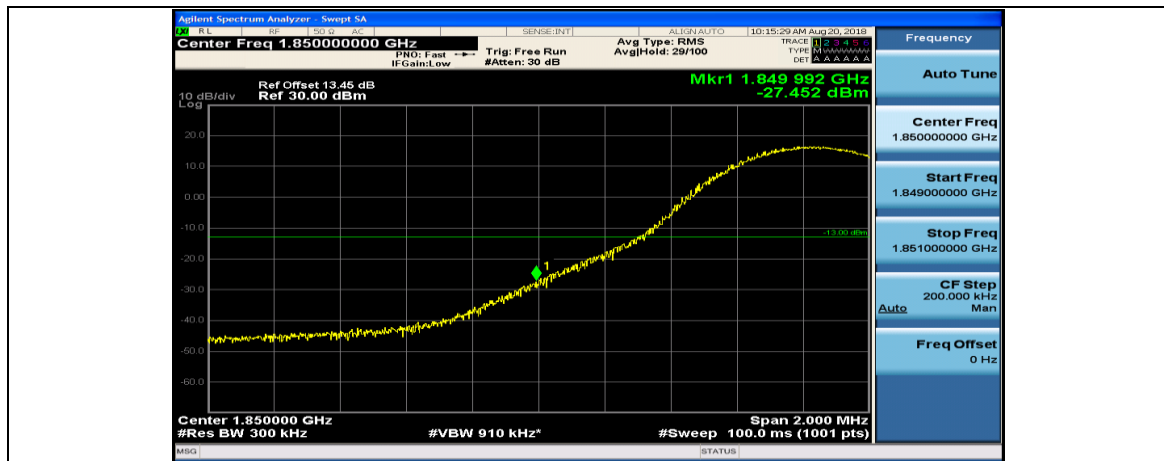
(Channel Bandwidth: 15 MHz)_LCH_QPSK_75RB#0



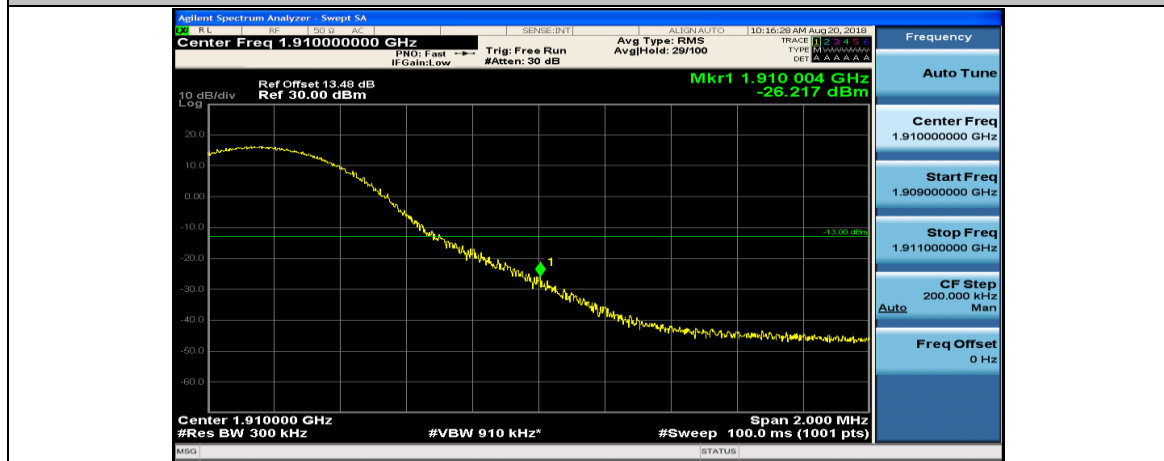
(Channel Bandwidth: 15 MHz)_HCH_QPSK_75RB#0



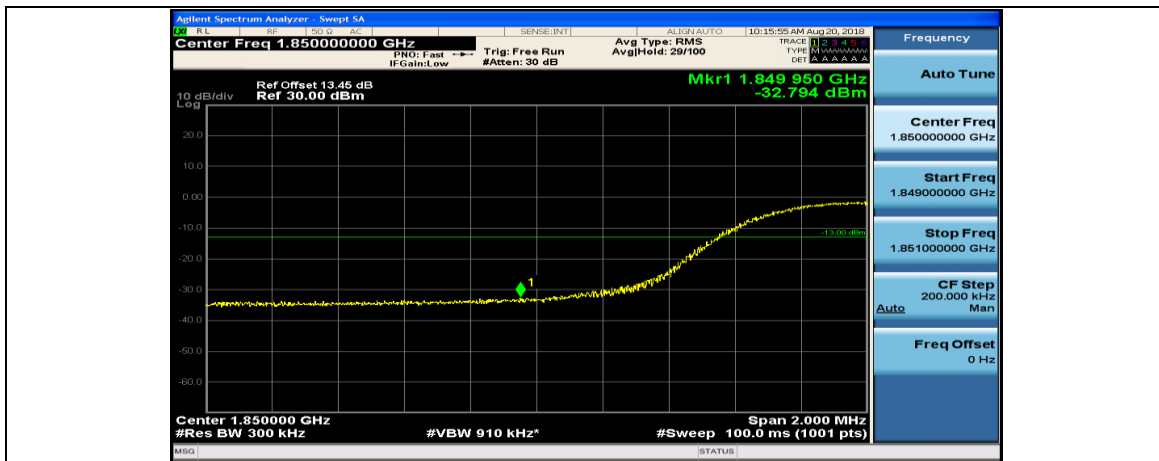
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0



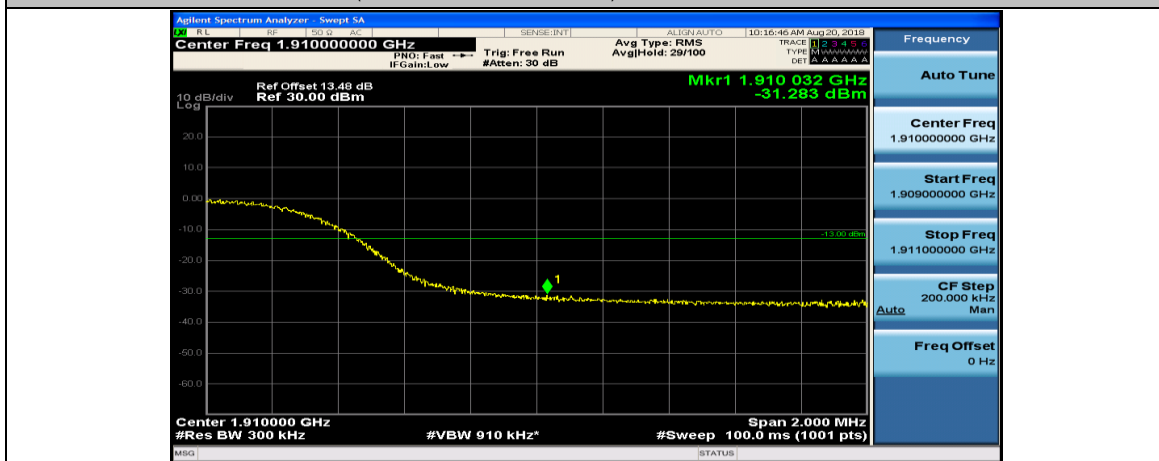
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#74



(Channel Bandwidth: 15 MHz)_LCH_16QAM_75RB#0

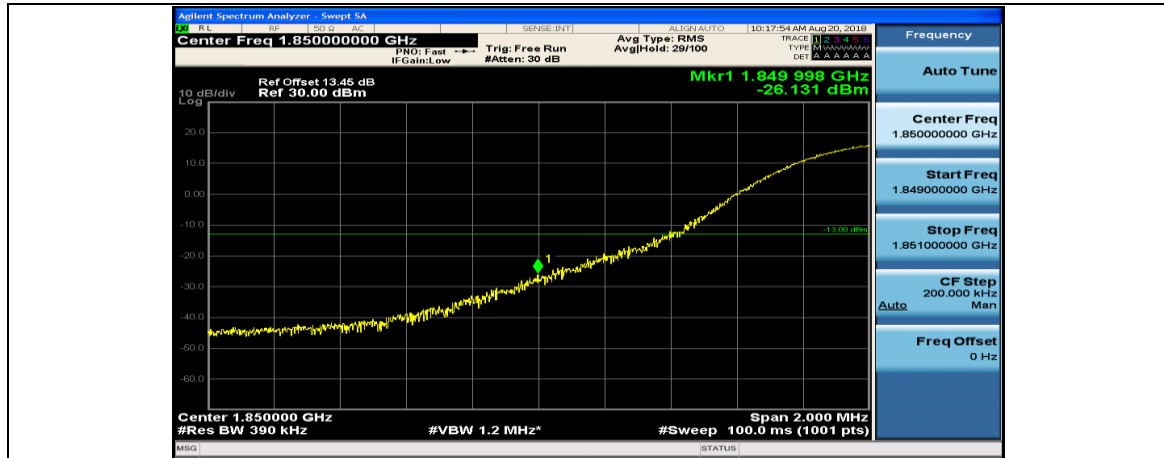


(Channel Bandwidth: 15 MHz)_HCH_16QAM_75RB#0

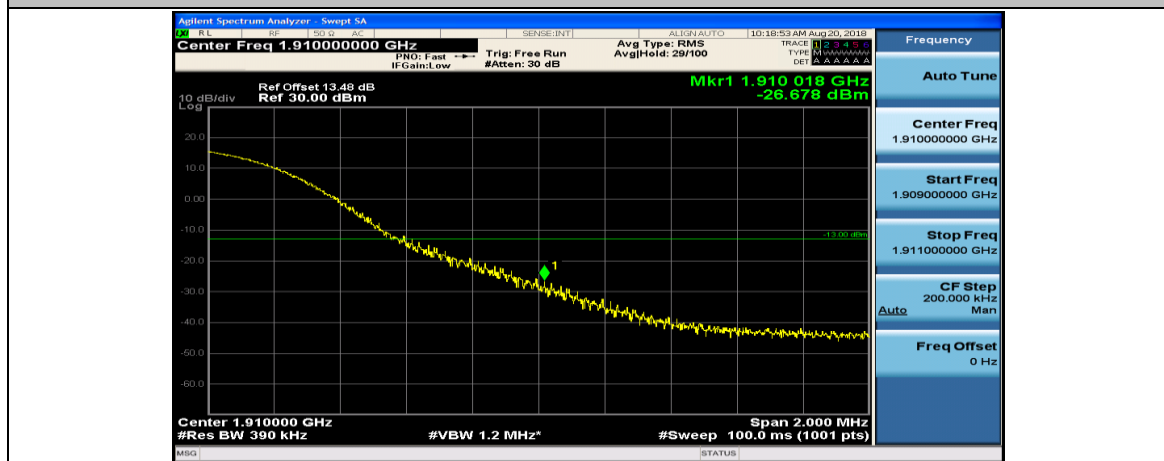


Channel Bandwidth: 20 MHz

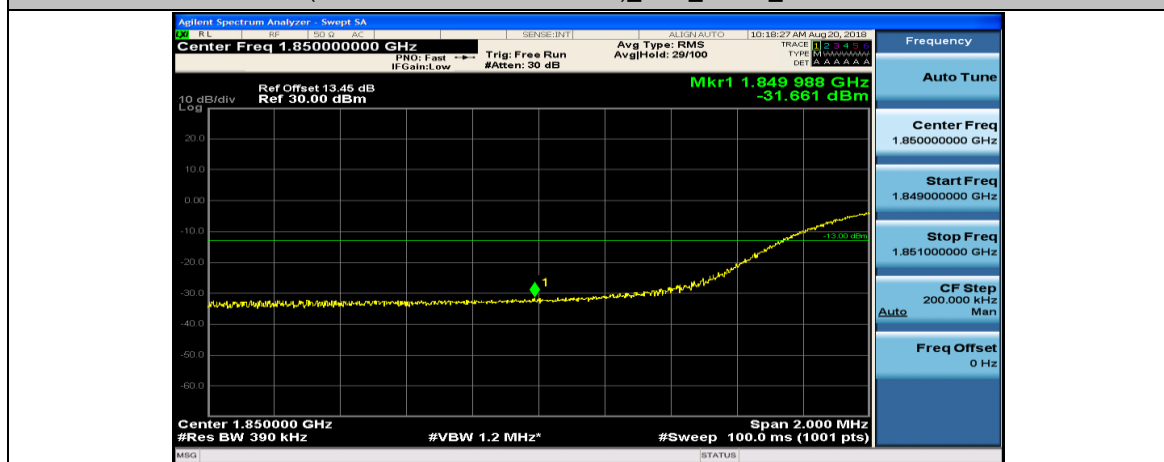
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#99

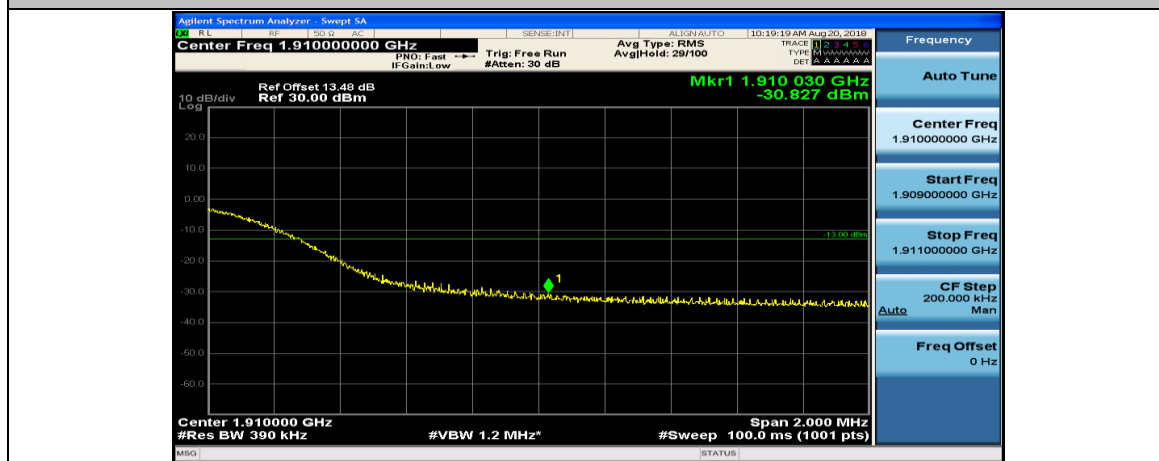


(Channel Bandwidth: 20 MHz)_LCH_QPSK_100RB#0

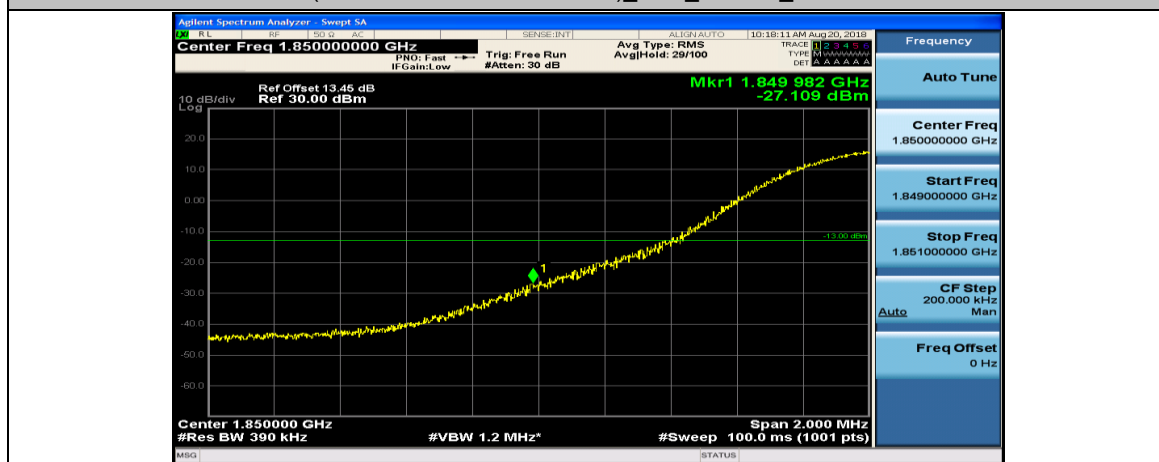




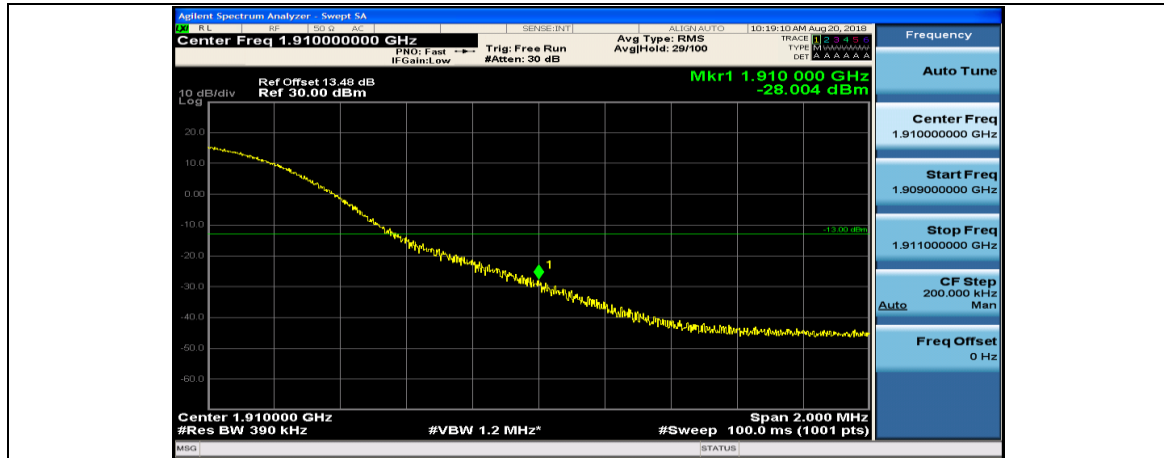
(Channel Bandwidth: 20 MHz)_HCH_QPSK_100RB#0



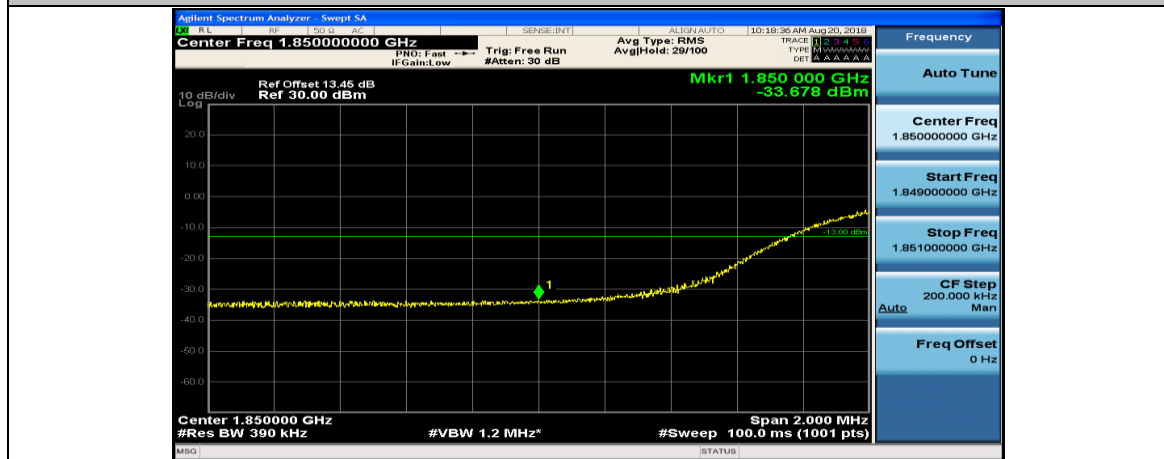
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0



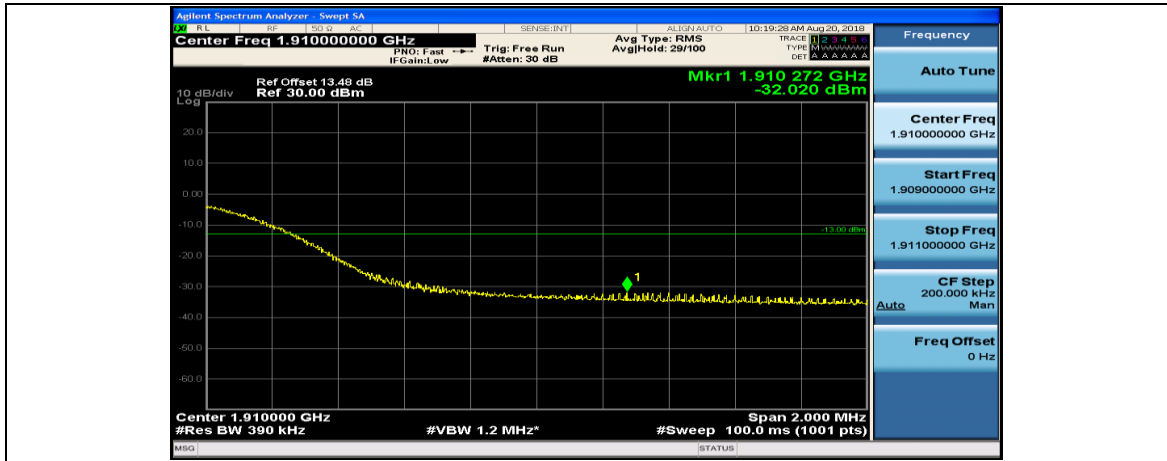
(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#99

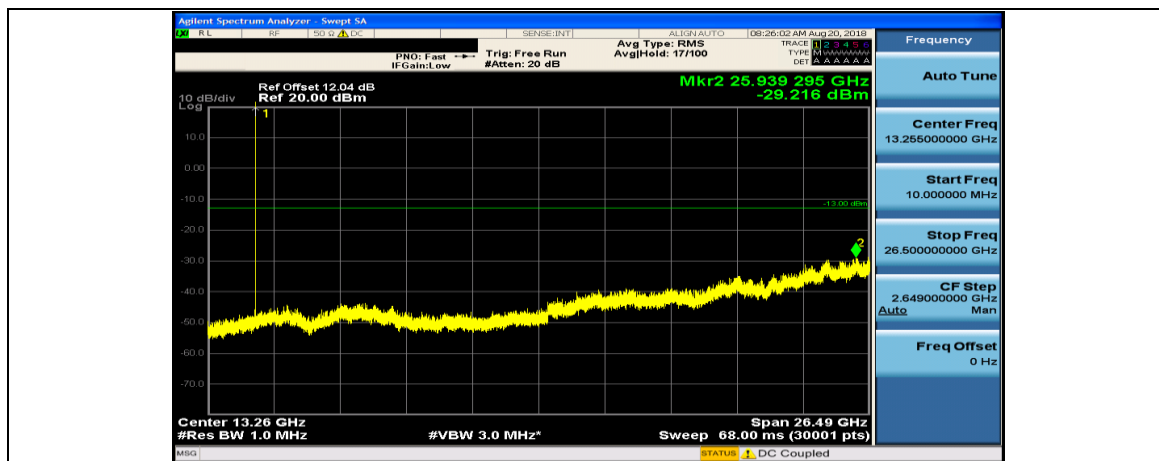


(Channel Bandwidth: 20 MHz)_LCH_16QAM_100RB#0



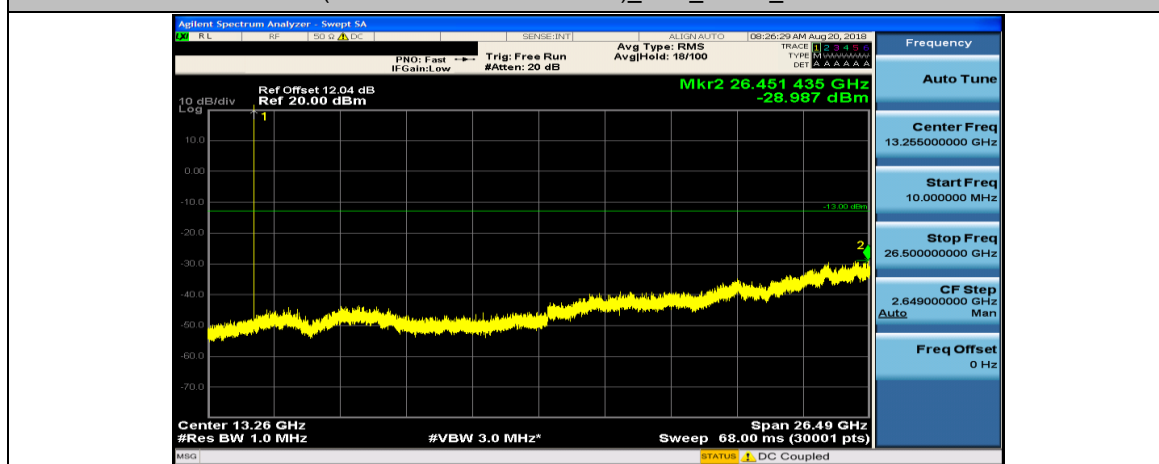
(Channel Bandwidth: 20 MHz)_HCH_16QAM_100RB#0



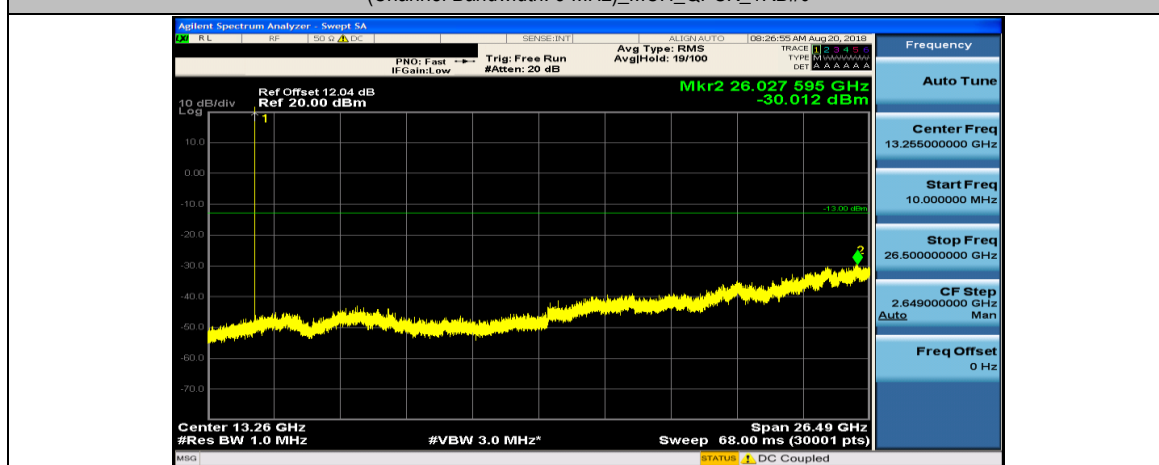


Channel Bandwidth: 3 MHz

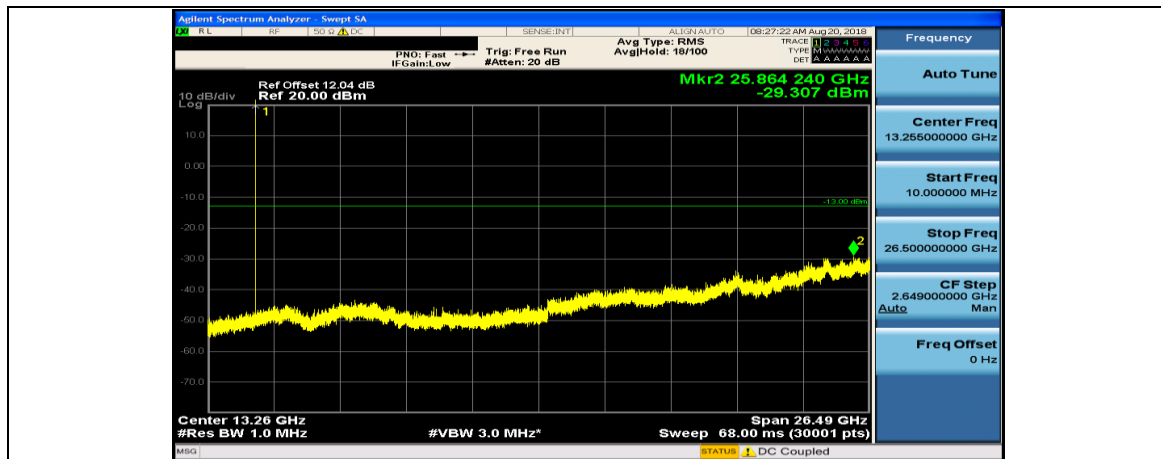
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#0



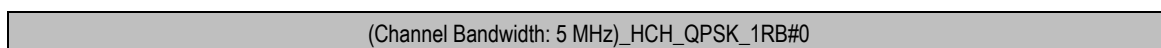
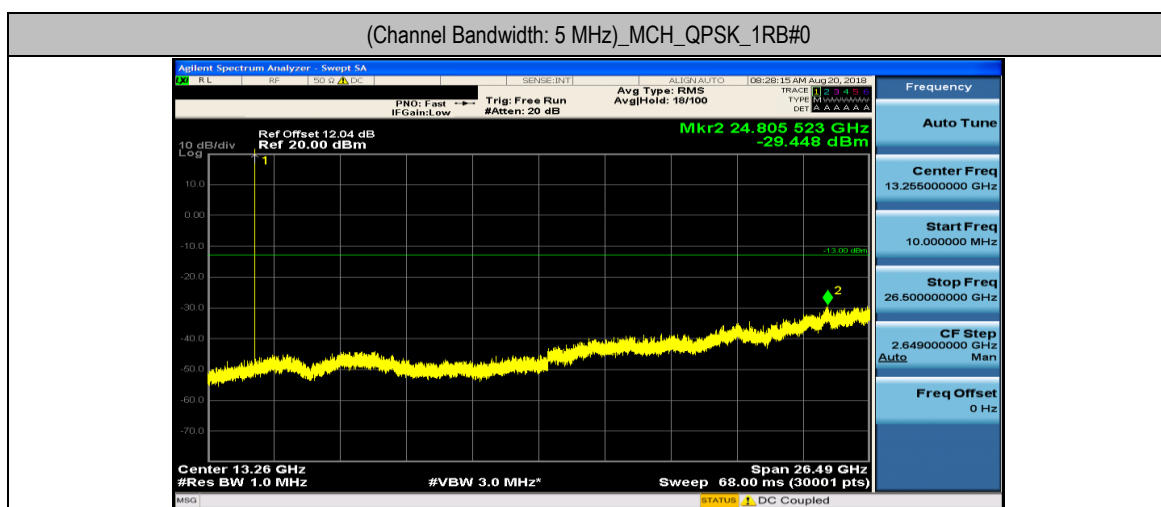
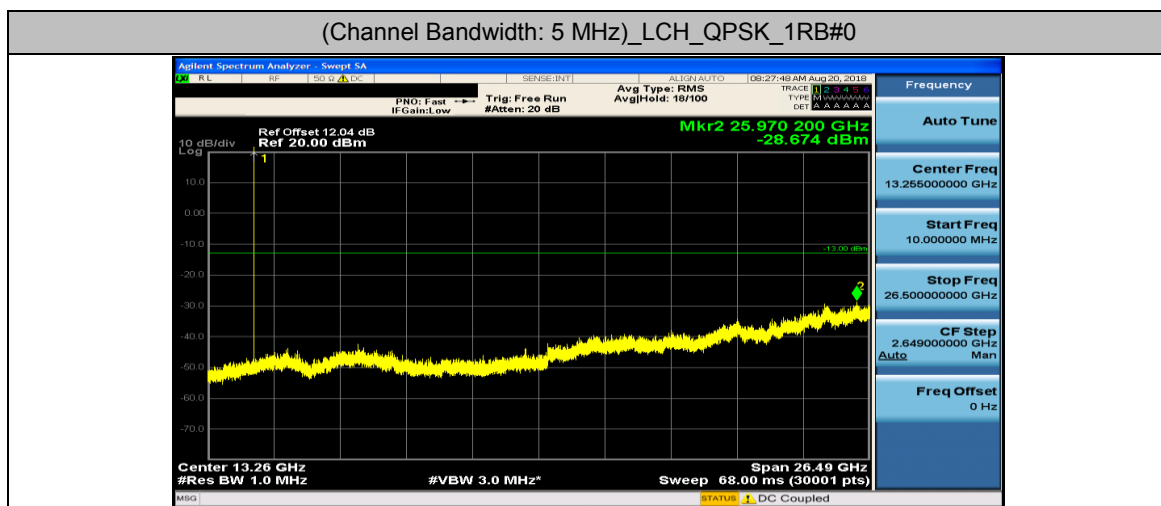
(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#0

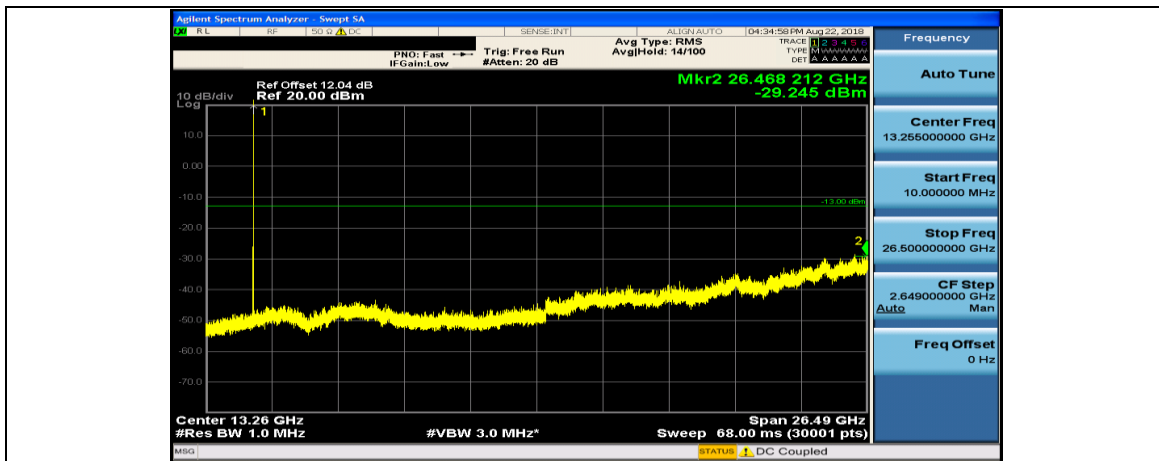


(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#0

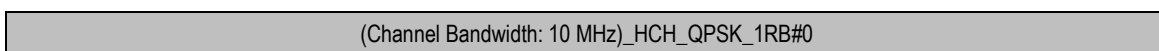
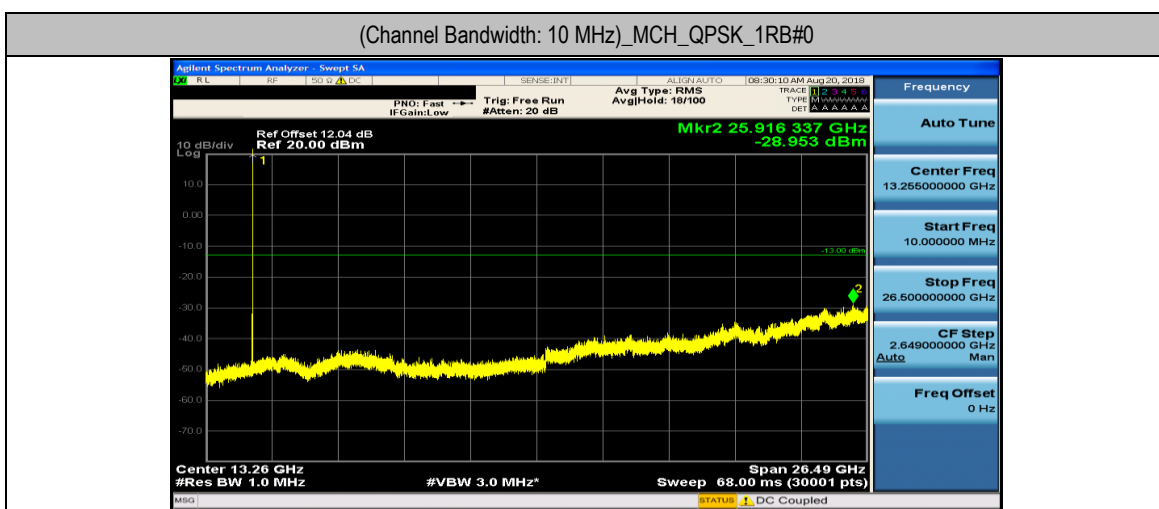
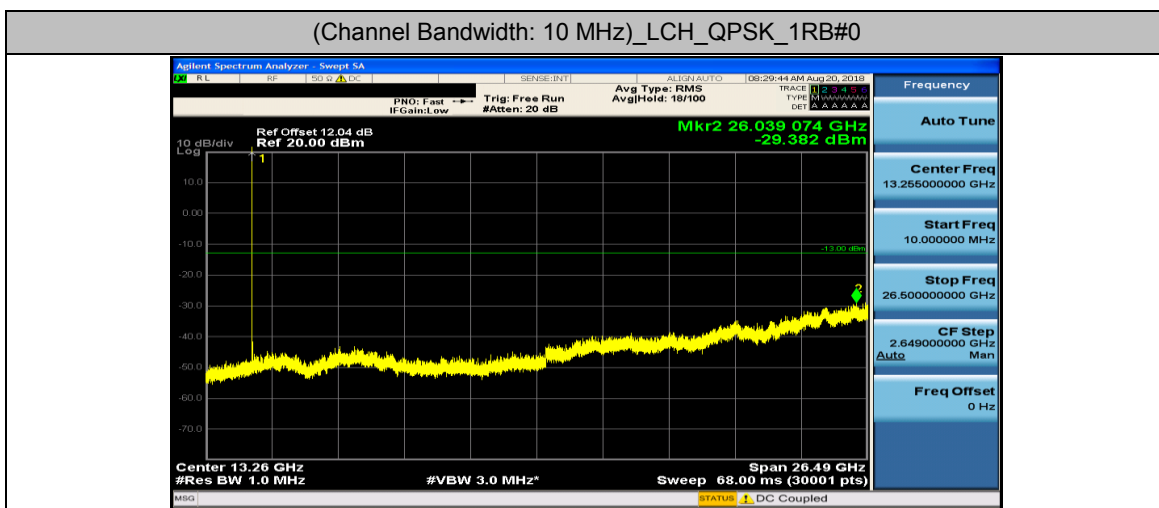


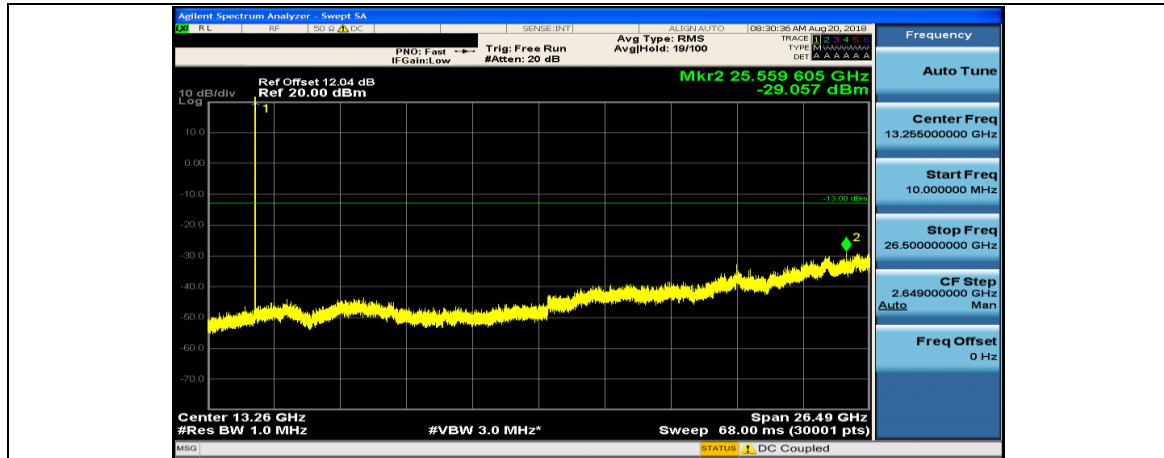
Channel Bandwidth: 5 MHz



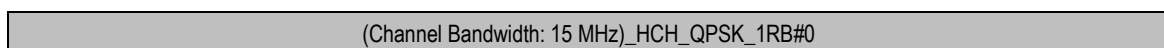
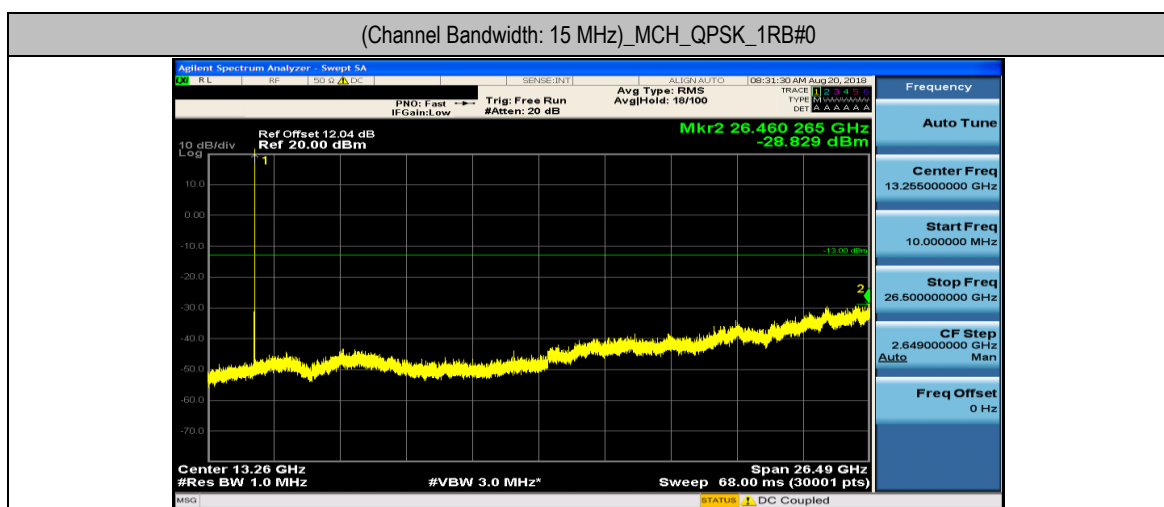
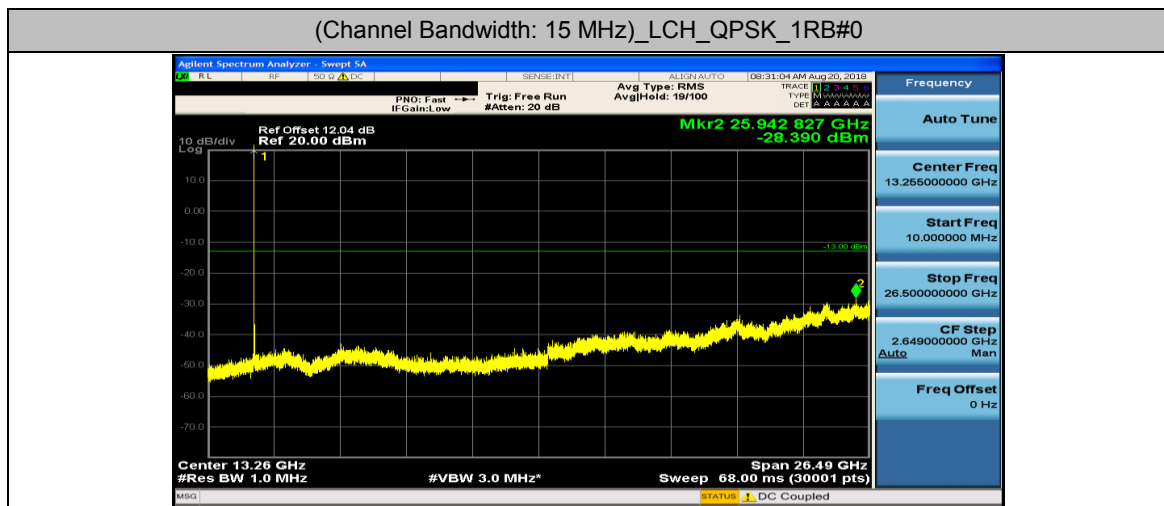


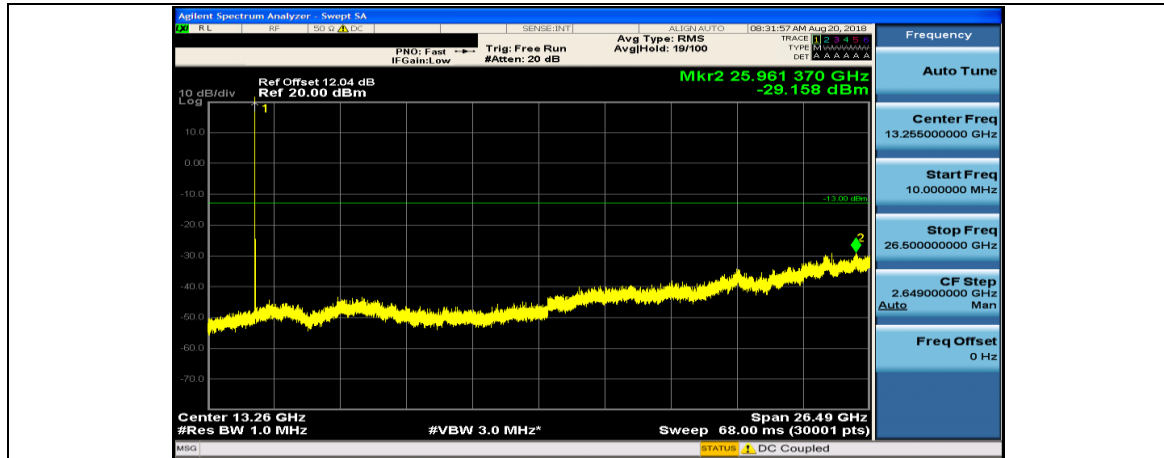
Channel Bandwidth: 10 MHz





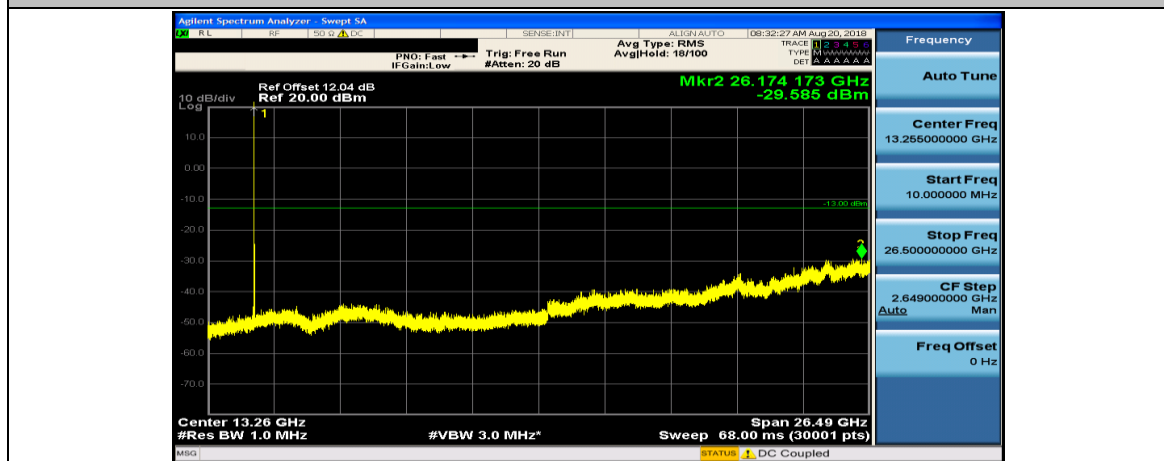
Channel Bandwidth: 15 MHz



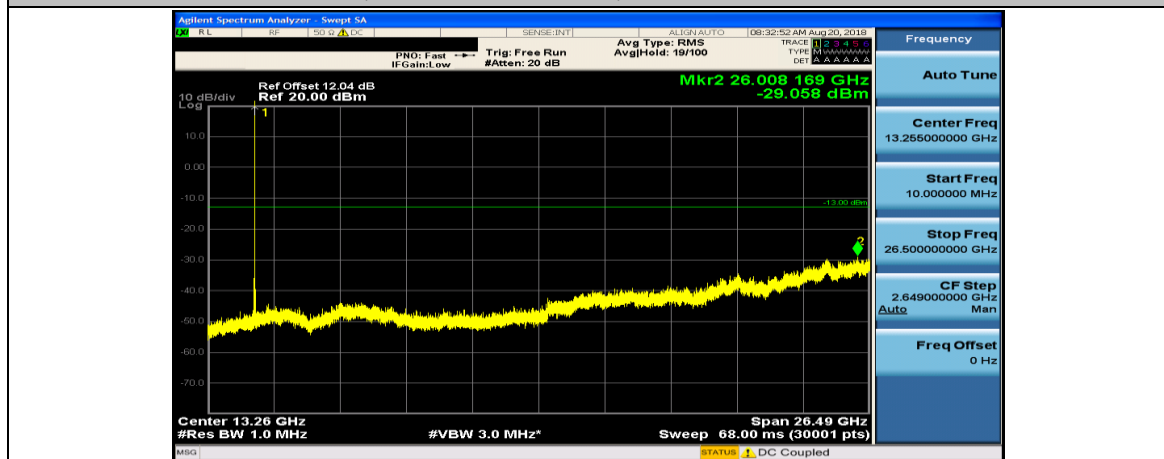


Channel Bandwidth: 20 MHz

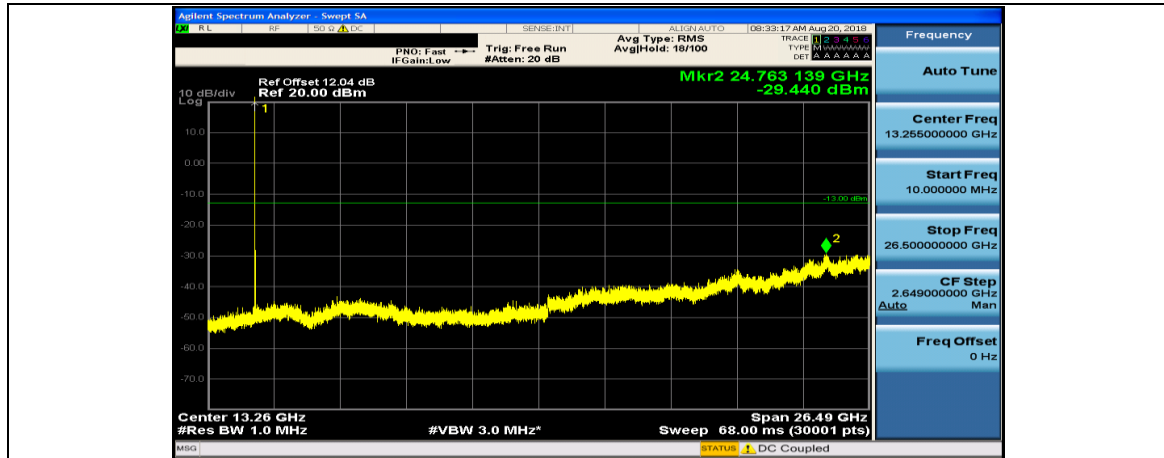
(Channel Bandwidth: 20 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 20 MHz)_MCH_QPSK_1RB#0



(Channel Bandwidth: 20 MHz)_HCH_QPSK_1RB#0



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	-1.20	-0.000648	± 2.5	PASS
		VN	TN	-2.40	-0.001297	± 2.5	PASS
		VH	TN	-0.60	-0.000324	± 2.5	PASS
	MCH	VL	TN	-2.30	-0.001223	± 2.5	PASS
		VN	TN	-3.90	-0.002074	± 2.5	PASS
		VH	TN	-3.10	-0.001649	± 2.5	PASS
	HCH	VL	TN	0.50	0.000262	± 2.5	PASS
		VN	TN	-1.90	-0.000995	± 2.5	PASS
		VH	TN	3.10	0.001624	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-2.70	-0.001459	± 2.5	PASS
		VN	-20	-1.50	-0.000811	± 2.5	PASS
		VN	-10	-1.30	-0.000702	± 2.5	PASS
		VN	0	-1.50	-0.000811	± 2.5	PASS
		VN	10	-1.20	-0.000648	± 2.5	PASS
		VN	20	-3.20	-0.001729	± 2.5	PASS
		VN	30	-0.70	-0.000378	± 2.5	PASS
		VN	40	-3.30	-0.001783	± 2.5	PASS
		VN	50	-2.00	-0.001081	± 2.5	PASS
	MCH	VN	-30	-4.20	-0.002234	± 2.5	PASS
		VN	-20	-3.30	-0.001755	± 2.5	PASS



		VN	-10	-4.80	-0.002553	± 2.5	PASS
		VN	0	-5.50	-0.002926	± 2.5	PASS
		VN	10	-3.70	-0.001968	± 2.5	PASS
		VN	20	-3.30	-0.001755	± 2.5	PASS
		VN	30	-3.70	-0.001968	± 2.5	PASS
		VN	40	-5.20	-0.002766	± 2.5	PASS
		VN	50	-3.90	-0.002074	± 2.5	PASS
	HCH	VN	-30	1.30	0.000681	± 2.5	PASS
		VN	-20	2.40	0.001257	± 2.5	PASS
		VN	-10	0.70	0.000367	± 2.5	PASS
		VN	0	2.30	0.001205	± 2.5	PASS
		VN	10	1.50	0.000786	± 2.5	PASS
		VN	20	0.30	0.000157	± 2.5	PASS
		VN	30	0.00	0.000000	± 2.5	PASS
		VN	40	1.10	0.000576	± 2.5	PASS
		VN	50	2.30	0.001205	± 2.5	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	0.50	0.000270	± 2.5	PASS
		VN	TN	0.80	0.000432	± 2.5	PASS
		VH	TN	-1.10	-0.000594	± 2.5	PASS
	MCH	VL	TN	-4.20	-0.002234	± 2.5	PASS
		VN	TN	-4.10	-0.002181	± 2.5	PASS
		VH	TN	-3.20	-0.001702	± 2.5	PASS
	HCH	VL	TN	-1.30	-0.000681	± 2.5	PASS
		VN	TN	2.00	0.001048	± 2.5	PASS
		VH	TN	-0.20	-0.000105	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.30	-0.000162	± 2.5	PASS
		VN	-20	-1.50	-0.000810	± 2.5	PASS
		VN	-10	-0.90	-0.000486	± 2.5	PASS
		VN	0	-1.00	-0.000540	± 2.5	PASS
		VN	10	-3.00	-0.001620	± 2.5	PASS
		VN	20	0.00	0.000000	± 2.5	PASS
		VN	30	-3.10	-0.001674	± 2.5	PASS
		VN	40	-1.60	-0.000864	± 2.5	PASS
		VN	50	-3.10	-0.001674	± 2.5	PASS
	MCH	VN	-30	-4.60	-0.002447	± 2.5	PASS
		VN	-20	-2.90	-0.001543	± 2.5	PASS
		VN	-10	-3.00	-0.001596	± 2.5	PASS



		VN	0	-2.70	-0.001436	± 2.5	PASS
		VN	10	-2.60	-0.001383	± 2.5	PASS
		VN	20	-5.30	-0.002819	± 2.5	PASS
		VN	30	-3.50	-0.001862	± 2.5	PASS
		VN	40	-3.00	-0.001596	± 2.5	PASS
		VN	50	-3.50	-0.001862	± 2.5	PASS
	HCH	VN	-30	0.60	0.000314	± 2.5	PASS
		VN	-20	-0.60	-0.000314	± 2.5	PASS
		VN	-10	2.00	0.001048	± 2.5	PASS
		VN	0	1.20	0.000629	± 2.5	PASS
		VN	10	3.00	0.001572	± 2.5	PASS
		VN	20	1.80	0.000943	± 2.5	PASS
		VN	30	-0.40	-0.000210	± 2.5	PASS
		VN	40	3.70	0.001939	± 2.5	PASS
		VN	50	-0.40	-0.000210	± 2.5	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-2.50	-0.001350	± 2.5	PASS
		VN	TN	-1.00	-0.000540	± 2.5	PASS
		VH	TN	-2.00	-0.001080	± 2.5	PASS
	MCH	VL	TN	-4.80	-0.002553	± 2.5	PASS
		VN	TN	-4.00	-0.002128	± 2.5	PASS
		VH	TN	-3.70	-0.001968	± 2.5	PASS
	HCH	VL	TN	-0.90	-0.000472	± 2.5	PASS
		VN	TN	1.90	0.000996	± 2.5	PASS
		VH	TN	-1.80	-0.000944	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-1.90	-0.001026	± 2.5	PASS
		VN	-20	-0.70	-0.000378	± 2.5	PASS
		VN	-10	-0.30	-0.000162	± 2.5	PASS
		VN	0	-3.20	-0.001727	± 2.5	PASS
		VN	10	-1.20	-0.000648	± 2.5	PASS
		VN	20	-1.60	-0.000864	± 2.5	PASS
		VN	30	-2.70	-0.001457	± 2.5	PASS
		VN	40	-2.40	-0.001296	± 2.5	PASS
		VN	50	-3.70	-0.001997	± 2.5	PASS
	MCH	VN	-30	-4.20	-0.002234	± 2.5	PASS
		VN	-20	-1.70	-0.000904	± 2.5	PASS
		VN	-10	-2.50	-0.001330	± 2.5	PASS
		VN	0	-4.00	-0.002128	± 2.5	PASS



		VN	10	-3.30	-0.001755	± 2.5	PASS
		VN	20	-0.90	-0.000479	± 2.5	PASS
		VN	30	-2.10	-0.001117	± 2.5	PASS
		VN	40	-4.70	-0.002500	± 2.5	PASS
		VN	50	-5.50	-0.002926	± 2.5	PASS
	HCH	VN	-30	-0.90	-0.000472	± 2.5	PASS
		VN	-20	-0.50	-0.000262	± 2.5	PASS
		VN	-10	-0.90	-0.000472	± 2.5	PASS
		VN	0	0.60	0.000315	± 2.5	PASS
		VN	10	0.70	0.000367	± 2.5	PASS
		VN	20	-0.30	-0.000157	± 2.5	PASS
		VN	30	-2.00	-0.001048	± 2.5	PASS
		VN	40	2.70	0.001415	± 2.5	PASS
		VN	50	1.20	0.000629	± 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	-3.80	-0.002049	± 2.5	PASS
		VN	TN	-2.80	-0.001509	± 2.5	PASS
		VH	TN	-3.40	-0.001833	± 2.5	PASS
	MCH	VL	TN	-1.60	-0.000851	± 2.5	PASS
		VN	TN	-2.00	-0.001064	± 2.5	PASS
		VH	TN	-3.70	-0.001968	± 2.5	PASS
	HCH	VL	TN	1.60	0.000840	± 2.5	PASS
		VN	TN	3.30	0.001732	± 2.5	PASS
		VH	TN	2.80	0.001470	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-4.30	-0.002318	± 2.5	PASS
		VN	-20	-1.90	-0.001024	± 2.5	PASS
		VN	-10	-2.30	-0.001240	± 2.5	PASS
		VN	0	-1.90	-0.001024	± 2.5	PASS
		VN	10	-1.90	-0.001024	± 2.5	PASS
		VN	20	-1.30	-0.000701	± 2.5	PASS
		VN	30	-3.70	-0.001995	± 2.5	PASS
		VN	40	-1.70	-0.000916	± 2.5	PASS
		VN	50	-4.00	-0.002156	± 2.5	PASS
	MCH	VN	-30	-5.60	-0.002979	± 2.5	PASS
		VN	-20	-4.30	-0.002287	± 2.5	PASS
		VN	-10	-1.80	-0.000957	± 2.5	PASS
		VN	0	-3.40	-0.001809	± 2.5	PASS
		VN	10	-5.00	-0.002660	± 2.5	PASS

		VN	20	-2.80	-0.001489	± 2.5	PASS
		VN	30	-1.90	-0.001011	± 2.5	PASS
		VN	40	-4.90	-0.002606	± 2.5	PASS
		VN	50	-5.40	-0.002872	± 2.5	PASS
	HCH	VN	-30	1.60	0.000840	± 2.5	PASS
		VN	-20	1.20	0.000630	± 2.5	PASS
		VN	-10	0.40	0.000210	± 2.5	PASS
		VN	0	-0.10	-0.000052	± 2.5	PASS
		VN	10	1.20	0.000630	± 2.5	PASS
		VN	20	1.30	0.000682	± 2.5	PASS
		VN	30	2.00	0.001050	± 2.5	PASS
		VN	40	1.60	0.000840	± 2.5	PASS
		VN	50	0.50	0.000262	± 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	-1.20	-0.000646	± 2.5	PASS
		VN	TN	-1.80	-0.000969	± 2.5	PASS
		VH	TN	-3.20	-0.001723	± 2.5	PASS
	MCH	VL	TN	-1.00	-0.000532	± 2.5	PASS
		VN	TN	1.10	0.000585	± 2.5	PASS
		VH	TN	-3.40	-0.001809	± 2.5	PASS
	HCH	VL	TN	-0.70	-0.000368	± 2.5	PASS
		VN	TN	2.20	0.001156	± 2.5	PASS
		VH	TN	-3.60	-0.001892	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-4.00	-0.002153	± 2.5	PASS
		VN	-20	-1.90	-0.001023	± 2.5	PASS
		VN	-10	-3.90	-0.002100	± 2.5	PASS
		VN	0	-2.00	-0.001077	± 2.5	PASS
		VN	10	-3.80	-0.002046	± 2.5	PASS
		VN	20	-1.70	-0.000915	± 2.5	PASS
		VN	30	-2.00	-0.001077	± 2.5	PASS
		VN	40	-0.90	-0.000485	± 2.5	PASS
		VN	50	-3.40	-0.001830	± 2.5	PASS
	MCH	VN	-30	-4.20	-0.002234	± 2.5	PASS
		VN	-20	-1.40	-0.000745	± 2.5	PASS
		VN	-10	-2.70	-0.001436	± 2.5	PASS
		VN	0	-1.90	-0.001011	± 2.5	PASS
		VN	10	-1.00	-0.000532	± 2.5	PASS
		VN	20	-1.70	-0.000904	± 2.5	PASS



		VN	30	-3.70	-0.001968	± 2.5	PASS
		VN	40	-3.40	-0.001809	± 2.5	PASS
		VN	50	-2.90	-0.001543	± 2.5	PASS
	HCH	VN	-30	-3.50	-0.001840	± 2.5	PASS
		VN	-20	-4.00	-0.002102	± 2.5	PASS
		VN	-10	-4.30	-0.002260	± 2.5	PASS
		VN	0	-2.70	-0.001419	± 2.5	PASS
		VN	10	-1.00	-0.000526	± 2.5	PASS
		VN	20	-2.20	-0.001156	± 2.5	PASS
		VN	30	-1.50	-0.000788	± 2.5	PASS
		VN	40	-3.10	-0.001629	± 2.5	PASS
		VN	50	-2.00	-0.001051	± 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	2.70	0.001452	± 2.5	PASS
		VN	TN	-0.10	-0.000054	± 2.5	PASS
		VH	TN	-0.20	-0.000108	± 2.5	PASS
	MCH	VL	TN	-2.10	-0.001117	± 2.5	PASS
		VN	TN	2.90	0.001543	± 2.5	PASS
		VH	TN	-2.00	-0.001064	± 2.5	PASS
	HCH	VL	TN	-1.10	-0.000579	± 2.5	PASS
		VN	TN	1.00	0.000526	± 2.5	PASS
		VH	TN	-2.30	-0.001211	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.20	-0.000108	± 2.5	PASS
		VN	-20	0.60	0.000323	± 2.5	PASS
		VN	-10	2.60	0.001398	± 2.5	PASS
		VN	0	1.70	0.000914	± 2.5	PASS
		VN	10	1.10	0.000591	± 2.5	PASS
		VN	20	3.30	0.001774	± 2.5	PASS
		VN	30	-1.10	-0.000591	± 2.5	PASS
		VN	40	0.80	0.000430	± 2.5	PASS
		VN	50	3.40	0.001828	± 2.5	PASS
	MCH	VN	-30	-3.20	-0.001702	± 2.5	PASS
		VN	-20	-4.30	-0.002287	± 2.5	PASS
		VN	-10	-4.30	-0.002287	± 2.5	PASS
		VN	0	-4.10	-0.002181	± 2.5	PASS
		VN	10	-1.30	-0.000691	± 2.5	PASS
		VN	20	-3.10	-0.001649	± 2.5	PASS
VN	30	-3.10	-0.001649	± 2.5	PASS		



		VN	40	-2.60	-0.001383	± 2.5	PASS
		VN	50	-1.70	-0.000904	± 2.5	PASS
	HCH	VN	-30	-3.00	-0.001579	± 2.5	PASS
		VN	-20	-3.50	-0.001842	± 2.5	PASS
		VN	-10	-1.40	-0.000737	± 2.5	PASS
		VN	0	-0.70	-0.000368	± 2.5	PASS
		VN	10	-3.90	-0.002053	± 2.5	PASS
		VN	20	-3.00	-0.001579	± 2.5	PASS
		VN	30	-3.90	-0.002053	± 2.5	PASS
		VN	40	-2.10	-0.001105	± 2.5	PASS
		VN	50	-3.70	-0.001947	± 2.5	PASS