

Appendix D: Test Data for E-UTRA Band 5

Product Name: Smart Phone

Test Model: Eluga Ray 810

Environmental Conditions

Temperature:	22.8 ° C
Relative Humidity:	53.9%
ATM Pressure:	100.0 kPa
Test Engineer:	Wang Chuang
Supervised by:	Tom Liu

D.1 Conducted Output Power

<SIM1>

Conducted Output Power Test Result (Channel Bandwidth: 1.4 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]		Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	23.75	22.88	PASS
		1	3	23.77	22.99	PASS
		1	5	23.75	22.82	PASS
		3	0	23.60	22.78	PASS
		3	2	23.76	22.86	PASS
		3	3	23.70	22.69	PASS
		6	0	22.71	21.72	PASS
	MCH	1	0	23.14	22.50	PASS
		1	3	23.04	22.09	PASS
		1	5	23.03	21.96	PASS
		3	0	23.08	22.19	PASS
		3	2	22.96	21.89	PASS
		3	3	23.01	22.18	PASS
		6	0	22.07	21.04	PASS
	HCH	1	0	23.19	22.97	PASS
		1	3	23.58	22.72	PASS
		1	5	23.15	22.83	PASS
		3	0	23.37	22.63	PASS
		3	2	23.39	22.64	PASS
		3	3	23.39	22.60	PASS
		6	0	22.45	21.56	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	23.69	23.11	PASS
		1	7	23.58	22.73	PASS
		1	14	23.60	22.80	PASS
		8	0	22.80	21.85	PASS
		8	4	22.74	21.82	PASS
		8	7	22.63	21.76	PASS
		15	0	22.69	21.74	PASS
	MCH	1	0	22.79	22.18	PASS
		1	7	22.51	21.73	PASS
		1	14	22.71	22.15	PASS
		8	0	22.30	21.22	PASS
		8	4	22.08	21.15	PASS
		8	7	22.19	21.17	PASS
		15	0	22.08	21.08	PASS
	HCH	1	0	23.29	22.40	PASS
		1	7	23.20	22.30	PASS
		1	14	23.47	22.59	PASS
		8	0	22.33	21.46	PASS
		8	4	22.55	21.50	PASS
		8	7	22.54	21.38	PASS
		15	0	22.46	21.52	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	23.78	23.10	PASS
		1	12	23.52	22.87	PASS
		1	24	23.49	22.76	PASS
		12	0	22.78	21.90	PASS
		12	6	22.72	21.83	PASS
		12	13	22.55	21.75	PASS
		25	0	22.68	21.72	PASS
	MCH	1	0	22.95	22.21	PASS
		1	12	22.41	22.00	PASS
		1	24	22.47	21.48	PASS
		12	0	22.05	21.17	PASS
		12	6	22.06	21.14	PASS
		12	13	22.09	21.26	PASS
		25	0	22.16	21.03	PASS
	HCH	1	0	23.29	22.33	PASS
		1	12	23.46	22.48	PASS
		1	24	23.10	21.93	PASS
		12	0	22.27	21.25	PASS
		12	6	22.47	21.37	PASS
		12	13	22.55	21.39	PASS
		25	0	22.47	21.48	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	23.54	22.84	PASS
		1	24	23.47	22.81	PASS
		1	49	23.33	22.82	PASS
		25	0	22.80	21.84	PASS
		25	12	22.65	21.71	PASS
		25	25	22.54	21.55	PASS
		50	0	22.85	21.74	PASS
	MCH	1	0	23.28	22.54	PASS
		1	24	22.79	22.14	PASS
		1	49	22.61	21.01	PASS
		25	0	22.06	21.21	PASS
		25	12	22.05	20.98	PASS
		25	25	22.11	21.33	PASS
		50	0	22.10	21.21	PASS
	HCH	1	0	23.19	22.46	PASS
		1	24	23.00	22.47	PASS
		1	49	22.87	22.30	PASS
		25	0	22.19	21.26	PASS
		25	12	22.33	21.29	PASS
		25	25	22.41	21.58	PASS
		50	0	22.36	21.41	PASS

<SIM2>

Conducted Output Power Test Result (Channel Bandwidth: 1.4 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	23.73	22.65	PASS
		1	3	23.74	22.75	PASS
		1	5	23.71	22.58	PASS
		3	0	23.57	22.52	PASS
		3	2	23.74	22.62	PASS
		3	3	23.69	22.44	PASS
		6	0	22.67	21.48	PASS
	MCH	1	0	23.12	22.25	PASS
		1	3	23.02	21.84	PASS
		1	5	23.00	21.72	PASS
		3	0	23.06	21.94	PASS
		3	2	22.95	21.63	PASS
		3	3	22.97	21.94	PASS
		6	0	22.23	21.01	PASS
	HCH	1	0	23.16	22.71	PASS
		1	3	23.56	22.50	PASS
		1	5	23.10	22.58	PASS
		3	0	23.33	22.41	PASS
		3	2	23.37	22.39	PASS
		3	3	23.35	22.37	PASS
		6	0	22.41	21.33	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	23.67	22.88	PASS
		1	7	23.54	22.49	PASS
		1	14	23.58	22.56	PASS
		8	0	22.77	21.62	PASS
		8	4	22.71	21.59	PASS
		8	7	22.61	21.54	PASS
		15	0	22.64	21.50	PASS
	MCH	1	0	22.76	21.94	PASS
		1	7	22.46	21.49	PASS
		1	14	22.67	21.93	PASS
		8	0	22.27	21.15	PASS
		8	4	22.26	21.13	PASS
		8	7	22.25	21.12	PASS
		15	0	22.24	21.03	PASS
	HCH	1	0	23.25	22.18	PASS
		1	7	23.17	22.07	PASS
		1	14	23.45	22.34	PASS
		8	0	22.29	21.24	PASS
		8	4	22.51	21.25	PASS
		8	7	22.51	21.13	PASS
		15	0	22.42	21.26	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	23.76	22.84	PASS
		1	12	23.49	22.63	PASS
		1	24	23.45	22.54	PASS
		12	0	22.76	21.65	PASS
		12	6	22.67	21.59	PASS
		12	13	22.51	21.50	PASS
		25	0	22.64	21.50	PASS
	MCH	1	0	22.93	21.98	PASS
		1	12	22.40	21.76	PASS
		1	24	22.45	21.25	PASS
		12	0	22.11	21.12	PASS
		12	6	22.11	21.11	PASS
		12	13	22.06	21.01	PASS
		25	0	22.11	20.78	PASS
	HCH	1	0	23.28	22.08	PASS
		1	12	23.45	22.26	PASS
		1	24	23.09	21.70	PASS
		12	0	22.23	21.02	PASS
		12	6	22.44	21.13	PASS
		12	13	22.52	21.16	PASS
		25	0	22.45	21.26	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	23.53	22.59	PASS
		1	24	23.45	22.57	PASS
		1	49	23.29	22.57	PASS
		25	0	22.77	21.59	PASS
		25	12	22.61	21.48	PASS
		25	25	22.52	21.29	PASS
		50	0	22.84	21.49	PASS
	MCH	1	0	23.24	22.31	PASS
		1	24	22.74	21.91	PASS
		1	49	22.18	21.07	PASS
		25	0	22.13	21.08	PASS
		25	12	22.16	21.14	PASS
		25	25	22.07	21.09	PASS
		50	0	22.16	21.06	PASS
	HCH	1	0	23.17	22.21	PASS
		1	24	22.97	22.21	PASS
		1	49	22.85	22.06	PASS
		25	0	22.16	21.03	PASS
		25	12	22.31	21.07	PASS
		25	25	22.39	21.36	PASS
		50	0	22.34	21.19	PASS

D.2 Peak-to-Average Ratio

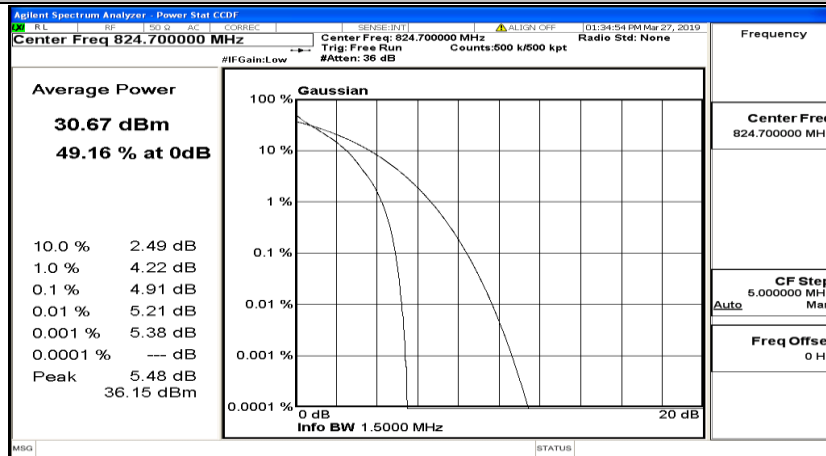
Peak-to Average Ratio Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.91	<13	PASS
	MCH	4.37	<13	PASS
	HCH	4.32	<13	PASS
16QAM	LCH	5.71	<13	PASS
	MCH	5.2	<13	PASS
	HCH	5.08	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.08	<13	PASS
	MCH	4.58	<13	PASS
	HCH	4.54	<13	PASS
16QAM	LCH	5.94	<13	PASS
	MCH	5.39	<13	PASS
	HCH	5.26	<13	PASS

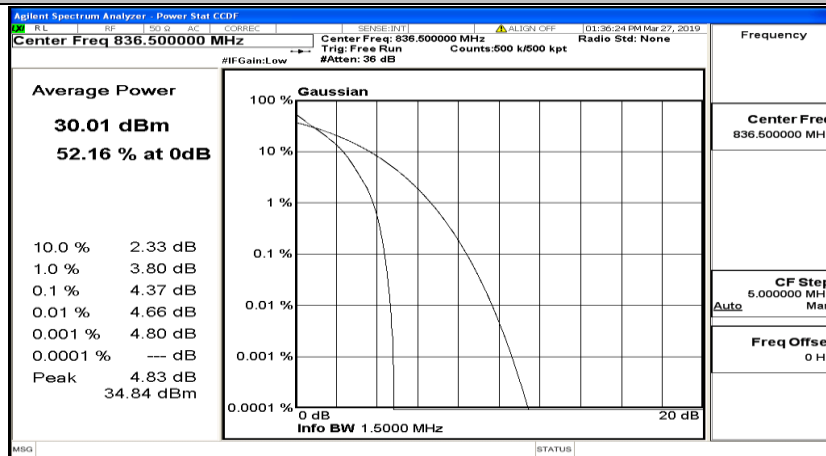
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.14	<13	PASS
	MCH	4.53	<13	PASS
	HCH	4.51	<13	PASS
16QAM	LCH	5.9	<13	PASS
	MCH	5.3	<13	PASS
	HCH	5.29	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.25	<13	PASS
	MCH	4.81	<13	PASS
	HCH	4.81	<13	PASS
16QAM	LCH	5.97	<13	PASS
	MCH	5.53	<13	PASS
	HCH	5.56	<13	PASS

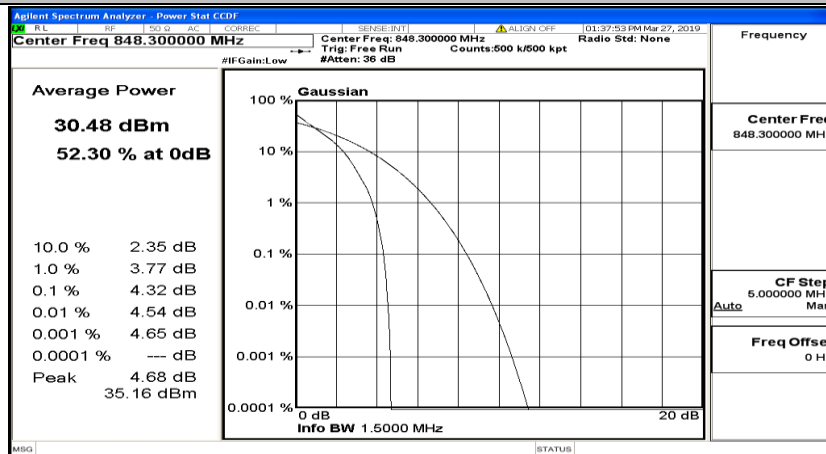
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



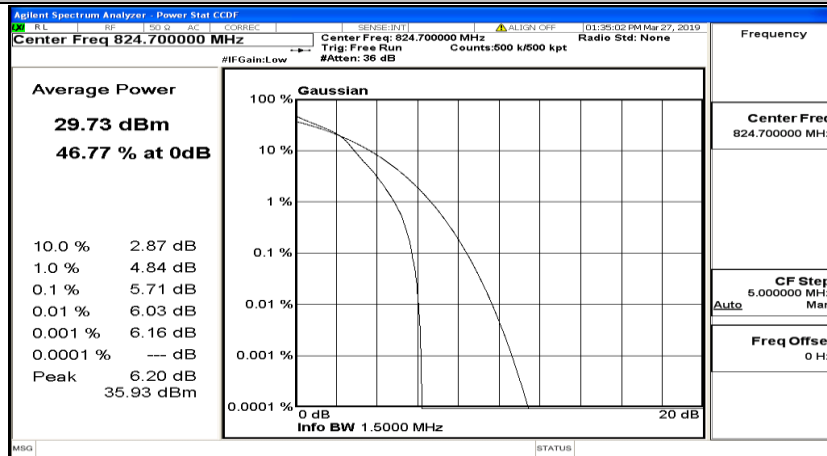
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



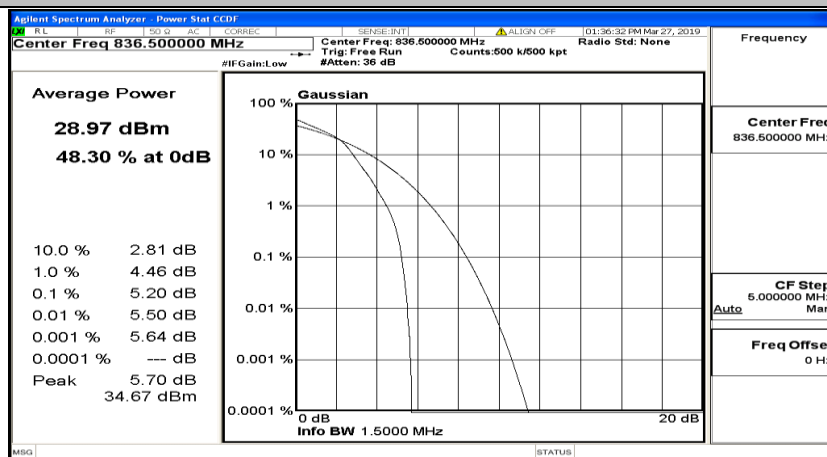
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



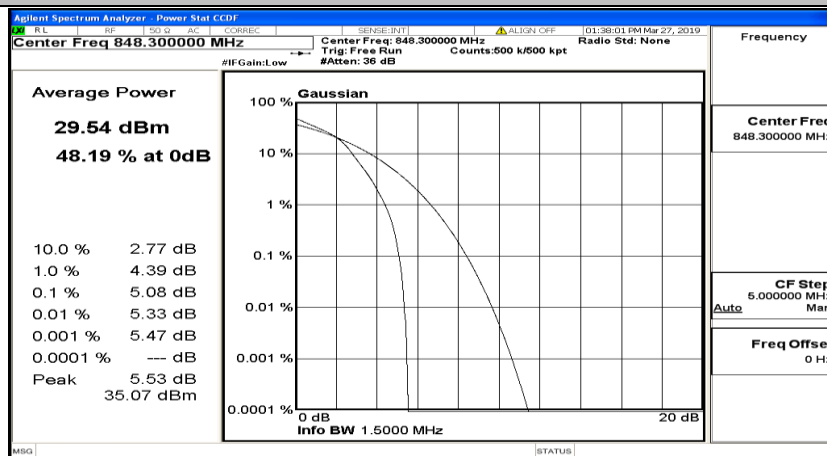
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



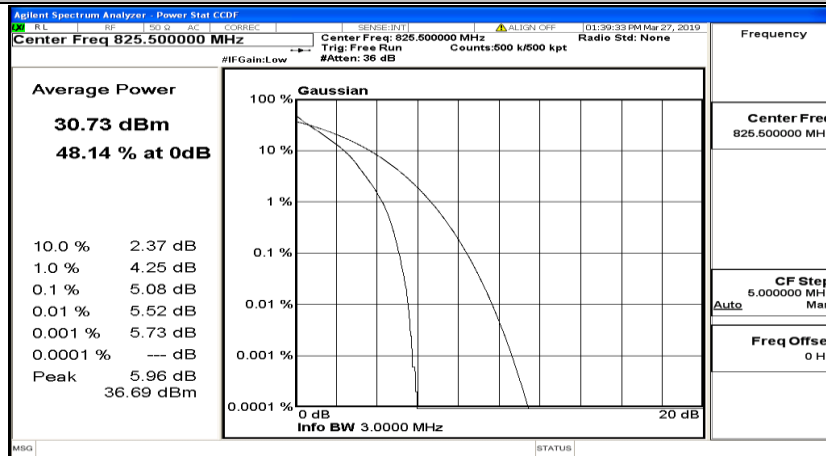
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



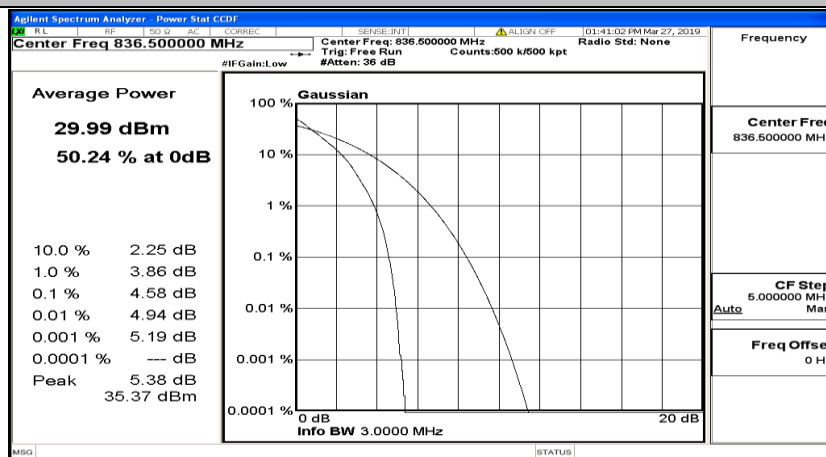
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



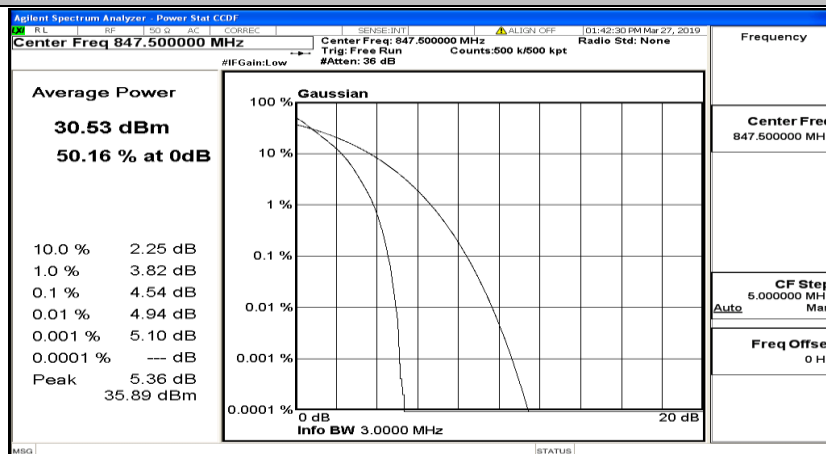
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



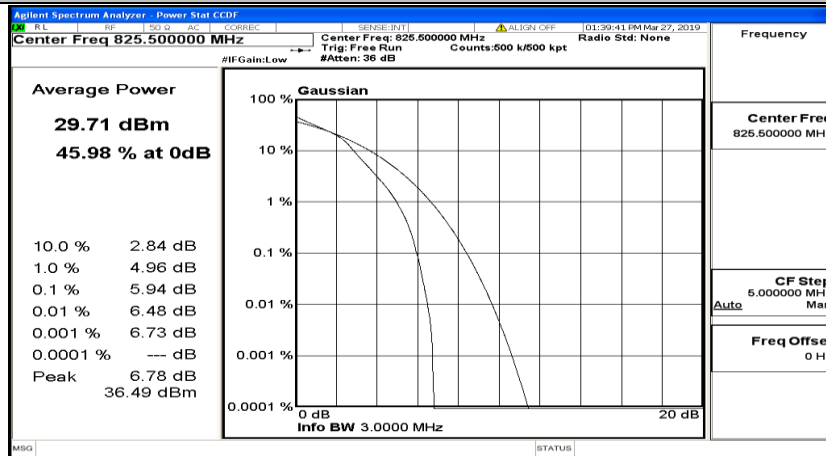
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



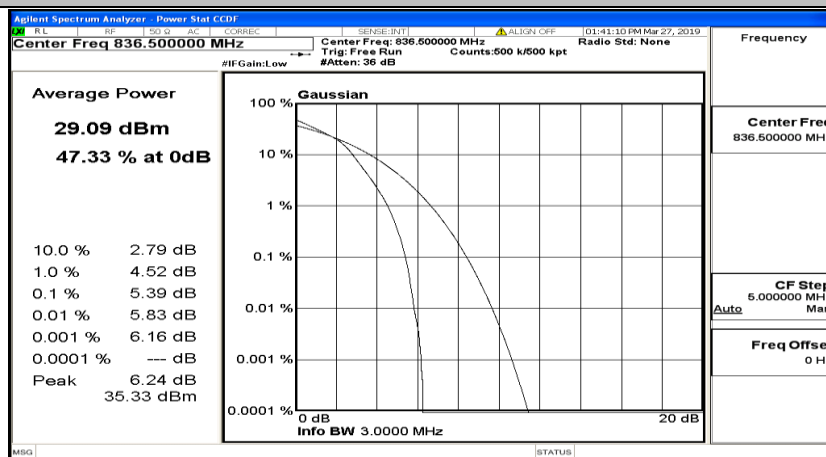
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



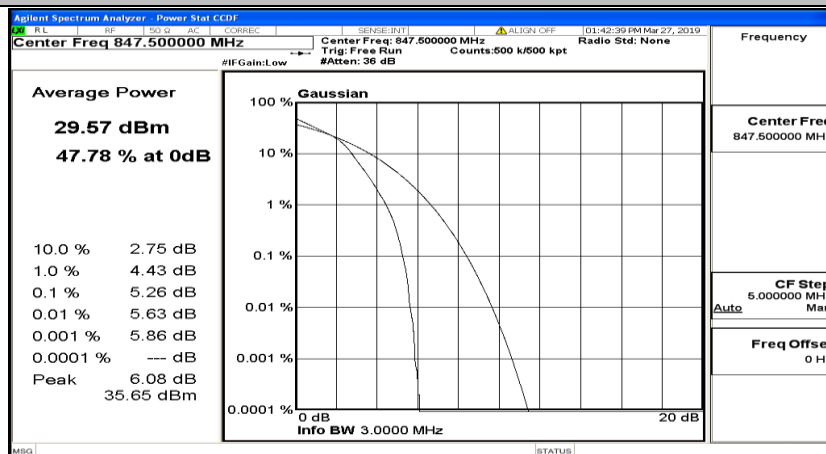
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



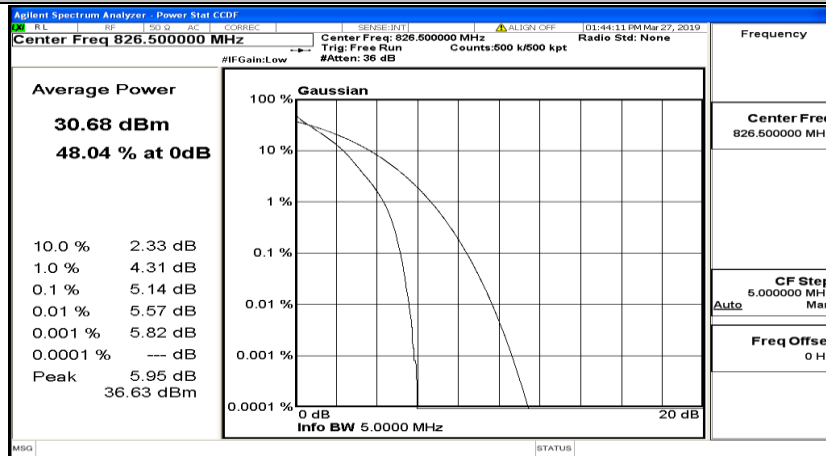
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



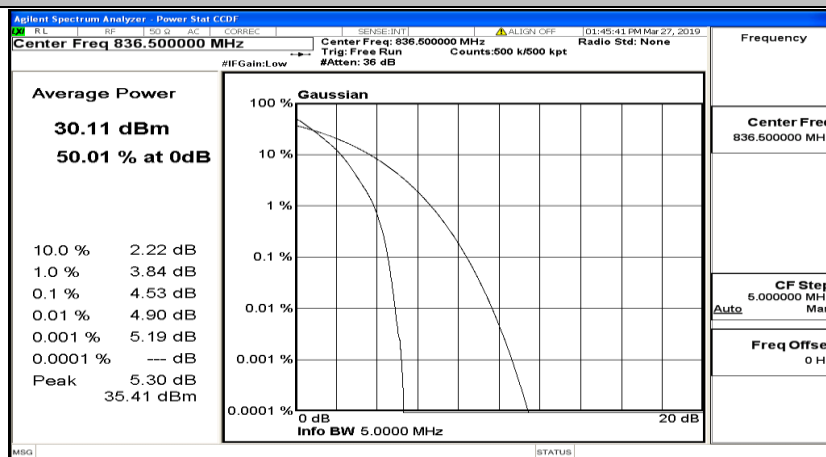
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



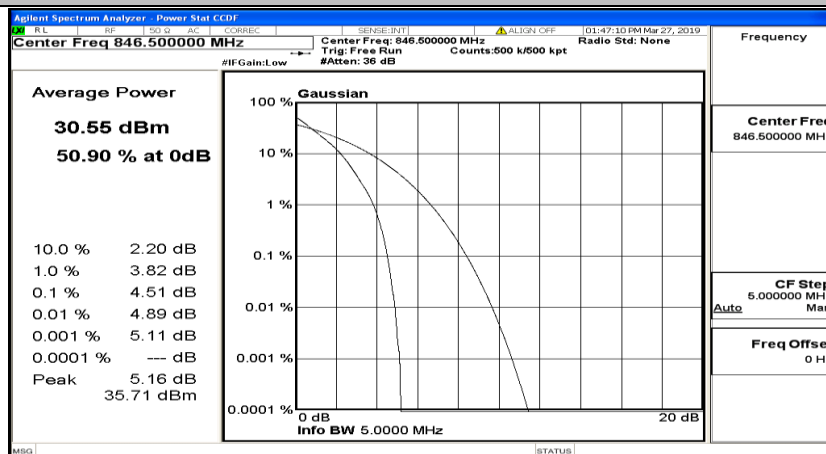
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



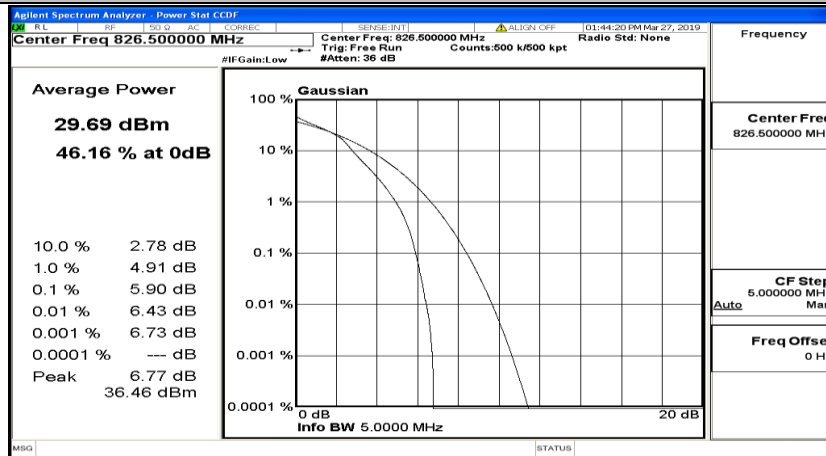
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



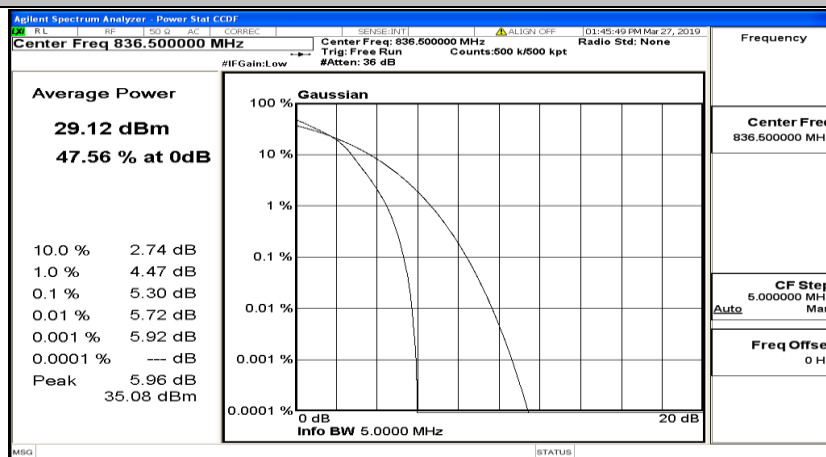
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



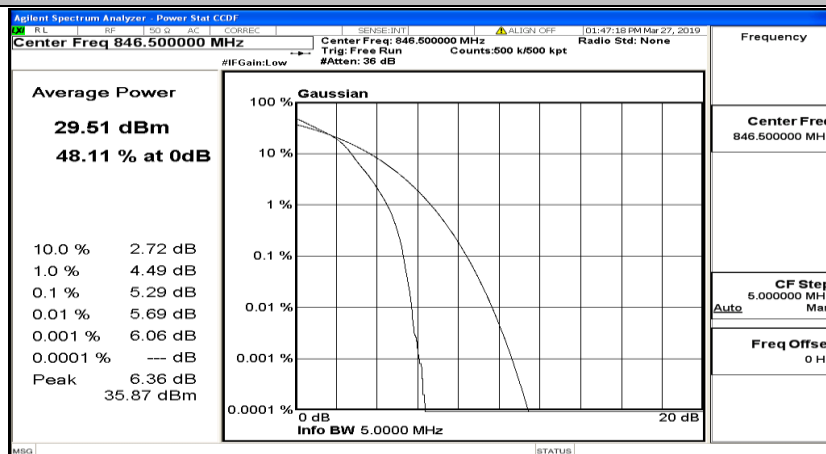
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



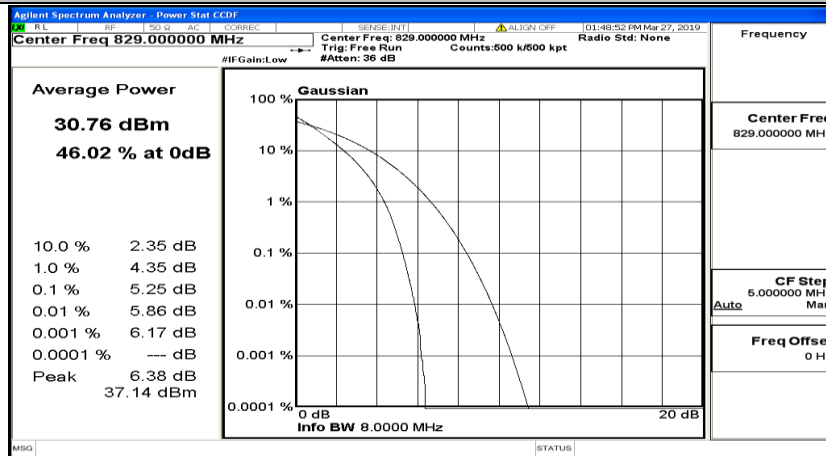
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



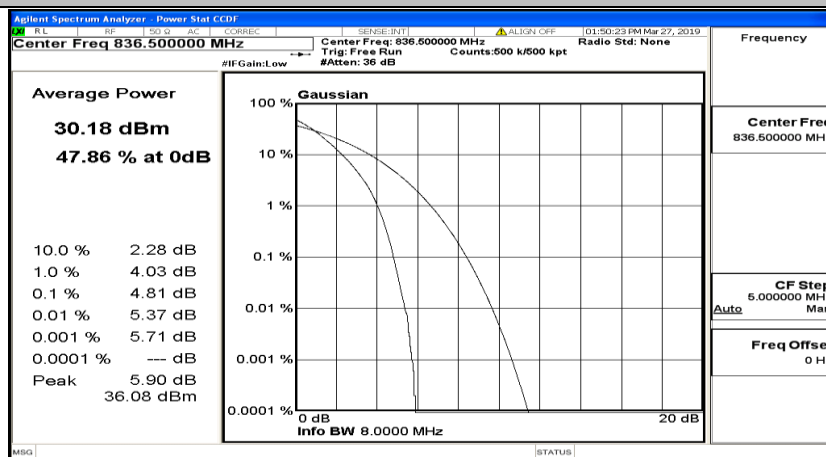
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



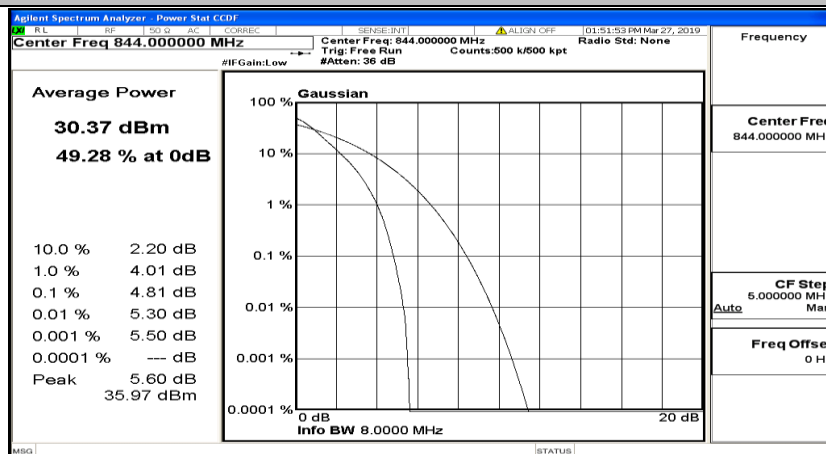
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



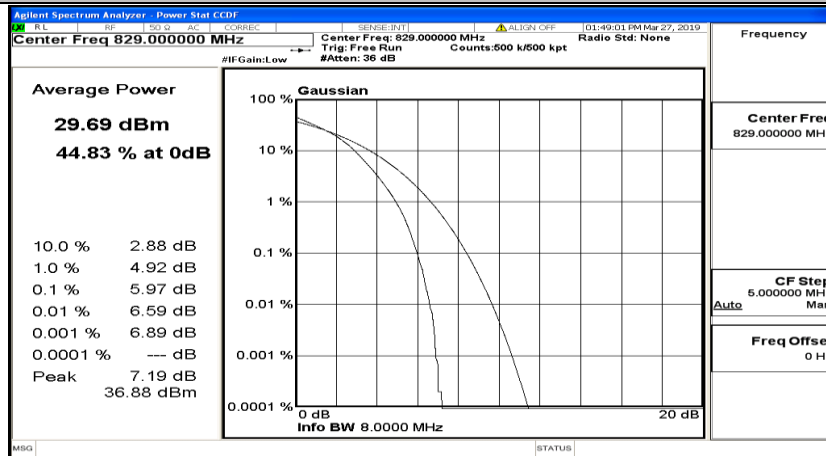
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



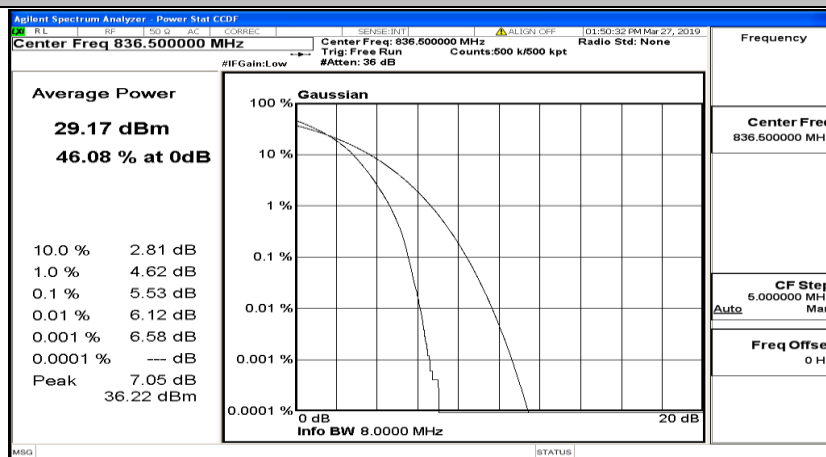
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



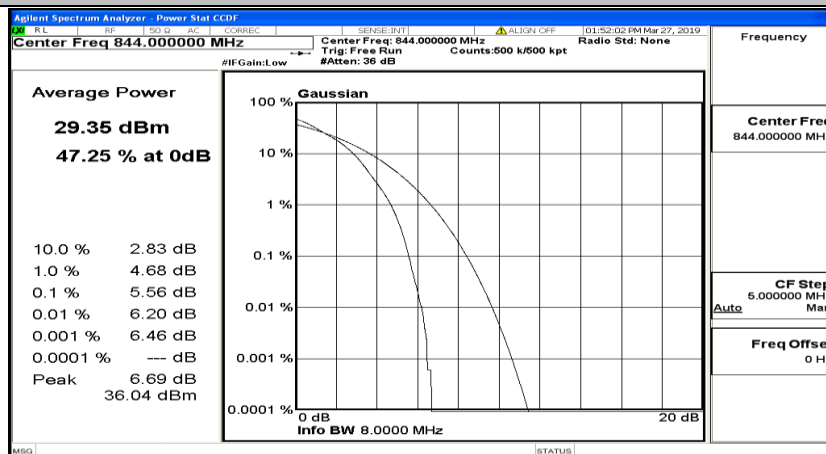
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



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



D.3 26dB Bandwidth and Occupied Bandwidth

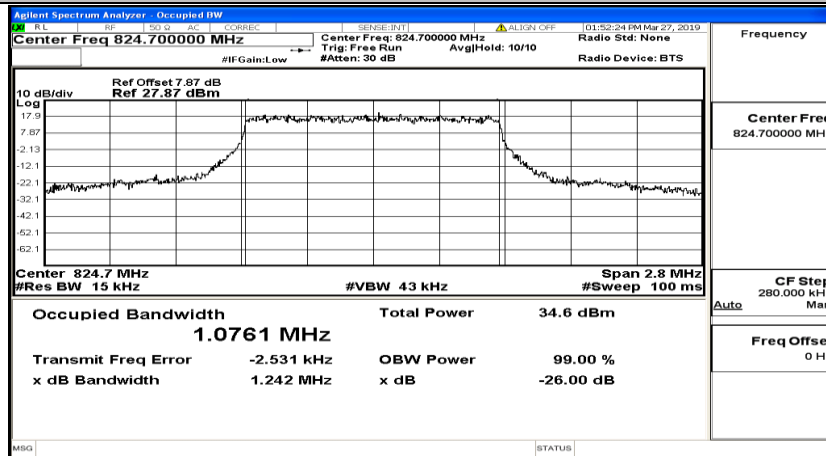
EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	1.0761	1.242	PASS
	MCH	1.0780	1.247	PASS
	HCH	1.0801	1.281	PASS
16QAM	LCH	1.0807	1.243	PASS
	MCH	1.0789	1.231	PASS
	HCH	1.0785	1.257	PASS

EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	2.6824	2.891	PASS
	MCH	2.6819	2.894	PASS
	HCH	2.6862	2.926	PASS
16QAM	LCH	2.6856	2.912	PASS
	MCH	2.6861	2.890	PASS
	HCH	2.6877	2.955	PASS

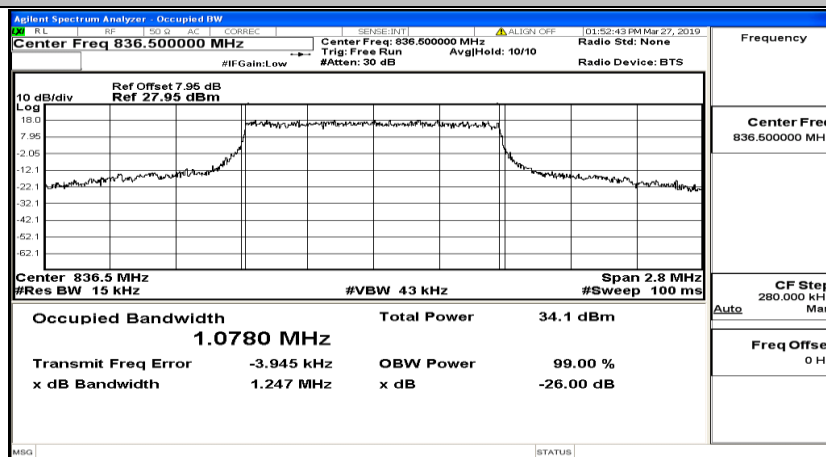
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4821	4.850	PASS
	MCH	4.4804	4.789	PASS
	HCH	4.4722	4.798	PASS
16QAM	LCH	4.4725	4.843	PASS
	MCH	4.4686	4.828	PASS
	HCH	4.4755	4.870	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9619	9.464	PASS
	MCH	8.9170	9.502	PASS
	HCH	8.9069	9.436	PASS
16QAM	LCH	8.9613	9.474	PASS
	MCH	8.9236	9.395	PASS
	HCH	8.9218	9.424	PASS

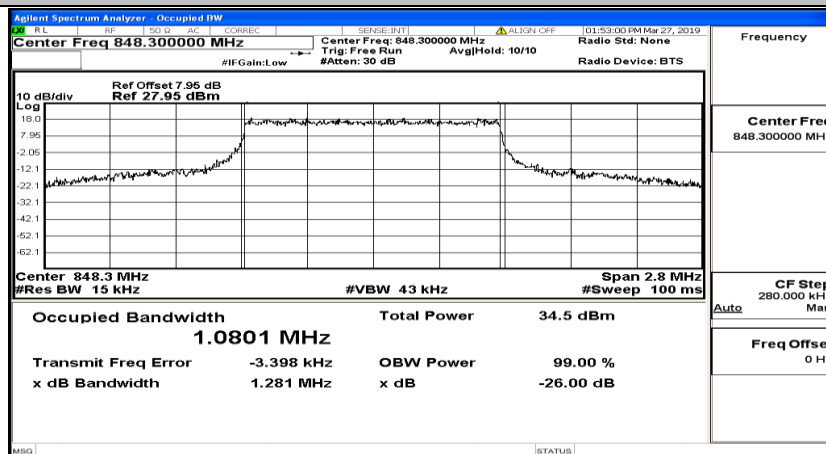
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



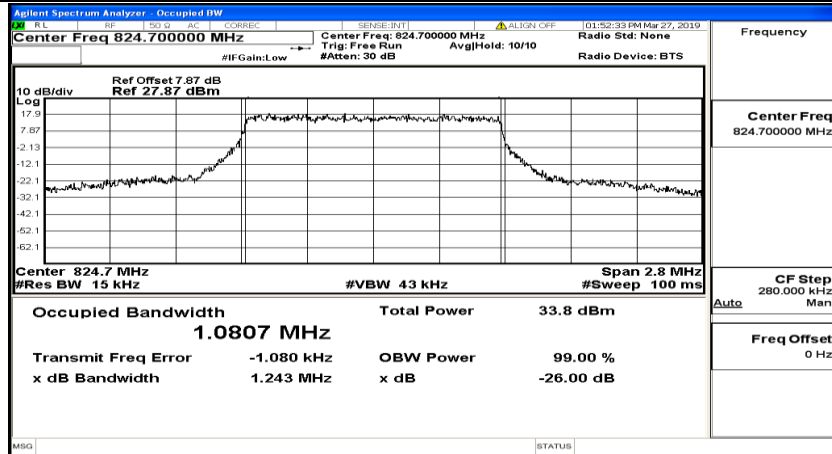
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



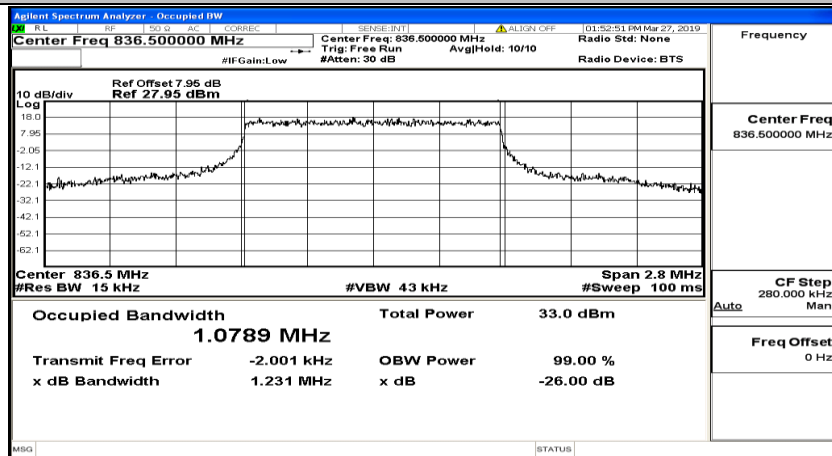
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



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



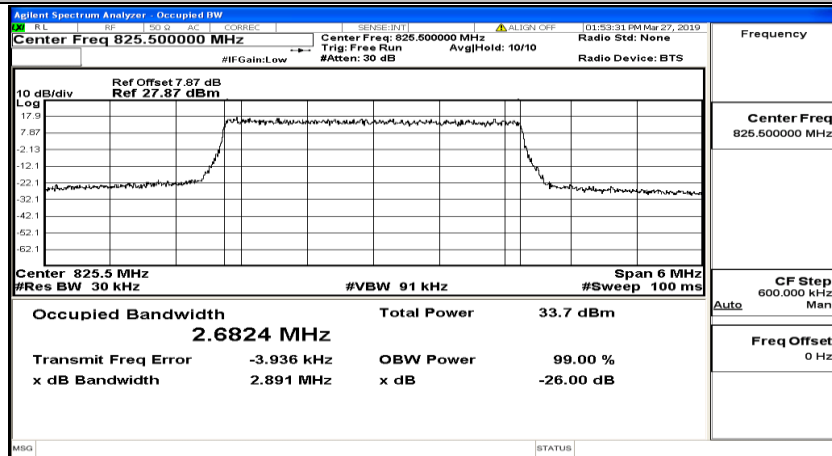
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



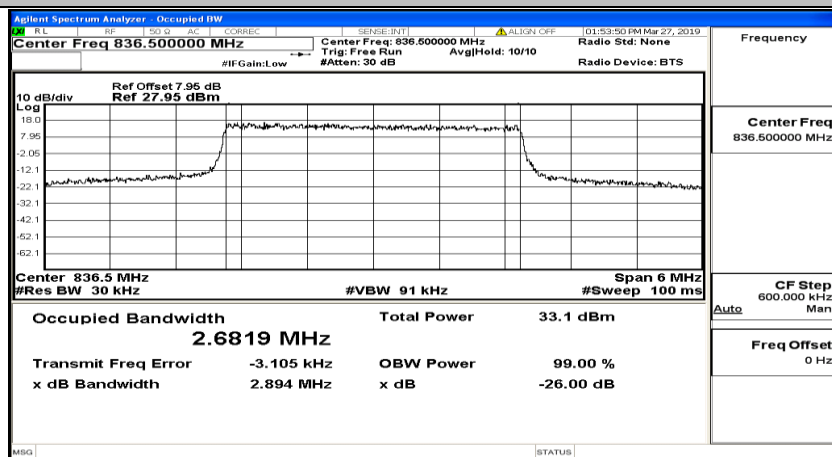
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



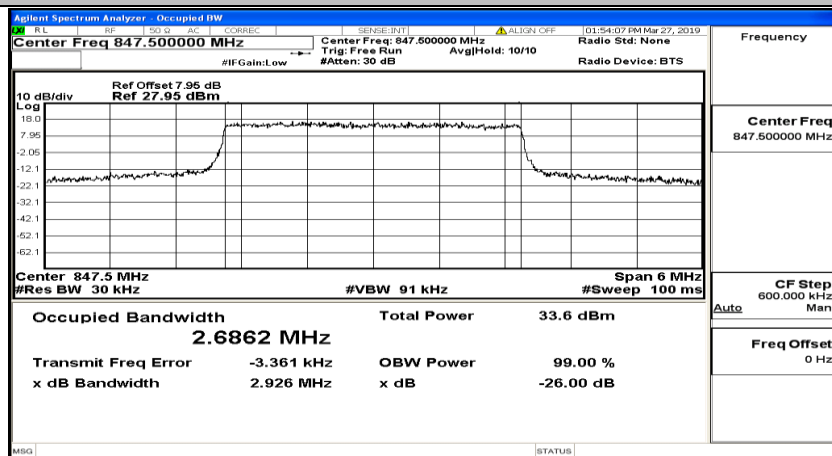
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



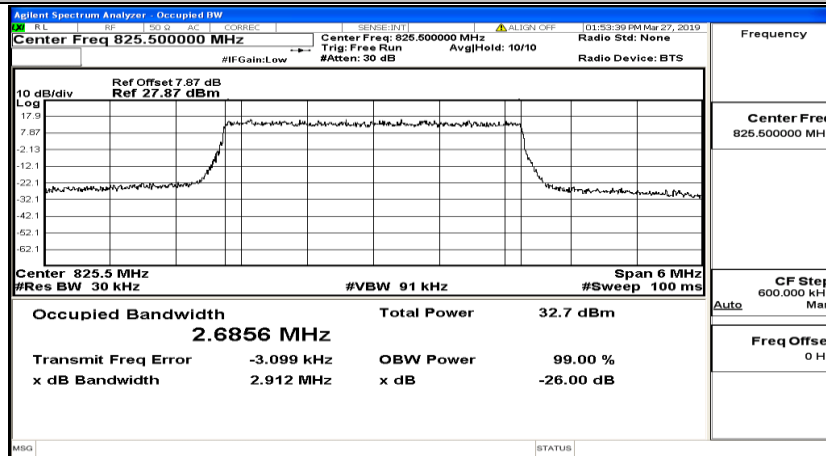
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



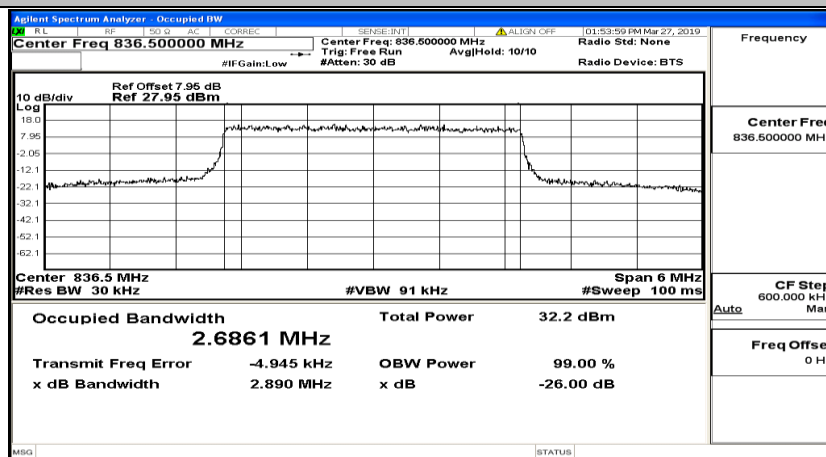
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



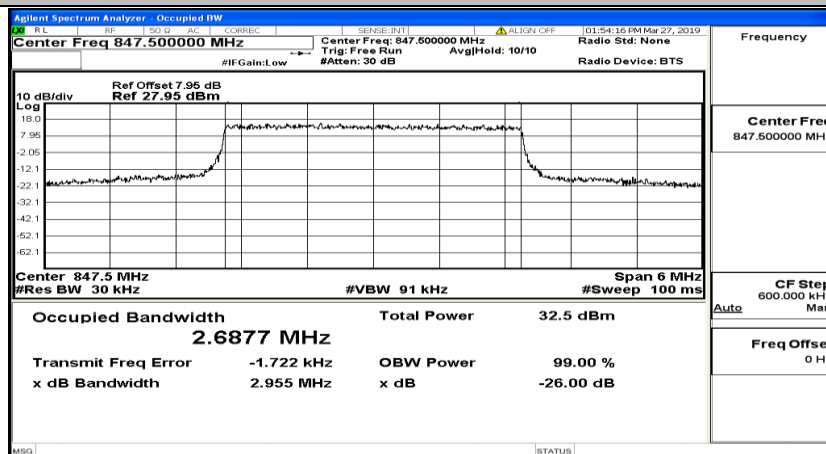
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



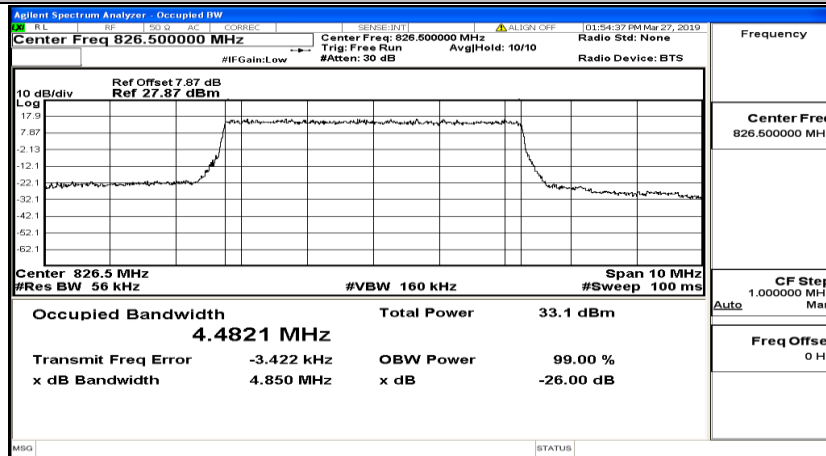
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



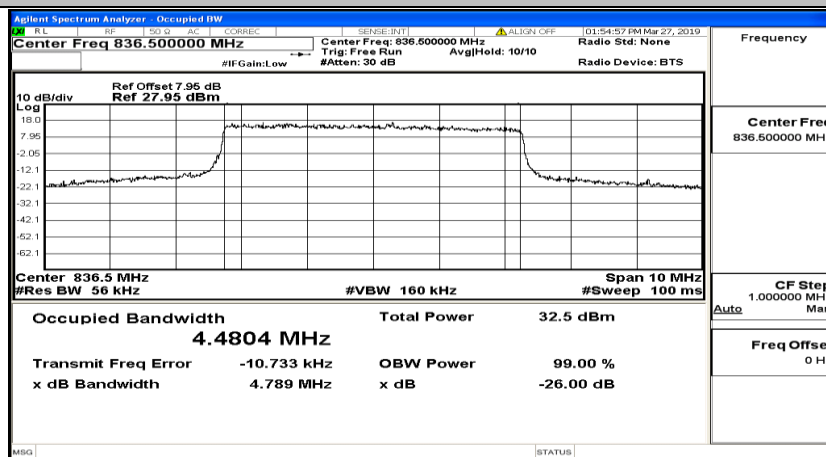
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



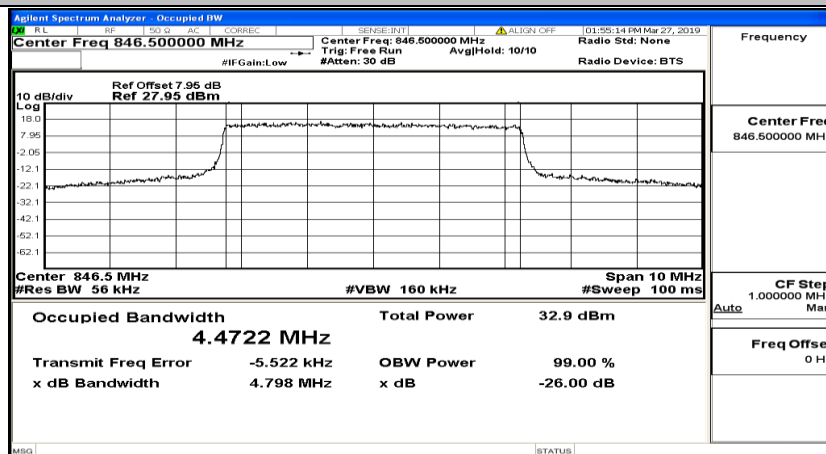
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



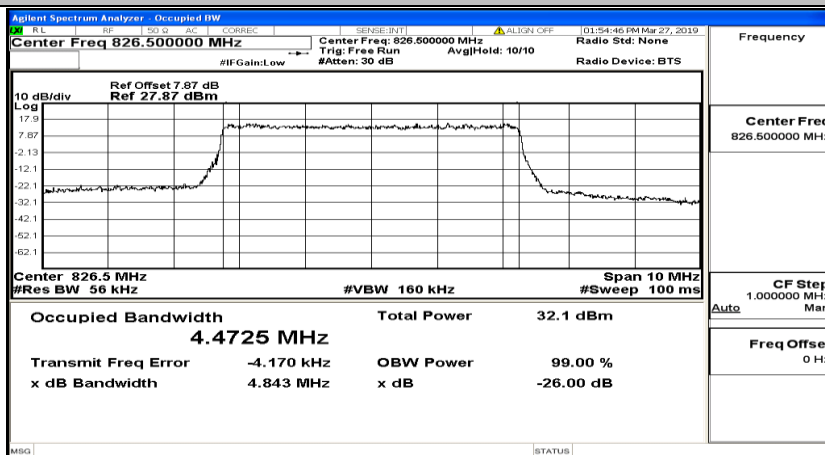
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



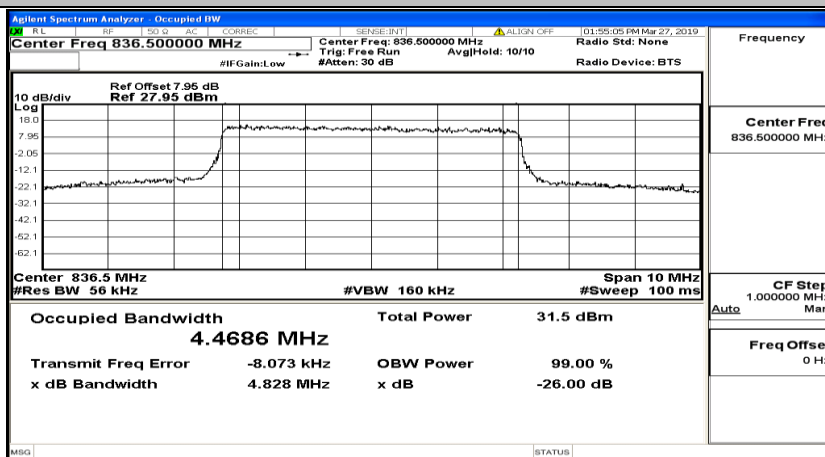
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



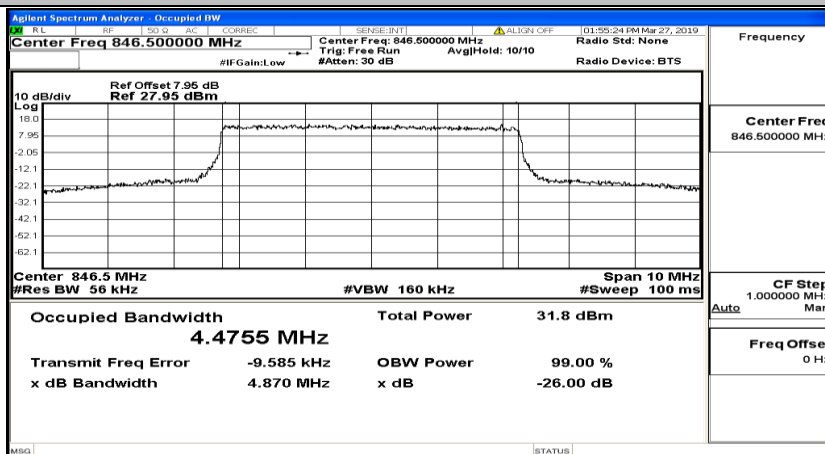
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



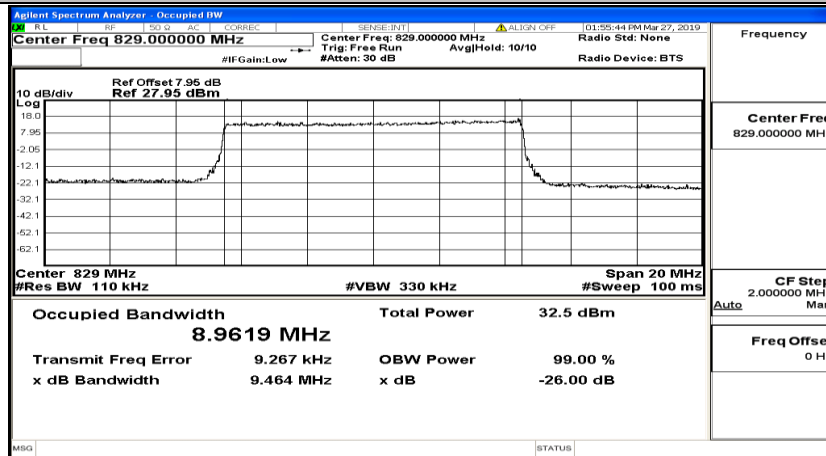
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



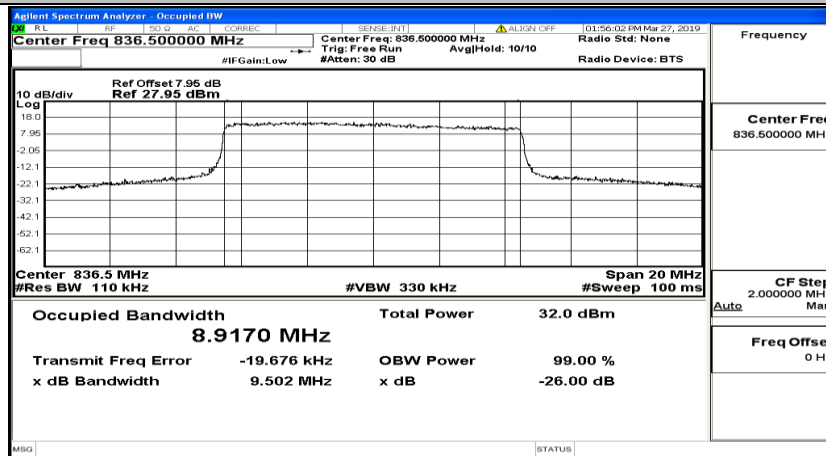
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



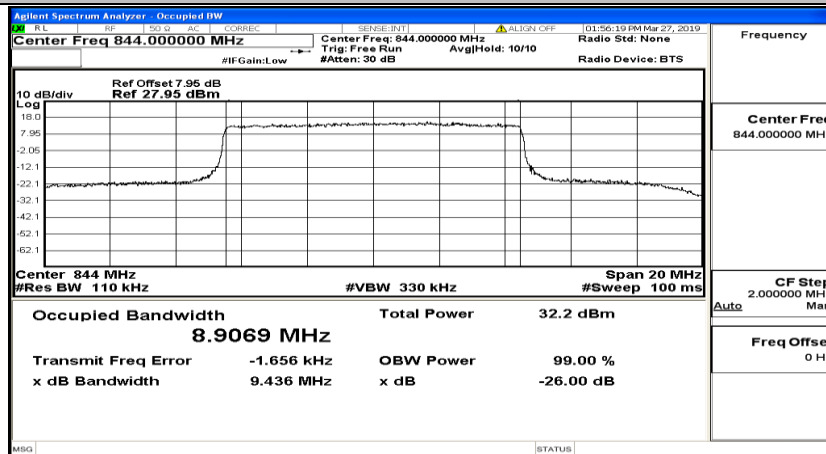
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



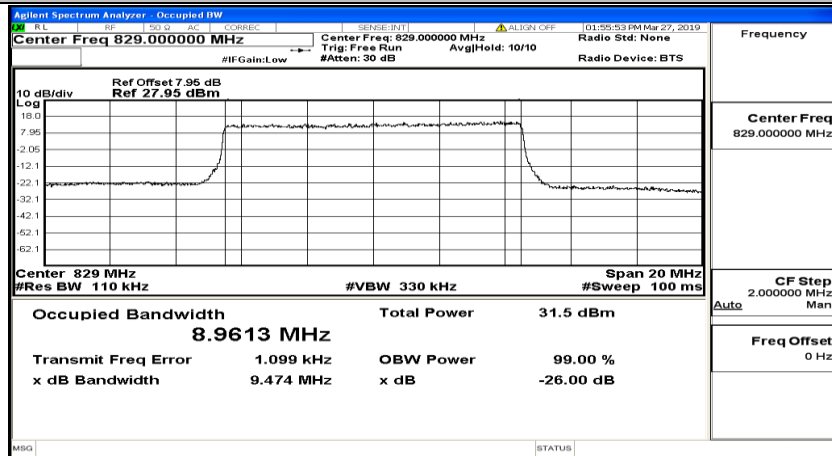
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



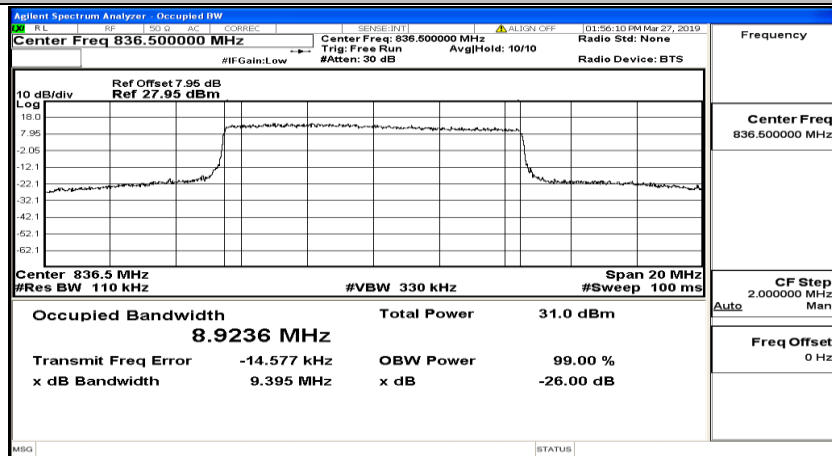
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



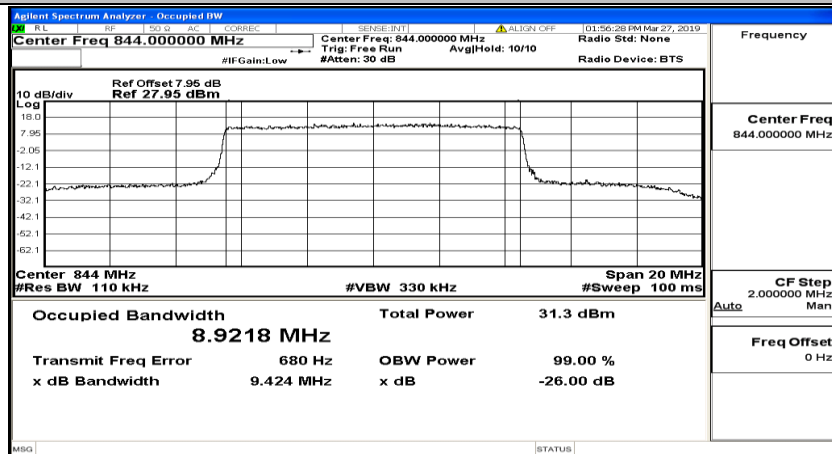
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



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

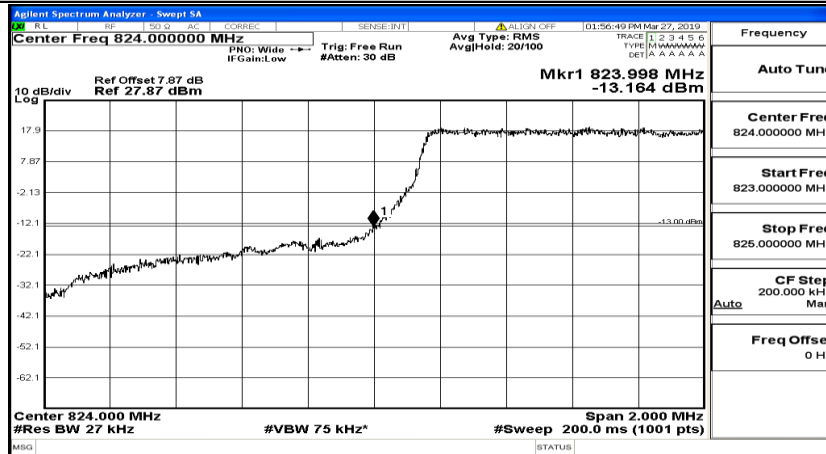


EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM

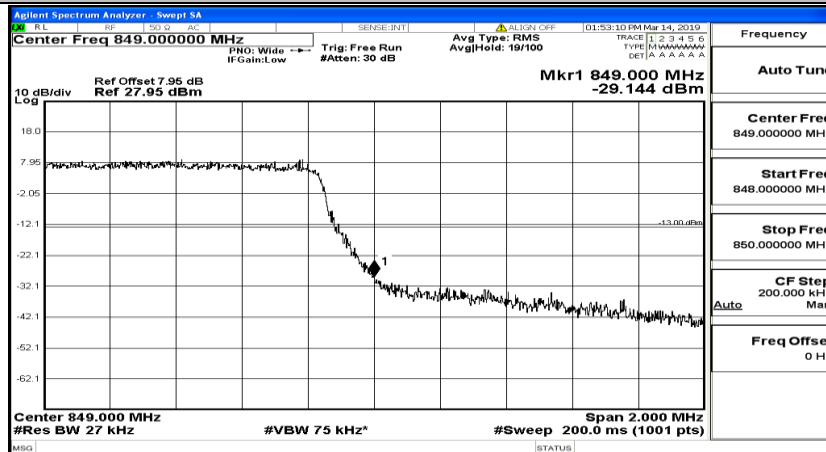


D.4 Band Edge

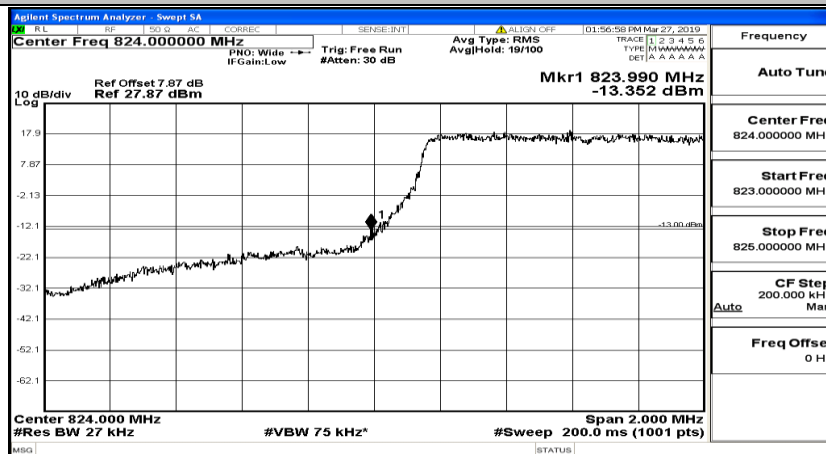
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



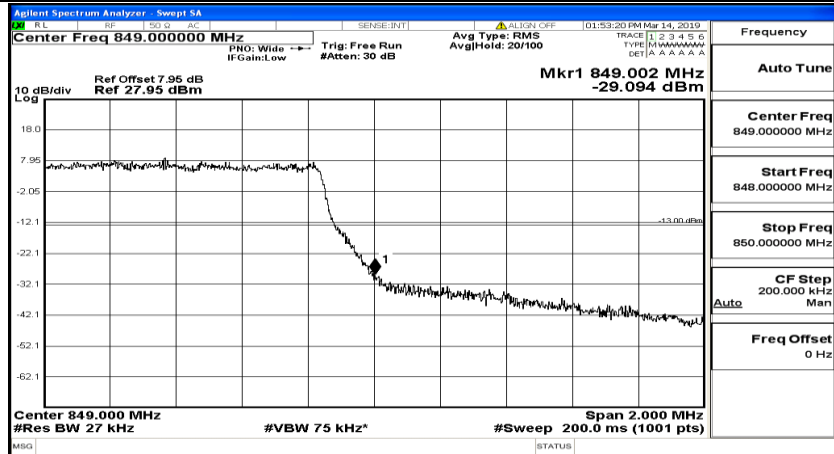
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



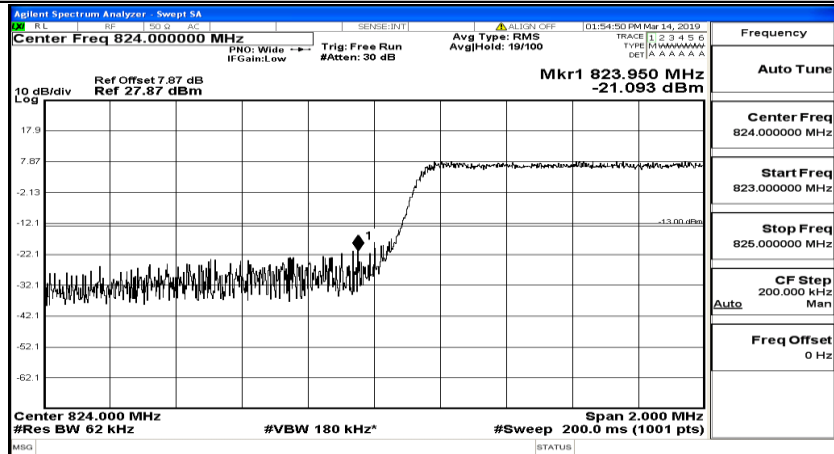
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



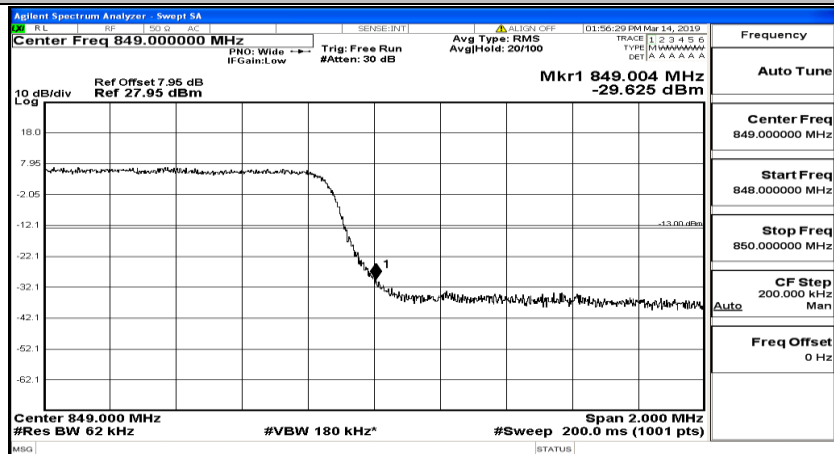
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



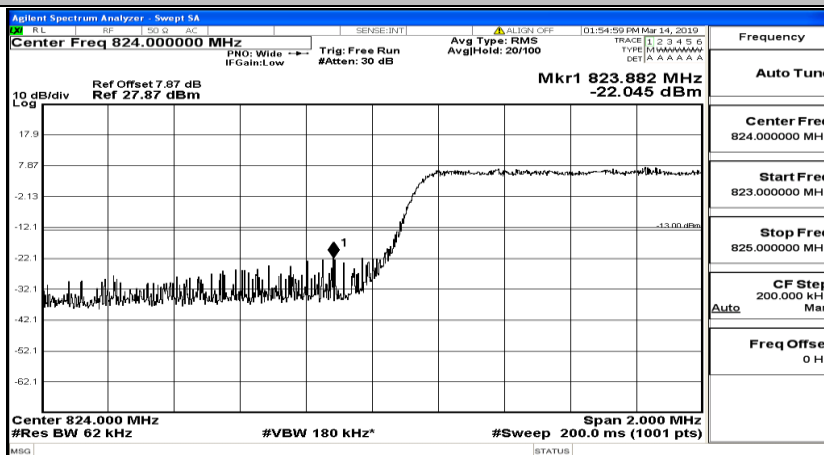
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



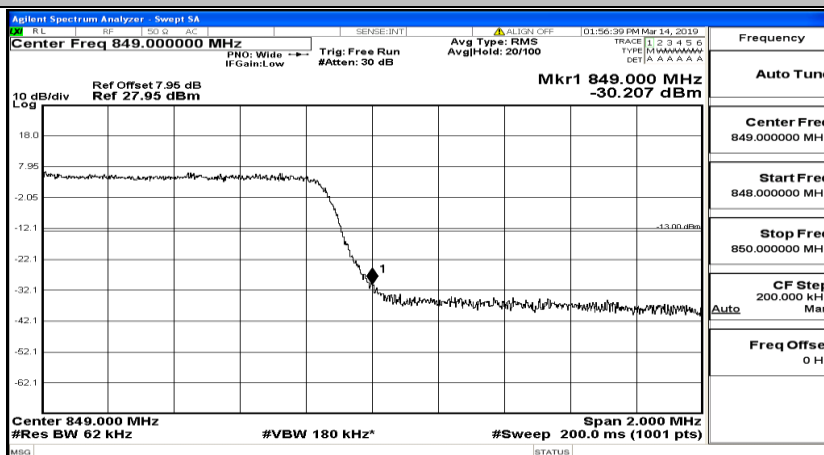
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



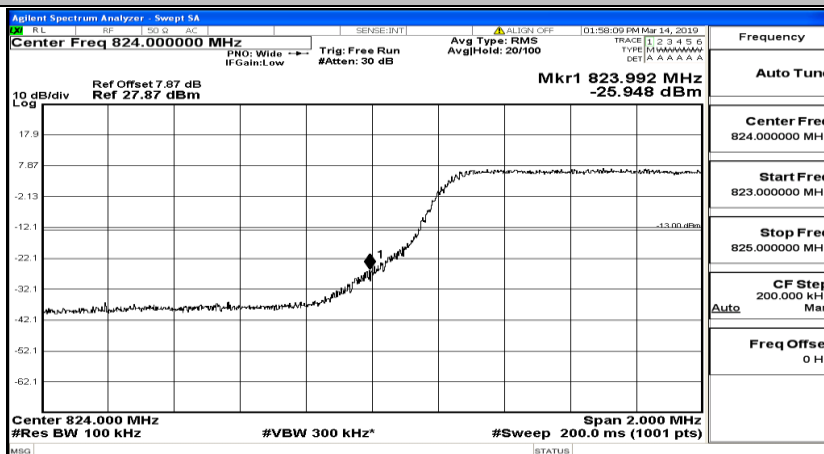
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



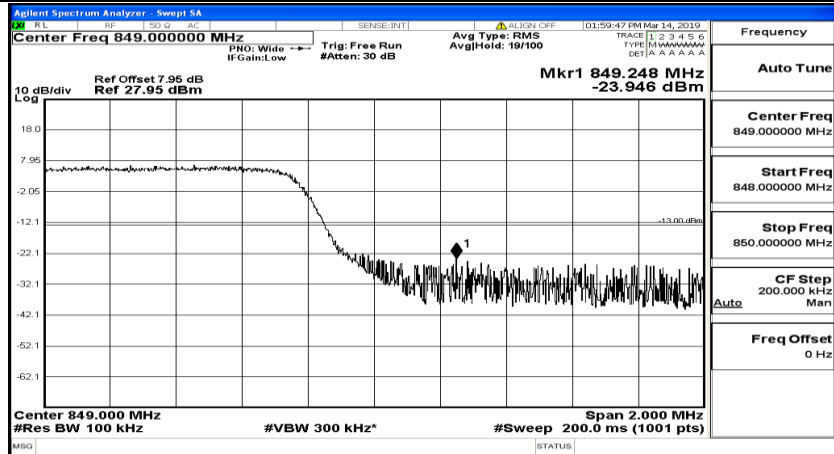
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



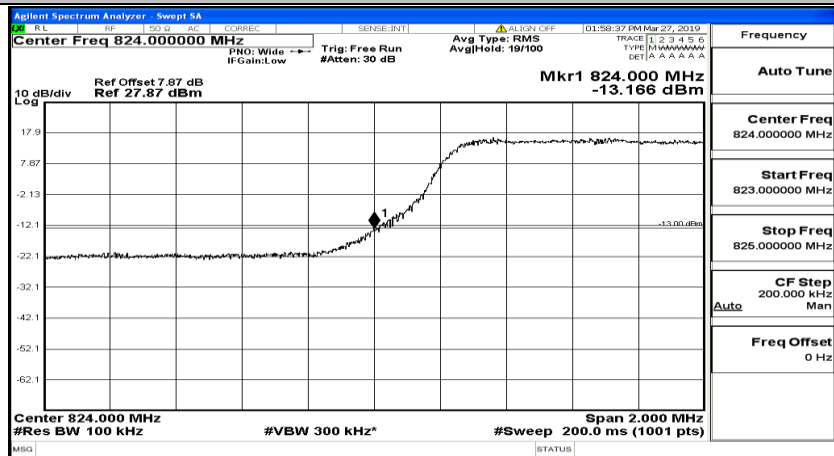
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



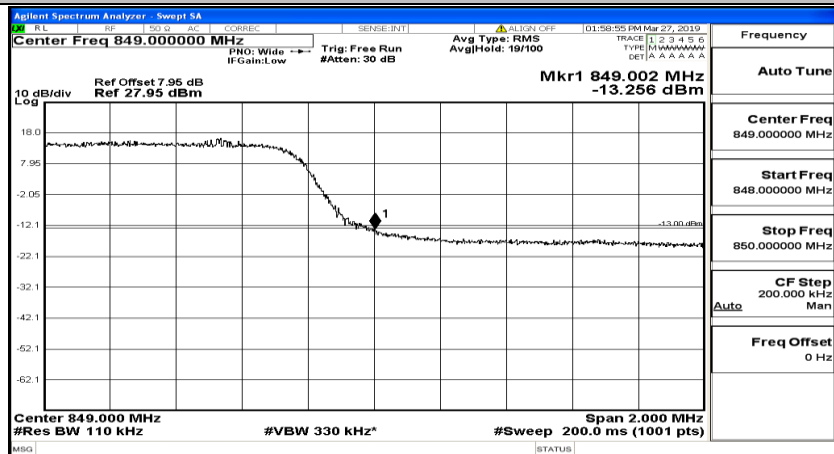
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



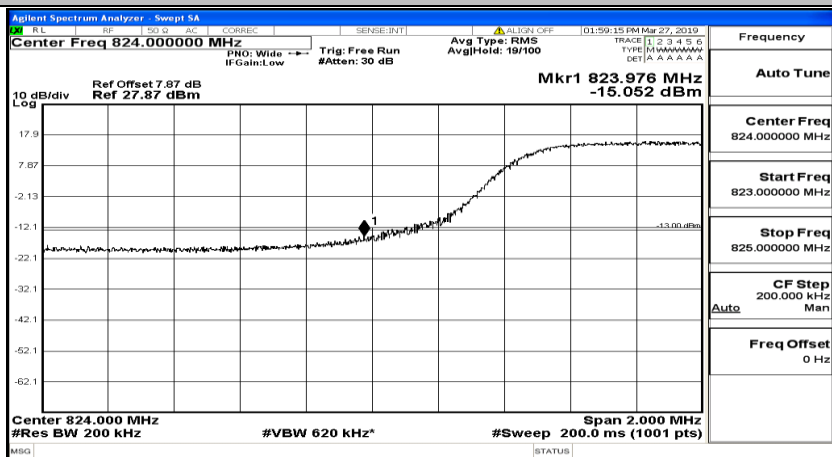
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



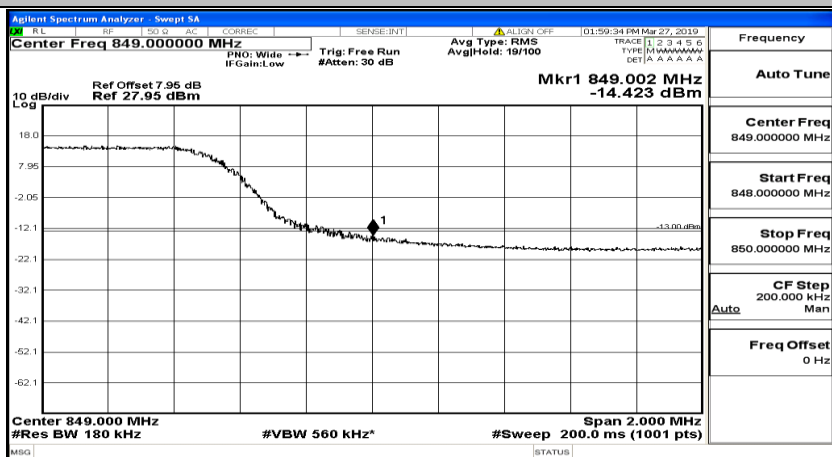
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



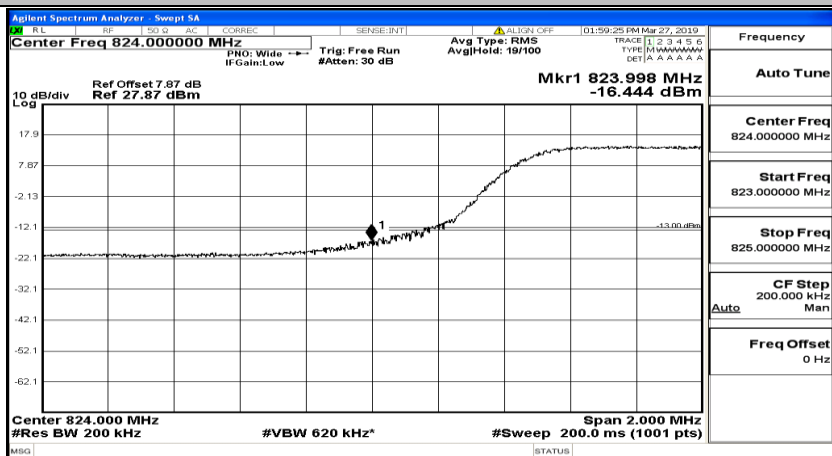
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



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

