

Appendix A: Test Data for E-UTRA Band 4

Product Name: Personal Mobile Alarm System

Trade Mark: N/A

Test Model: EV-07BX-LTE

Environmental Conditions

Temperature:	22.6° C
Relative Humidity:	52.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Alisa Huang
Supervised by:	Wang.Chuang

A.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	23.10	22.24	PASS
		1	3	22.95	22.28	PASS
		1	5	23.03	22.23	PASS
		3	0	23.05	22.19	PASS
		3	2	22.95	22.13	PASS
		3	3	22.95	22.10	PASS
		6	0	22.10	21.08	PASS
	MCH	1	0	22.34	21.87	PASS
		1	3	22.27	21.80	PASS
		1	5	22.45	21.99	PASS
		3	0	22.31	21.42	PASS
		3	2	22.28	21.44	PASS
		3	3	22.35	21.50	PASS
		6	0	21.49	20.46	PASS
	HCH	1	0	22.69	22.04	PASS
		1	3	22.29	21.71	PASS
		1	5	22.32	21.71	PASS
		3	0	22.52	21.67	PASS
		3	2	22.31	21.48	PASS
		3	3	22.24	21.45	PASS
		6	0	21.54	20.84	PASS

Conducted Output Power Test Result (Channel Bandwidth: 3 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	22.97	22.21	PASS
		1	7	22.86	22.20	PASS
		1	14	22.81	22.08	PASS
		8	0	22.12	21.17	PASS
		8	4	22.07	21.14	PASS
		8	7	22.04	21.09	PASS
		15	0	22.03	21.01	PASS
	MCH	1	0	22.13	21.53	PASS
		1	7	22.21	21.59	PASS
		1	14	22.29	21.72	PASS
		8	0	21.34	20.49	PASS
		8	4	21.40	20.59	PASS
		8	7	21.48	20.65	PASS
		15	0	21.41	20.52	PASS
	HCH	1	0	23.11	22.39	PASS
		1	7	22.64	22.10	PASS
		1	14	22.27	21.77	PASS
		8	0	22.10	21.20	PASS
		8	4	21.83	20.94	PASS
		8	7	21.64	20.79	PASS
		15	0	21.86	21.00	PASS

Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	23.07	22.42	PASS
		1	12	22.56	22.02	PASS
		1	24	22.79	22.16	PASS
		12	0	21.86	21.07	PASS
		12	6	21.69	20.93	PASS
		12	13	21.78	21.03	PASS
		25	0	21.79	20.92	PASS
	MCH	1	0	21.95	21.41	PASS
		1	12	21.85	21.33	PASS
		1	24	22.52	22.00	PASS
		12	0	20.89	20.13	PASS
		12	6	21.04	20.19	PASS
		12	13	21.30	20.48	PASS
		25	0	21.13	20.19	PASS
	HCH	1	0	23.19	22.15	PASS
		1	12	22.55	21.69	PASS
		1	24	22.25	21.34	PASS
		12	0	22.07	21.23	PASS
		12	6	21.74	20.91	PASS
		12	13	21.43	20.62	PASS
		25	0	21.78	20.93	PASS

Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	22.59	21.91	PASS
		1	24	22.66	22.05	PASS
		1	49	21.91	21.27	PASS
		25	0	21.79	20.86	PASS
		25	12	21.71	20.82	PASS
		25	25	21.50	20.69	PASS
		50	0	21.65	20.73	PASS
	MCH	1	0	21.18	20.57	PASS
		1	24	21.89	21.31	PASS
		1	49	22.25	21.67	PASS
		25	0	20.73	20.88	PASS
		25	12	21.06	20.12	PASS
		25	25	21.45	20.50	PASS
		50	0	21.11	20.17	PASS
	HCH	1	0	22.94	22.32	PASS
		1	24	22.88	22.38	PASS
		1	49	21.63	21.16	PASS
		25	0	22.06	21.07	PASS
		25	12	22.04	21.16	PASS
		25	25	21.65	20.83	PASS
		50	0	21.93	21.09	PASS

Conducted Output Power Test Result (Channel Bandwidth: 15 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	22.75	22.09	PASS
		1	37	22.43	21.80	PASS
		1	74	21.18	20.56	PASS
		37	0	21.78	20.87	PASS
		37	18	21.59	20.71	PASS
		37	38	20.97	20.12	PASS
		75	0	21.38	20.51	PASS
	MCH	1	0	21.42	20.80	PASS
		1	37	21.83	21.22	PASS
		1	74	22.72	22.11	PASS
		37	0	20.60	20.78	PASS
		37	18	20.99	20.14	PASS
		37	38	21.59	20.62	PASS
		75	0	21.14	20.19	PASS
	HCH	1	0	23.00	22.19	PASS
		1	37	22.85	22.27	PASS
		1	74	21.91	21.35	PASS
		37	0	22.10	21.05	PASS
		37	18	22.08	21.13	PASS
		37	38	21.80	20.97	PASS
		75	0	21.99	21.11	PASS

Conducted Output Power Test Result (Channel Bandwidth: 20 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	22.94	22.13	PASS
		1	49	22.25	21.51	PASS
		1	99	21.02	20.24	PASS
		50	0	21.69	20.79	PASS
		50	25	21.13	20.23	PASS
		50	50	20.38	20.12	PASS
		100	0	21.06	20.18	PASS
	MCH	1	0	21.72	20.94	PASS
		1	49	21.92	21.21	PASS
		1	99	22.77	22.04	PASS
		50	0	20.51	20.35	PASS
		50	25	20.98	20.02	PASS
		50	50	21.61	20.73	PASS
		100	0	21.09	20.21	PASS
	HCH	1	0	22.82	22.22	PASS
		1	49	22.92	22.35	PASS
		1	99	21.99	21.44	PASS
		50	0	21.98	21.03	PASS
		50	25	22.01	21.07	PASS
		50	50	21.78	21.00	PASS
		100	0	21.96	21.02	PASS

A.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	5.01	<13	PASS
	MCH	5	<13	PASS
	HCH	5.04	<13	PASS
16QAM	LCH	5.79	<13	PASS
	MCH	5.8	<13	PASS
	HCH	5.84	<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	5.24	<13	PASS
	HCH	5.25	<13	PASS
16QAM	LCH	6.08	<13	PASS
	MCH	6.11	<13	PASS
	HCH	5.89	<13	PASS

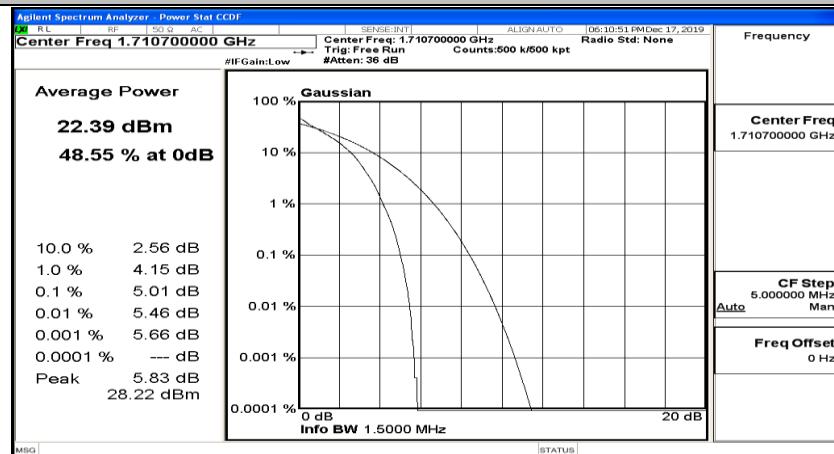
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.43	<13	PASS
	MCH	5.37	<13	PASS
	HCH	5.26	<13	PASS
16QAM	LCH	6.13	<13	PASS
	MCH	6.13	<13	PASS
	HCH	5.94	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.42	<13	PASS
	MCH	5.38	<13	PASS
	HCH	5.31	<13	PASS
16QAM	LCH	6.14	<13	PASS
	MCH	6.1	<13	PASS
	HCH	5.97	<13	PASS

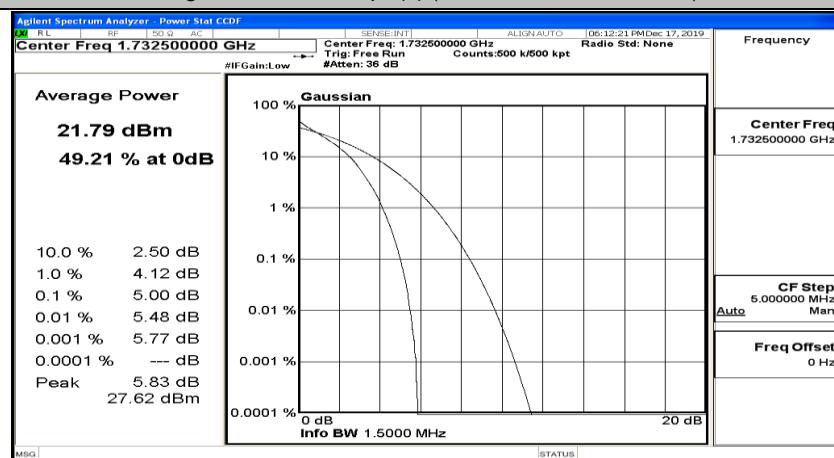
Peak-to Average Ratio Test Result (Channel Bandwidth: 15 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.96	<13	PASS
	MCH	5.03	<13	PASS
	HCH	5	<13	PASS
16QAM	LCH	6.21	<13	PASS
	MCH	6.24	<13	PASS
	HCH	6.16	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.76	<13	PASS
	MCH	5.75	<13	PASS
	HCH	5.77	<13	PASS
16QAM	LCH	6.74	<13	PASS
	MCH	6.79	<13	PASS
	HCH	6.67	<13	PASS

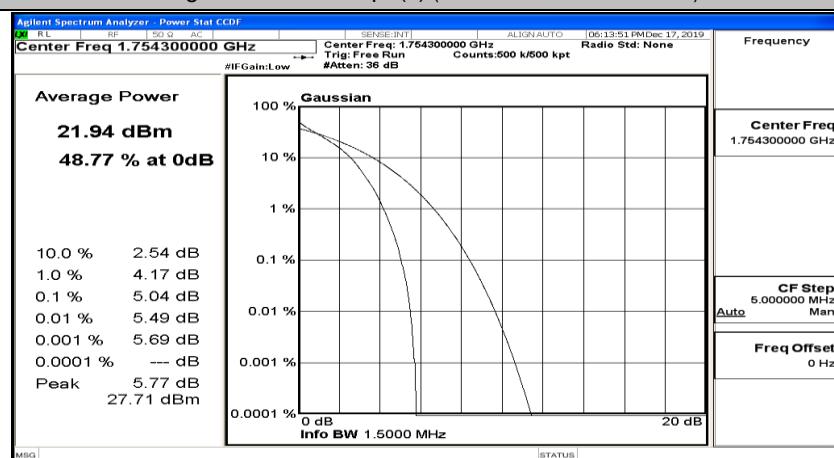
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



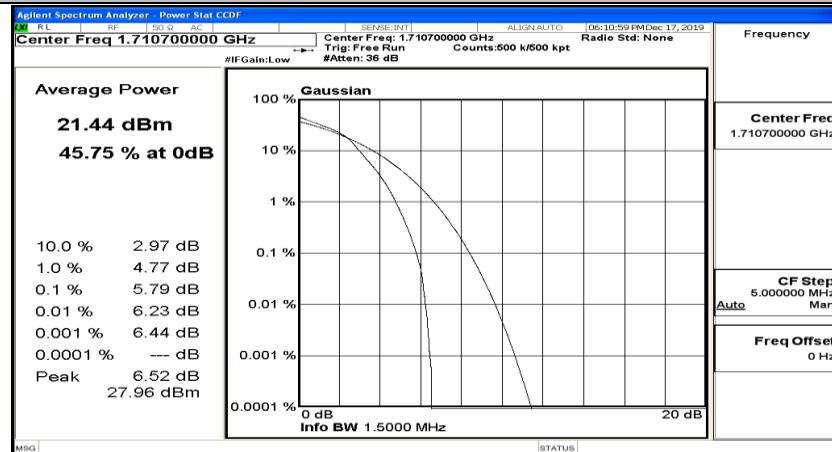
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



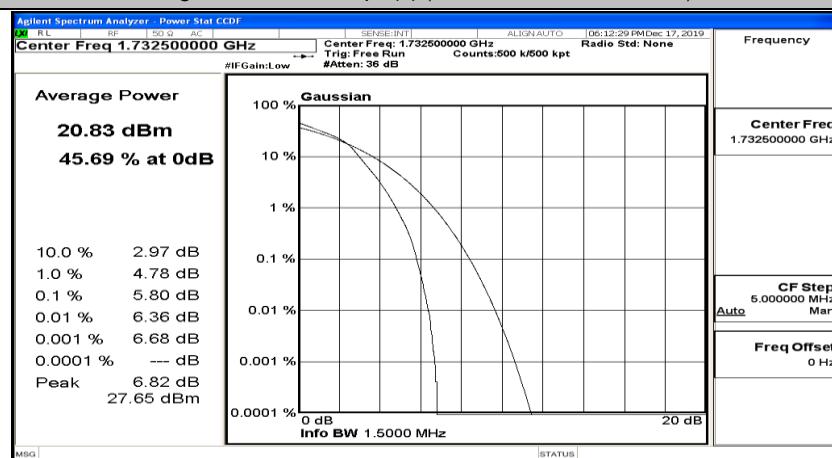
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



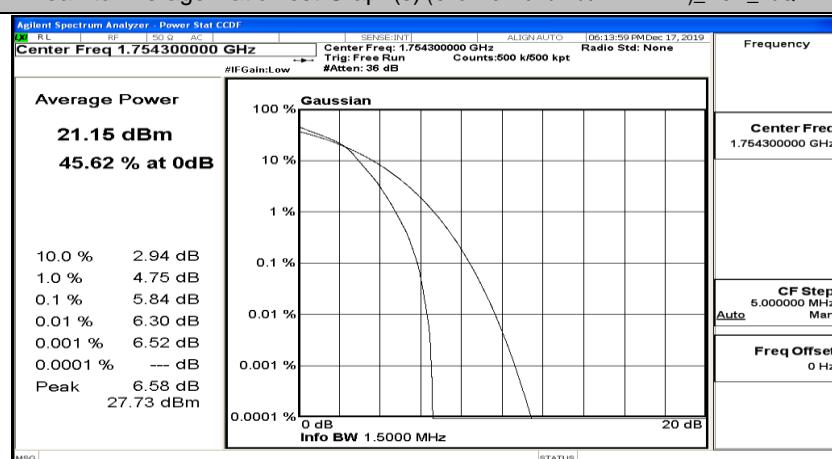
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



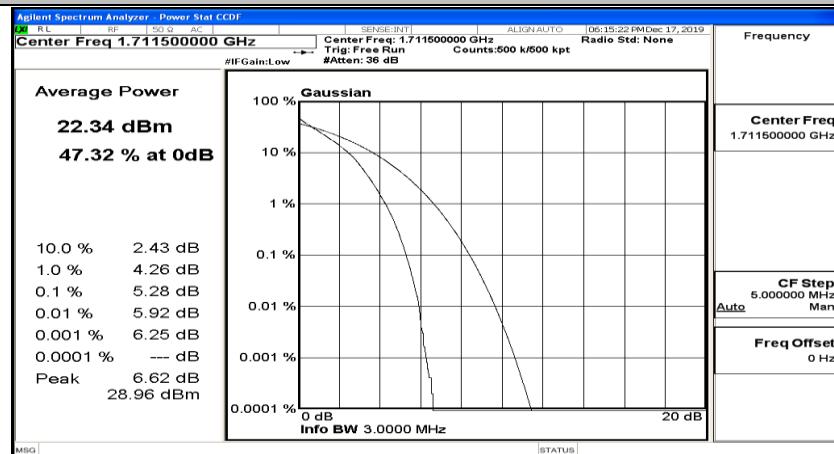
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



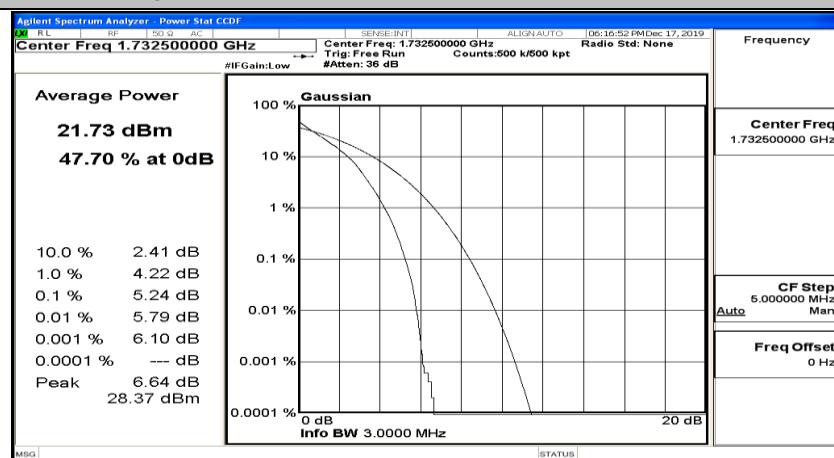
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



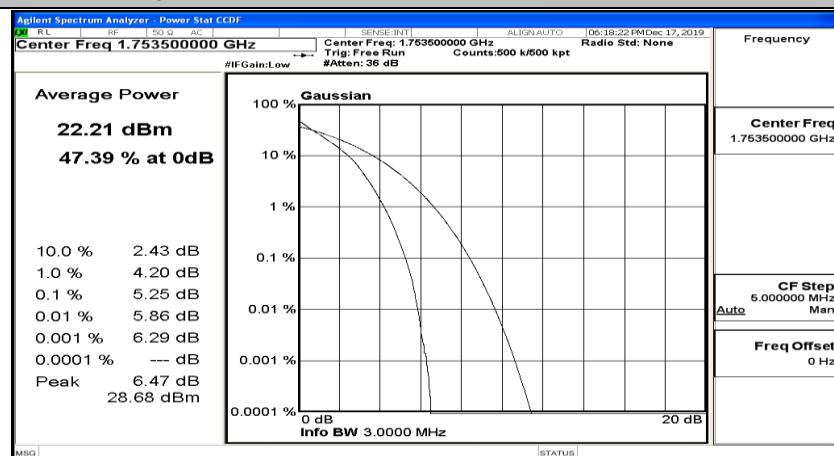
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



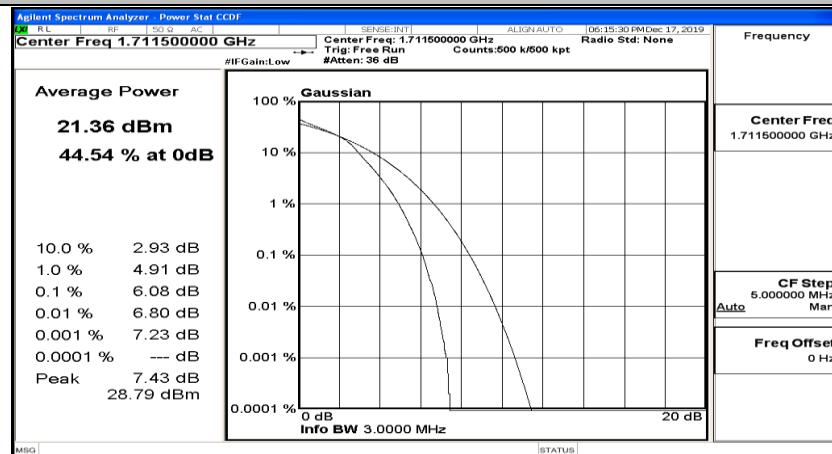
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



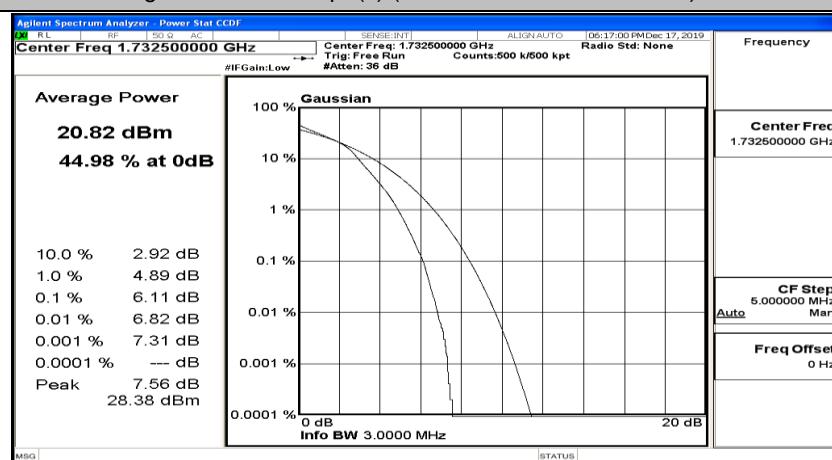
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



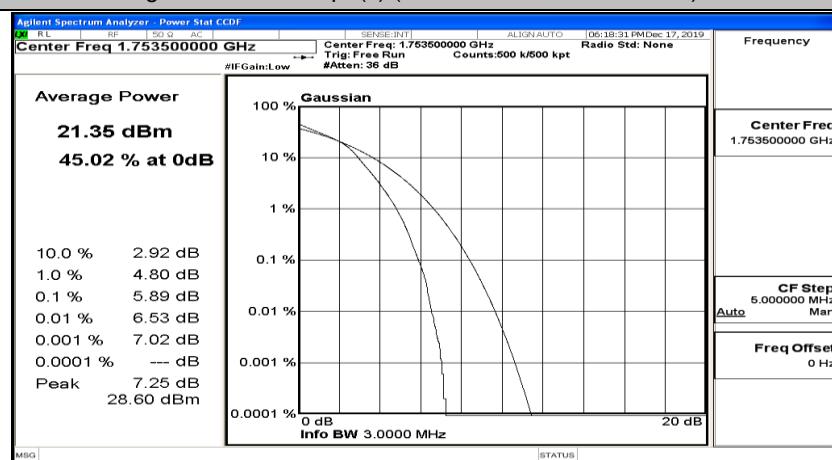
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



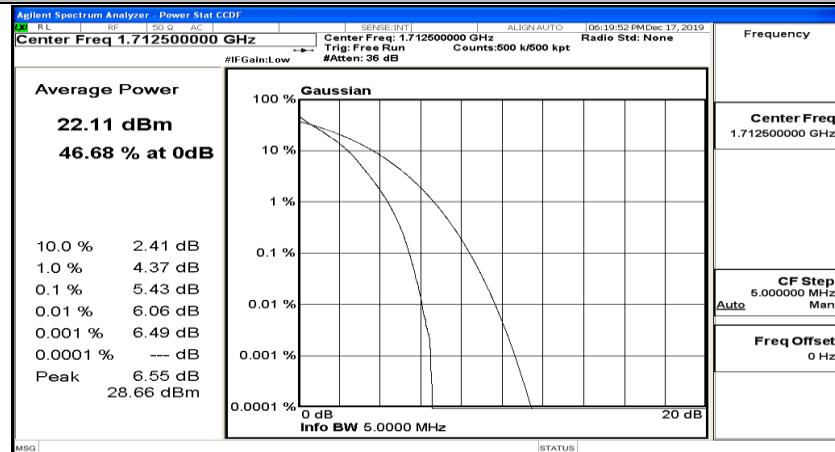
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



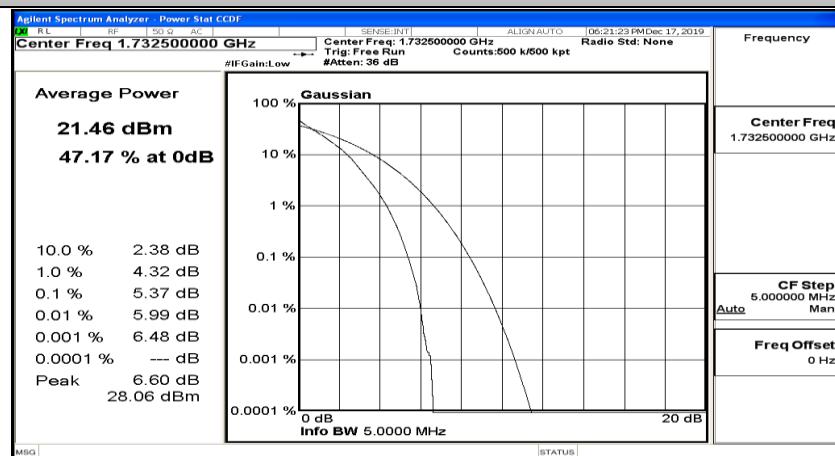
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



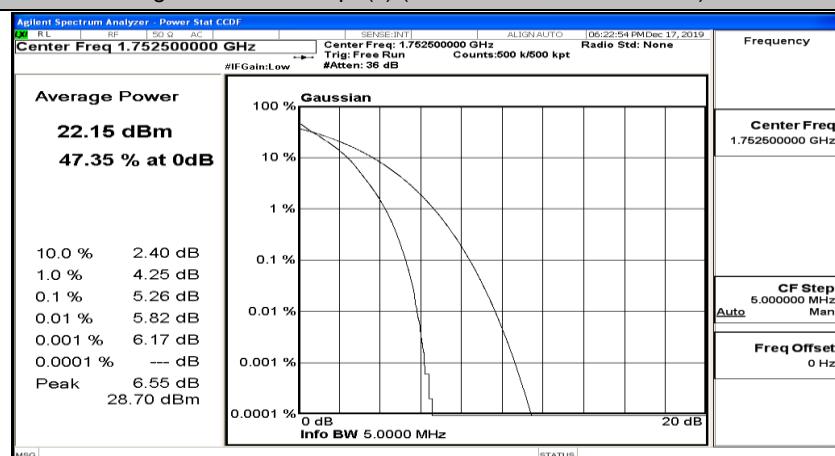
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



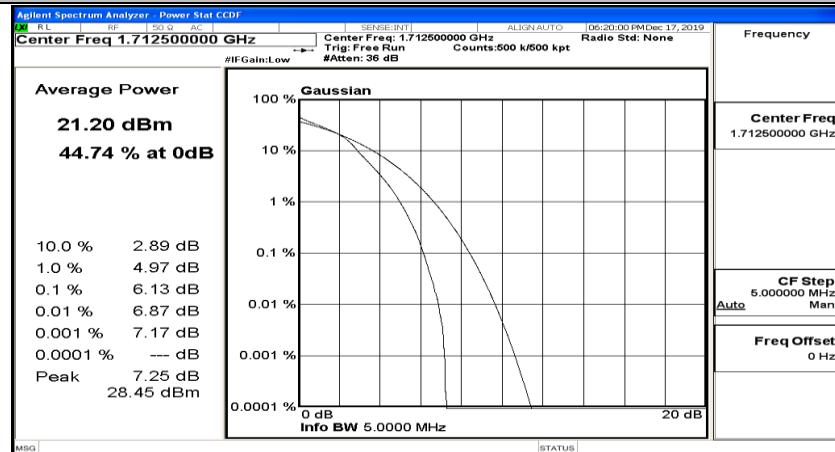
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



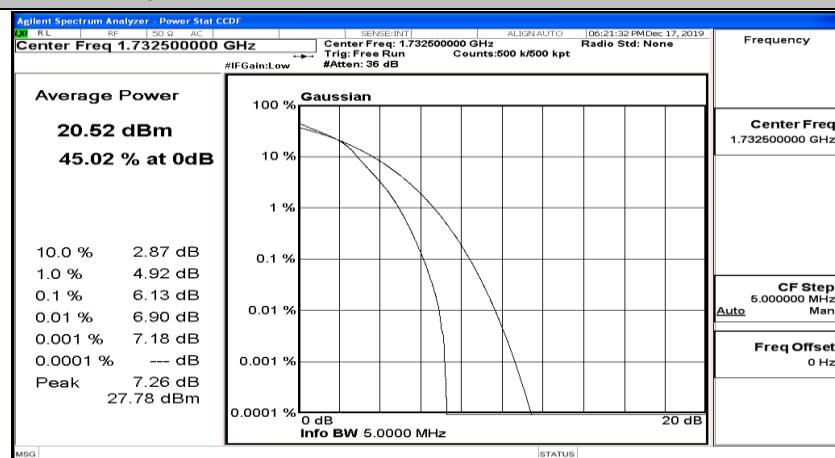
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



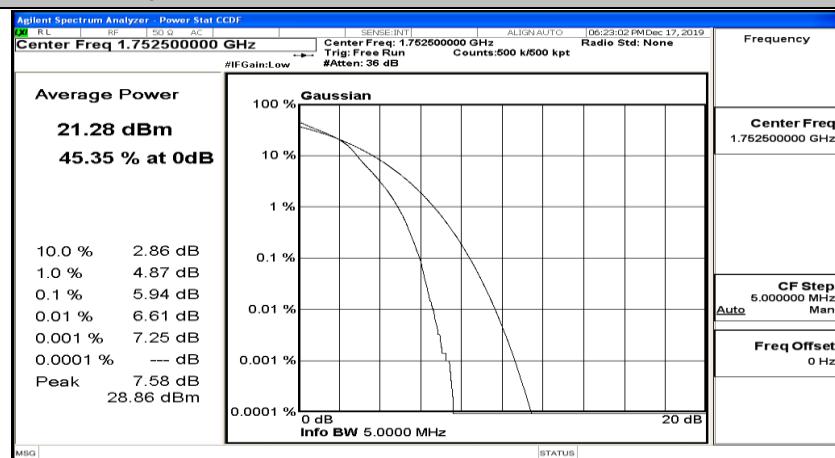
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



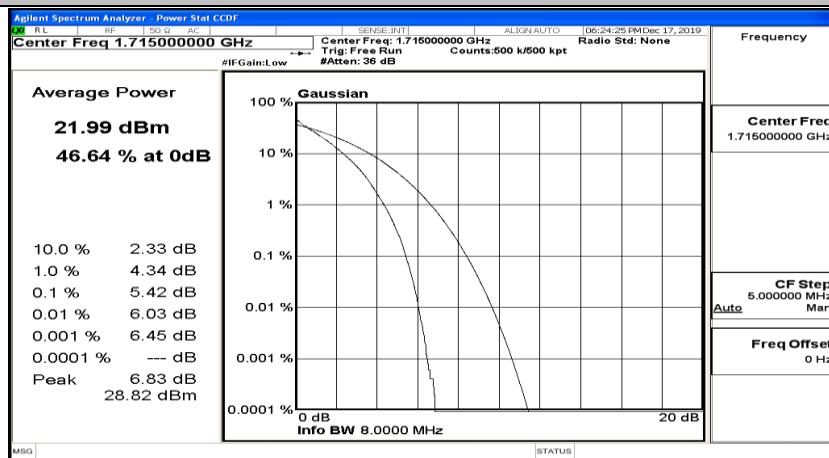
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



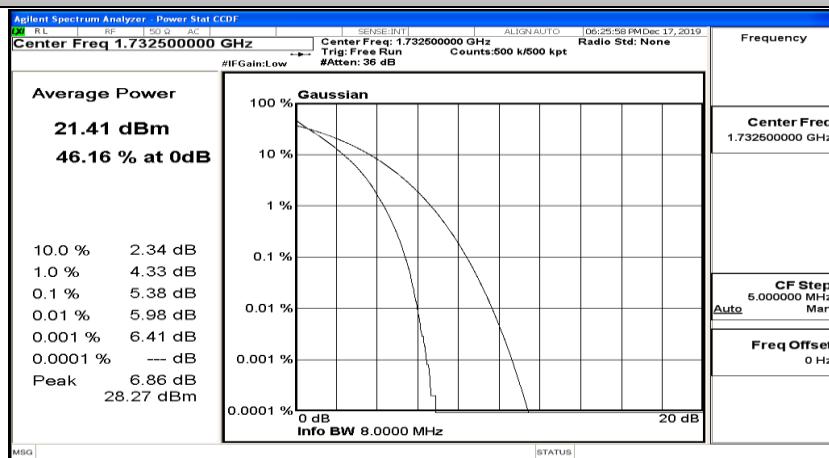
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



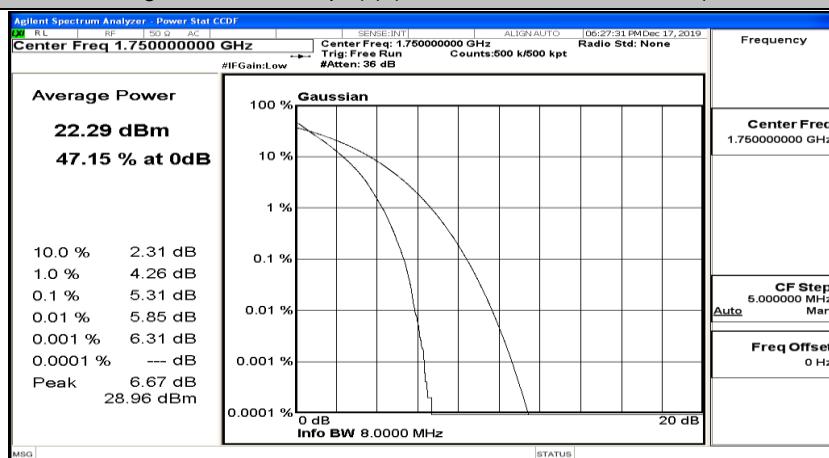
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



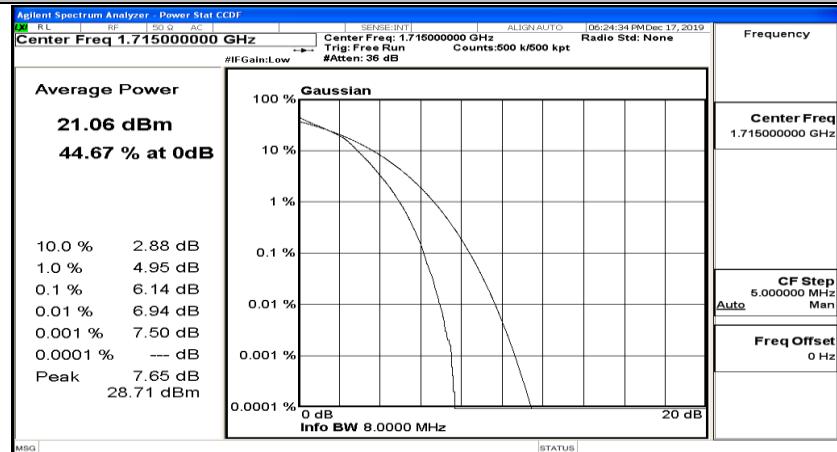
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



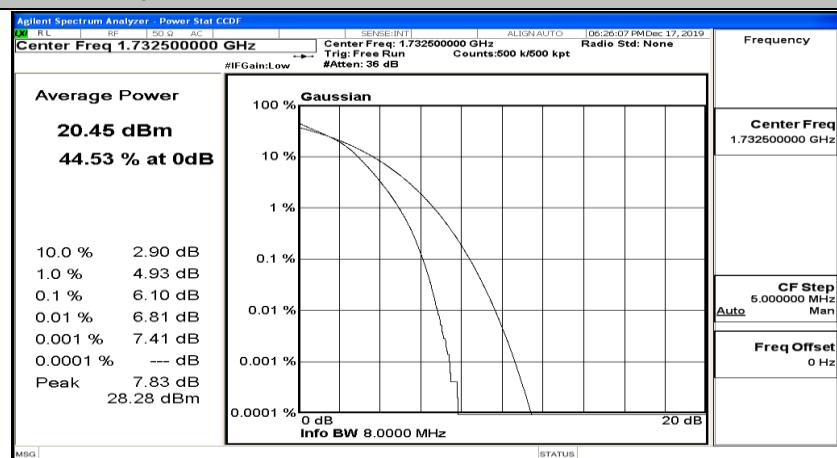
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



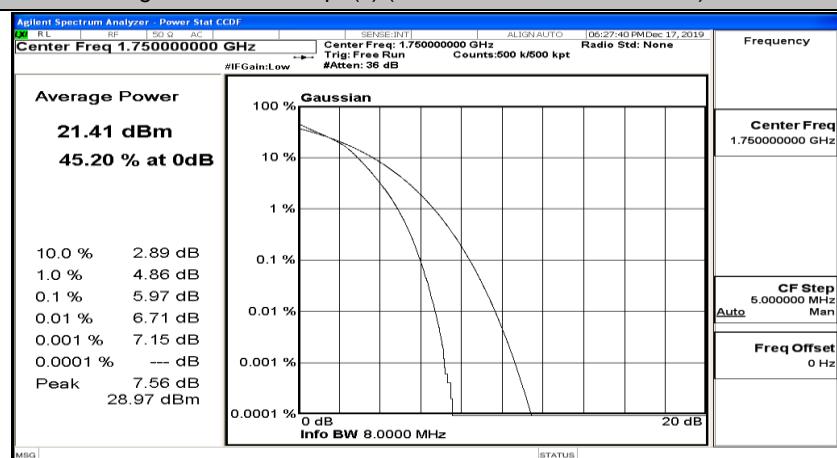
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



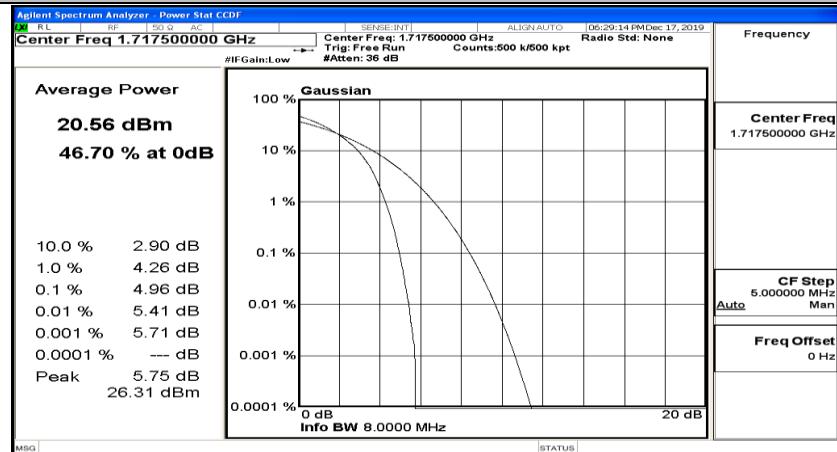
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM



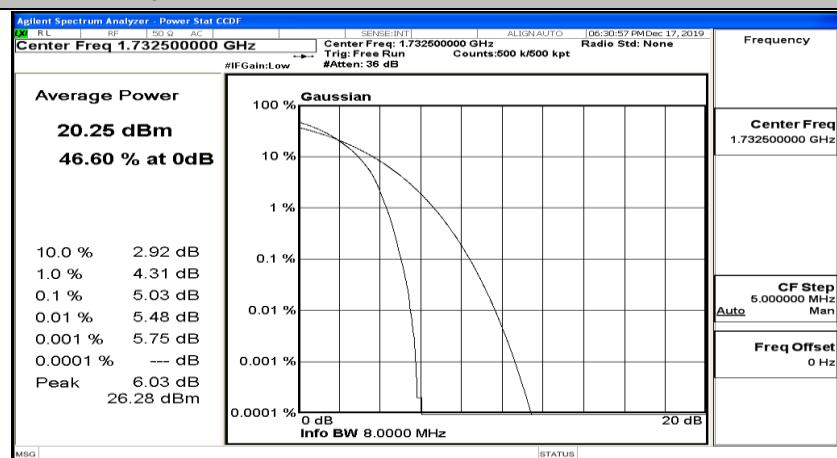
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



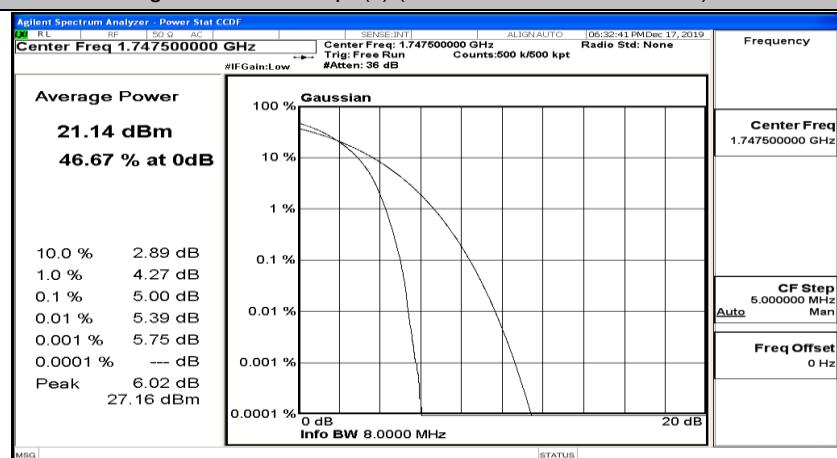
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK



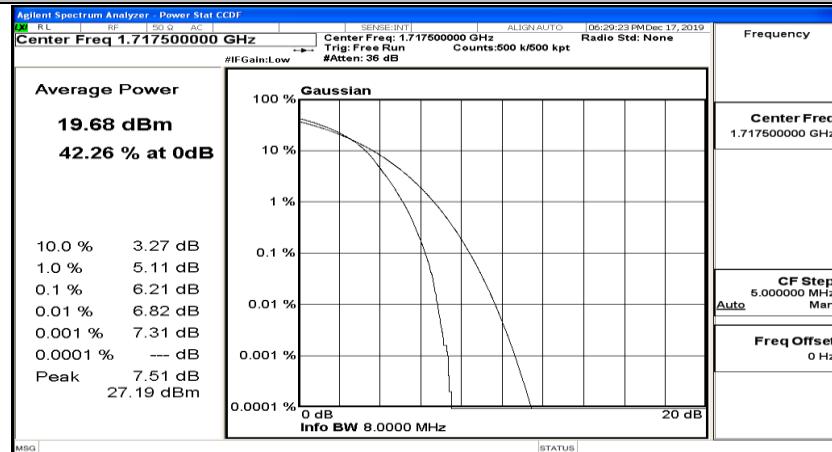
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_QPSK



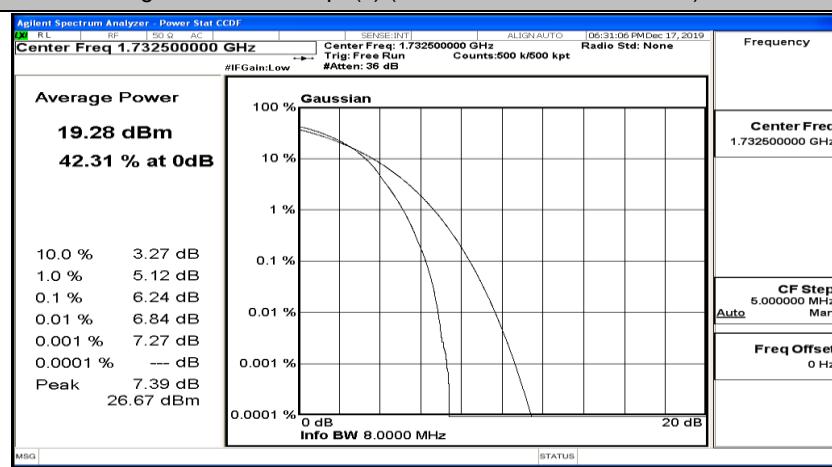
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



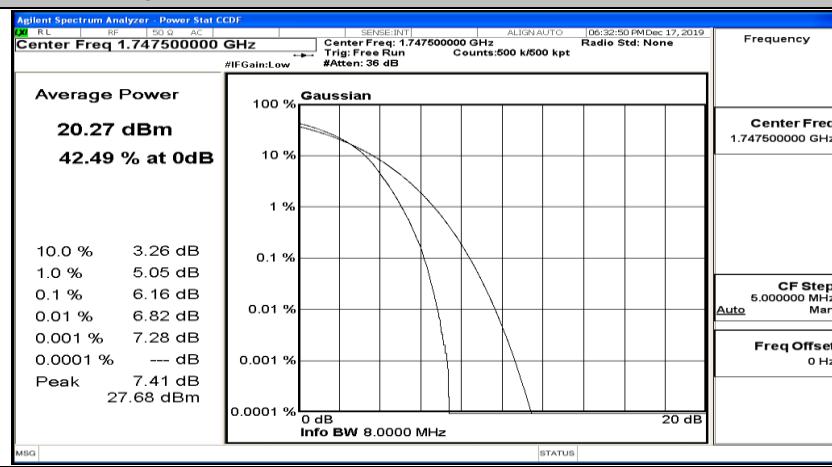
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



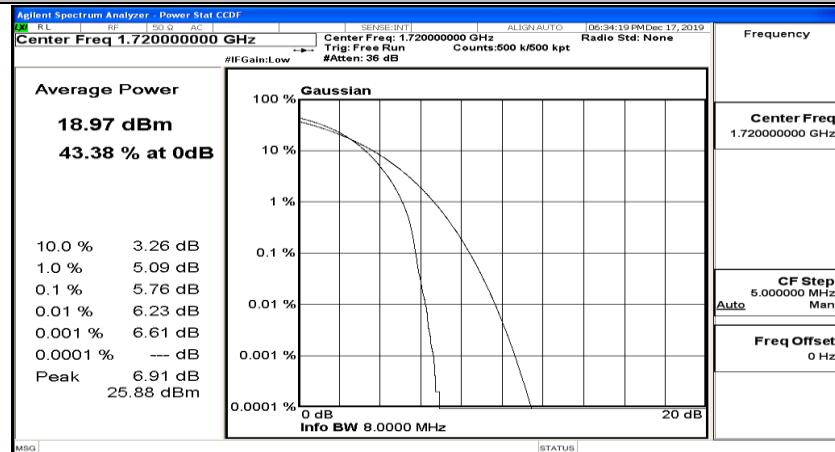
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_16QAM



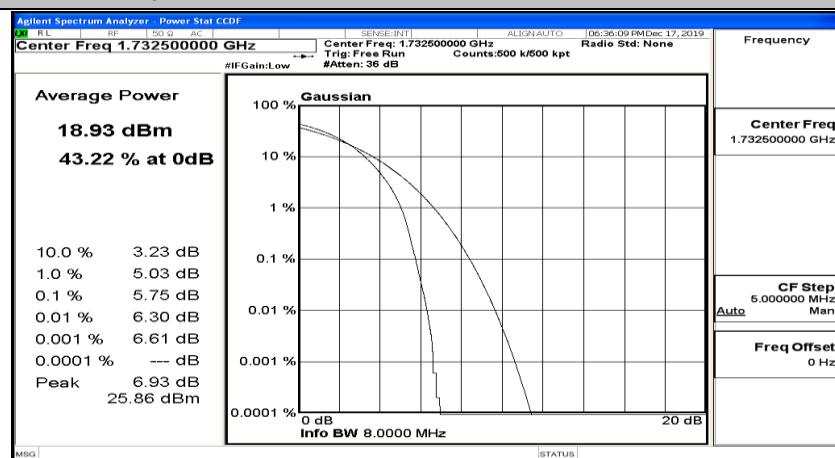
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



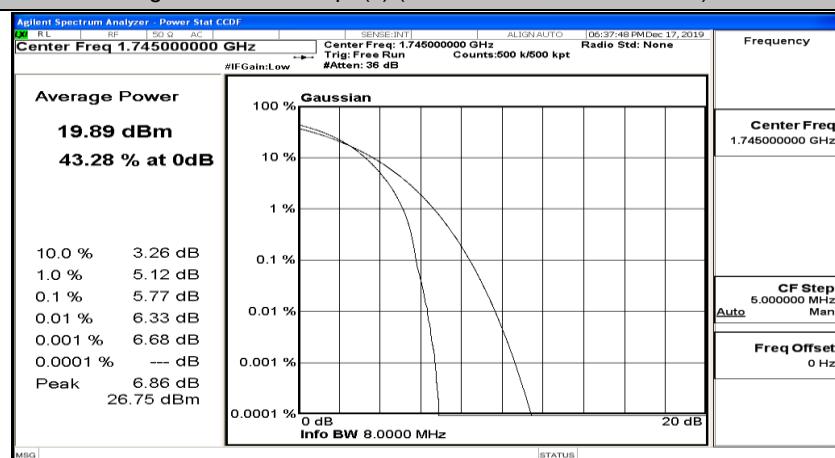
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



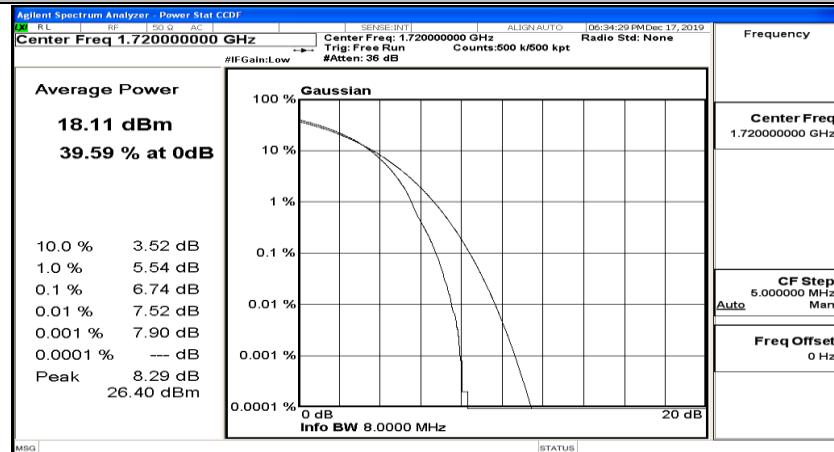
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_QPSK



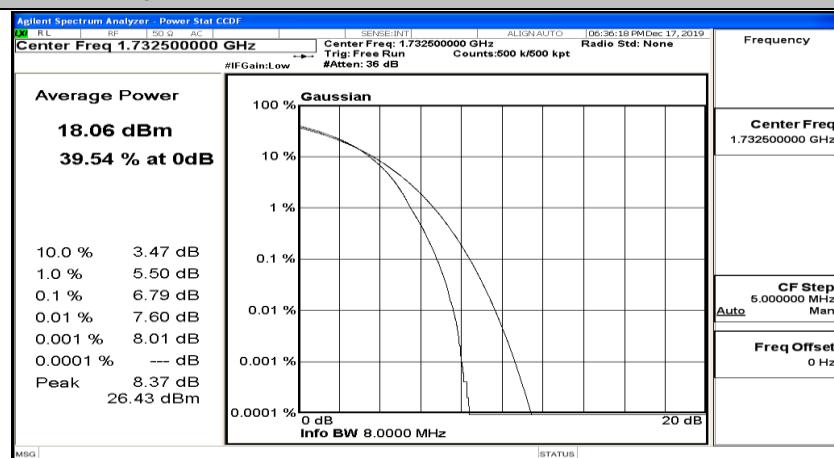
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



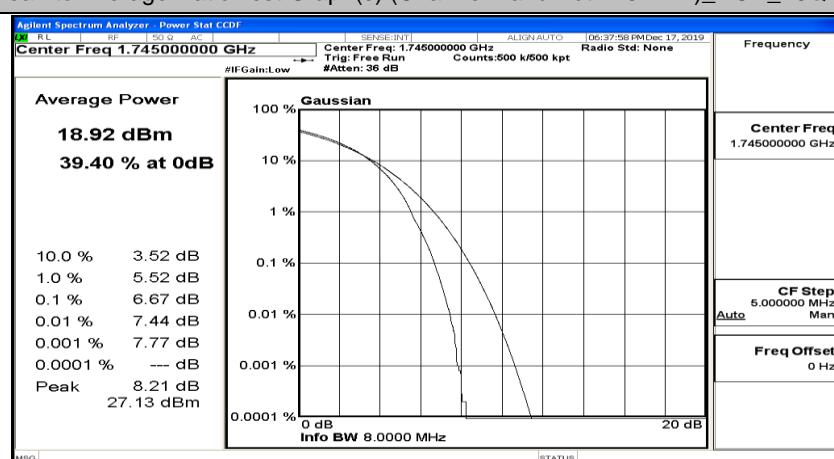
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_16QAM



Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_16QAM



Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_16QAM



A.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	1.0772	1.223	PASS
	MCH	1.0761	1.207	PASS
	HCH	1.0777	1.217	PASS
16QAM	LCH	1.0812	1.237	PASS
	MCH	1.0775	1.236	PASS
	HCH	1.0781	1.210	PASS

EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	2.6871	2.871	PASS
	MCH	2.6849	2.859	PASS
	HCH	2.6830	2.895	PASS
16QAM	LCH	2.6851	2.870	PASS
	MCH	2.6823	2.868	PASS
	HCH	2.6879	2.884	PASS

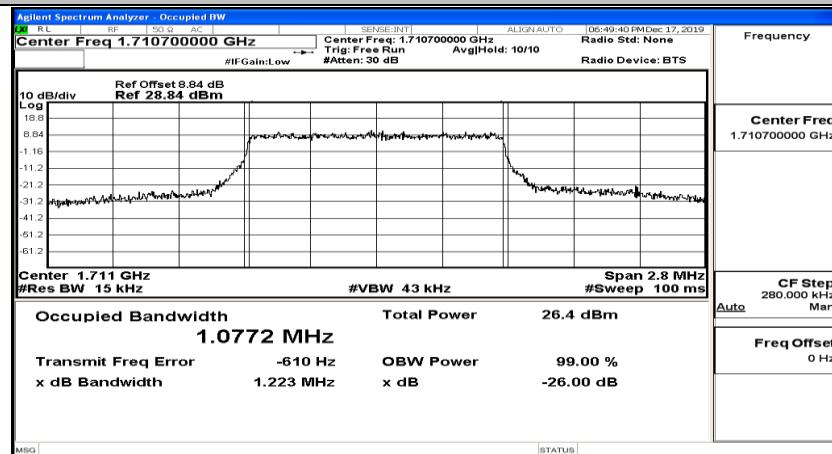
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4875	4.813	PASS
	MCH	4.4743	4.798	PASS
	HCH	4.4831	4.817	PASS
16QAM	LCH	4.4738	4.884	PASS
	MCH	4.4790	4.851	PASS
	HCH	4.4872	4.829	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9457	9.461	PASS
	MCH	8.9319	9.498	PASS
	HCH	8.9275	9.446	PASS
16QAM	LCH	8.9336	9.514	PASS
	MCH	8.9310	9.400	PASS
	HCH	8.9281	9.476	PASS

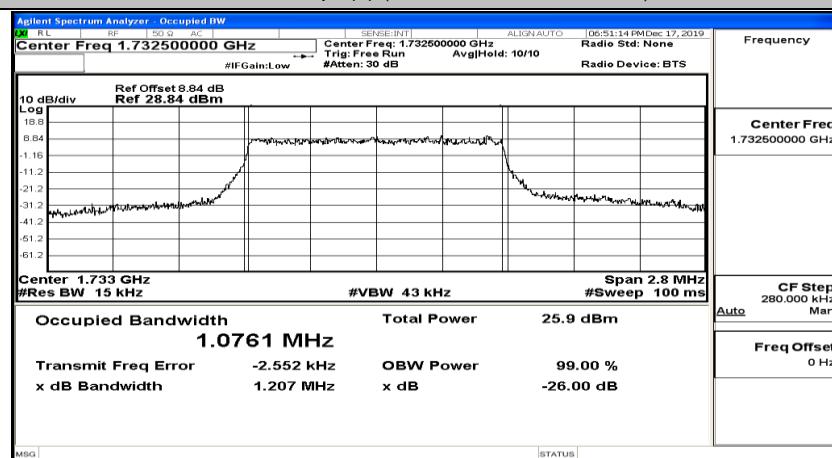
EBW & OBW Test Result (Channel Bandwidth: 15 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	13.397	14.11	PASS
	MCH	13.419	14.10	PASS
	HCH	13.394	14.09	PASS
16QAM	LCH	13.403	14.07	PASS
	MCH	13.408	14.06	PASS
	HCH	13.394	14.07	PASS

EBW & OBW Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	17.867	18.59	PASS
	MCH	17.863	18.62	PASS
	HCH	17.837	18.63	PASS
16QAM	LCH	17.873	18.58	PASS
	MCH	17.877	18.64	PASS
	HCH	17.834	18.61	PASS

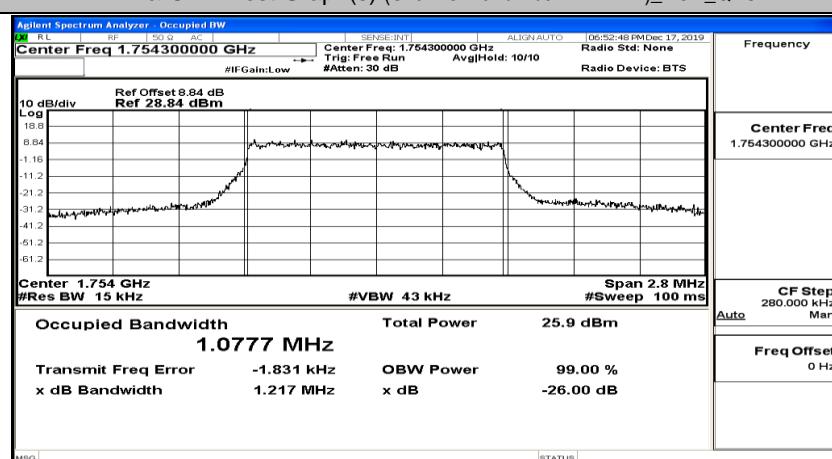
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



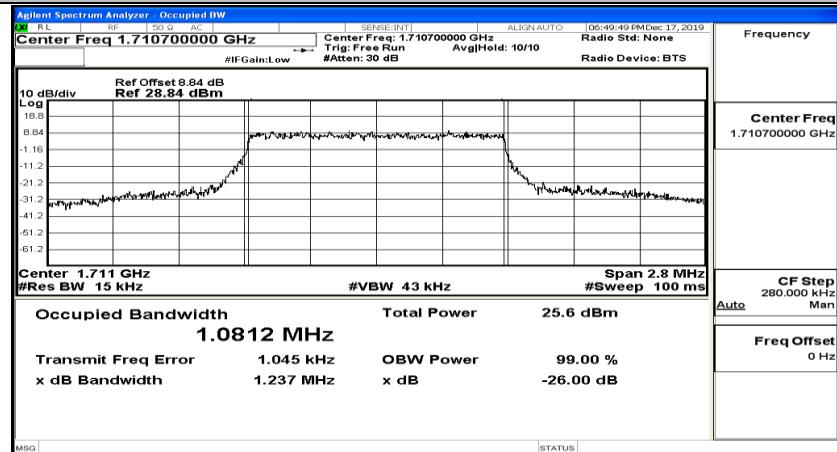
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



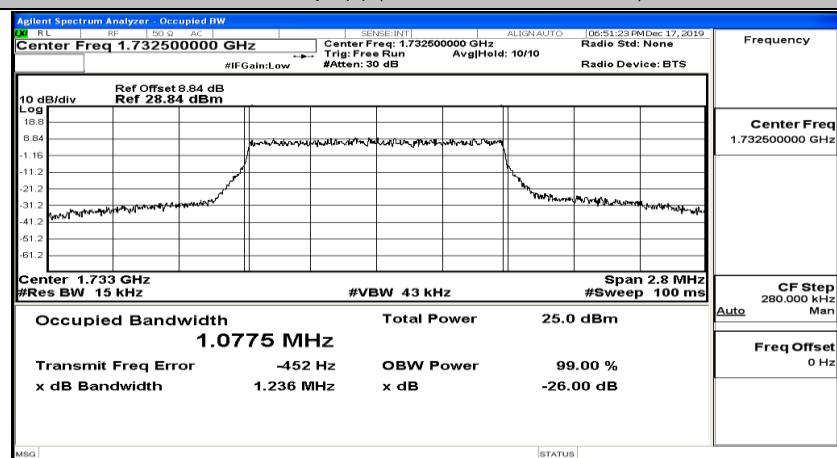
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



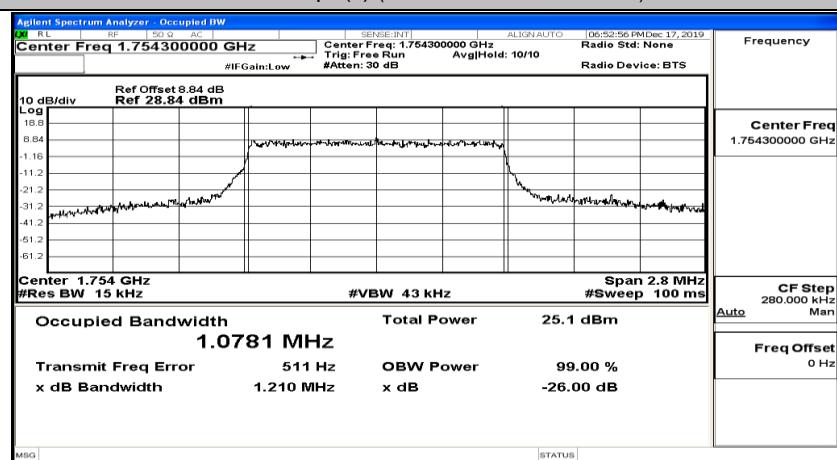
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



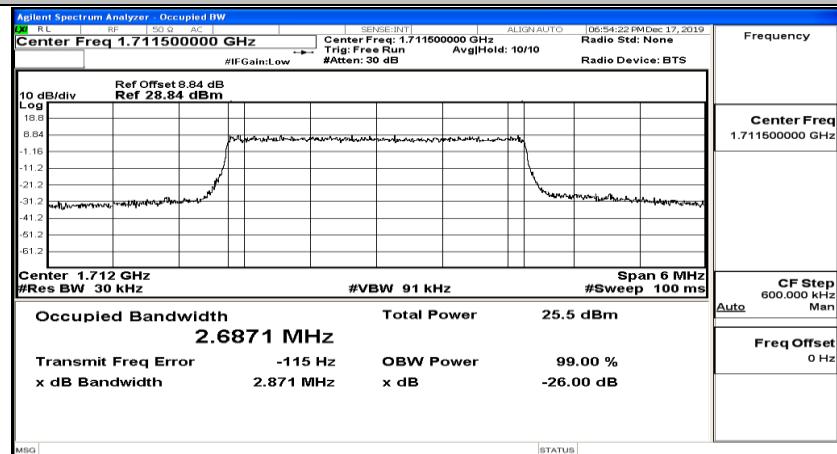
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



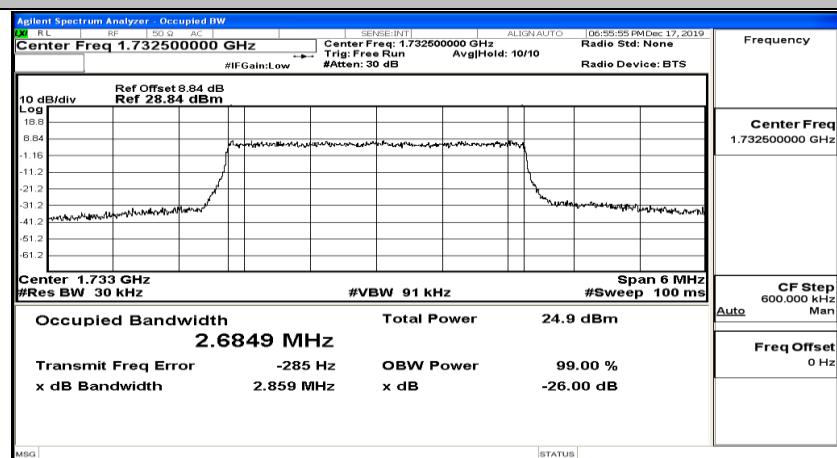
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



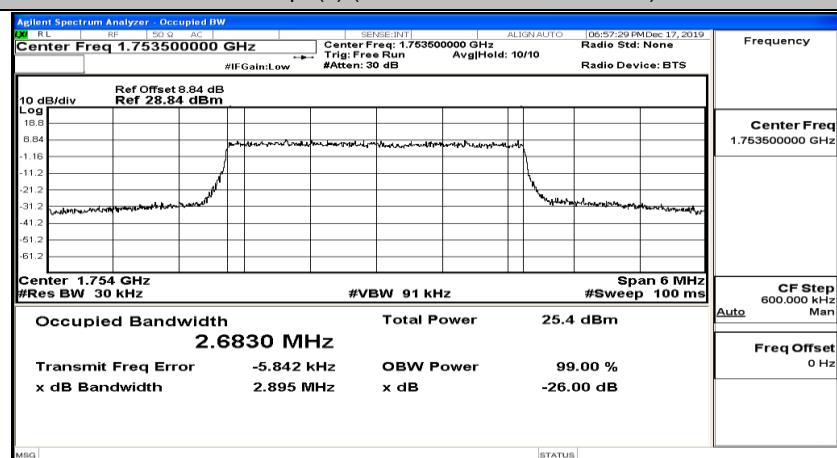
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



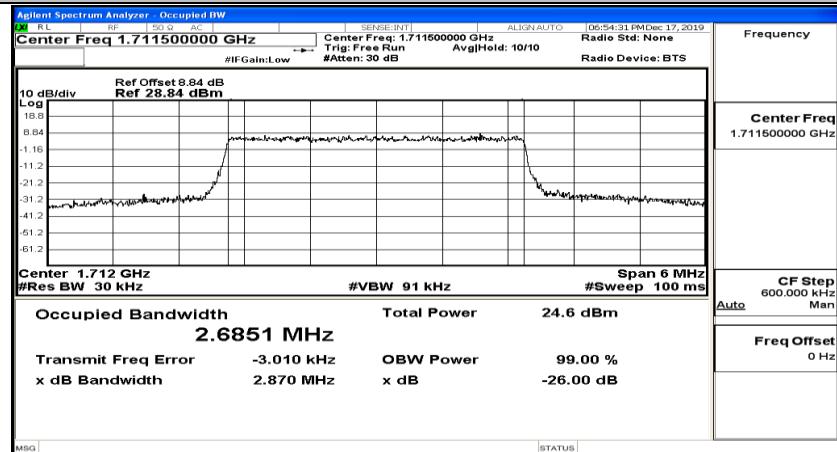
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



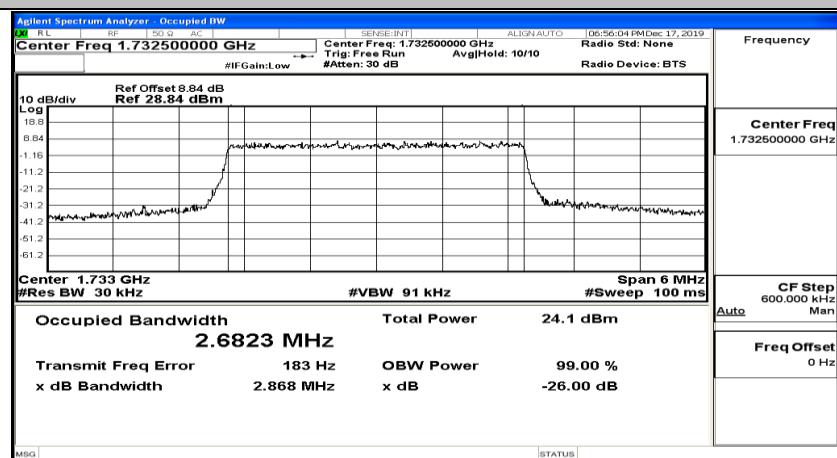
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



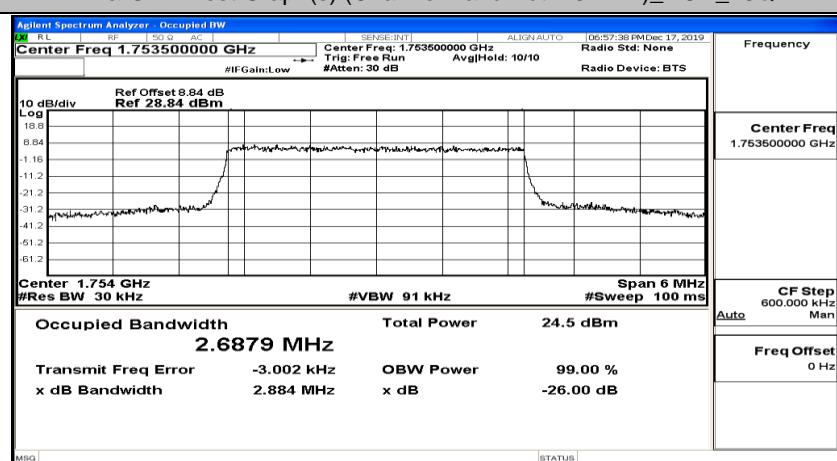
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



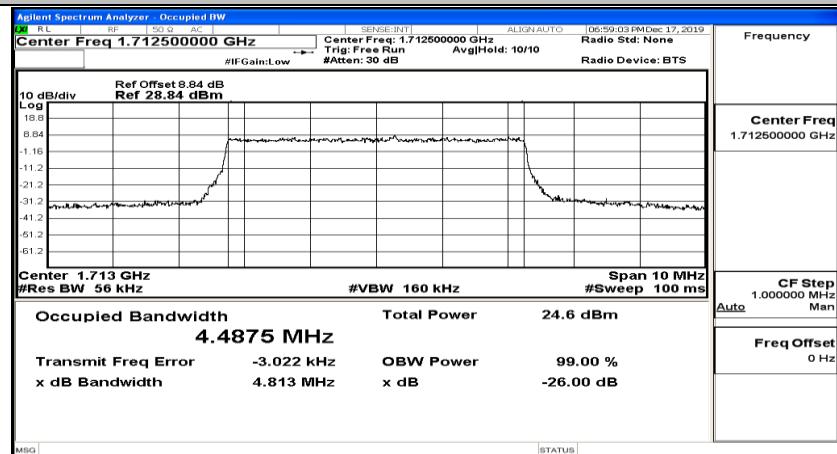
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



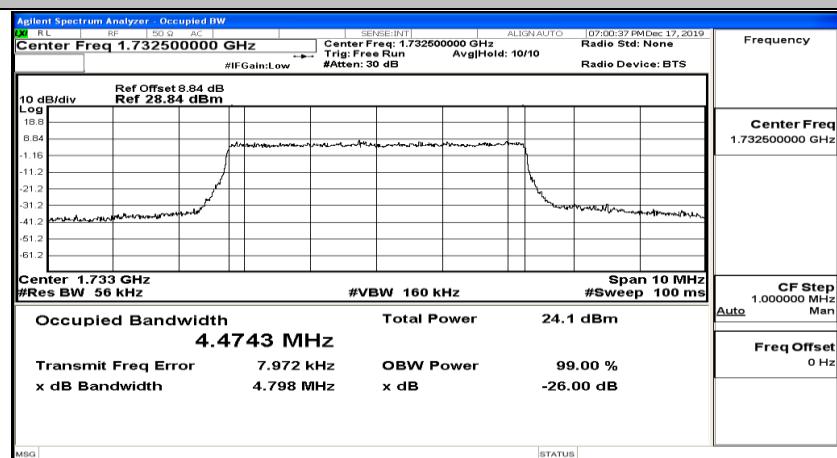
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



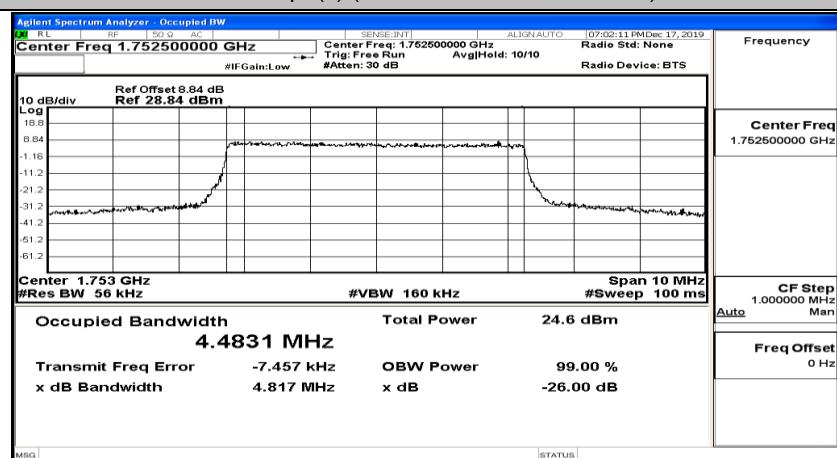
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



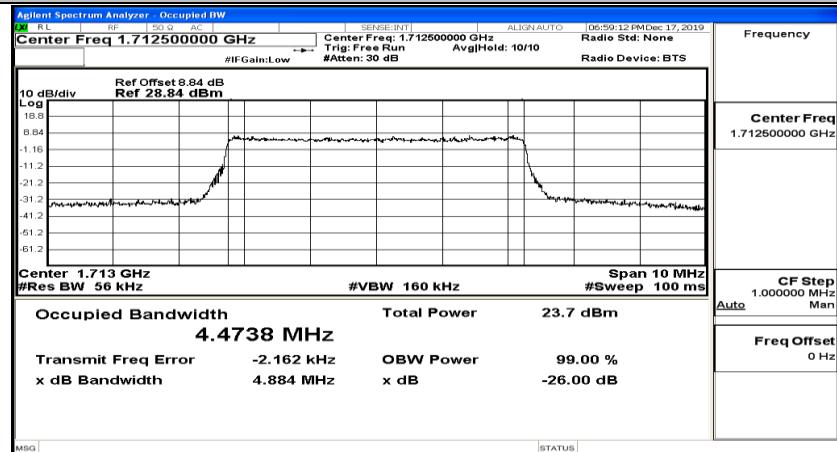
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



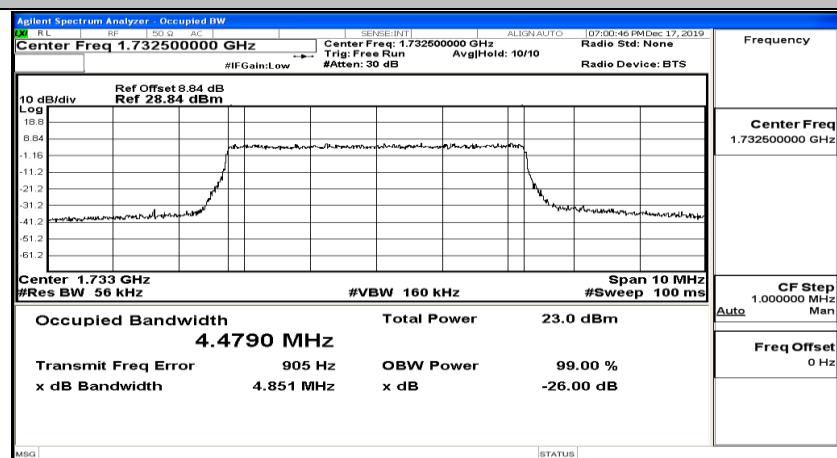
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



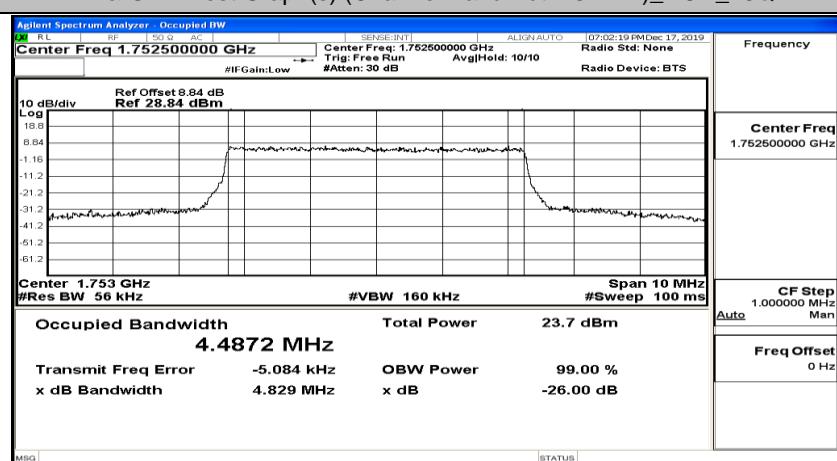
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



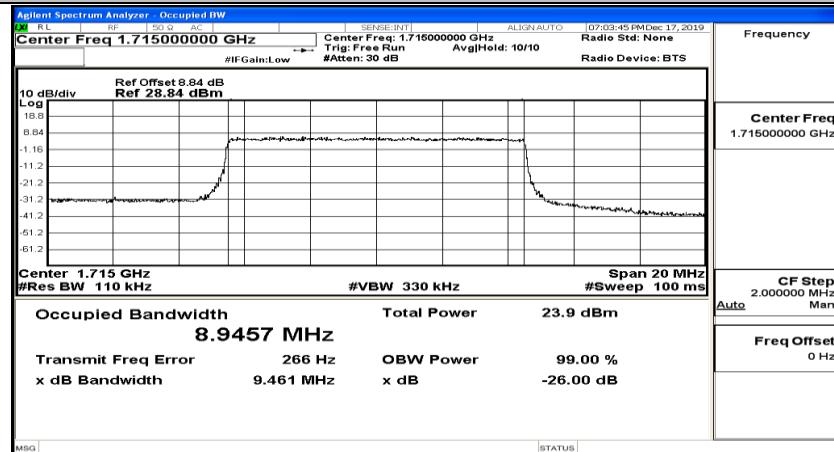
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



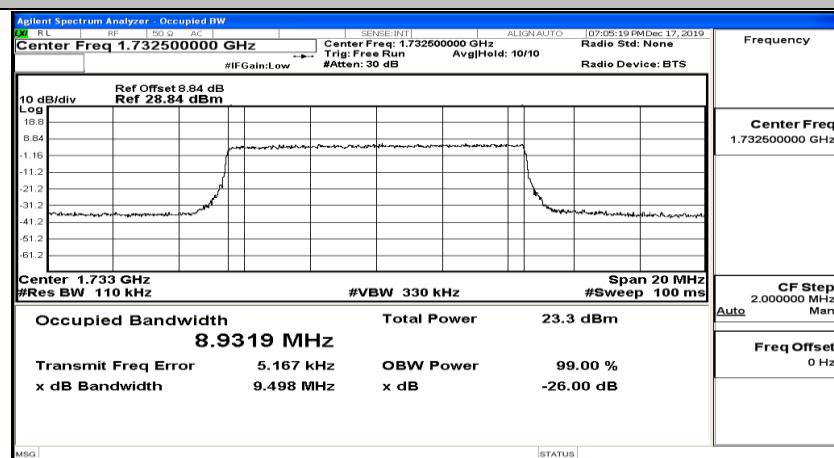
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



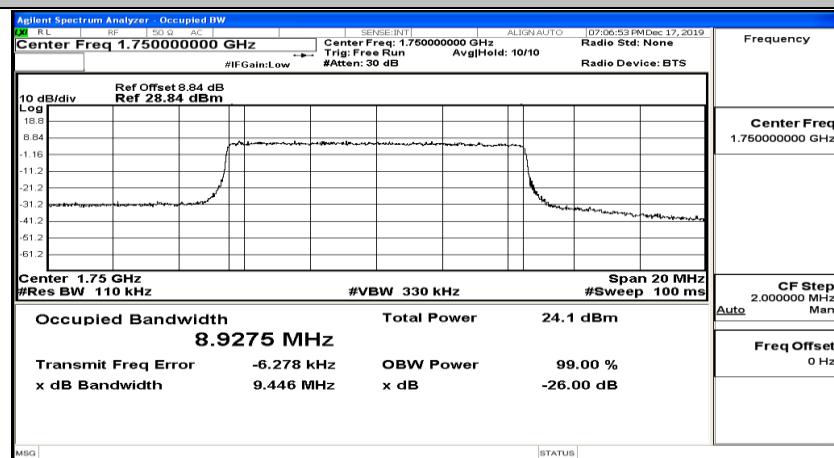
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



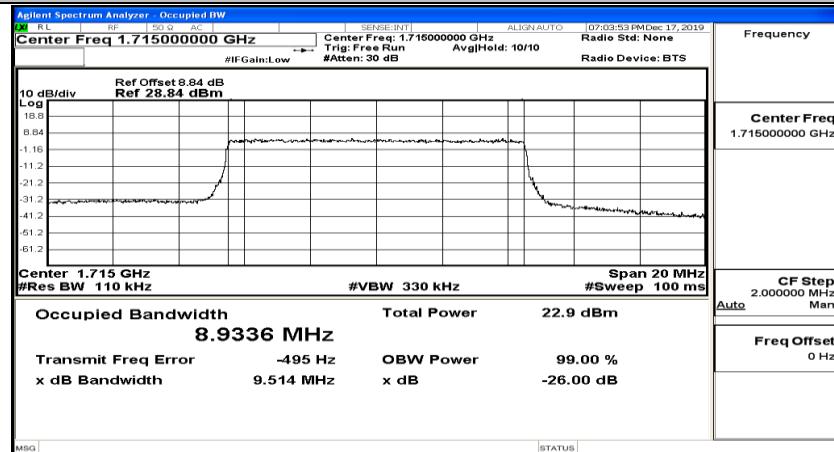
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



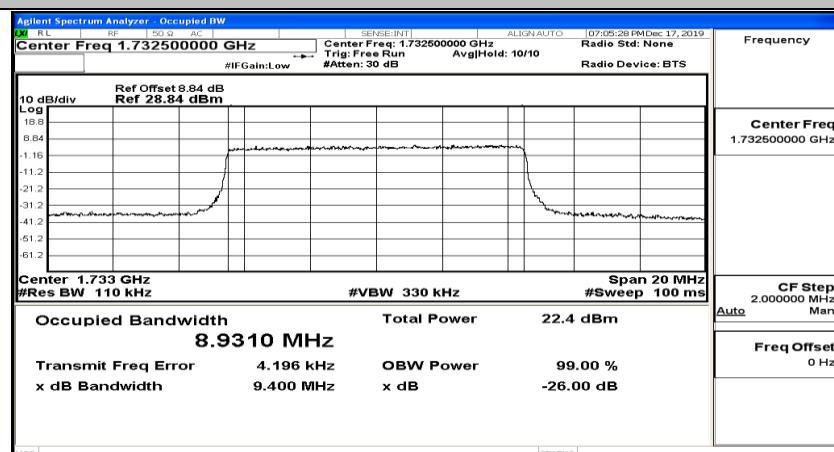
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



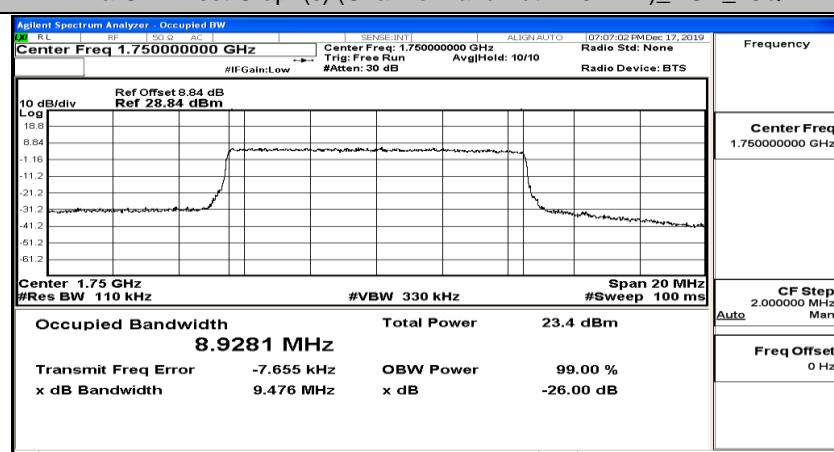
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



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



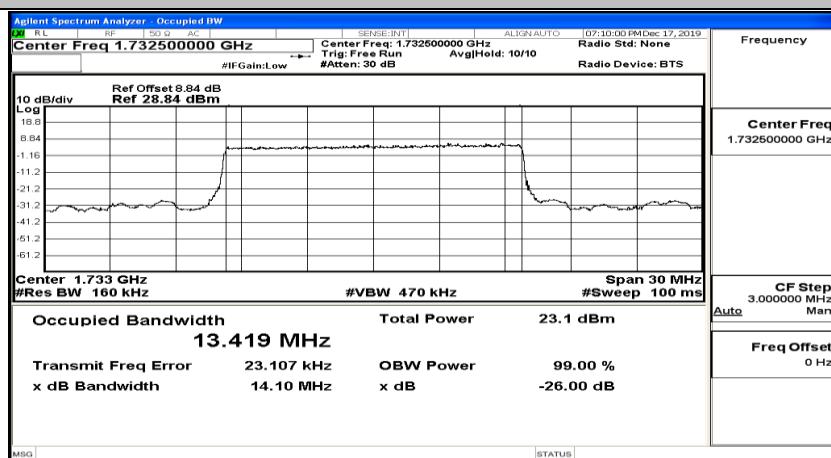
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM



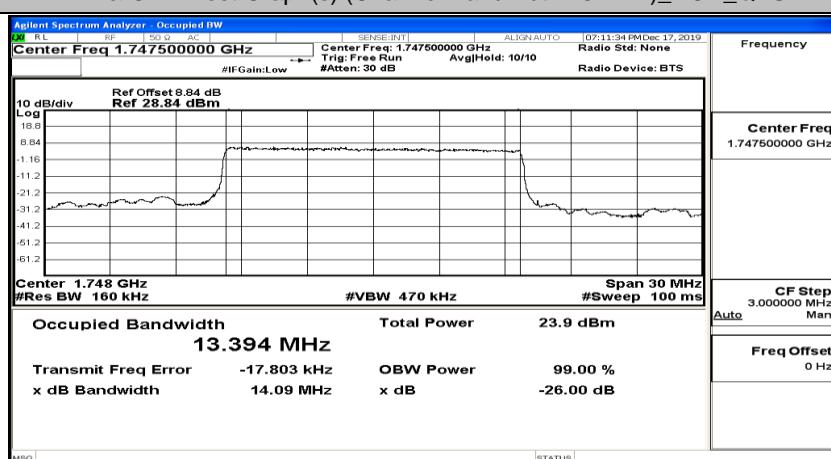
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK



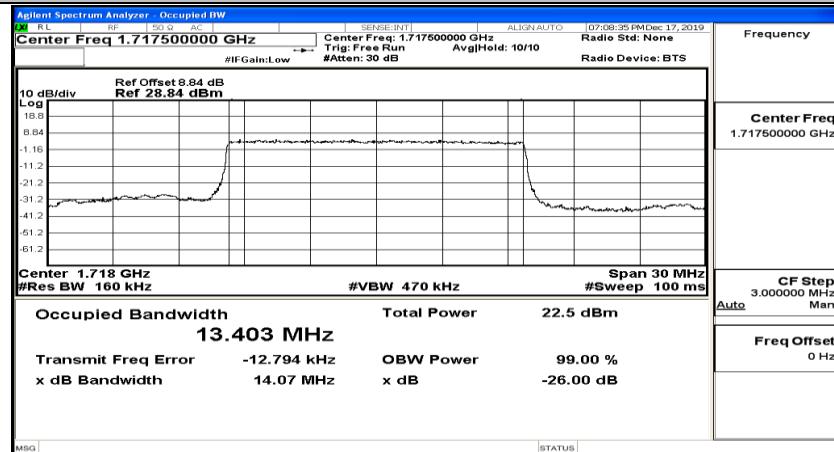
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_QPSK



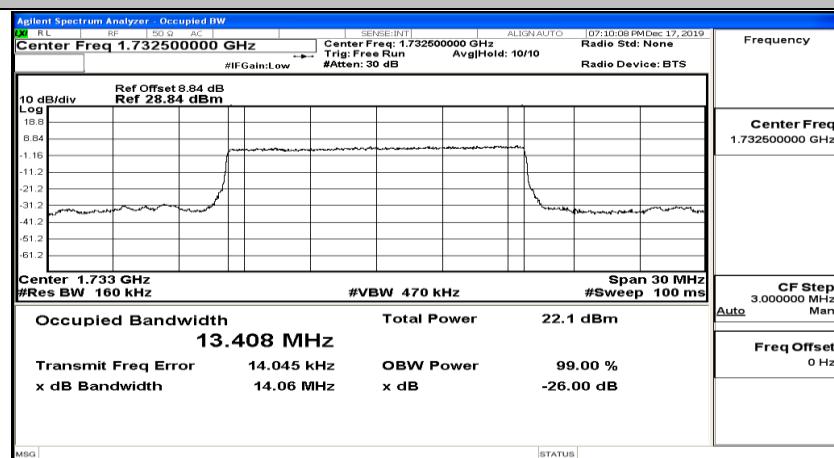
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_QPSK



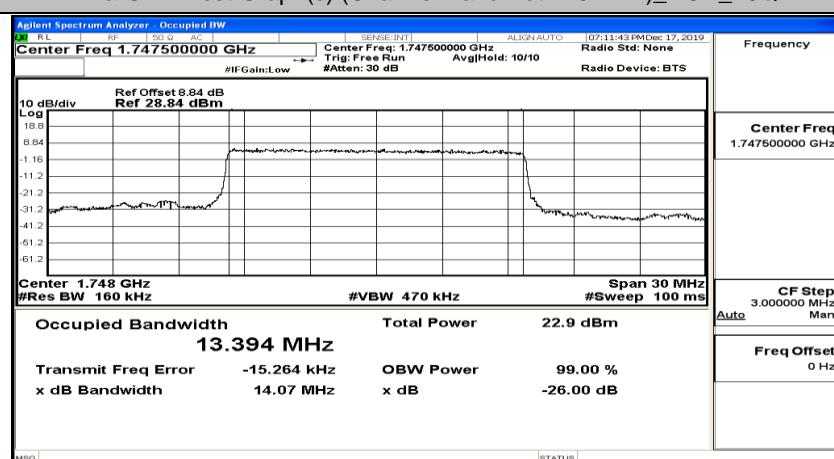
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_16QAM



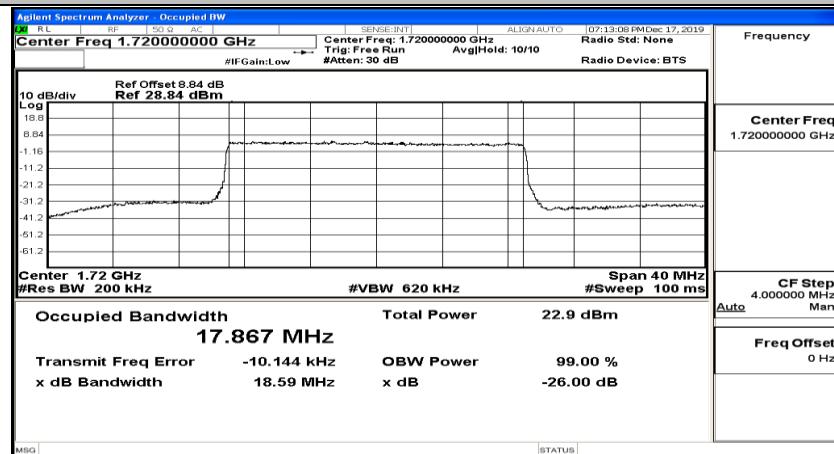
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_MCH_16QAM



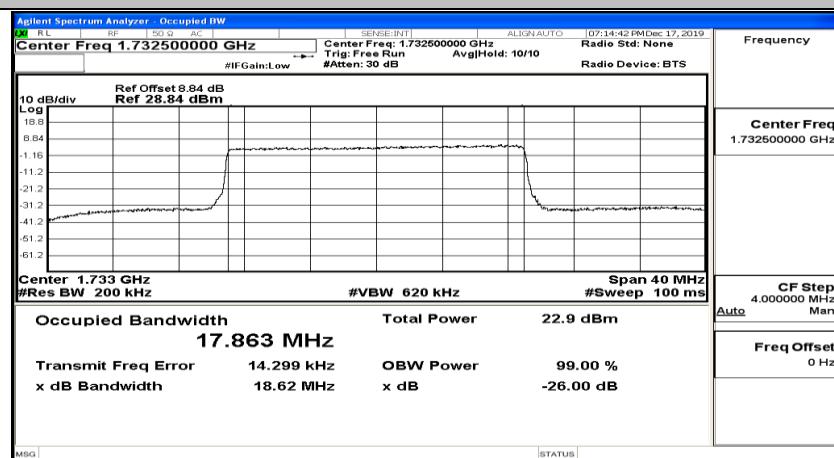
EBW & OBW Test Graph(s) (Channel Bandwidth:15 MHz)_HCH_16QAM



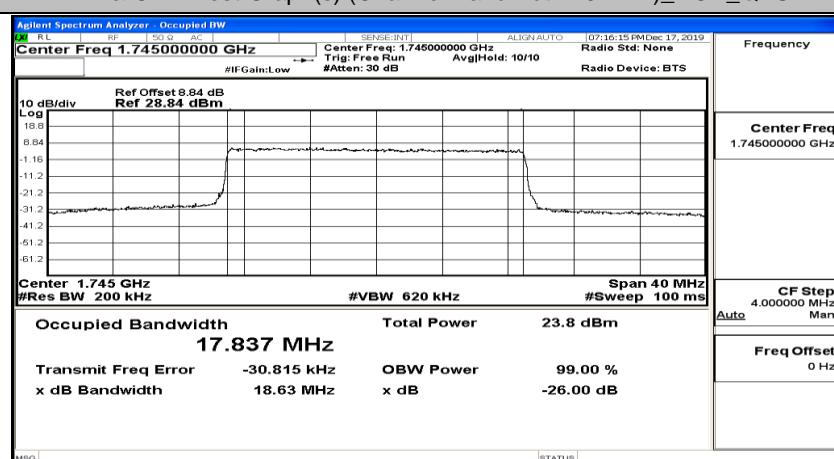
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_QPSK



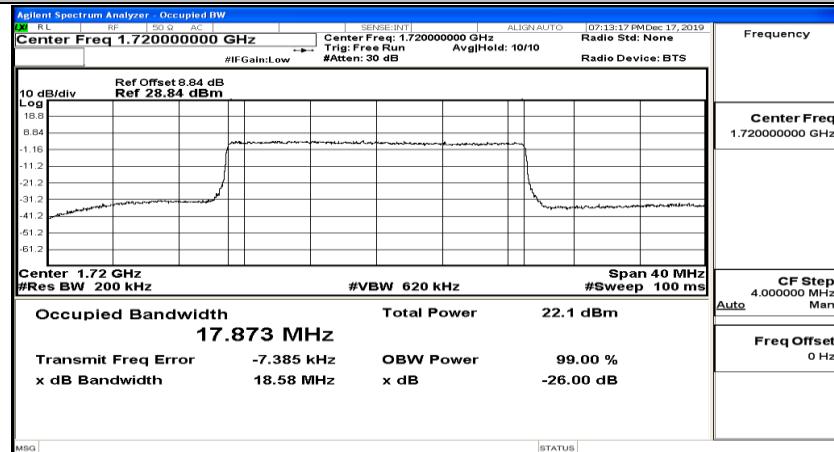
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_QPSK



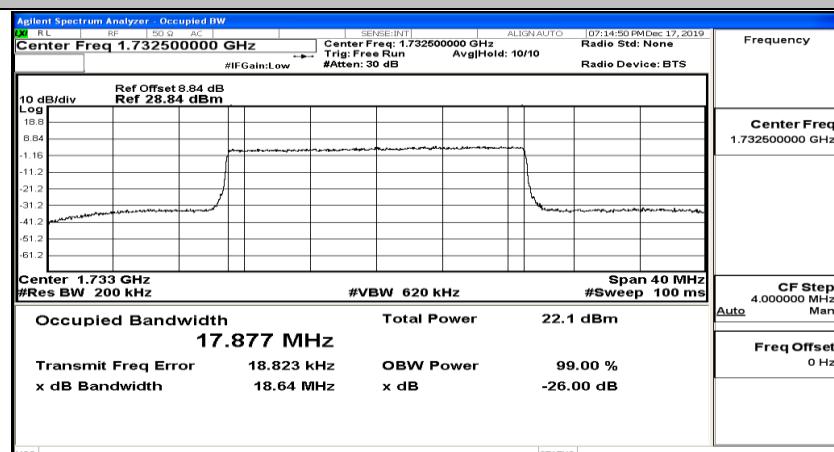
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_QPSK



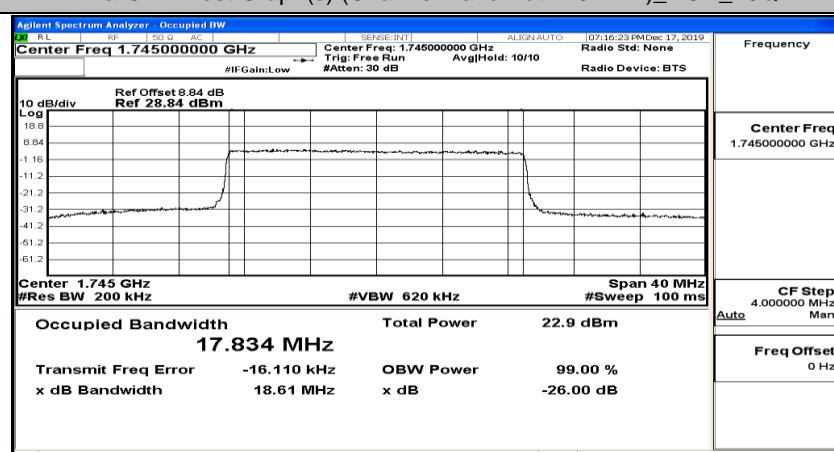
EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_LCH_16QAM



EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_MCH_16QAM

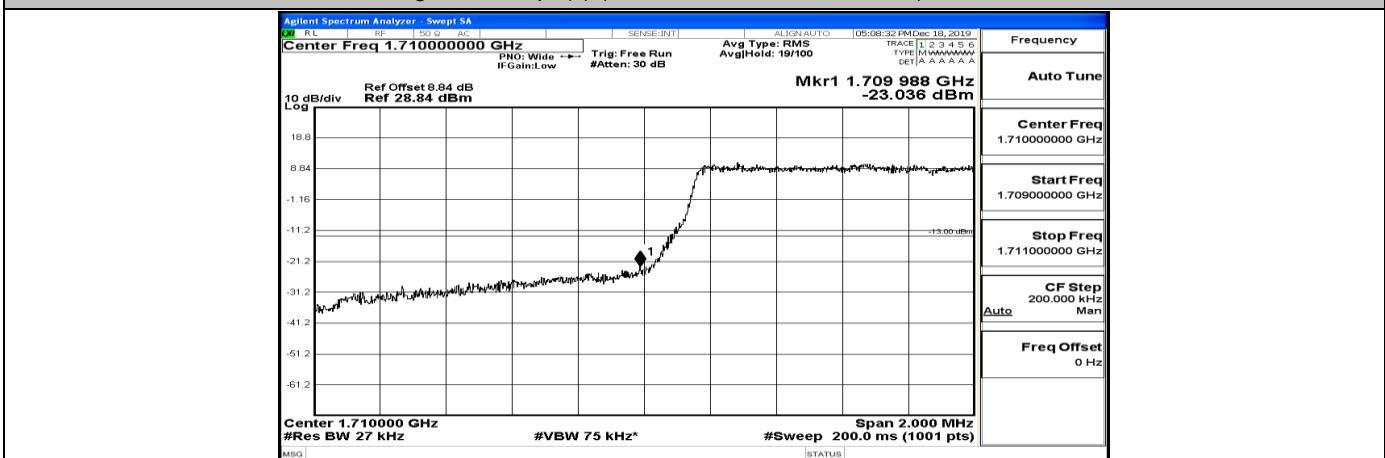


EBW & OBW Test Graph(s) (Channel Bandwidth:20 MHz)_HCH_16QAM

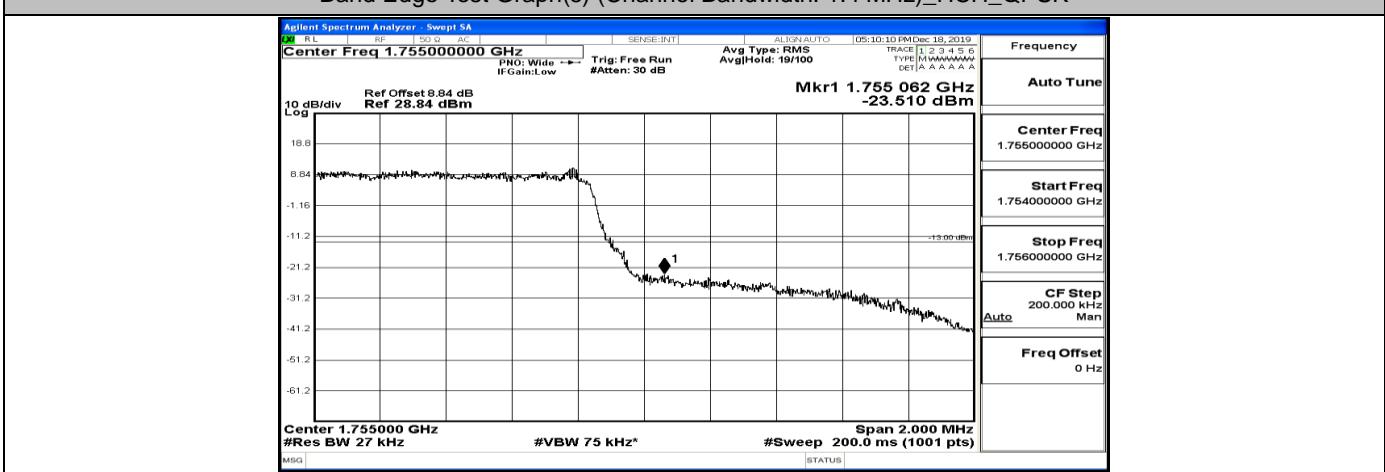


A.4 Band Edge

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

