

Appendix F: Test Data for E-UTRA Band 5

Product Name: 4G Smartphone

Trade Mark: Hello Smart Phones

Test Model: Hello AN6 pro

Environmental Conditions

Temperature:	24.3
Relative Humidity:	52.7
ATM Pressure:	100.0 kPa
Test Engineer:	Tom Liu
Supervised by:	Jayden Zhuo

F.1 Conducted Output Power

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	22.31	21.61	PASS
		1	3	22.49	21.76	PASS
		1	5	22.10	21.50	PASS
		3	0	22.80	21.99	PASS
		3	2	22.32	21.71	PASS
		3	3	22.32	21.59	PASS
		6	0	22.18	21.49	PASS
	MCH	1	0	22.64	21.81	PASS
		1	3	22.70	21.86	PASS
		1	5	22.66	21.93	PASS
		3	0	22.70	21.54	PASS
		3	2	22.30	21.60	PASS
		3	3	22.72	21.97	PASS
		6	0	22.73	21.80	PASS
	HCH	1	0	22.56	21.52	PASS
		1	3	22.16	21.48	PASS
		1	5	22.54	21.66	PASS
		3	0	22.58	21.73	PASS
		3	2	22.61	21.69	PASS
		3	3	22.48	21.74	PASS
		6	0	22.23	21.66	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	22.18	21.61	PASS
		1	7	22.59	21.89	PASS
		1	14	22.11	21.64	PASS
		8	0	22.19	21.67	PASS
		8	4	22.84	21.50	PASS
		8	7	22.48	21.71	PASS
		15	0	22.35	21.65	PASS
	MCH	1	0	22.17	21.52	PASS
		1	7	22.46	21.69	PASS
		1	14	22.33	21.58	PASS
		8	0	22.63	21.85	PASS
		8	4	22.37	21.70	PASS
		8	7	22.19	21.60	PASS
		15	0	22.48	21.97	PASS
	HCH	1	0	22.35	21.70	PASS
		1	7	22.56	21.87	PASS
		1	14	22.21	21.53	PASS
		8	0	22.78	22.09	PASS
		8	4	22.63	21.83	PASS
		8	7	22.27	21.59	PASS
		15	0	22.39	21.62	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	22.53	21.96	PASS
		1	12	22.40	21.61	PASS
		1	24	22.36	21.66	PASS
		12	0	22.46	21.73	PASS
		12	6	22.10	21.59	PASS
		12	13	22.39	21.65	PASS
		25	0	22.83	21.58	PASS
	MCH	1	0	22.36	21.71	PASS
		1	12	22.52	21.79	PASS
		1	24	22.83	22.14	PASS
		12	0	22.68	21.93	PASS
		12	6	22.84	22.05	PASS
		12	13	22.52	21.58	PASS
		25	0	22.75	22.11	PASS
	HCH	1	0	22.20	21.61	PASS
		1	12	22.15	21.66	PASS
		1	24	22.65	21.94	PASS
		12	0	22.88	21.97	PASS
		12	6	22.50	21.84	PASS
		12	13	22.17	21.61	PASS
		25	0	22.58	21.78	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	22.50	21.88	PASS
		1	24	22.97	22.50	PASS
		1	49	23.05	22.53	PASS
		25	0	22.67	21.94	PASS
		25	12	22.73	21.97	PASS
		25	25	22.97	22.06	PASS
		50	0	22.79	22.21	PASS
	MCH	1	0	23.09	22.61	PASS
		1	24	22.81	22.17	PASS
		1	49	23.15	22.59	PASS
		25	0	23.32	22.18	PASS
		25	12	22.83	21.87	PASS
		25	25	22.95	21.92	PASS
		50	0	22.58	21.86	PASS
	HCH	1	0	23.09	22.23	PASS
		1	24	23.22	22.59	PASS
		1	49	23.12	22.21	PASS
		25	0	22.56	21.78	PASS
		25	12	22.90	22.13	PASS
		25	25	23.20	22.27	PASS
		50	0	22.85	21.97	PASS

F.2 Peak-to-Average Ratio

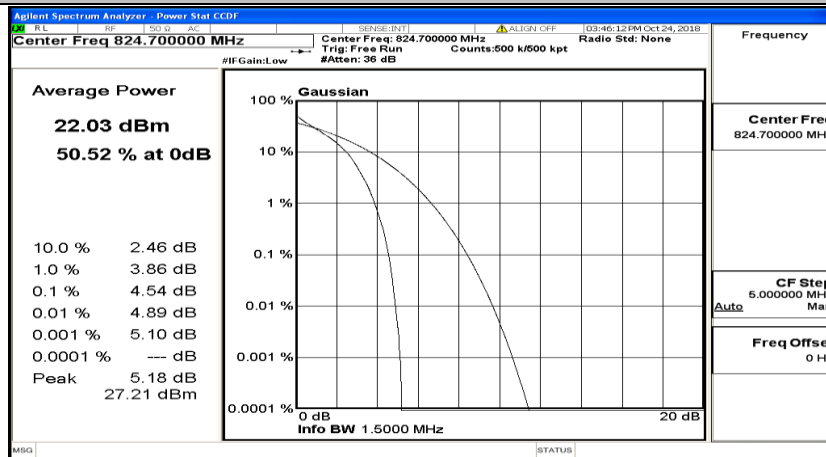
Peak-to Average Ratio Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.54	<13	PASS
	MCH	4.82	<13	PASS
	HCH	5.1	<13	PASS
16QAM	LCH	5.39	<13	PASS
	MCH	5.64	<13	PASS
	HCH	5.93	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.76	<13	PASS
	MCH	5.06	<13	PASS
	HCH	5.42	<13	PASS
16QAM	LCH	5.58	<13	PASS
	MCH	5.81	<13	PASS
	HCH	6.12	<13	PASS

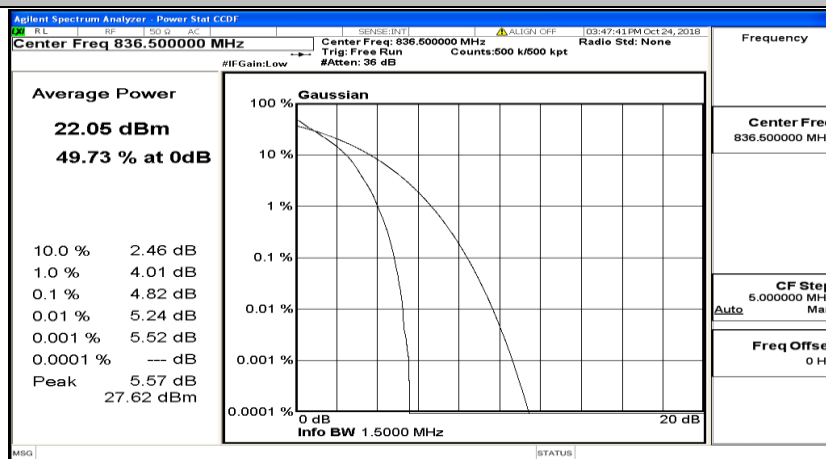
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.85	<13	PASS
	MCH	5.07	<13	PASS
	HCH	5.43	<13	PASS
16QAM	LCH	5.61	<13	PASS
	MCH	5.78	<13	PASS
	HCH	6.18	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.17	<13	PASS
	MCH	5.16	<13	PASS
	HCH	5.46	<13	PASS
16QAM	LCH	5.84	<13	PASS
	MCH	5.86	<13	PASS
	HCH	6.16	<13	PASS

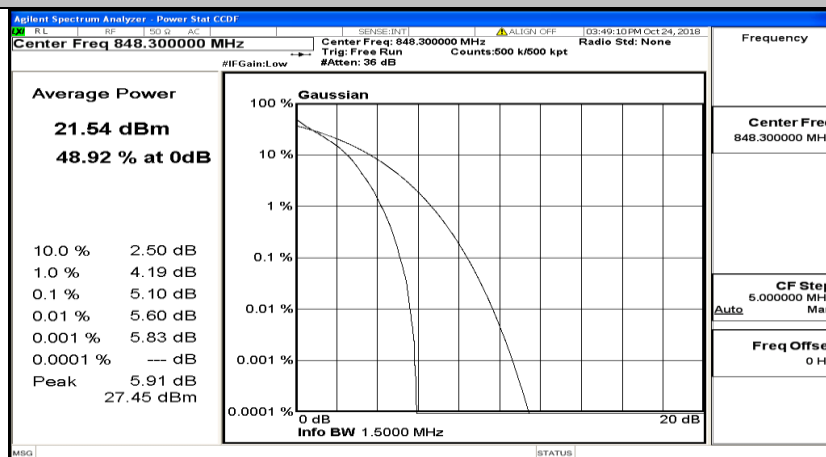
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



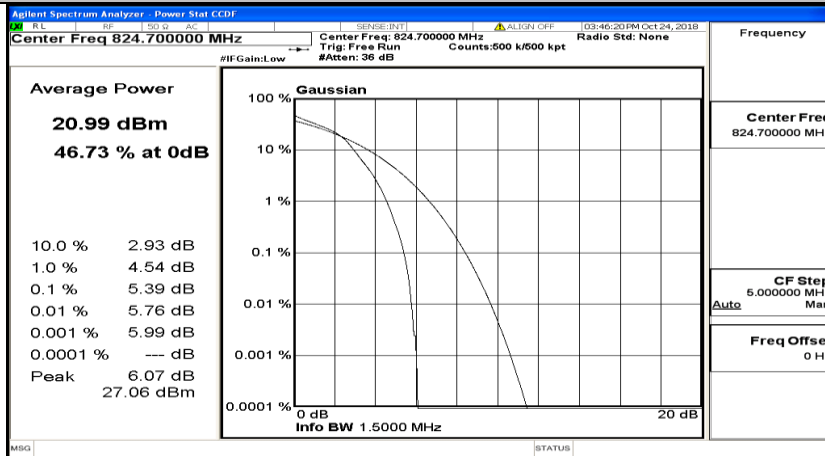
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



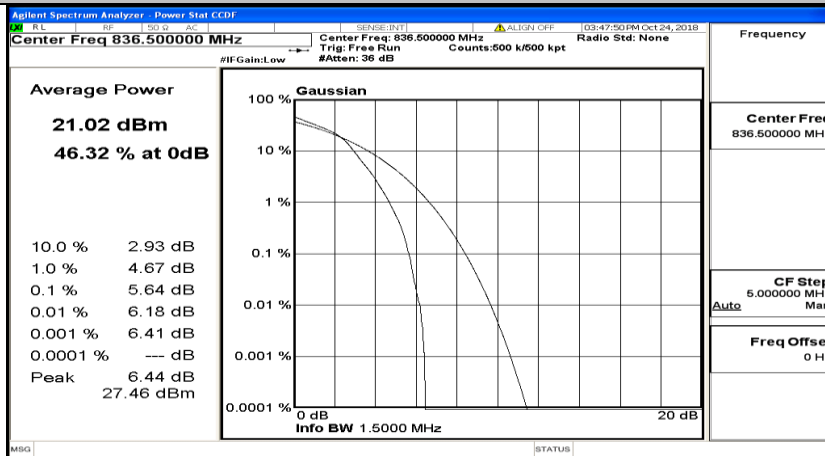
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



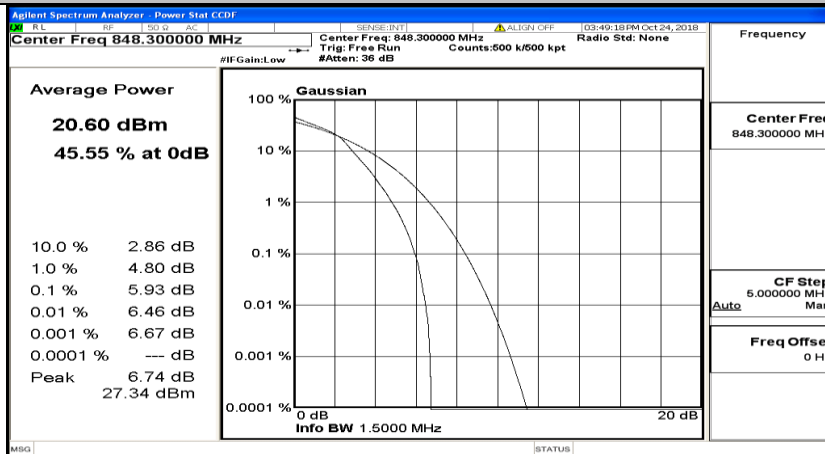
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



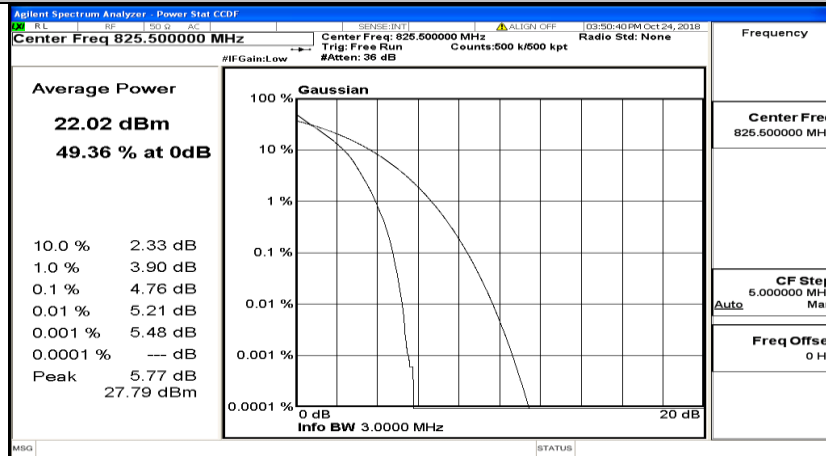
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



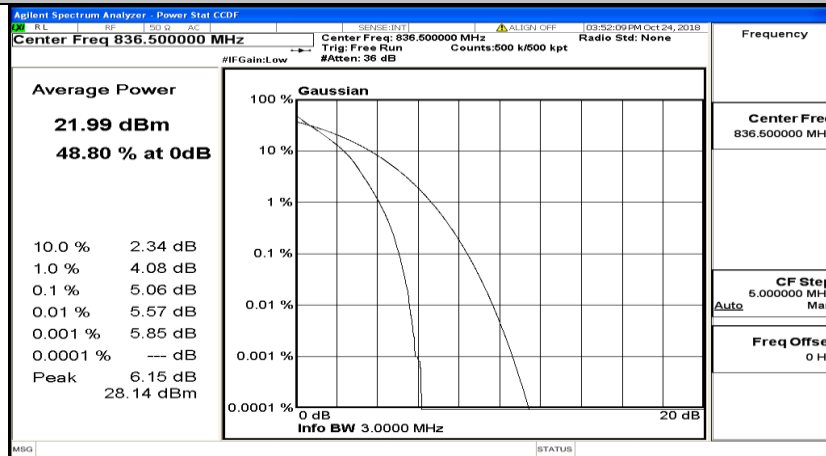
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



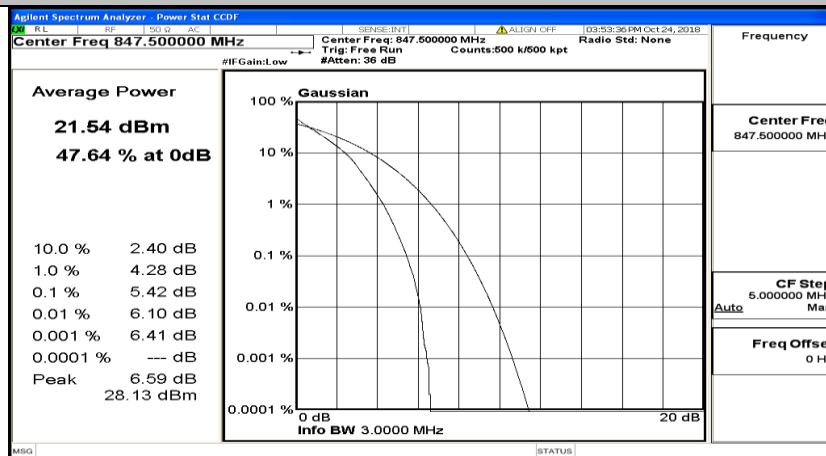
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



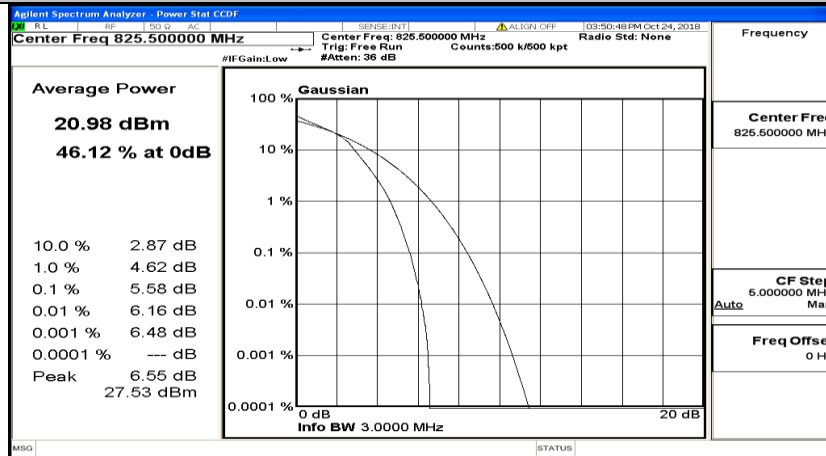
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



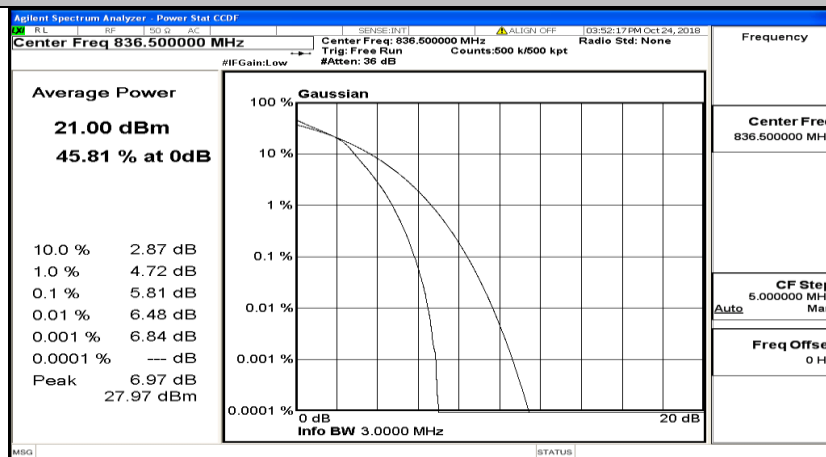
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



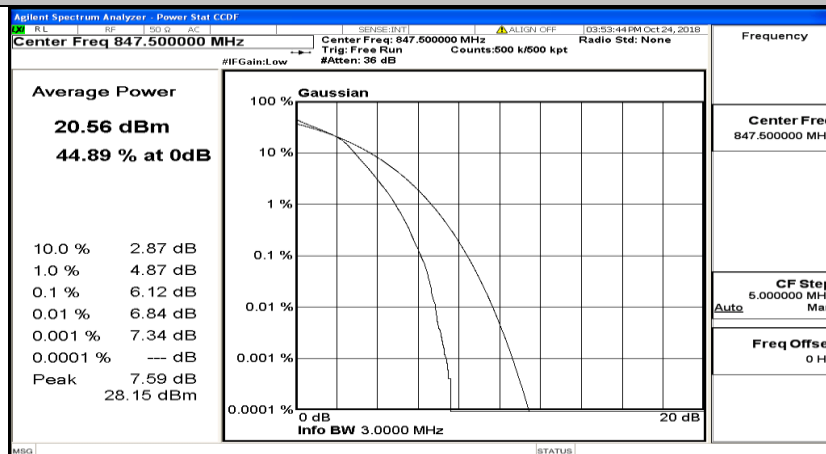
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



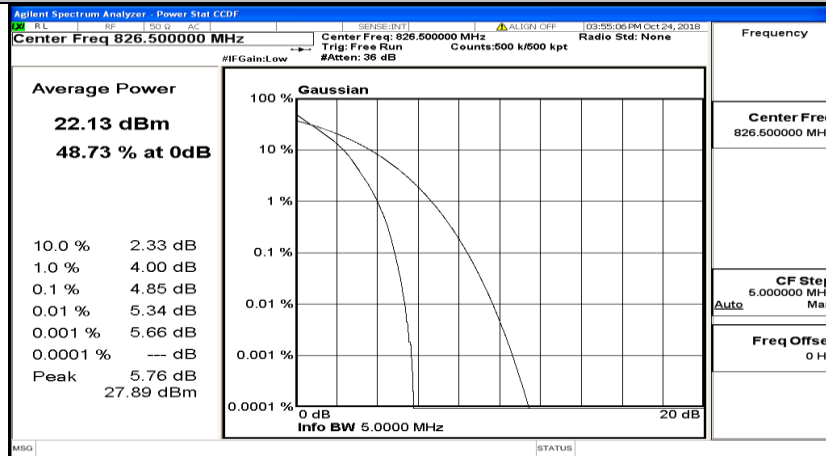
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



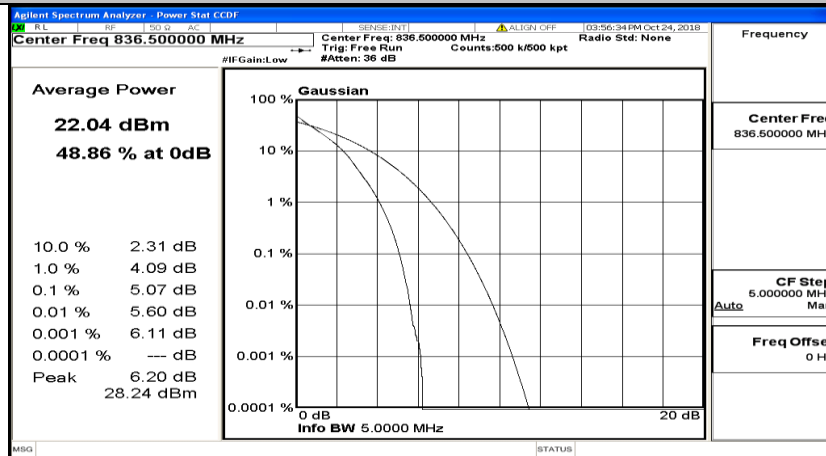
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



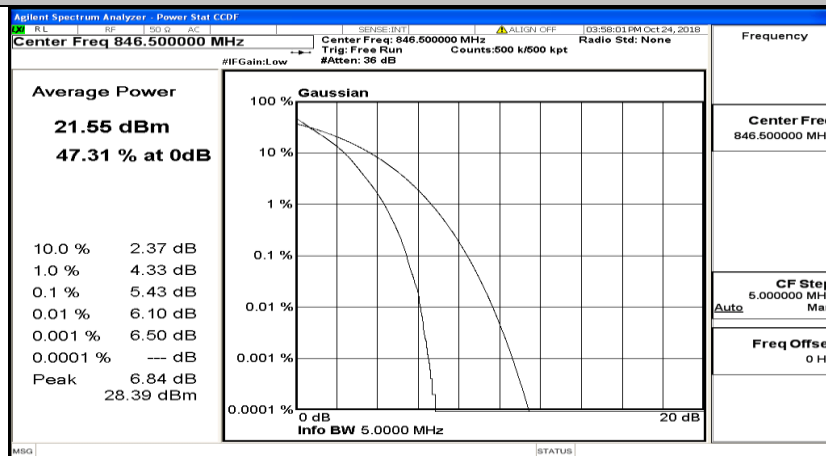
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



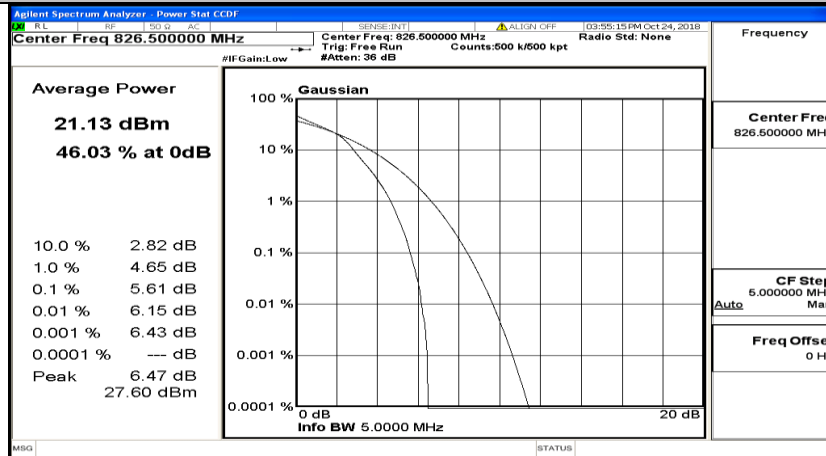
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



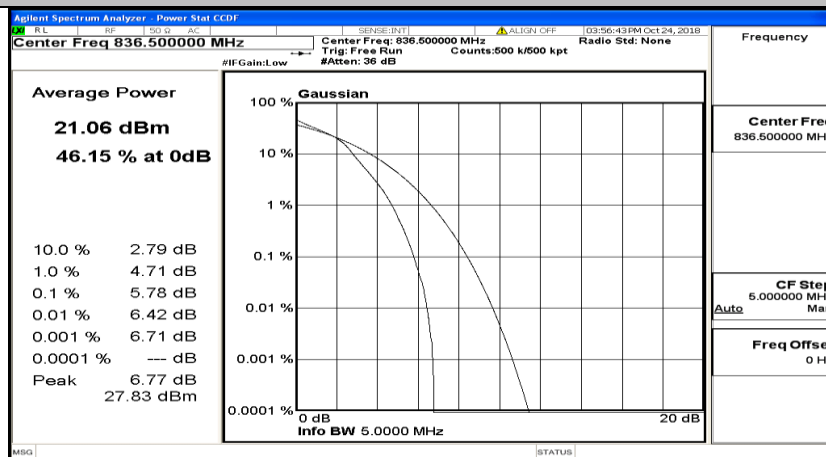
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



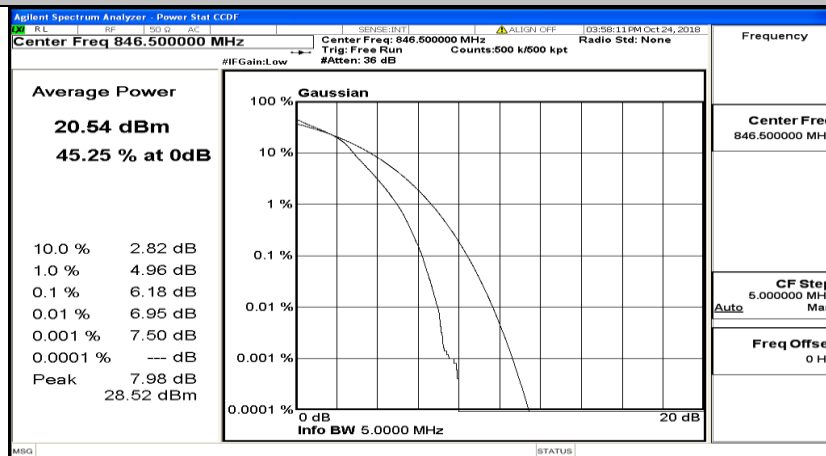
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



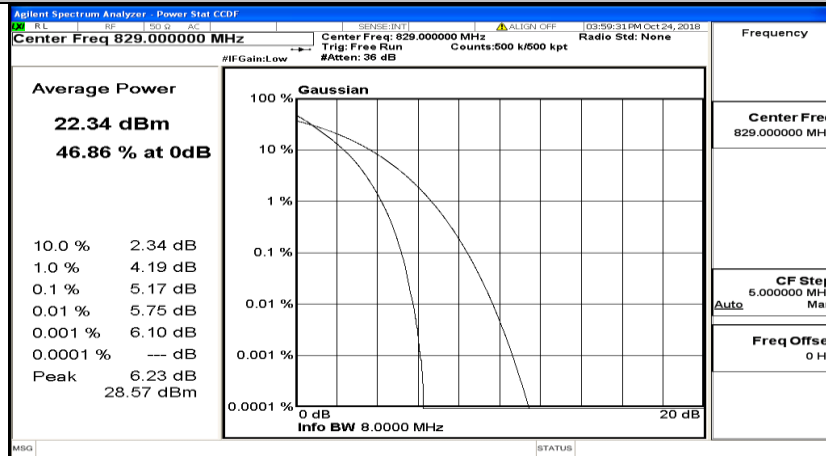
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



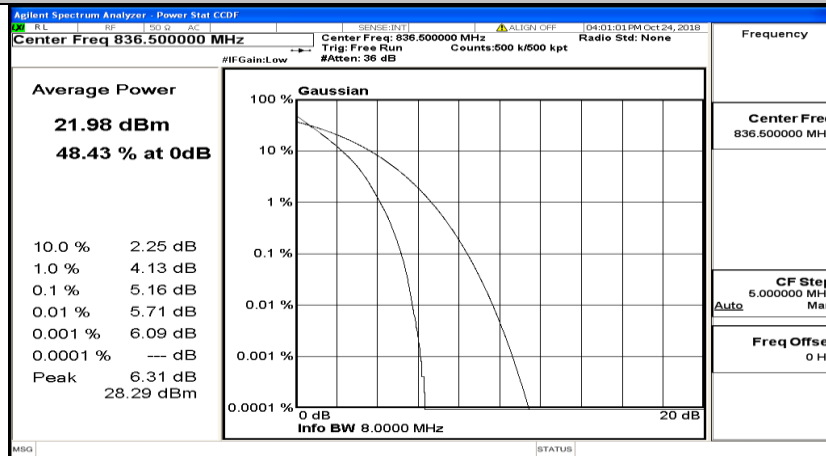
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



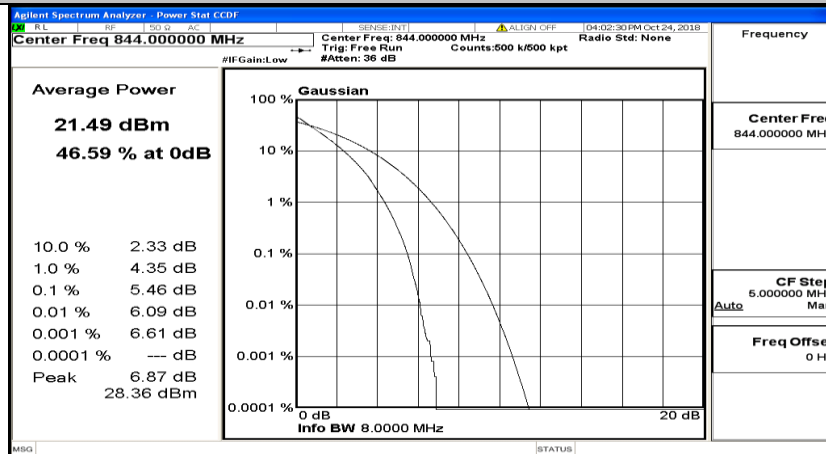
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



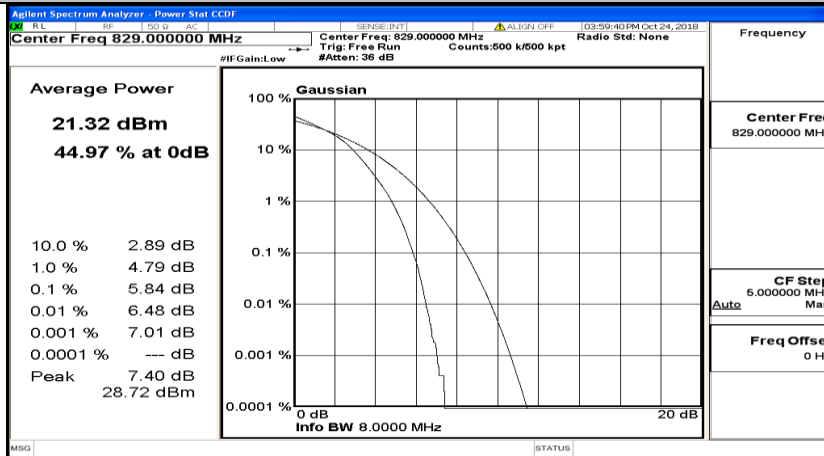
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



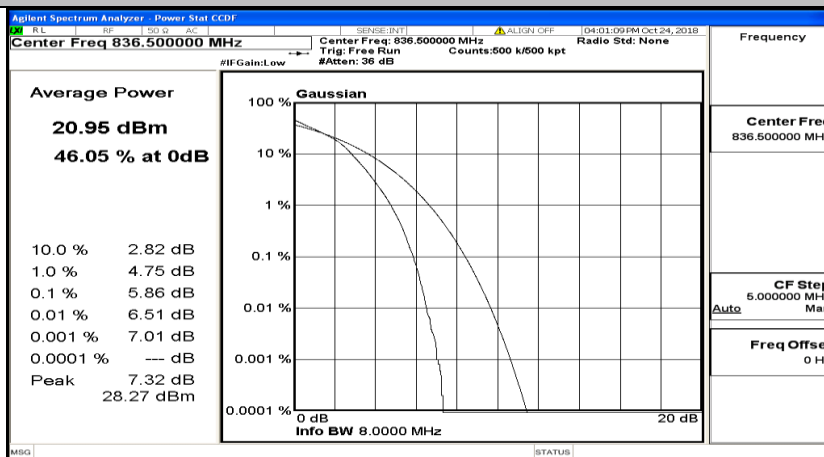
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



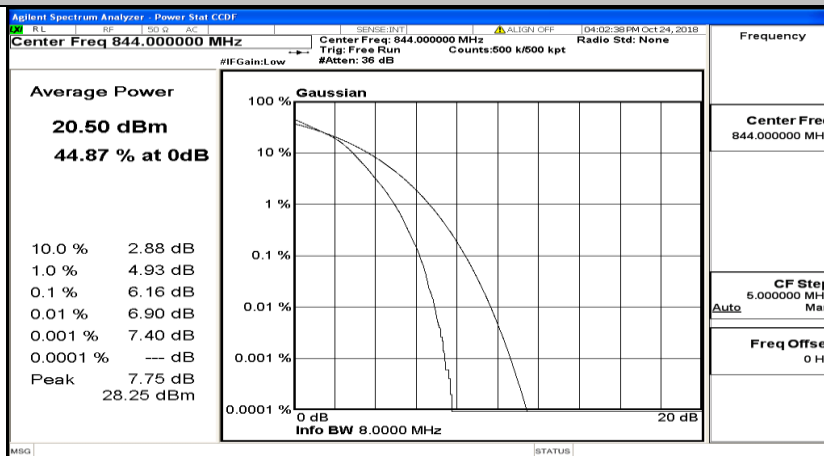
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



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



F.3 26dB Bandwidth and Occupied Bandwidth

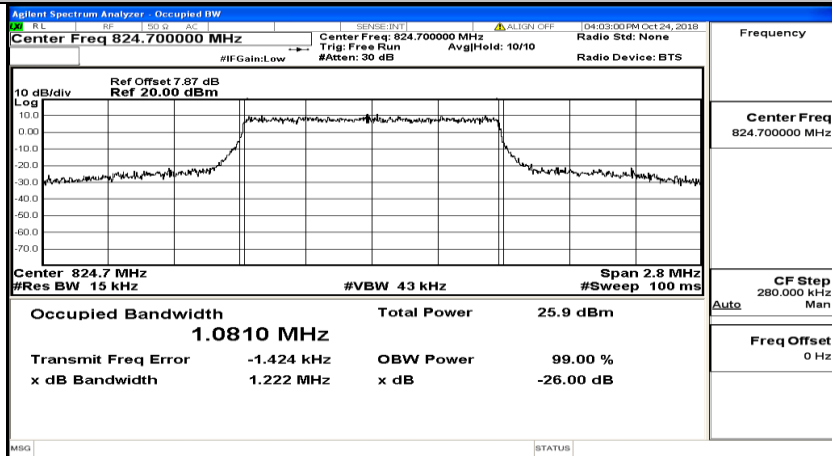
EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	1.0810	1.222	PASS
	MCH	1.0765	1.217	PASS
	HCH	1.0777	1.224	PASS
16QAM	LCH	1.0794	1.219	PASS
	MCH	1.0781	1.228	PASS
	HCH	1.0783	1.218	PASS

EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	2.6824	2.897	PASS
	MCH	2.6815	2.872	PASS
	HCH	2.6823	2.900	PASS
16QAM	LCH	2.6852	2.882	PASS
	MCH	2.6823	2.861	PASS
	HCH	2.6876	2.887	PASS

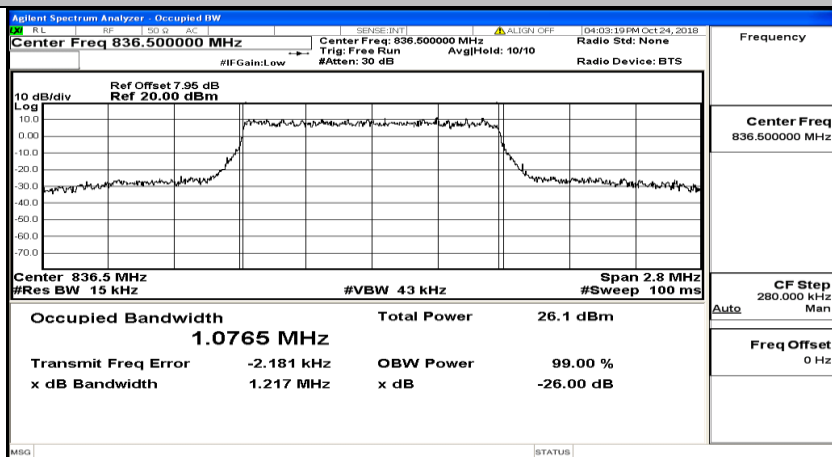
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4837	4.828	PASS
	MCH	4.4732	4.872	PASS
	HCH	4.4809	4.810	PASS
16QAM	LCH	4.4839	4.826	PASS
	MCH	4.4800	4.816	PASS
	HCH	4.4861	4.852	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9456	9.529	PASS
	MCH	8.9430	9.490	PASS
	HCH	8.9359	9.477	PASS
16QAM	LCH	8.9524	9.546	PASS
	MCH	8.9302	9.447	PASS
	HCH	8.9557	9.404	PASS

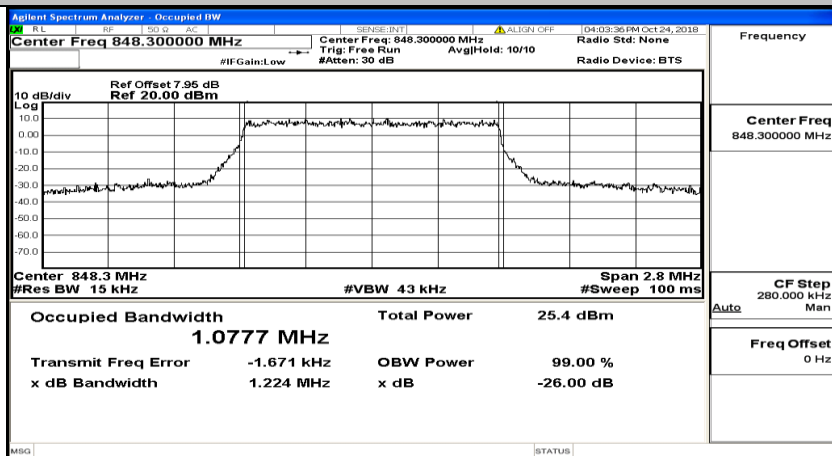
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



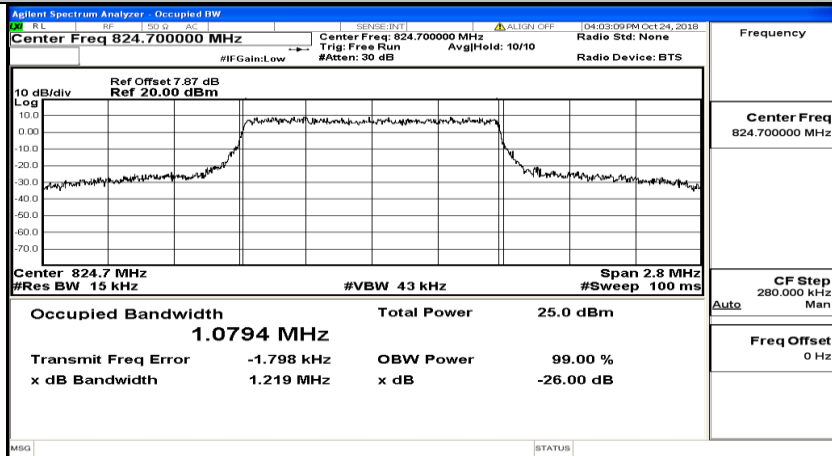
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK



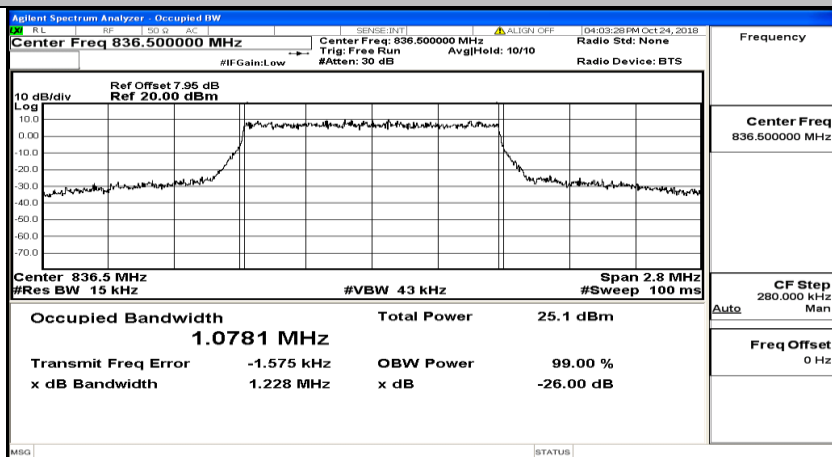
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



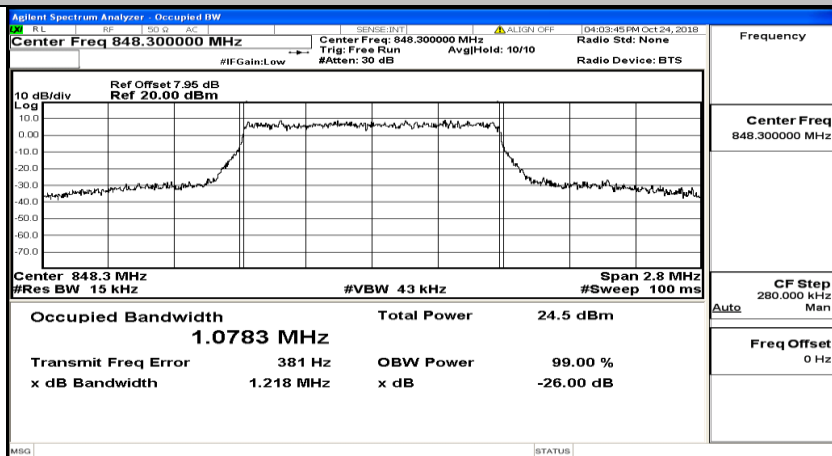
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



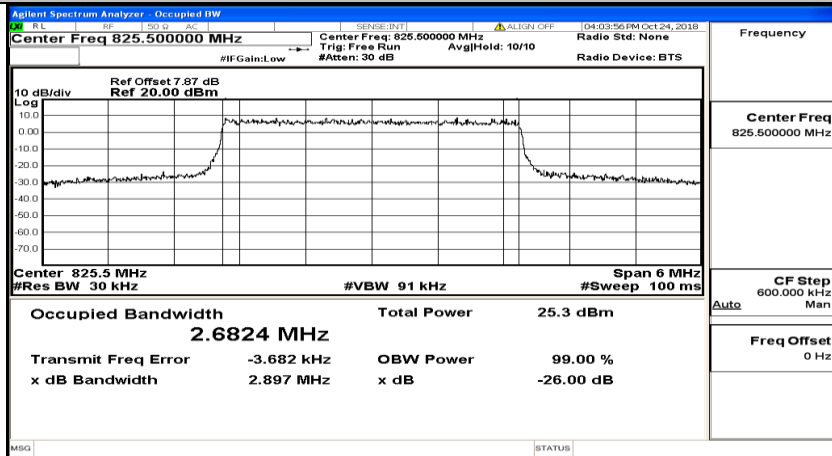
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM



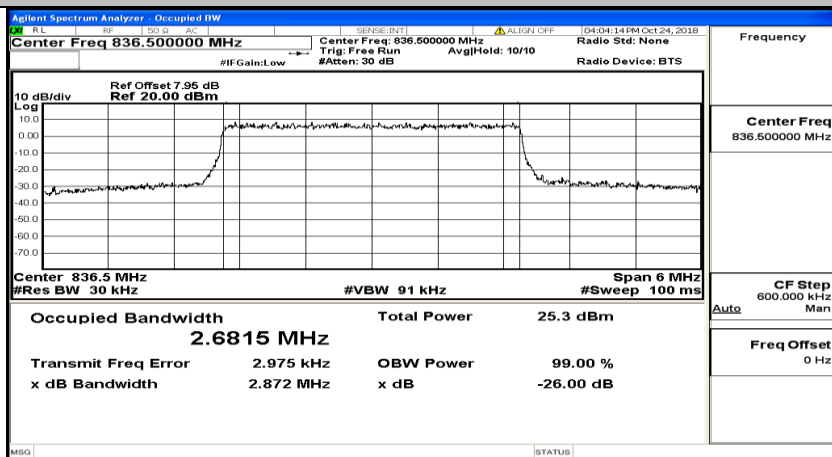
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



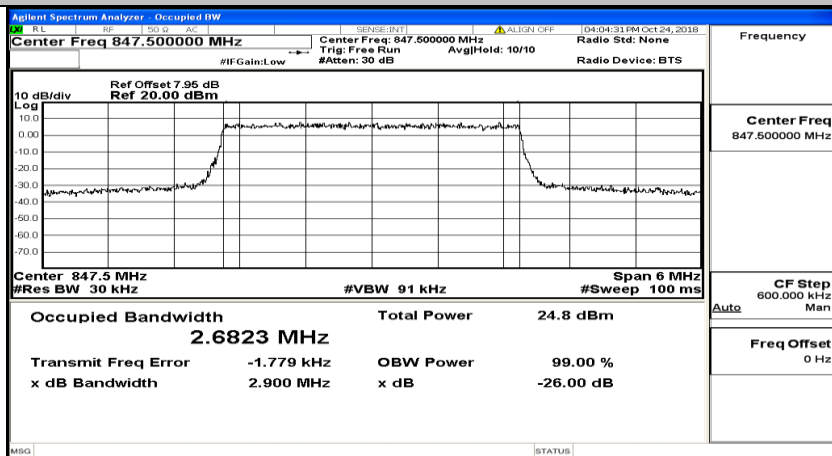
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



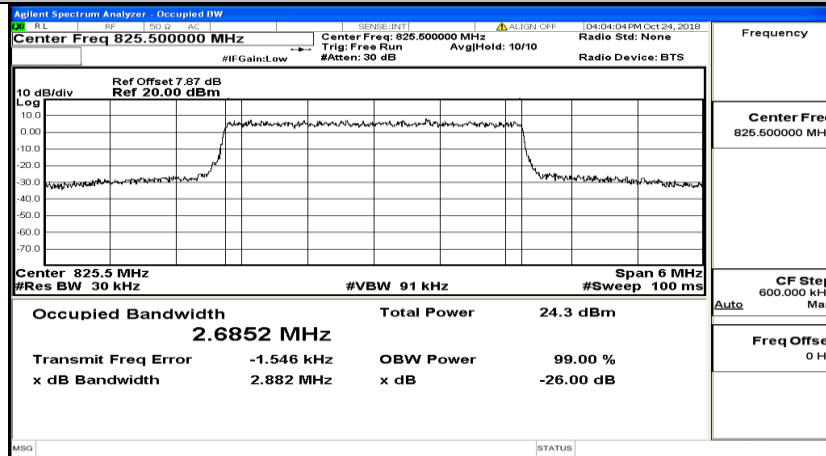
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK



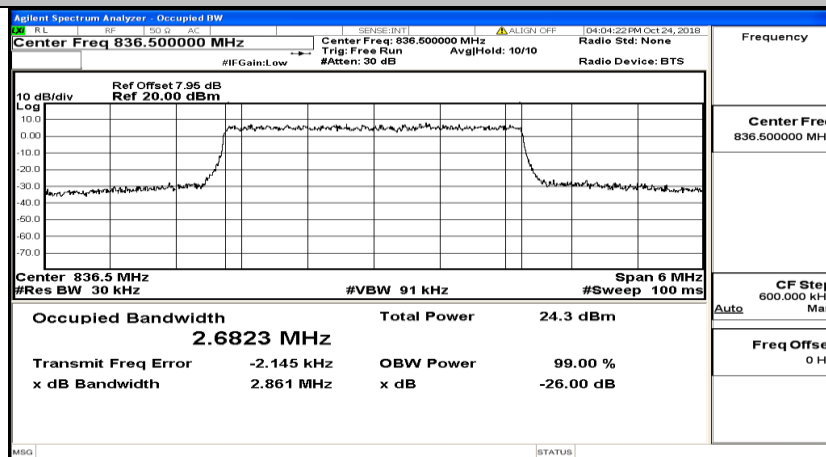
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



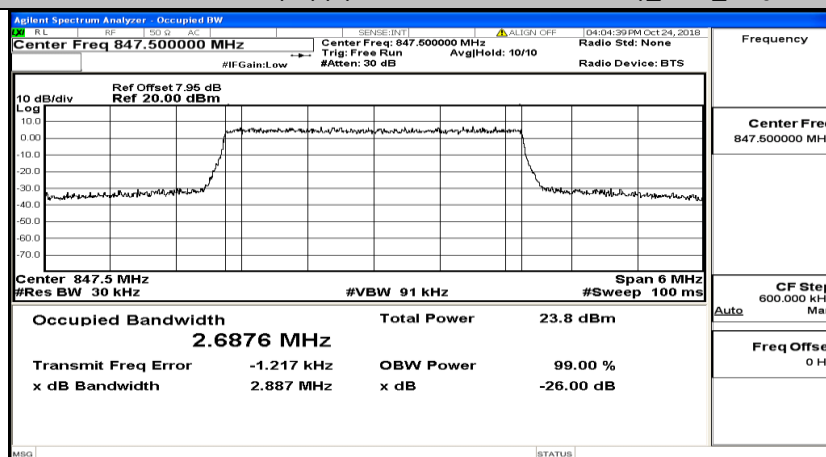
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



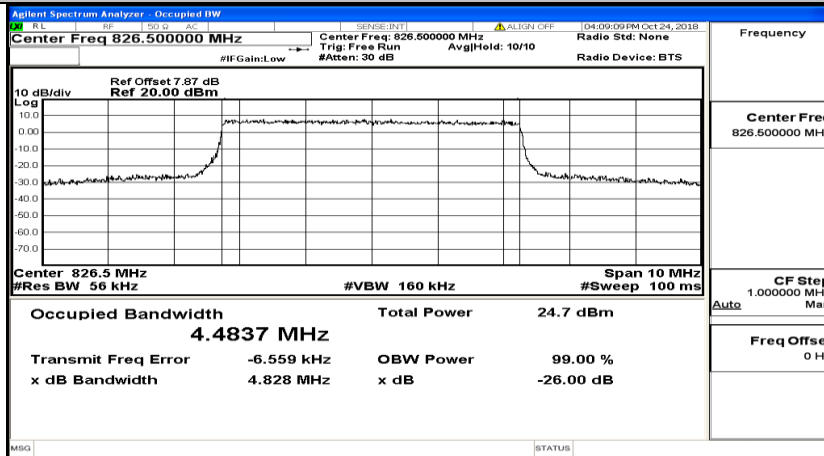
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM



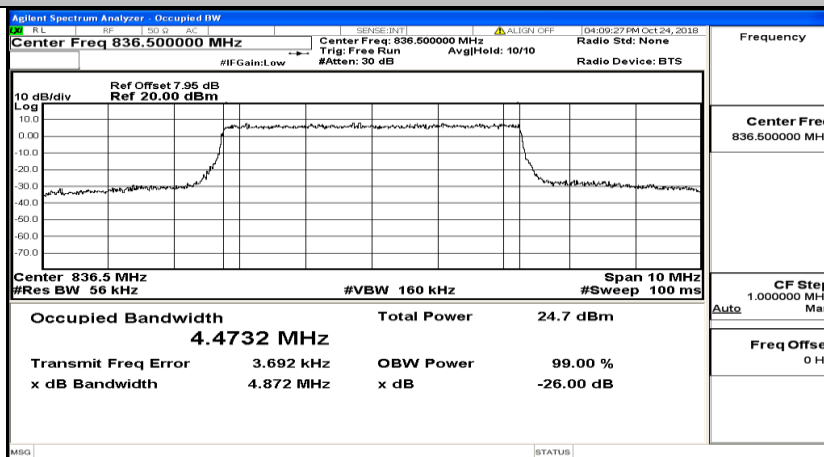
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



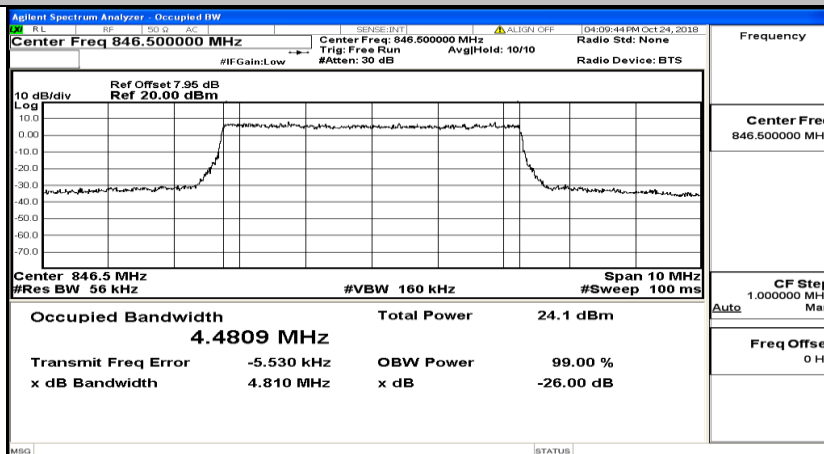
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



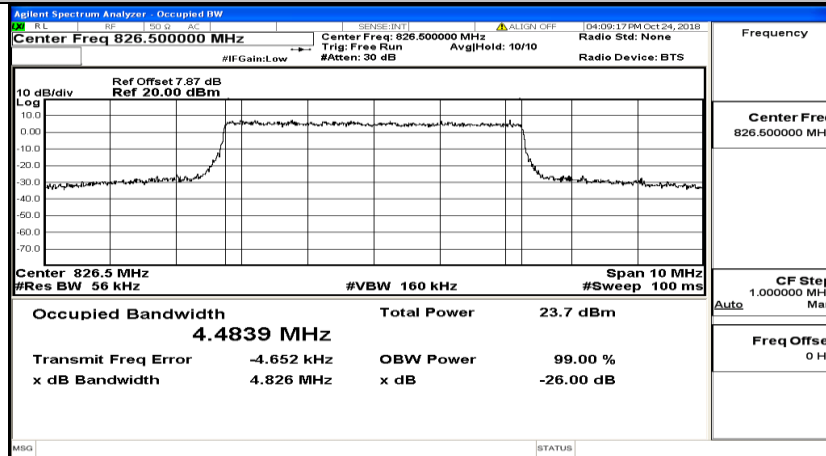
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK



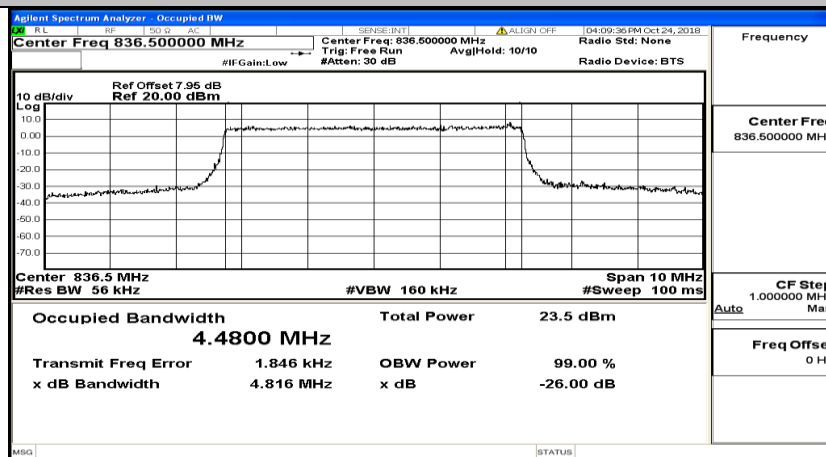
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



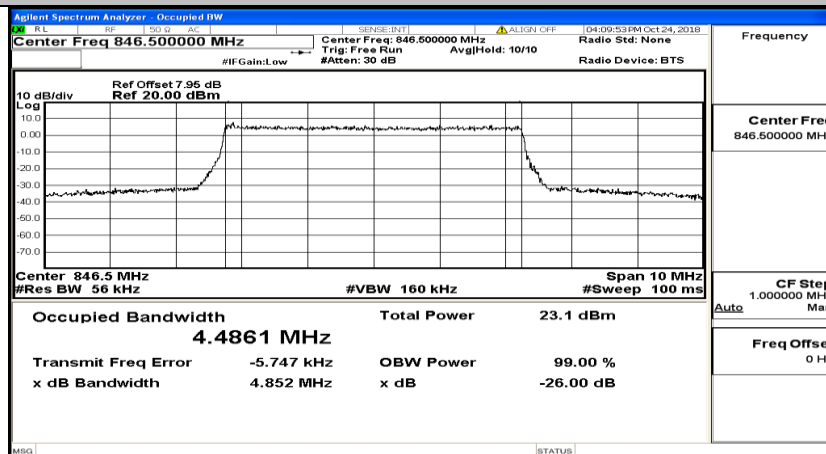
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



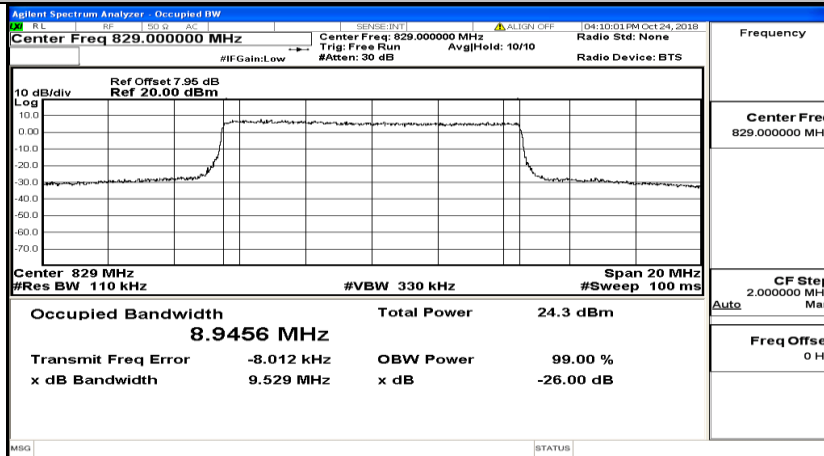
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM



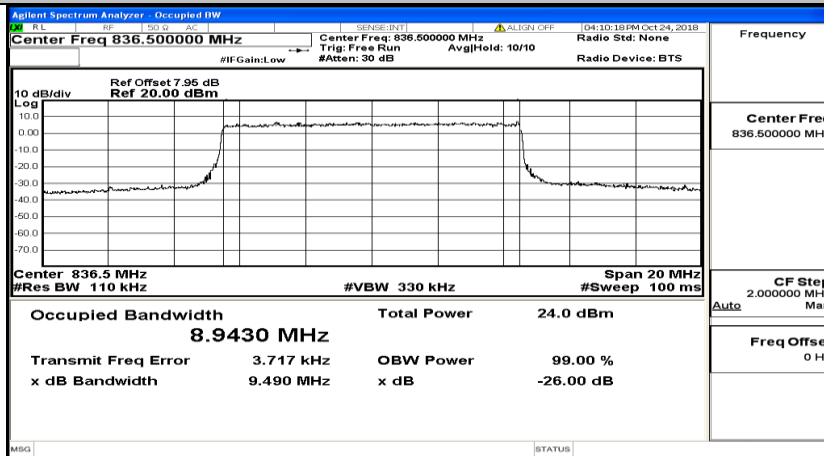
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



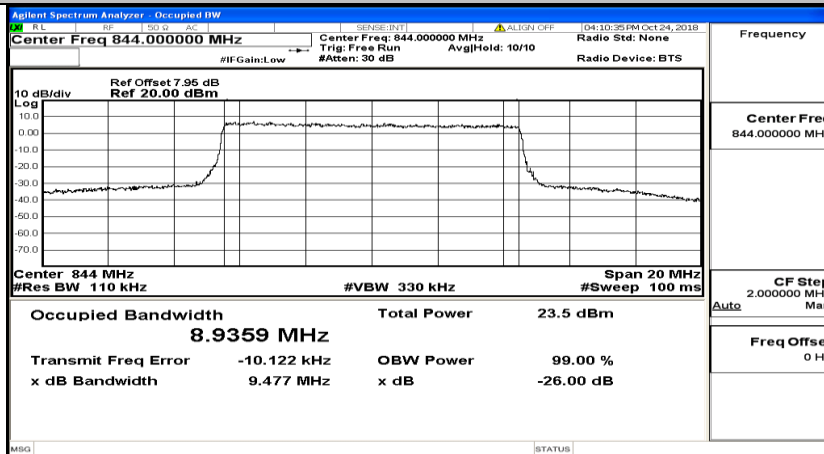
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



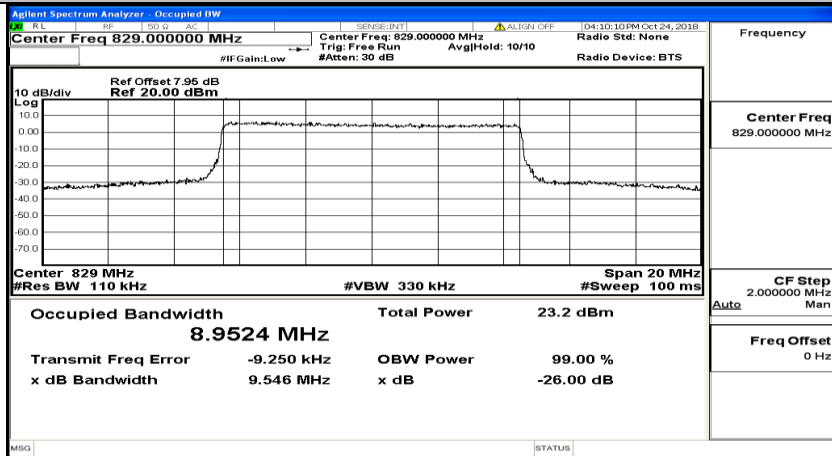
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK



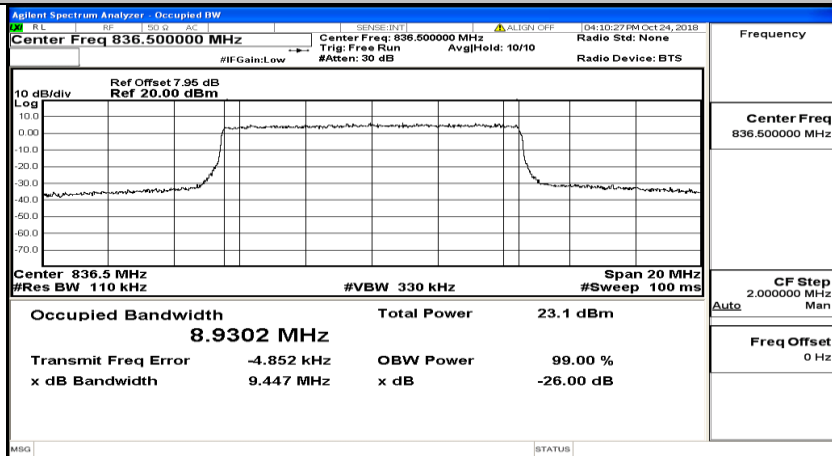
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK



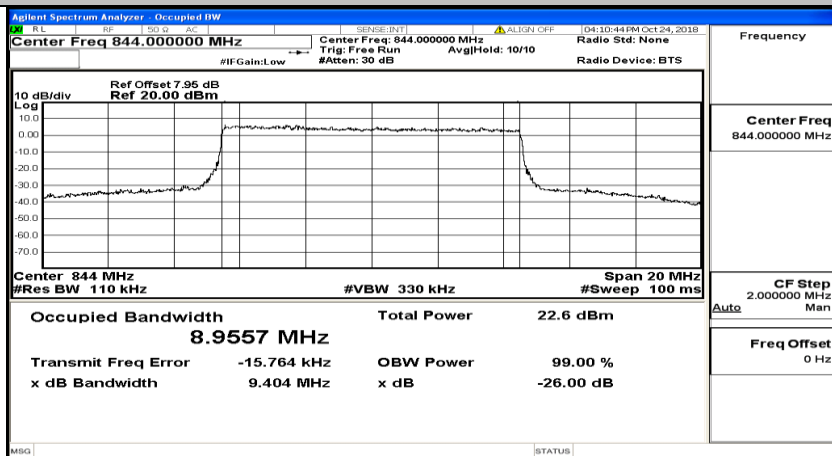
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM



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

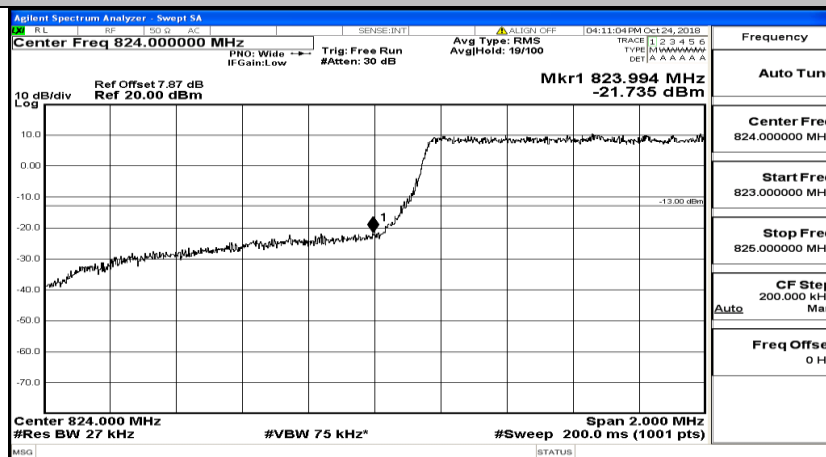


EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM

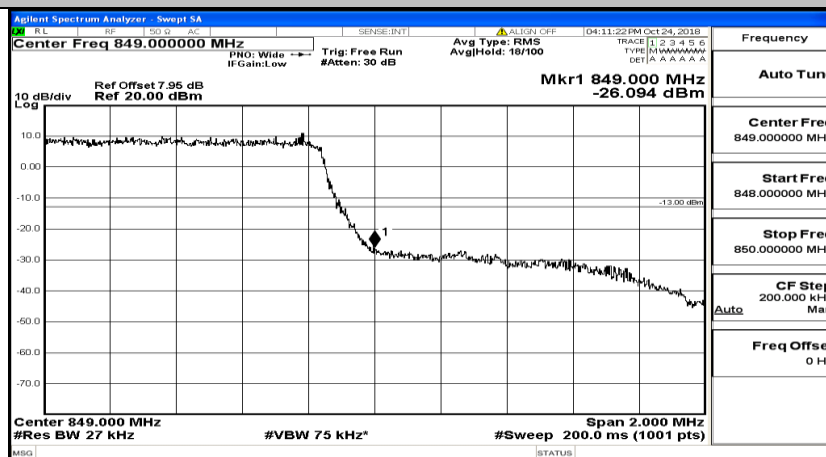


F.4 Band Edge

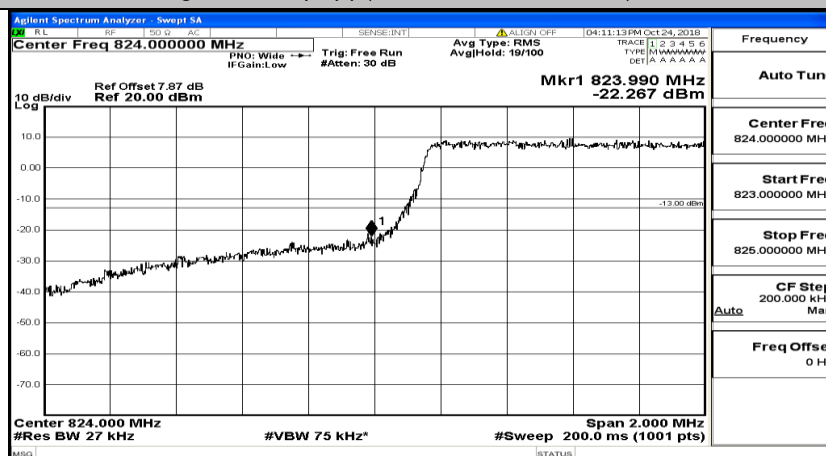
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK



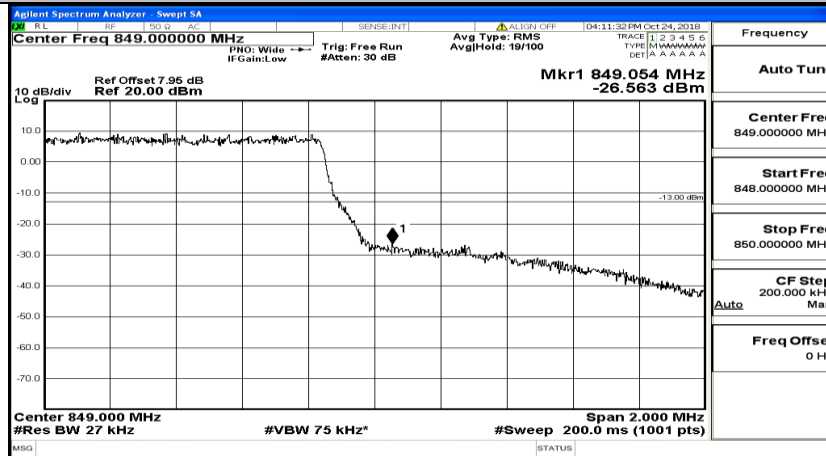
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK



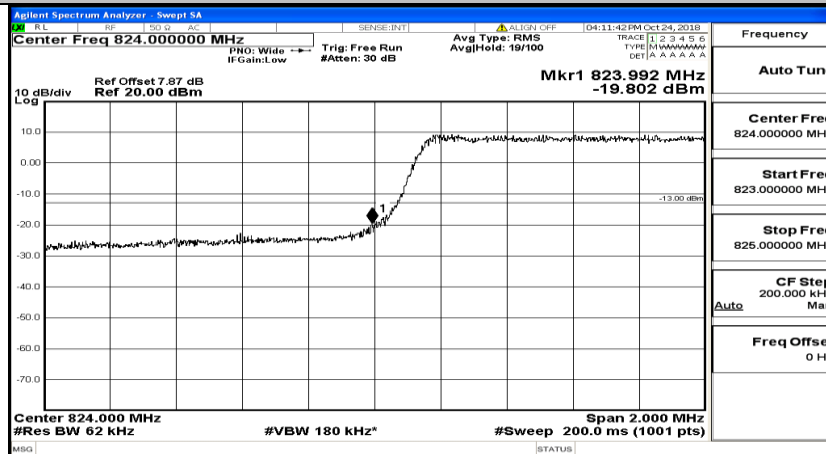
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM



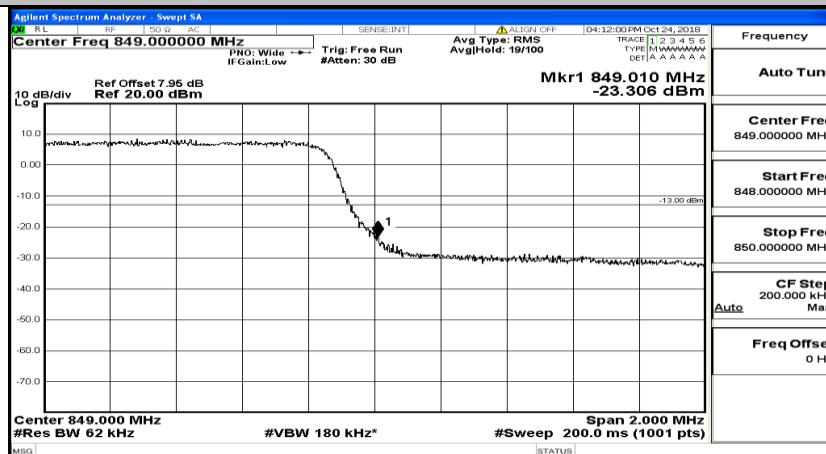
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM



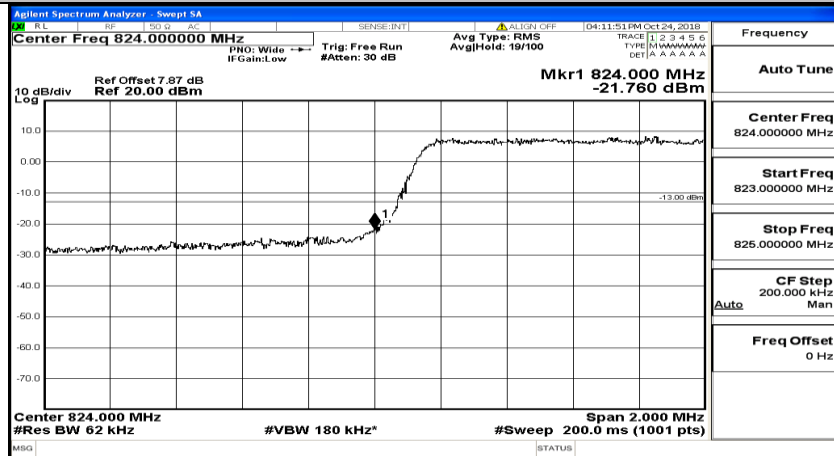
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK



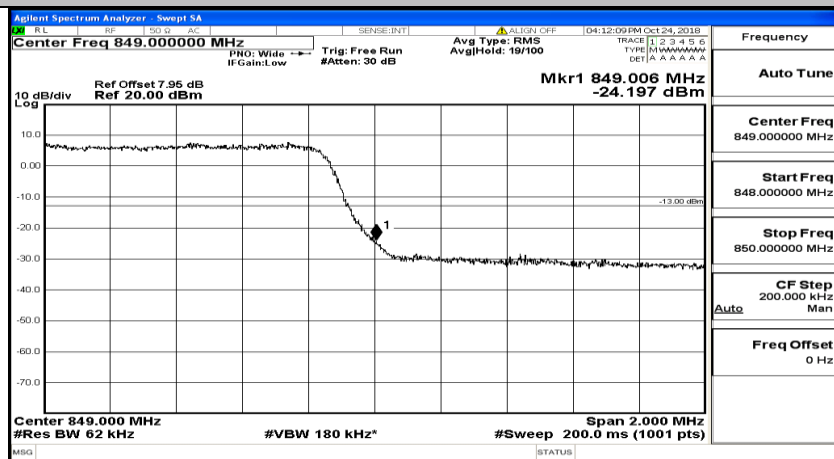
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK



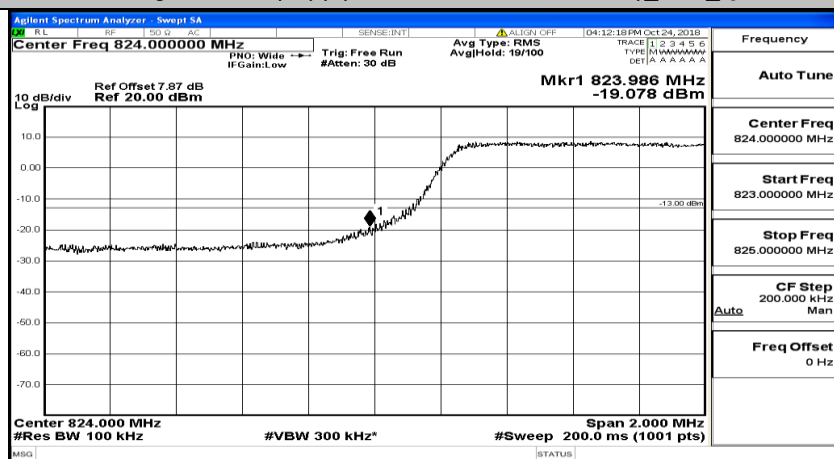
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM



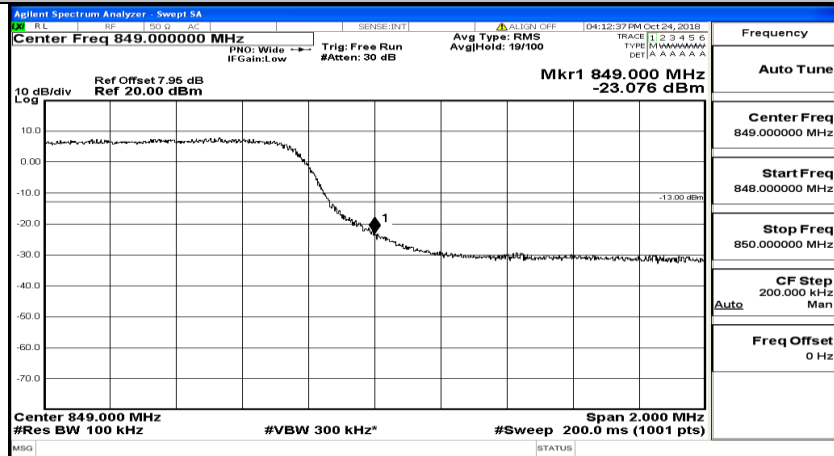
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM



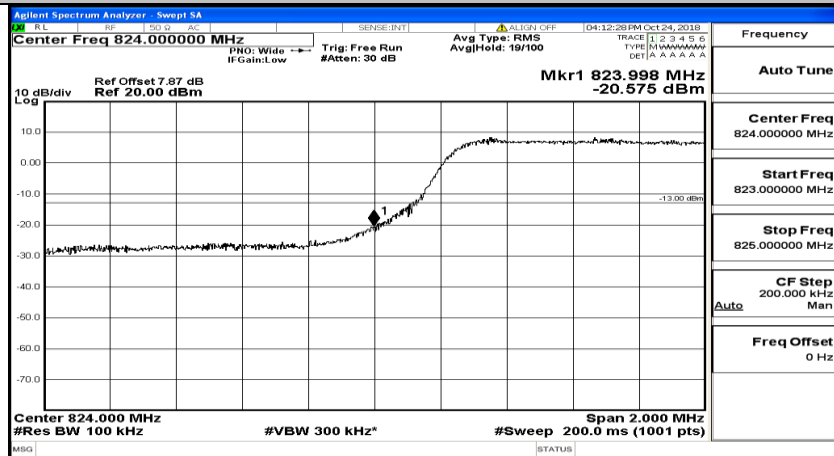
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK



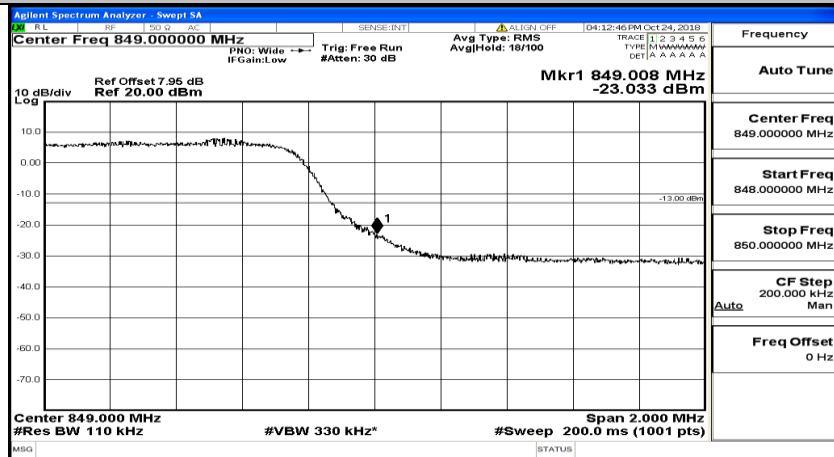
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK



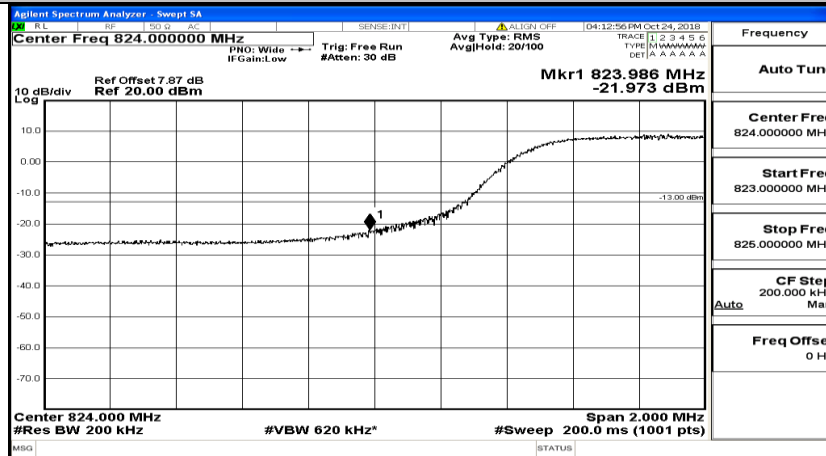
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM



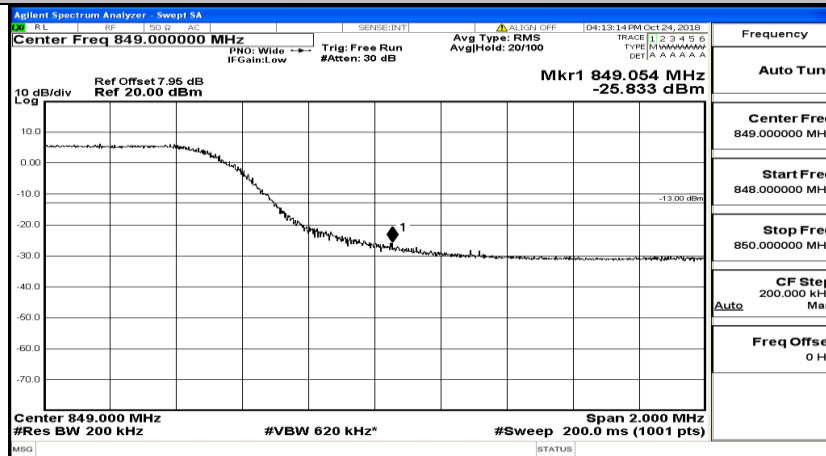
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM



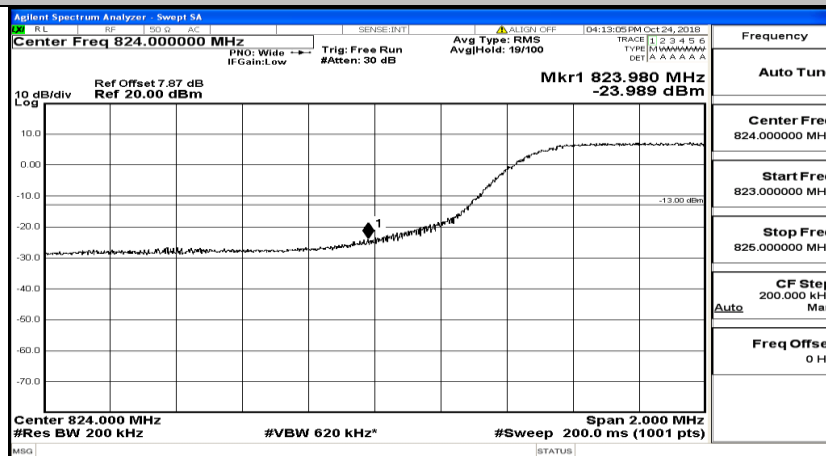
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK



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



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



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

