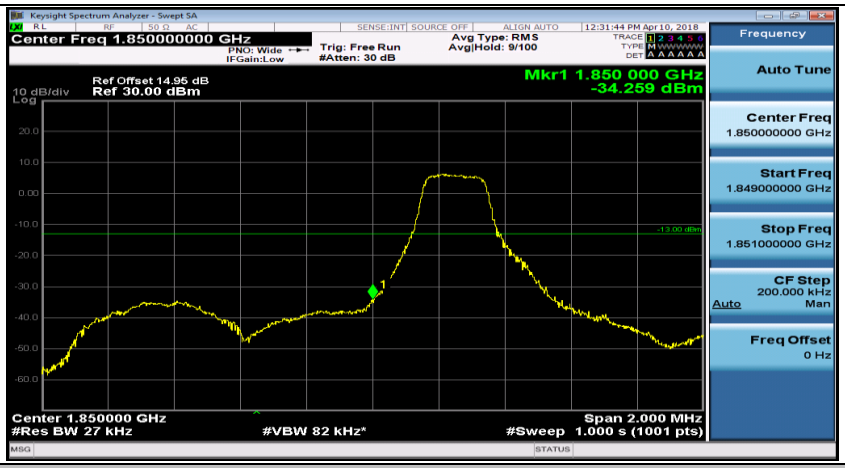
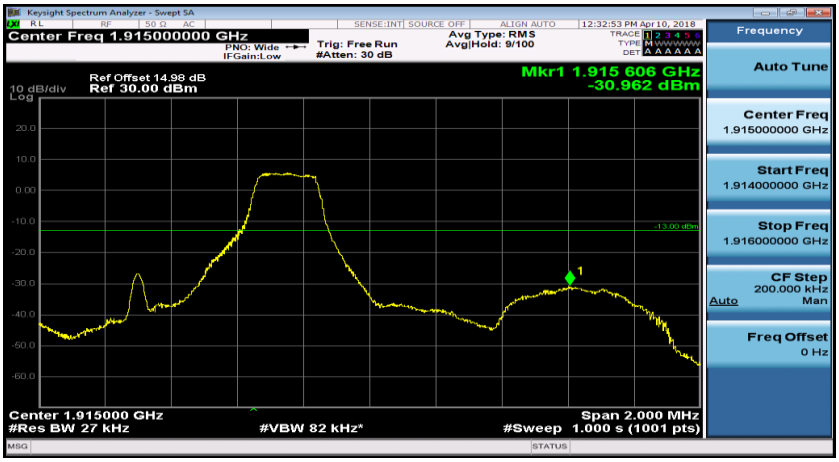
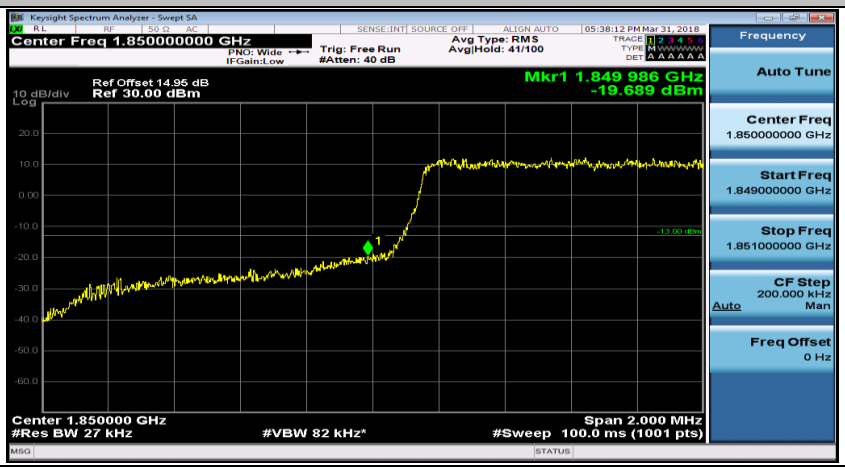


(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#5

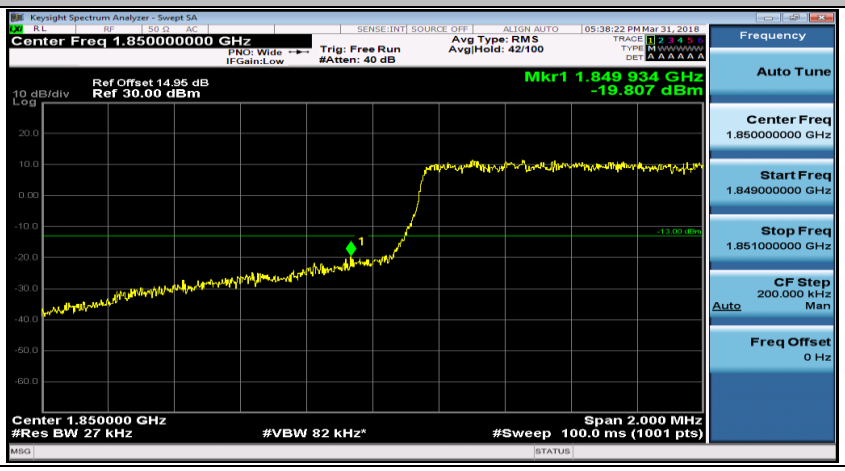


(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_6RB#0



(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_6RB#0

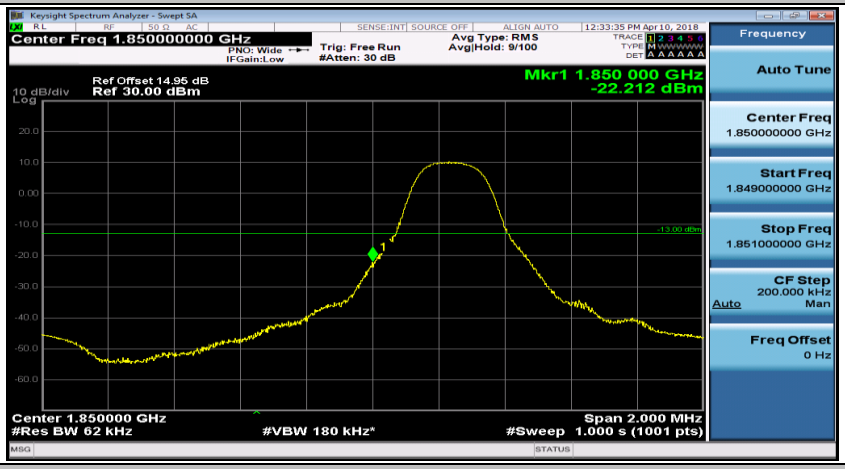
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_6RB#0



(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_6RB#0

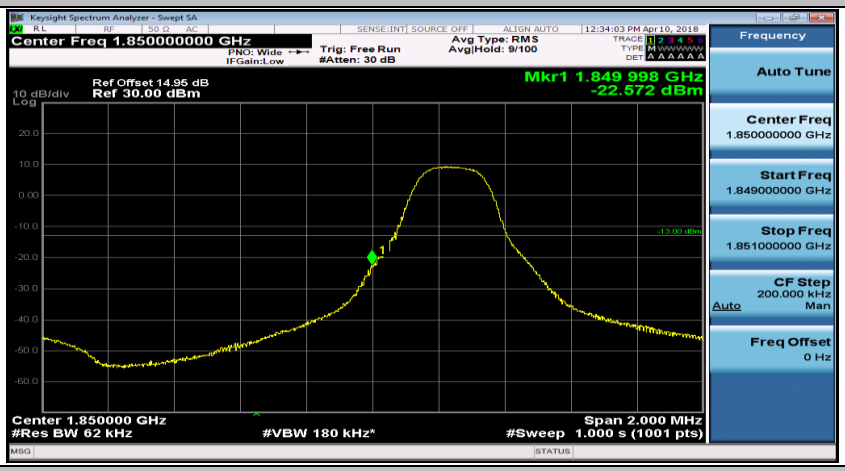
Channel Bandwidth: 3 MHz

(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#0



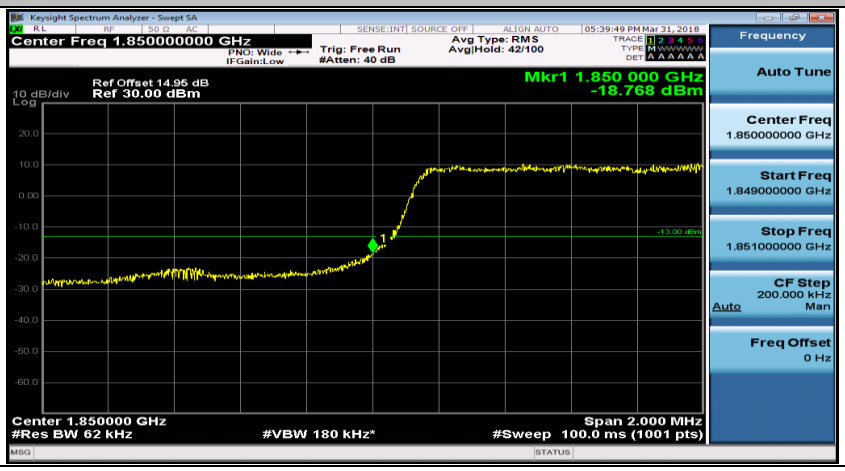
(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#14

(Channel Bandwidth: 3 MHz)_LCH_16QAM_1RB#0



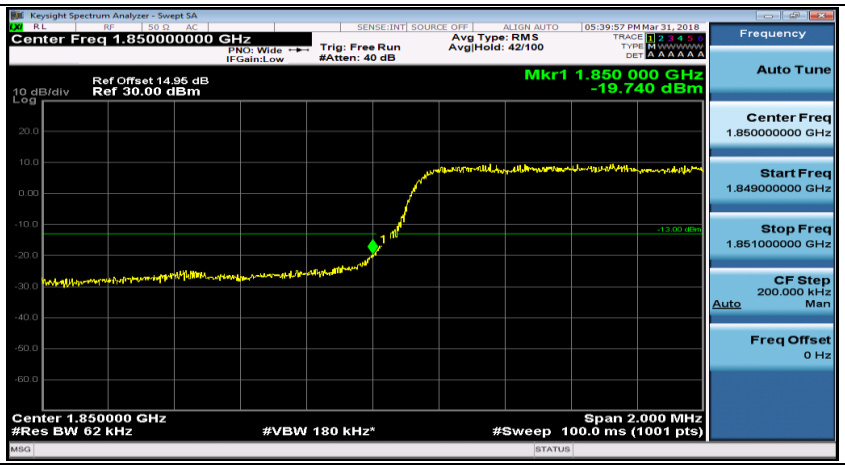
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#14

(Channel Bandwidth: 3 MHz)_LCH_QPSK_15RB#0



(Channel Bandwidth: 3 MHz)_HCH_QPSK_15RB#0

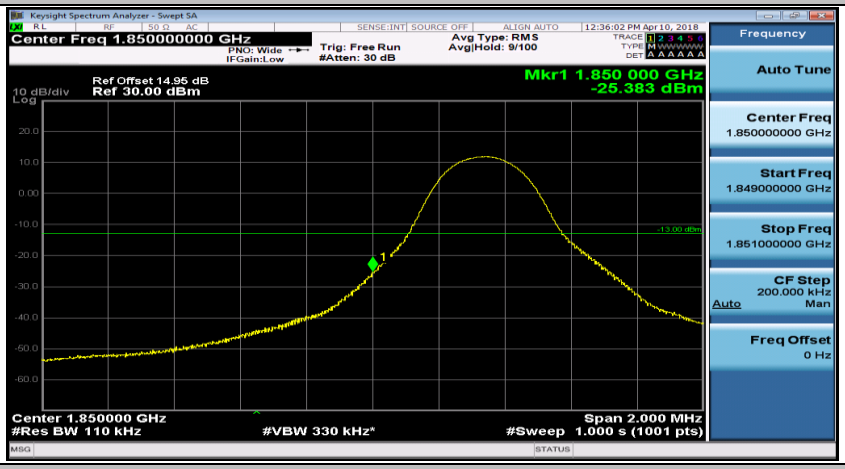
(Channel Bandwidth: 3 MHz)_LCH_16QAM_15RB#0



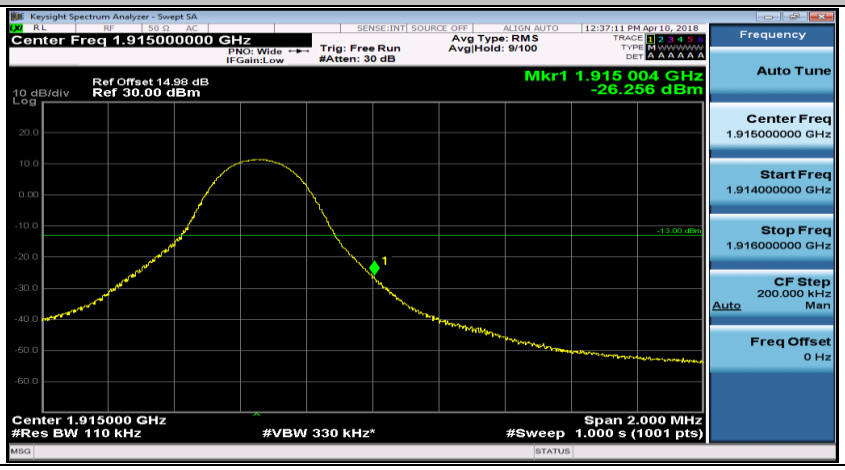
(Channel Bandwidth: 3 MHz)_HCH_16QAM_15RB#0

Channel Bandwidth: 5 MHz

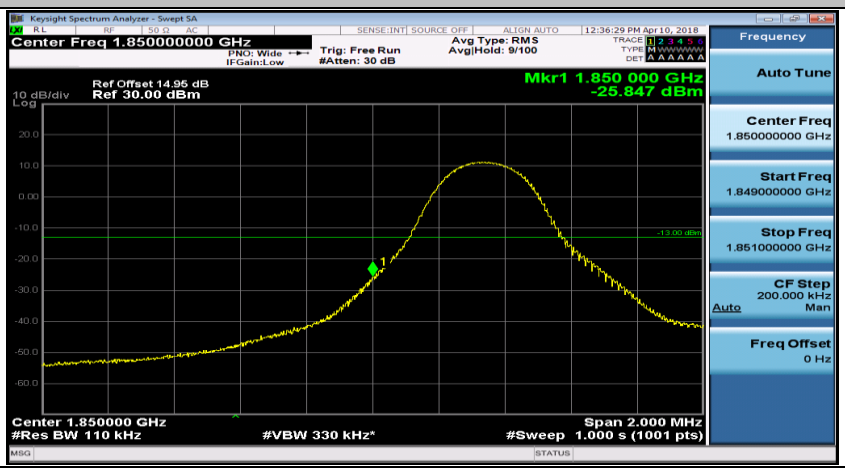
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



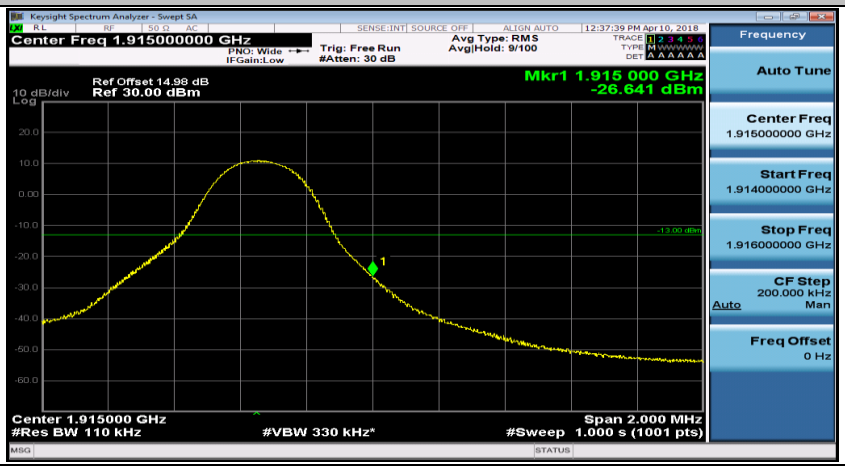
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24



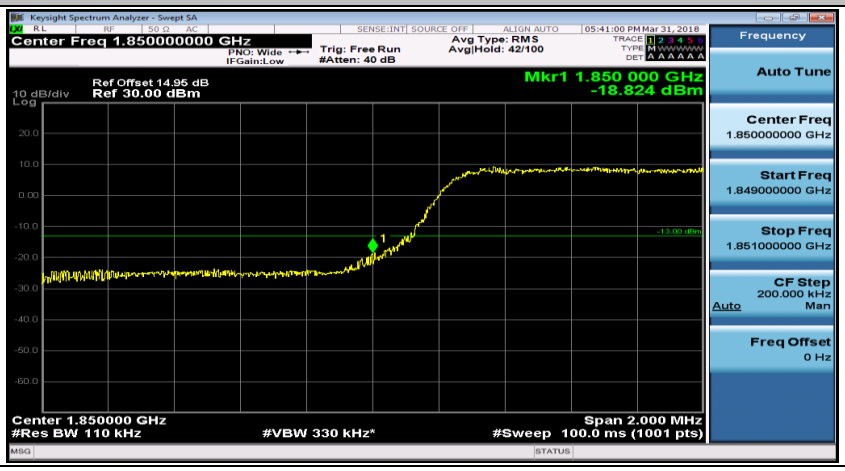
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



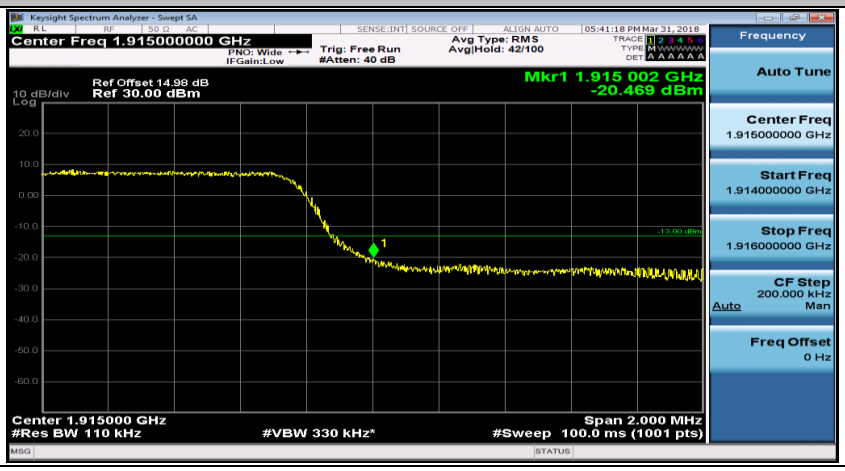
(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24



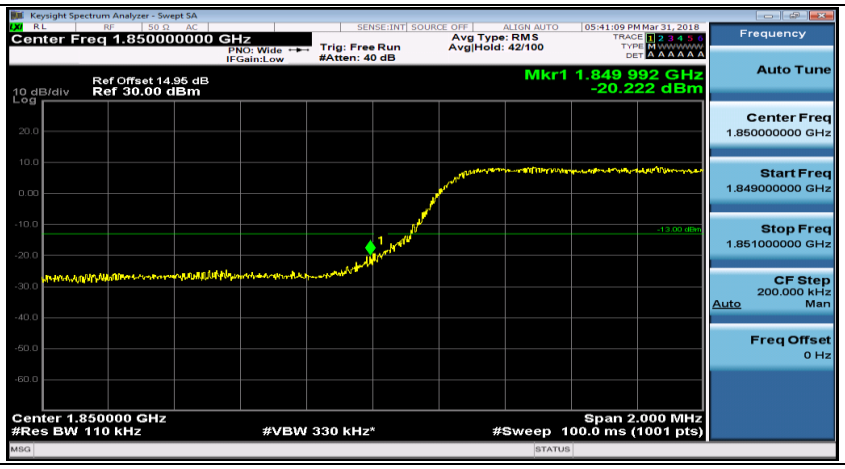
(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0

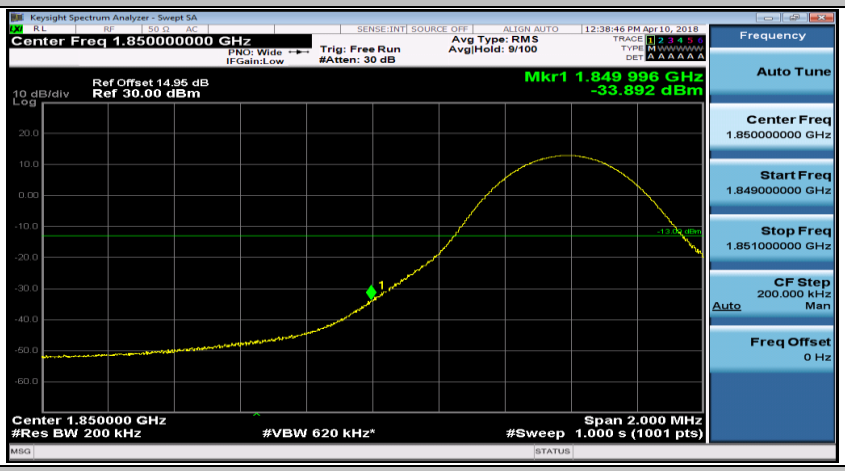


(Channel Bandwidth: 5 MHz)_LCH_16QAM_25RB#0

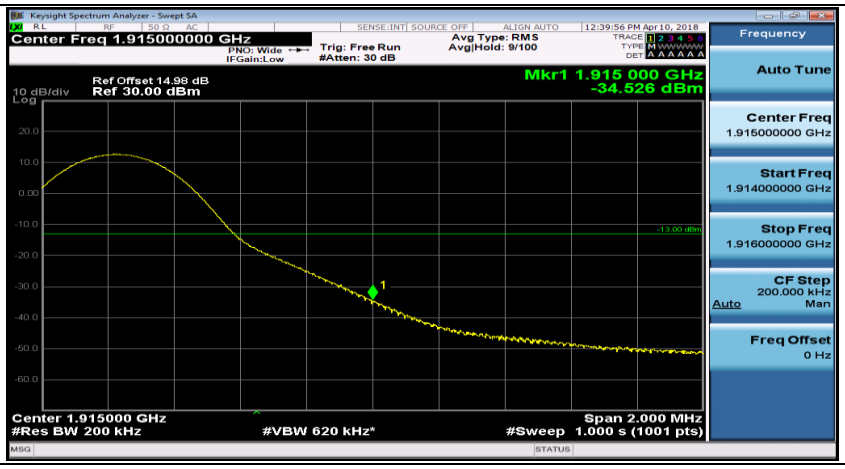


(Channel Bandwidth: 5 MHz)_HCH_16QAM_25RB#0

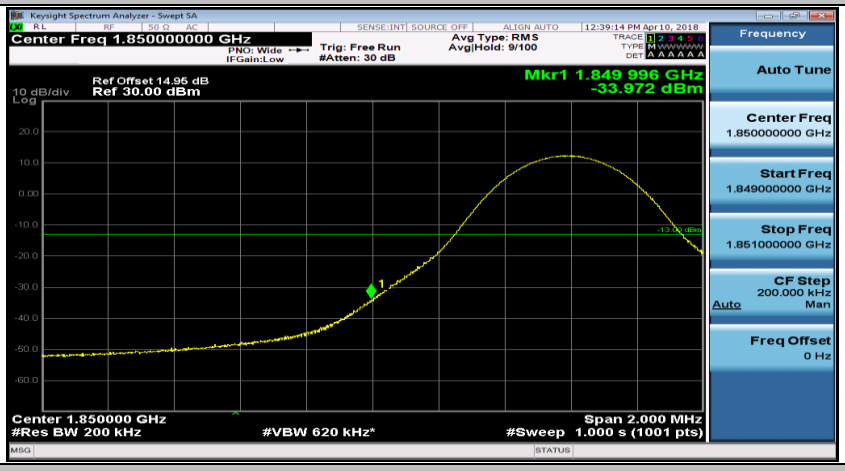
Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#0


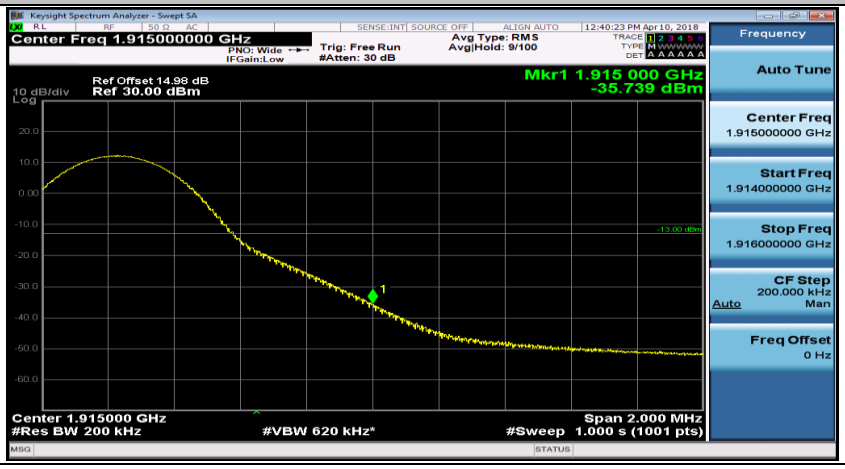
Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#49



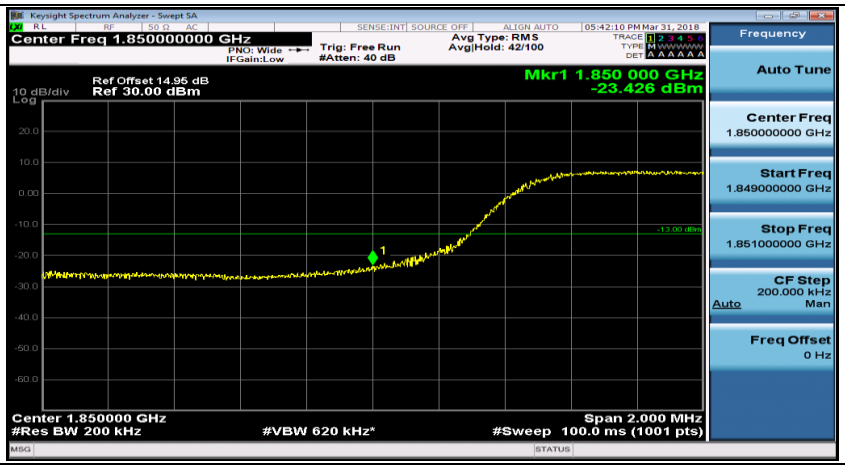
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0



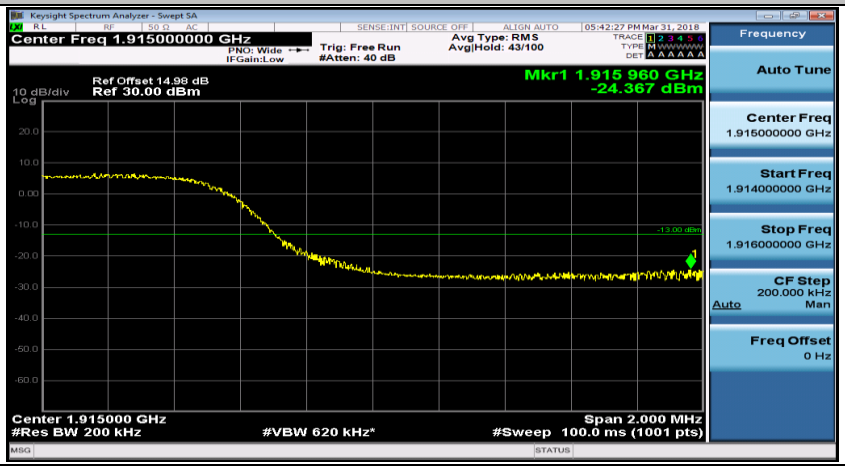
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49



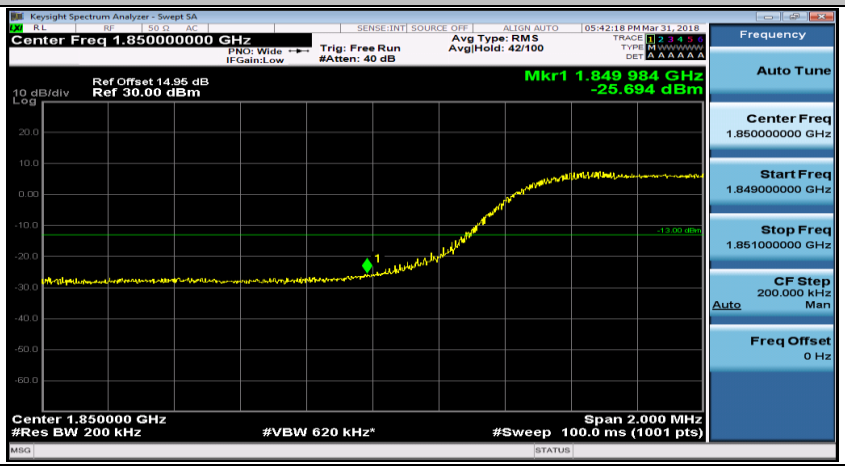
(Channel Bandwidth: 10 MHz)_LCH_QPSK_50RB#0



(Channel Bandwidth: 10 MHz)_HCH_QPSK_50RB#0



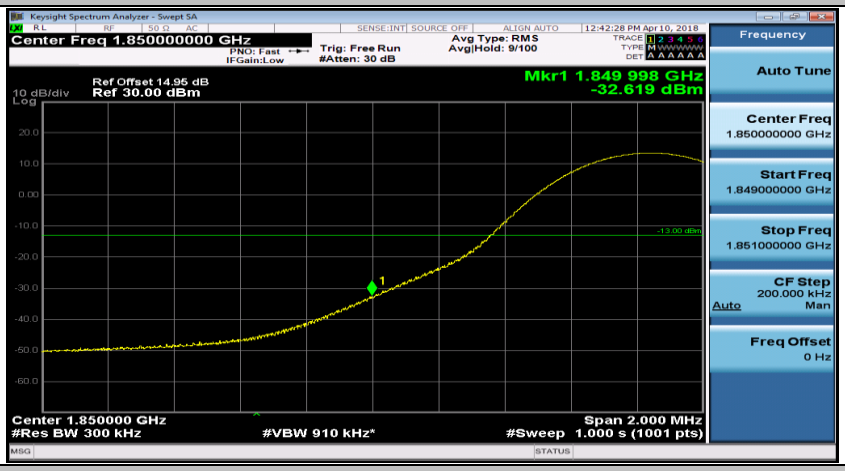
(Channel Bandwidth: 10 MHz)_LCH_16QAM_50RB#0



(Channel Bandwidth: 10 MHz)_HCH_16QAM_50RB#0

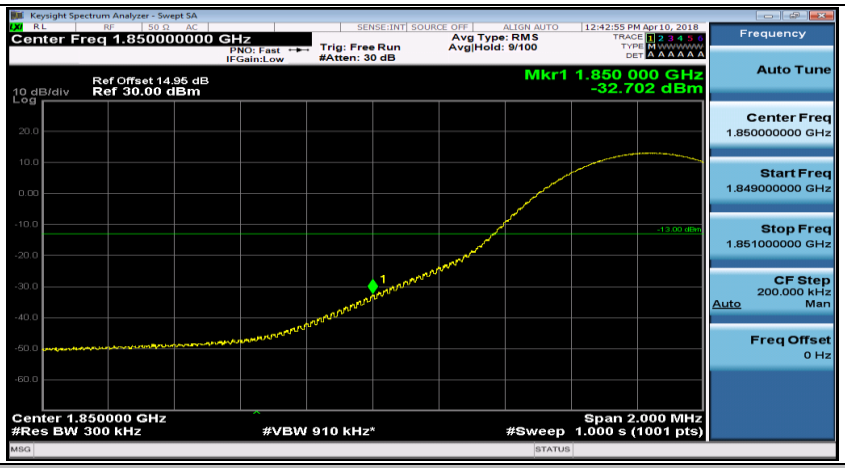
Channel Bandwidth: 15 MHz

(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#0

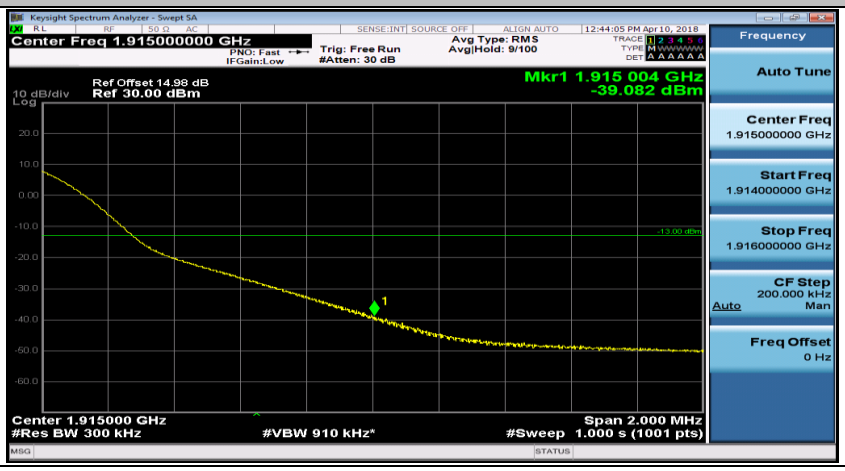


(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#74

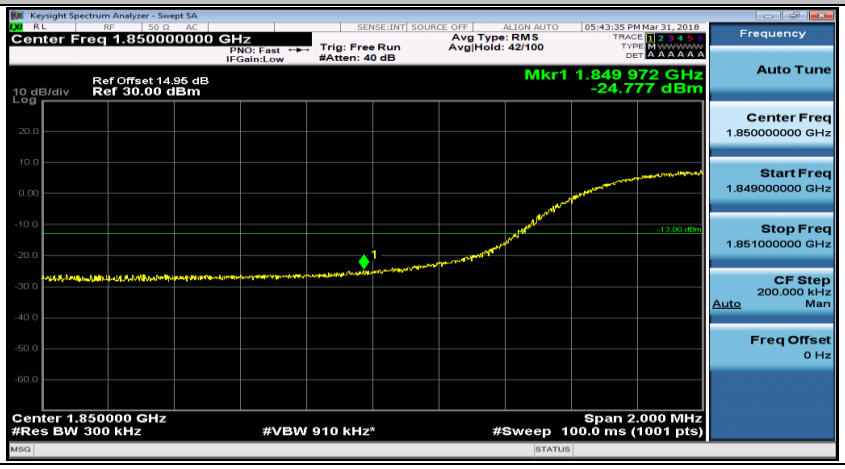
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0



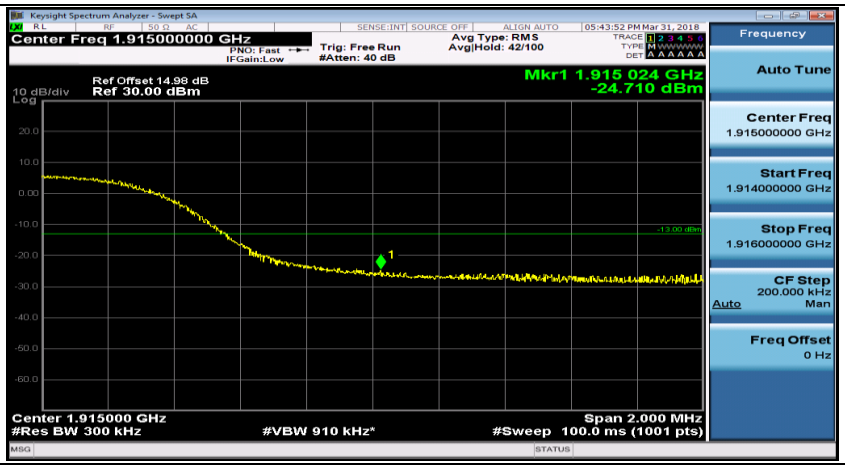
(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#74



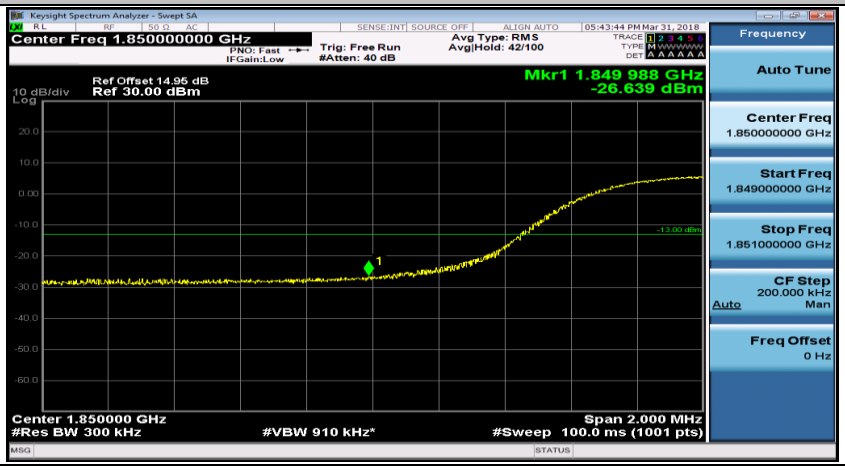
(Channel Bandwidth: 15 MHz)_LCH_QPSK_75RB#0



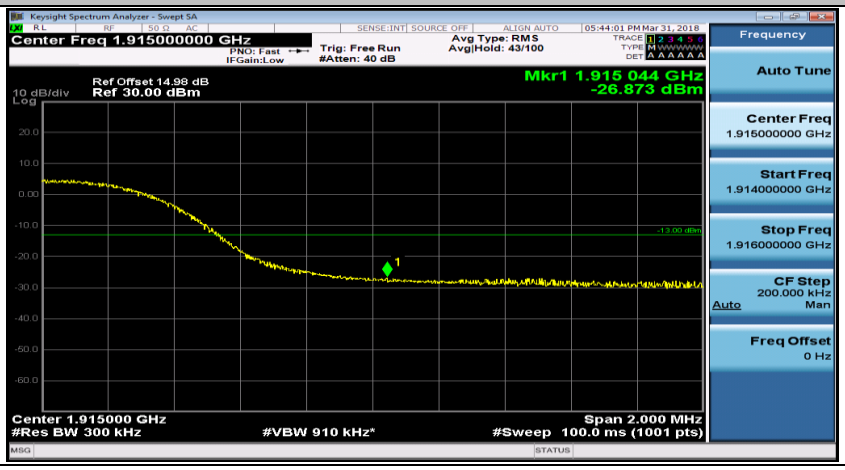
(Channel Bandwidth: 15 MHz)_HCH_QPSK_75RB#0



(Channel Bandwidth: 15 MHz)_LCH_16QAM_75RB#0

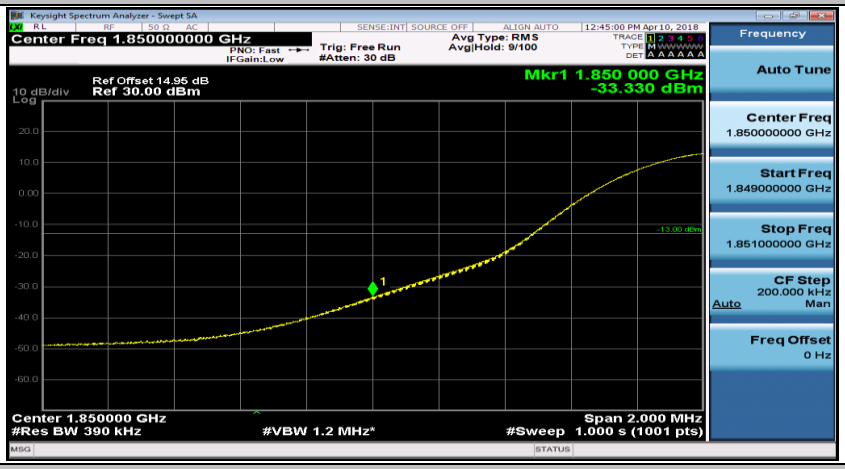


(Channel Bandwidth: 15 MHz)_HCH_16QAM_75RB#0



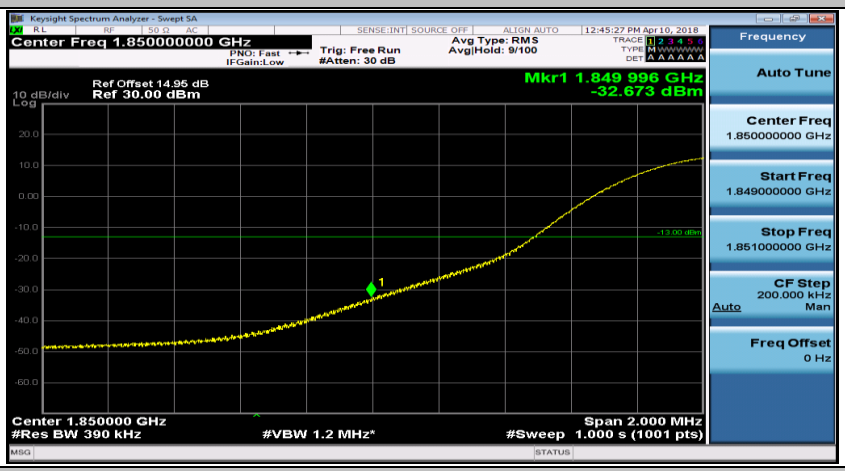
Channel Bandwidth: 20 MHz

(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#99

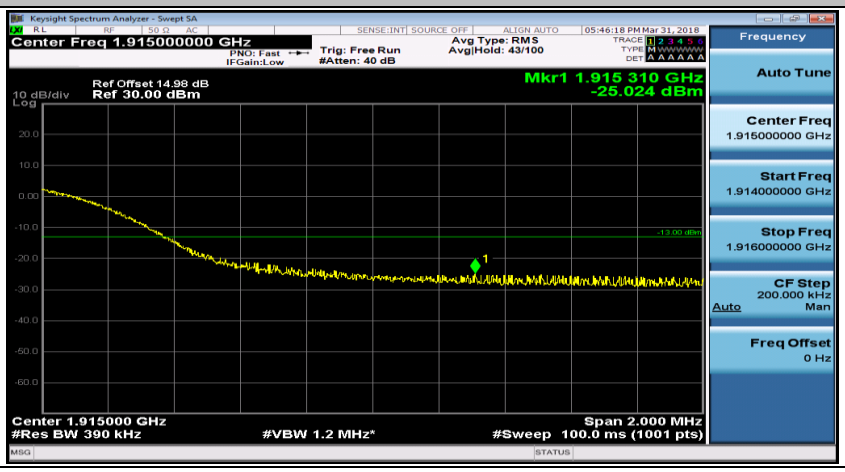
(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0



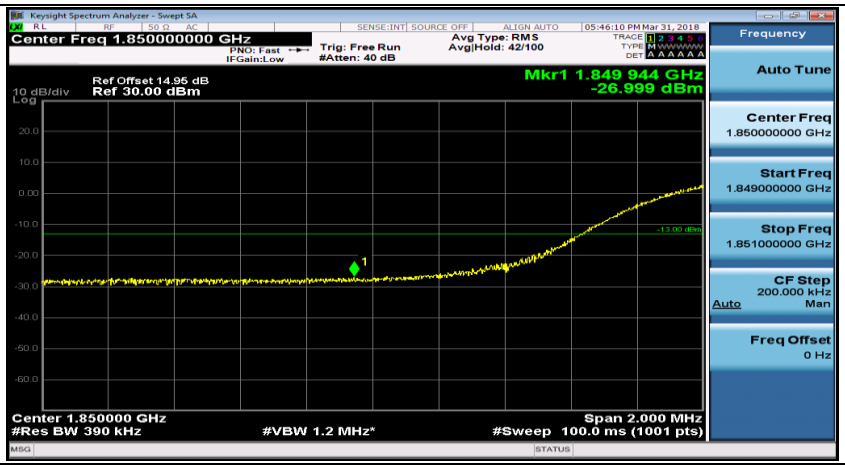
(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#99

(Channel Bandwidth: 20 MHz)_LCH_QPSK_100RB#0

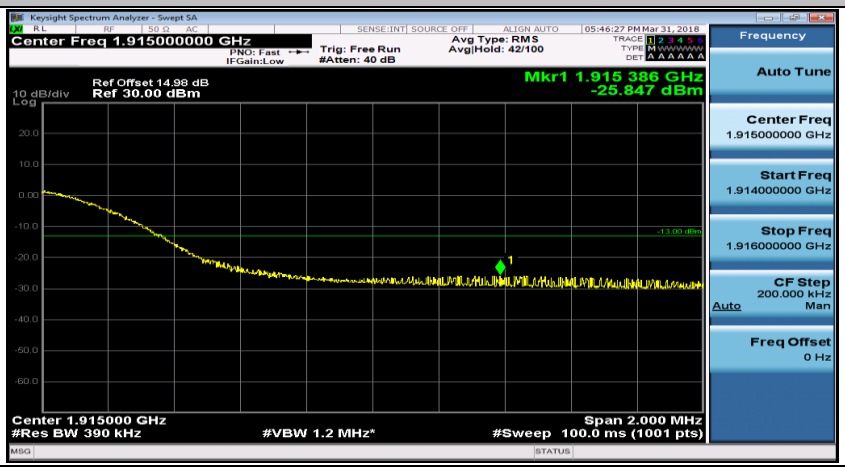
(Channel Bandwidth: 20 MHz)_HCH_QPSK_100RB#0



(Channel Bandwidth: 20 MHz)_LCH_16QAM_100RB#0



(Channel Bandwidth: 20 MHz)_HCH_16QAM_100RB#0

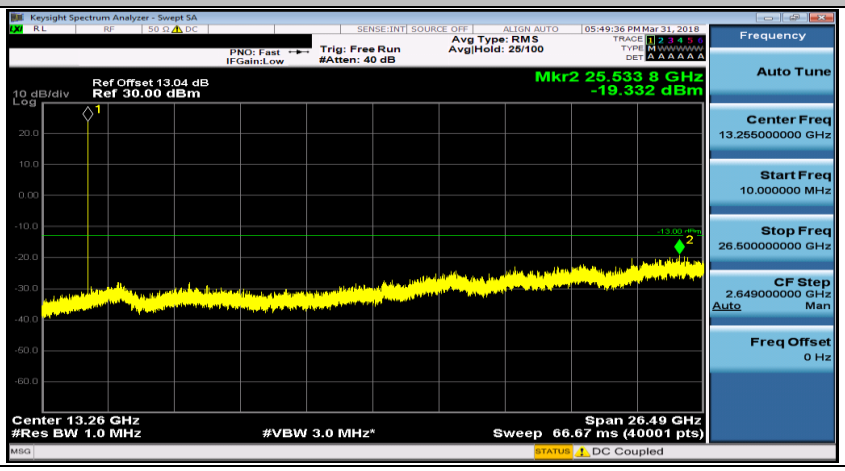


Appendix E: Conducted Spurious Emission

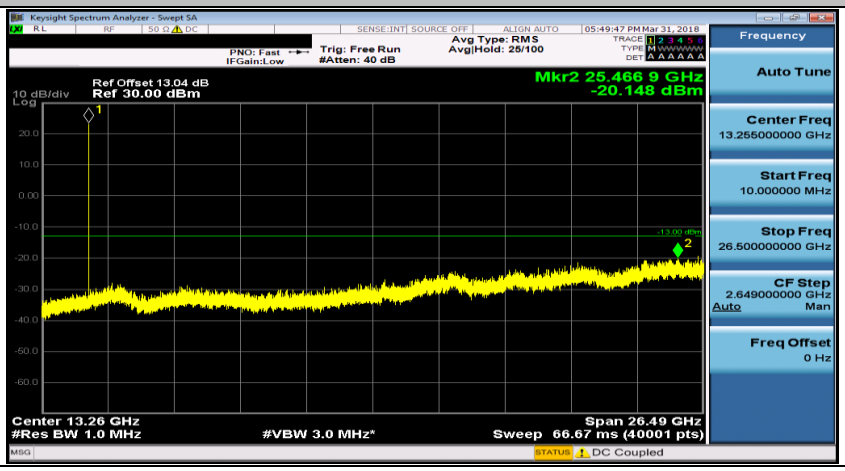
Test Graphs

Channel Bandwidth: 1.4 MHz

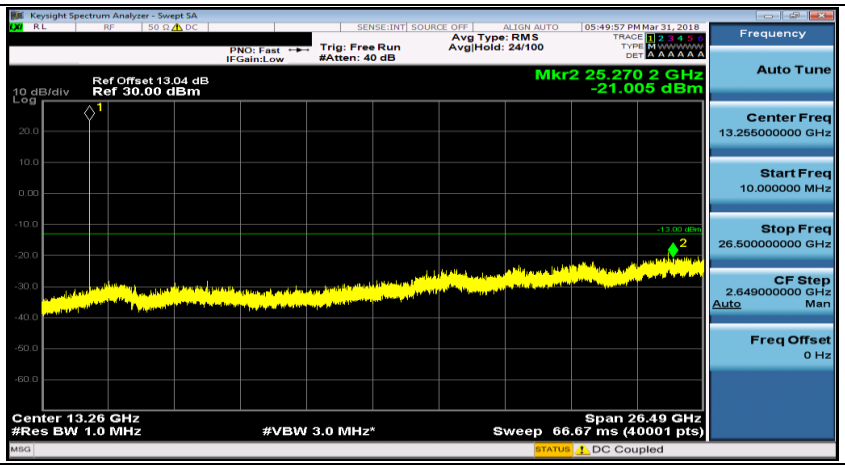
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#0

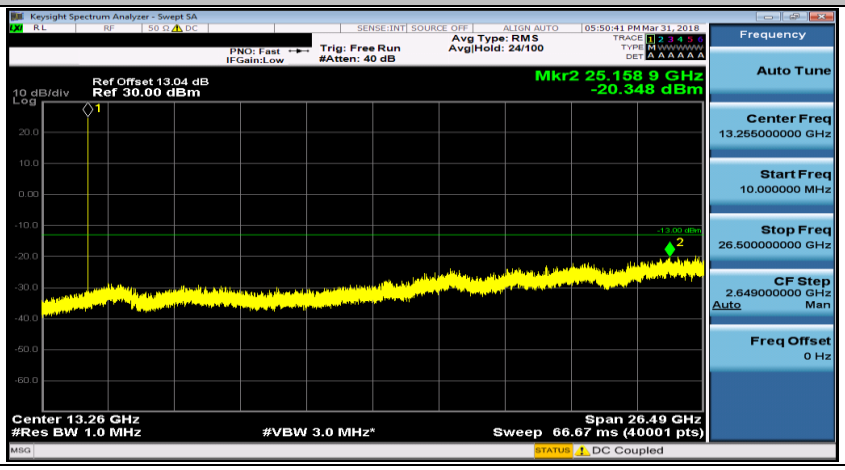


(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#0

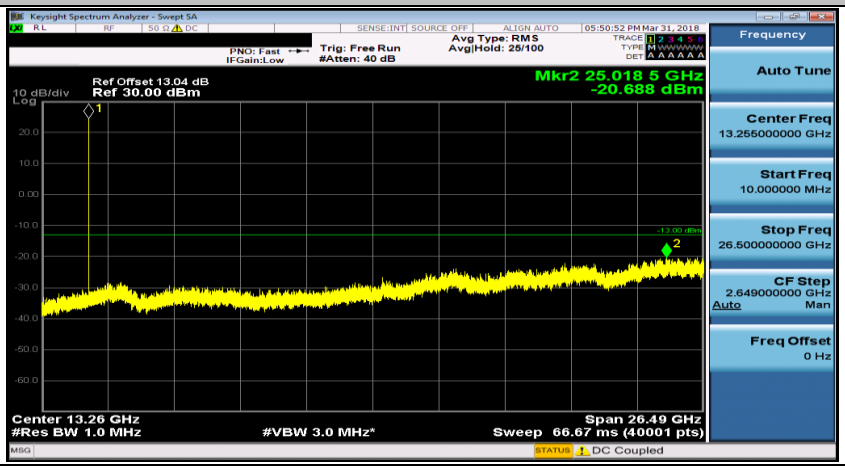


Channel Bandwidth: 3 MHz

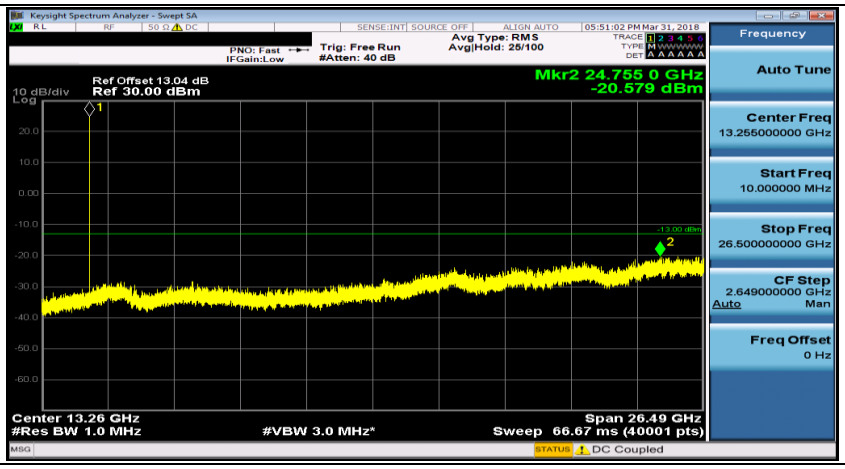
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#0

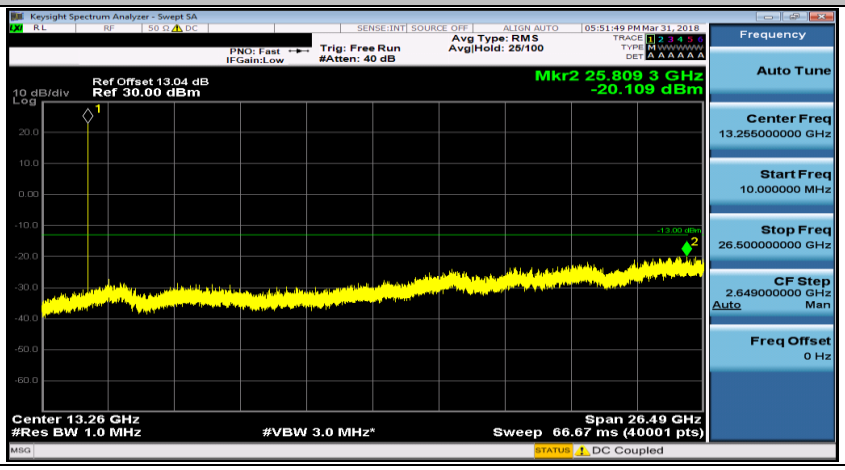


(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#0

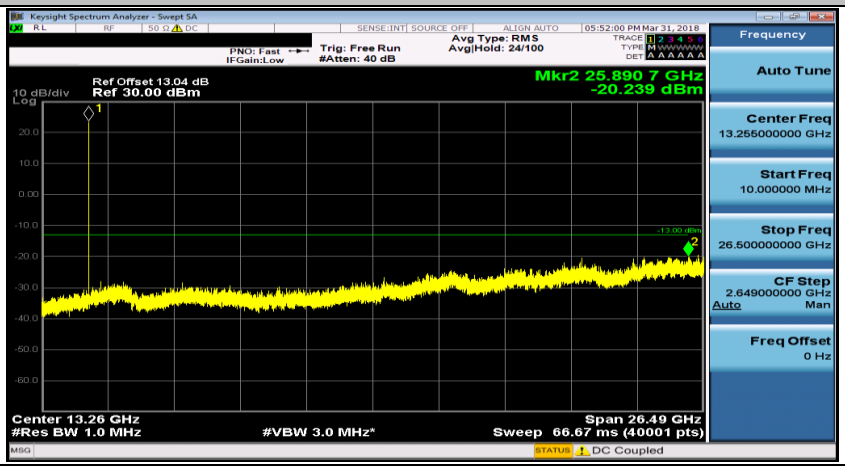


Channel Bandwidth: 5 MHz

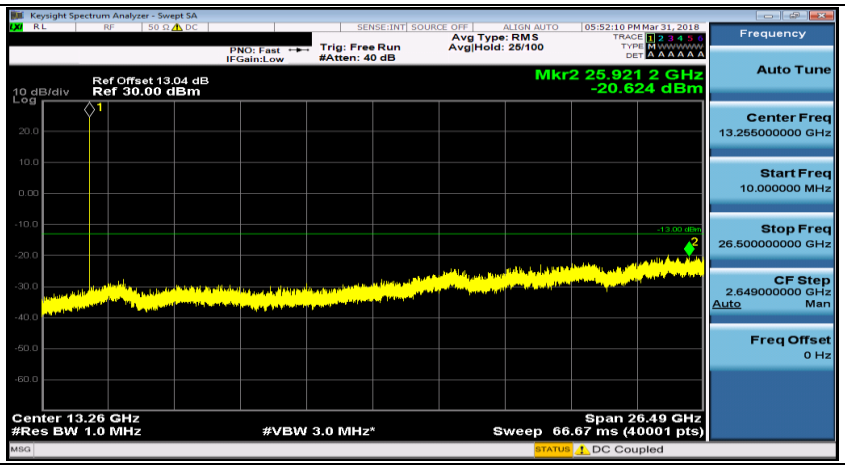
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

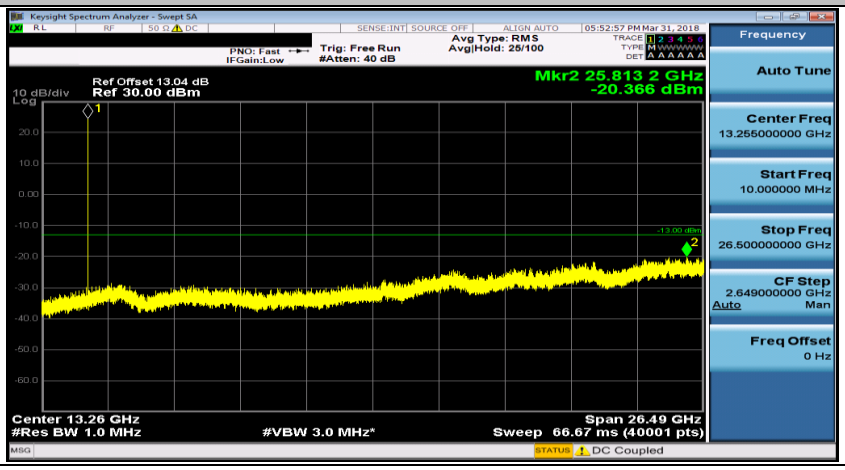


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

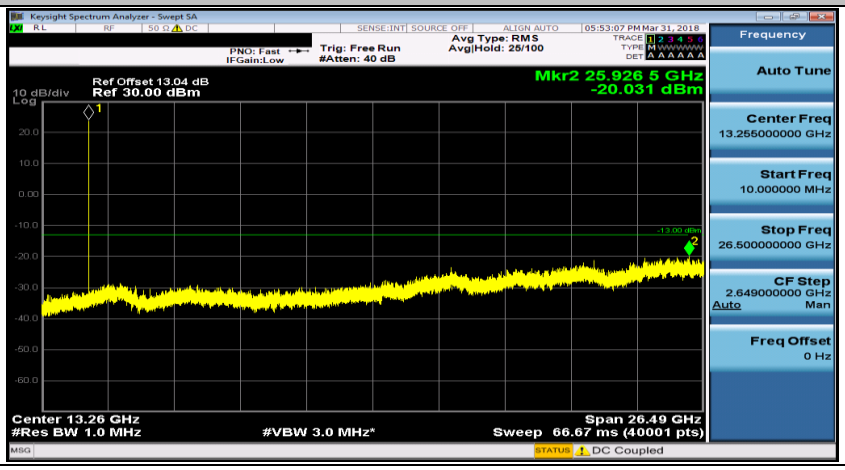


Channel Bandwidth: 10 MHz

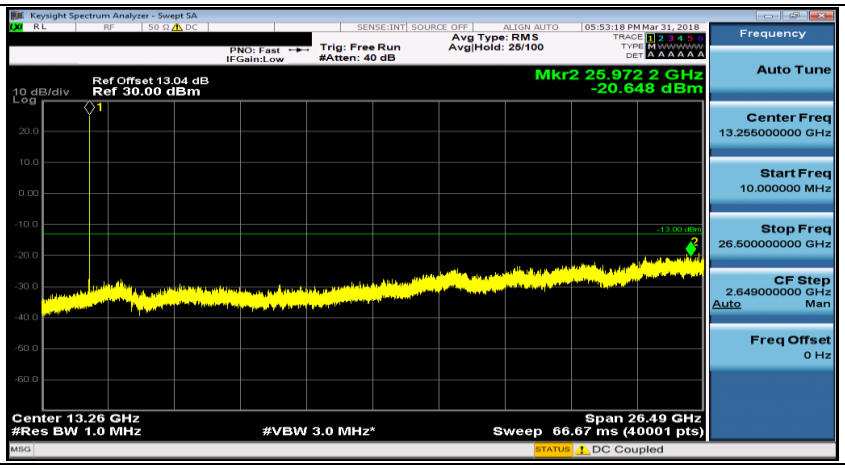
(Channel Bandwidth: 10 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0

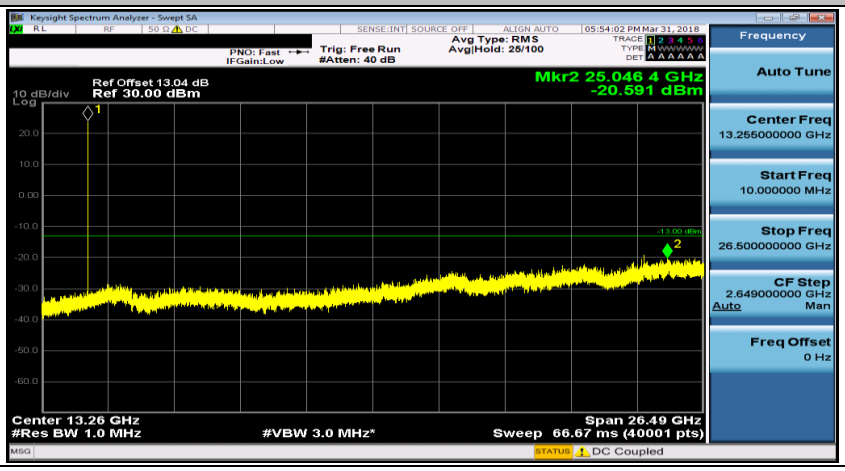


(Channel Bandwidth: 10 MHz)_HCH_QPSK_1RB#0

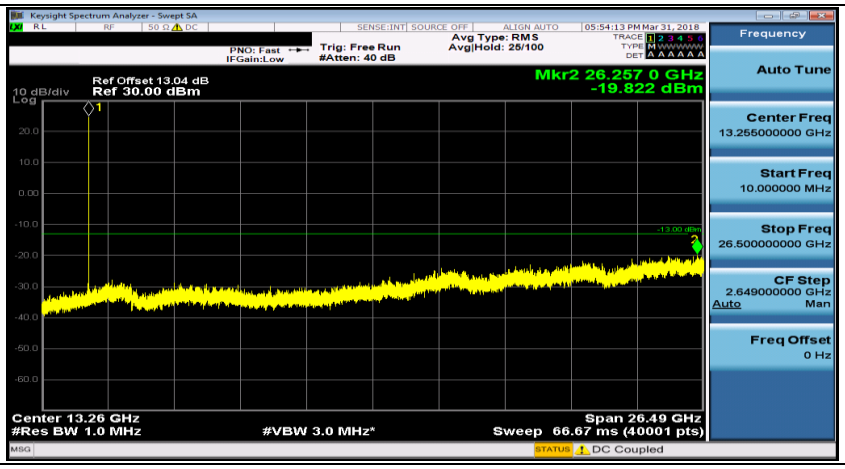


Channel Bandwidth: 15 MHz

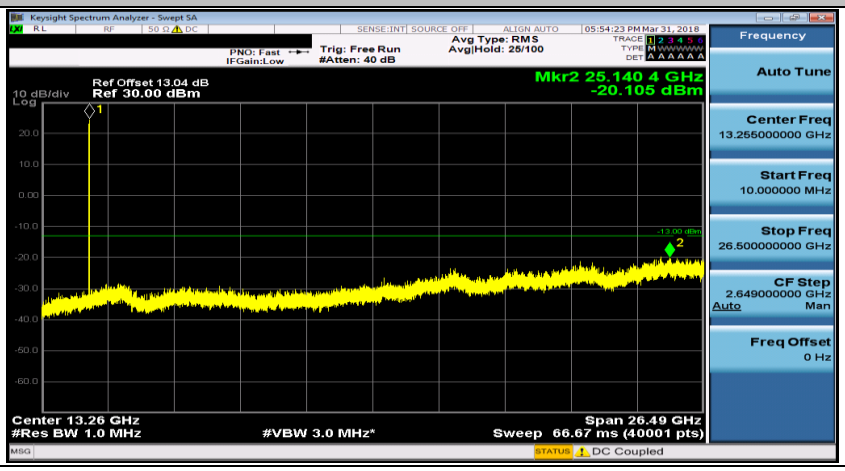
(Channel Bandwidth: 15 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 15 MHz)_MCH_QPSK_1RB#0

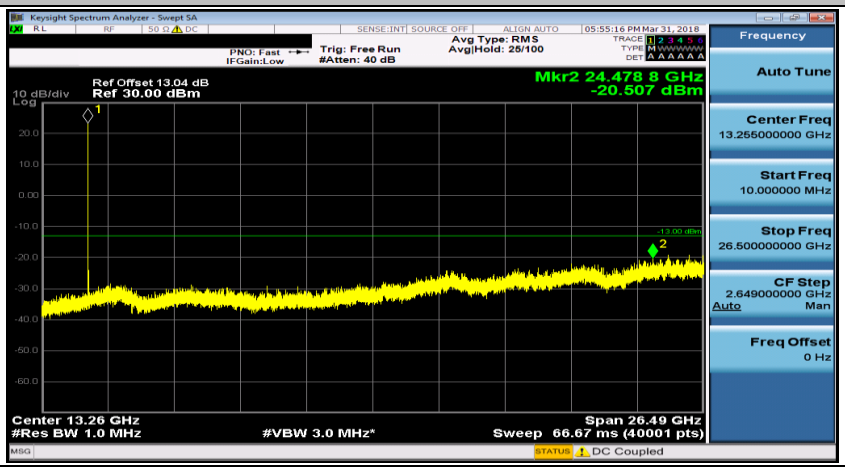


(Channel Bandwidth: 15 MHz)_HCH_QPSK_1RB#0

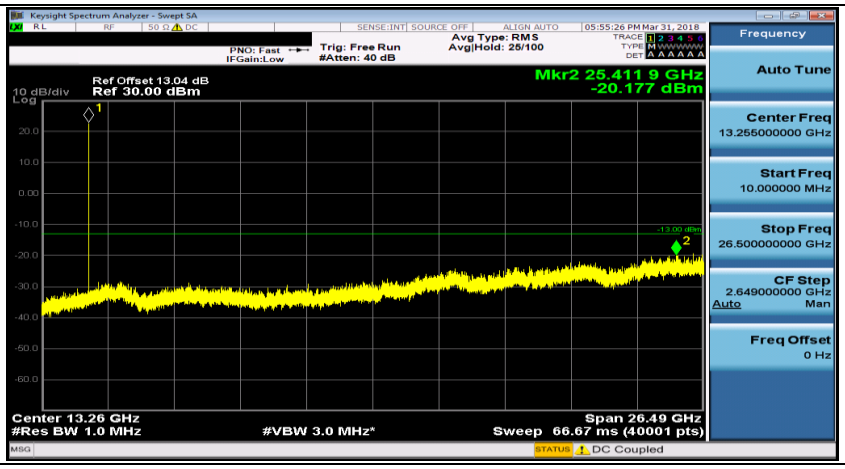


Channel Bandwidth: 20 MHz

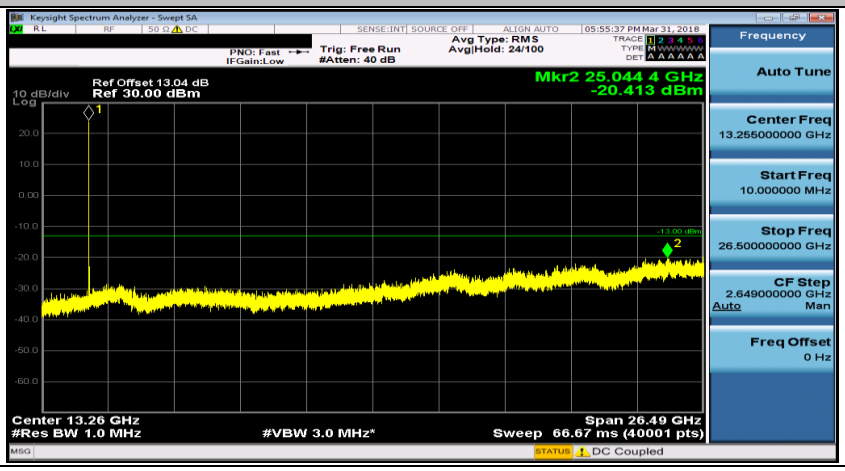
(Channel Bandwidth: 20 MHz)_LCH_QPSK_1RB#0



(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 (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-2.00	-0.001081	± 2.5	PASS
		VN	TN	-1.40	-0.000756	± 2.5	PASS
		VH	TN	-0.30	-0.000162	± 2.5	PASS
	MCH	VL	TN	1.60	0.000850	± 2.5	PASS
		VN	TN	3.10	0.001647	± 2.5	PASS
		VH	TN	1.10	0.000584	± 2.5	PASS
	HCH	VL	TN	-3.50	-0.001828	± 2.5	PASS
		VN	TN	-1.00	-0.000522	± 2.5	PASS
		VH	TN	-0.70	-0.000366	± 2.5	PASS

Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-0.70	-0.000378	± 2.5	PASS
		VN	-20	-0.90	-0.000486	± 2.5	PASS
		VN	-10	0.00	0.000000	± 2.5	PASS
		VN	0	0.20	0.000108	± 2.5	PASS
		VN	10	-1.20	-0.000648	± 2.5	PASS
		VN	20	-2.00	-0.001081	± 2.5	PASS
		VN	30	-1.40	-0.000756	± 2.5	PASS
		VN	40	-0.30	-0.000162	± 2.5	PASS
		VN	50	-1.20	-0.000648	± 2.5	PASS
	MCH	VN	-30	0.60	0.000319	± 2.5	PASS
		VN	-20	-0.10	-0.000053	± 2.5	PASS
		VN	-10	0.40	0.000212	± 2.5	PASS
		VN	0	0.70	0.000372	± 2.5	PASS
		VN	10	1.30	0.000691	± 2.5	PASS
		VN	20	0.50	0.000266	± 2.5	PASS
		VN	30	1.90	0.001009	± 2.5	PASS
		VN	40	-1.20	-0.000637	± 2.5	PASS
		VN	50	1.10	0.000584	± 2.5	PASS
	HCH	VN	-30	-2.70	-0.001410	± 2.5	PASS
		VN	-20	-2.20	-0.001149	± 2.5	PASS
		VN	-10	-0.10	-0.000052	± 2.5	PASS
		VN	0	-1.00	-0.000522	± 2.5	PASS
		VN	10	-1.80	-0.000940	± 2.5	PASS
		VN	20	-1.10	-0.000575	± 2.5	PASS
		VN	30	-1.60	-0.000836	± 2.5	PASS
		VN	40	-2.70	-0.001410	± 2.5	PASS
		VN	50	-0.50	-0.000261	± 2.5	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-1.10	-0.000594	± 2.5	PASS
		VN	TN	-0.80	-0.000432	± 2.5	PASS
		VH	TN	-2.70	-0.001458	± 2.5	PASS
	MCH	VL	TN	0.40	0.000212	± 2.5	PASS
		VN	TN	1.40	0.000744	± 2.5	PASS
		VH	TN	1.00	0.000531	± 2.5	PASS
	HCH	VL	TN	-1.40	-0.000732	± 2.5	PASS
		VN	TN	-1.80	-0.000941	± 2.5	PASS
		VH	TN	-2.90	-0.001516	± 2.5	PASS
Temperature							

Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-3.10	-0.001674	± 2.5	PASS
		VN	-20	-2.00	-0.001080	± 2.5	PASS
		VN	-10	-2.80	-0.001512	± 2.5	PASS
		VN	0	-2.40	-0.001296	± 2.5	PASS
		VN	10	-3.50	-0.001890	± 2.5	PASS
		VN	20	-1.30	-0.000702	± 2.5	PASS
		VN	30	-4.50	-0.002430	± 2.5	PASS
		VN	40	-3.50	-0.001890	± 2.5	PASS
		VN	50	-4.50	-0.002430	± 2.5	PASS
	MCH	VN	-30	0.90	0.000478	± 2.5	PASS
		VN	-20	1.60	0.000850	± 2.5	PASS
		VN	-10	2.10	0.001116	± 2.5	PASS
		VN	0	1.60	0.000850	± 2.5	PASS
		VN	10	1.10	0.000584	± 2.5	PASS
		VN	20	1.30	0.000691	± 2.5	PASS
		VN	30	1.40	0.000744	± 2.5	PASS
		VN	40	2.70	0.001434	± 2.5	PASS
		VN	50	1.40	0.000744	± 2.5	PASS
	HCH	VN	-30	-3.10	-0.001620	± 2.5	PASS
		VN	-20	-1.40	-0.000732	± 2.5	PASS
		VN	-10	-2.90	-0.001516	± 2.5	PASS
		VN	0	-0.70	-0.000366	± 2.5	PASS
		VN	10	-2.50	-0.001307	± 2.5	PASS
		VN	20	-1.30	-0.000679	± 2.5	PASS
		VN	30	-0.80	-0.000418	± 2.5	PASS
		VN	40	-0.80	-0.000418	± 2.5	PASS
		VN	50	-0.80	-0.000418	± 2.5	PASS

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	-3.80	-0.002051	± 2.5	PASS
		VN	TN	-3.60	-0.001943	± 2.5	PASS
		VH	TN	-1.40	-0.000756	± 2.5	PASS
	MCH	VL	TN	1.80	0.000956	± 2.5	PASS
		VN	TN	1.10	0.000584	± 2.5	PASS
		VH	TN	0.20	0.000106	± 2.5	PASS
	HCH	VL	TN	-2.10	-0.001098	± 2.5	PASS
		VN	TN	-4.90	-0.002562	± 2.5	PASS
		VH	TN	-3.50	-0.001830	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict

QPSK	LCH	VN	-30	-0.80	-0.000432	± 2.5	PASS
		VN	-20	-1.60	-0.000864	± 2.5	PASS
		VN	-10	-0.30	-0.000162	± 2.5	PASS
		VN	0	-0.60	-0.000324	± 2.5	PASS
		VN	10	-3.20	-0.001727	± 2.5	PASS
		VN	20	-2.00	-0.001080	± 2.5	PASS
		VN	30	-4.60	-0.002483	± 2.5	PASS
		VN	40	-3.00	-0.001619	± 2.5	PASS
		VN	50	-2.40	-0.001296	± 2.5	PASS
	MCH	VN	-30	-0.10	-0.000053	± 2.5	PASS
		VN	-20	0.50	0.000266	± 2.5	PASS
		VN	-10	1.60	0.000850	± 2.5	PASS
		VN	0	-0.20	-0.000106	± 2.5	PASS
		VN	10	1.00	0.000531	± 2.5	PASS
		VN	20	1.90	0.001009	± 2.5	PASS
		VN	30	1.50	0.000797	± 2.5	PASS
		VN	40	-0.10	-0.000053	± 2.5	PASS
		VN	50	-1.10	-0.000584	± 2.5	PASS
	HCH	VN	-30	-2.00	-0.001046	± 2.5	PASS
		VN	-20	-3.90	-0.002039	± 2.5	PASS
		VN	-10	-2.70	-0.001412	± 2.5	PASS
		VN	0	-3.20	-0.001673	± 2.5	PASS
		VN	10	-5.40	-0.002824	± 2.5	PASS
		VN	20	-1.10	-0.000575	± 2.5	PASS
		VN	30	-4.60	-0.002405	± 2.5	PASS
		VN	40	-2.70	-0.001412	± 2.5	PASS
		VN	50	-2.40	-0.001255	± 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	-3.80	-0.002049	± 2.5	PASS
		VN	TN	2.90	0.001563	± 2.5	PASS
		VH	TN	-1.40	-0.000755	± 2.5	PASS
	MCH	VL	TN	-0.40	-0.000212	± 2.5	PASS
		VN	TN	5.60	0.002975	± 2.5	PASS
		VH	TN	-1.30	-0.000691	± 2.5	PASS
	HCH	VL	TN	-3.30	-0.001728	± 2.5	PASS
		VN	TN	0.10	0.000052	± 2.5	PASS
		VH	TN	-3.00	-0.001571	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-2.60	-0.001402	± 2.5	PASS
		VN	-20	-1.30	-0.000701	± 2.5	PASS

		VN	-10	-3.10	-0.001671	± 2.5	PASS
		VN	0	-3.50	-0.001887	± 2.5	PASS
		VN	10	-2.30	-0.001240	± 2.5	PASS
		VN	20	-1.00	-0.000539	± 2.5	PASS
		VN	30	-2.90	-0.001563	± 2.5	PASS
		VN	40	-3.10	-0.001671	± 2.5	PASS
		VN	50	-2.50	-0.001348	± 2.5	PASS
	MCH	VN	-30	1.40	0.000744	± 2.5	PASS
		VN	-20	1.50	0.000797	± 2.5	PASS
		VN	-10	2.10	0.001116	± 2.5	PASS
		VN	0	1.90	0.001009	± 2.5	PASS
		VN	10	0.90	0.000478	± 2.5	PASS
		VN	20	1.00	0.000531	± 2.5	PASS
		VN	30	0.70	0.000372	± 2.5	PASS
		VN	40	2.40	0.001275	± 2.5	PASS
		VN	50	1.10	0.000584	± 2.5	PASS
	HCH	VN	-30	-1.70	-0.000890	± 2.5	PASS
		VN	-20	-2.80	-0.001466	± 2.5	PASS
		VN	-10	-2.80	-0.001466	± 2.5	PASS
		VN	0	-3.90	-0.002042	± 2.5	PASS
		VN	10	-2.20	-0.001152	± 2.5	PASS
		VN	20	-3.20	-0.001675	± 2.5	PASS
		VN	30	-1.40	-0.000733	± 2.5	PASS
		VN	40	-3.00	-0.001571	± 2.5	PASS
		VN	50	-1.50	-0.000785	± 2.5	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	-1.00	-0.000538	± 2.5	PASS
		VN	TN	0.50	0.000269	± 2.5	PASS
		VH	TN	-2.60	-0.001400	± 2.5	PASS
	MCH	VL	TN	3.00	0.001594	± 2.5	PASS
		VN	TN	6.00	0.003187	± 2.5	PASS
		VH	TN	1.10	0.000584	± 2.5	PASS
	HCH	VL	TN	-0.20	-0.000105	± 2.5	PASS
		VN	TN	3.30	0.001730	± 2.5	PASS
		VH	TN	-0.50	-0.000262	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-2.20	-0.001184	± 2.5	PASS
		VN	-20	-2.30	-0.001238	± 2.5	PASS
		VN	-10	-4.50	-0.002423	± 2.5	PASS
		VN	0	-1.90	-0.001023	± 2.5	PASS

		VN	10	-3.00	-0.001615	± 2.5	PASS
		VN	20	-3.50	-0.001884	± 2.5	PASS
		VN	30	-4.90	-0.002638	± 2.5	PASS
		VN	40	-1.50	-0.000808	± 2.5	PASS
		VN	50	-2.10	-0.001131	± 2.5	PASS
	MCH	VN	-30	0.20	0.000106	± 2.5	PASS
		VN	-20	1.80	0.000956	± 2.5	PASS
		VN	-10	2.20	0.001169	± 2.5	PASS
		VN	0	2.20	0.001169	± 2.5	PASS
		VN	10	2.20	0.001169	± 2.5	PASS
		VN	20	-0.50	-0.000266	± 2.5	PASS
		VN	30	2.90	0.001541	± 2.5	PASS
		VN	40	3.80	0.002019	± 2.5	PASS
		VN	50	0.90	0.000478	± 2.5	PASS
	HCH	VN	-30	0.60	0.000315	± 2.5	PASS
		VN	-20	0.20	0.000105	± 2.5	PASS
		VN	-10	1.10	0.000577	± 2.5	PASS
		VN	0	0.20	0.000105	± 2.5	PASS
		VN	10	0.20	0.000105	± 2.5	PASS
		VN	20	0.00	0.000000	± 2.5	PASS
		VN	30	0.30	0.000157	± 2.5	PASS
		VN	40	2.10	0.001101	± 2.5	PASS
		VN	50	1.00	0.000524	± 2.5	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz							
Voltage							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VL	TN	1.10	0.000591	± 2.5	PASS
		VN	TN	0.80	0.000430	± 2.5	PASS
		VH	TN	1.70	0.000914	± 2.5	PASS
	MCH	VL	TN	1.70	0.000903	± 2.5	PASS
		VN	TN	4.60	0.002444	± 2.5	PASS
		VH	TN	1.10	0.000584	± 2.5	PASS
	HCH	VL	TN	-1.00	-0.000525	± 2.5	PASS
		VN	TN	5.20	0.002730	± 2.5	PASS
		VH	TN	0.60	0.000315	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.60	0.000323	± 2.5	PASS
		VN	-20	1.60	0.000860	± 2.5	PASS
		VN	-10	3.60	0.001935	± 2.5	PASS
		VN	0	0.20	0.000108	± 2.5	PASS
		VN	10	2.40	0.001290	± 2.5	PASS
		VN	20	-0.90	-0.000484	± 2.5	PASS

		VN	30	-0.10	-0.000054	± 2.5	PASS
		VN	40	2.70	0.001452	± 2.5	PASS
		VN	50	1.40	0.000753	± 2.5	PASS
	MCH	VN	-30	0.90	0.000478	± 2.5	PASS
		VN	-20	1.40	0.000744	± 2.5	PASS
		VN	-10	3.20	0.001700	± 2.5	PASS
		VN	0	2.90	0.001541	± 2.5	PASS
		VN	10	1.40	0.000744	± 2.5	PASS
		VN	20	0.40	0.000212	± 2.5	PASS
		VN	30	0.40	0.000212	± 2.5	PASS
		VN	40	1.50	0.000797	± 2.5	PASS
		VN	50	3.30	0.001753	± 2.5	PASS
	HCH	VN	-30	0.00	0.000000	± 2.5	PASS
		VN	-20	0.20	0.000105	± 2.5	PASS
		VN	-10	-1.40	-0.000735	± 2.5	PASS
		VN	0	-2.00	-0.001050	± 2.5	PASS
		VN	10	1.40	0.000735	± 2.5	PASS
		VN	20	-0.30	-0.000157	± 2.5	PASS
		VN	30	-0.50	-0.000262	± 2.5	PASS
		VN	40	0.70	0.000367	± 2.5	PASS
		VN	50	-2.80	-0.001470	± 2.5	PASS