Appendix H: Test Data for E-UTRA Band 12

Product Name: 3G/4G Smart Phone

Trade Mark: DOOGEE

Test Model: S59Pro

Environmental Conditions

Temperature:	22.9° C
Relative Humidity:	53.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Li Huan

H.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	22.63	21.80	PASS
		1	3	22.79	21.91	PASS
		1	5	22.73	21.77	PASS
		3	0	22.71	21.60	PASS
		3	2	22.73	21.60	PASS
		3	3	22.85	21.58	PASS
		6	0	21.76	20.61	PASS
	MCH	1	0	22.49	21.36	PASS
		1	3	22.57	21.55	PASS
		1	5	22.44	21.33	PASS
		3	0	22.51	21.34	PASS
		3	2	22.52	21.33	PASS
		3	3	22.52	21.25	PASS
		6	0	21.50	20.49	PASS
	HCH	1	0	22.22	21.26	PASS
		1	3	22.34	21.42	PASS
		1	5	22.25	21.29	PASS
		3	0	22.26	21.10	PASS
		3	2	22.26	21.10	PASS
		3	3	22.31	21.09	PASS
		6	0	21.31	20.31	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	22.71	21.85	PASS
		1	7	22.73	21.82	PASS
		1	14	22.66	21.81	PASS
		8	0	21.75	20.76	PASS
		8	4	21.76	20.77	PASS
		8	7	21.76	20.76	PASS
		15	0	21.72	20.69	PASS
	MCH	1	0	22.55	21.66	PASS
		1	7	22.54	21.61	PASS
		1	14	22.43	21.52	PASS
		8	0	21.55	20.54	PASS
		8	4	21.54	20.53	PASS
		8	7	21.50	20.49	PASS
		15	0	21.50	20.39	PASS
	HCH	1	0	22.33	21.17	PASS
		1	7	22.31	21.22	PASS
		1	14	22.30	21.20	PASS
		8	0	21.39	20.35	PASS
		8	4	21.38	20.35	PASS
		8	7	21.31	20.22	PASS
		15	0	21.27	20.16	PASS

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	22.62	21.58	PASS
		1	12	22.77	21.74	PASS
		1	24	22.57	21.53	PASS
		12	0	21.70	20.64	PASS
		12	6	21.71	20.63	PASS
		12	13	21.64	20.60	PASS
		25	0	21.67	20.63	PASS
	MCH	1	0	22.52	21.70	PASS
		1	12	22.60	21.76	PASS
		1	24	22.39	21.54	PASS
		12	0	21.56	20.54	PASS
		12	6	21.55	20.55	PASS
		12	13	21.52	20.49	PASS
		25	0	21.51	20.48	PASS
	HCH	1	0	22.28	21.26	PASS
		1	12	22.43	21.37	PASS
		1	24	22.25	21.21	PASS
		12	0	21.35	20.27	PASS
		12	6	21.34	20.30	PASS
		12	13	21.08	20.06	PASS
		25	0	21.24	20.19	PASS

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	22.62	21.79	PASS
		1	24	22.70	21.81	PASS
		1	49	22.43	21.52	PASS
		25	0	21.70	20.69	PASS
		25	12	21.74	20.66	PASS
		25	25	21.59	20.52	PASS
		50	0	21.64	20.59	PASS
	MCH	1	0	22.59	21.71	PASS
		1	24	22.59	21.80	PASS
		1	49	22.31	21.40	PASS
		25	0	21.69	20.67	PASS
		25	12	21.65	20.66	PASS
		25	25	21.61	20.61	PASS
		50	0	21.62	20.57	PASS
	HCH	1	0	22.51	21.37	PASS
		1	24	22.47	21.36	PASS
		1	49	22.27	21.15	PASS
		25	0	21.31	20.30	PASS
		25	12	21.32	20.29	PASS
		25	25	21.13	20.14	PASS
		50	0	21.21	20.15	PASS

H.2 Peak-to-Average Ratio

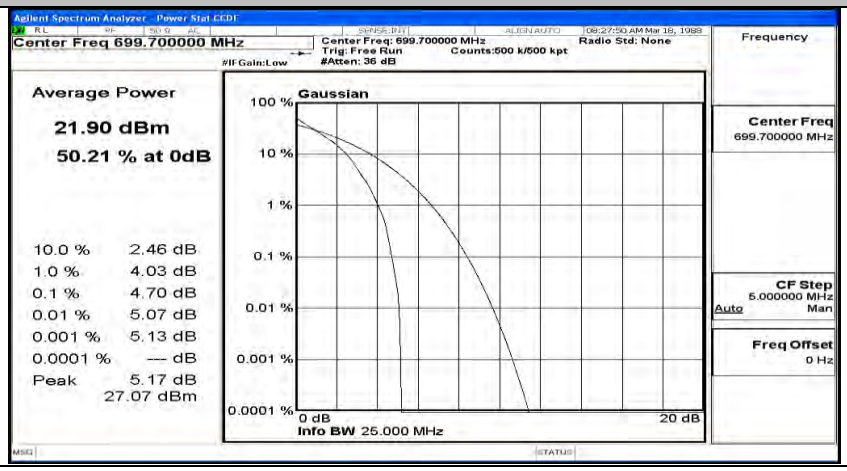
Peak-to Average Ratio Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.7	<13	PASS
	MCH	4.99	<13	PASS
	HCH	4.46	<13	PASS
16QAM	LCH	5.73	<13	PASS
	MCH	5.74	<13	PASS
	HCH	5.31	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.84	<13	PASS
	MCH	4.96	<13	PASS
	HCH	4.45	<13	PASS
16QAM	LCH	5.72	<13	PASS
	MCH	5.85	<13	PASS
	HCH	5.4	<13	PASS

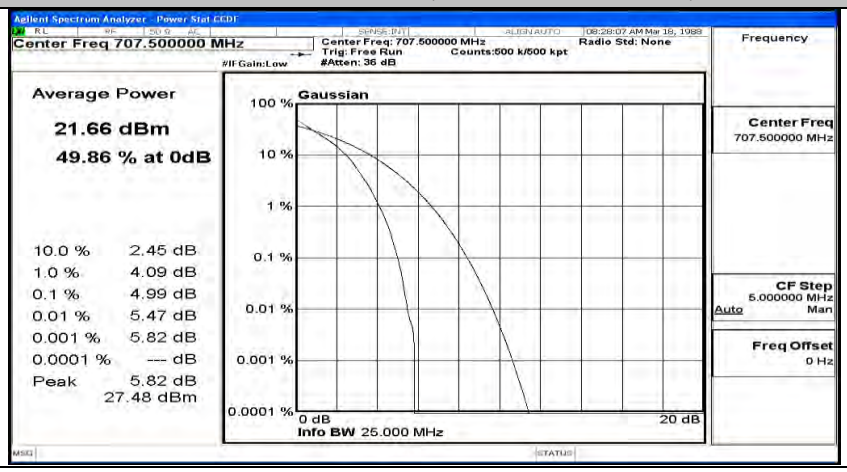
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.85	<13	PASS
	MCH	5.03	<13	PASS
	HCH	4.64	<13	PASS
16QAM	LCH	5.68	<13	PASS
	MCH	5.77	<13	PASS
	HCH	5.49	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.92	<13	PASS
	MCH	4.95	<13	PASS
	HCH	4.78	<13	PASS
16QAM	LCH	5.75	<13	PASS
	MCH	5.8	<13	PASS
	HCH	5.69	<13	PASS

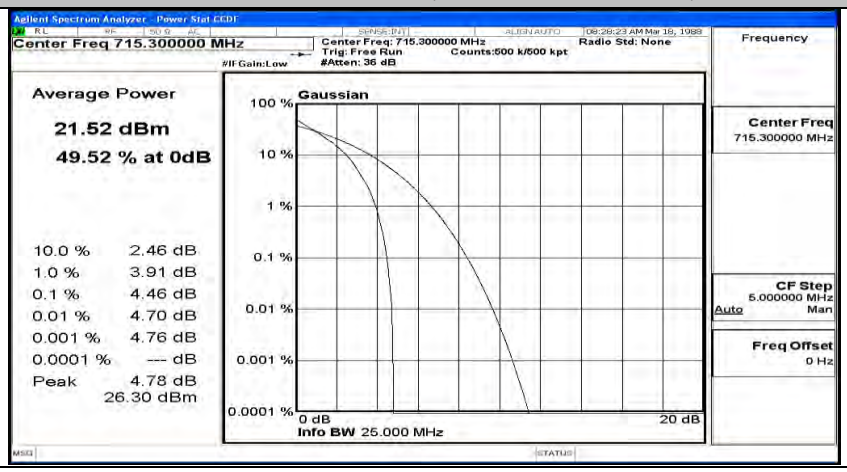
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



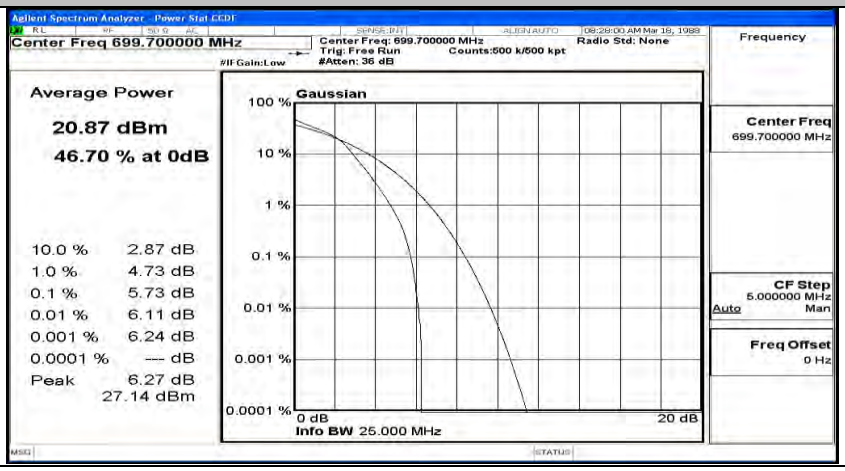
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



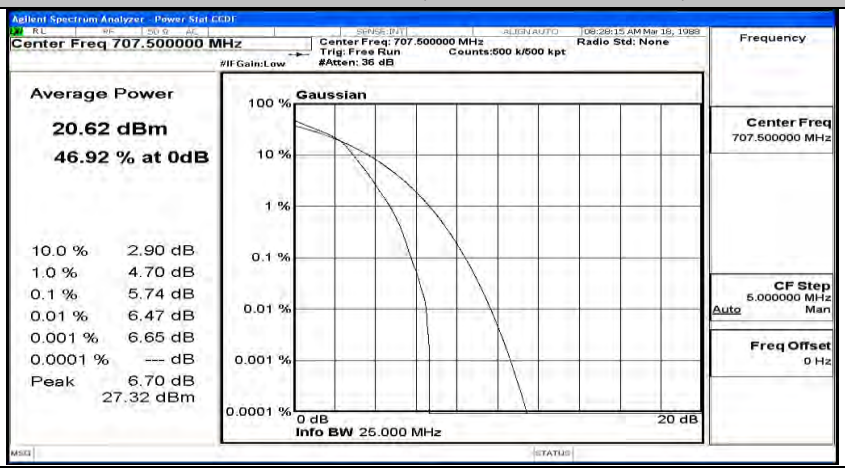
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



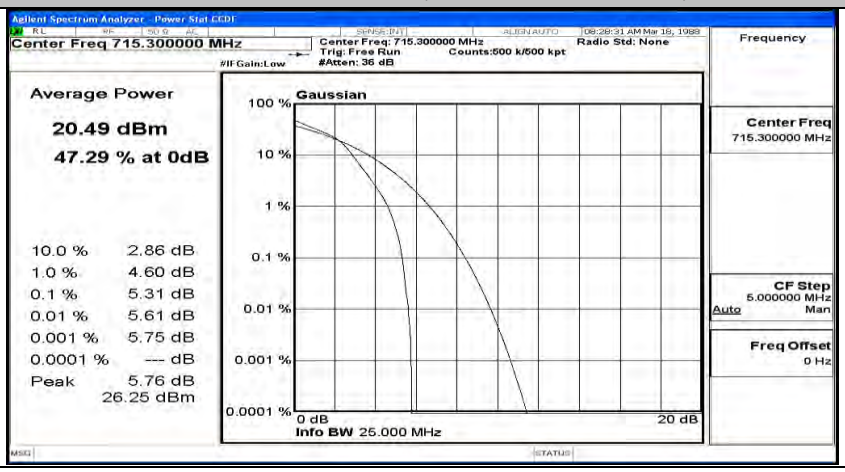
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



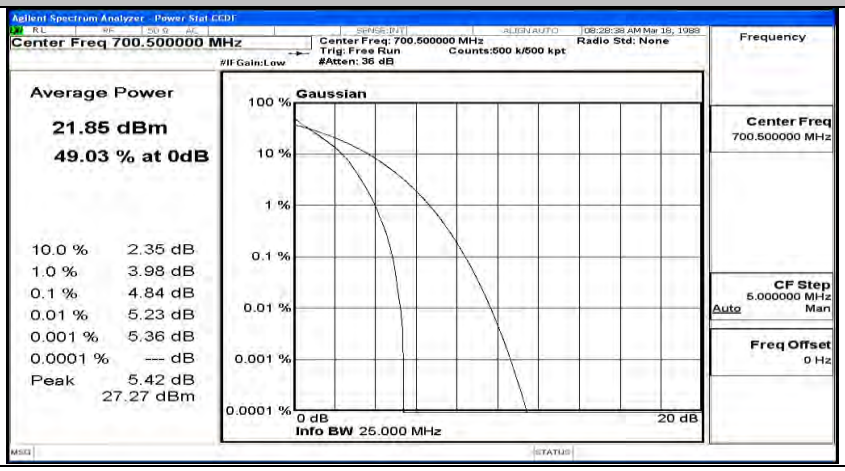
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



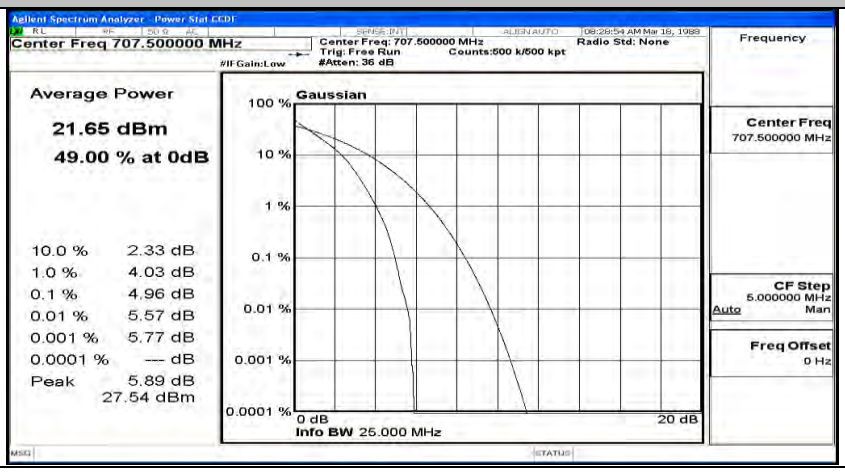
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



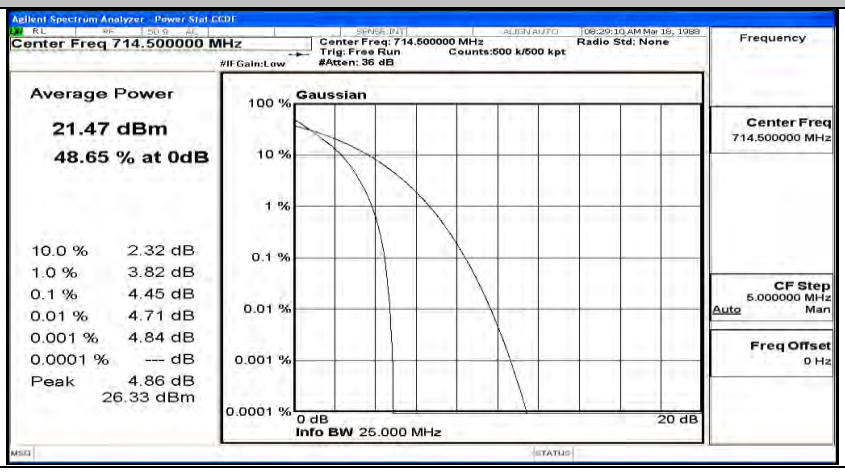
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



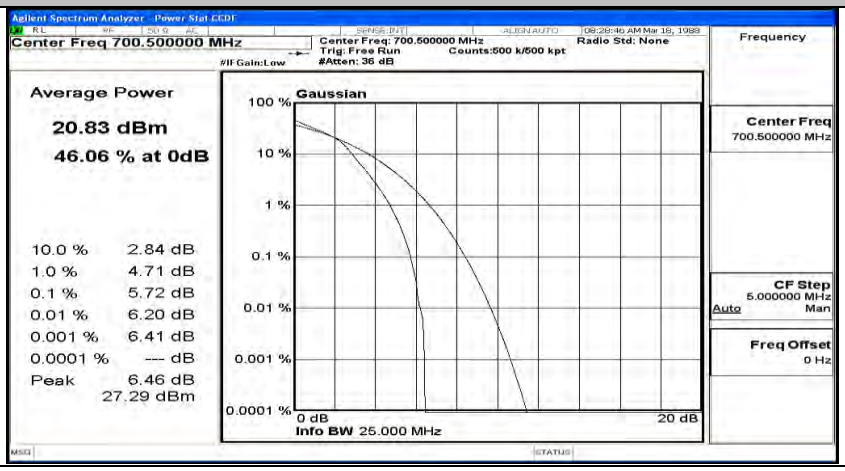
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



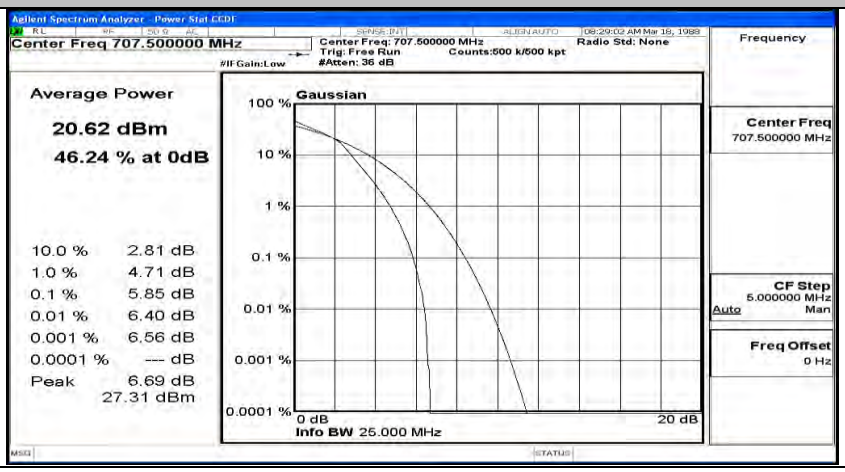
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



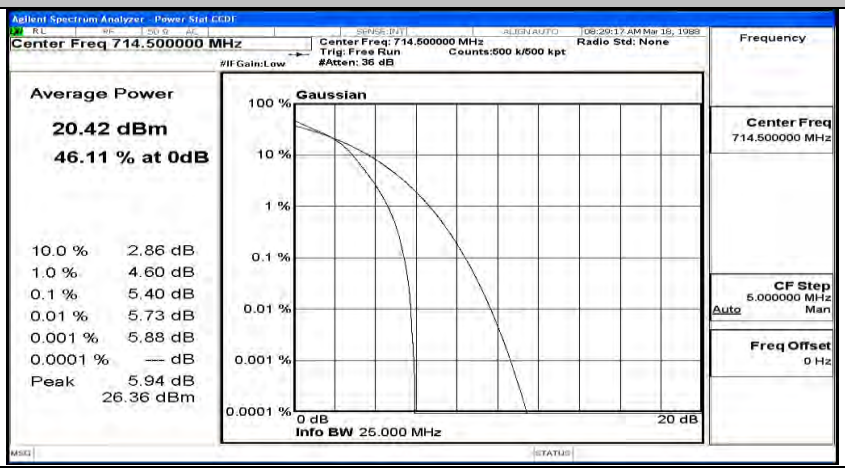
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



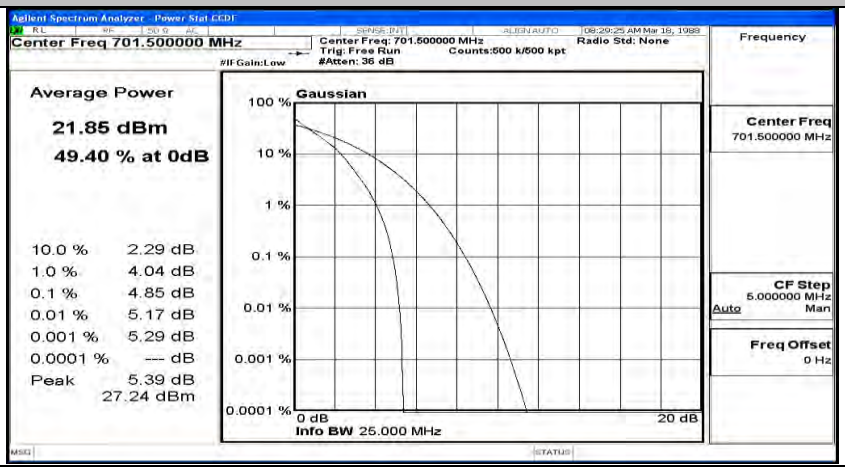
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



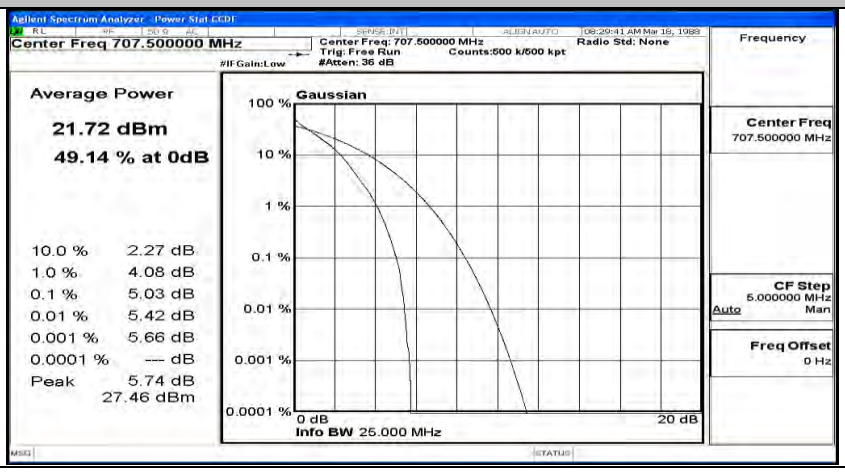
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



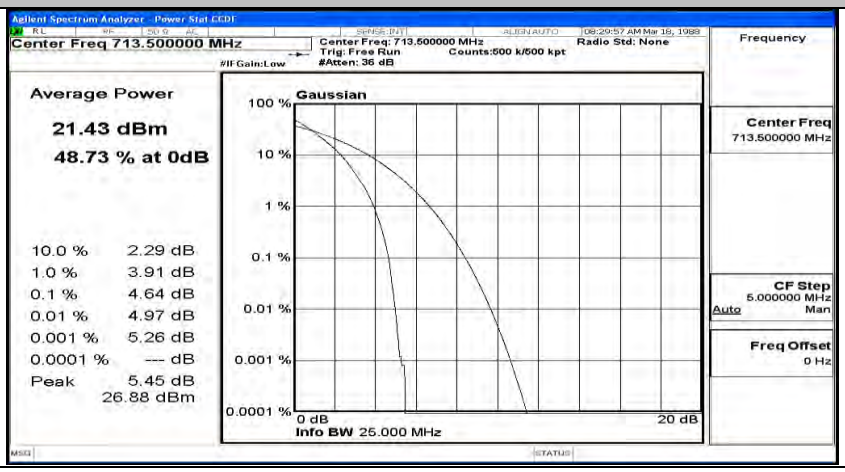
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



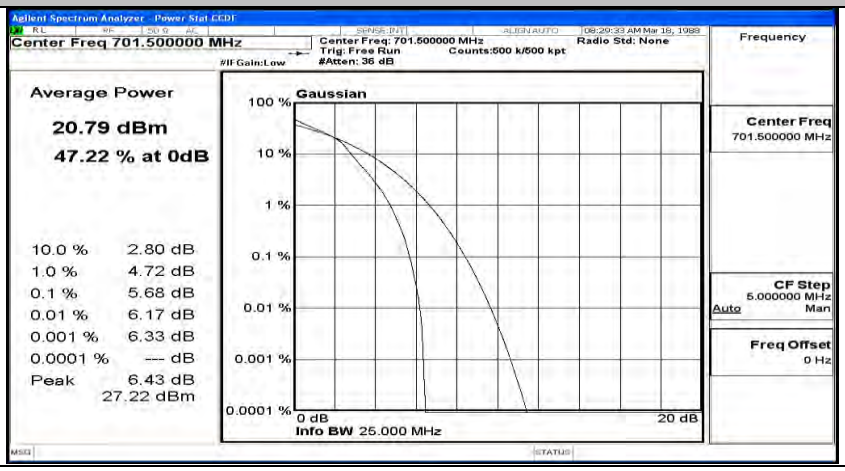
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



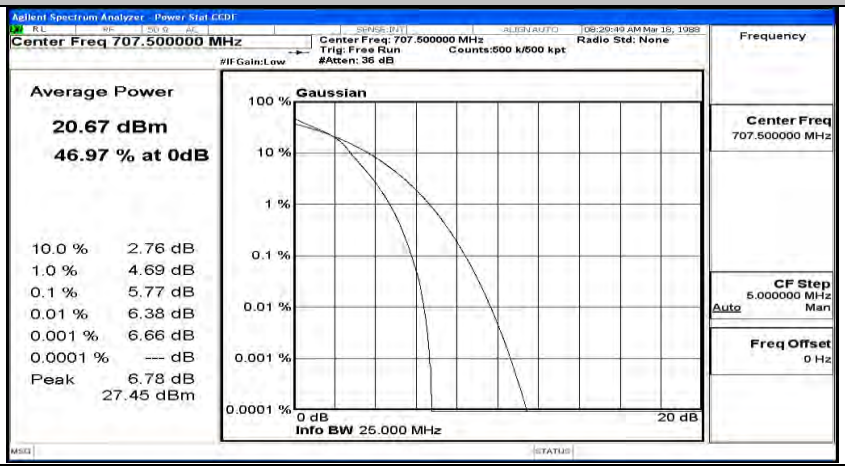
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



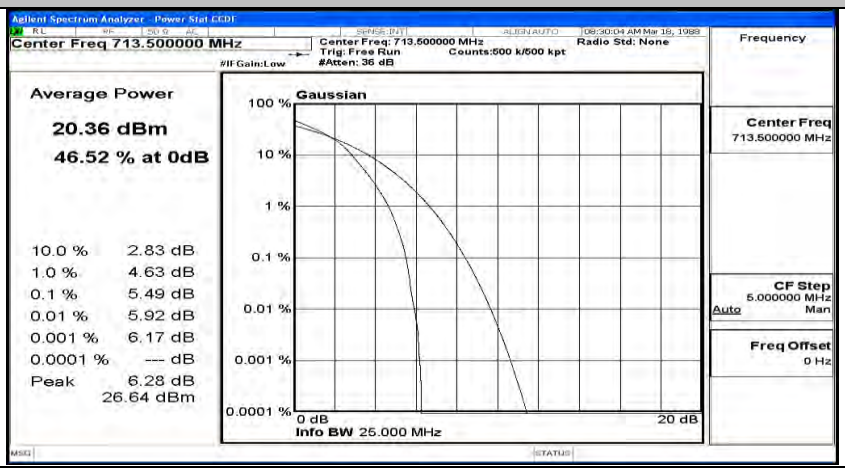
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



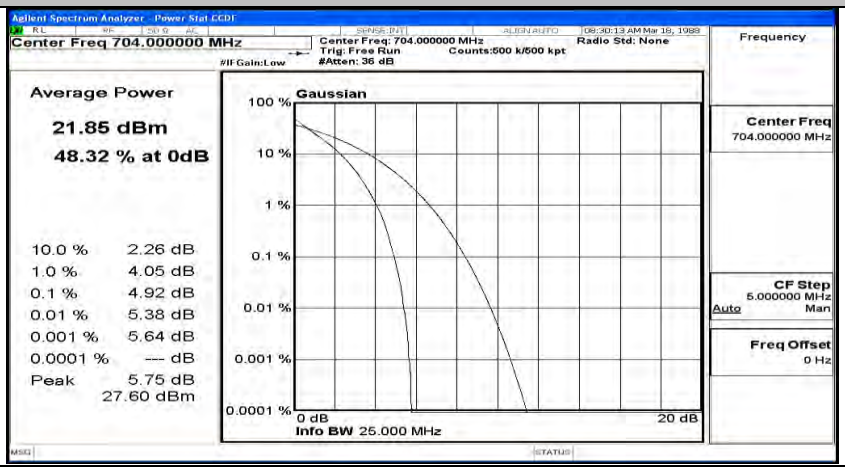
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



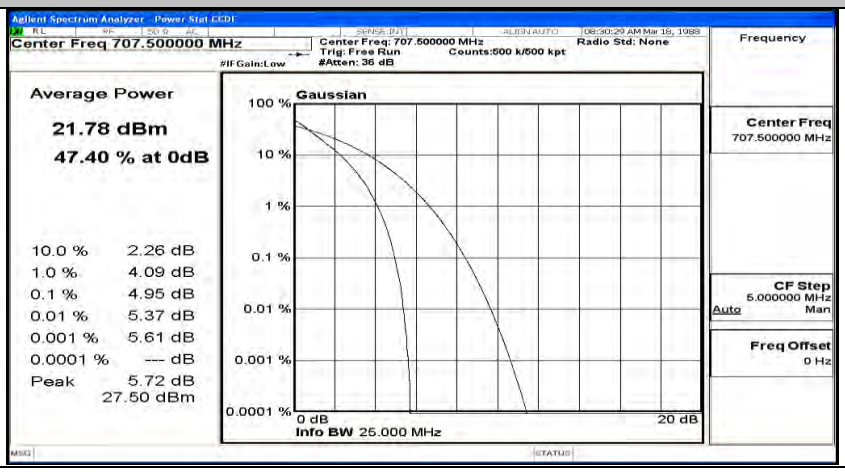
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



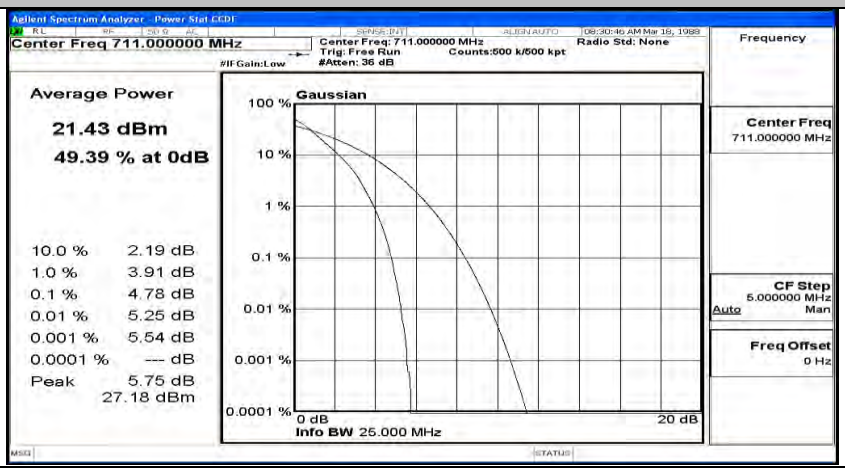
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



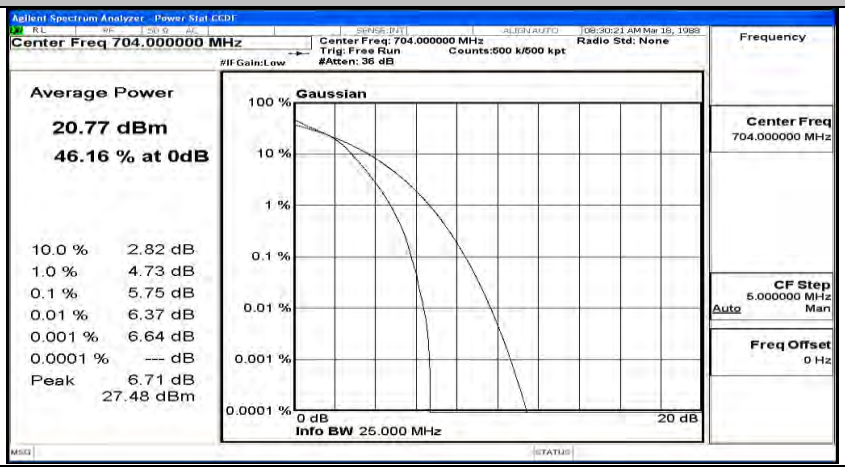
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



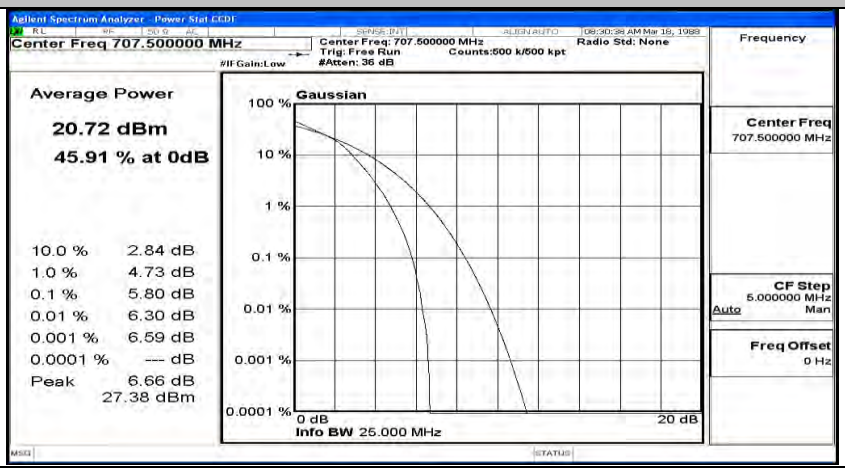
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



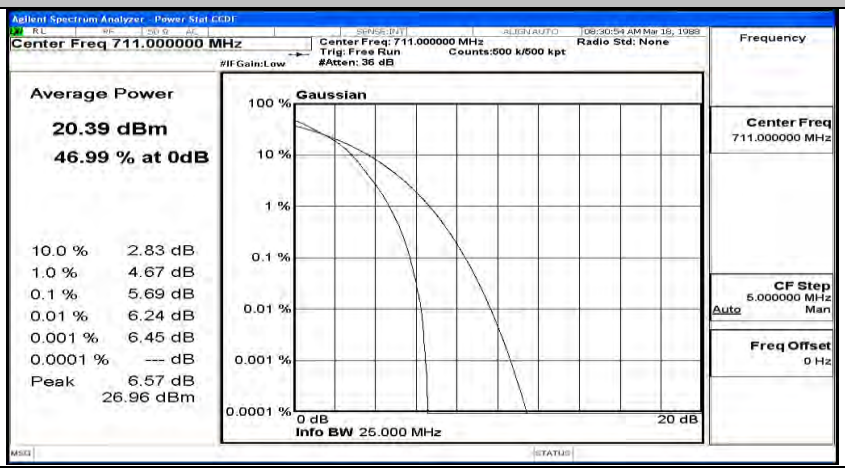
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



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



H.3 26dB Bandwidth and Occupied Bandwidth

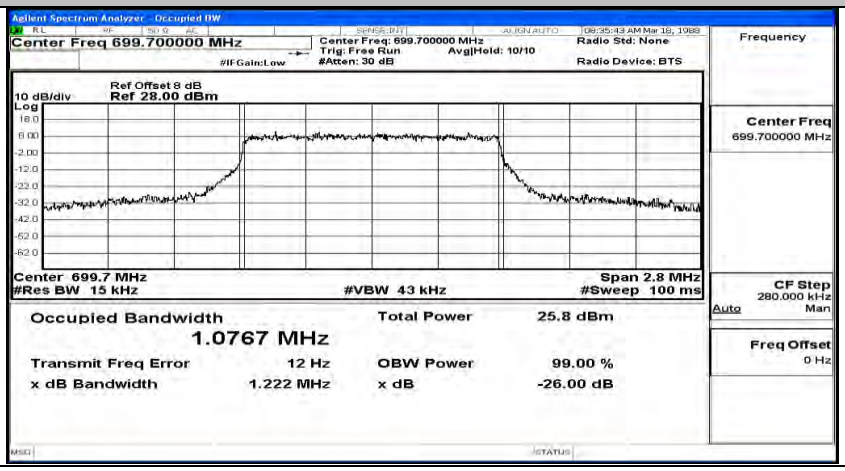
EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	1.0767	1.222	PASS
	MCH	1.0740	1.216	PASS
	HCH	1.0766	1.244	PASS
16QAM	LCH	1.0725	1.189	PASS
	MCH	1.0778	1.247	PASS
	HCH	1.0759	1.228	PASS

EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	2.6819	2.828	PASS
	MCH	2.6836	2.834	PASS
	HCH	2.6774	2.837	PASS
16QAM	LCH	2.6753	2.828	PASS
	MCH	2.6786	2.820	PASS
	HCH	2.6774	2.832	PASS

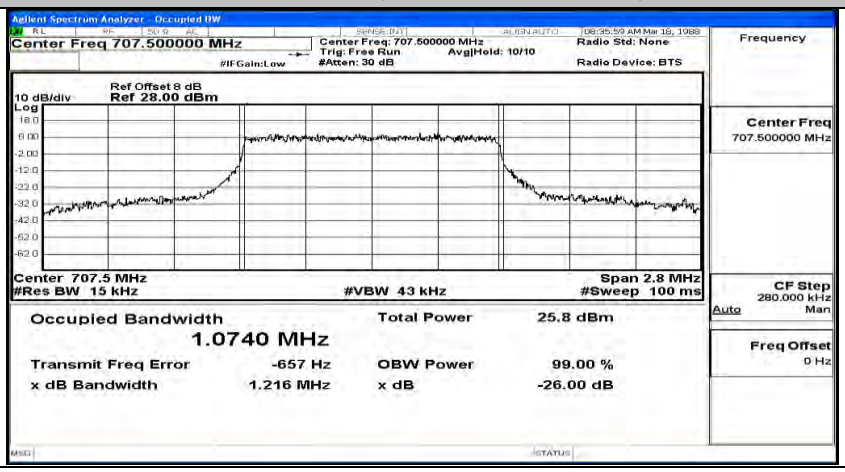
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4667	4.894	PASS
	MCH	4.4779	4.923	PASS
	HCH	4.4802	4.804	PASS
16QAM	LCH	4.4804	4.877	PASS
	MCH	4.4841	4.959	PASS
	HCH	4.4666	4.821	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9648	9.624	PASS
	MCH	8.9623	9.603	PASS
	HCH	8.9182	9.448	PASS
16QAM	LCH	8.9358	9.574	PASS
	MCH	8.9575	9.529	PASS
	HCH	8.9170	9.379	PASS

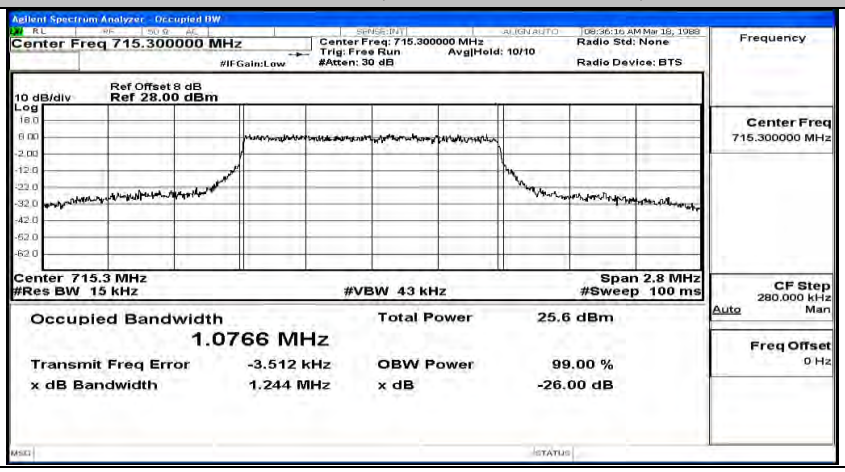
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



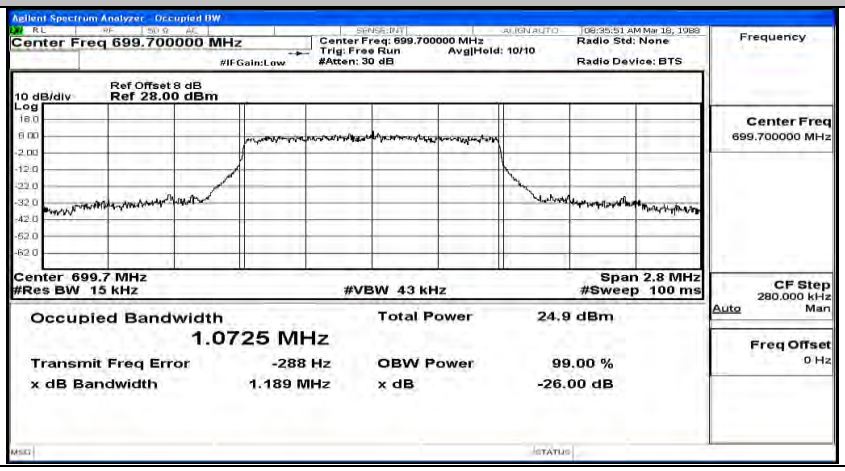
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



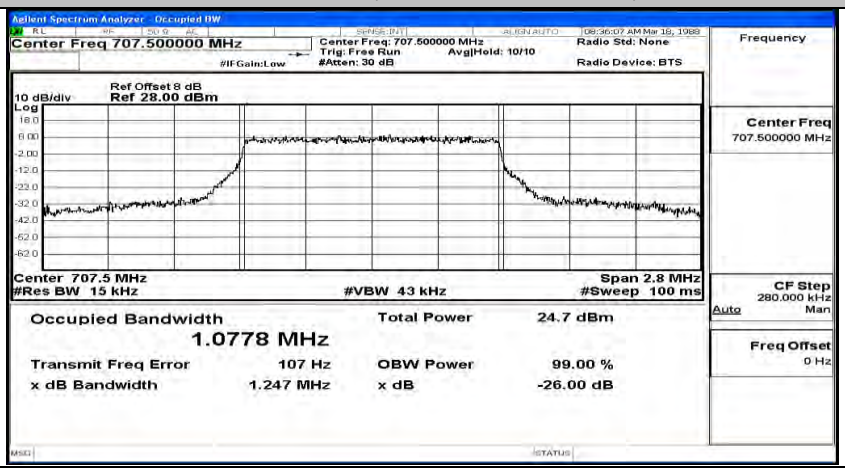
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



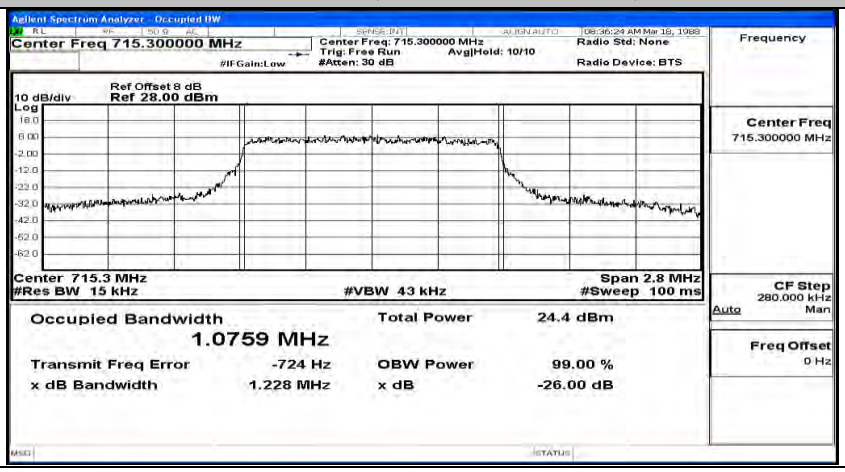
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



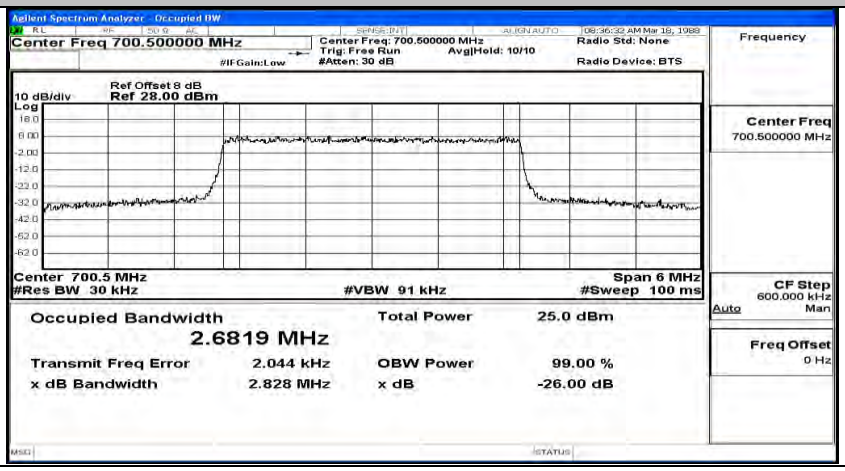
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



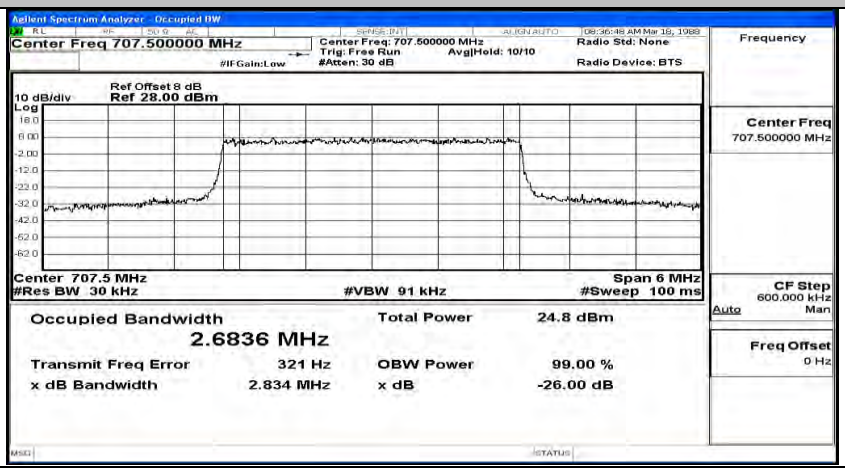
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



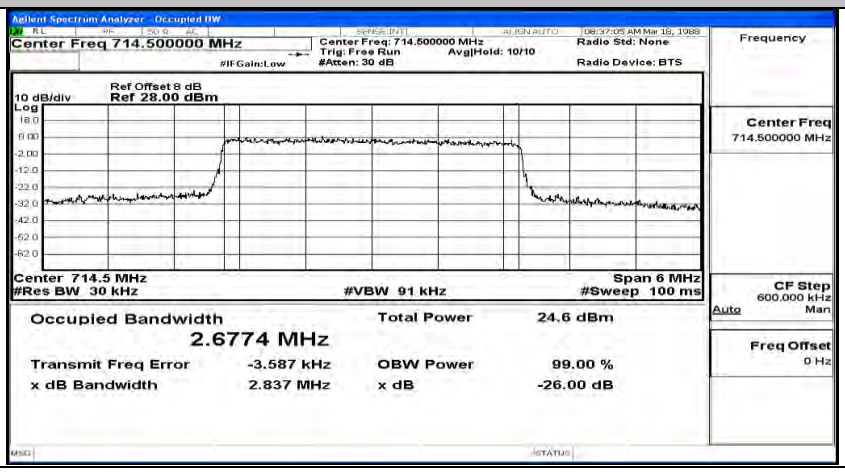
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



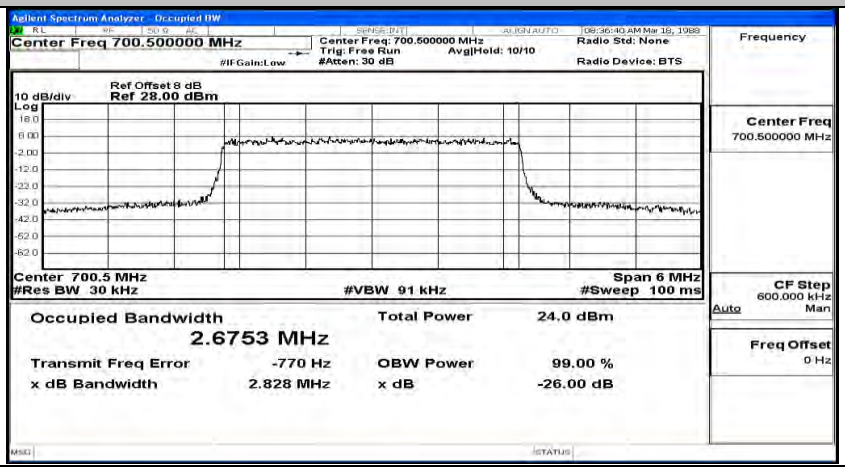
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



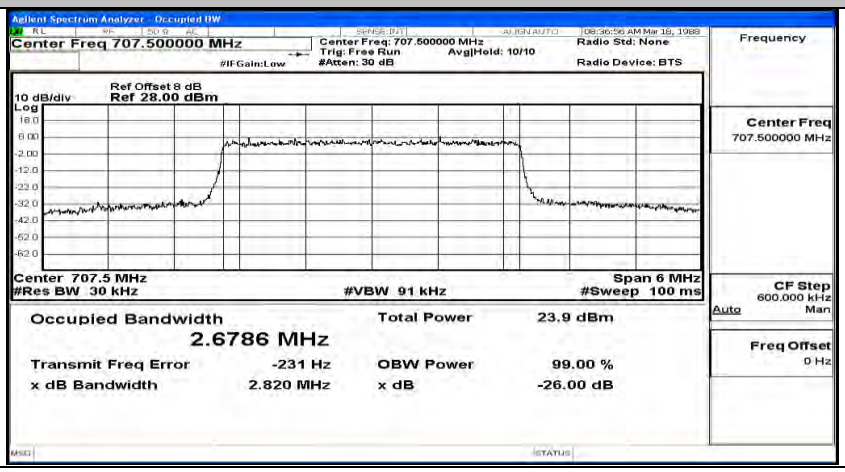
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



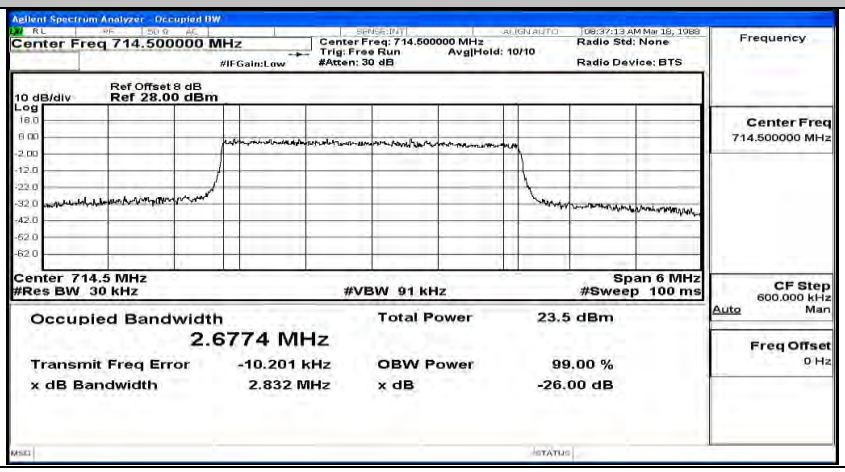
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



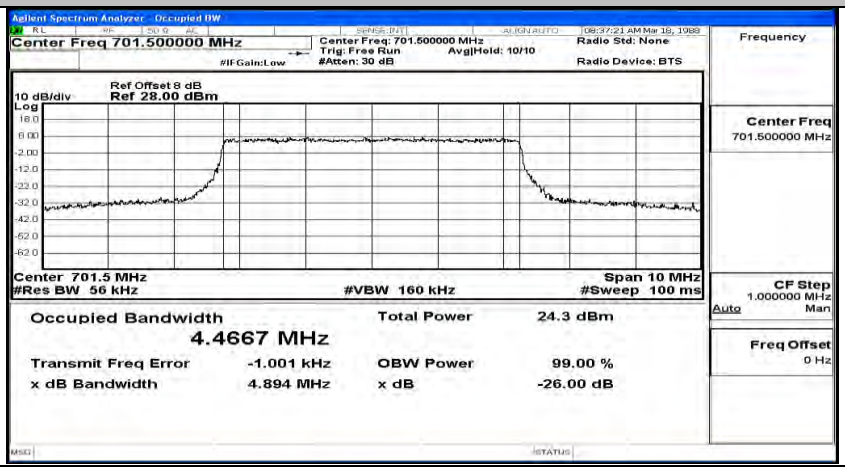
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



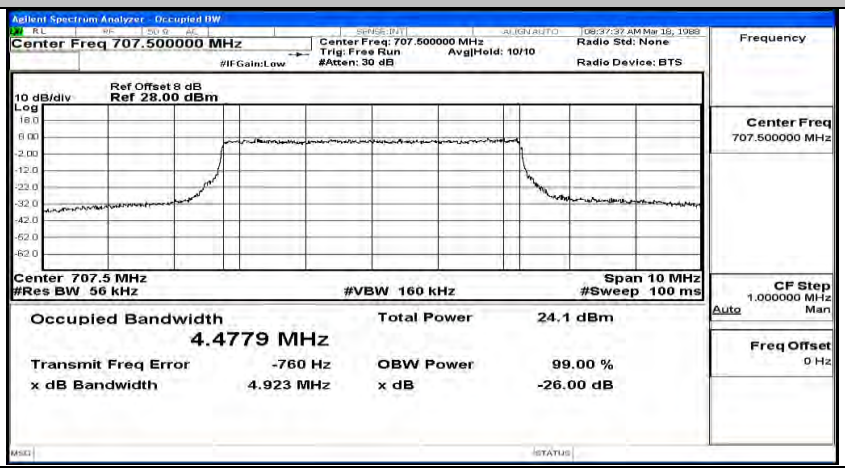
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



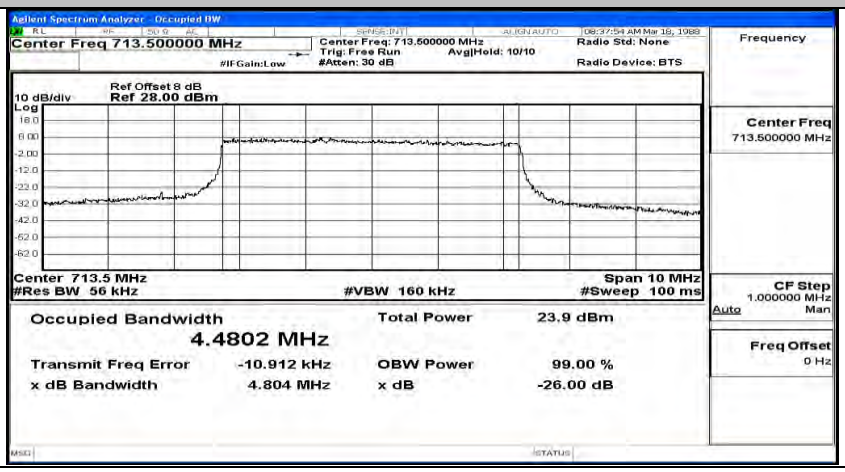
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



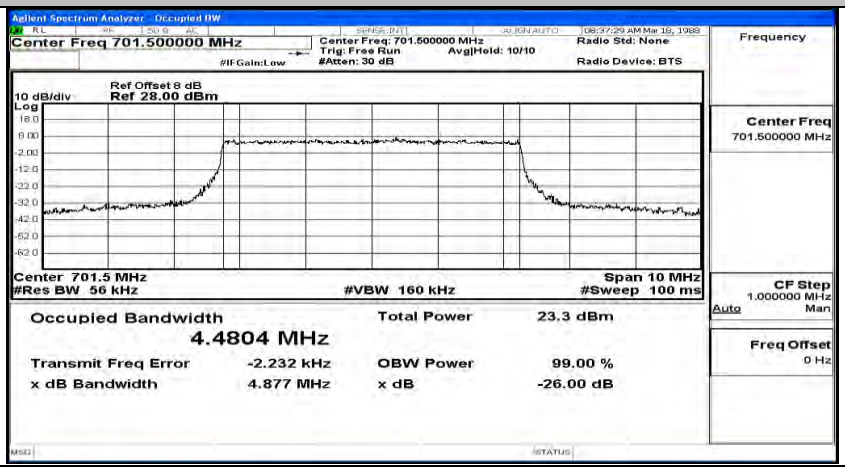
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



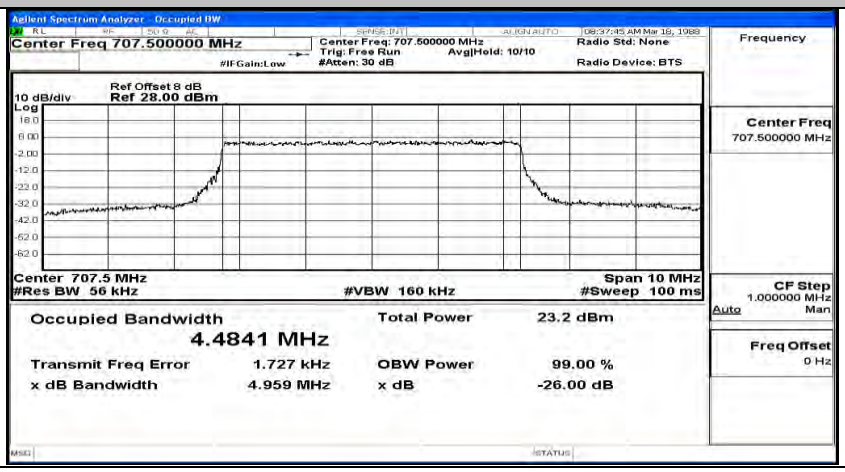
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



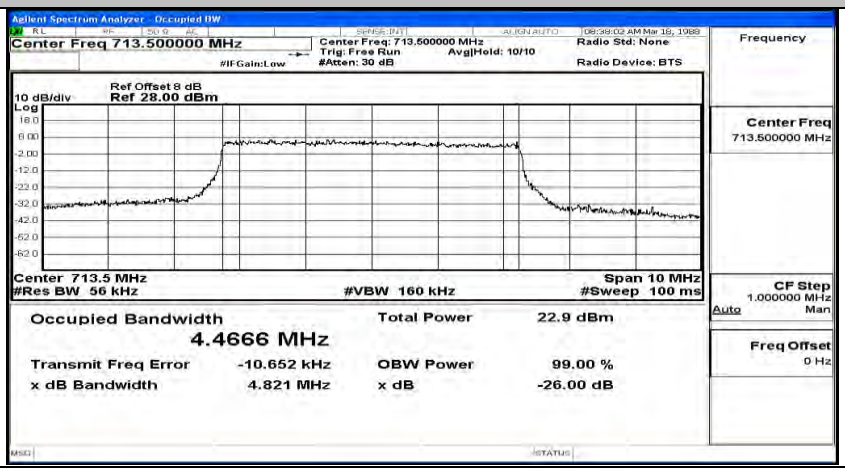
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



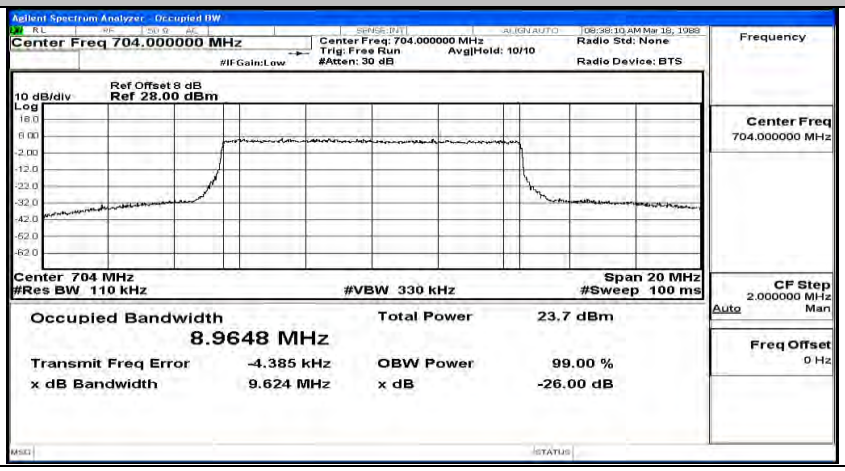
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



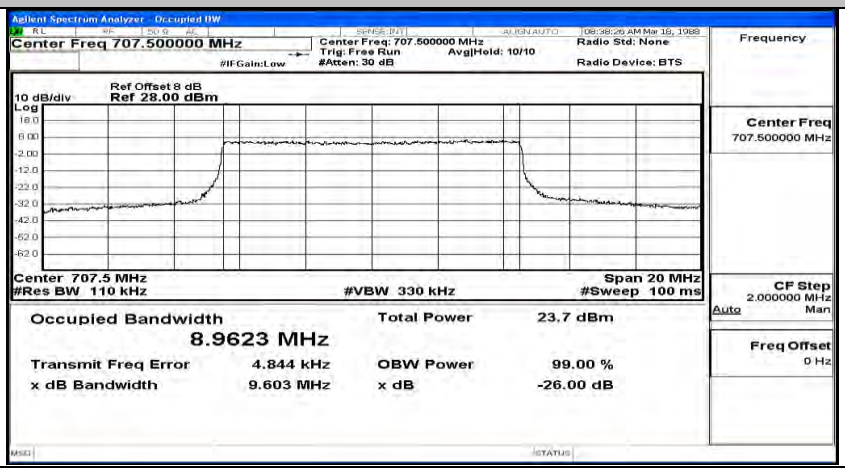
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



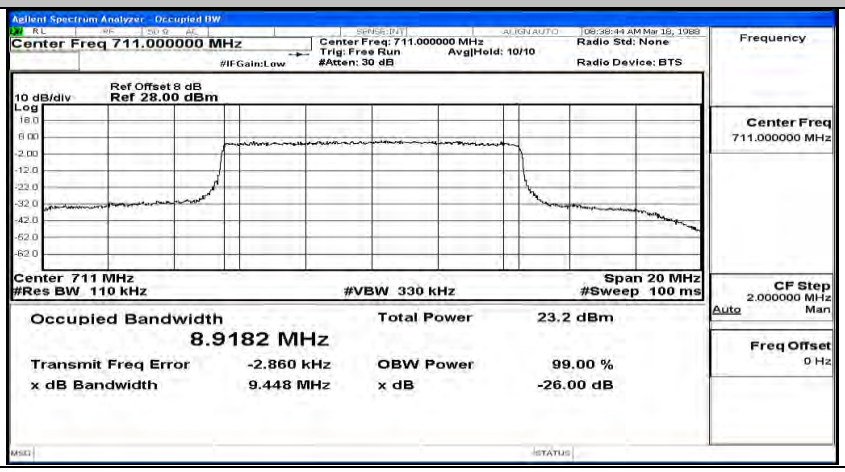
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



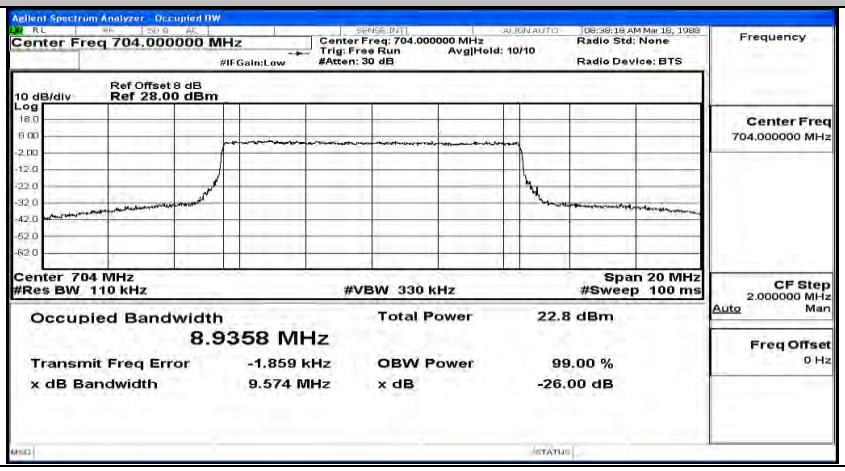
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



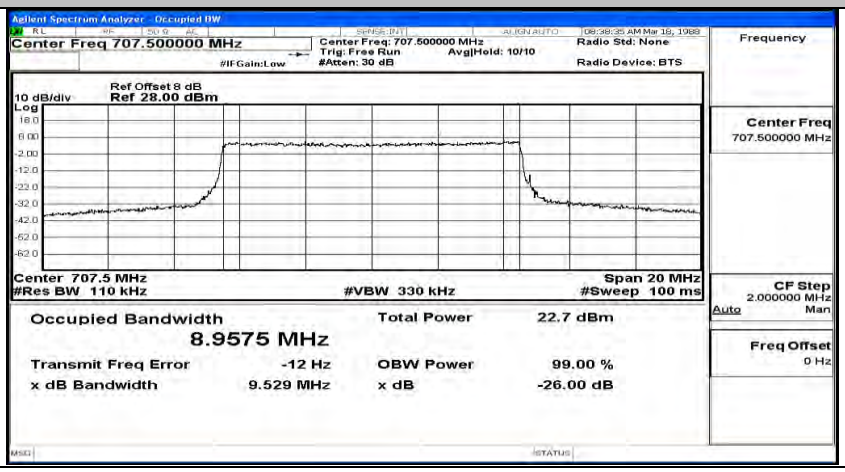
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



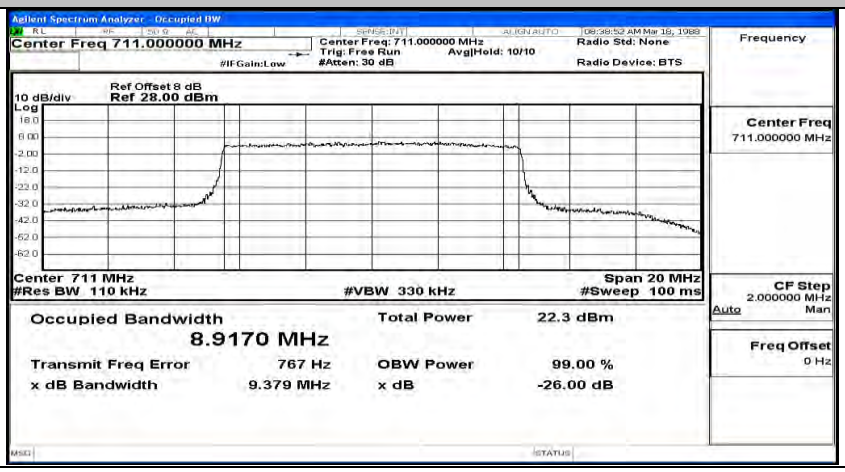
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



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

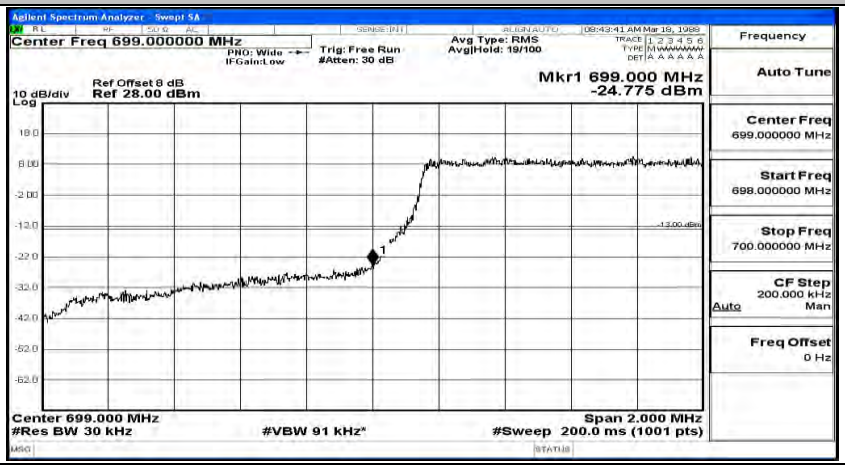


EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM

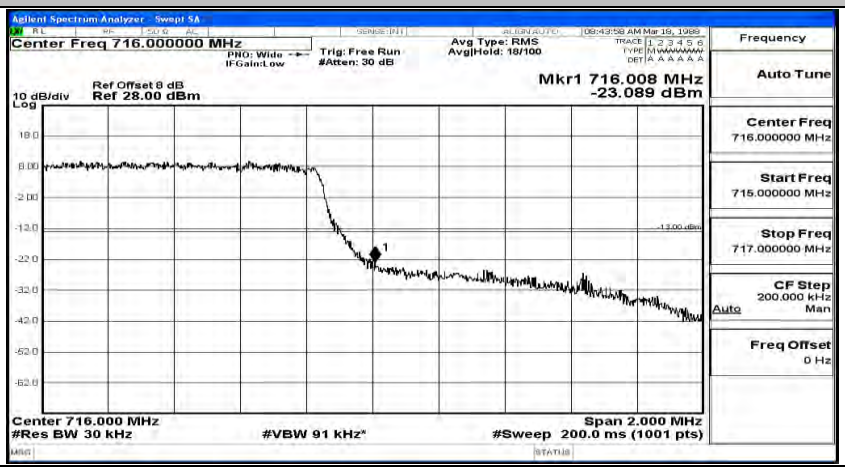


H.4 Band Edge

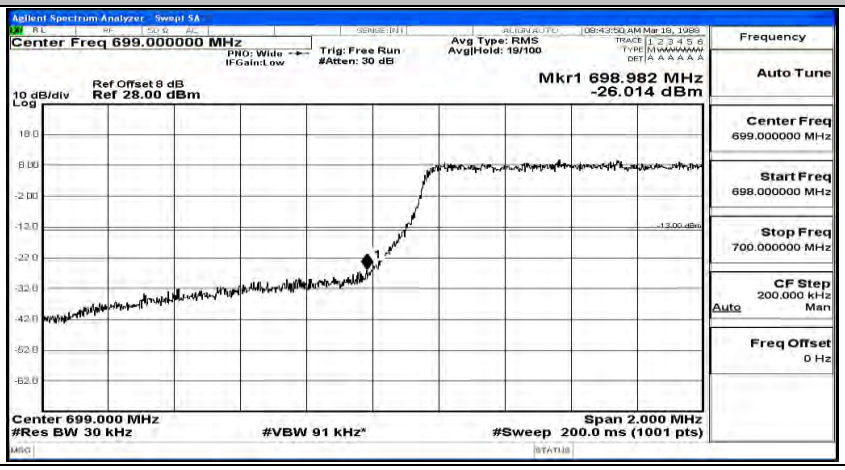
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



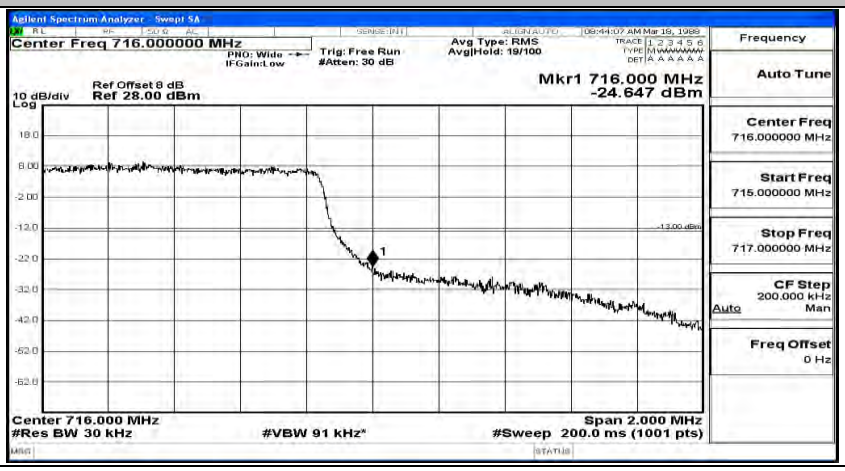
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



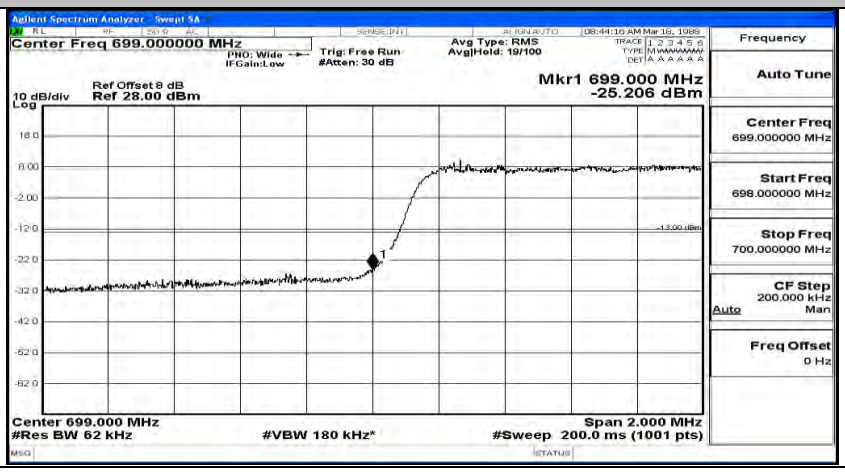
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



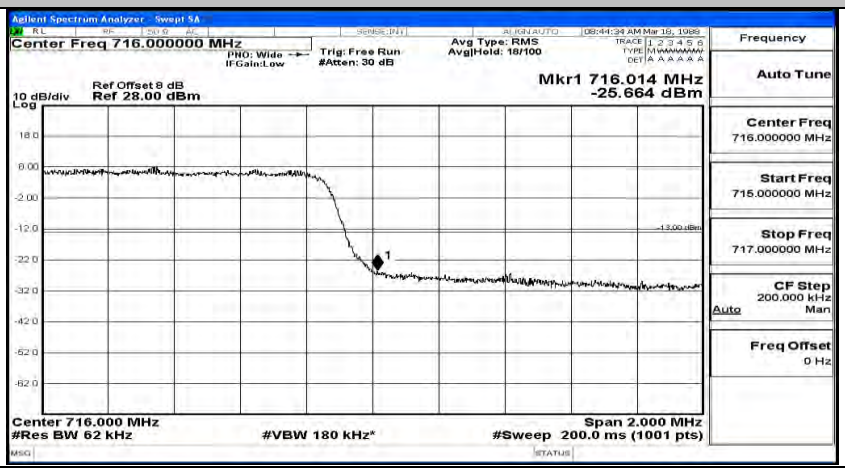
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



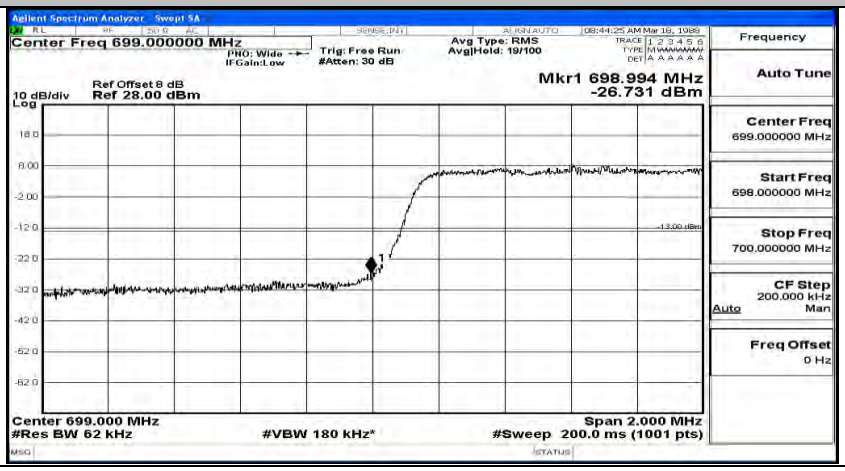
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



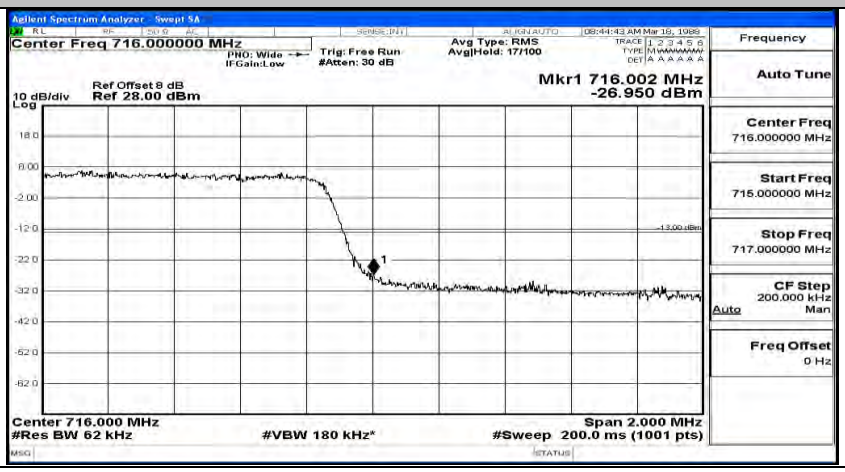
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



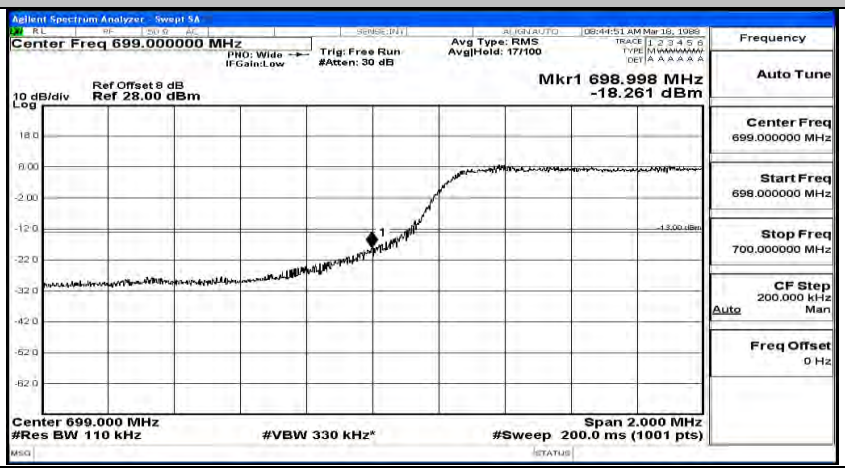
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



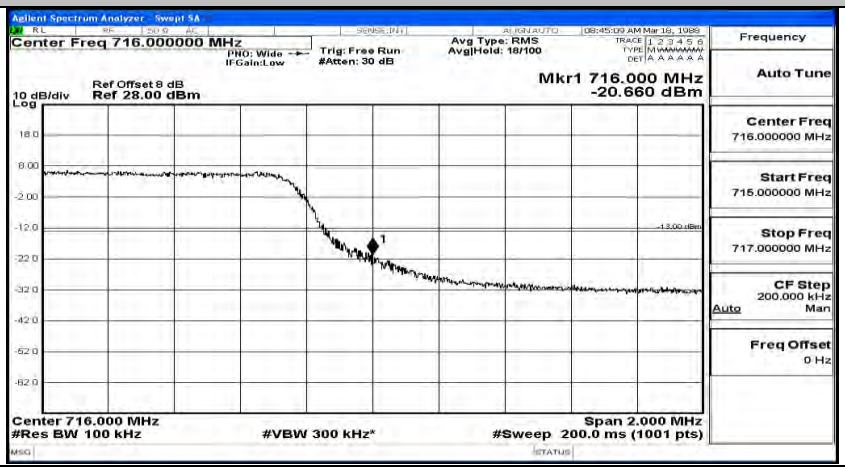
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



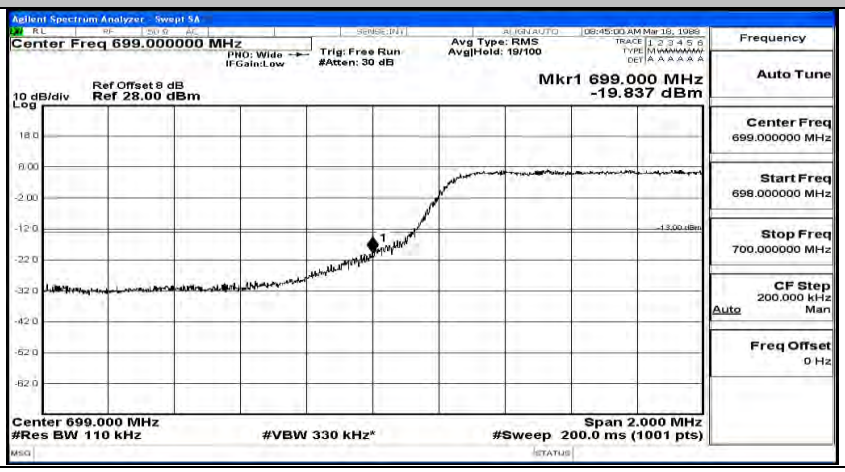
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



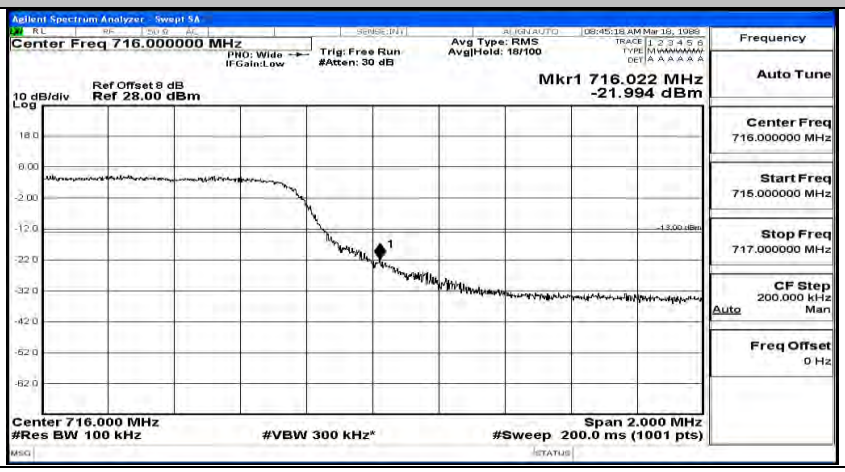
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



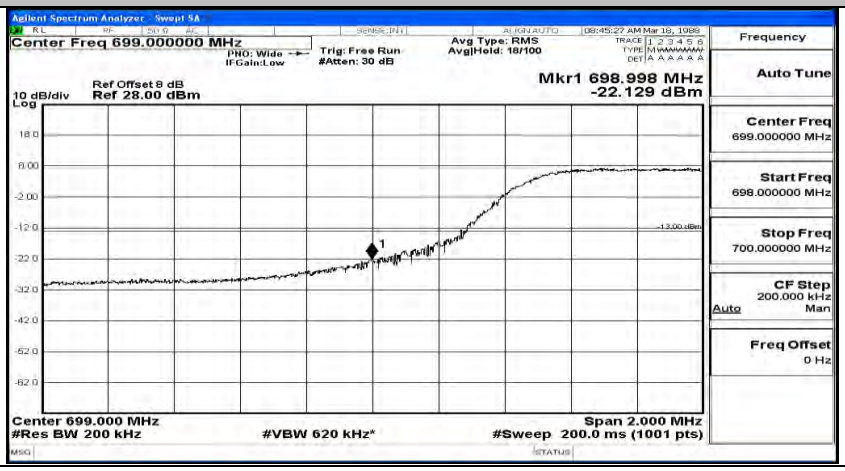
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



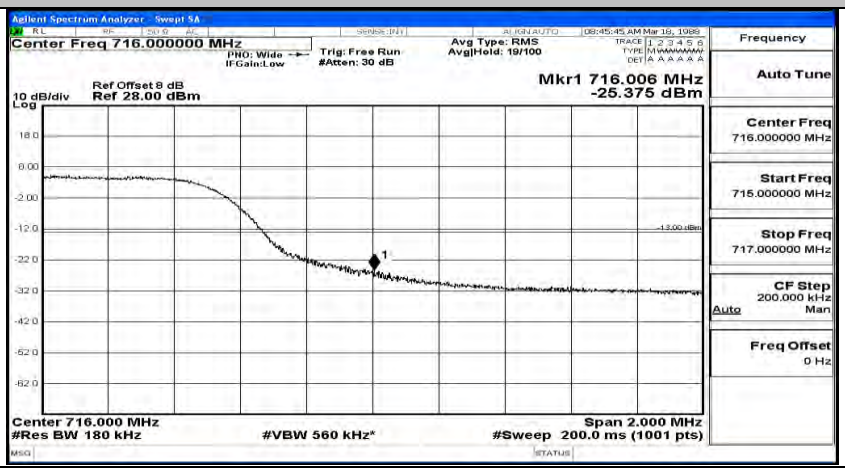
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



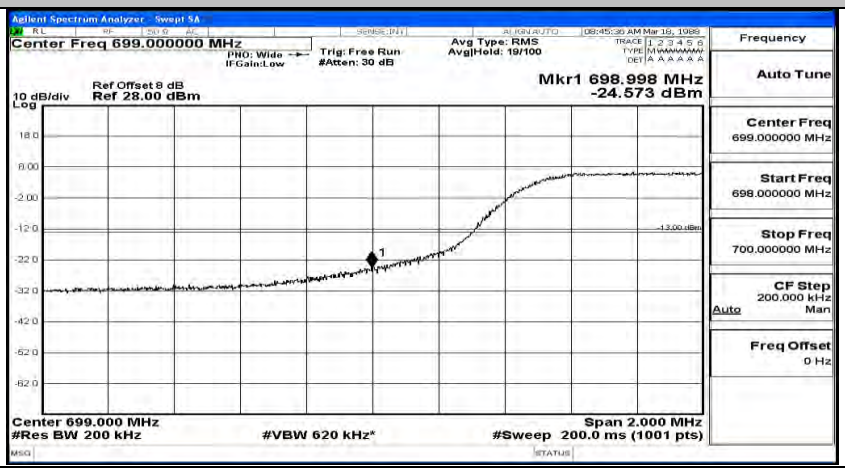
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



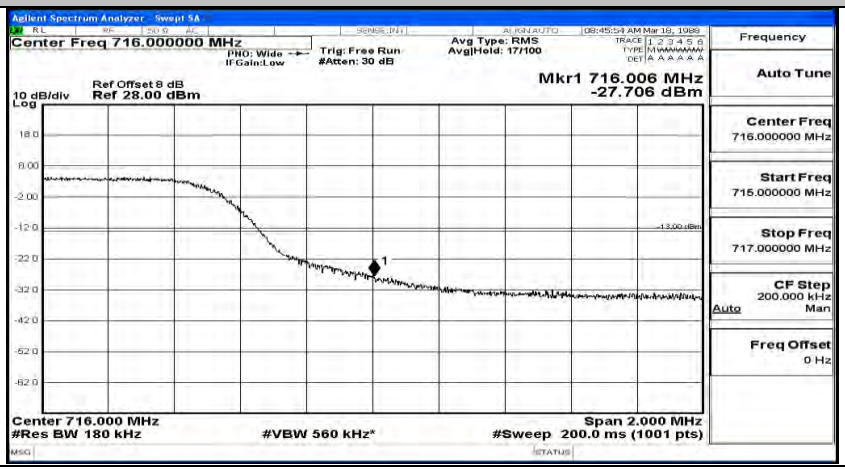
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



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



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



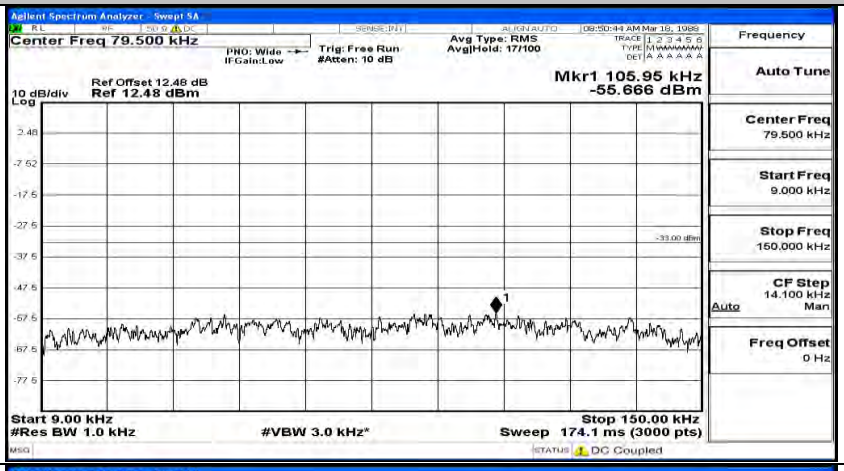
H.5 Conducted Spurious Emission

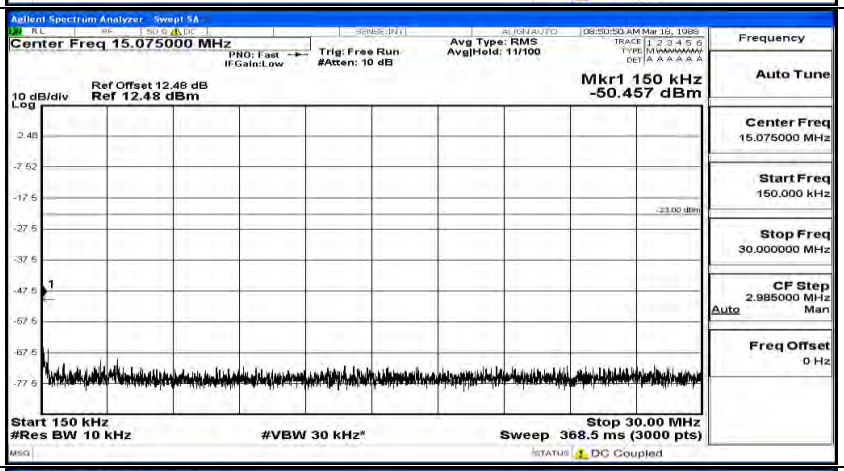
Appendix H: Conducted Spurious Emission

Test Graphs

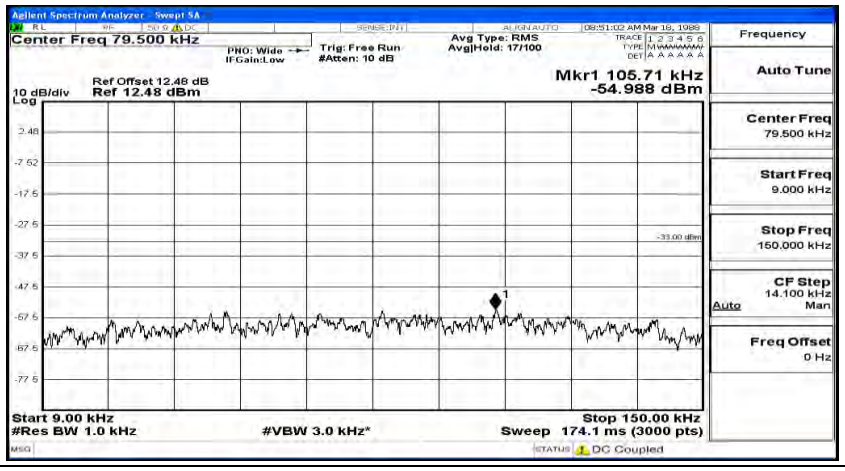
Channel Bandwidth: 1.4 MHz

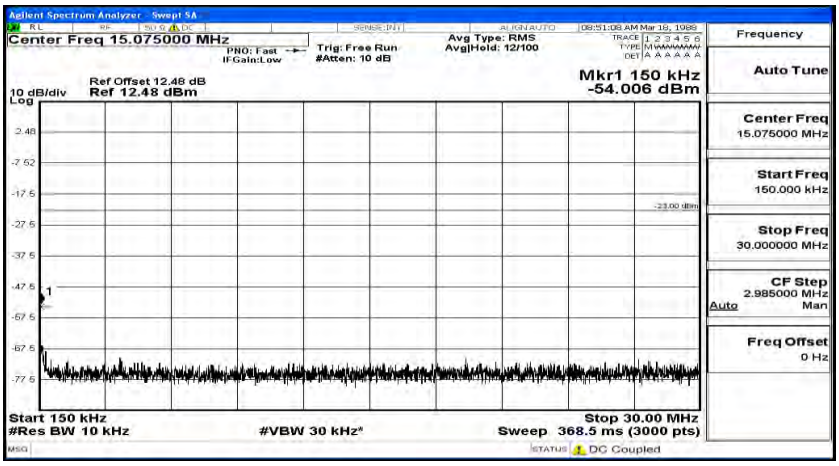
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#0



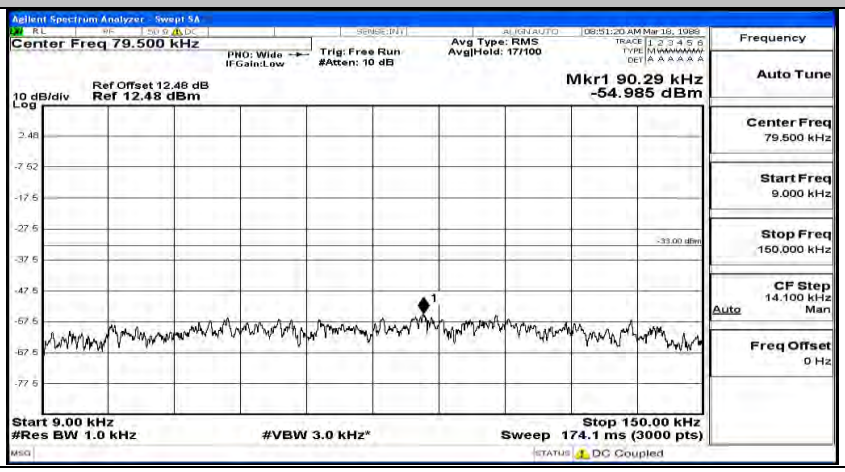


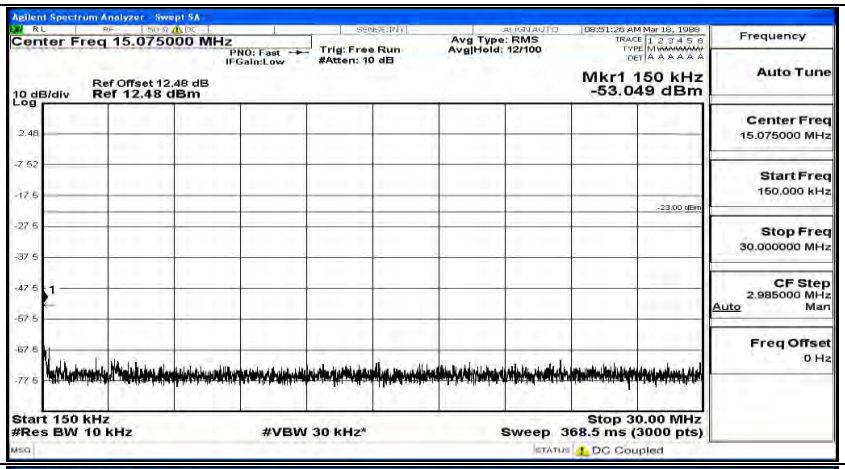
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#3



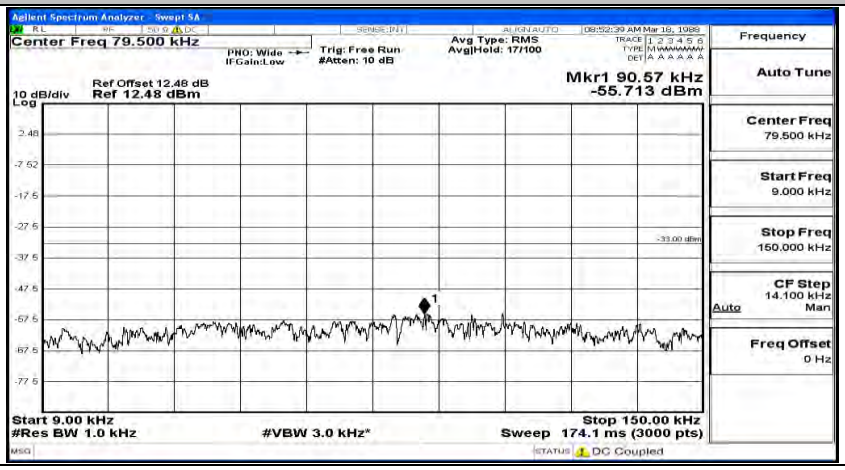


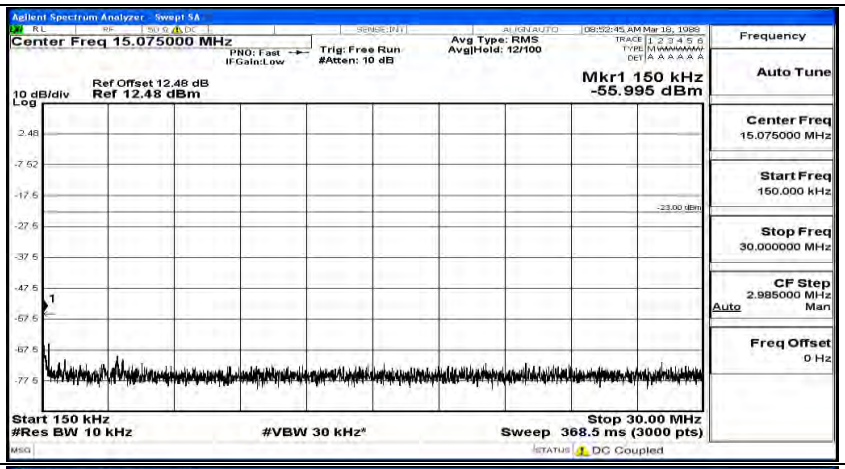
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#5



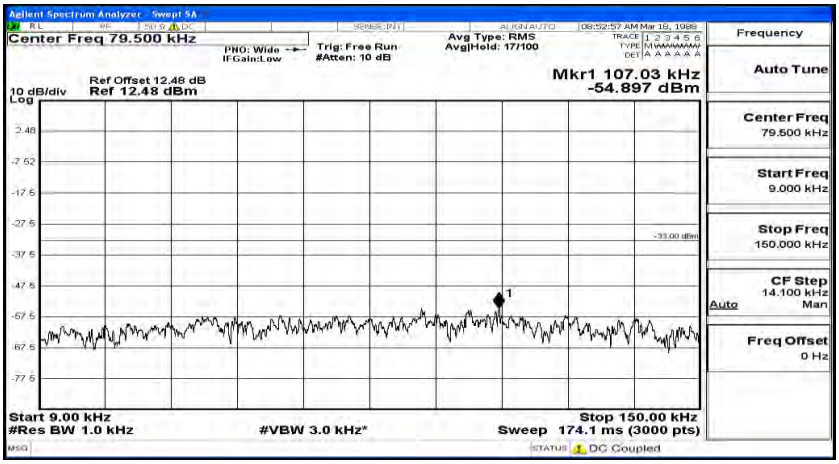


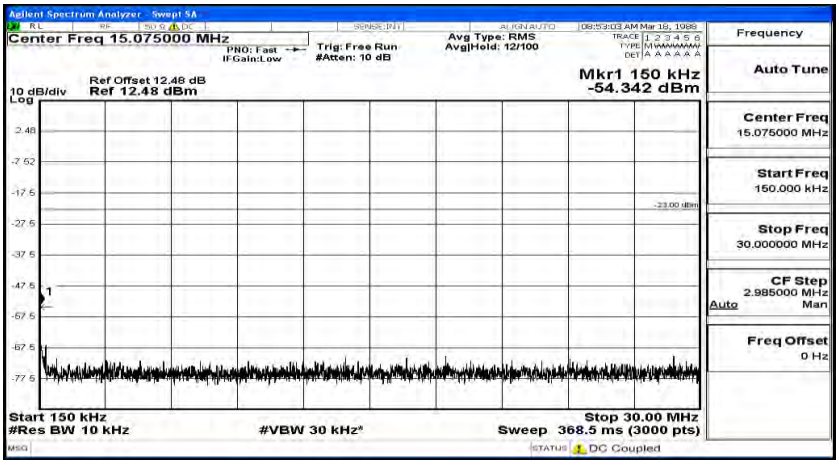
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#0



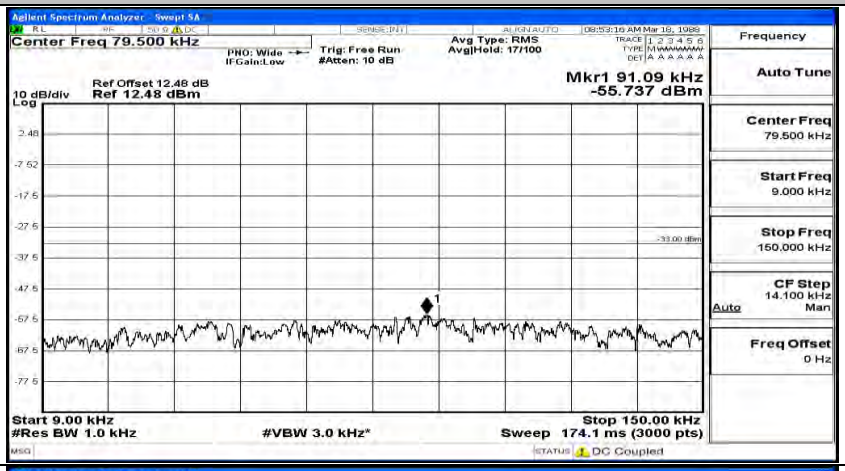


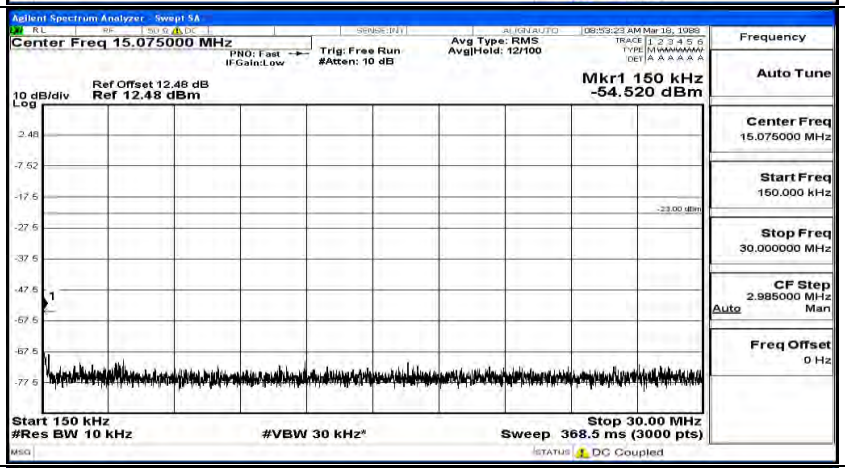
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#3



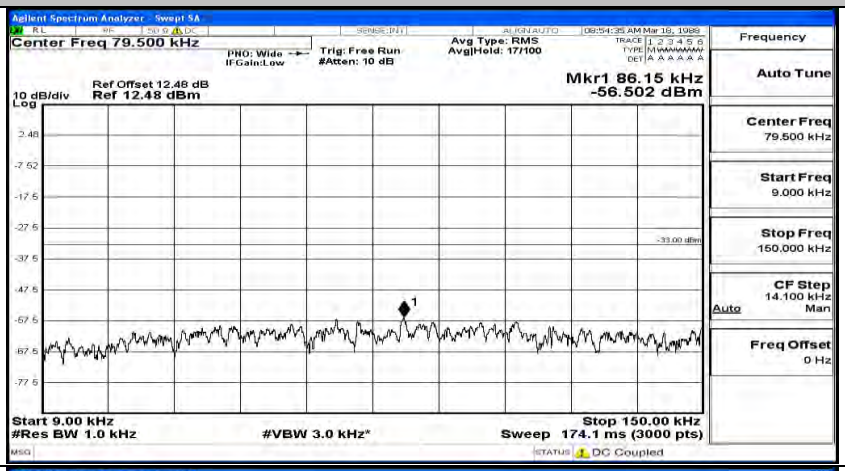


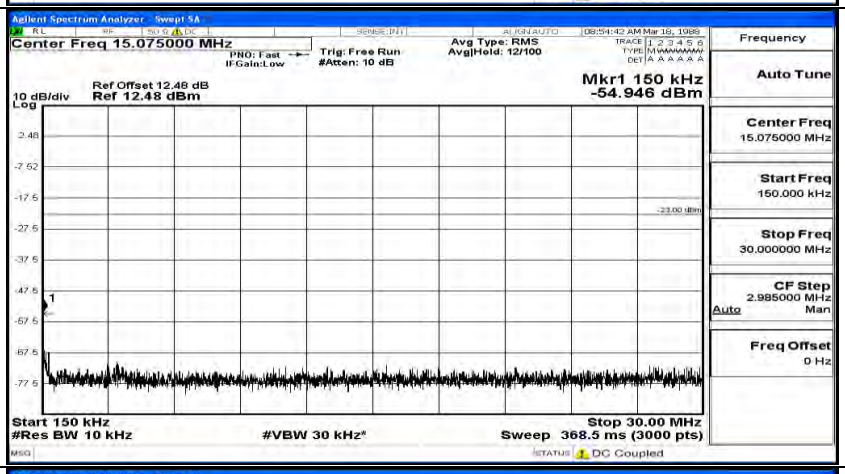
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#5



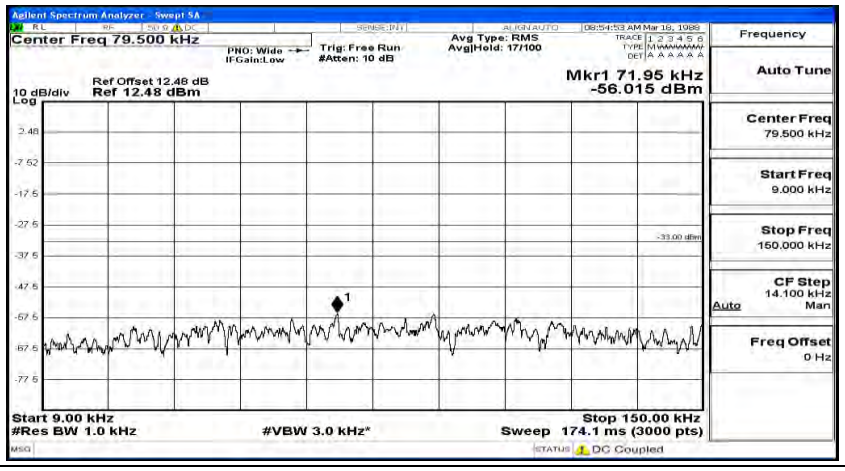


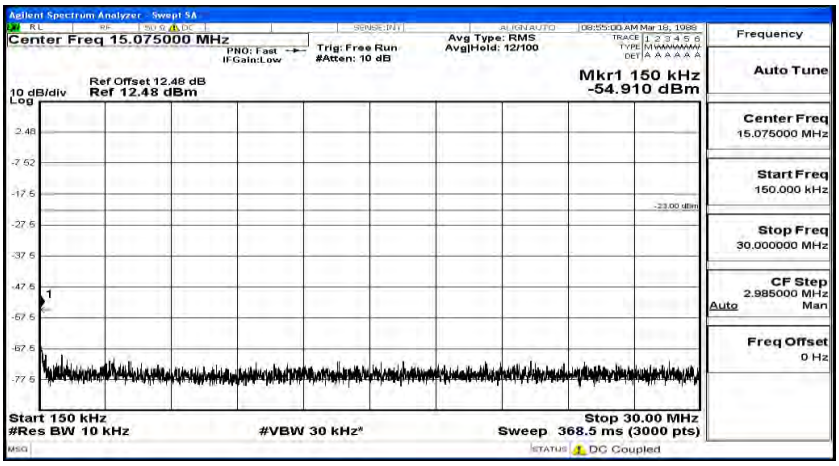
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#0



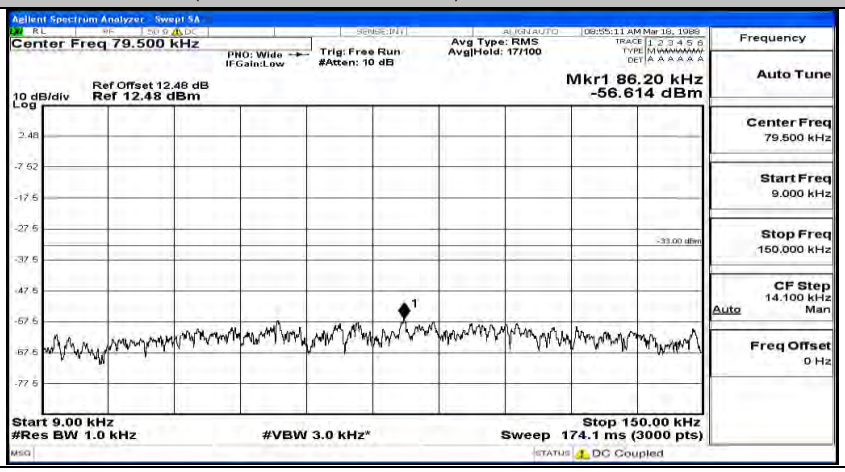


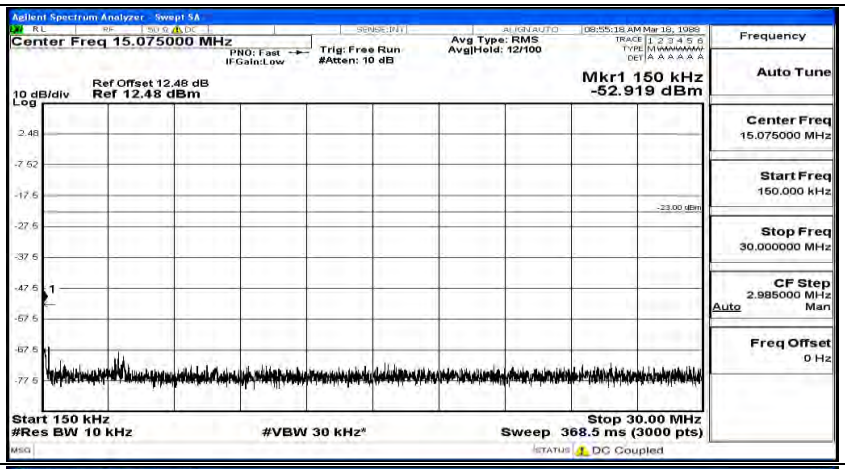
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#3



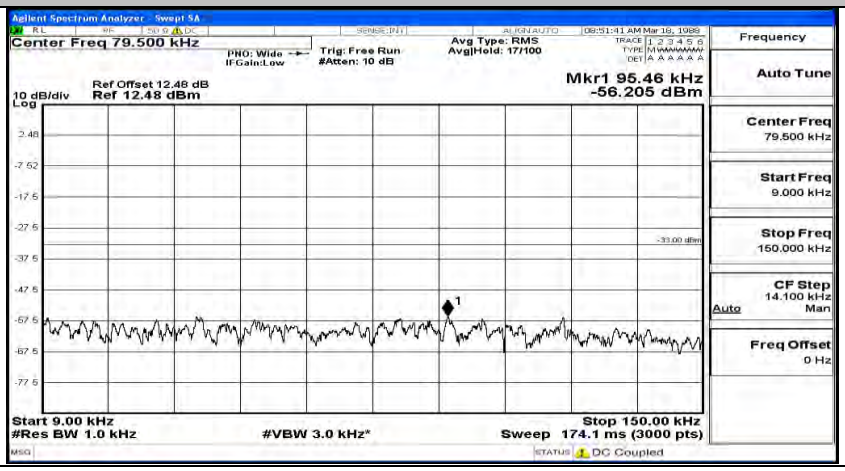


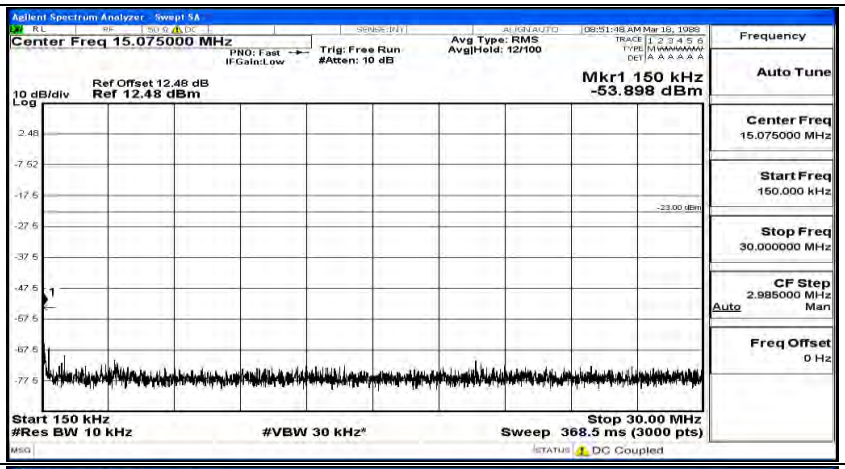
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#5



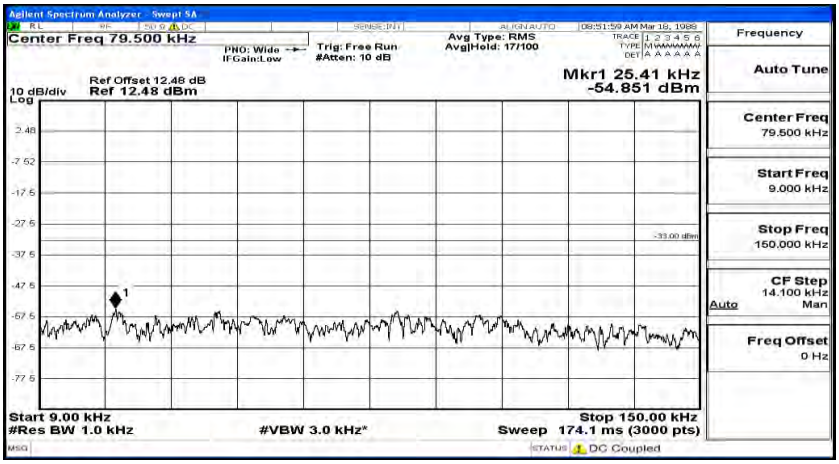


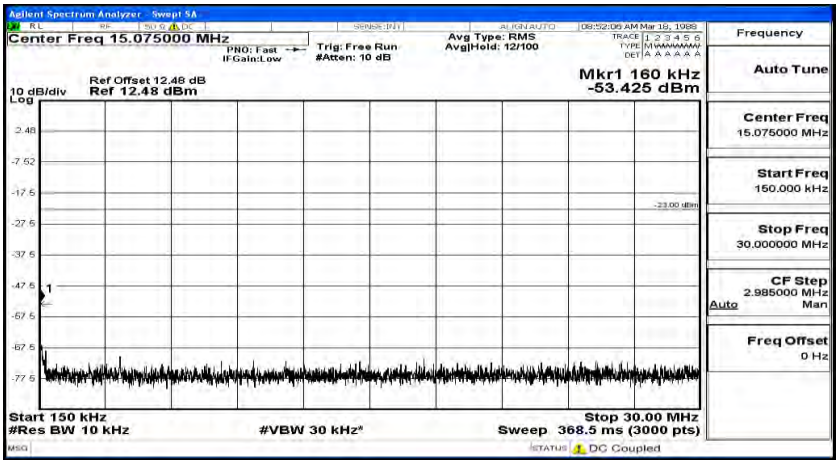
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#0

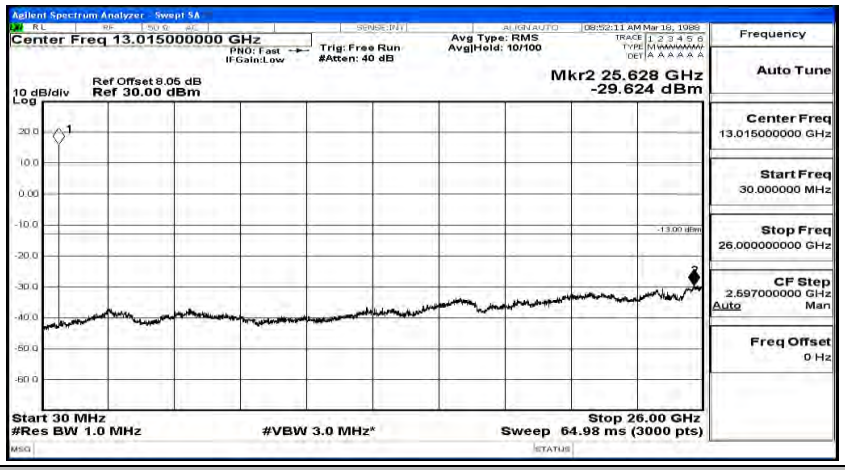




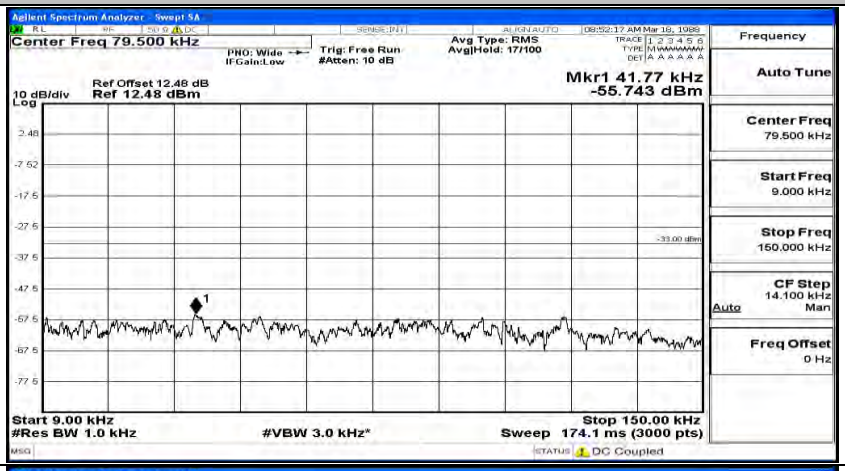
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#3

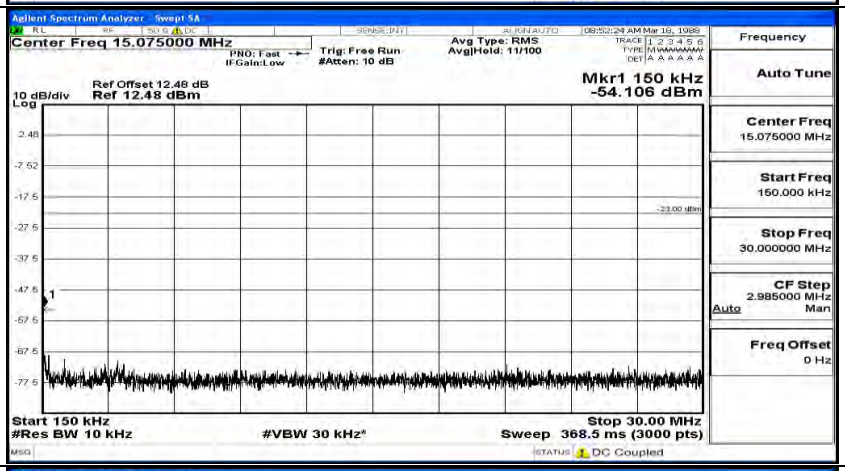


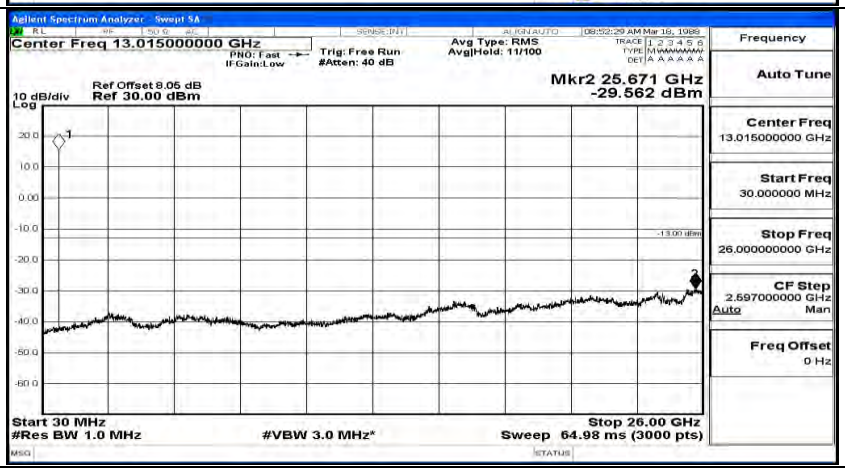




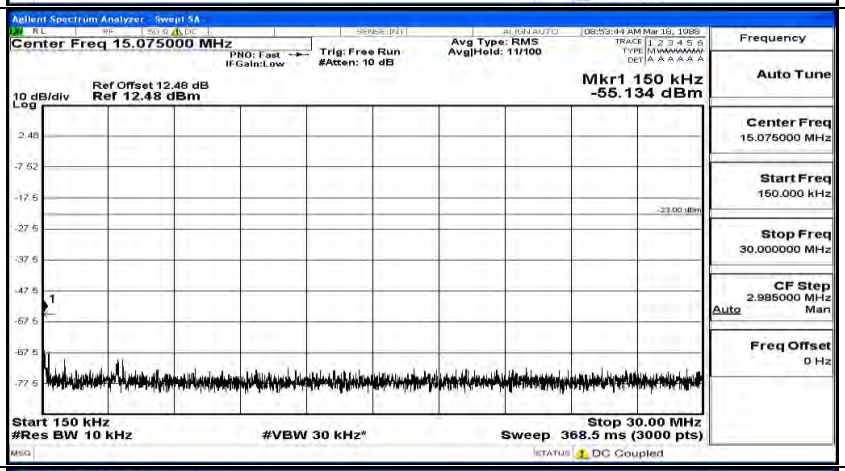
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#5



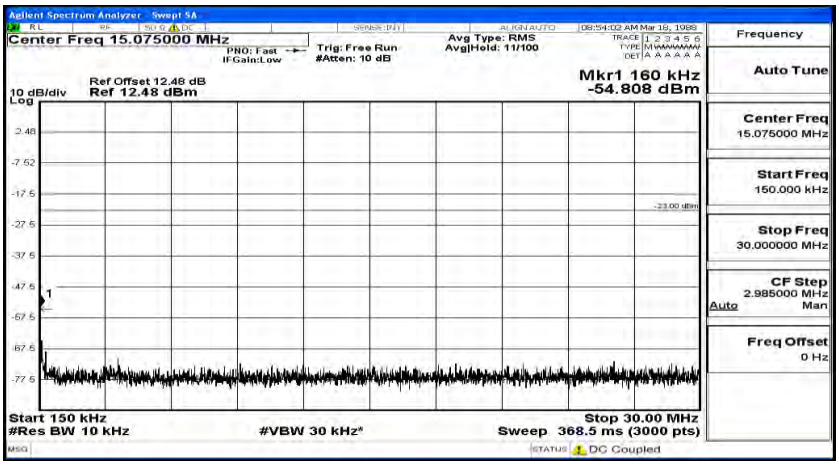




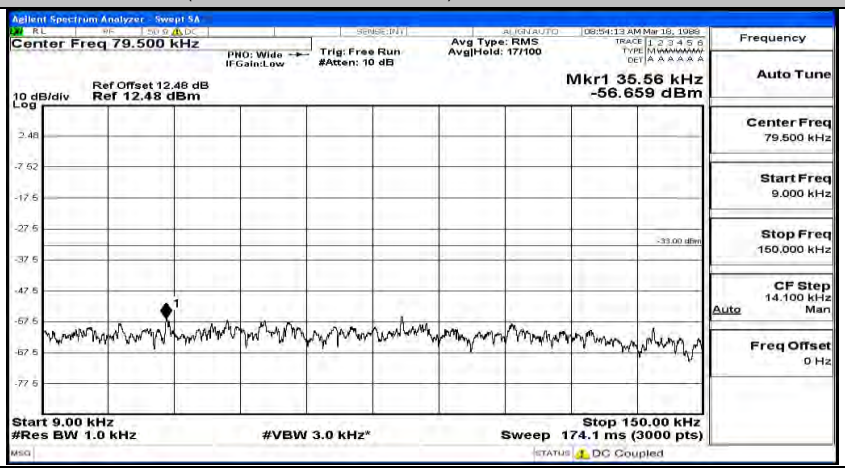
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#0

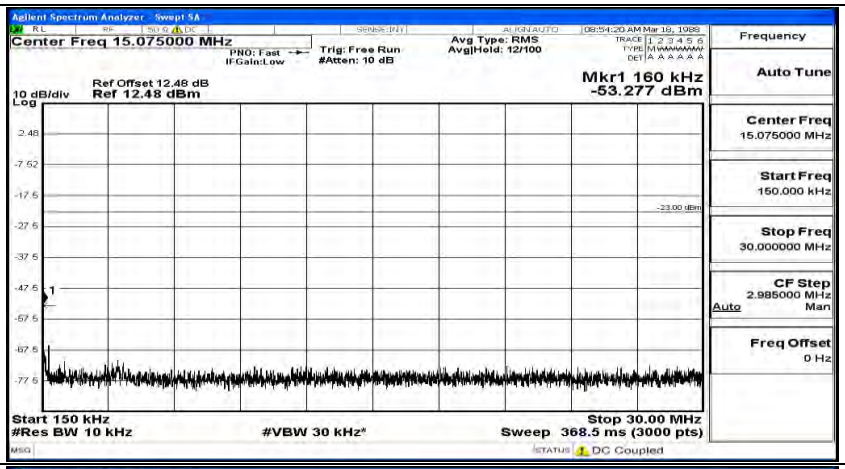


(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#3

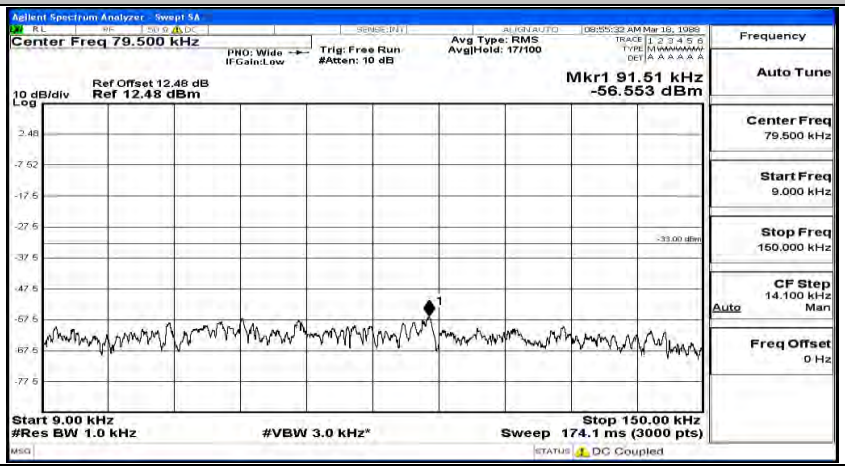


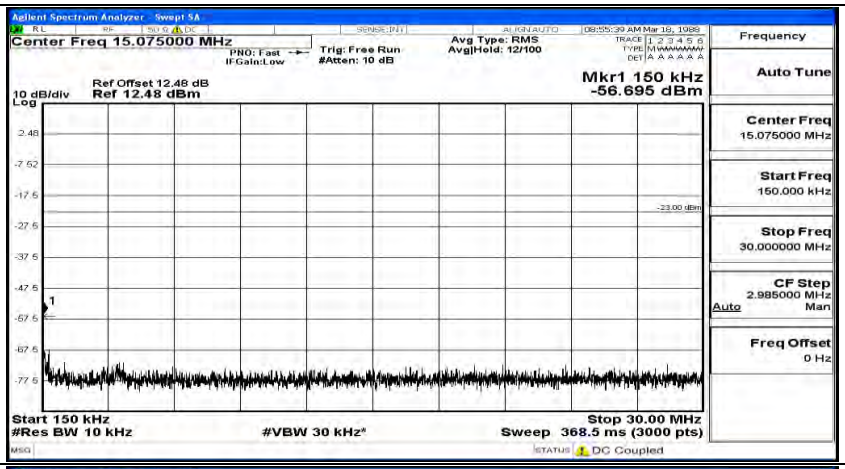
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#5



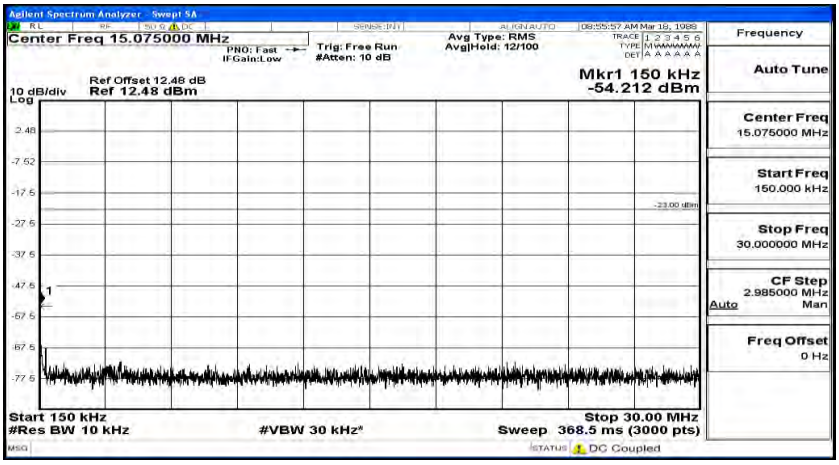


(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#0

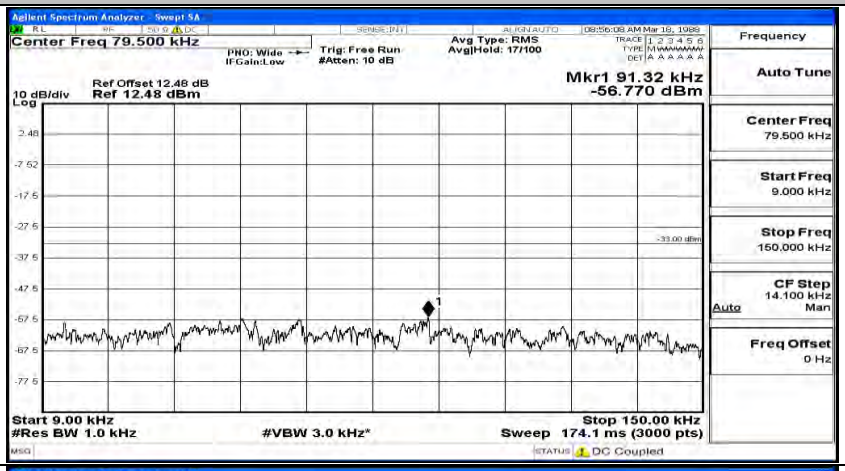


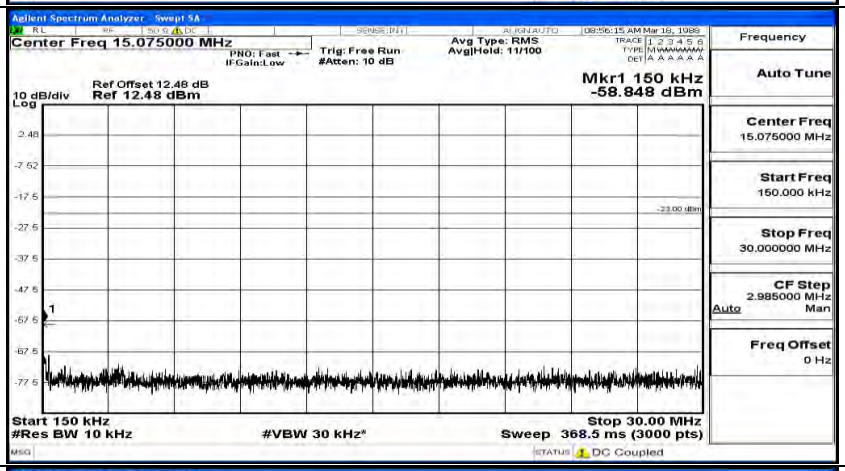


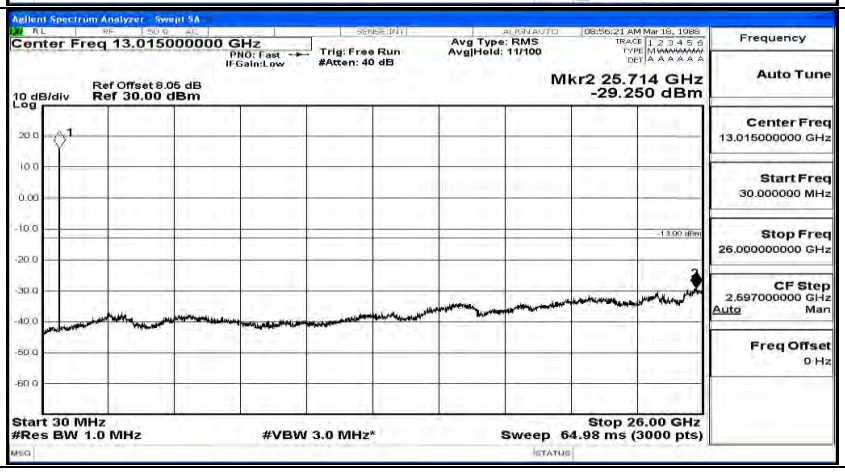
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#3



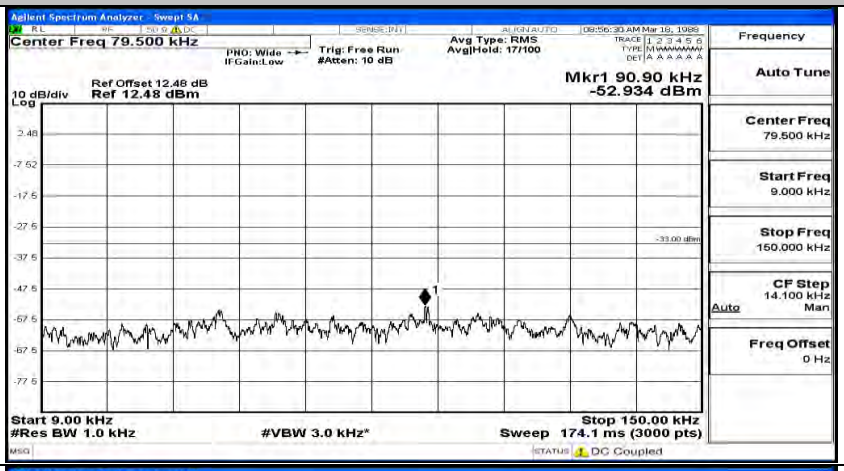
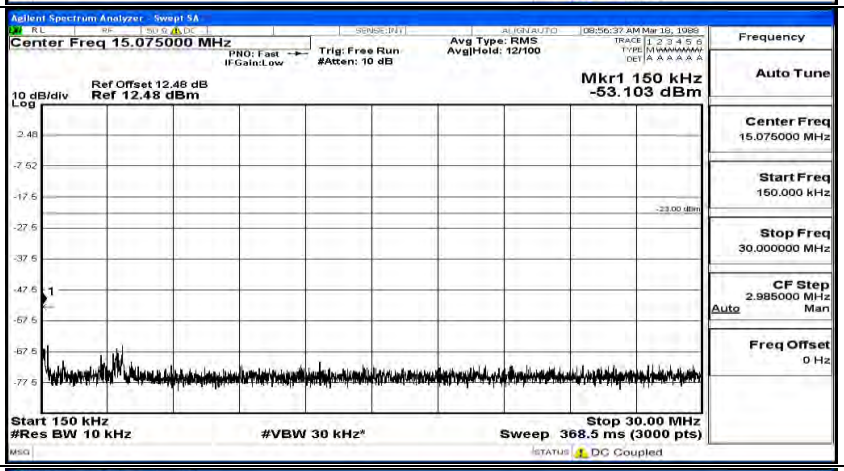
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#5



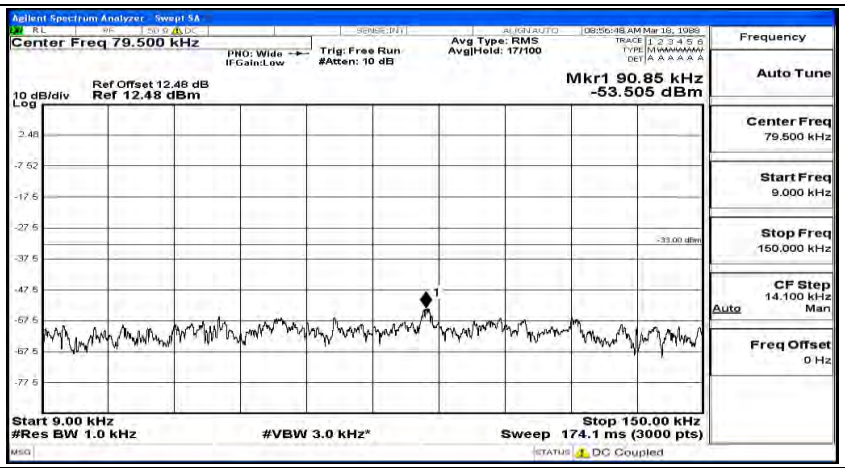


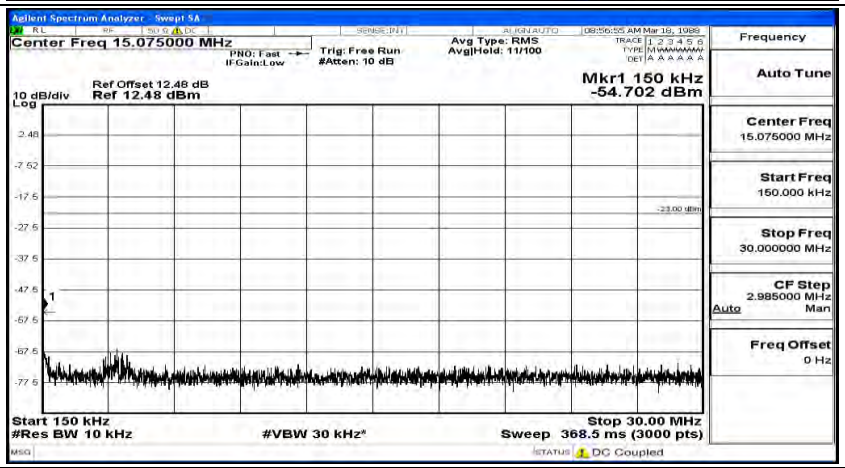


Channel Bandwidth: 3 MHz

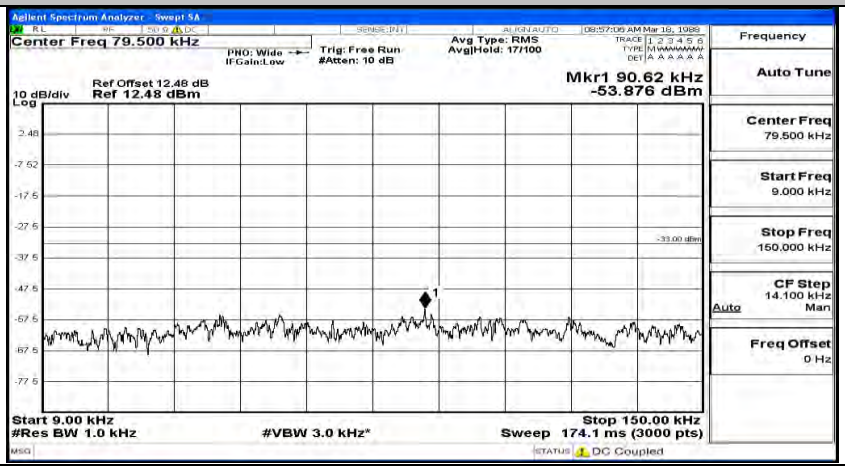
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#0



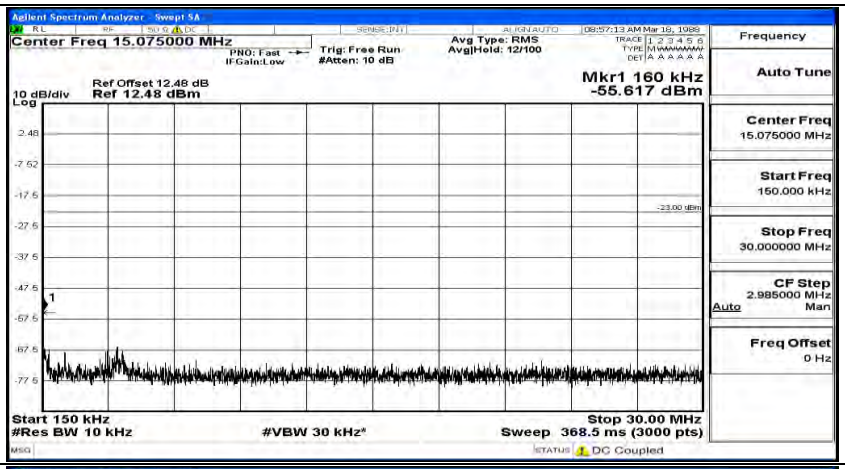
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#7



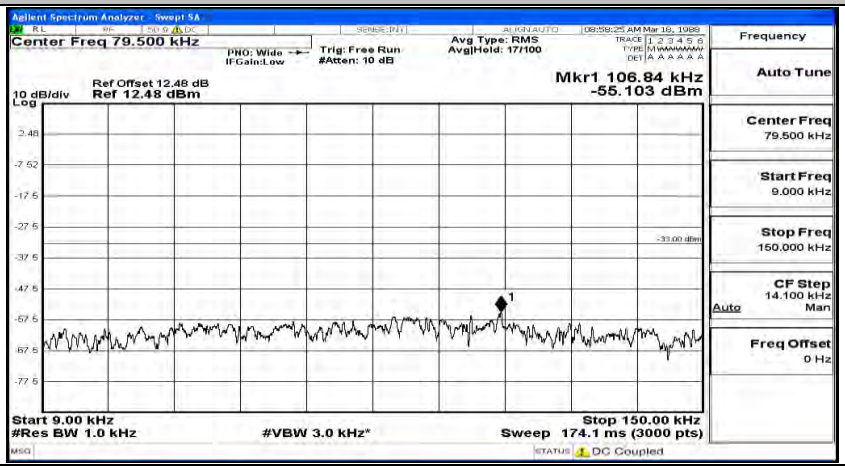


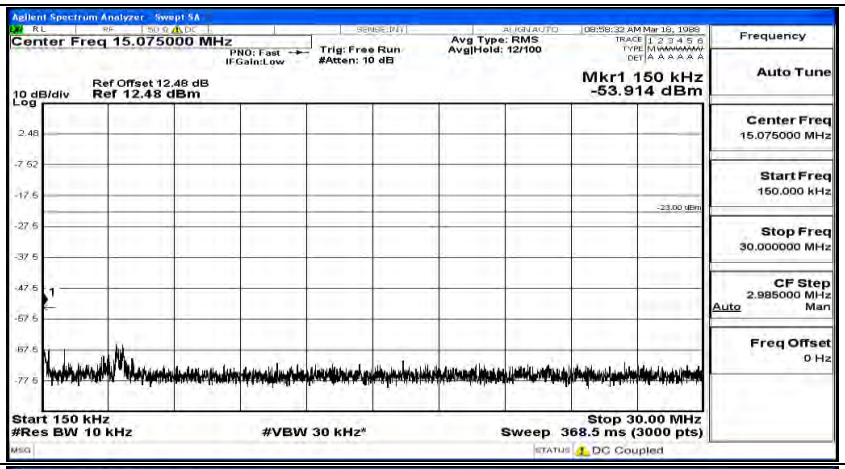
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#14



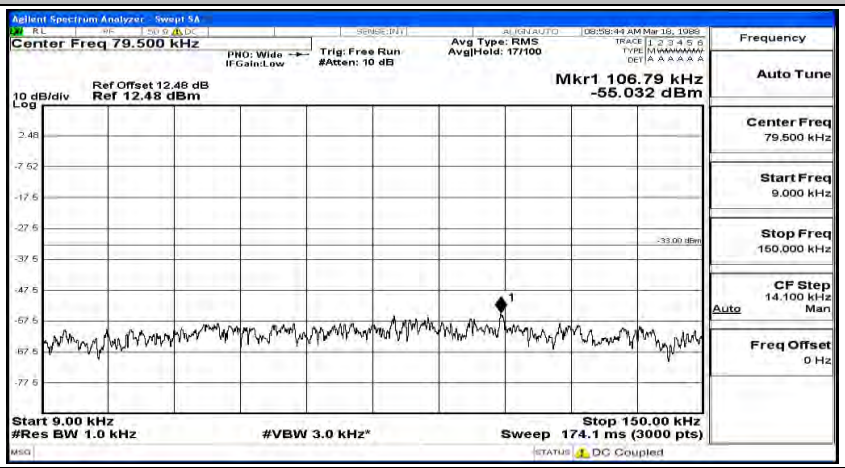


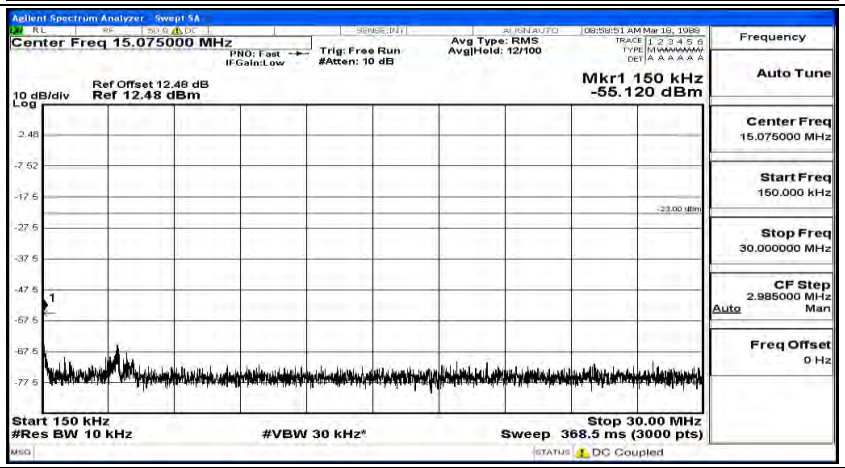
(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#0

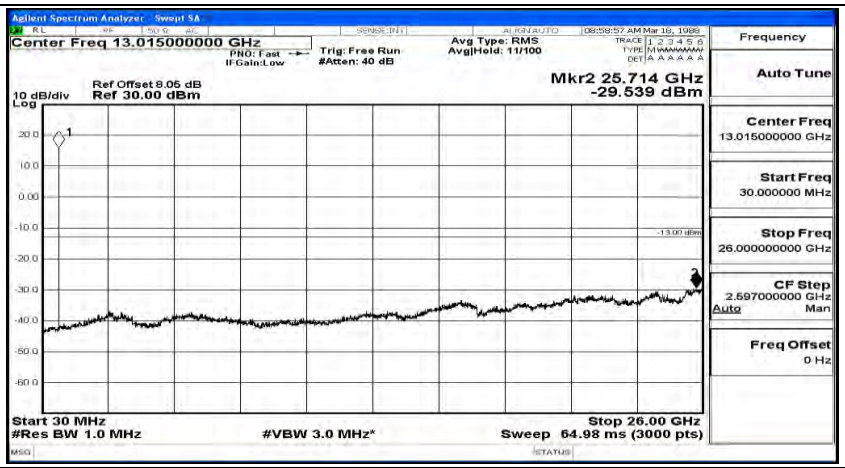




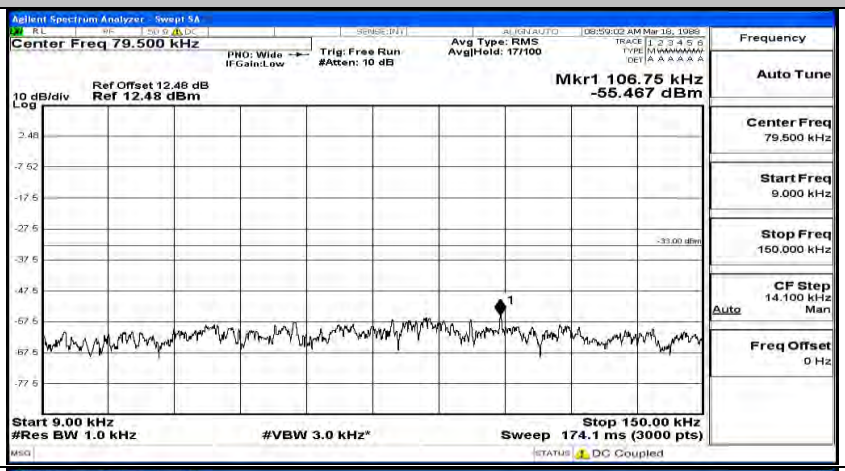
(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#7

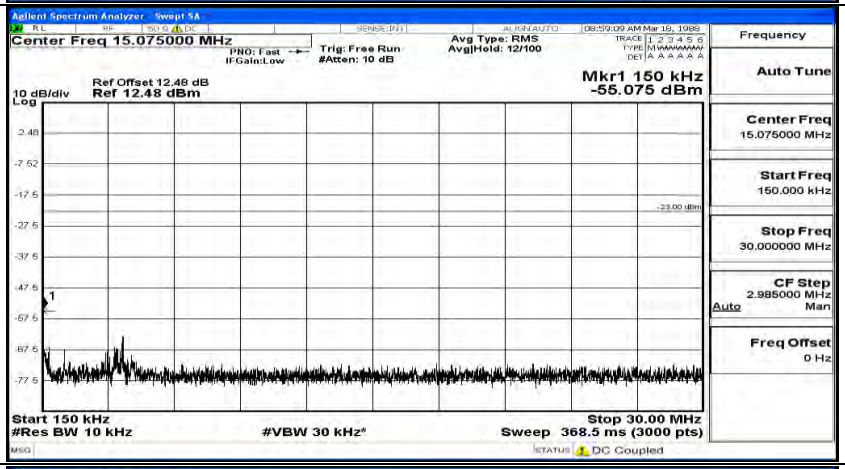




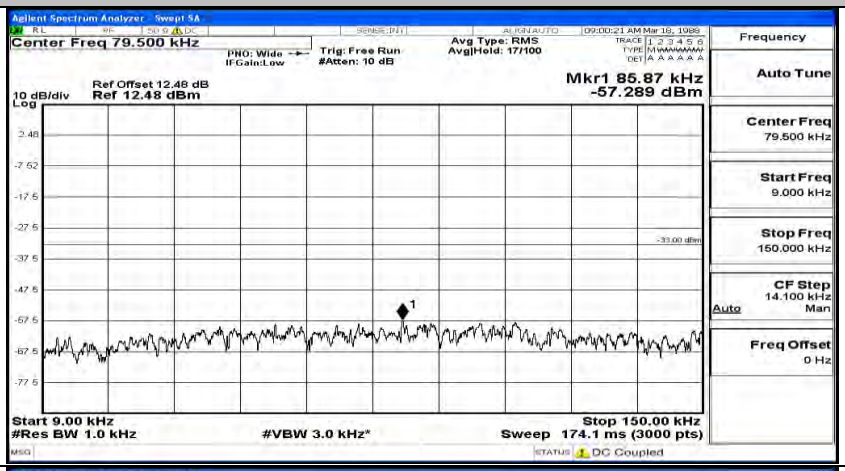


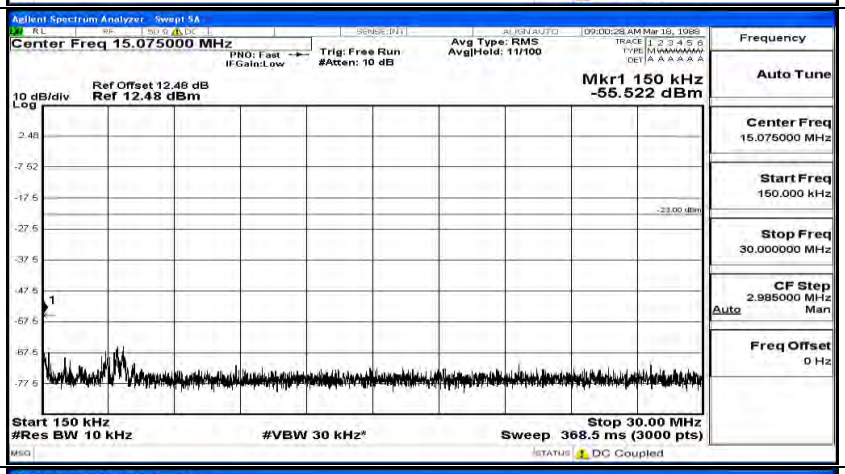
(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#14



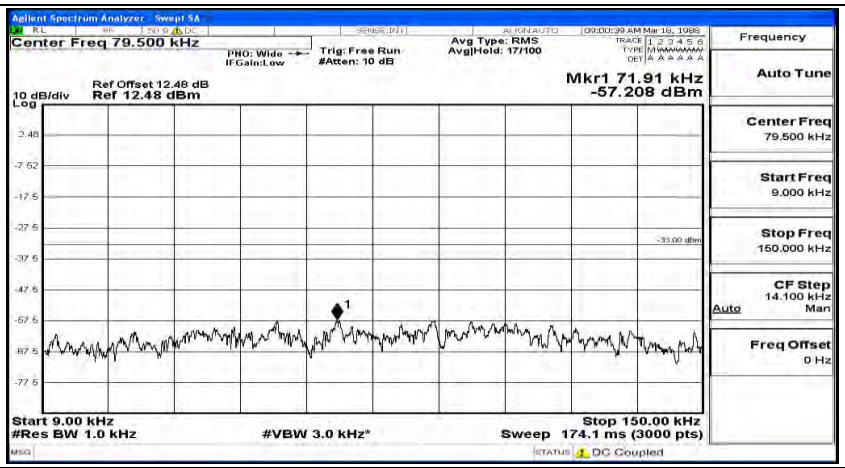


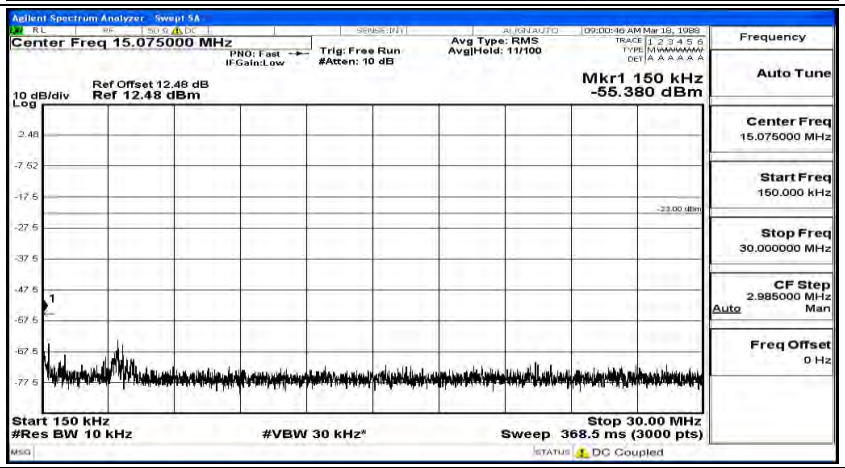
(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#0





(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#7





(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#14