Appendix F: Test Data for E-UTRA Band 5

Product Name: 4G Smart Phone
Trade Mark: Smooth
Test Model: Smooth 6.26

Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Li Huan

F.1 Conducted Output Power

Conducted Output Power Test Result (Channel Bandwidth: 1.4 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	21.99	20.79	PASS
		1	3	22.19	20.77	PASS
		1	5	21.96	20.69	PASS
		3	0	22.10	21.05	PASS
		3	2	22.18	21.04	PASS
		3	3	22.13	20.79	PASS
		6	0	21.07	20.07	PASS
	MCH	1	0	23.12	22.46	PASS
		1	3	23.11	22.49	PASS
		1	5	23.15	22.42	PASS
		3	0	23.12	22.24	PASS
		3	2	23.08	22.16	PASS
		3	3	23.02	22.20	PASS
		6	0	22.11	20.87	PASS
	HCH	1	0	22.33	21.43	PASS
		1	3	22.38	21.53	PASS
		1	5	22.12	21.28	PASS
		3	0	22.49	21.61	PASS
		3	2	22.63	21.56	PASS
		3	3	22.54	21.38	PASS
		6	0	21.52	20.73	PASS

Conducted Output Power Test Result (Channel Bandwidth: 3 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	21.95	21.18	PASS
		1	7	22.12	21.31	PASS
		1	14	22.15	21.91	PASS
		8	0	21.13	19.96	PASS
		8	4	21.14	20.16	PASS
		8	7	21.19	20.32	PASS
		15	0	21.12	20.30	PASS
	MCH	1	0	22.97	22.32	PASS
		1	7	23.02	22.53	PASS
		1	14	23.53	22.82	PASS
		8	0	22.13	21.31	PASS
		8	4	22.11	21.20	PASS
		8	7	22.14	21.23	PASS
		15	0	22.04	21.21	PASS
	HCH	1	0	23.05	21.76	PASS
		1	7	22.79	21.00	PASS
		1	14	22.40	21.40	PASS
		8	0	22.07	20.71	PASS
		8	4	21.68	20.59	PASS
		8	7	21.59	20.42	PASS
		15	0	21.76	20.71	PASS

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Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	21.93	20.32	PASS
		1	12	22.73	20.44	PASS
		1	24	22.36	21.22	PASS
		12	0	21.04	20.06	PASS
		12	6	21.20	20.06	PASS
		12	13	21.21	20.34	PASS
		25	0	21.31	20.38	PASS
	MCH	1	0	23.22	21.87	PASS
		1	12	23.34	22.17	PASS
		1	24	23.47	22.06	PASS
		12	0	21.94	20.97	PASS
		12	6	22.04	21.06	PASS
		12	13	22.19	21.28	PASS
		25	0	22.19	21.27	PASS
	HCH	1	0	23.36	21.73	PASS
		1	12	23.29	21.43	PASS
		1	24	22.43	20.91	PASS
		12	0	21.93	20.79	PASS
		12	6	21.88	20.63	PASS
		12	13	21.77	20.61	PASS
		25	0	21.80	20.89	PASS

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Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	22.20	21.84	PASS
		1	24	22.35	22.41	PASS
		1	49	22.84	22.15	PASS
		25	0	21.36	20.41	PASS
		25	12	21.55	20.39	PASS
		25	25	21.78	20.74	PASS
		50	0	21.57	20.64	PASS
	MCH	1	0	22.81	22.27	PASS
		1	24	22.96	22.62	PASS
		1	49	23.47	22.91	PASS
		25	0	22.09	21.19	PASS
		25	12	22.14	21.02	PASS
		25	25	22.31	21.41	PASS
		50	0	22.11	21.20	PASS
	HCH	1	0	23.14	22.60	PASS
		1	24	23.45	22.99	PASS
		1	49	22.45	22.03	PASS
		25	0	22.34	21.38	PASS
		25	12	22.17	21.13	PASS
		25	25	21.82	20.79	PASS
		50	0	22.25	21.32	PASS

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F.2 Peak-to-Average Ratio

Peak-to Average Ratio Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.99	<13	PASS
	MCH	4.41	<13	PASS
	HCH	4.03	<13	PASS
16QAM	LCH	5.88	<13	PASS
	MCH	5.19	<13	PASS
	HCH	5.03	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.28	<13	PASS
	MCH	4.64	<13	PASS
	HCH	4.55	<13	PASS
16QAM	LCH	6.05	<13	PASS
	MCH	5.39	<13	PASS
	HCH	5.4	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.13	<13	PASS
	MCH	4.56	<13	PASS
	HCH	4.65	<13	PASS
16QAM	LCH	5.92	<13	PASS
	MCH	5.37	<13	PASS
	HCH	5.45	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.9	<13	PASS
	MCH	4.62	<13	PASS
	HCH	4.87	<13	PASS
16QAM	LCH	5.79	<13	PASS
	MCH	5.49	<13	PASS
	HCH	5.68	<13	PASS

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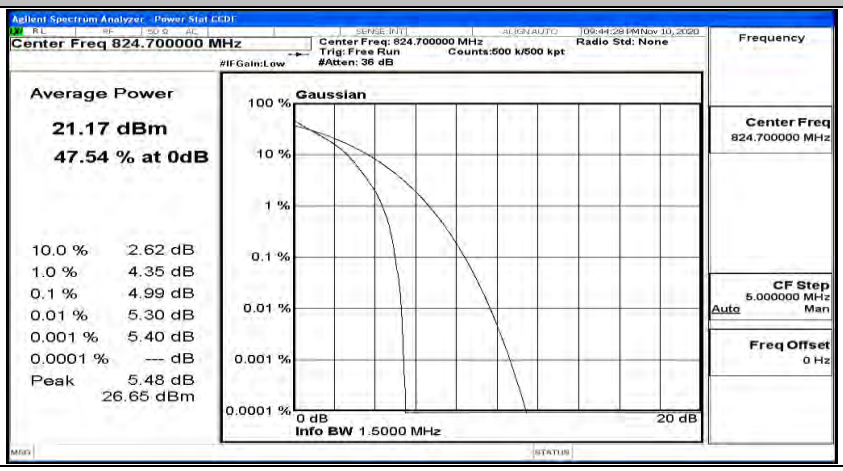
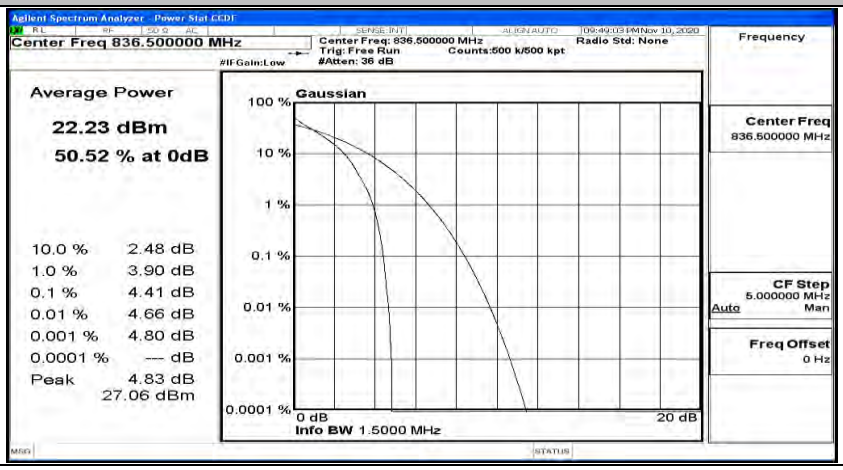
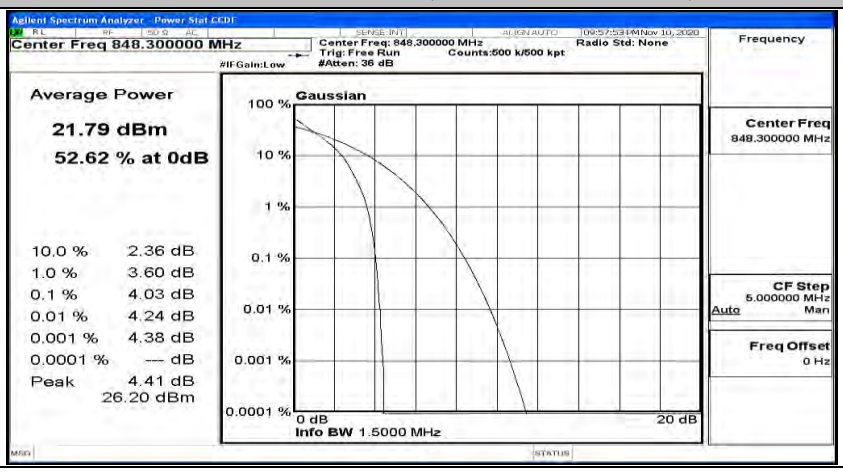
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



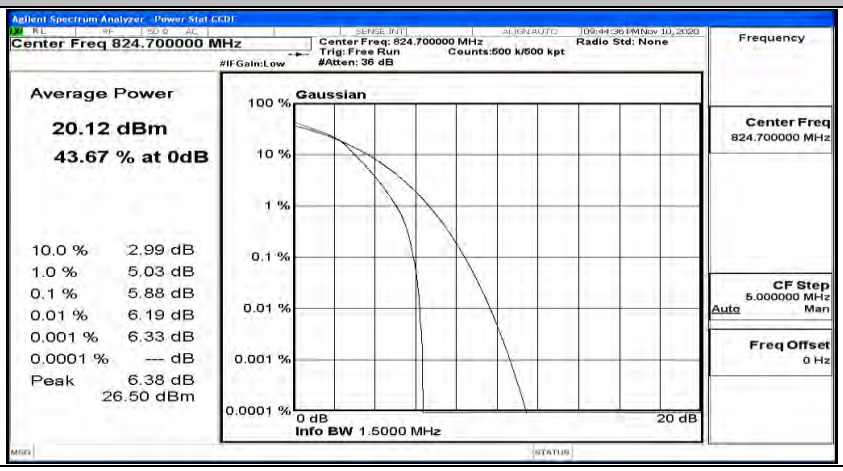
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



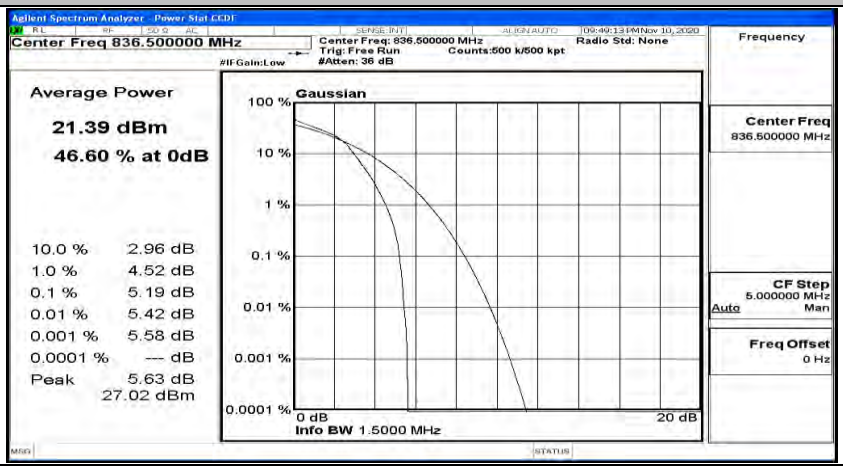
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



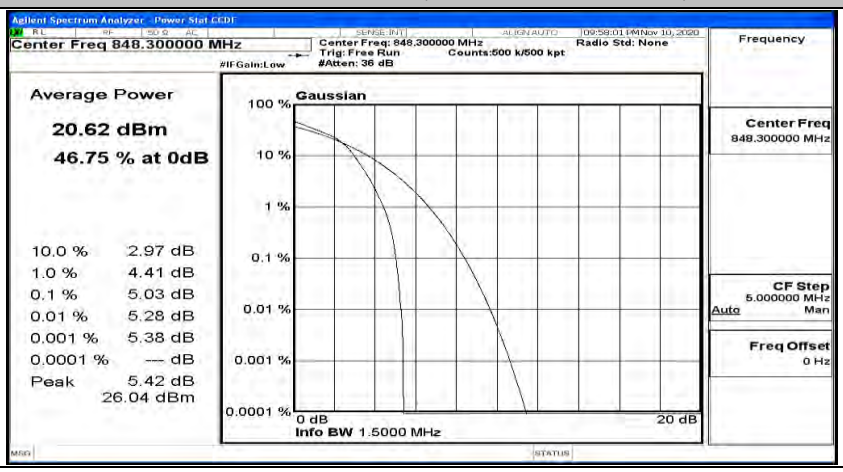
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



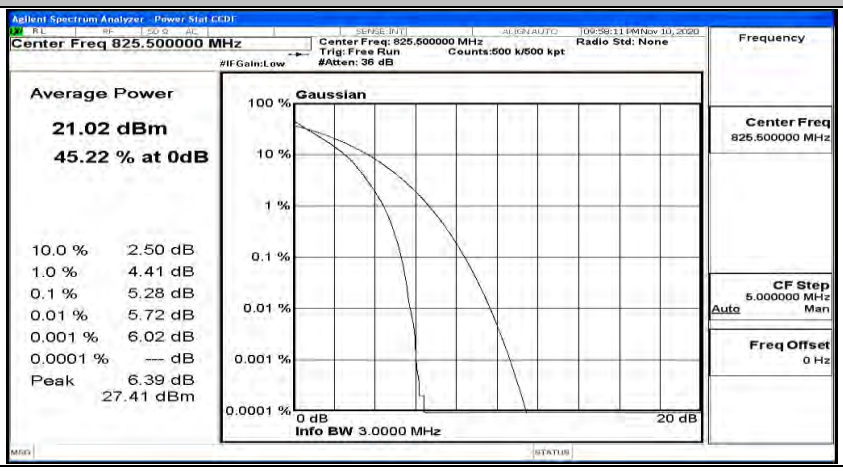
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



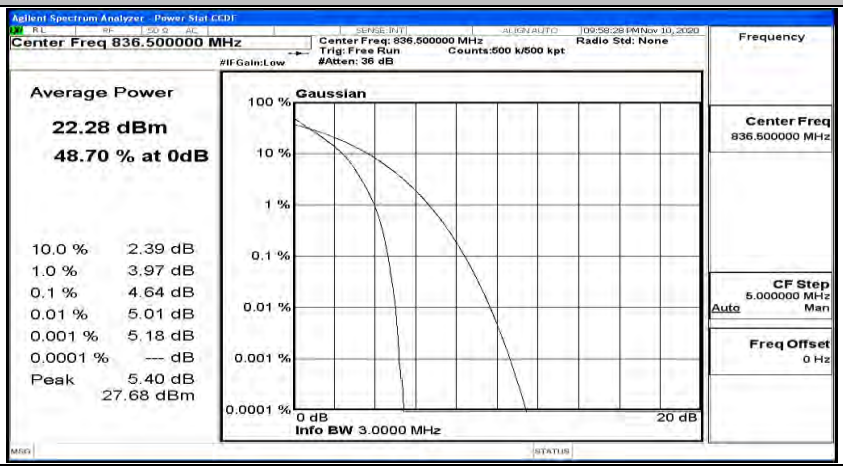
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



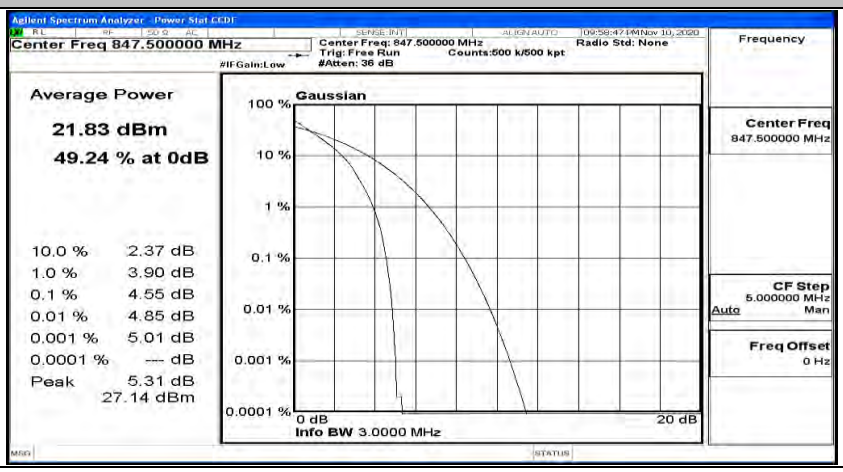
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



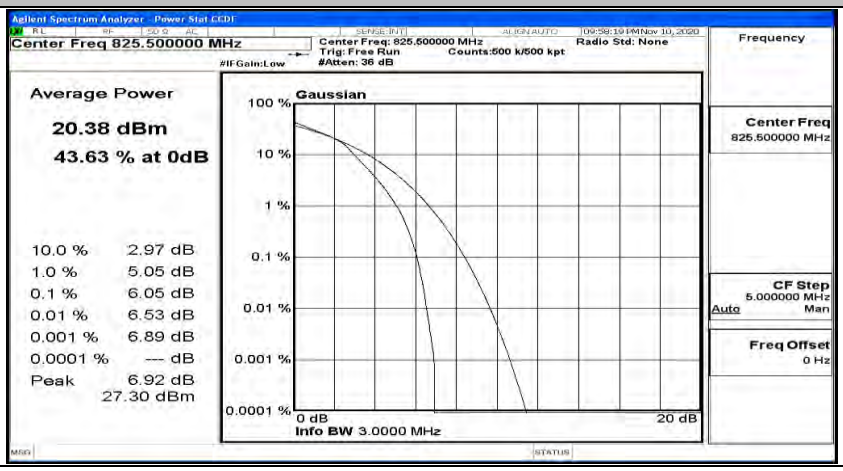
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



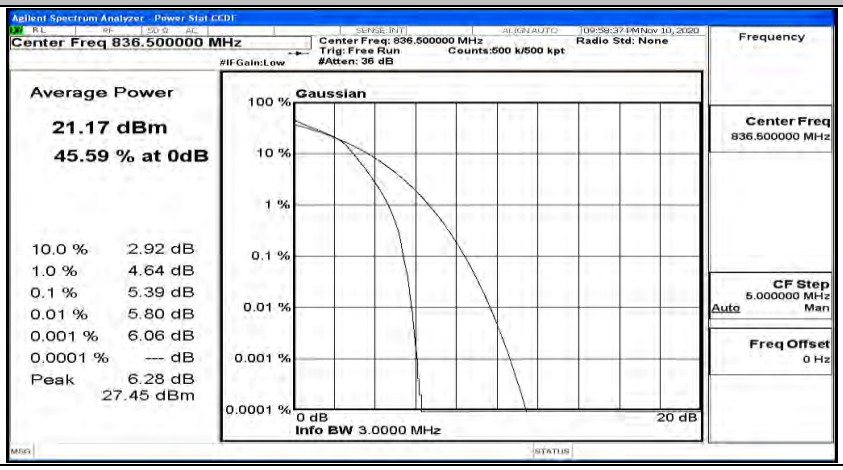
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



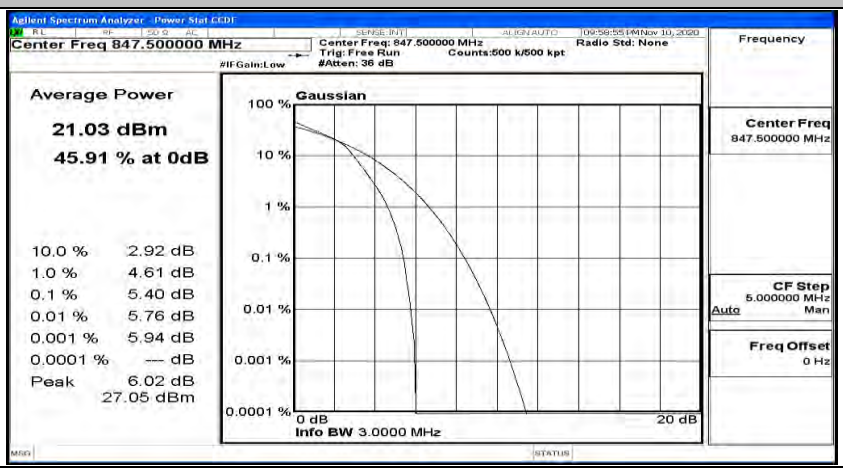
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



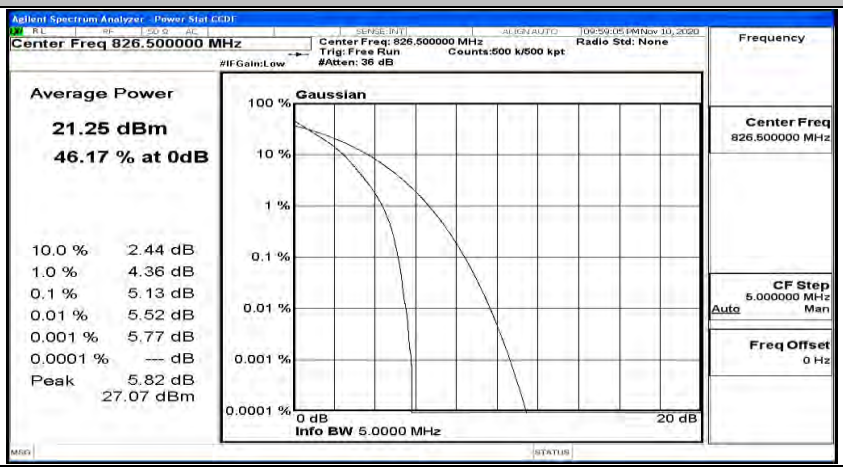
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



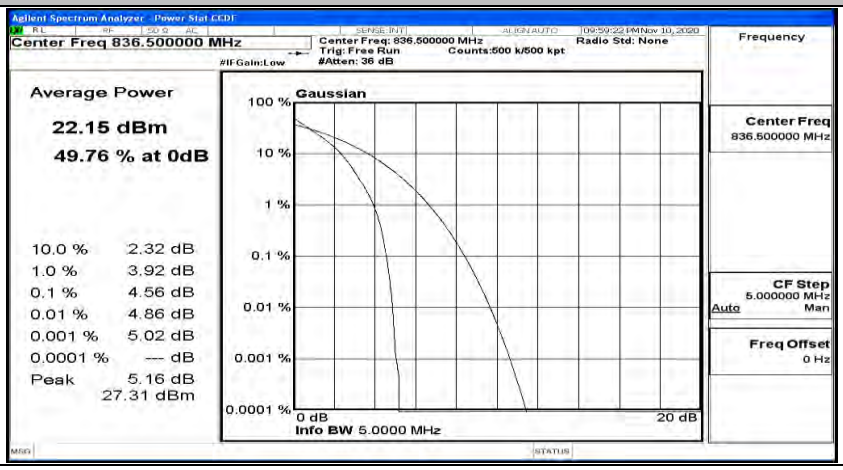
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



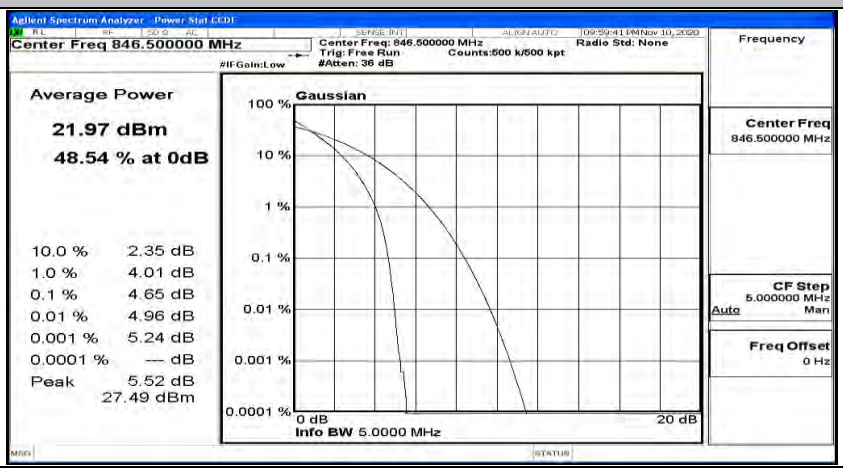
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



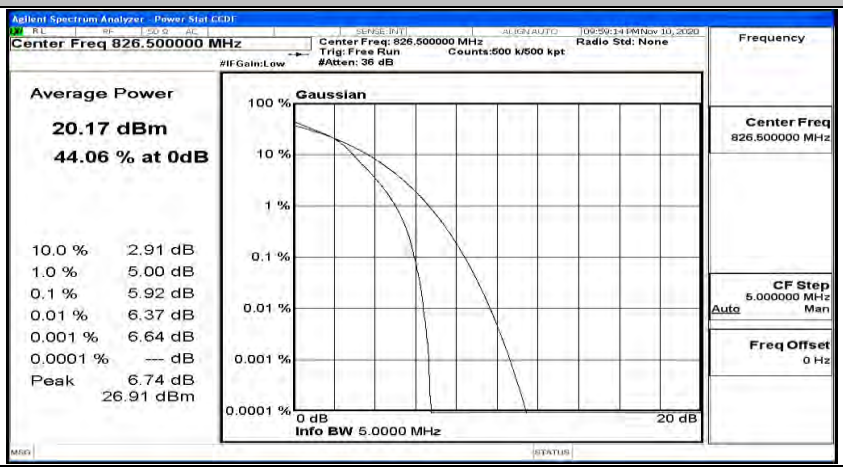
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



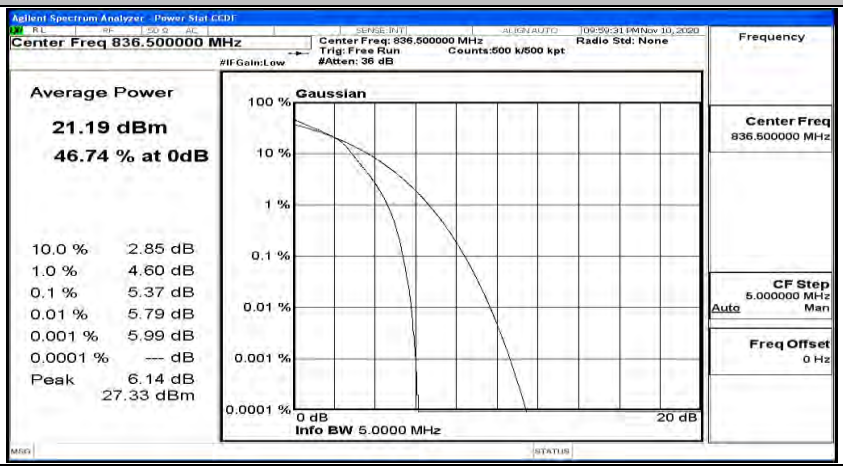
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



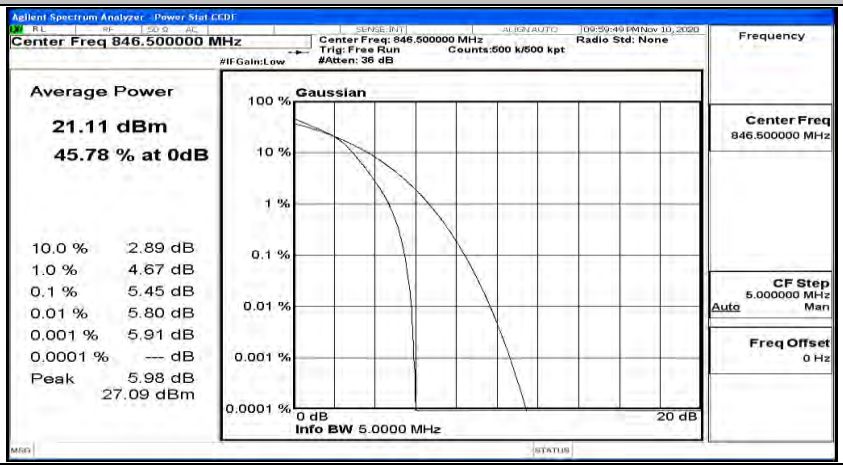
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



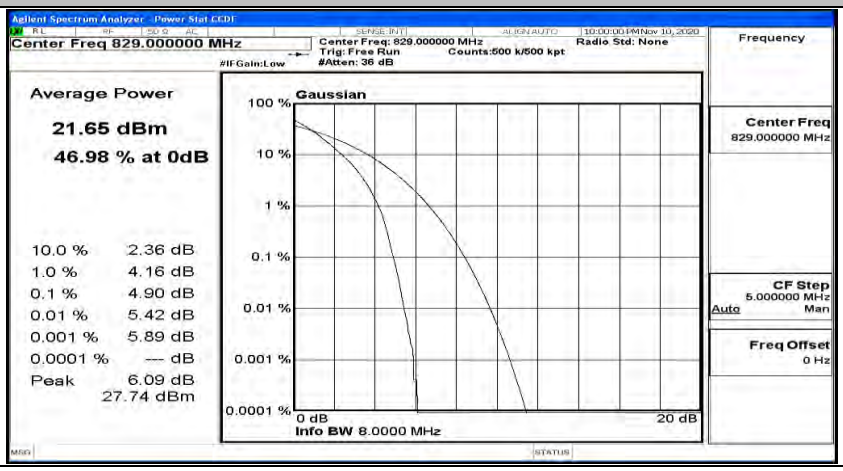
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



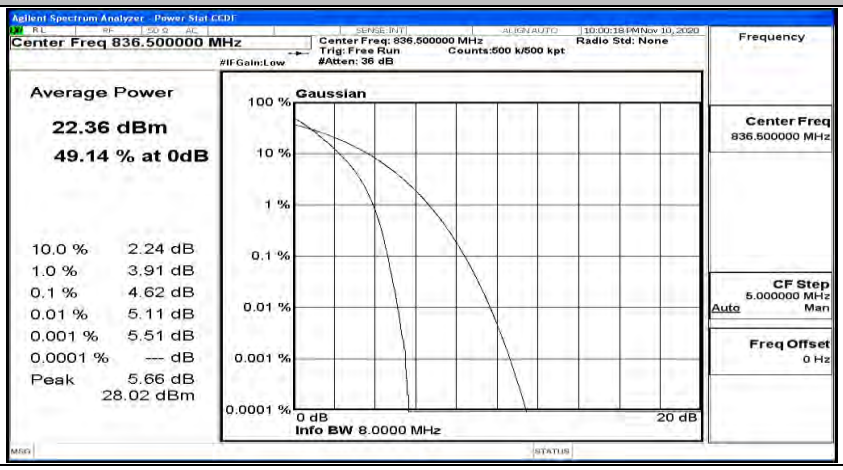
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



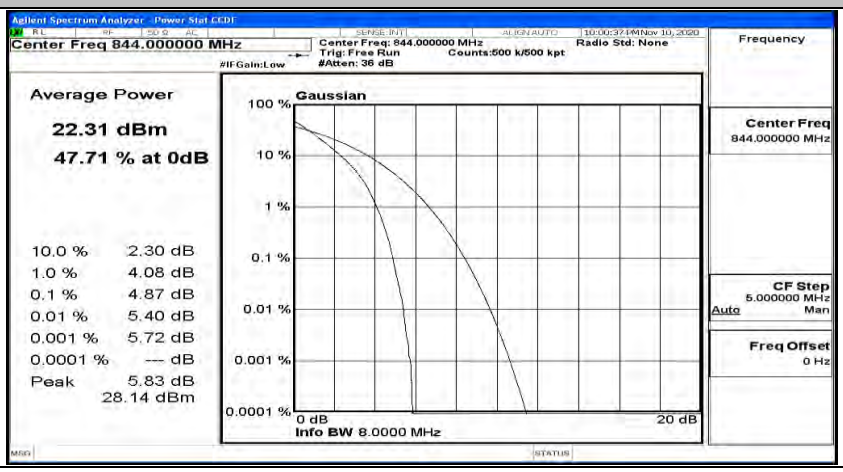
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



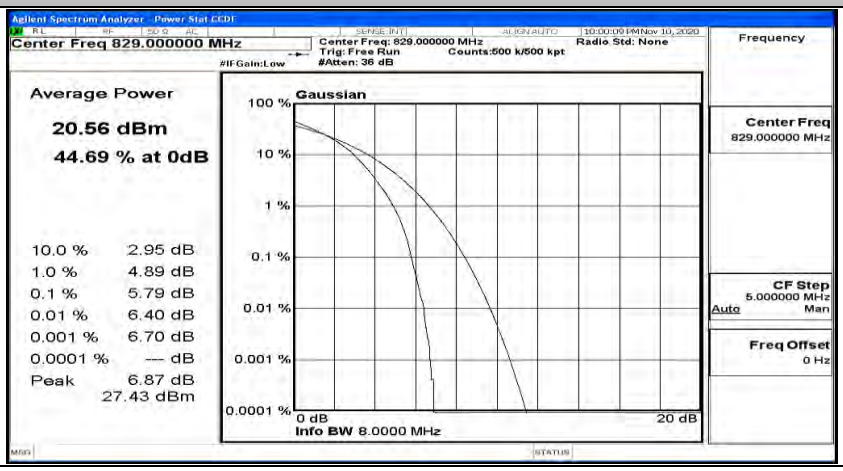
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



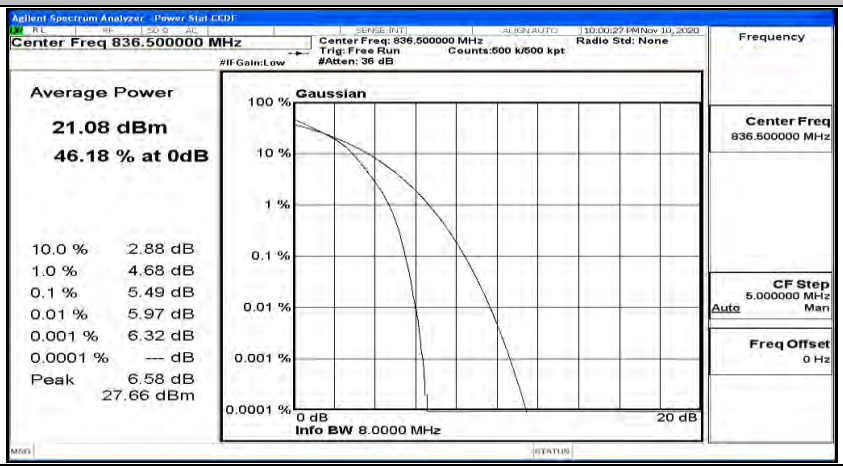
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



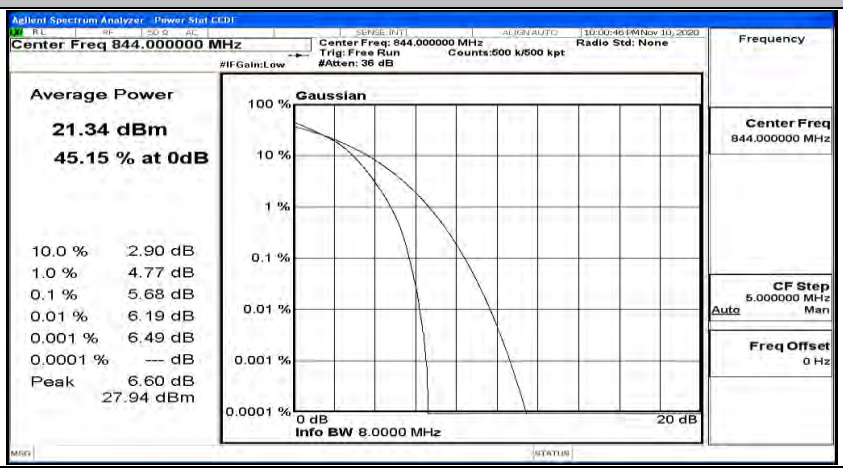
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM



Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



F.3 26dB Bandwidth and Occupied Bandwidth

EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	1.0767	1.227	PASS
	MCH	1.0794	1.236	PASS
	HCH	1.0794	1.251	PASS
16QAM	LCH	1.0777	1.256	PASS
	MCH	1.0788	1.223	PASS
	HCH	1.0825	1.232	PASS

EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	2.6826	2.880	PASS
	MCH	2.6818	2.907	PASS
	HCH	2.6828	2.868	PASS
16QAM	LCH	2.6844	2.908	PASS
	MCH	2.6860	2.895	PASS
	HCH	2.6807	2.905	PASS

EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4813	4.832	PASS
	MCH	4.4655	4.819	PASS
	HCH	4.4769	4.776	PASS
16QAM	LCH	4.4840	4.799	PASS
	MCH	4.4714	4.753	PASS
	HCH	4.4678	4.808	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9136	9.457	PASS
	MCH	8.9008	9.378	PASS
	HCH	8.9545	9.434	PASS
16QAM	LCH	8.9141	9.422	PASS
	MCH	8.9249	9.341	PASS
	HCH	8.9473	9.548	PASS

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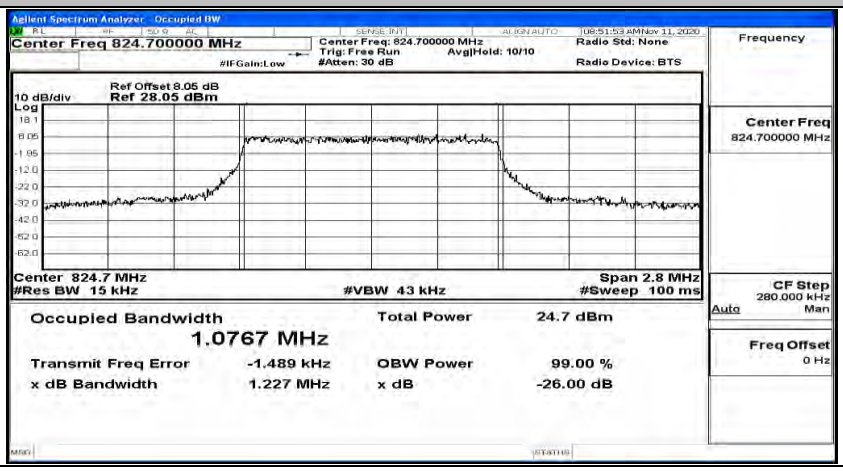
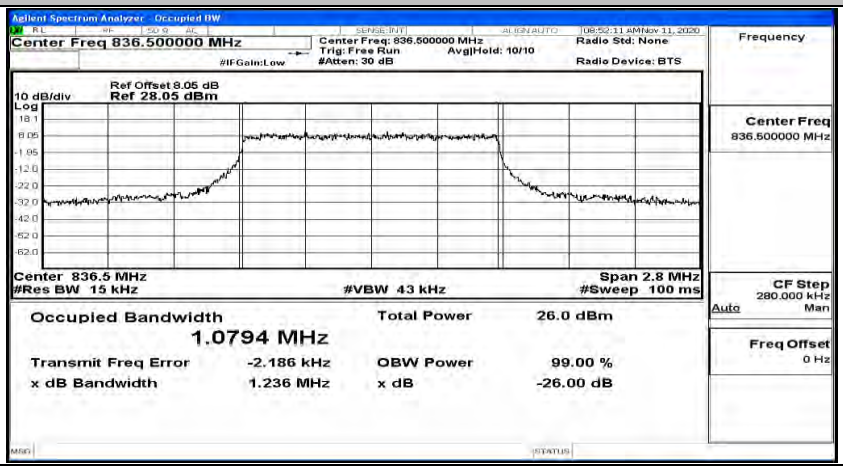
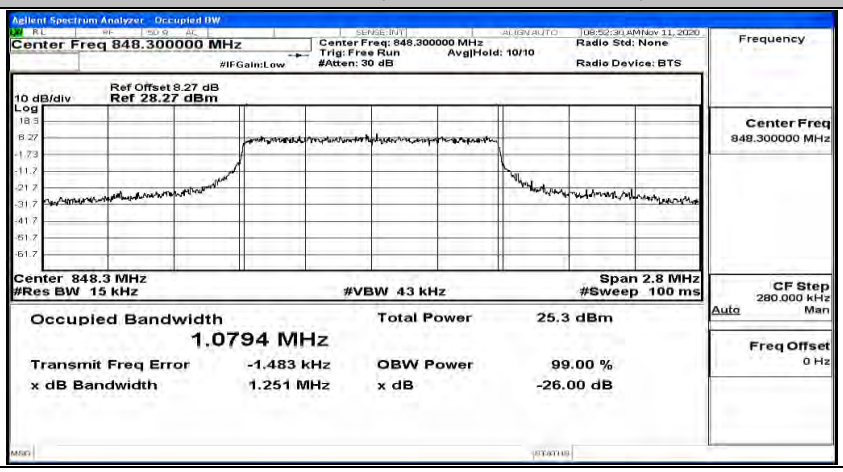
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



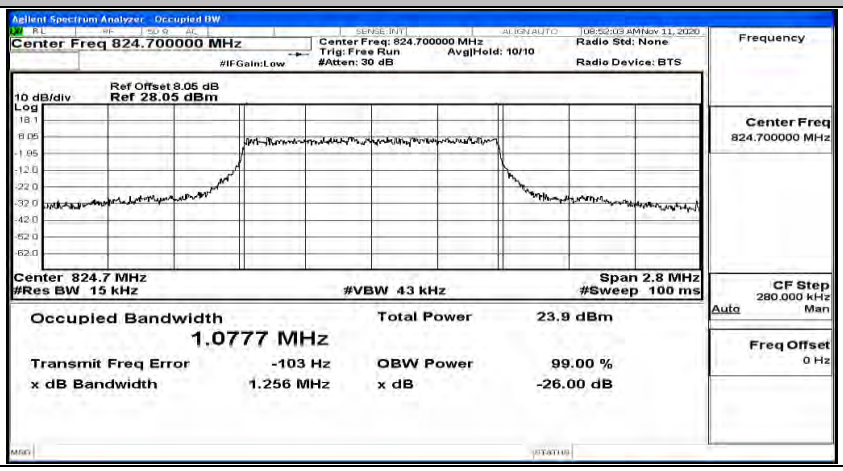
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



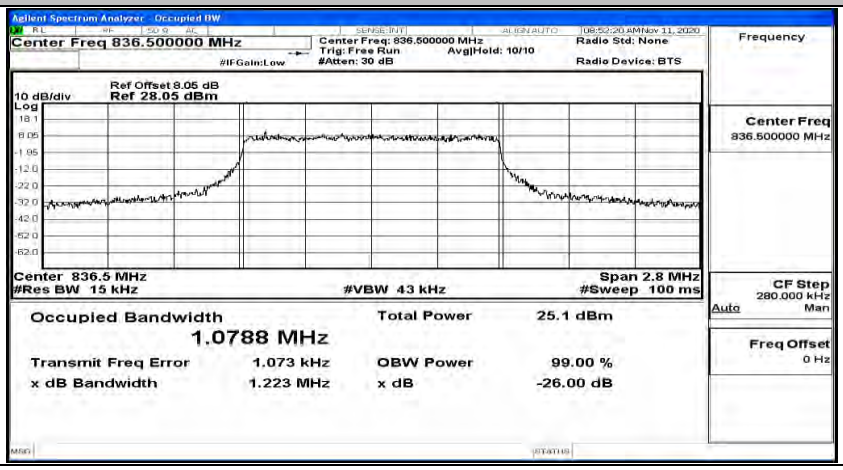
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



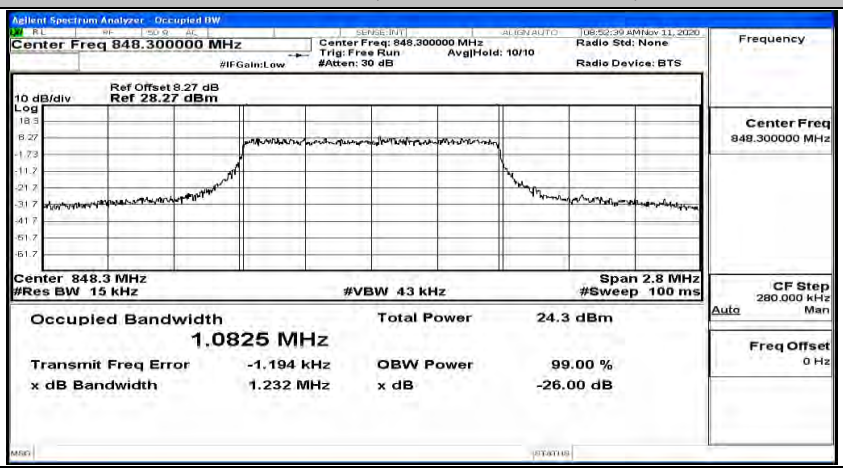
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



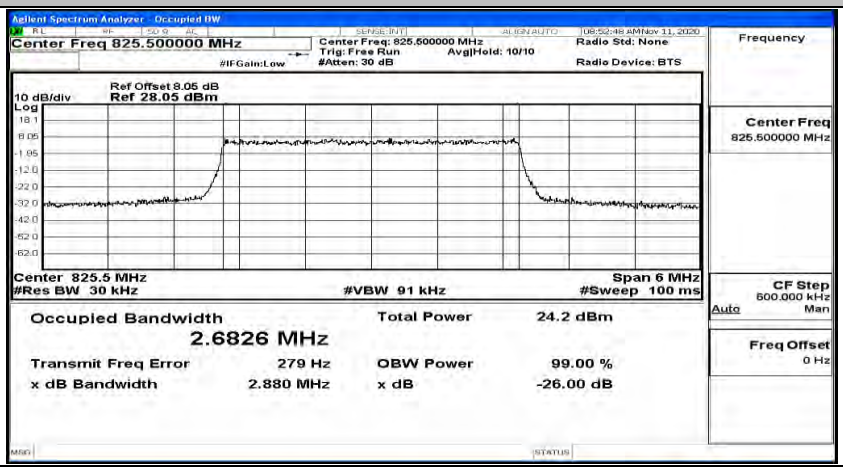
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



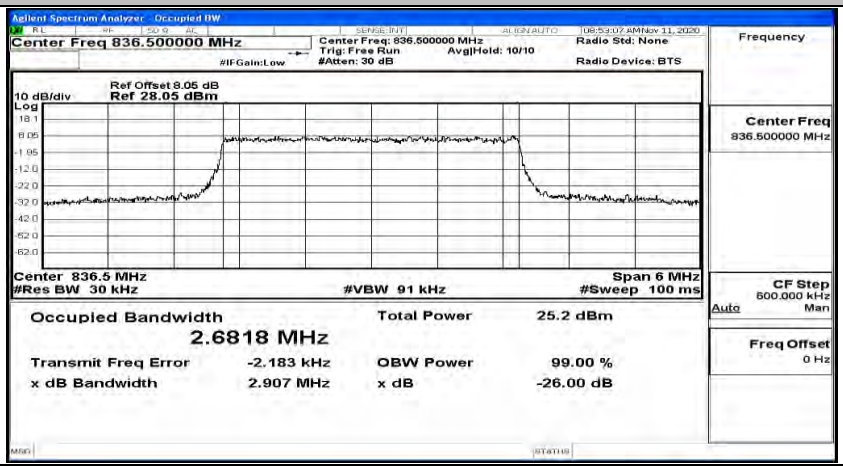
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



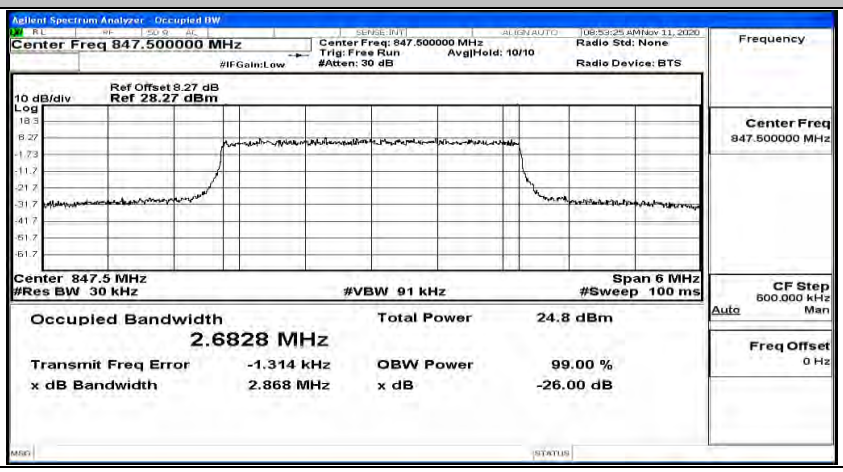
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



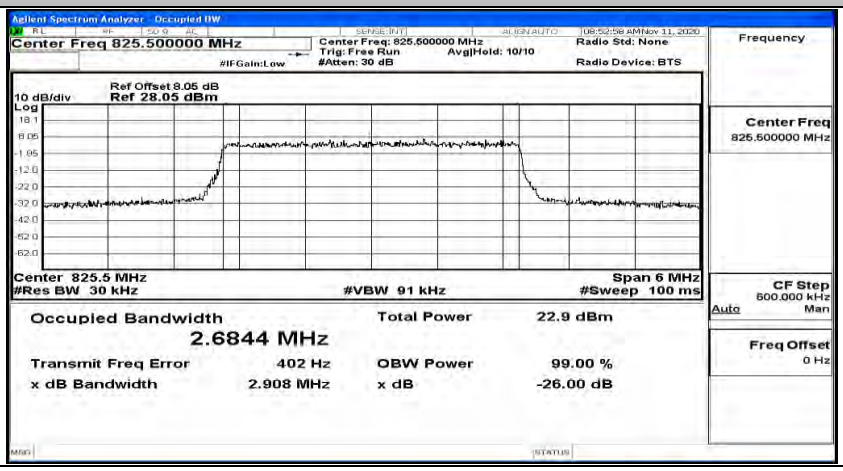
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



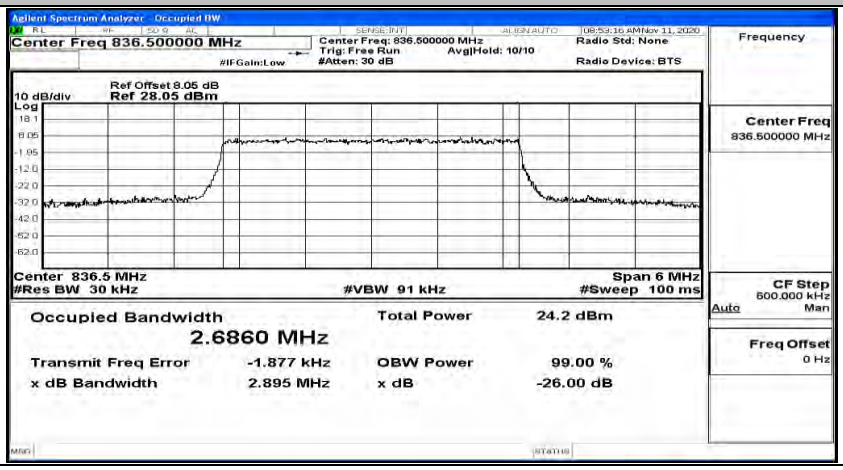
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



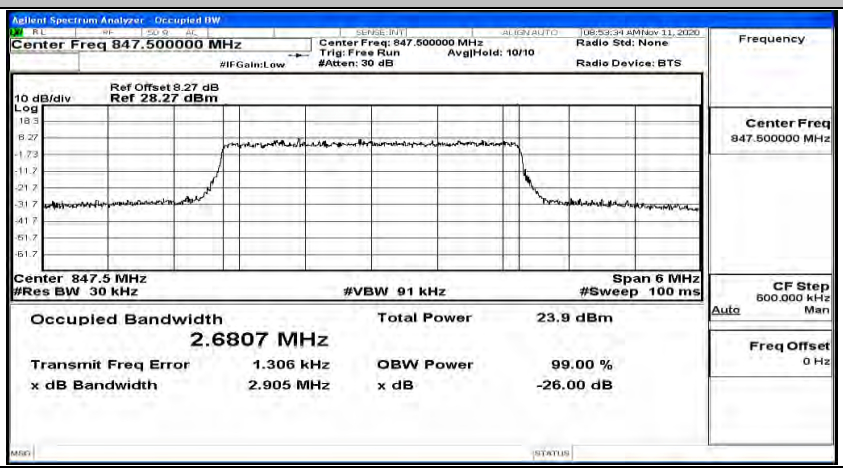
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



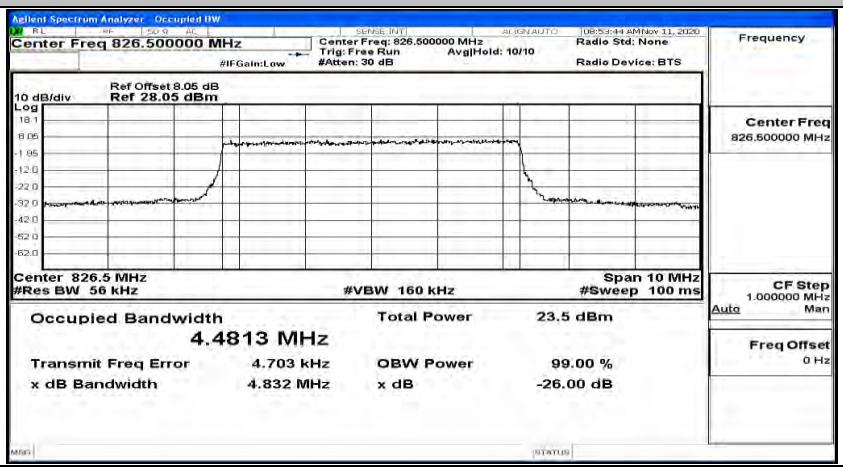
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



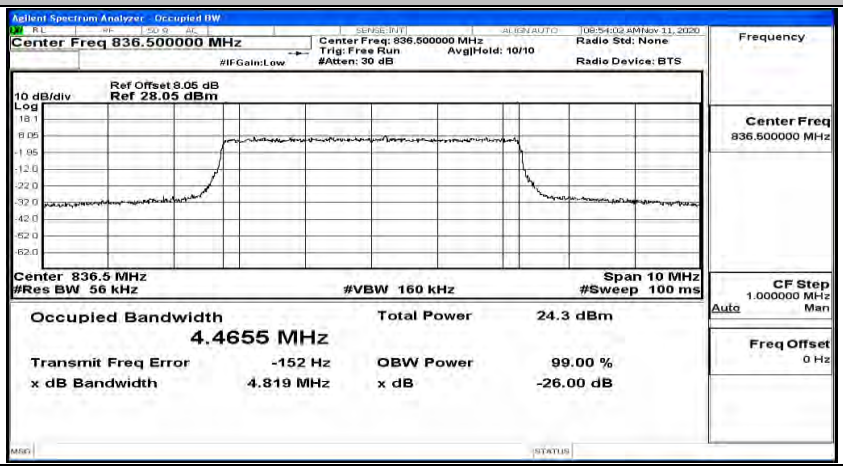
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



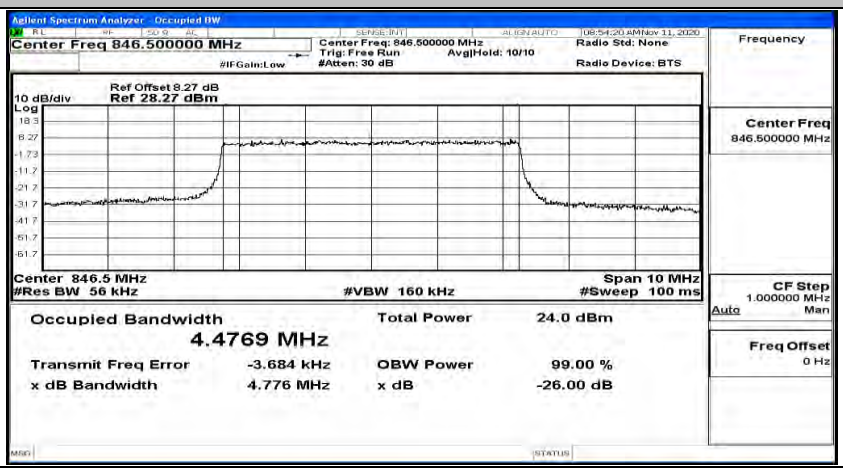
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



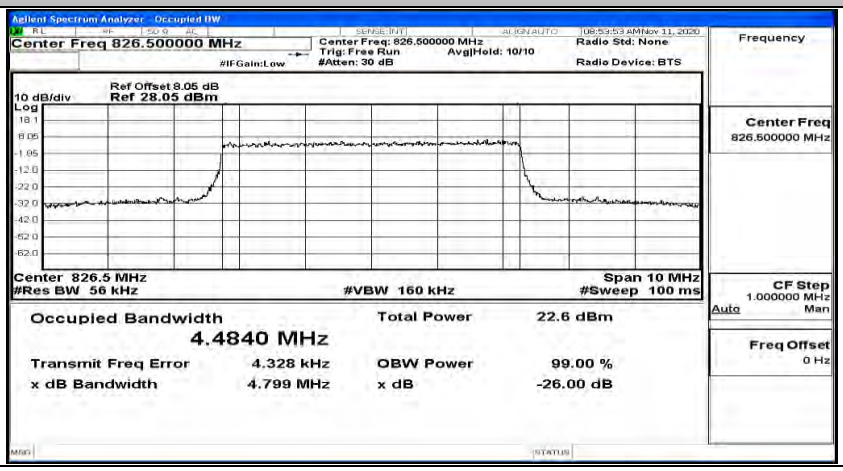
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



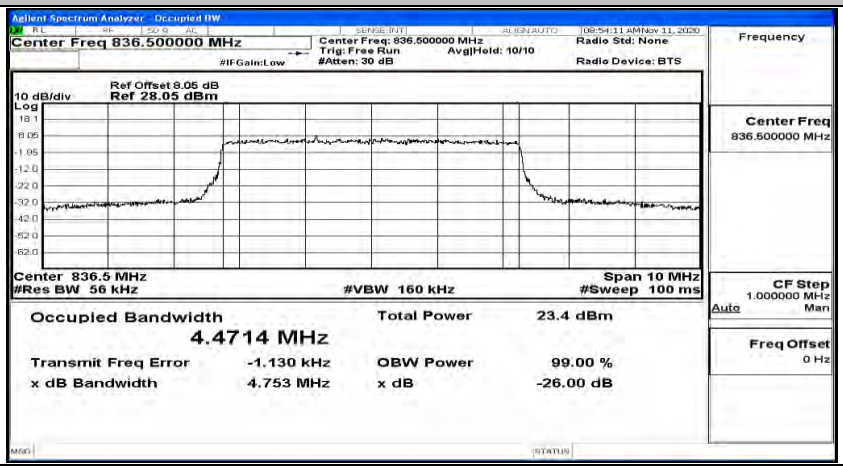
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



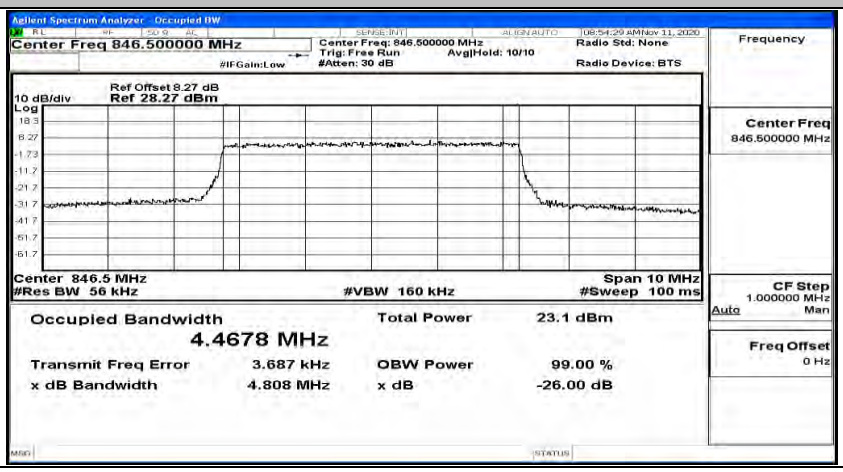
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



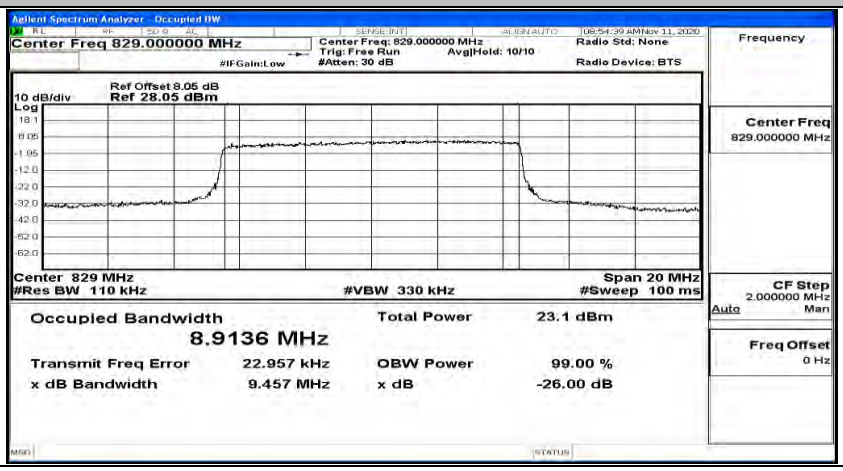
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



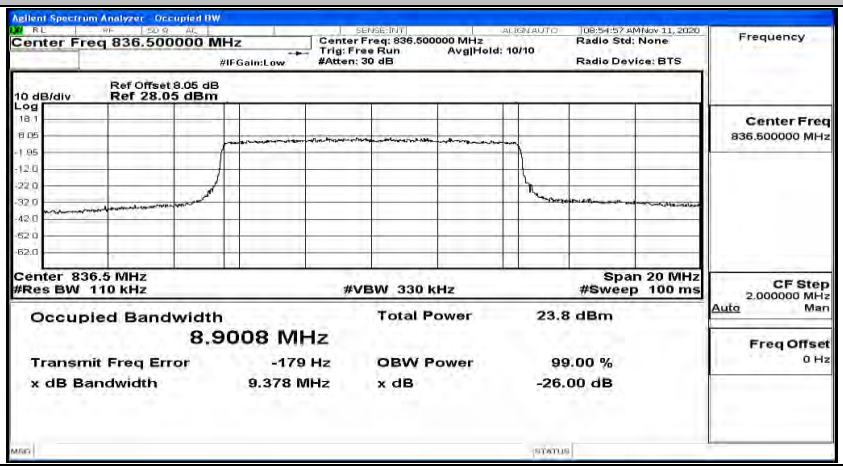
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



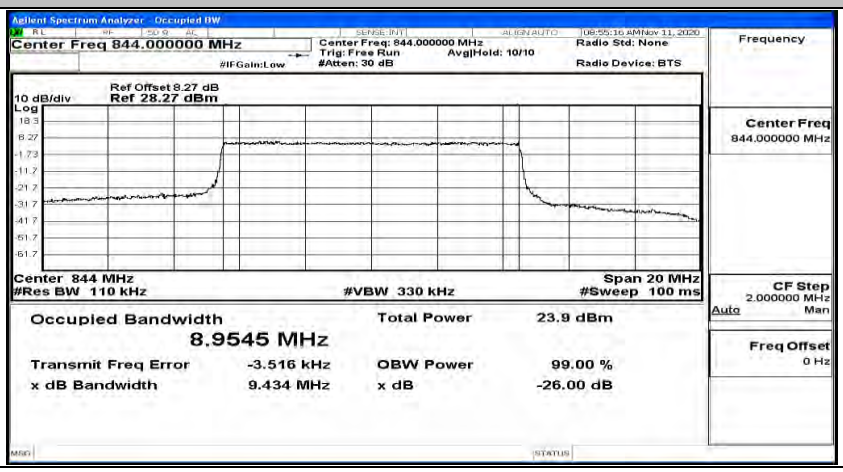
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



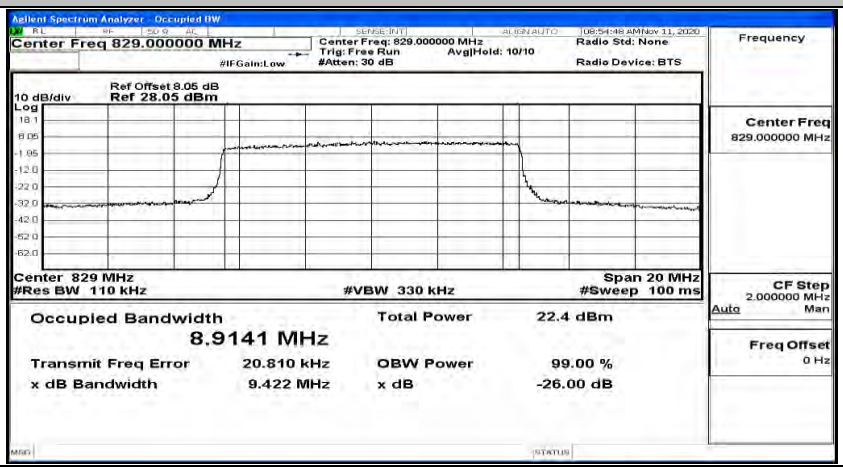
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



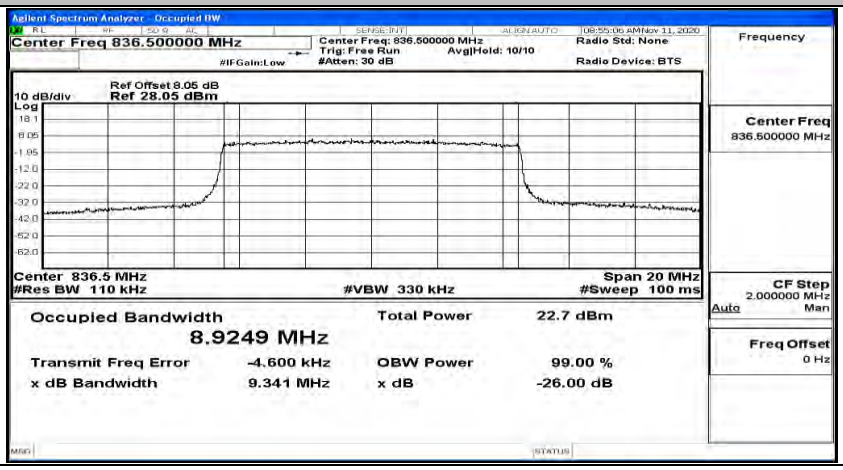
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



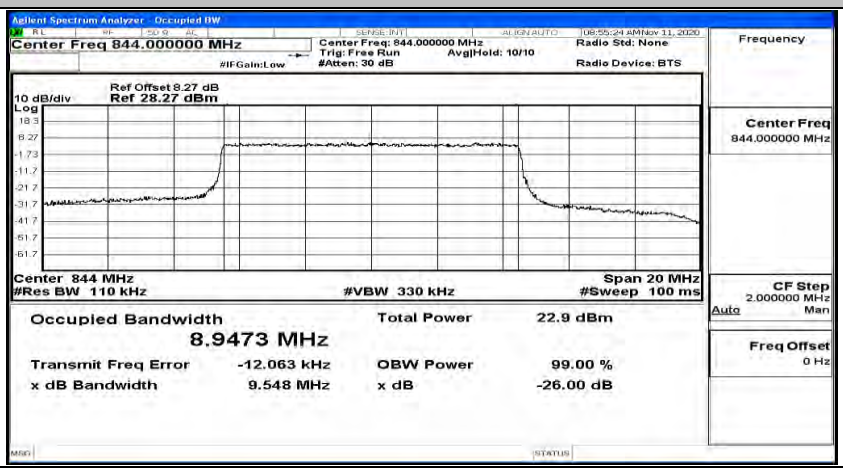
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM

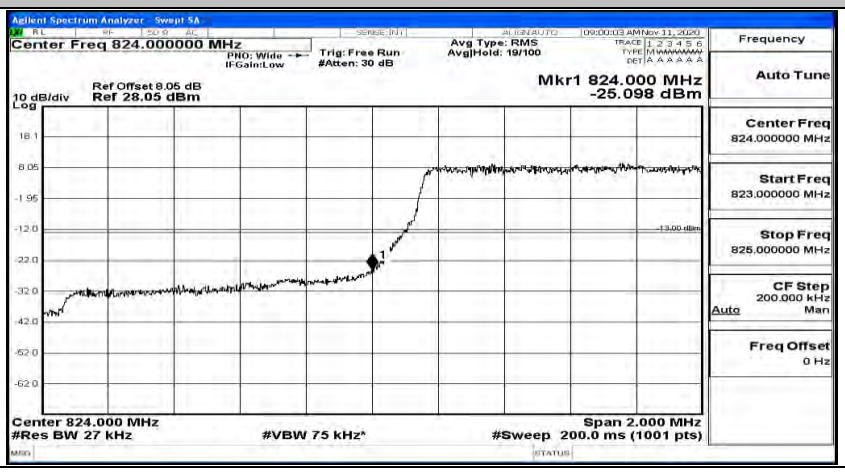


EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM

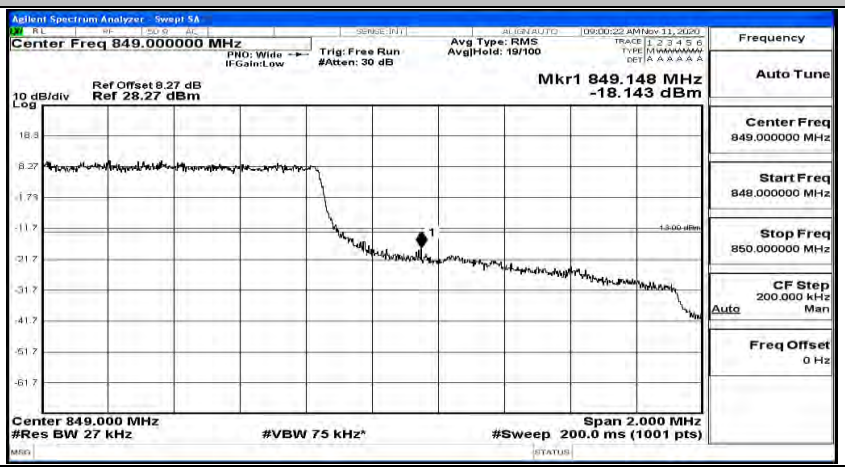


F.4 Band Edge

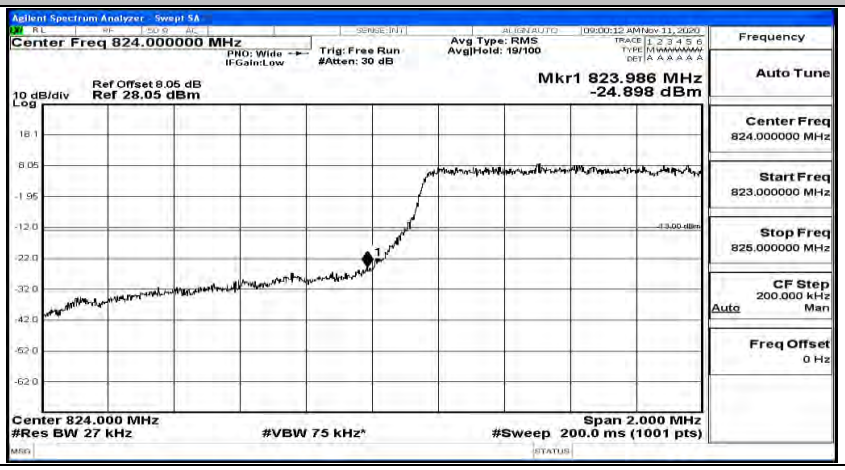
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



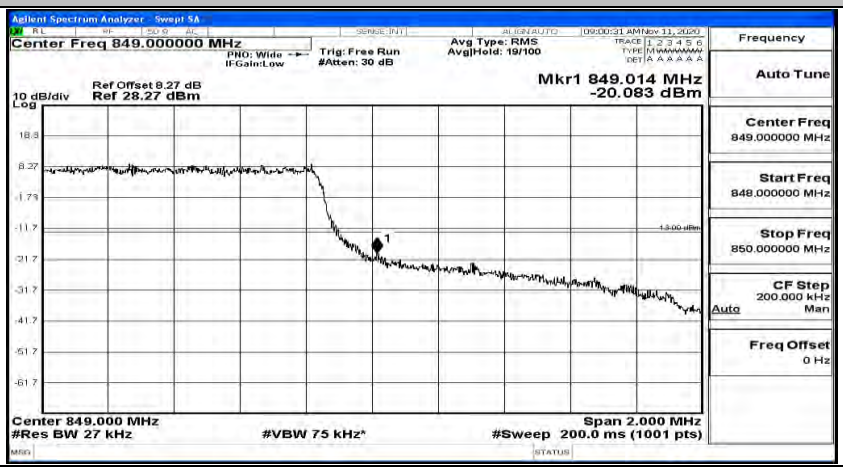
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



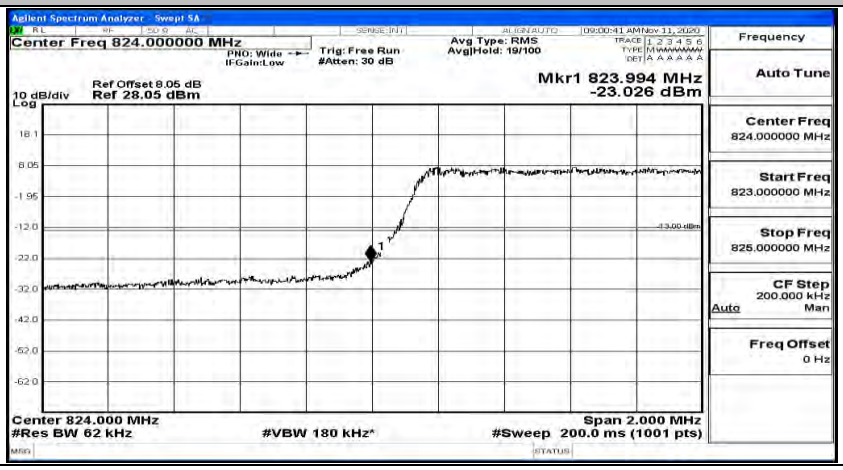
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



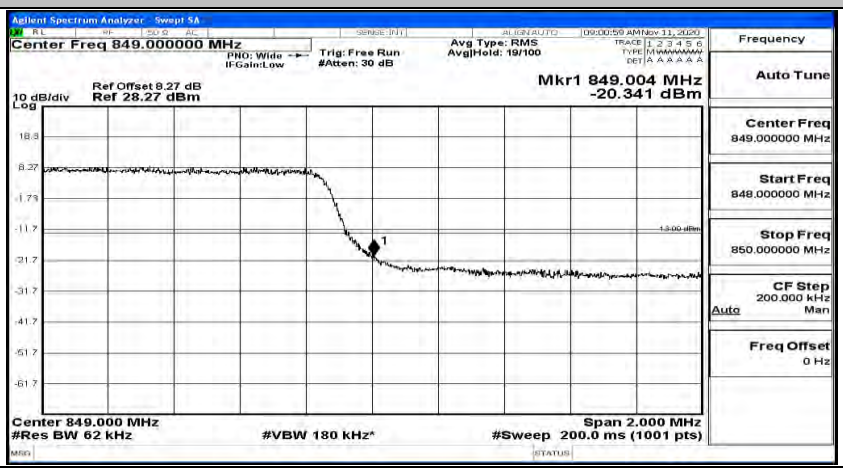
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



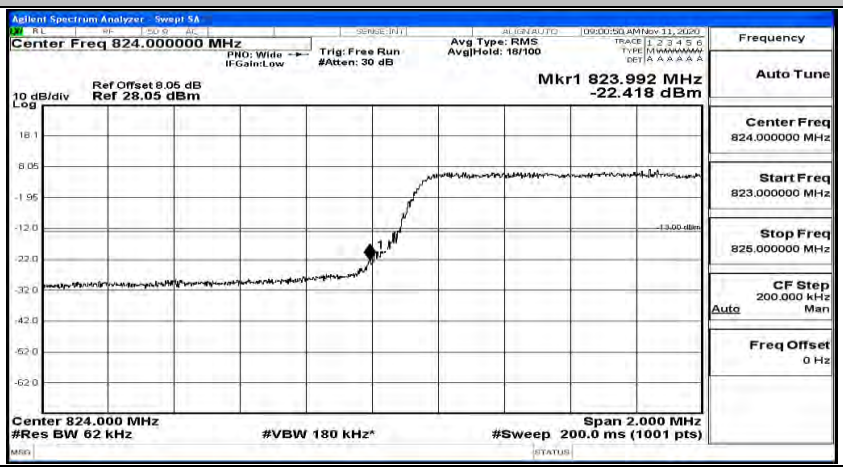
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



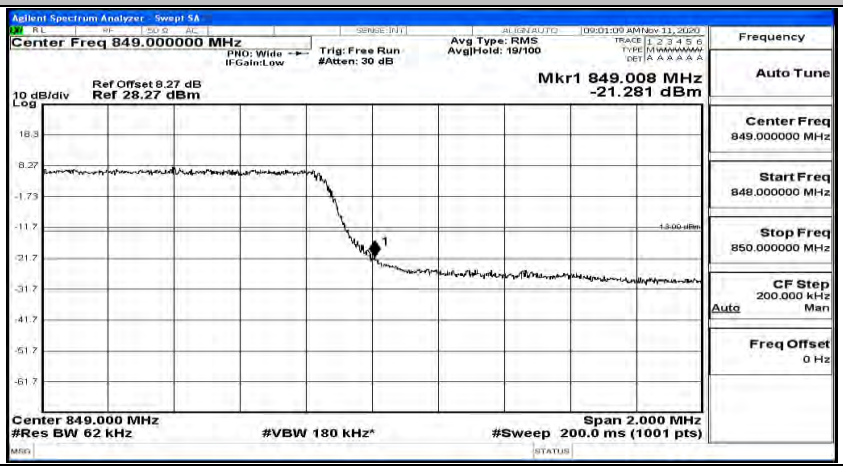
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



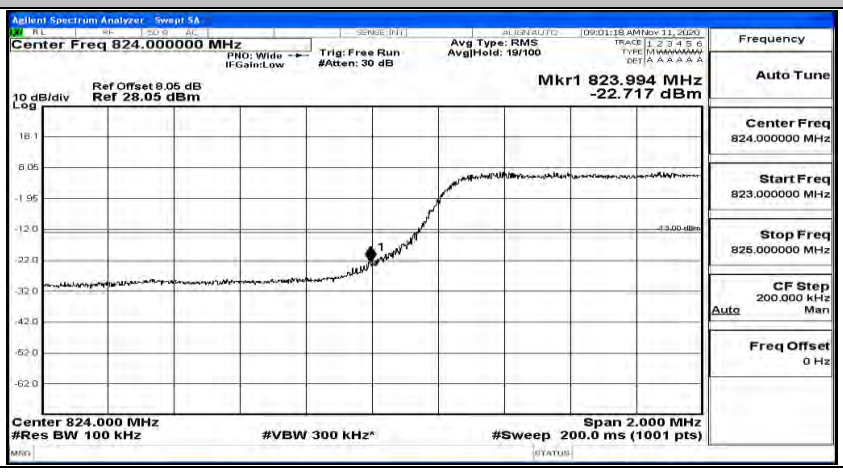
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



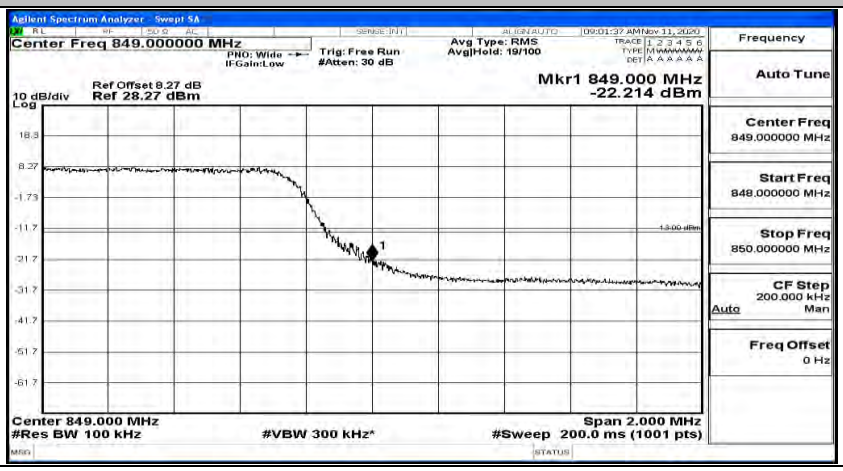
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



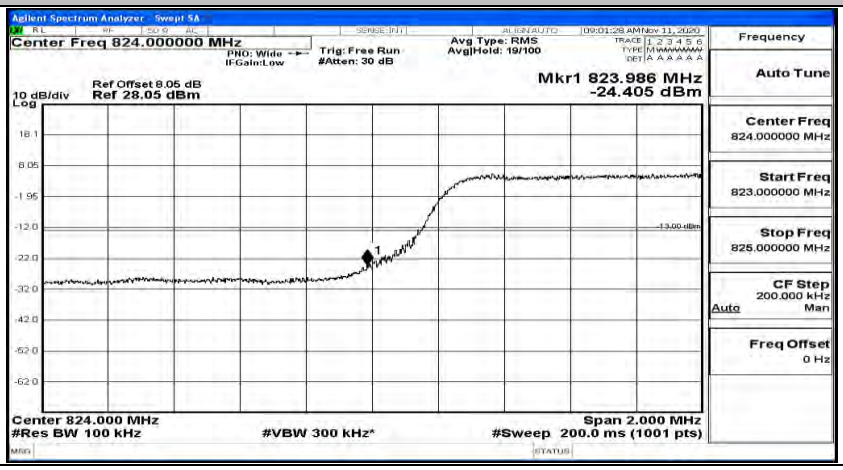
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



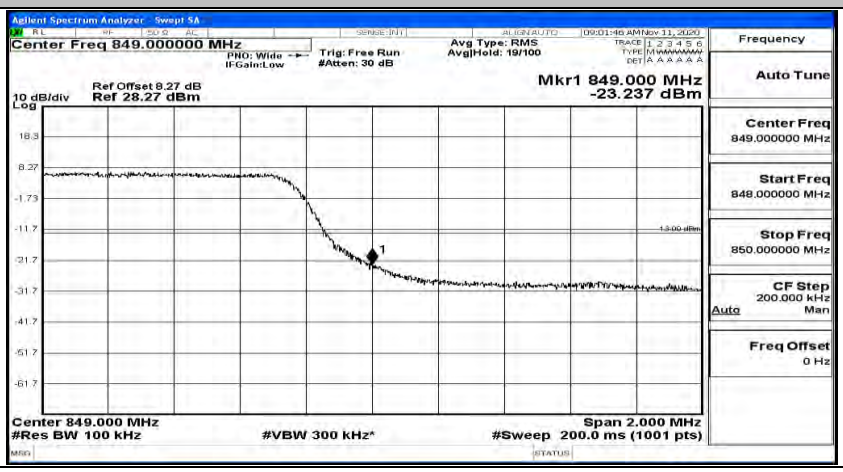
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



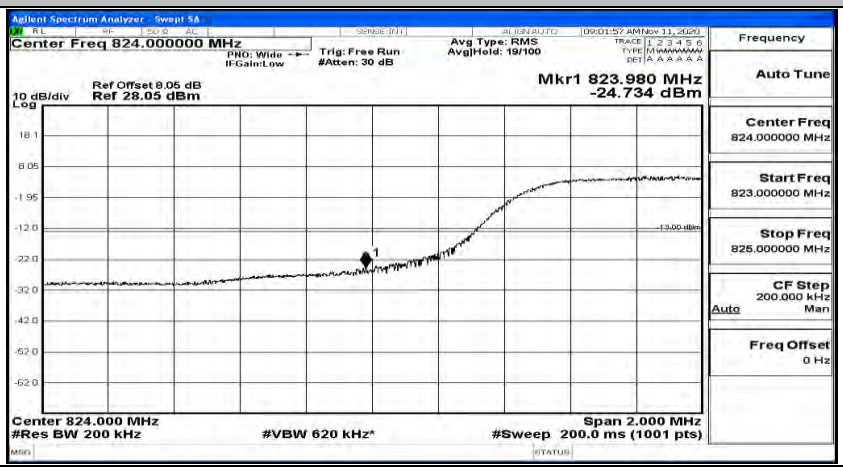
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



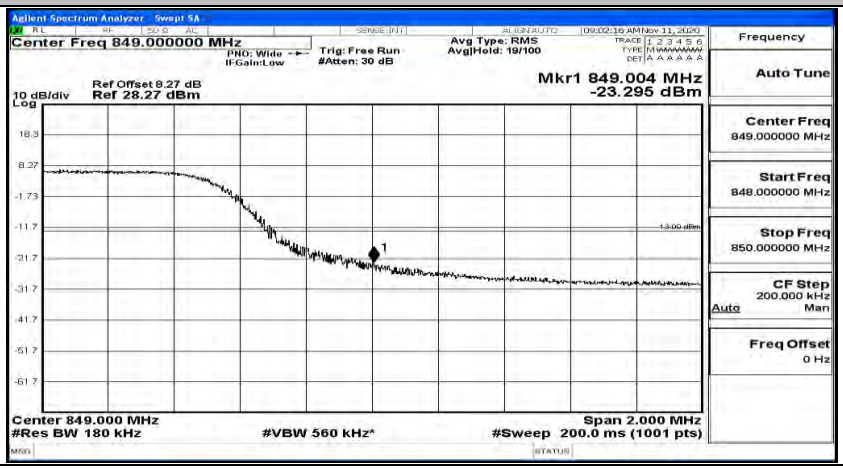
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



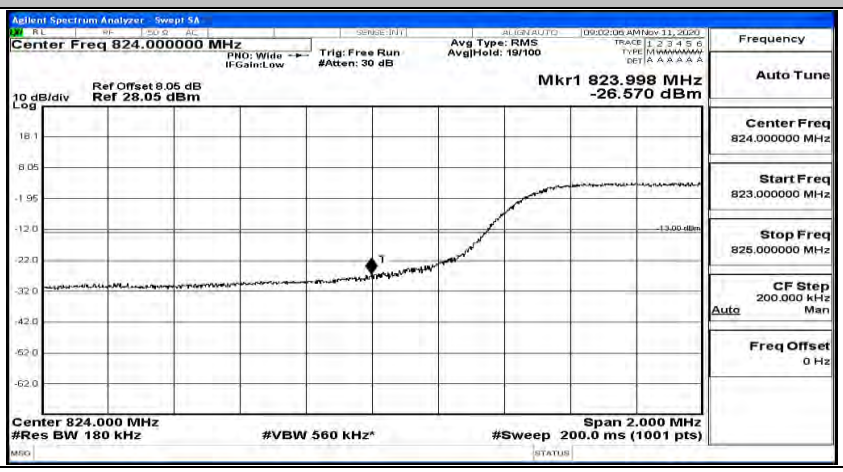
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



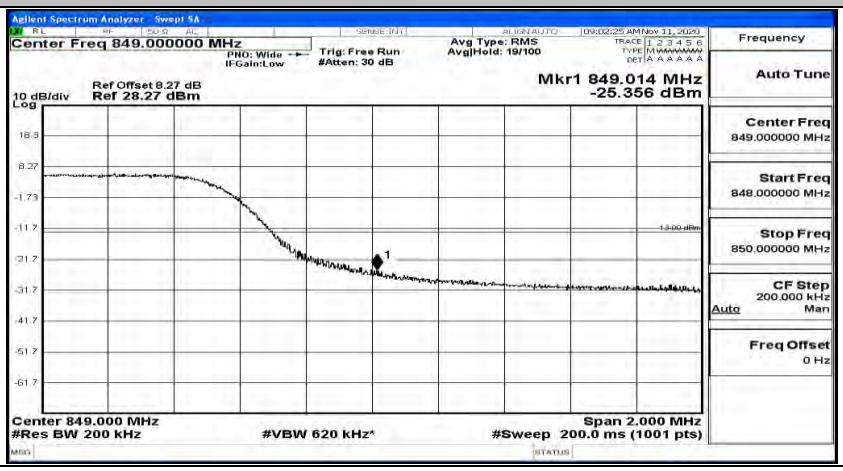
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM

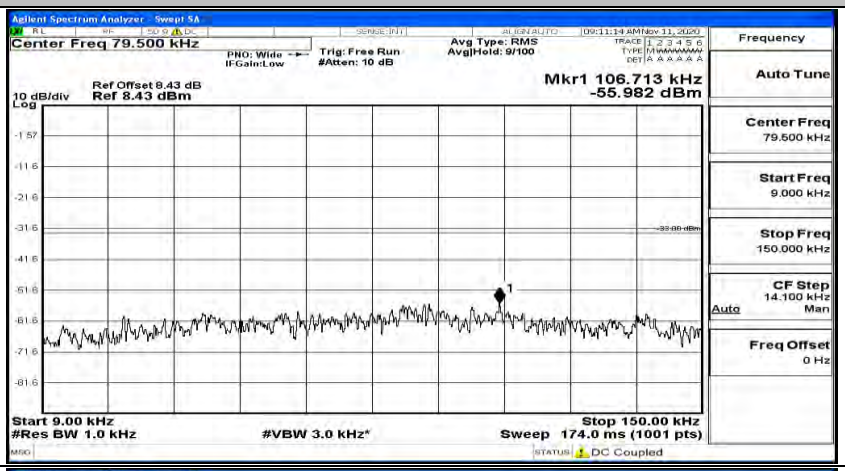


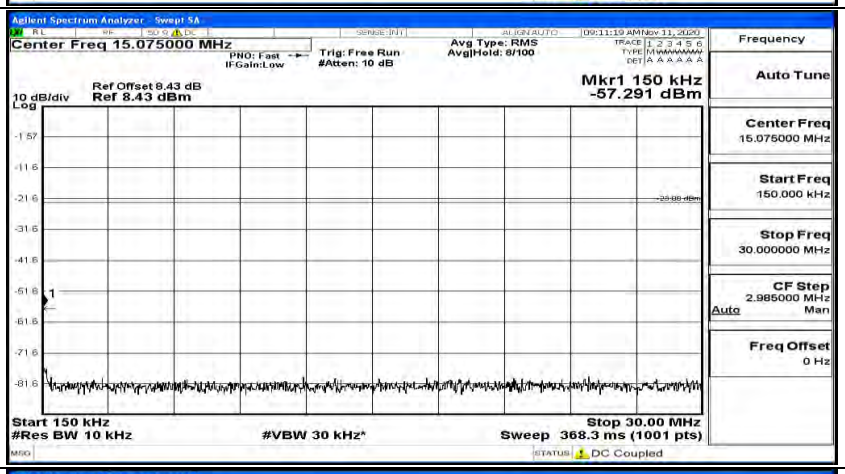
F.5 Conducted Spurious Emission

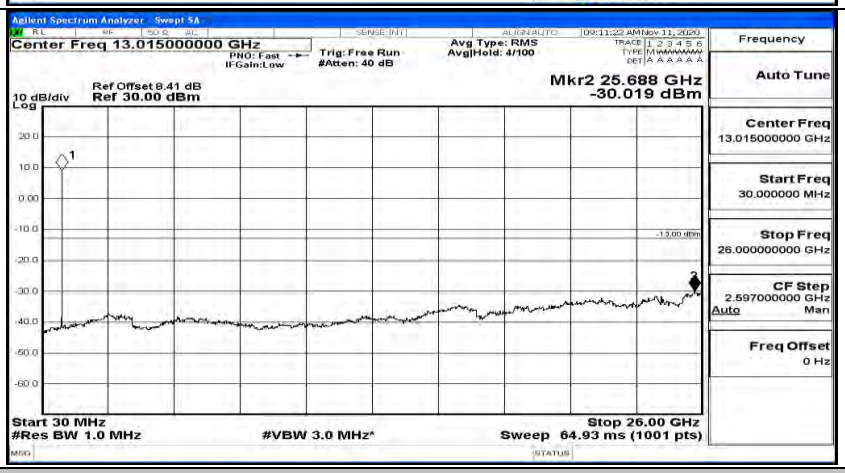
Test Graphs

Channel Bandwidth: 1.4 MHz

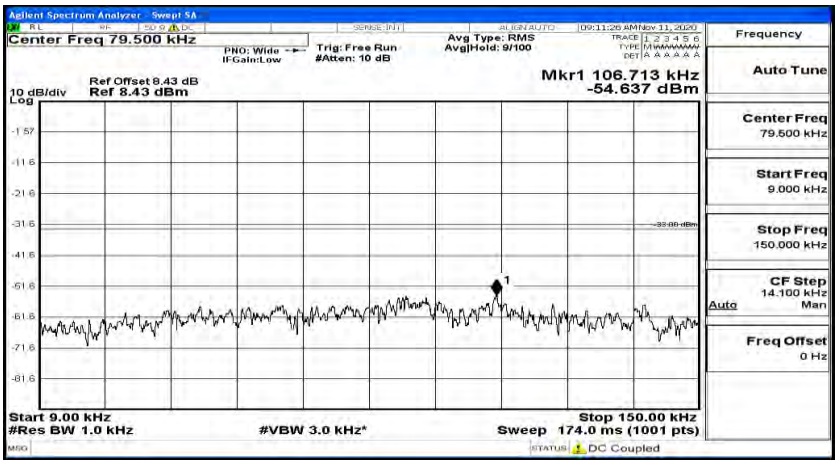
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#0

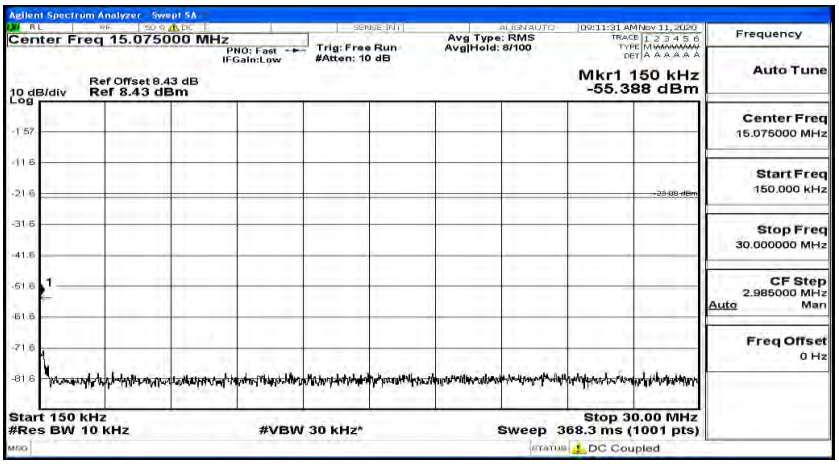


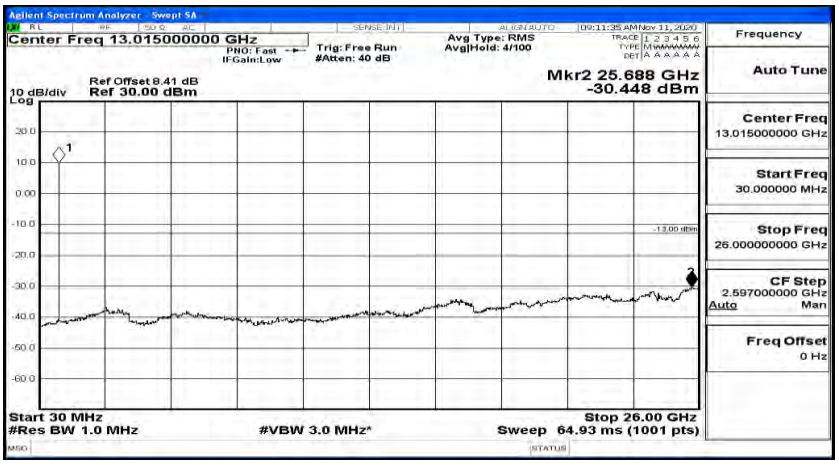




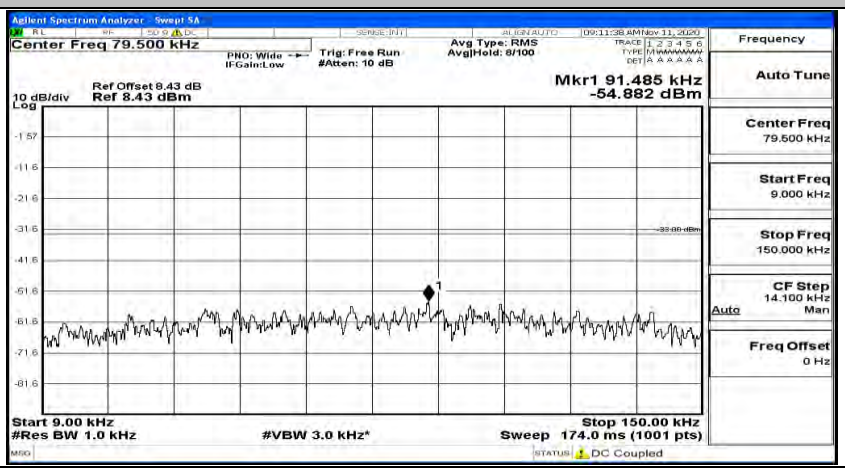
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#3

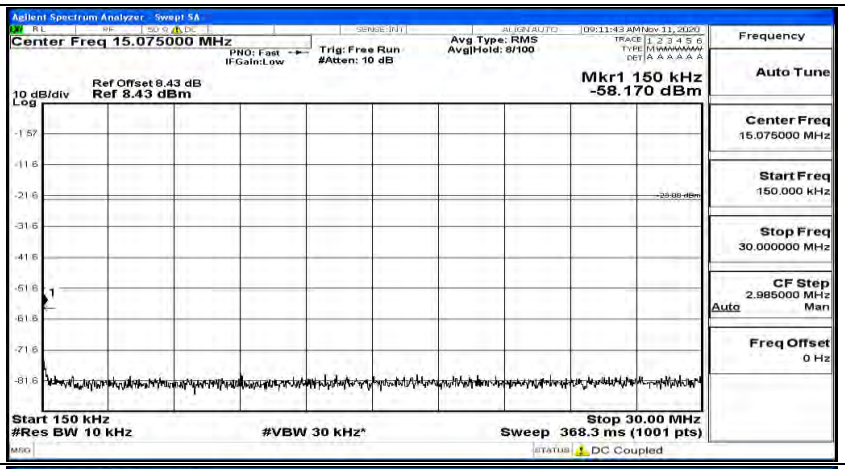


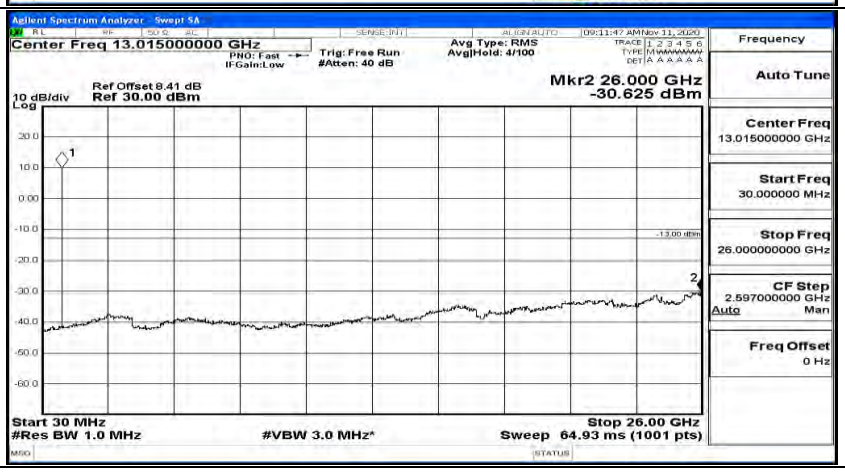




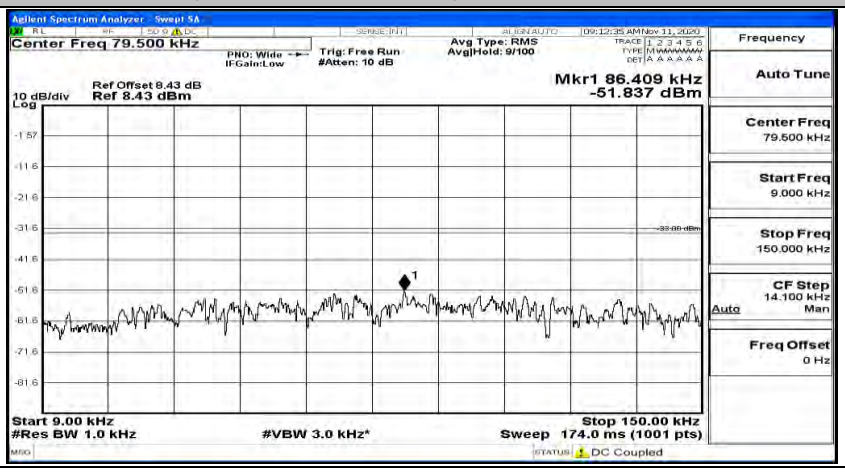
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#5

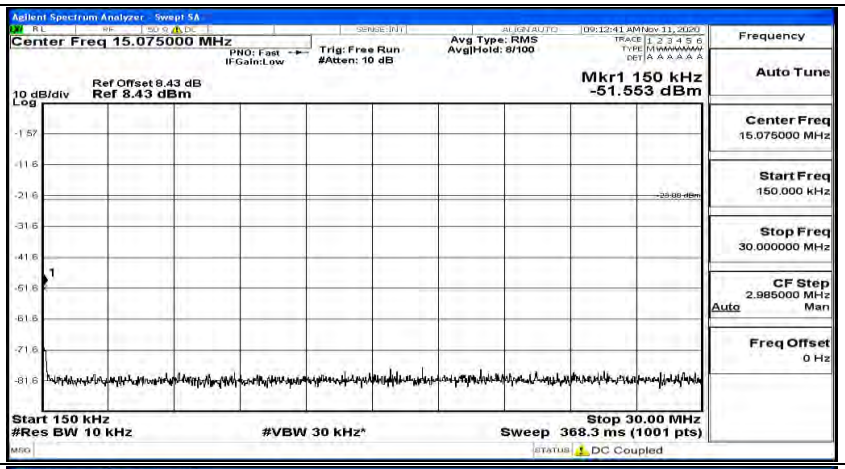


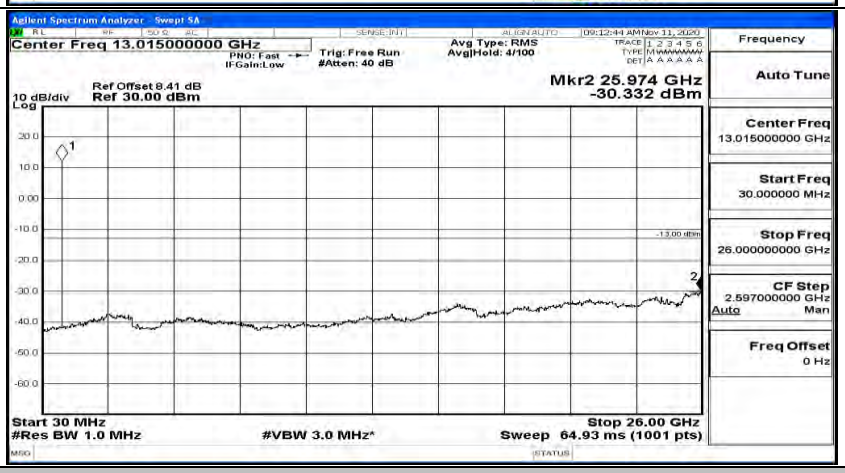




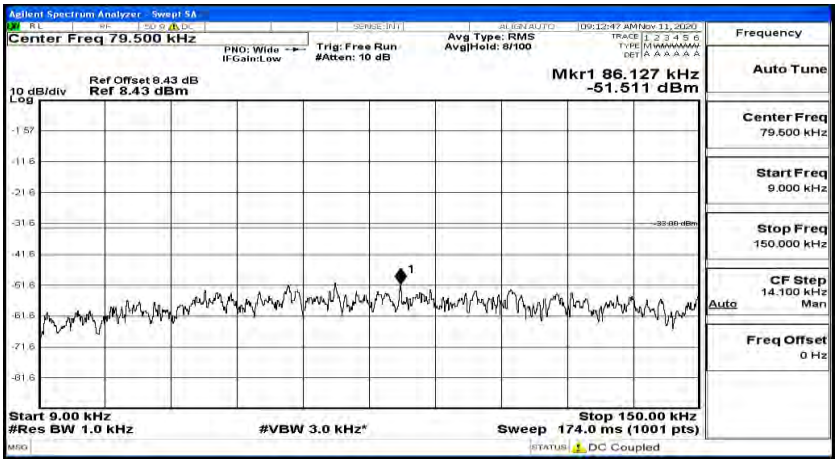
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#0

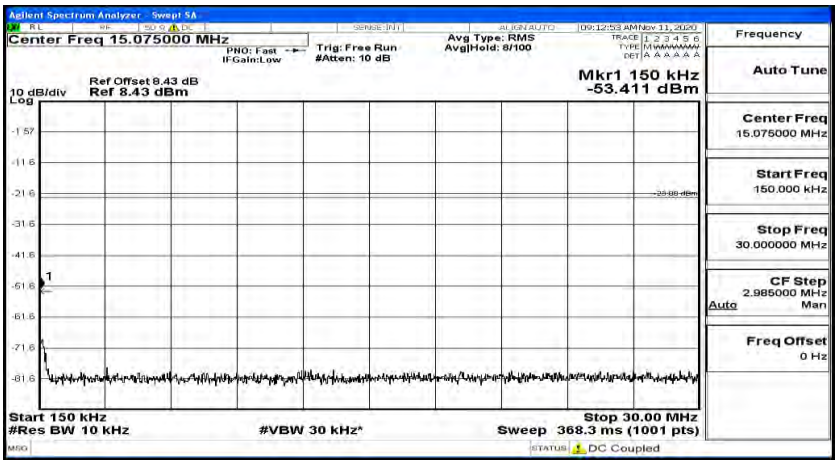




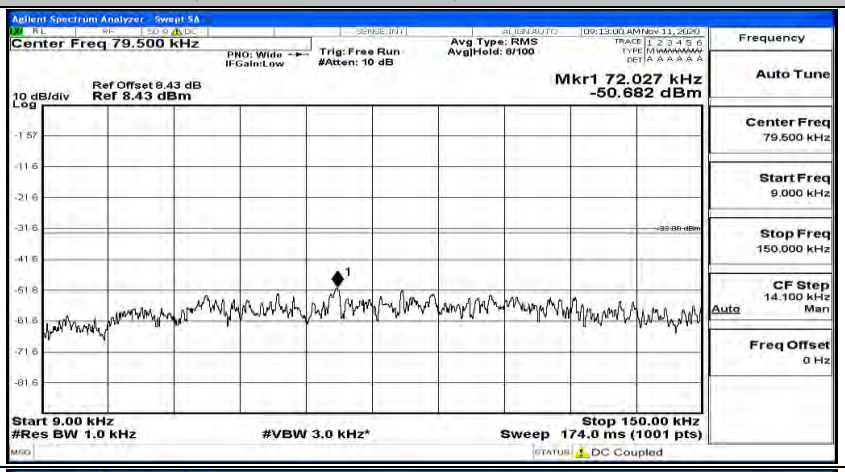


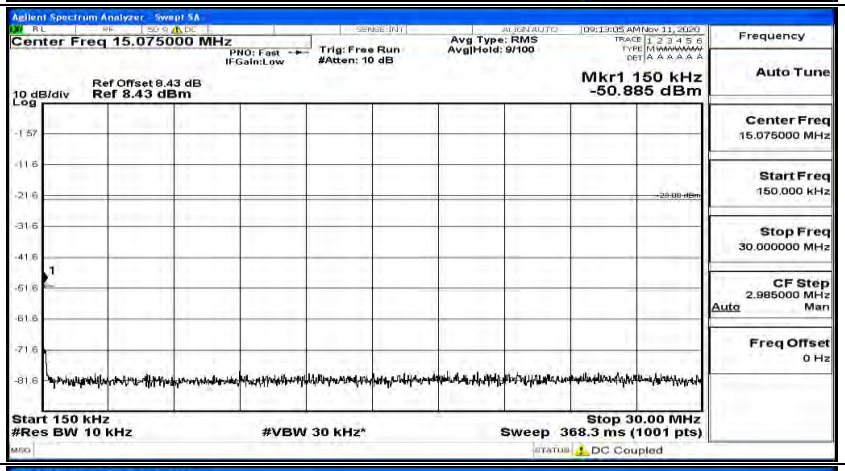
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#3

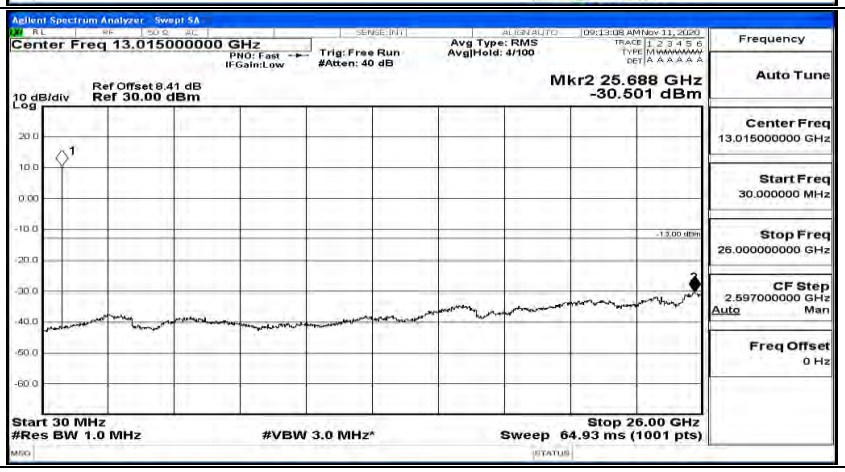




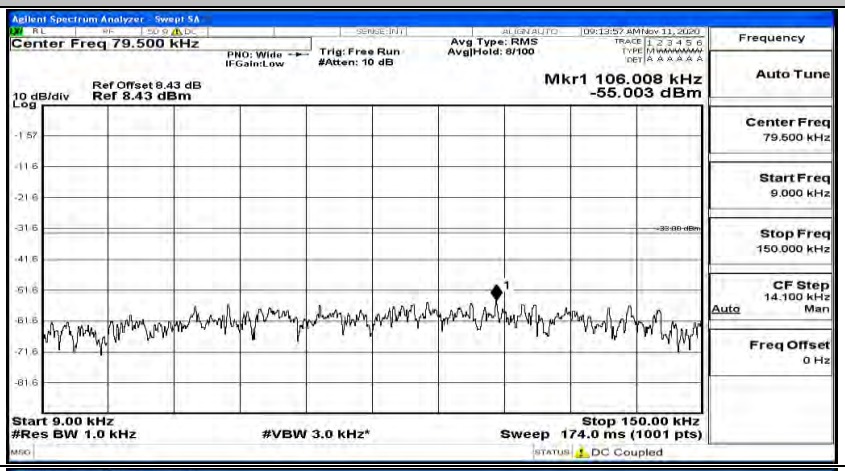
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#5

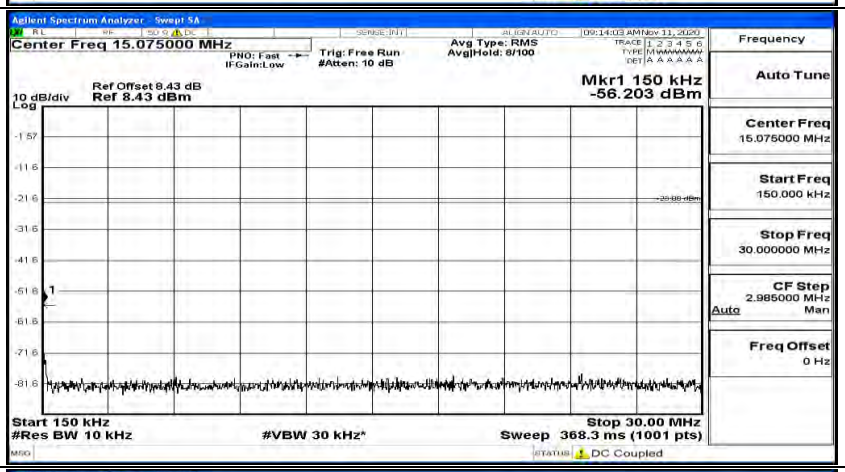


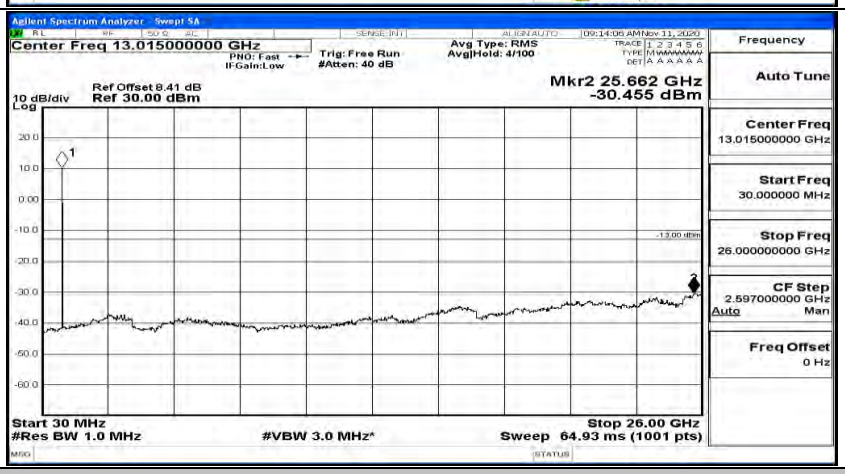




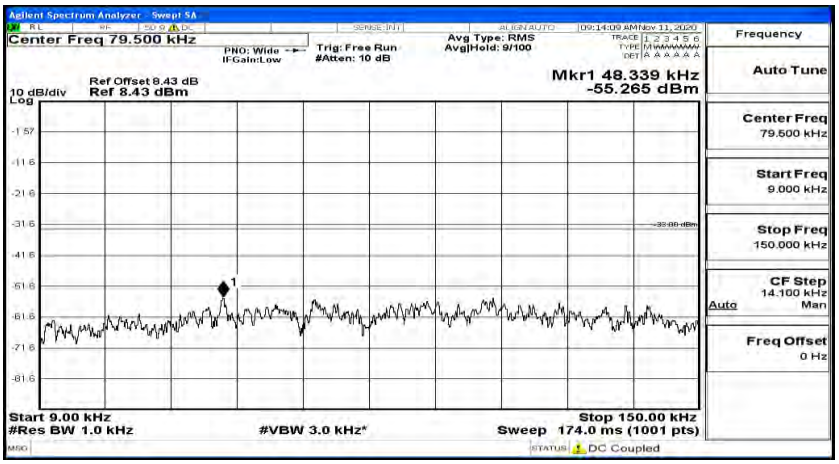
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#0

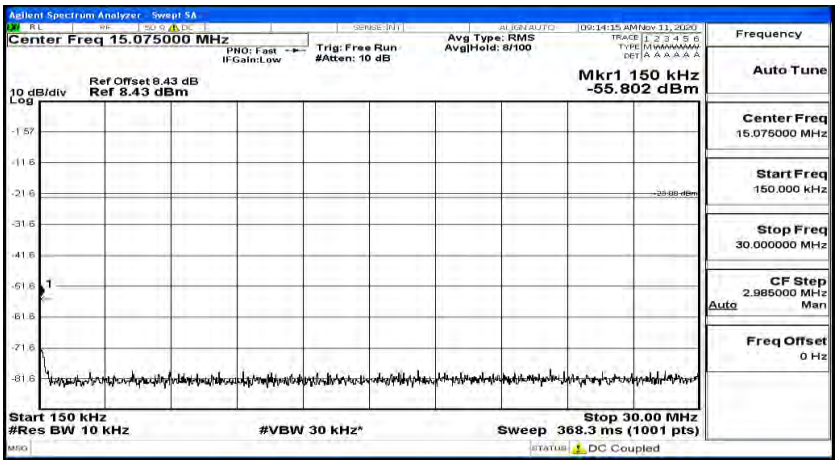




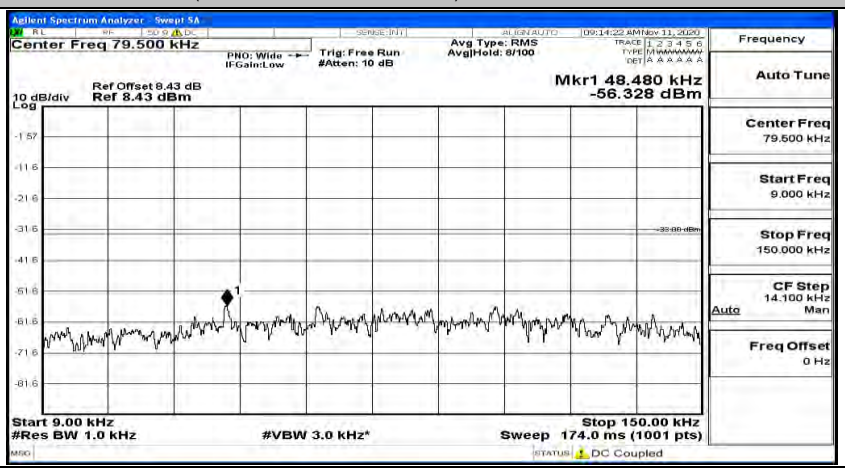


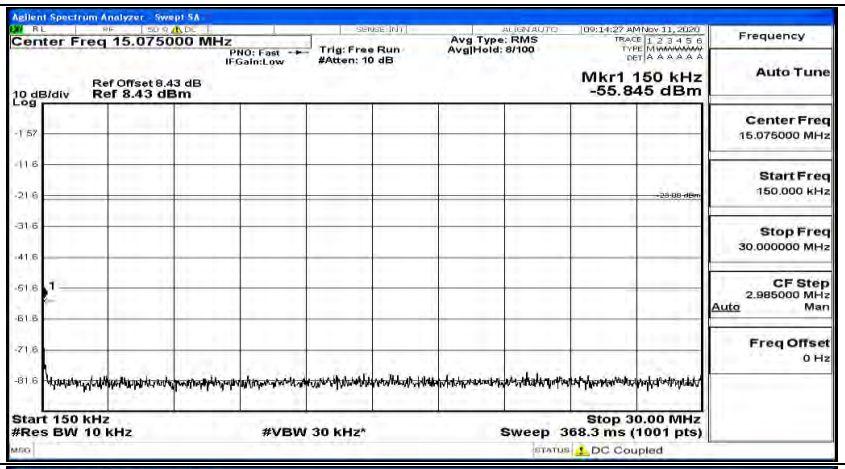
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#3



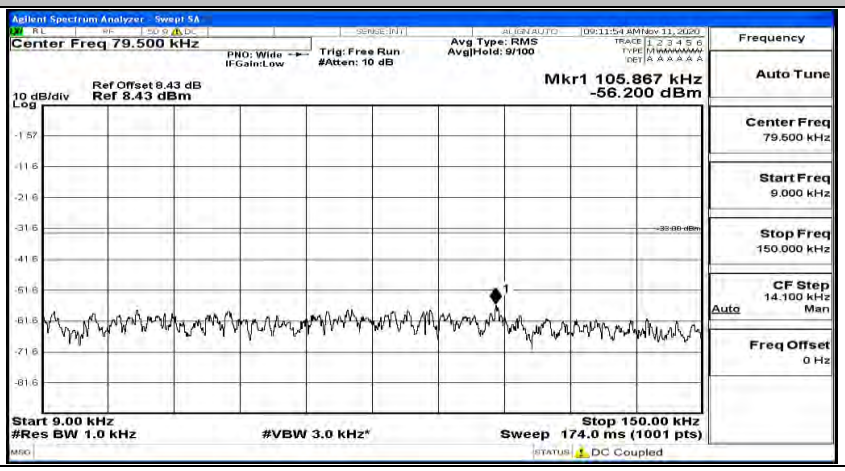


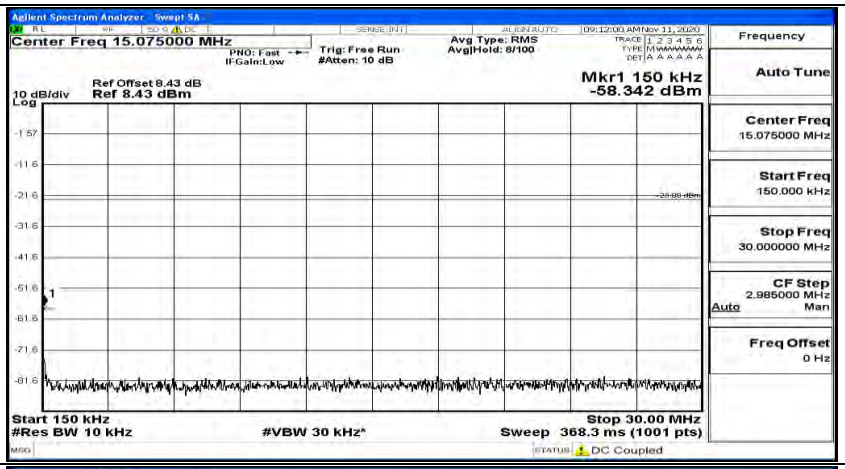
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#5

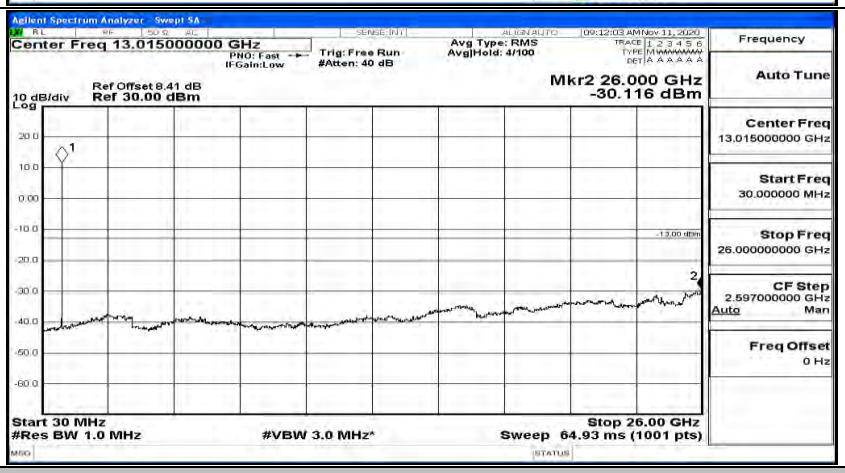




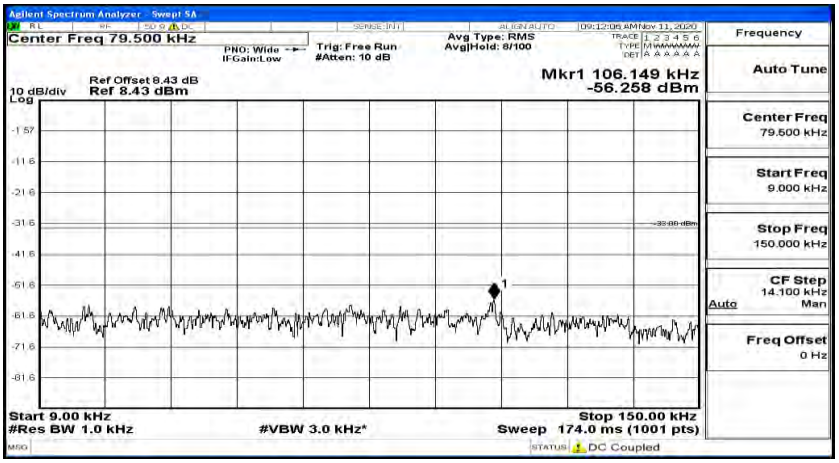
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#0

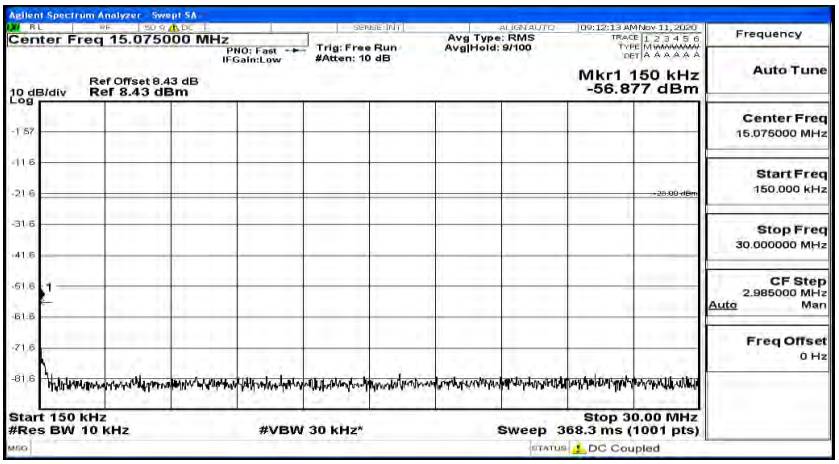




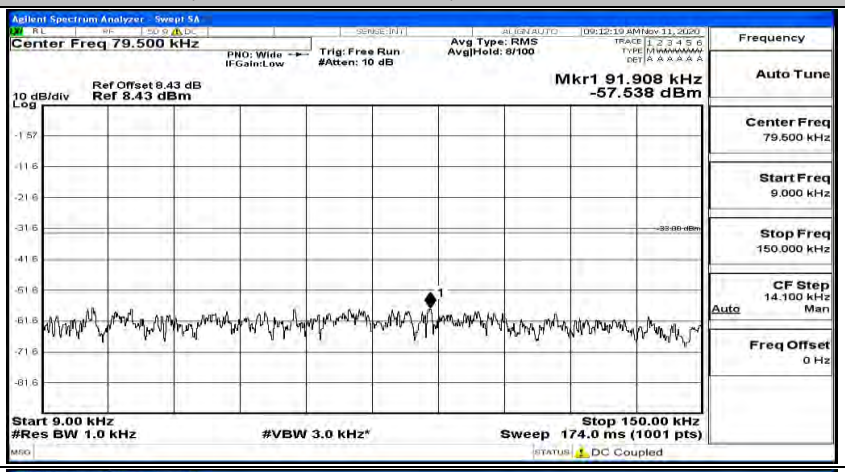


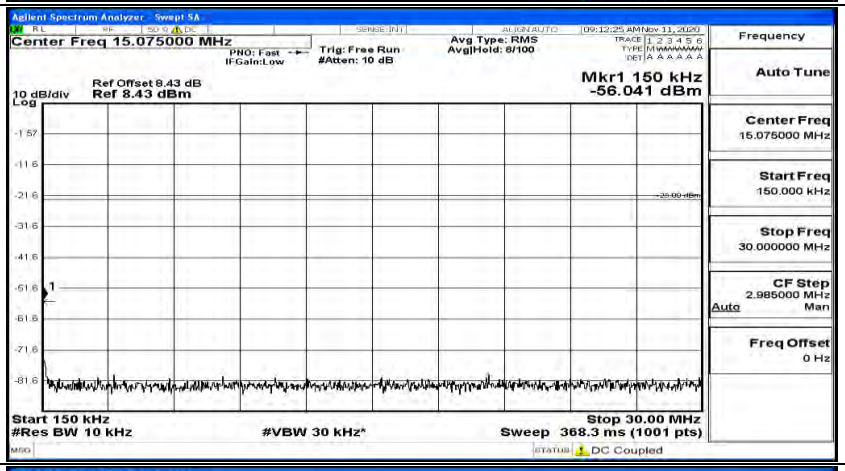
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#3

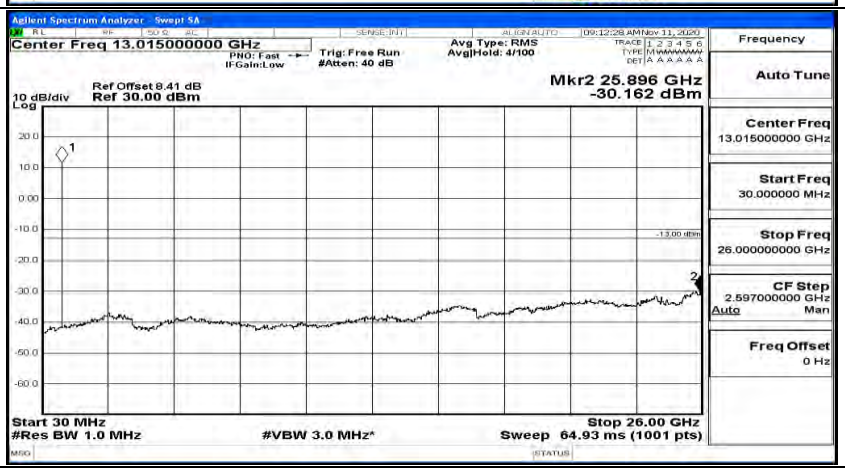




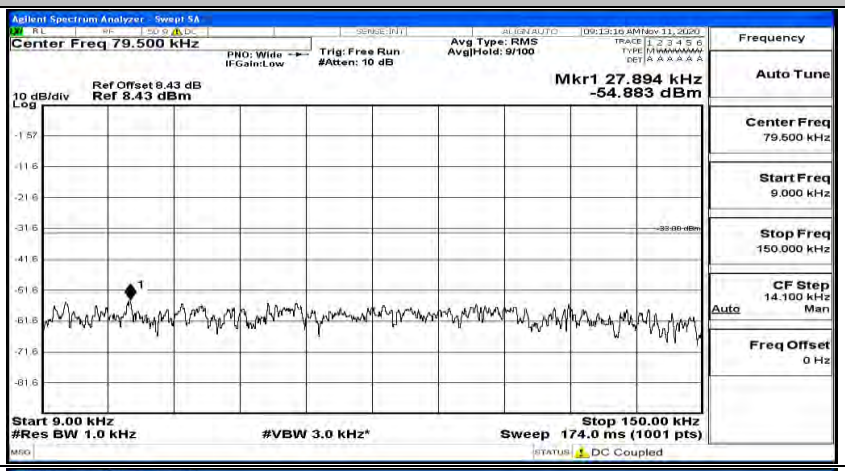
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#5

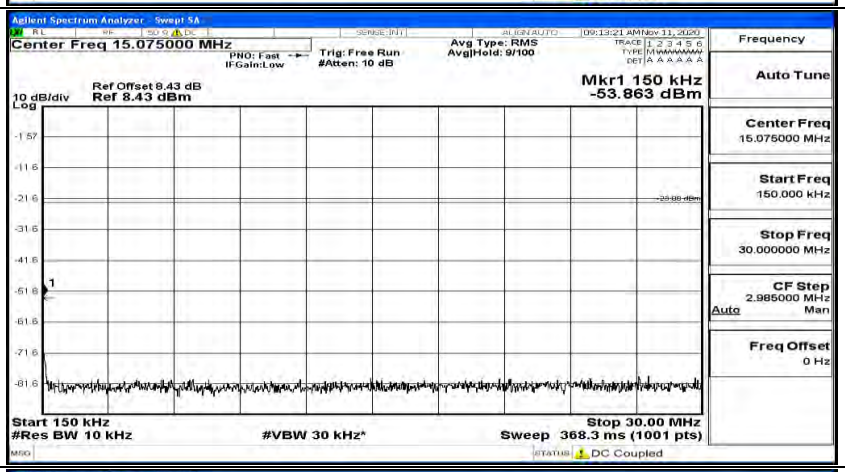


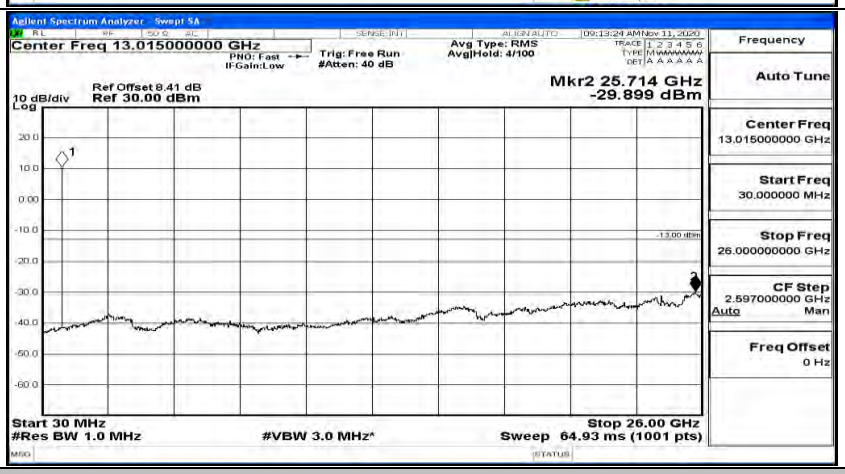




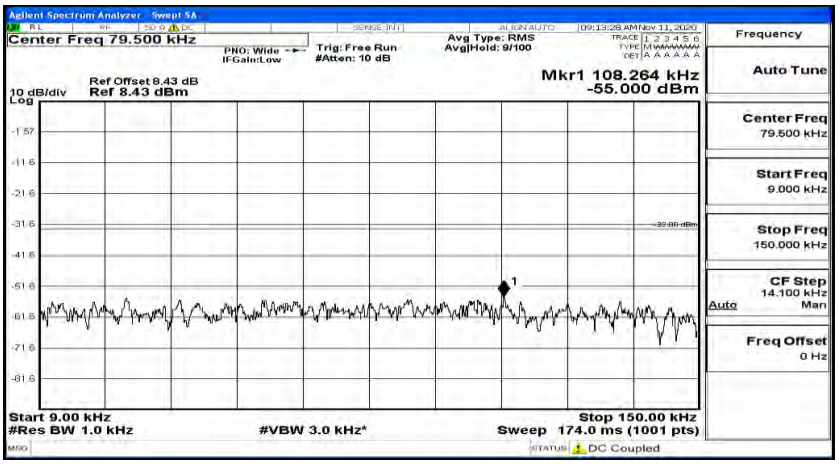
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#0

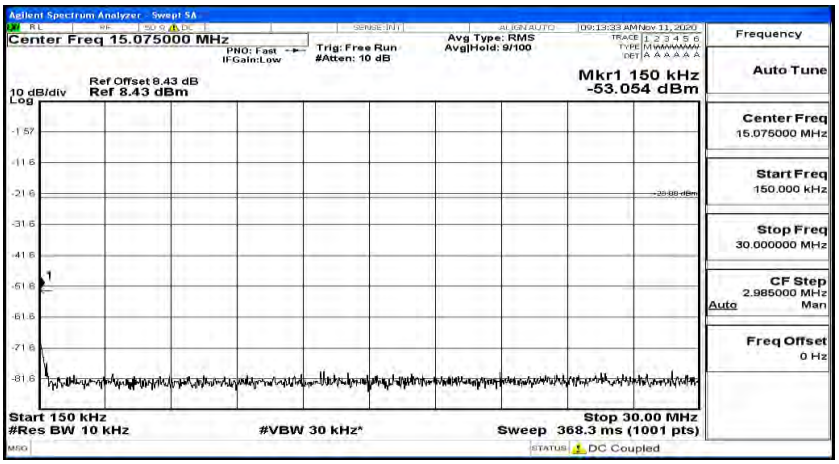




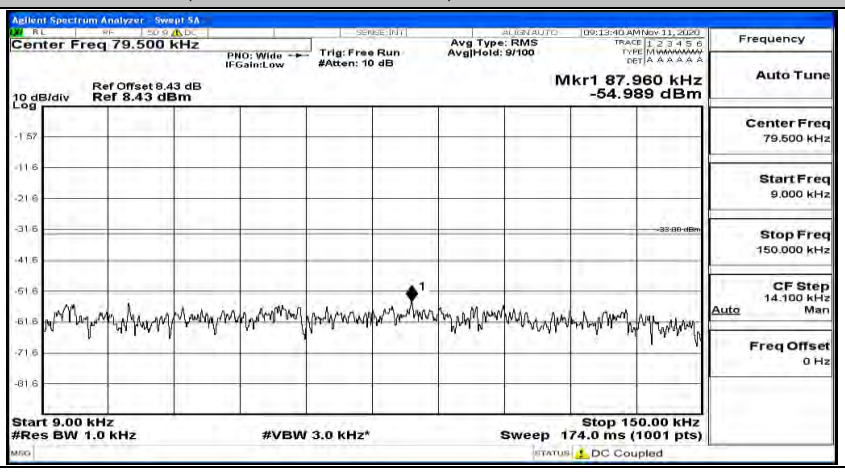


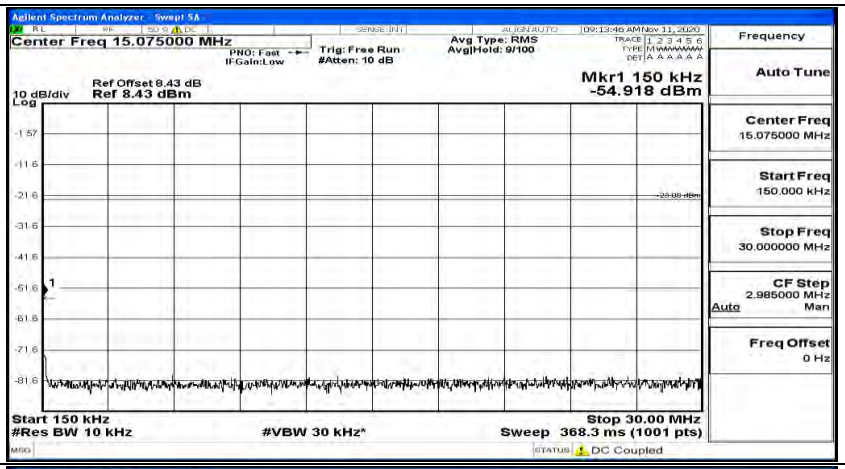
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#3



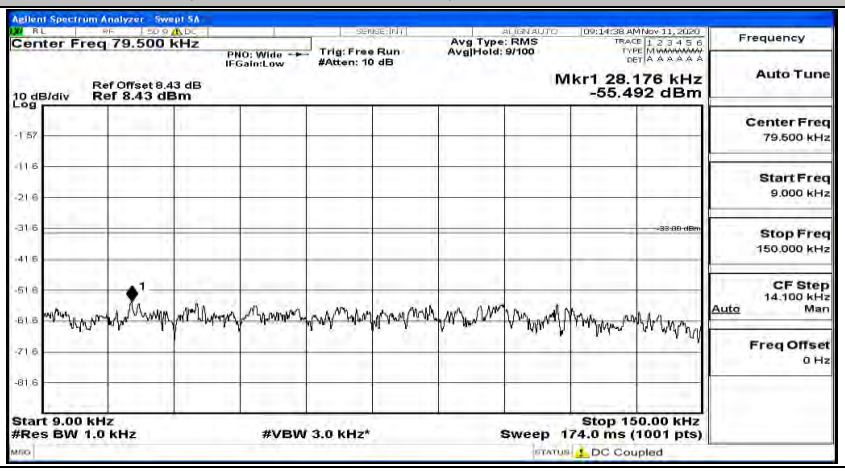


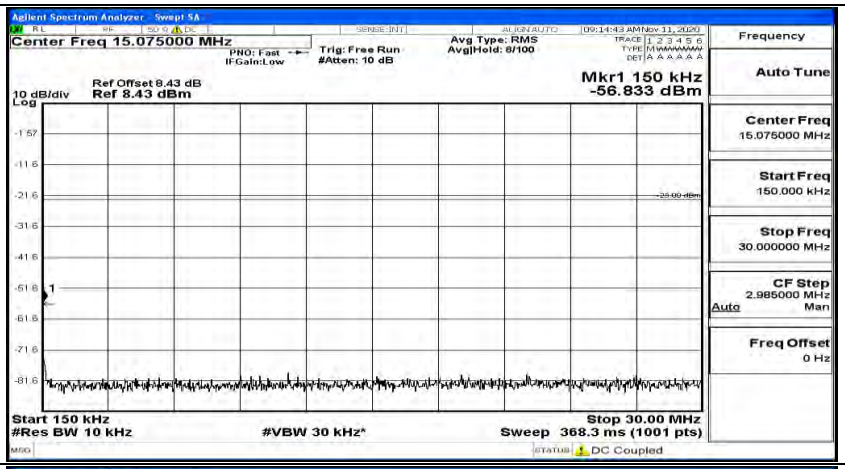
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#5

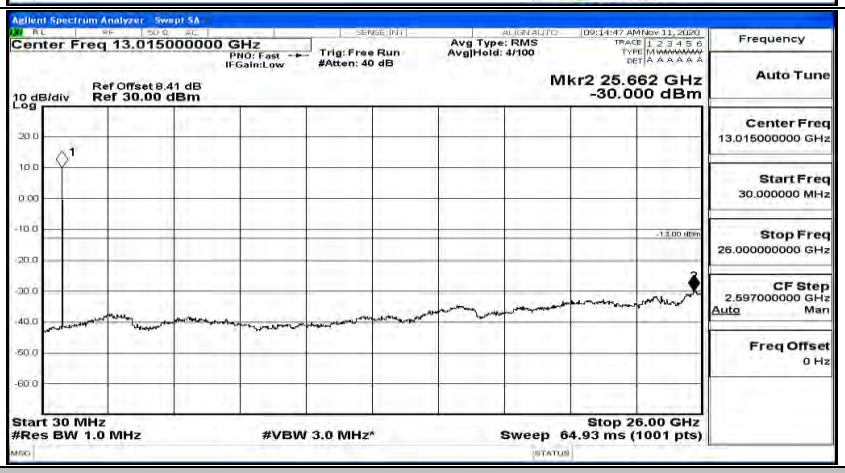




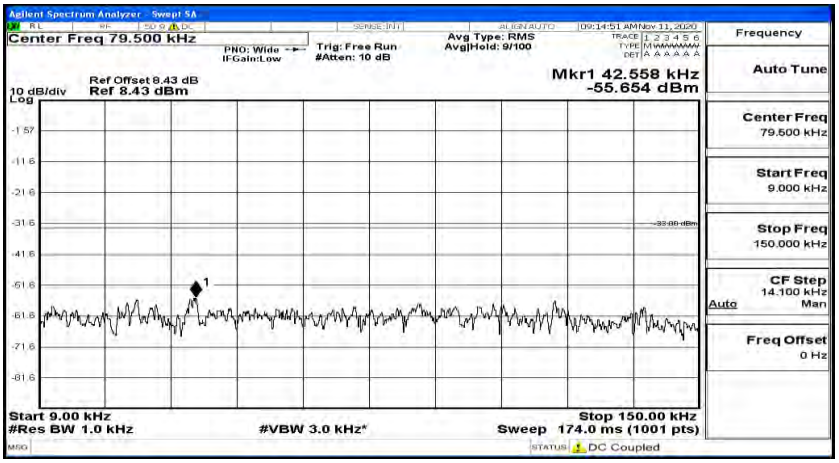
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#0

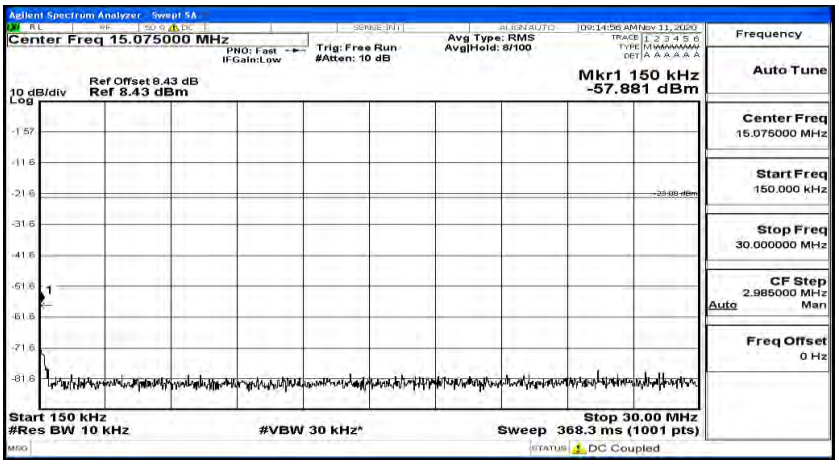




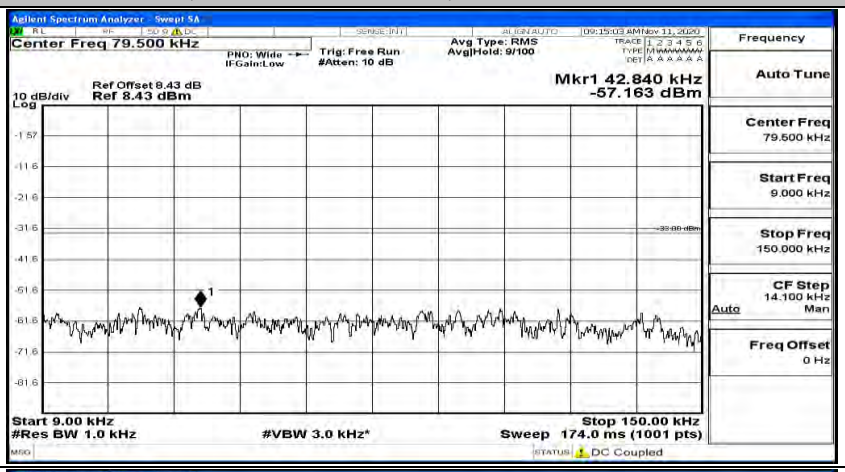


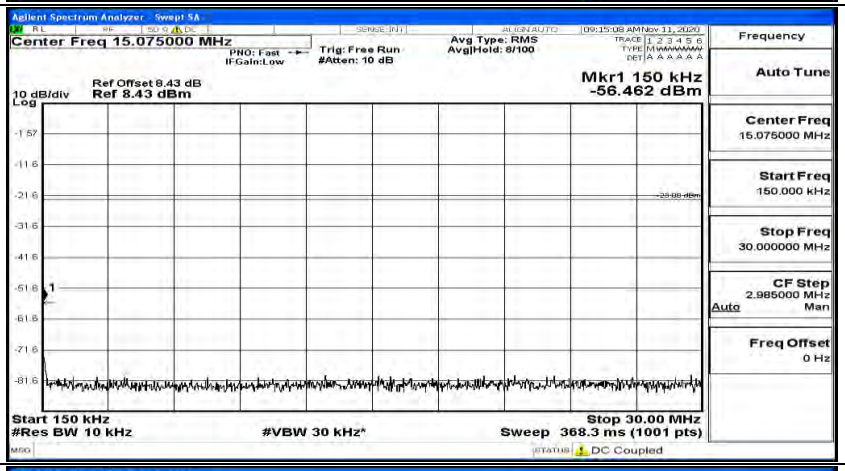
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#3





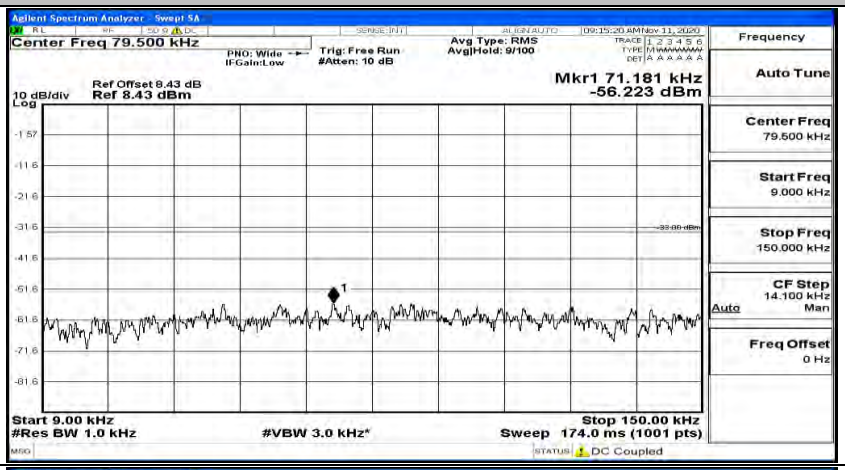
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#5

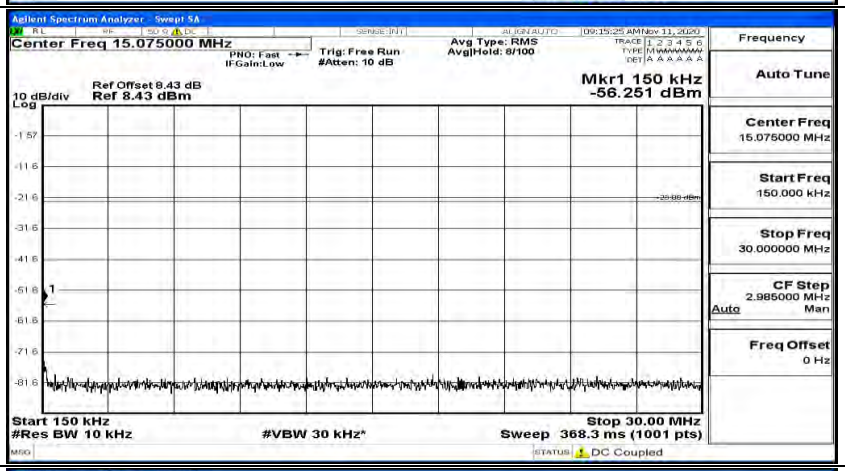


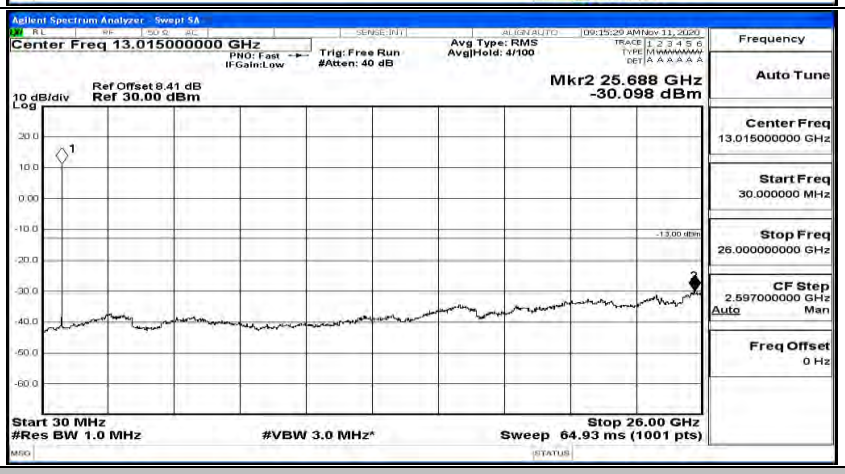


Channel Bandwidth: 3 MHz

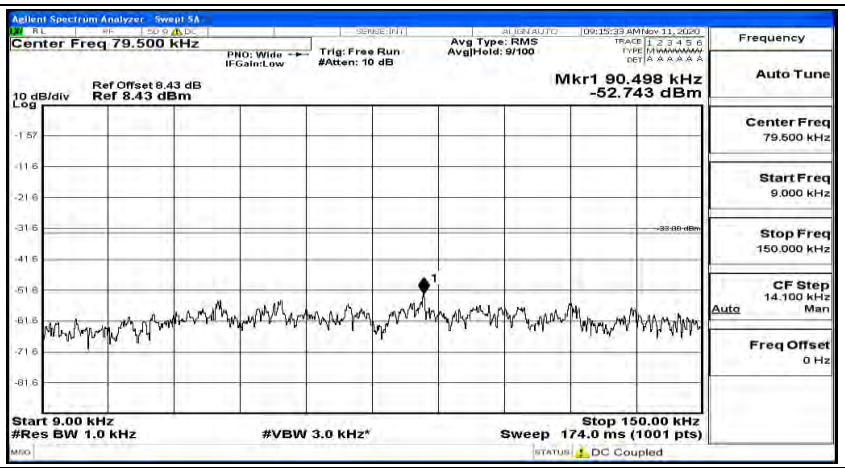
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#0

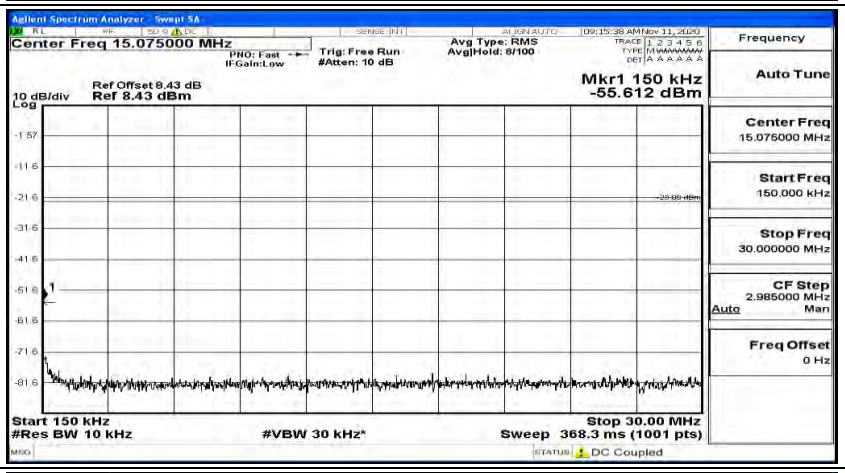




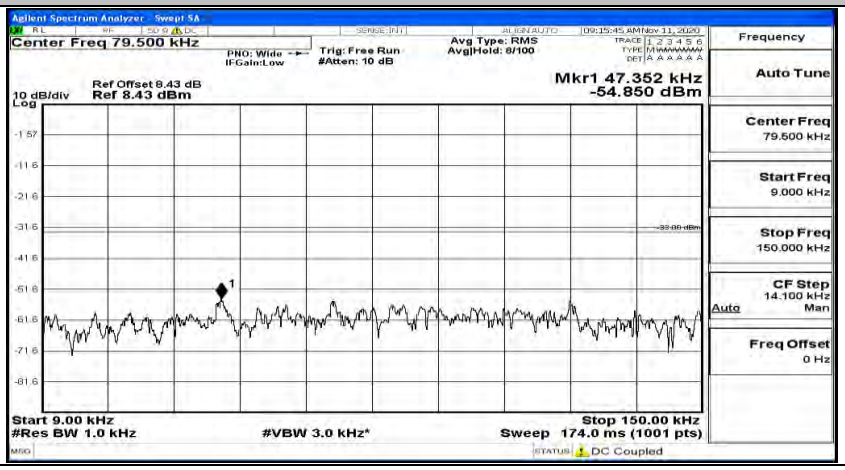


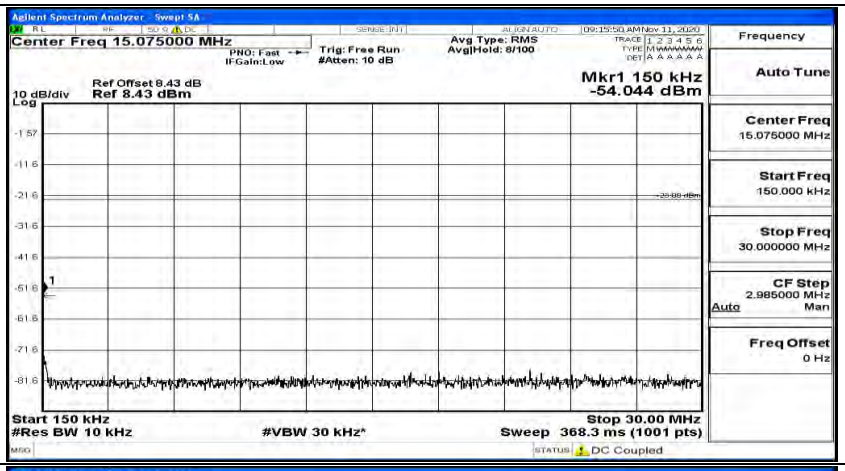
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#7

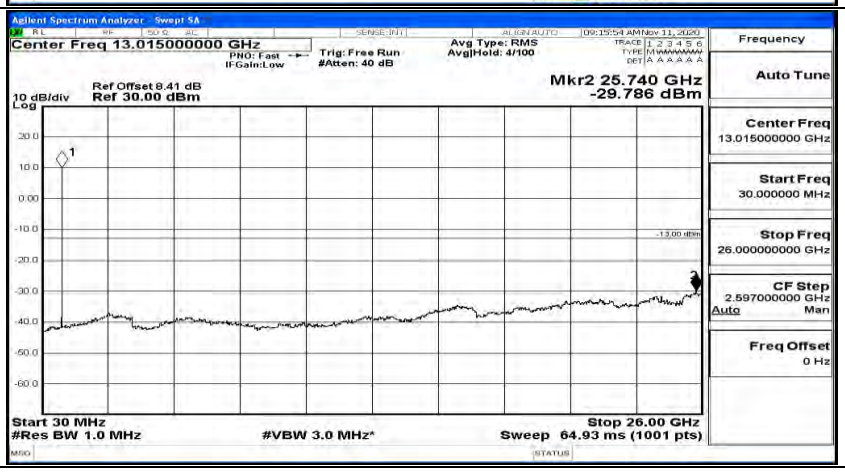




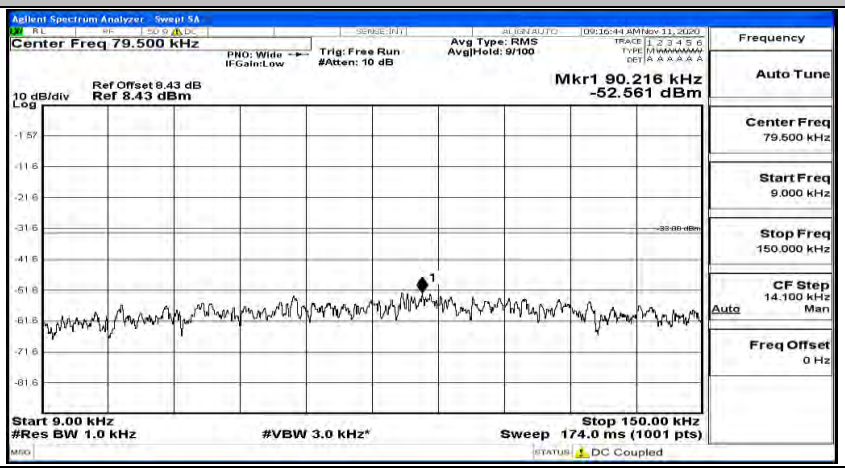
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#14

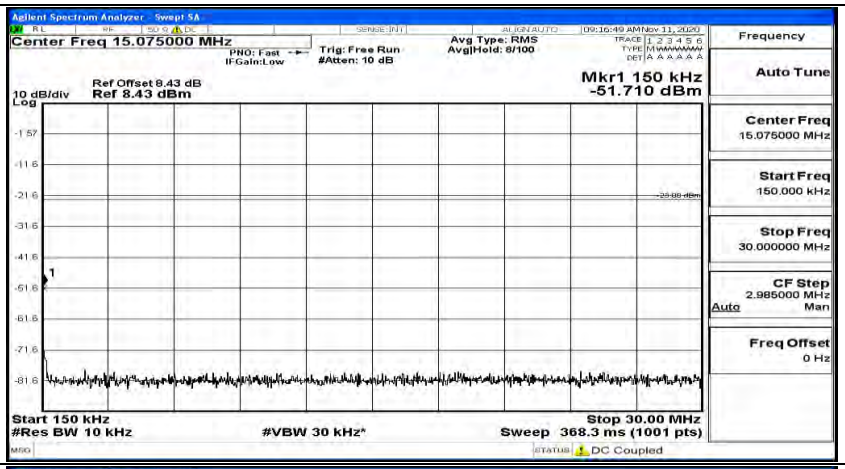


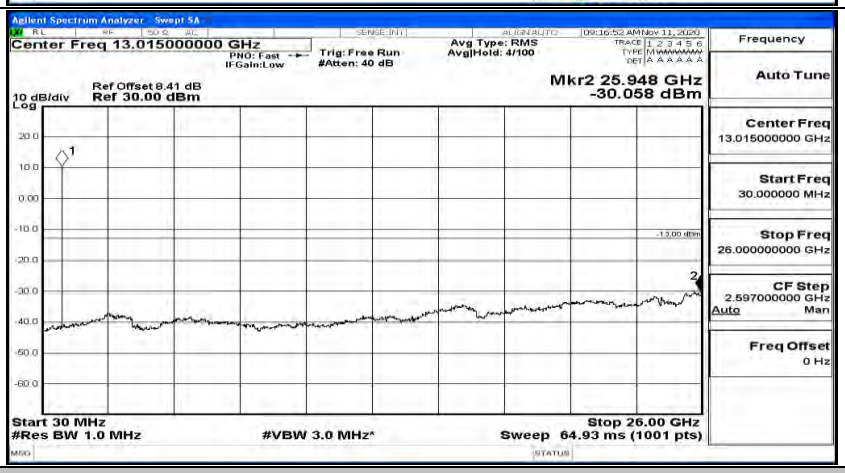




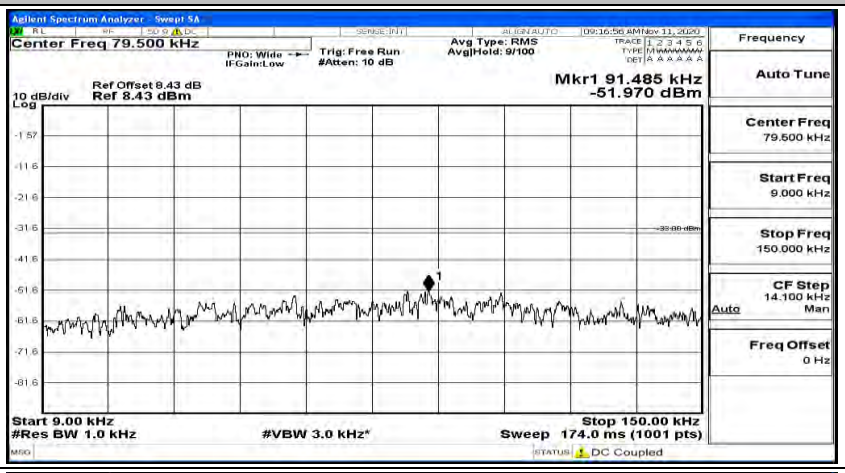
(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#0

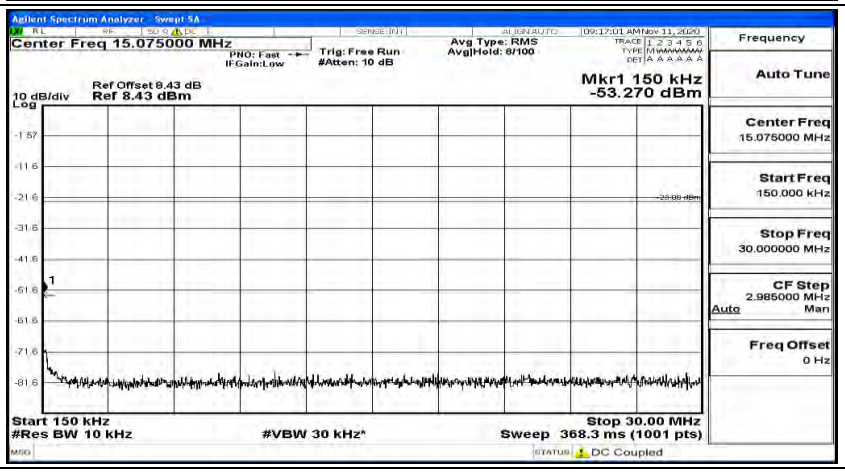


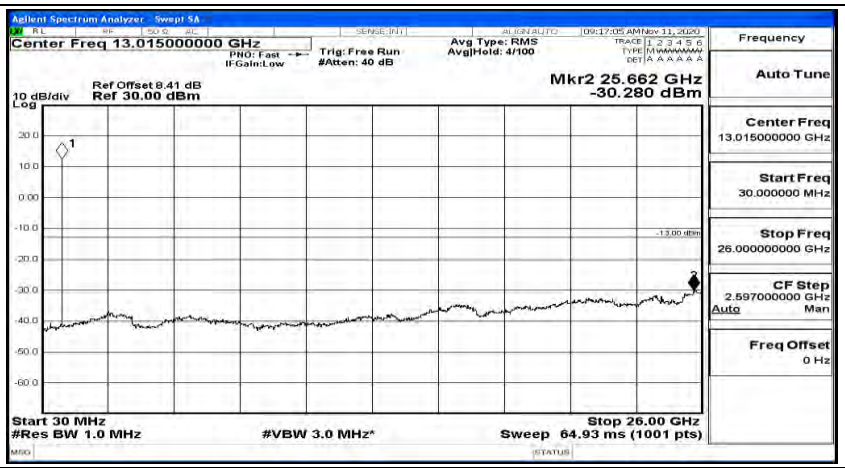




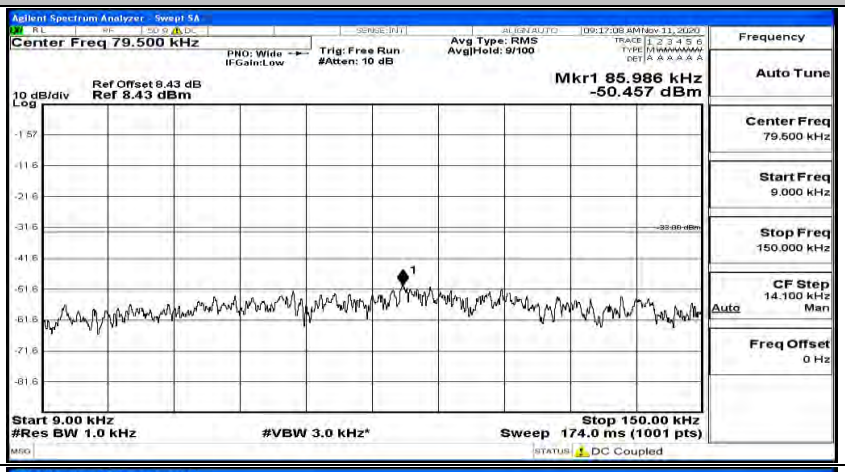
(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#7

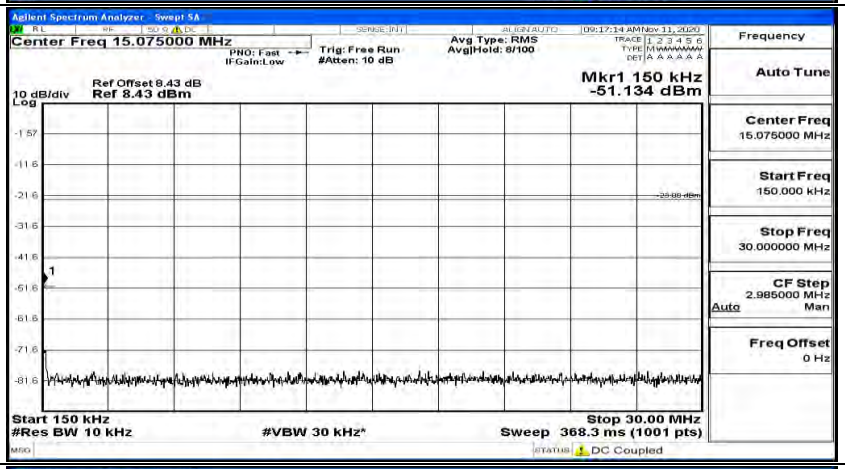


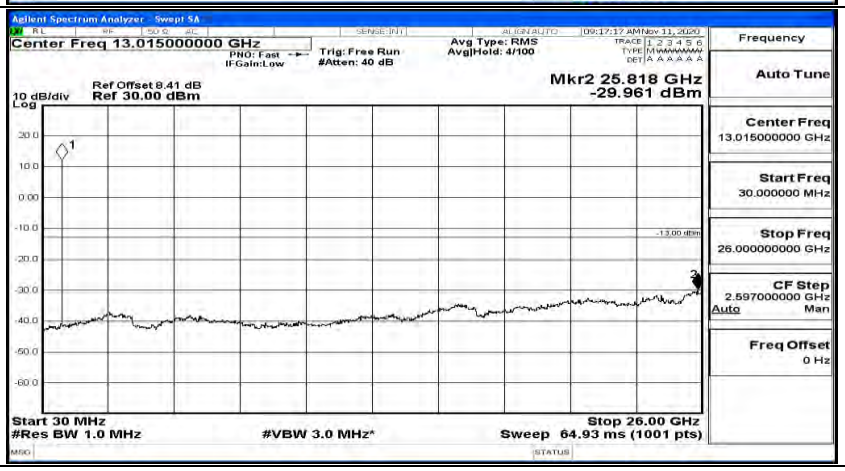




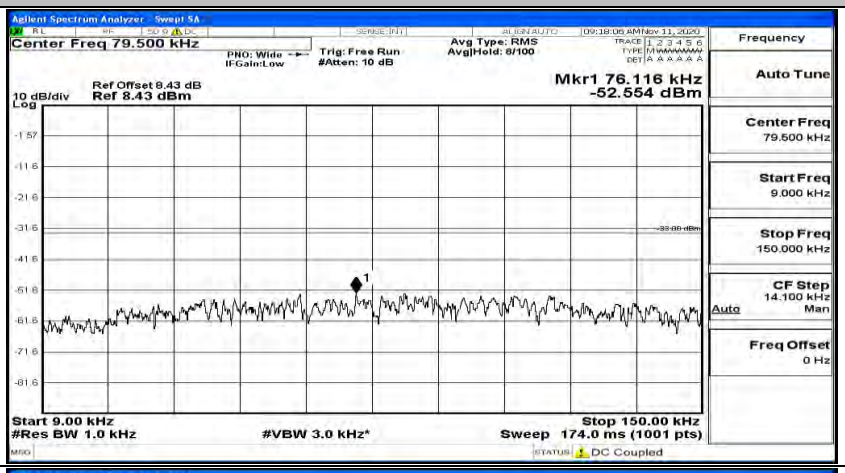
(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#14

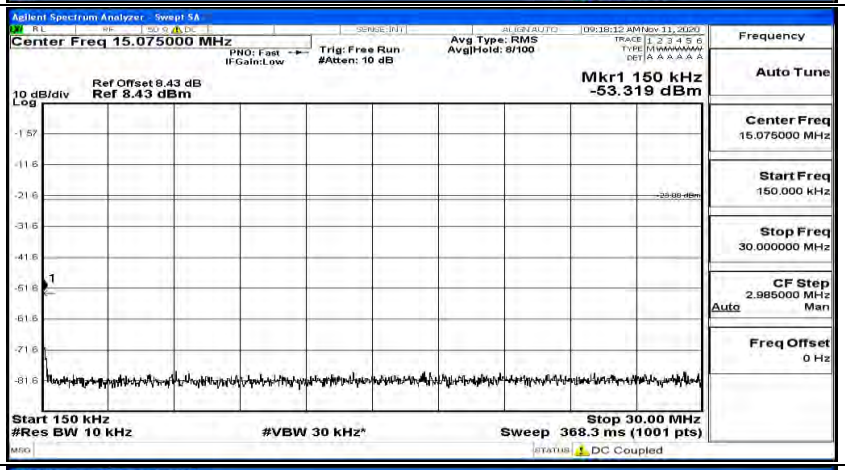


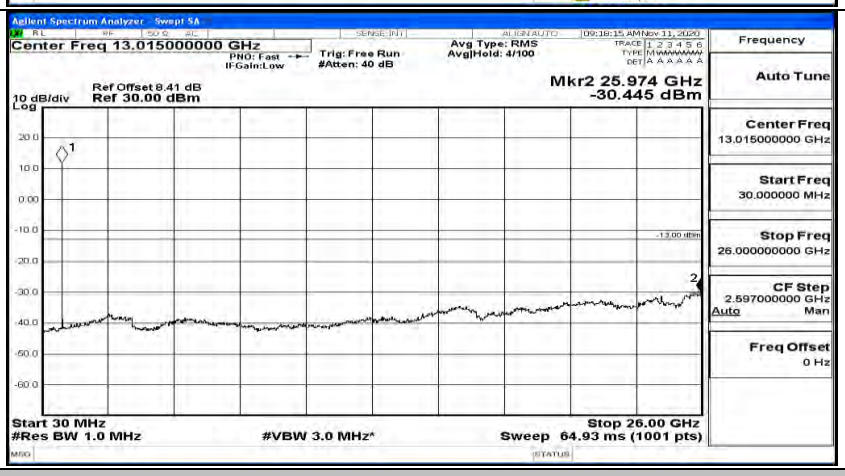




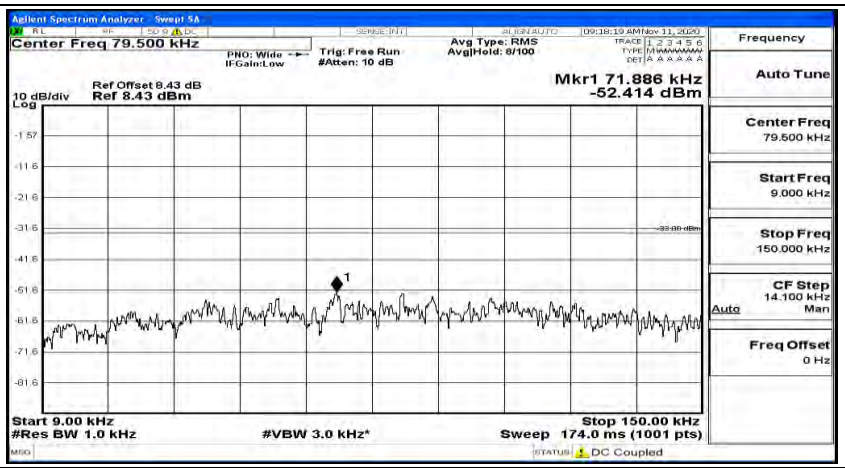
(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#0

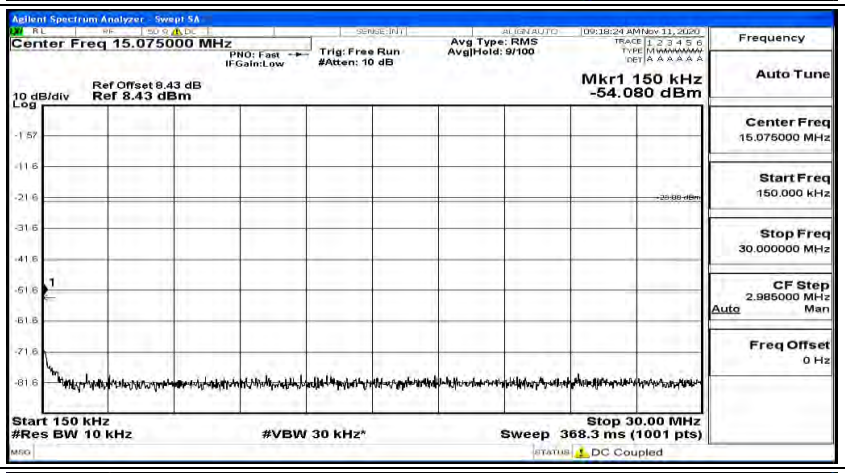


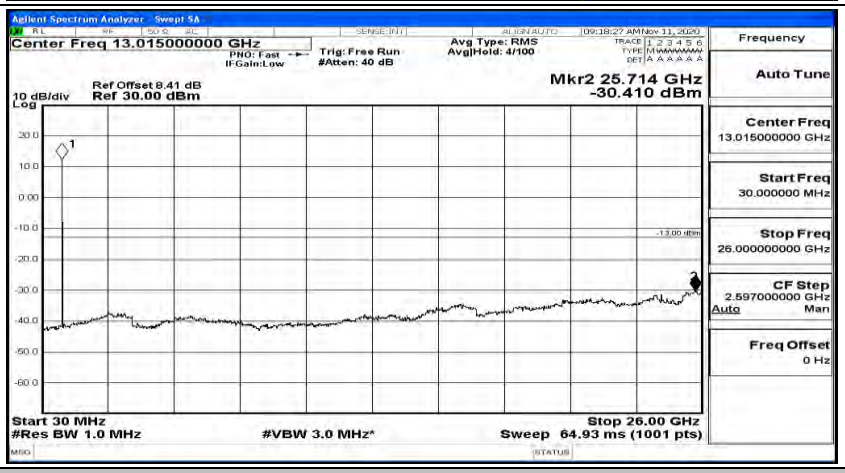
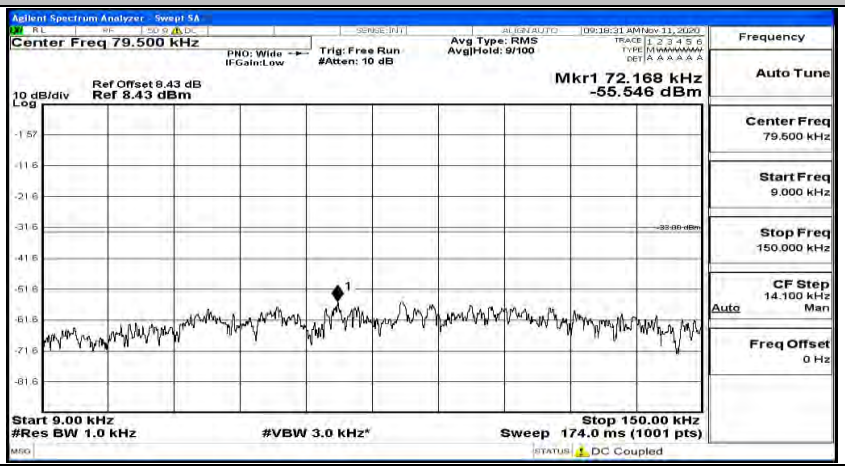




(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#7



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