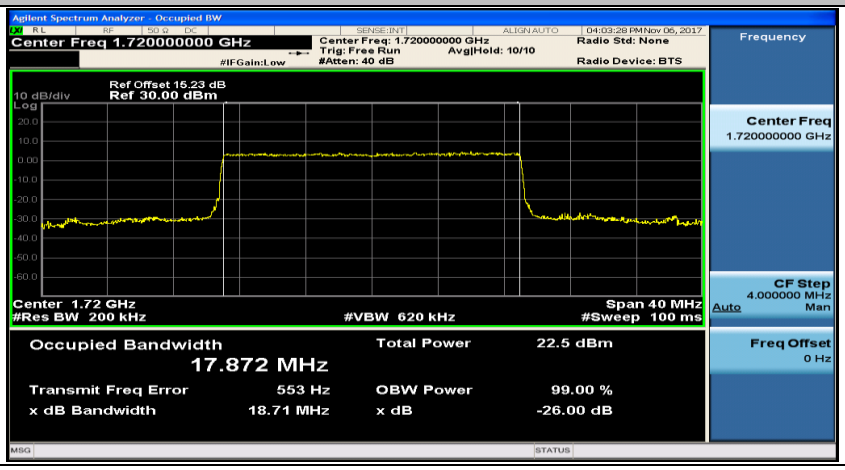
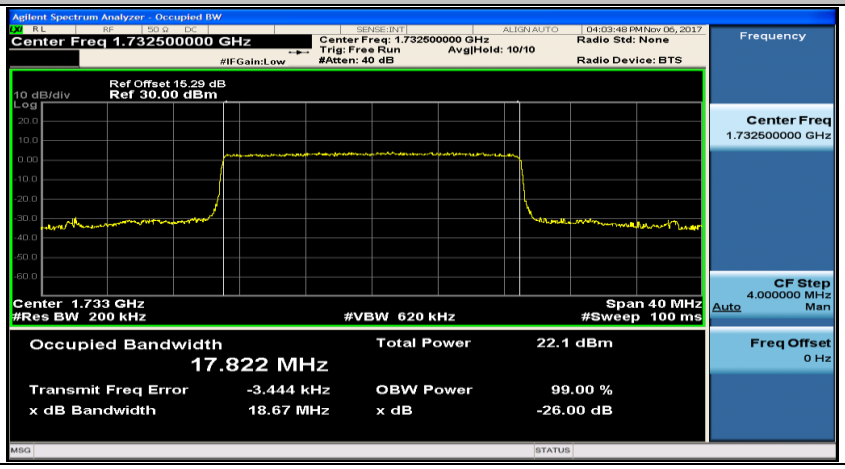
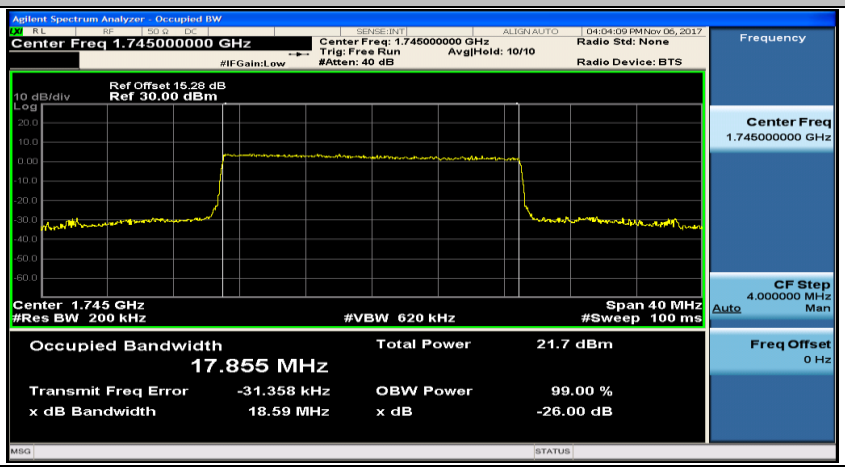
(Channel Bandwidth: 20 MHz)_LCH_16QAM_100RB#0



(Channel Bandwidth: 20 MHz)_MCH_16QAM_100RB#0



(Channel Bandwidth: 20 MHz)_HCH_16QAM_100RB#0

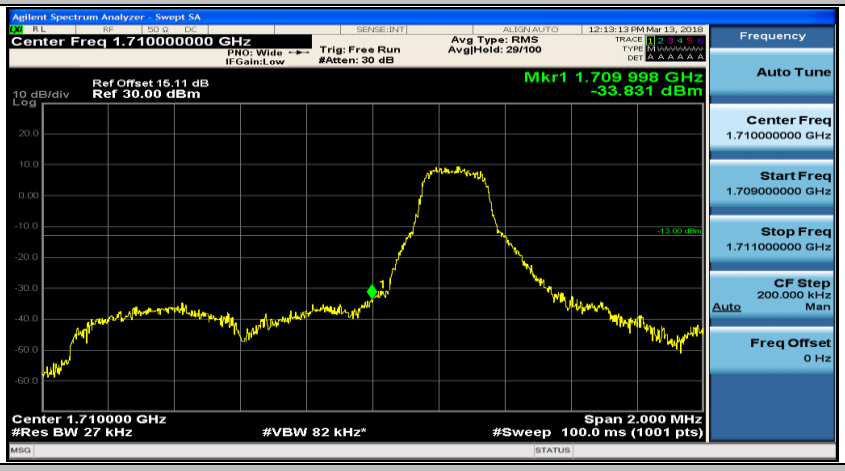


Appendix D: Band Edge

Test Graphs

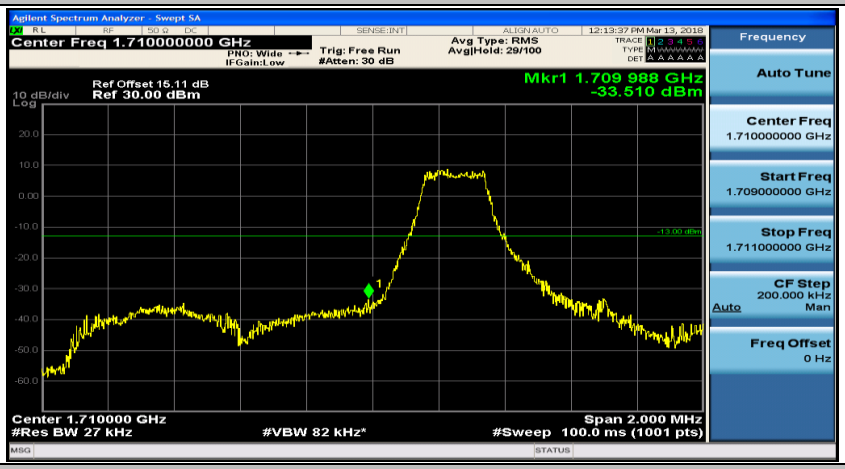
Channel Bandwidth: 1.4 MHz

(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#5

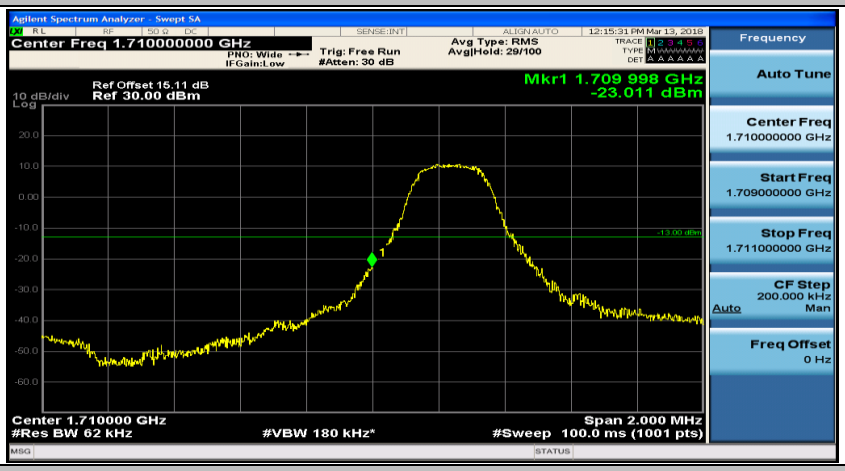
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#0



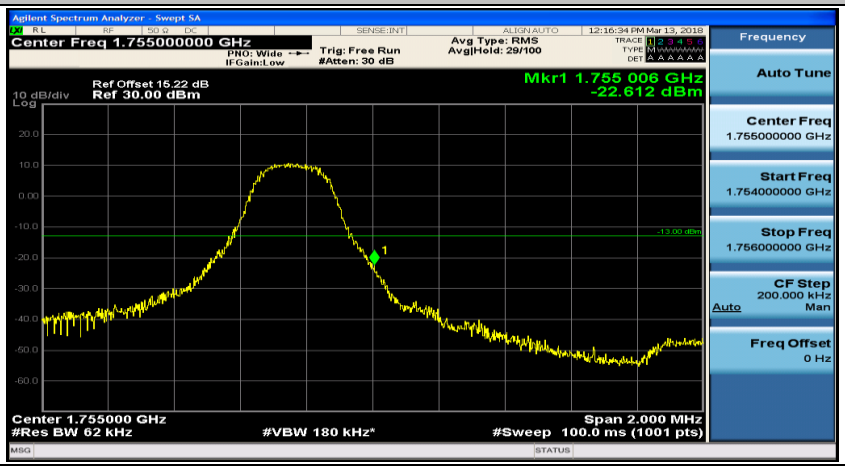
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#5

Channel Bandwidth: 3 MHz

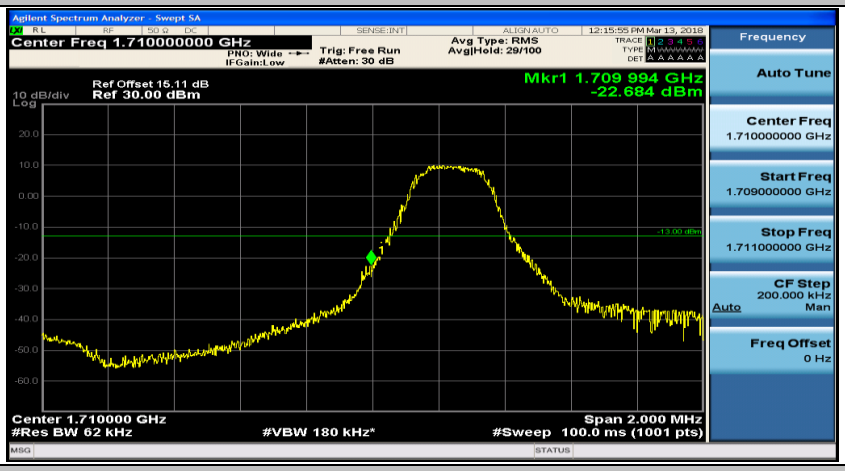
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#0



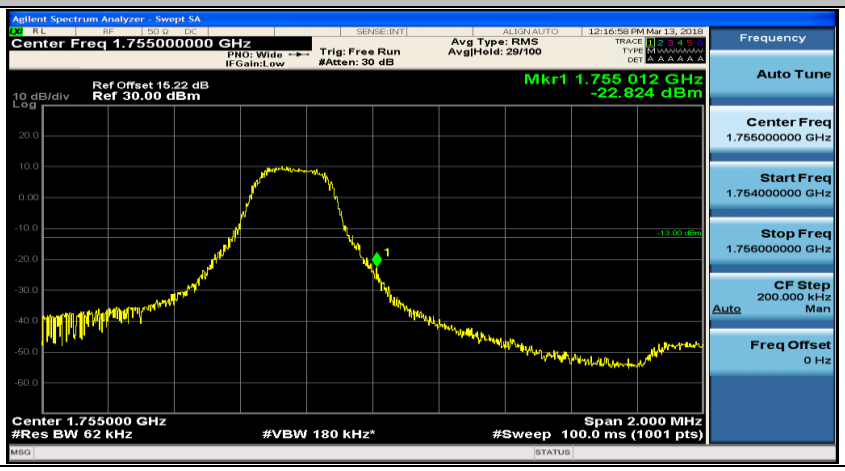
(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#14



(Channel Bandwidth: 3 MHz)_LCH_16QAM_1RB#0

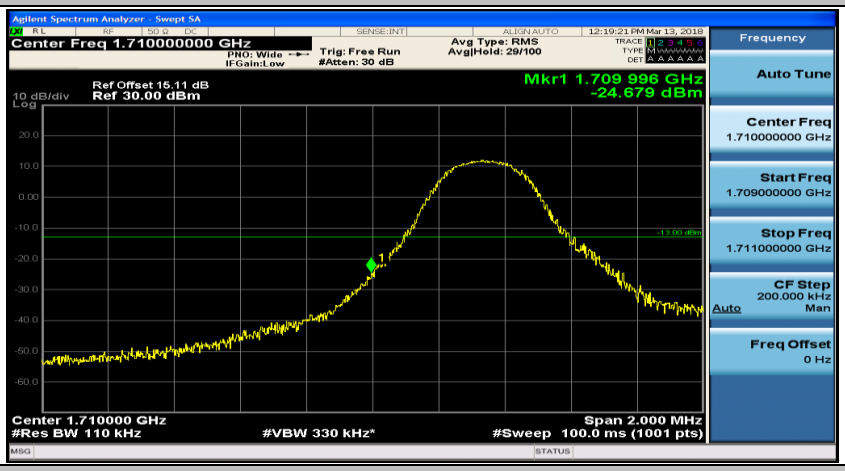


(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#14

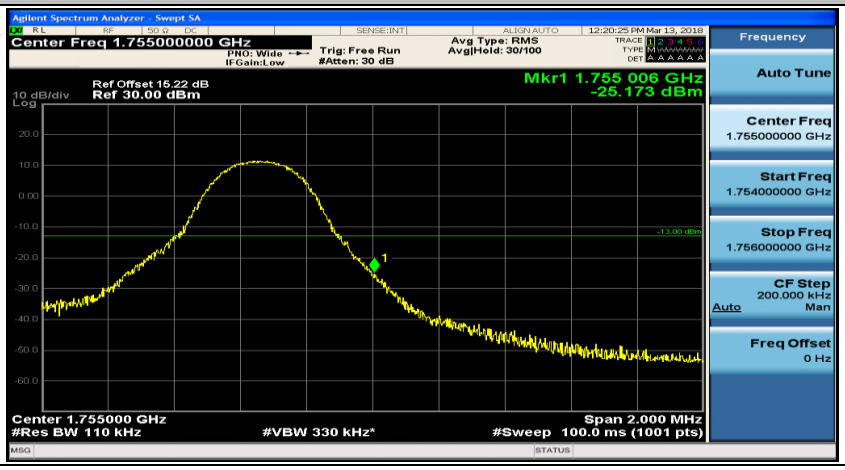


Channel Bandwidth: 5 MHz

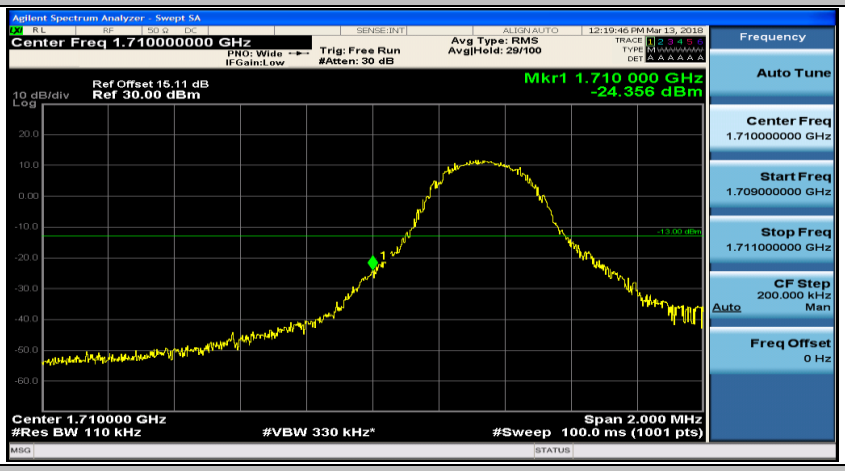
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



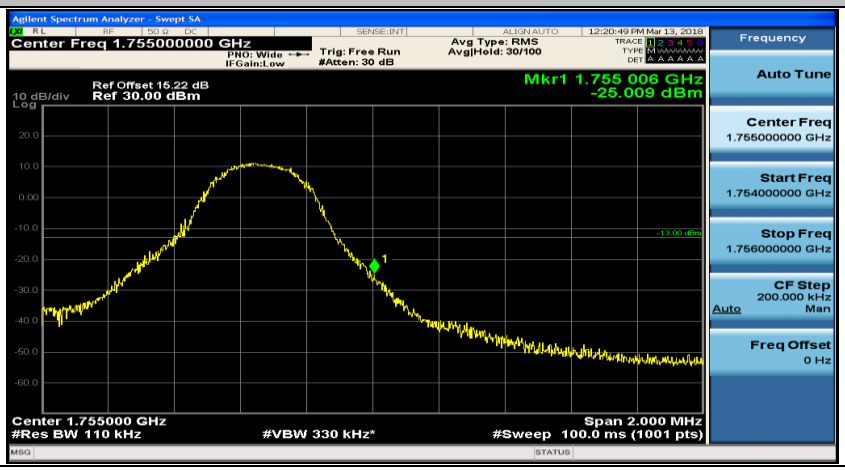
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24



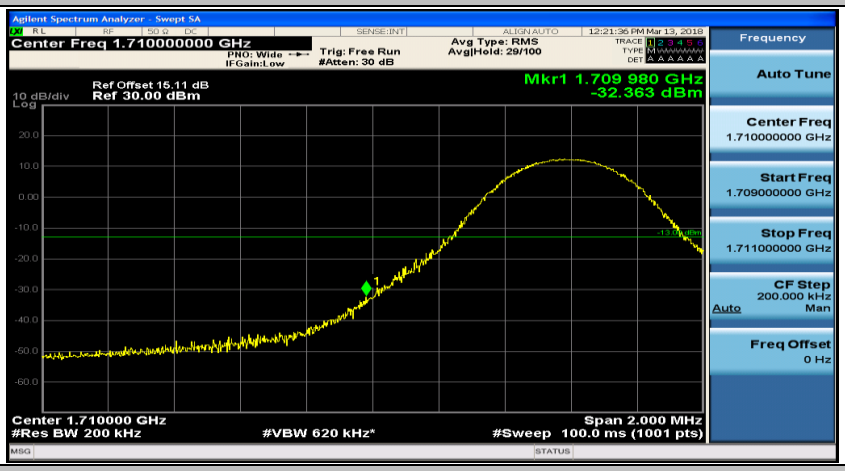
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0

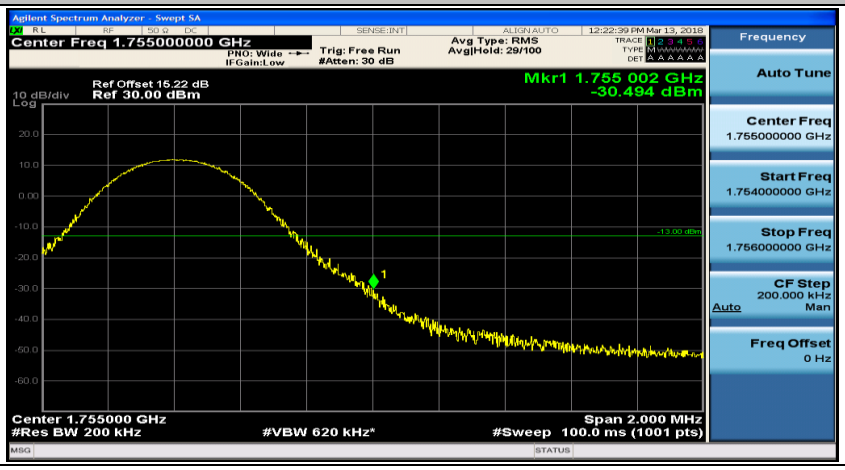


(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24

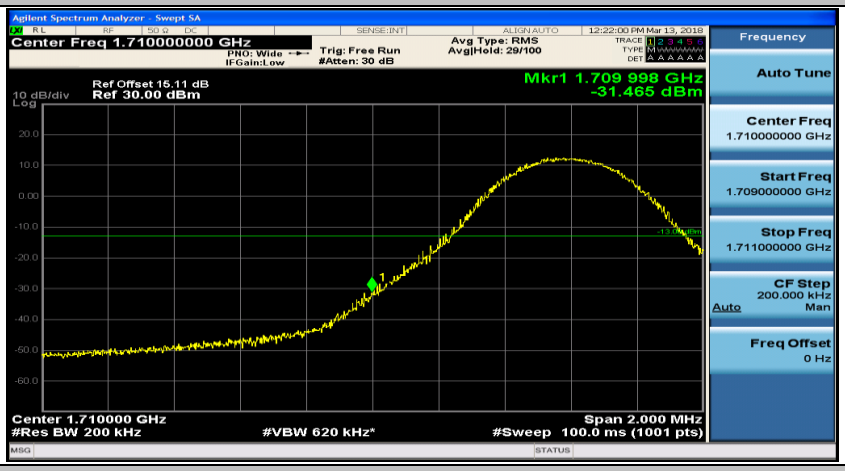


Channel Bandwidth: 10 MHz

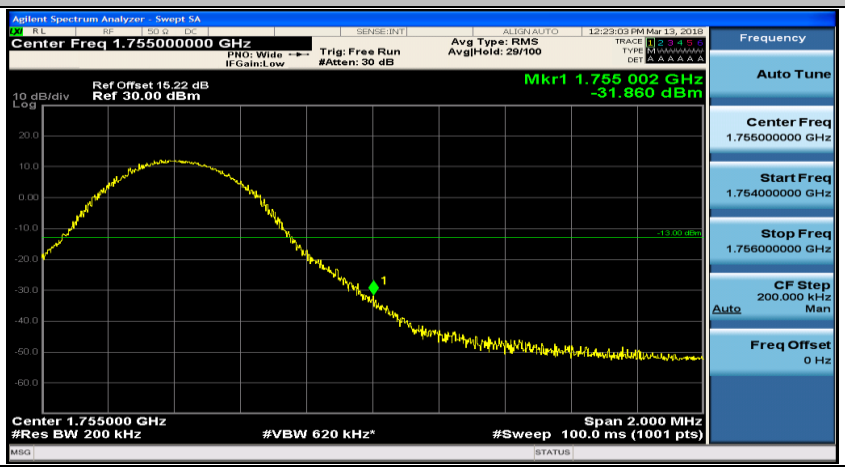
Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#0


Channel Bandwidth: 10 MHz_HCH_QPSK_1RB#49


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0

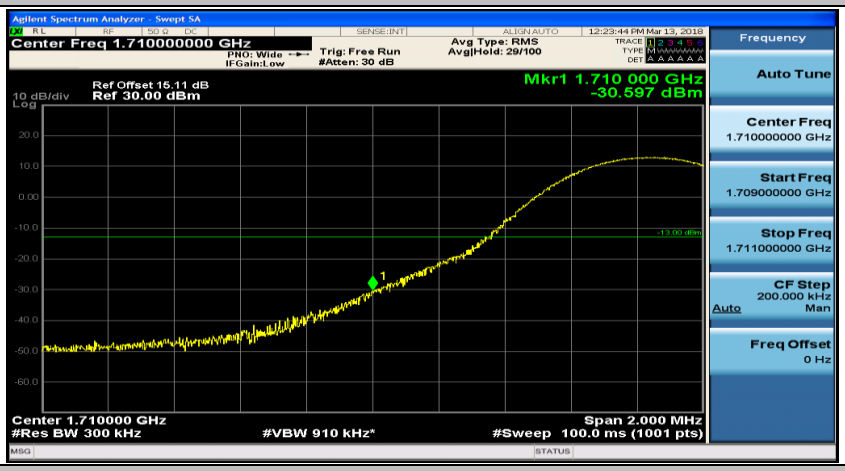


Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49

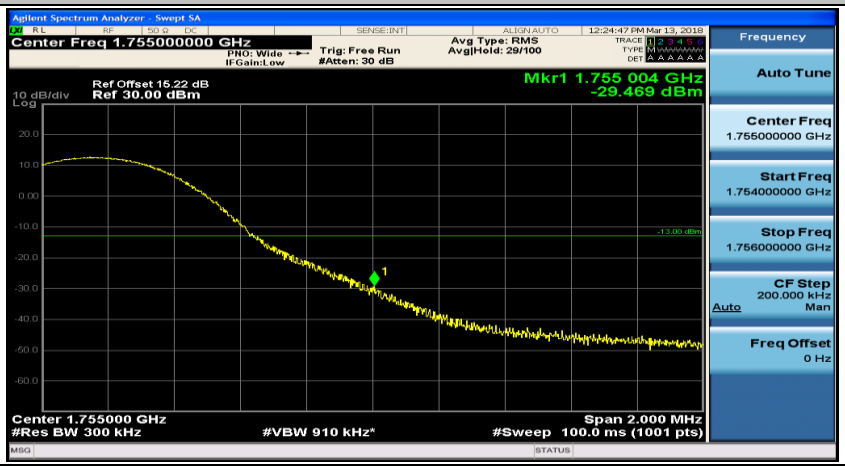


Channel Bandwidth: 15 MHz

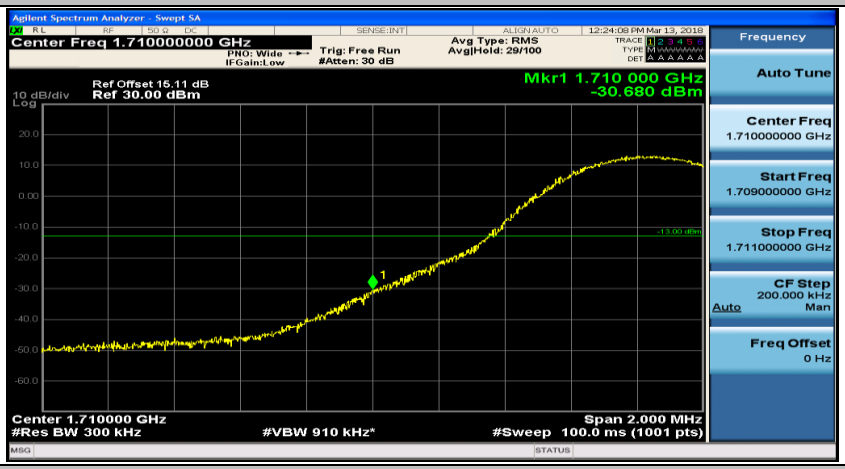
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#0



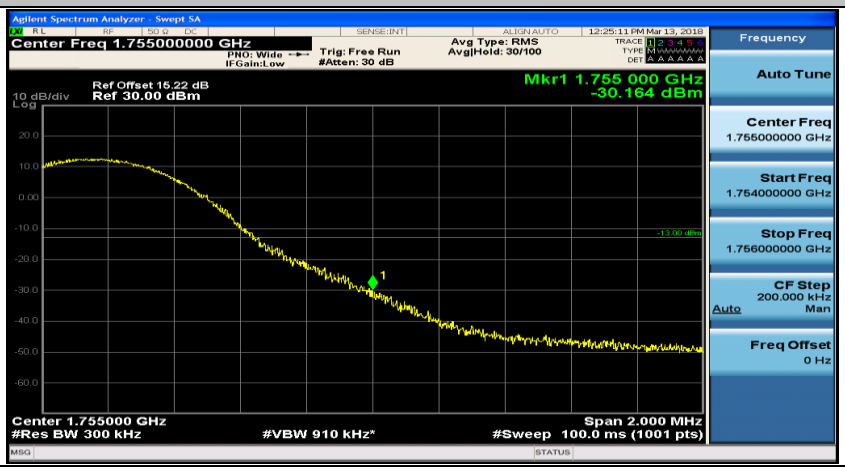
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#74



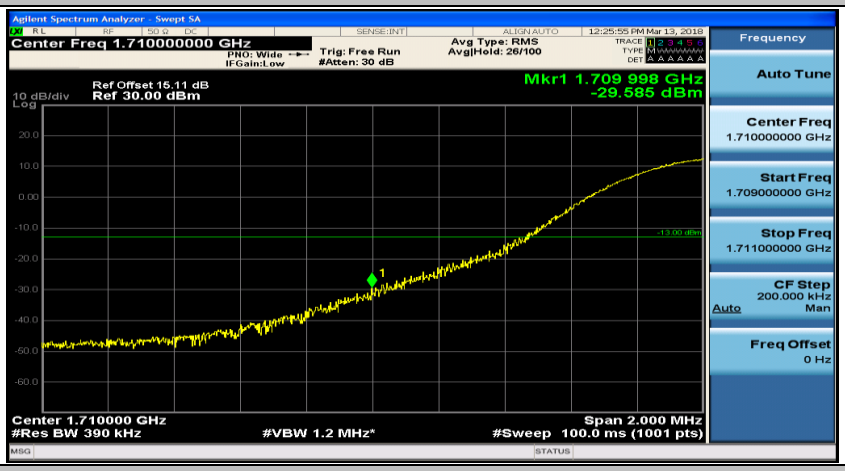
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0

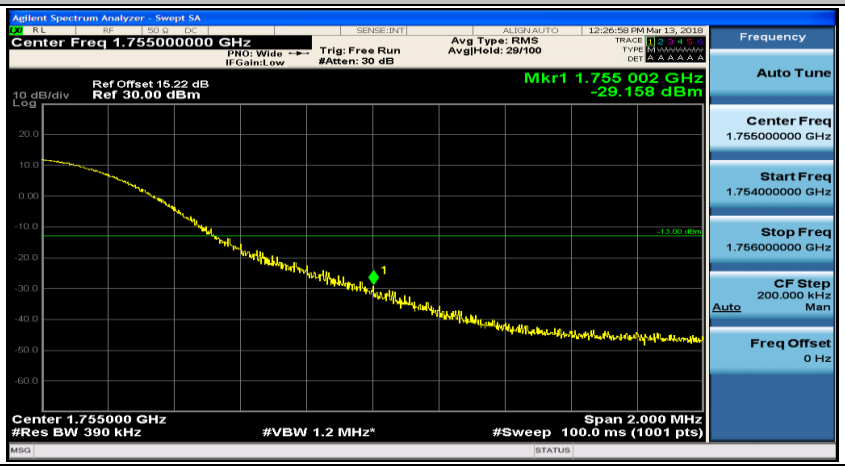


(Channel Bandwidth:15 MHz)_HCH_16QAM_1RB#74

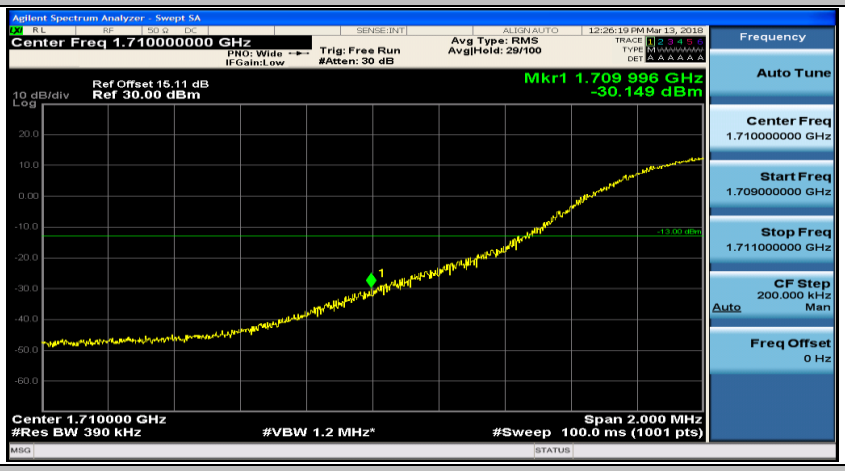


Channel Bandwidth: 20 MHz

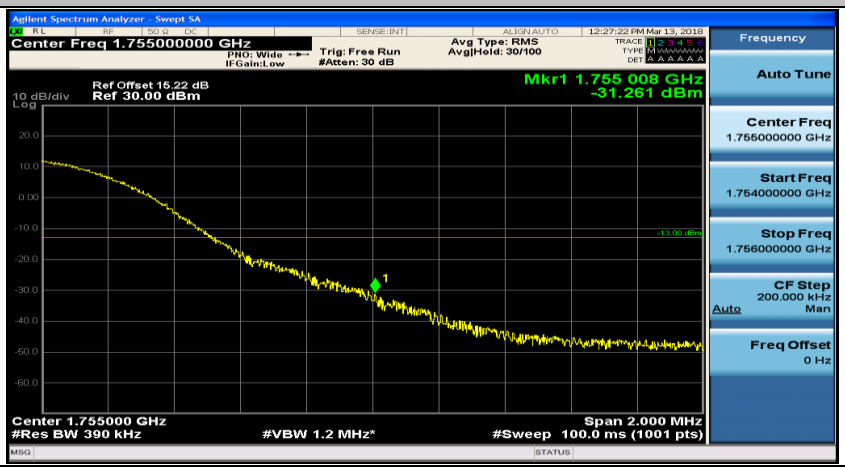
(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#0


(Channel Bandwidth:20 MHz)_HCH_QPSK_1RB#99


(Channel Bandwidth:20 MHz)_LCH_16QAM_1RB#0



(Channel Bandwidth:20 MHz)_HCH_16QAM_1RB#99

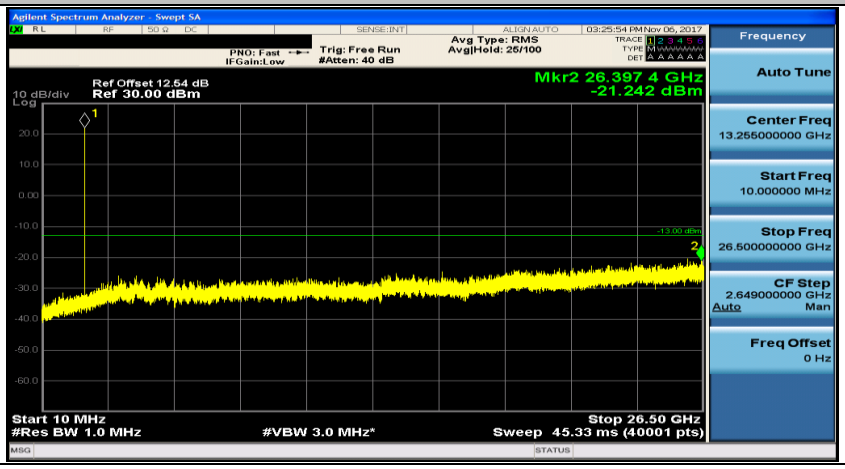


Appendix E: Conducted Spurious Emission

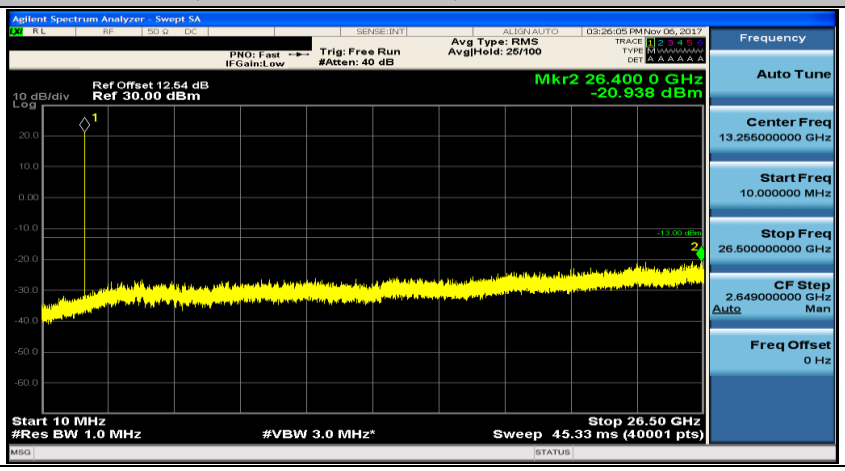
Test Graphs

Channel Bandwidth: 1.4 MHz

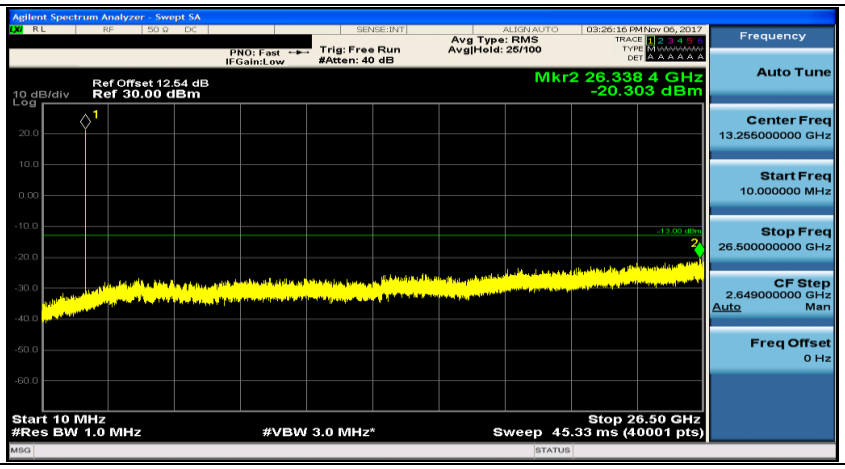
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#0

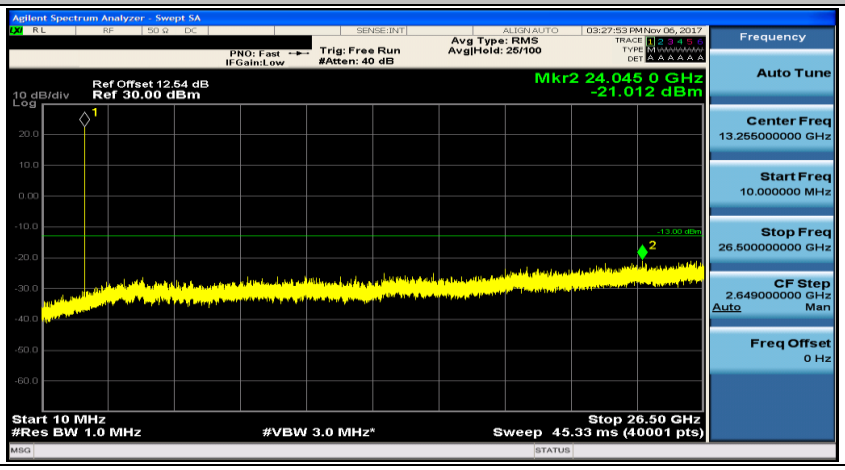


(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#0

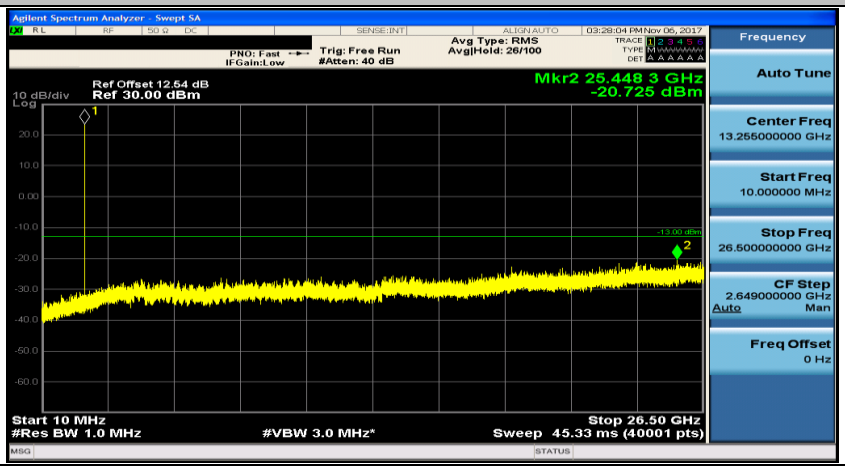


Channel Bandwidth: 3 MHz

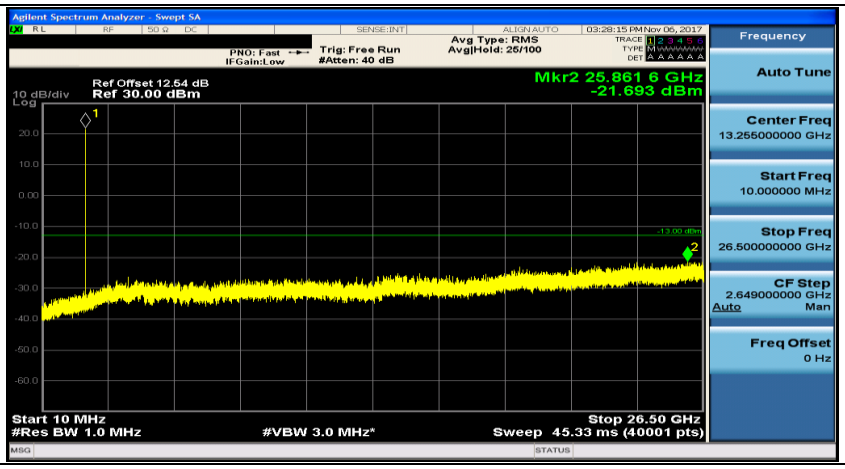
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#0

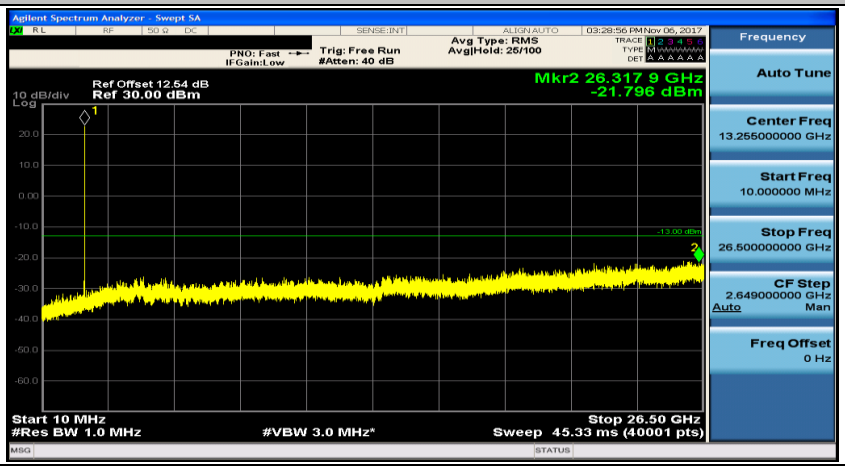


(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#0

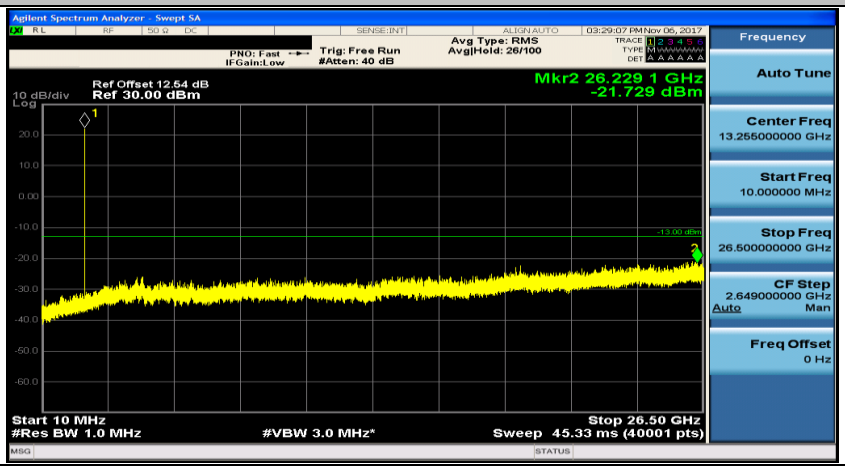


Channel Bandwidth: 5 MHz

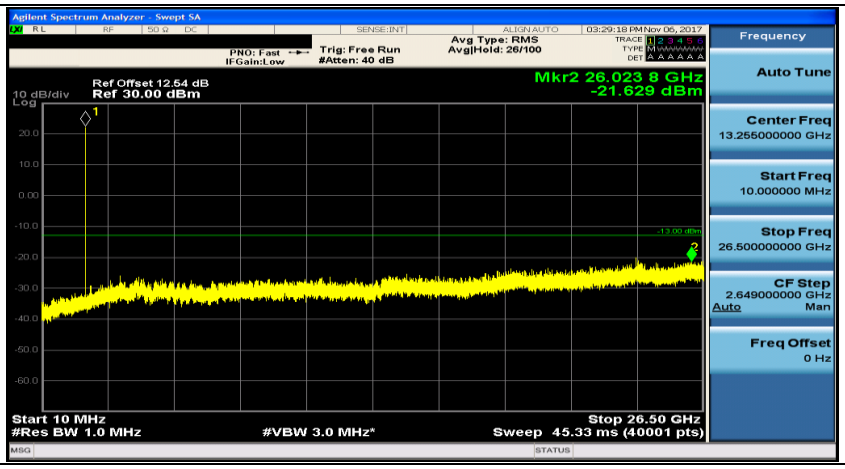
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

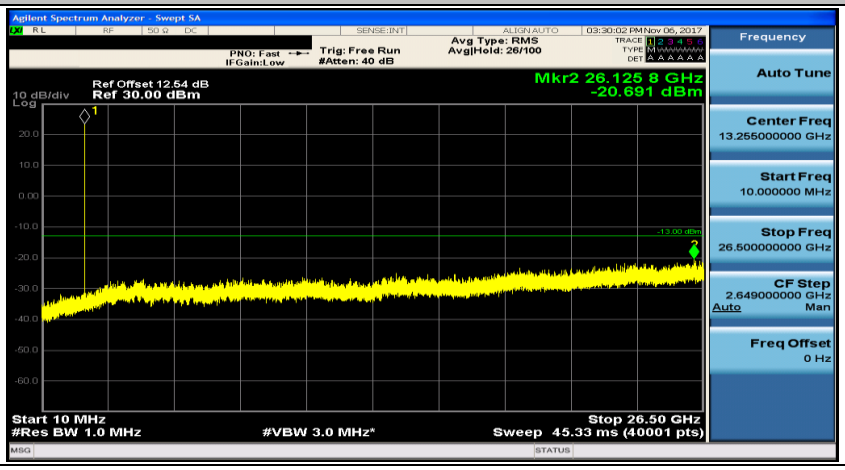


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

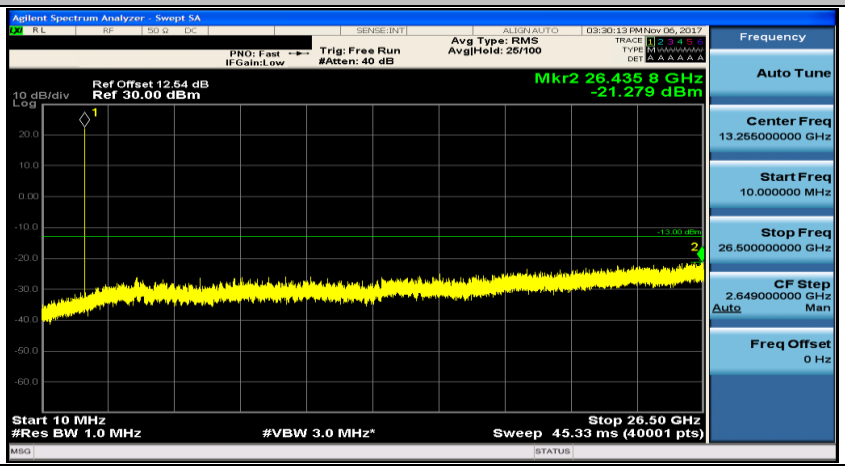


Channel Bandwidth: 10 MHz

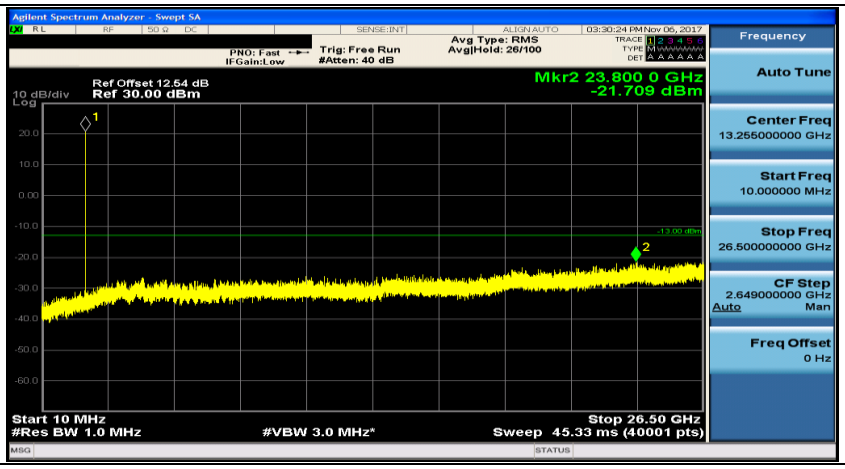
(Channel Bandwidth: 10 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 10 MHz)_MCH_QPSK_1RB#0

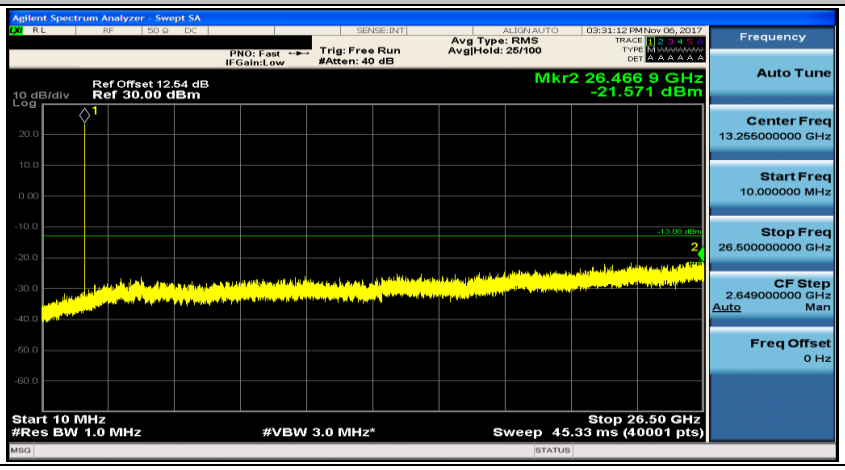


(Channel Bandwidth: 10 MHz)_HCH_QPSK_1RB#0

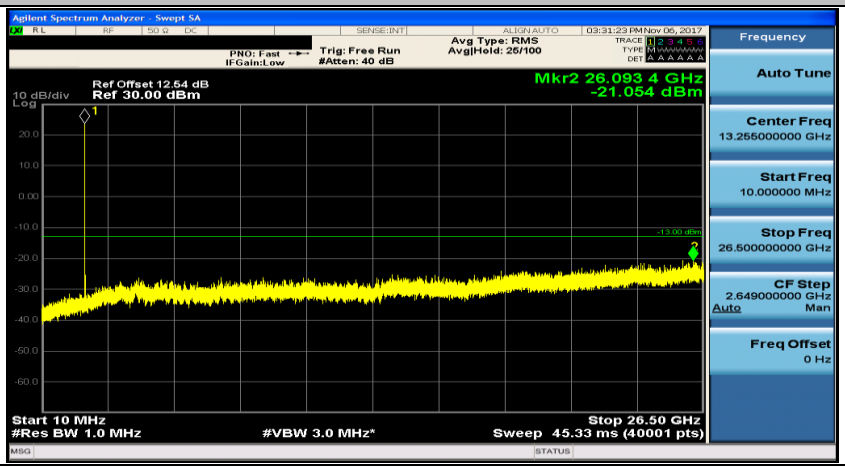


Channel Bandwidth: 15 MHz

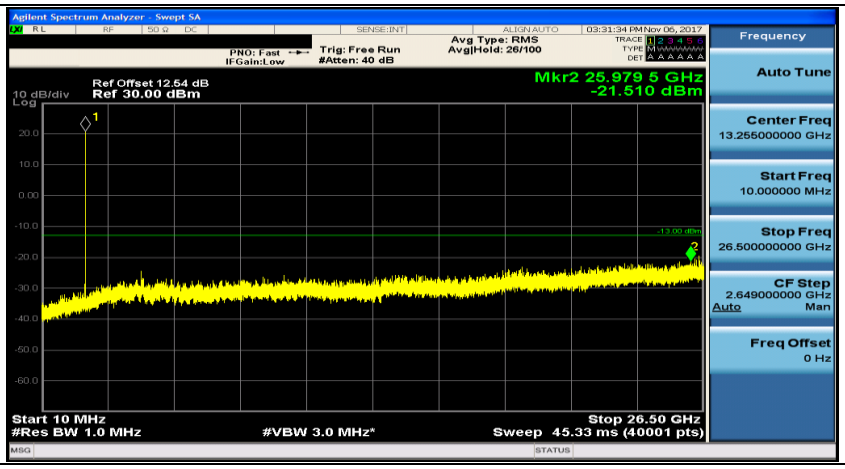
(Channel Bandwidth: 15 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth: 15 MHz)_MCH_QPSK_1RB#0

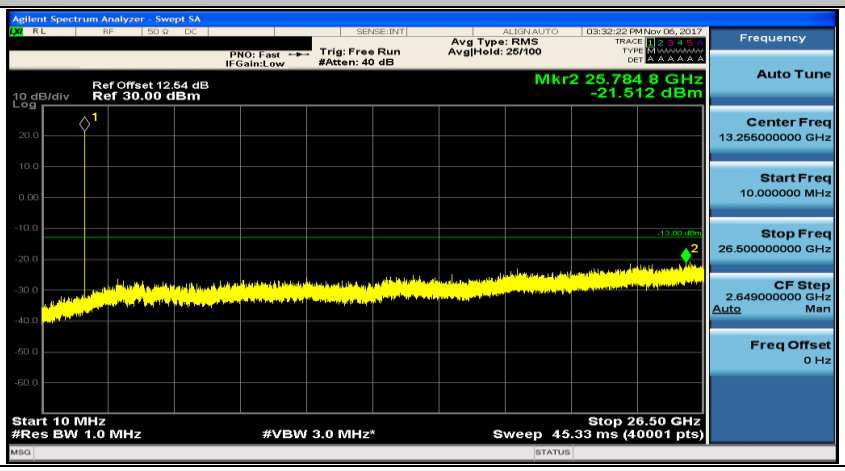


(Channel Bandwidth: 15 MHz)_HCH_QPSK_1RB#0

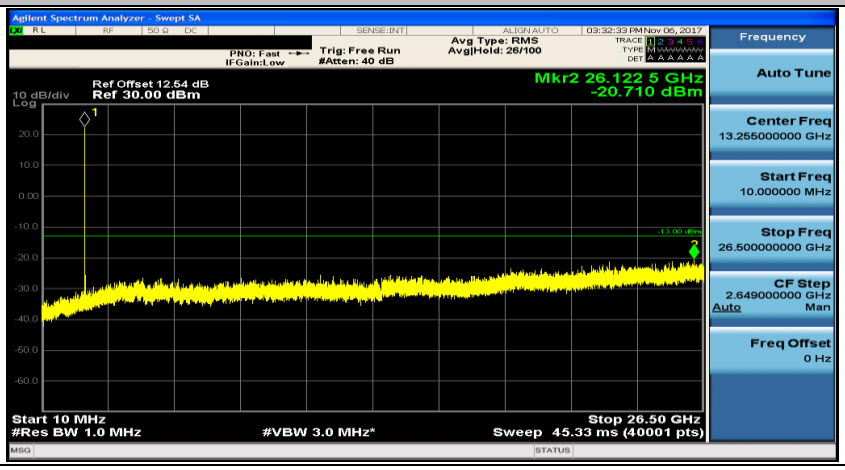


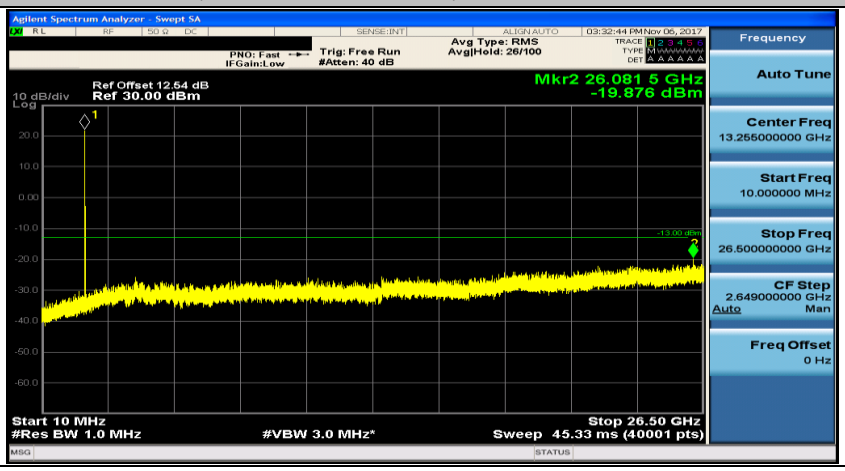
Channel Bandwidth: 20 MHz

(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	-0.60	-0.000351	± 2.5	PASS
		VN	TN	2.60	0.001520	± 2.5	PASS
		VH	TN	1.60	0.000935	± 2.5	PASS
	MCH	VL	TN	-0.50	-0.000289	± 2.5	PASS
		VN	TN	-0.30	-0.000173	± 2.5	PASS
		VH	TN	-0.20	-0.000115	± 2.5	PASS
	HCH	VL	TN	-2.20	-0.001254	± 2.5	PASS
		VN	TN	-3.20	-0.001824	± 2.5	PASS
		VH	TN	-3.90	-0.002223	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.70	0.000409	± 2.5	PASS
		VN	-20	-0.80	-0.000468	± 2.5	PASS
		VN	-10	0.80	0.000468	± 2.5	PASS
		VN	0	1.10	0.000643	± 2.5	PASS
		VN	10	1.10	0.000643	± 2.5	PASS
		VN	20	-0.20	-0.000117	± 2.5	PASS
		VN	30	1.30	0.000760	± 2.5	PASS
		VN	40	0.40	0.000234	± 2.5	PASS
		VN	50	2.70	0.001578	± 2.5	PASS

	MCH	VN	-30	0.80	0.000462	± 2.5	PASS
		VN	-20	-1.70	-0.000981	± 2.5	PASS
		VN	-10	1.20	0.000693	± 2.5	PASS
		VN	0	0.80	0.000462	± 2.5	PASS
		VN	10	0.40	0.000231	± 2.5	PASS
		VN	20	-0.20	-0.000115	± 2.5	PASS
		VN	30	0.30	0.000173	± 2.5	PASS
		VN	40	1.40	0.000808	± 2.5	PASS
		VN	50	1.90	0.001097	± 2.5	PASS
	HCH	VN	-30	-3.00	-0.001710	± 2.5	PASS
		VN	-20	-2.80	-0.001596	± 2.5	PASS
		VN	-10	-2.30	-0.001311	± 2.5	PASS
		VN	0	-3.60	-0.002052	± 2.5	PASS
		VN	10	-3.50	-0.001995	± 2.5	PASS
		VN	20	-2.00	-0.001140	± 2.5	PASS
		VN	30	-4.80	-0.002736	± 2.5	PASS
		VN	40	-3.30	-0.001881	± 2.5	PASS
		VN	50	-1.50	-0.000855	± 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	1.80	0.001052	± 2.5	PASS
		VN	TN	0.90	0.000526	± 2.5	PASS
		VH	TN	0.90	0.000526	± 2.5	PASS
	MCH	VL	TN	0.20	0.000115	± 2.5	PASS
		VN	TN	-1.70	-0.000981	± 2.5	PASS
		VH	TN	1.10	0.000635	± 2.5	PASS
	HCH	VL	TN	-0.40	-0.000228	± 2.5	PASS
		VN	TN	-1.20	-0.000684	± 2.5	PASS
		VH	TN	-0.10	-0.000057	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	0.60	0.000351	± 2.5	PASS
		VN	-20	0.10	0.000058	± 2.5	PASS
		VN	-10	0.10	0.000058	± 2.5	PASS
		VN	0	-0.70	-0.000409	± 2.5	PASS
		VN	10	1.90	0.001110	± 2.5	PASS
		VN	20	0.60	0.000351	± 2.5	PASS
		VN	30	-2.30	-0.001344	± 2.5	PASS
		VN	40	0.60	0.000351	± 2.5	PASS
		VN	50	-2.30	-0.001344	± 2.5	PASS

	MCH	VN	-30	-0.30	-0.000173	± 2.5	PASS
		VN	-20	0.50	0.000289	± 2.5	PASS
		VN	-10	0.50	0.000289	± 2.5	PASS
		VN	0	2.30	0.001328	± 2.5	PASS
		VN	10	2.40	0.001385	± 2.5	PASS
		VN	20	-0.20	-0.000115	± 2.5	PASS
		VN	30	-0.40	-0.000231	± 2.5	PASS
		VN	40	2.10	0.001212	± 2.5	PASS
		VN	50	-0.40	-0.000231	± 2.5	PASS
	HCH	VN	-30	-1.50	-0.000855	± 2.5	PASS
		VN	-20	-0.50	-0.000285	± 2.5	PASS
		VN	-10	2.10	0.001198	± 2.5	PASS
		VN	0	1.30	0.000741	± 2.5	PASS
		VN	10	1.40	0.000798	± 2.5	PASS
		VN	20	-0.20	-0.000114	± 2.5	PASS
		VN	30	-0.80	-0.000456	± 2.5	PASS
		VN	40	-0.70	-0.000399	± 2.5	PASS
		VN	50	-0.80	-0.000456	± 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	1.50	0.000876	± 2.5	PASS
		VN	TN	1.70	0.000993	± 2.5	PASS
		VH	TN	1.60	0.000934	± 2.5	PASS
	MCH	VL	TN	1.60	0.000924	± 2.5	PASS
		VN	TN	0.60	0.000346	± 2.5	PASS
		VH	TN	1.30	0.000750	± 2.5	PASS
	HCH	VL	TN	-4.00	-0.002282	± 2.5	PASS
		VN	TN	-2.90	-0.001655	± 2.5	PASS
		VH	TN	-0.70	-0.000399	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.00	0.000584	± 2.5	PASS
		VN	-20	2.00	0.001168	± 2.5	PASS
		VN	-10	0.20	0.000117	± 2.5	PASS
		VN	0	0.60	0.000350	± 2.5	PASS
		VN	10	0.50	0.000292	± 2.5	PASS
		VN	20	2.90	0.001693	± 2.5	PASS
		VN	30	1.50	0.000876	± 2.5	PASS
		VN	40	-1.00	-0.000584	± 2.5	PASS
		VN	50	3.00	0.001752	± 2.5	PASS

	MCH	VN	-30	0.20	0.000115	± 2.5	PASS
		VN	-20	1.90	0.001097	± 2.5	PASS
		VN	-10	0.20	0.000115	± 2.5	PASS
		VN	0	1.70	0.000981	± 2.5	PASS
		VN	10	1.90	0.001097	± 2.5	PASS
		VN	20	1.60	0.000924	± 2.5	PASS
		VN	30	-0.90	-0.000519	± 2.5	PASS
		VN	40	1.50	0.000866	± 2.5	PASS
		VN	50	2.00	0.001154	± 2.5	PASS
	HCH	VN	-30	-2.40	-0.001369	± 2.5	PASS
		VN	-20	-3.00	-0.001712	± 2.5	PASS
		VN	-10	-3.30	-0.001883	± 2.5	PASS
		VN	0	-1.90	-0.001084	± 2.5	PASS
		VN	10	-2.50	-0.001427	± 2.5	PASS
		VN	20	-3.00	-0.001712	± 2.5	PASS
		VN	30	-3.80	-0.002168	± 2.5	PASS
		VN	40	-2.20	-0.001255	± 2.5	PASS
		VN	50	-2.60	-0.001484	± 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	-2.60	-0.001516	± 2.5	PASS
		VN	TN	-2.60	-0.001516	± 2.5	PASS
		VH	TN	-3.00	-0.001749	± 2.5	PASS
	MCH	VL	TN	0.10	0.000058	± 2.5	PASS
		VN	TN	2.90	0.001674	± 2.5	PASS
		VH	TN	-0.80	-0.000462	± 2.5	PASS
	HCH	VL	TN	0.40	0.000229	± 2.5	PASS
		VN	TN	4.70	0.002686	± 2.5	PASS
		VH	TN	2.60	0.001486	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	-3.50	-0.002041	± 2.5	PASS
		VN	-20	-4.30	-0.002507	± 2.5	PASS
		VN	-10	-3.40	-0.001983	± 2.5	PASS
		VN	0	-1.50	-0.000875	± 2.5	PASS
		VN	10	-4.00	-0.002332	± 2.5	PASS
		VN	20	-1.80	-0.001050	± 2.5	PASS
		VN	30	-1.50	-0.000875	± 2.5	PASS
		VN	40	-1.00	-0.000583	± 2.5	PASS
		VN	50	-2.30	-0.001341	± 2.5	PASS

	MCH	VN	-30	-0.50	-0.000289	± 2.5	PASS
		VN	-20	1.50	0.000866	± 2.5	PASS
		VN	-10	0.90	0.000519	± 2.5	PASS
		VN	0	0.40	0.000231	± 2.5	PASS
		VN	10	0.90	0.000519	± 2.5	PASS
		VN	20	-0.10	-0.000058	± 2.5	PASS
		VN	30	1.60	0.000924	± 2.5	PASS
		VN	40	2.10	0.001212	± 2.5	PASS
		VN	50	1.60	0.000924	± 2.5	PASS
	HCH	VN	-30	2.80	0.001600	± 2.5	PASS
		VN	-20	-0.60	-0.000343	± 2.5	PASS
		VN	-10	2.90	0.001657	± 2.5	PASS
		VN	0	1.80	0.001029	± 2.5	PASS
		VN	10	1.80	0.001029	± 2.5	PASS
		VN	20	1.90	0.001086	± 2.5	PASS
		VN	30	0.20	0.000114	± 2.5	PASS
		VN	40	2.80	0.001600	± 2.5	PASS
		VN	50	3.00	0.001714	± 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	1.40	0.000815	± 2.5	PASS
		VN	TN	1.90	0.001106	± 2.5	PASS
		VH	TN	2.00	0.001164	± 2.5	PASS
	MCH	VL	TN	0.20	0.000115	± 2.5	PASS
		VN	TN	3.10	0.001789	± 2.5	PASS
		VH	TN	0.80	0.000462	± 2.5	PASS
	HCH	VL	TN	3.10	0.001774	± 2.5	PASS
		VN	TN	6.90	0.003948	± 2.5	PASS
		VH	TN	2.20	0.001259	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	2.30	0.001339	± 2.5	PASS
		VN	-20	1.80	0.001048	± 2.5	PASS
		VN	-10	-0.50	-0.000291	± 2.5	PASS
		VN	0	2.90	0.001689	± 2.5	PASS
		VN	10	0.50	0.000291	± 2.5	PASS
		VN	20	1.40	0.000815	± 2.5	PASS
		VN	30	0.30	0.000175	± 2.5	PASS
		VN	40	0.90	0.000524	± 2.5	PASS
		VN	50	1.30	0.000757	± 2.5	PASS

	MCH	VN	-30	1.80	0.001039	± 2.5	PASS
		VN	-20	1.90	0.001097	± 2.5	PASS
		VN	-10	2.80	0.001616	± 2.5	PASS
		VN	0	0.10	0.000058	± 2.5	PASS
		VN	10	-0.10	-0.000058	± 2.5	PASS
		VN	20	1.10	0.000635	± 2.5	PASS
		VN	30	0.50	0.000289	± 2.5	PASS
		VN	40	1.00	0.000577	± 2.5	PASS
		VN	50	0.70	0.000404	± 2.5	PASS
	HCH	VN	-30	3.10	0.001774	± 2.5	PASS
		VN	-20	0.10	0.000057	± 2.5	PASS
		VN	-10	1.10	0.000629	± 2.5	PASS
		VN	0	2.00	0.001144	± 2.5	PASS
		VN	10	2.50	0.001431	± 2.5	PASS
		VN	20	1.20	0.000687	± 2.5	PASS
		VN	30	0.90	0.000515	± 2.5	PASS
		VN	40	1.20	0.000687	± 2.5	PASS
		VN	50	0.40	0.000229	± 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	2.50	0.001453	± 2.5	PASS
		VN	TN	2.40	0.001395	± 2.5	PASS
		VH	TN	2.20	0.001279	± 2.5	PASS
	MCH	VL	TN	0.30	0.000173	± 2.5	PASS
		VN	TN	5.40	0.003117	± 2.5	PASS
		VH	TN	1.80	0.001039	± 2.5	PASS
	HCH	VL	TN	-0.80	-0.000458	± 2.5	PASS
		VN	TN	2.70	0.001547	± 2.5	PASS
		VH	TN	-3.00	-0.001719	± 2.5	PASS
Temperature							
Modulation	Channel	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
QPSK	LCH	VN	-30	1.30	0.000756	± 2.5	PASS
		VN	-20	2.40	0.001395	± 2.5	PASS
		VN	-10	1.70	0.000988	± 2.5	PASS
		VN	0	0.80	0.000465	± 2.5	PASS
		VN	10	4.30	0.002500	± 2.5	PASS
		VN	20	0.90	0.000523	± 2.5	PASS
		VN	30	3.20	0.001860	± 2.5	PASS
		VN	40	2.40	0.001395	± 2.5	PASS
		VN	50	2.10	0.001221	± 2.5	PASS

	MCH	VN	-30	2.60	0.001501	± 2.5	PASS
		VN	-20	1.90	0.001097	± 2.5	PASS
		VN	-10	-1.30	-0.000750	± 2.5	PASS
		VN	0	0.70	0.000404	± 2.5	PASS
		VN	10	-0.10	-0.000058	± 2.5	PASS
		VN	20	-1.10	-0.000635	± 2.5	PASS
		VN	30	-1.00	-0.000577	± 2.5	PASS
		VN	40	1.20	0.000693	± 2.5	PASS
		VN	50	1.60	0.000924	± 2.5	PASS
	HCH	VN	-30	-1.90	-0.001089	± 2.5	PASS
		VN	-20	-0.90	-0.000516	± 2.5	PASS
		VN	-10	-2.40	-0.001375	± 2.5	PASS
		VN	0	-2.80	-0.001605	± 2.5	PASS
		VN	10	-1.90	-0.001089	± 2.5	PASS
		VN	20	-3.70	-0.002120	± 2.5	PASS
		VN	30	-2.60	-0.001490	± 2.5	PASS
		VN	40	-2.90	-0.001662	± 2.5	PASS
		VN	50	-2.10	-0.001203	± 2.5	PASS