Appendix E: Test Data for E-UTRA Band 4

Product Name: POS Terminal Trade Mark: SmartPeak Test Model: P500

Environmental Conditions

Temperature:	24.6° C
Relative Humidity:	51.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom Liu
Supervised by:	Jayden Zhuo

E.1 Conducted Output Power

Conducted Output Power Test Result (Channel Bandwidth: 1.4 MHz)							
Modulation	Channel	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	Verdict	
Modulation	Channel	Size	Offset	QPSK	16QAM	verdict	
		1	0	23.44	22.74	PASS	
		1	3	23.56	22.94	PASS	
		1	5	23.44	22.49	PASS	
	LCH	3	0	23.27	22.29	PASS	
		3	2	23.21	22.26	PASS	
		3	3	23.05	22.21	PASS	
		6	0	22.12	21.16	PASS	
		1	0	23.23	22.47	PASS	
		1	3	23.29	22.66	PASS	
QPSK /		1	5	23.07	22.43	PASS	
16QAM	MCH	3	0	23.16	22.05	PASS	
TOQAIVI		3	2	23.09	22.18	PASS	
		3	3	23.13	22.20	PASS	
		6	0	22.07	21.09	PASS	
		1	0	23.27	22.52	PASS	
		1	3	23.38	22.60	PASS	
		1	5	23.14	22.51	PASS	
	HCH	3	0	23.13	22.26	PASS	
		3	2	23.27	22.36	PASS	
		3	3	23.21	22.32	PASS	
		6	0	22.20	21.40	PASS	

	Conducted Output Power Test Result (Channel Bandwidth: 3 MHz)								
Madulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	Vardiet			
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict			
		1	0	23.45	22.44	PASS			
		1	7	23.79	22.58	PASS			
		1	14	23.32	22.50	PASS			
	LCH	8	0	22.18	21.18	PASS			
		8	4	22.05	21.33	PASS			
		8	7	22.45	21.74	PASS			
		15	0	22.22	21.18	PASS			
		1	0	23.23	22.46	PASS			
	MCH	1	7	23.37	22.77	PASS			
QPSK /		1	14	23.05	22.16	PASS			
16QAM		8	0	22.17	21.43	PASS			
TOQAIVI		8	4	22.19	21.39	PASS			
		8	7	22.05	21.21	PASS			
		15	0	22.18	21.32	PASS			
		1	0	23.26	22.38	PASS			
		1	7	23.43	22.89	PASS			
		1	14	23.23	22.55	PASS			
	HCH	8	0	22.32	21.50	PASS			
		8	4	22.30	21.46	PASS			
		8	7	22.39	21.29	PASS			
		15	0	22.45	21.32	PASS			

	Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)								
Modulation	Channel	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	Vardiat			
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict			
		1	0	23.37	22.39	PASS			
		1	12	23.47	22.68	PASS			
		1	24	23.13	22.35	PASS			
	LCH	12	0	22.96	22.12	PASS			
		12	6	22.97	22.16	PASS			
		12	13	22.94	22.14	PASS			
		25	0	22.98	22.03	PASS			
		1	0	22.96	22.37	PASS			
	МСН	1	12	23.05	22.68	PASS			
QPSK /		1	24	22.68	22.13	PASS			
16QAM		12	0	22.06	21.33	PASS			
TOQAM		12	6	22.02	21.49	PASS			
		12	13	22.49	21.51	PASS			
		25	0	22.14	21.20	PASS			
		1	0	22.87	22.00	PASS			
		1	12	23.40	22.32	PASS			
		1	24	23.12	22.17	PASS			
	HCH	12	0	22.07	21.38	PASS			
		12	6	22.33	21.56	PASS			
		12	13	22.44	21.53	PASS			
		25	0	22.48	21.51	PASS			

	Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)								
Modulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	Vardiat			
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict			
		1	0	23.42	22.51	PASS			
		1	24	23.74	22.93	PASS			
		1	49	23.68	22.70	PASS			
	LCH	25	0	22.29	21.20	PASS			
		25	12	22.36	21.18	PASS			
		25	25	22.42	21.44	PASS			
		50	0	22.31	21.24	PASS			
	мсн	1	0	23.41	22.55	PASS			
		1	24	23.43	22.64	PASS			
QPSK /		1	49	22.71	22.06	PASS			
16QAM		25	0	22.58	21.65	PASS			
TOQAM		25	12	22.49	21.45	PASS			
		25	25	22.29	21.39	PASS			
		50	0	22.50	21.50	PASS			
		1	0	23.01	22.48	PASS			
		1	24	23.44	22.88	PASS			
		1	49	23.45	22.93	PASS			
	HCH	25	0	22.24	21.31	PASS			
		25	12	22.30	21.33	PASS			
		25	25	22.40	21.41	PASS			
		50	0	22.29	21.34	PASS			

Conducted Output Power Test Result (Channel Bandwidth: 15 MHz)								
Modulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	Verdict		
Modulation	Channel	Size	Offset	QPSK	16QAM	verdict		
		1	0	23.40	22.72	PASS		
		1	37	23.33	22.64	PASS		
		1	74	23.25	22.57	PASS		
	LCH	37	0	22.54	21.43	PASS		
		37	18	22.61	21.56	PASS		
		37	38	22.63	21.77	PASS		
		75	0	22.41	21.47	PASS		
		1	0	23.60	22.87	PASS		
		1	37	23.67	22.68	PASS		
QPSK /		1	74	22.72	22.16	PASS		
16QAM	MCH	37	0	22.56	21.64	PASS		
TOQAIVI		37	18	22.48	21.48	PASS		
		37	38	22.30	21.27	PASS		
		75	0	22.46	21.44	PASS		
		1	0	22.92	22.24	PASS		
		1	37	23.30	22.62	PASS		
		1	74	23.45	22.81	PASS		
	HCH	37	0	22.03	21.06	PASS		
		37	18	22.16	21.18	PASS		
		37	38	22.26	21.31	PASS		
		75	0	22.16	21.14	PASS		

	Conducted Output Power Test Result (Channel Bandwidth: 20 MHz)								
Madulation	Channal	RB Configuration		Average Power [dBm]	Average Power [dBm]	Vardiet			
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict			
		1	0	23.45	22.63	PASS			
		1	49	23.66	22.87	PASS			
		1	99	23.75	22.90	PASS			
	LCH	50	0	22.60	21.59	PASS			
		50	25	22.79	21.79	PASS			
		50	50	22.90	21.93	PASS			
		100	0	22.71	21.73	PASS			
		1	0	23.61	22.58	PASS			
	MCH	1	49	23.73	22.72	PASS			
QPSK /		1	99	22.81	21.91	PASS			
16QAM		50	0	22.62	21.45	PASS			
TOQAIVI		50	25	22.35	21.45	PASS			
		50	50	22.31	21.28	PASS			
		100	0	22.49	21.46	PASS			
		1	0	23.04	22.48	PASS			
		1	49	23.29	22.67	PASS			
		1	99	23.43	22.85	PASS			
	HCH	50	0	22.46	21.52	PASS			
		50	25	22.13	21.14	PASS			
		50	50	22.10	21.16	PASS			
		100	0	22.48	21.51	PASS			

E.2 Peak-to-Average Ratio

	Peak-to Average Ratio Test Result (Channel Bandwidth: 1.4 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict				
iviodulation	Griannei	[dB]	[dB]	verdict				
	LCH	5.72	<13	PASS				
QPSK	MCH	5.71	<13	PASS				
	HCH	5.65	<13	PASS				
	LCH	6.63	<13	PASS				
16QAM	MCH	6.72	<13	PASS				
	HCH	6.54	<13	PASS				

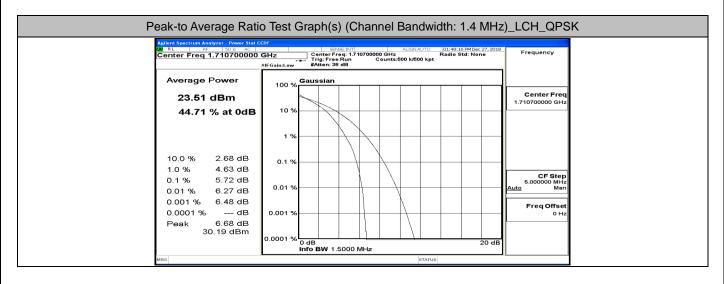
Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict			
Modulation	Channel	[dB]	[dB]	verdict			
	LCH	5.77	<13	PASS			
QPSK	MCH	5.79	<13	PASS			
	HCH	5.79	<13	PASS			
16QAM	LCH	6.73	<13	PASS			
	MCH	6.71	<13	PASS			
	HCH	6.56	<13	PASS			

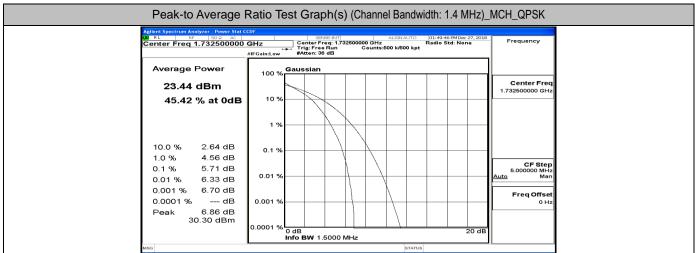
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Vordict			
Modulation	Griannei	[dB]	[dB]	Verdict			
	LCH	5.89	<13	PASS			
QPSK	MCH	5.84	<13	PASS			
	HCH	5.73	<13	PASS			
	LCH	6.69	<13	PASS			
16QAM	MCH	6.68	<13	PASS			
	HCH	6.52	<13	PASS			

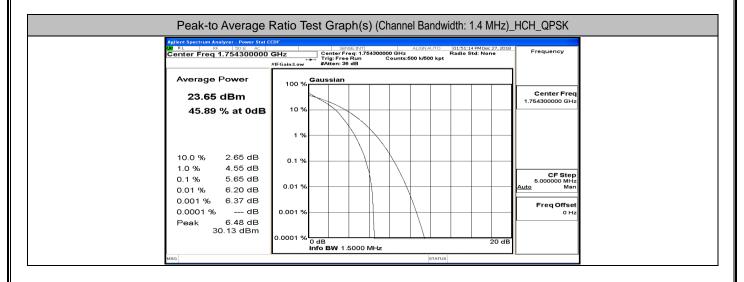
Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict			
Modulation	Grianner	[dB]	[dB]	verdict			
	LCH	5.93	<13	PASS			
QPSK	MCH	5.78	<13	PASS			
	HCH	5.73	<13	PASS			
	LCH	6.61	<13	PASS			
16QAM	MCH	6.52	<13	PASS			
	HCH	6.48	<13	PASS			

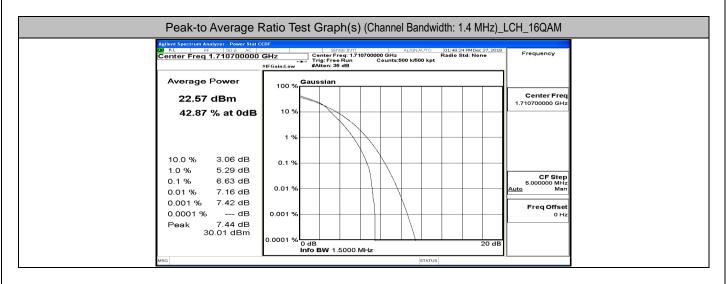
	Peak-to Average Ratio Test Result (Channel Bandwidth: 15 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict				
Modulation	Griannei	[dB]	[dB]	verdict				
	LCH	5.09	<13	PASS				
QPSK	MCH	5.04	<13	PASS				
	HCH	4.96	<13	PASS				
	LCH	6.45	<13	PASS				
16QAM	MCH	6.36	<13	PASS				
	HCH	6.32	<13	PASS				

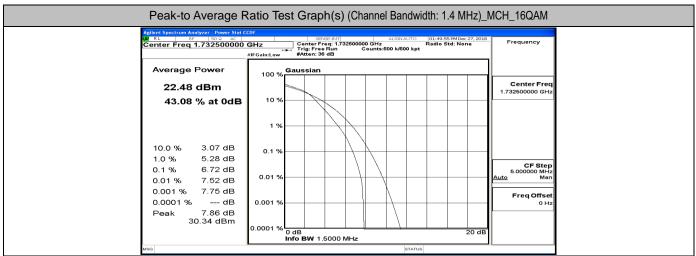
Peak-to Average Ratio Test Result (Channel Bandwidth: 20 MHz)				
M. I.I.C	Channel	Peak-to-Average Ratio	Limit	Verdict
Modulation		[dB]	[dB]	
QPSK	LCH	5.75	<13	PASS
	MCH	5.72	<13	PASS
	HCH	5.72	<13	PASS
16QAM	LCH	6.89	<13	PASS
	MCH	6.82	<13	PASS
	HCH	6.75	<13	PASS

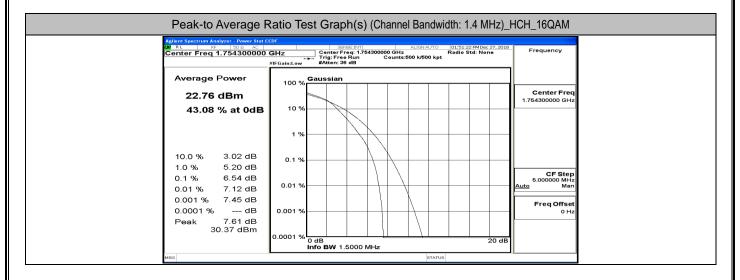


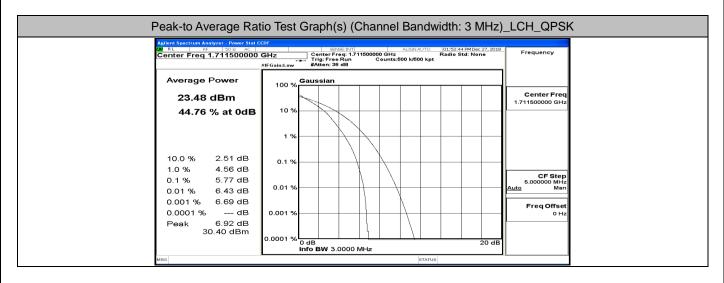


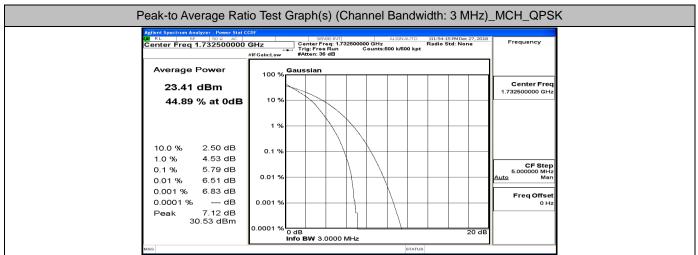


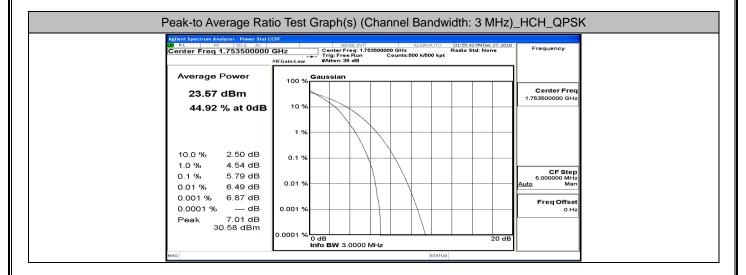


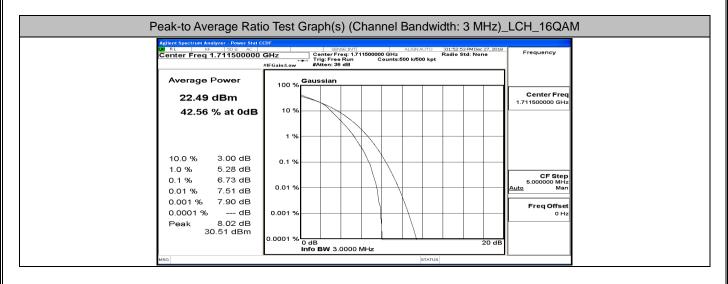


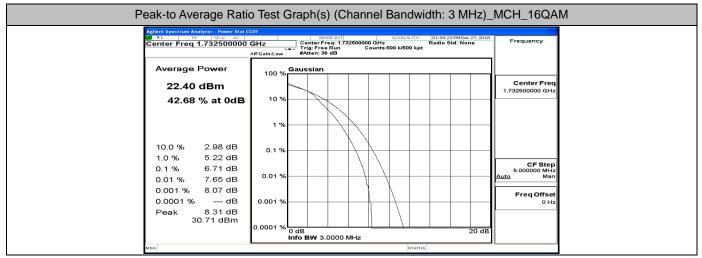


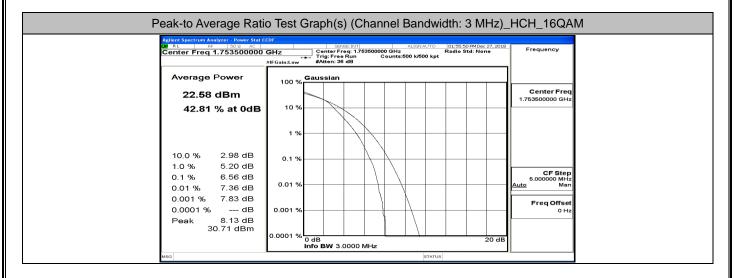


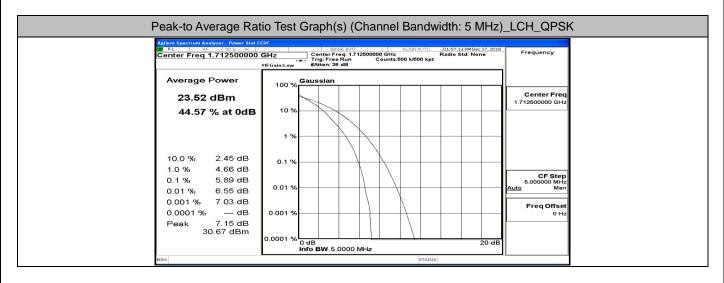


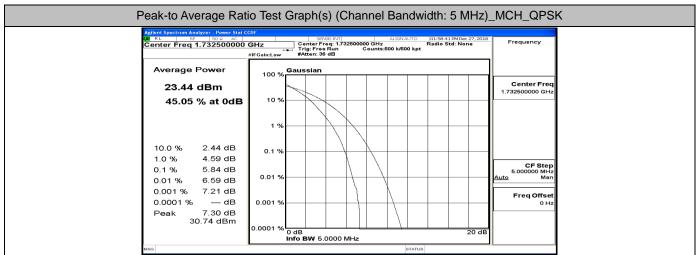


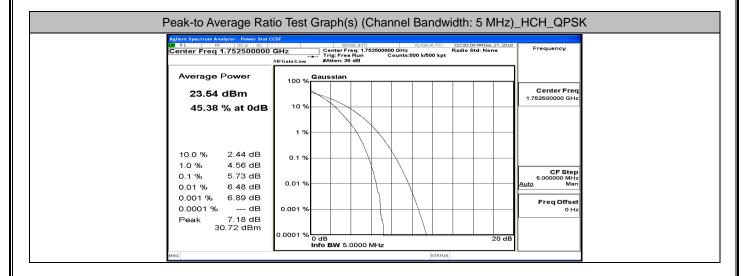


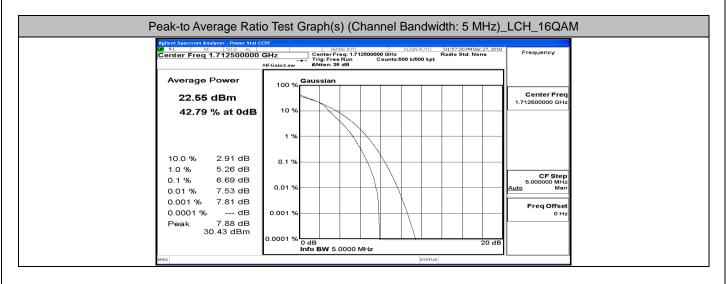


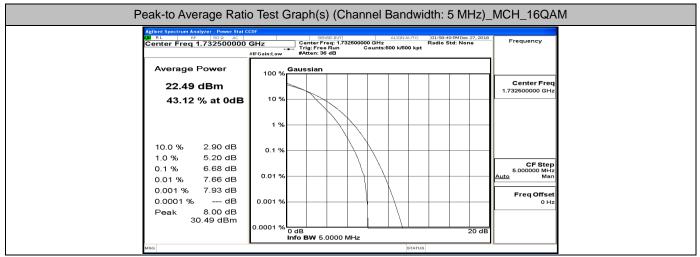


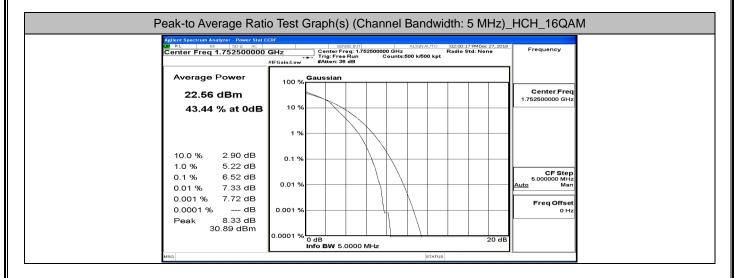


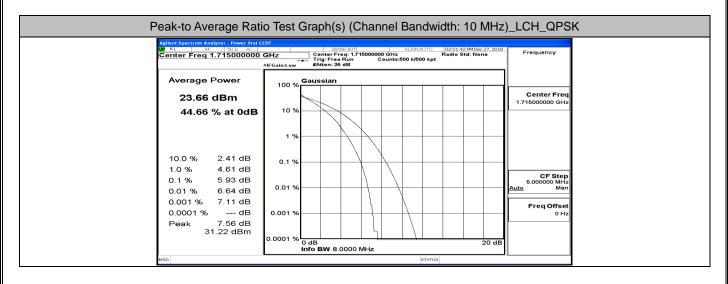


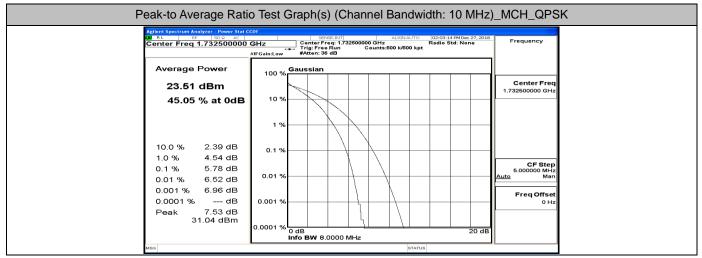


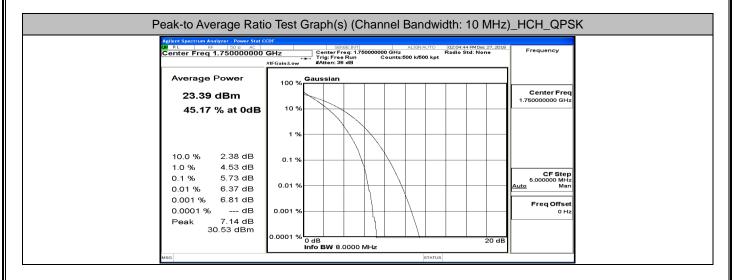


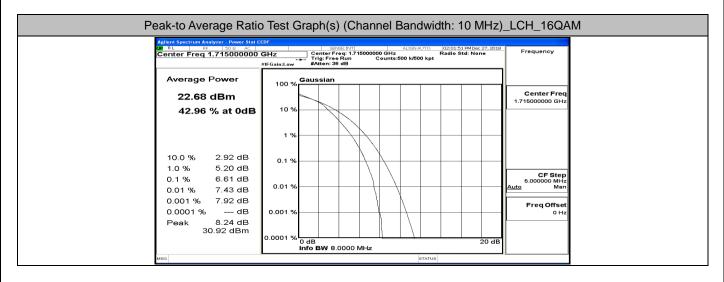


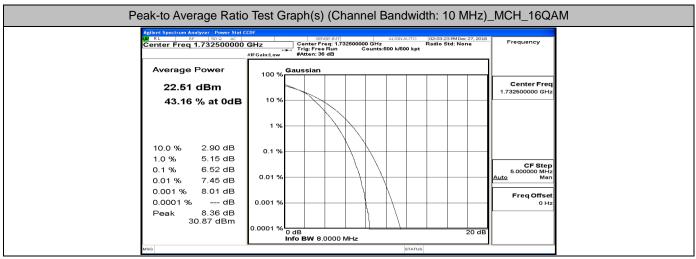


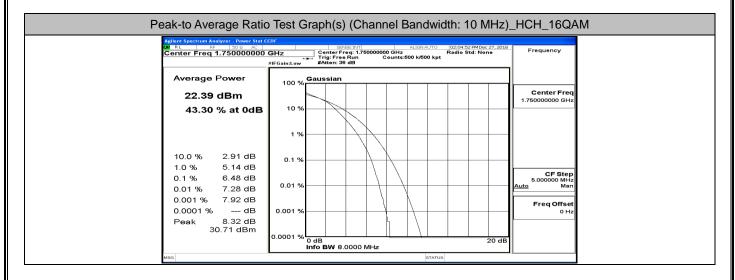


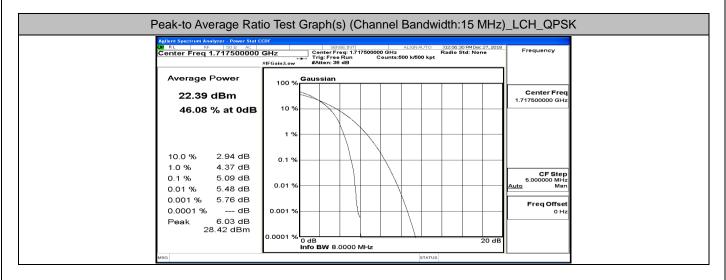


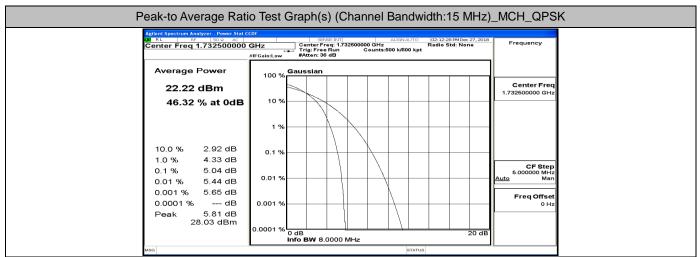


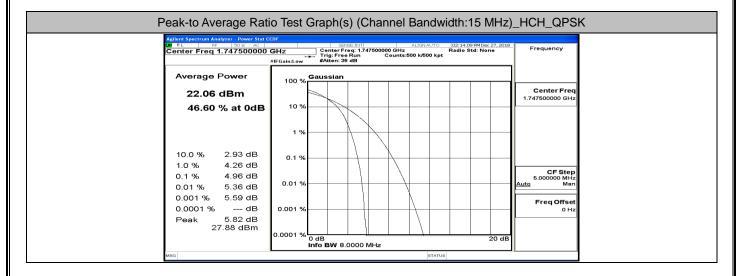


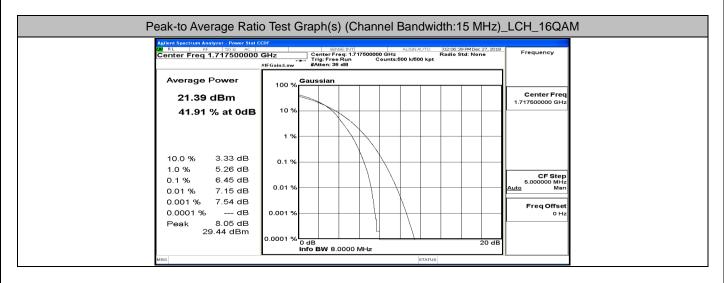


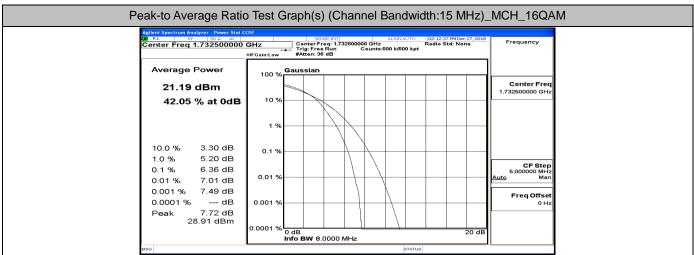


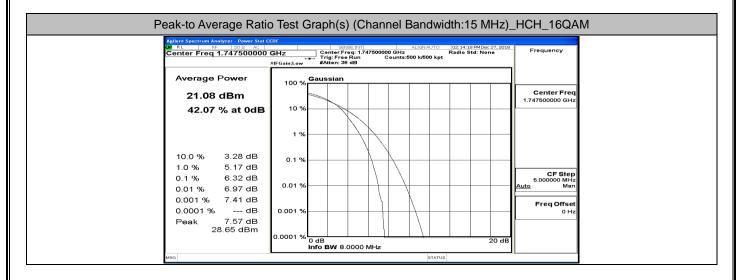


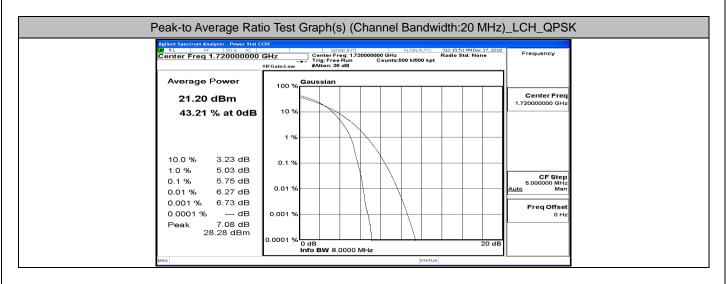


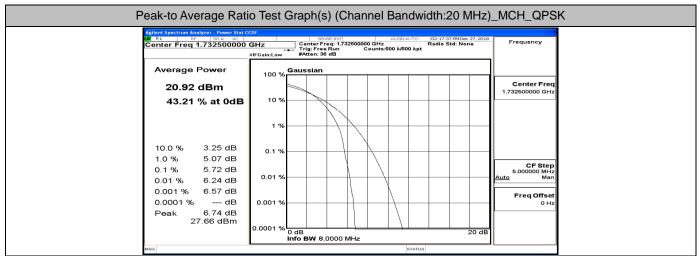


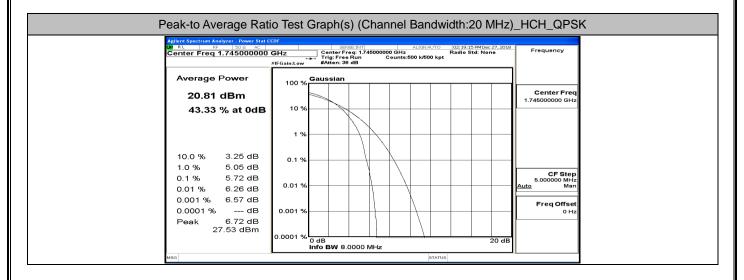


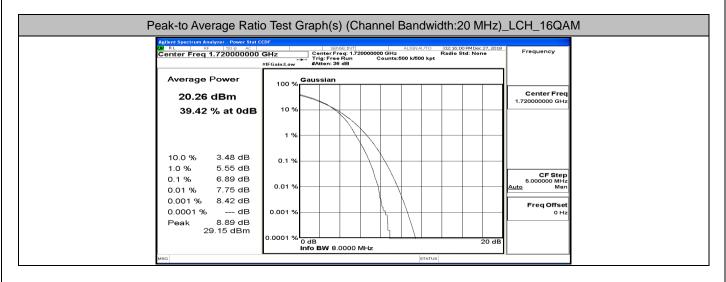


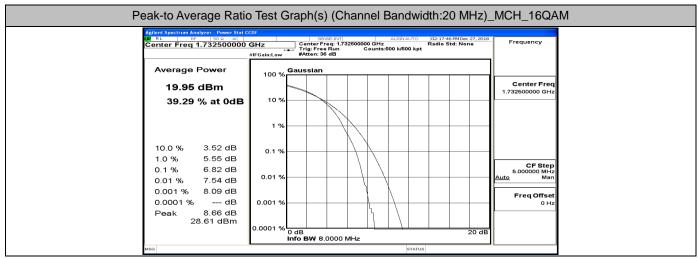


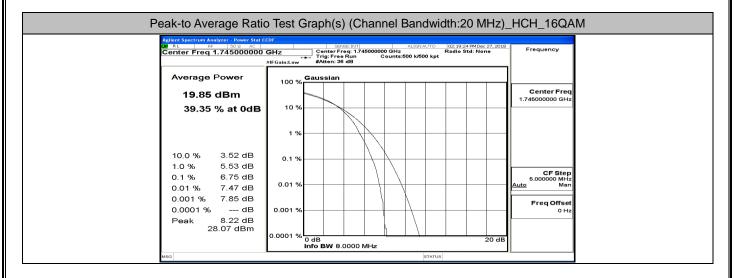












E.3 26dB Bandwidth and Occupied Bandwidth

EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
	LCH	1.0749	1.230	PASS
QPSK	MCH	1.0764	1.225	PASS
	HCH	1.0757	1.226	PASS
16QAM	LCH	1.0789	1.236	PASS
	MCH	1.0773	1.235	PASS
	HCH	1.0756	1.227	PASS

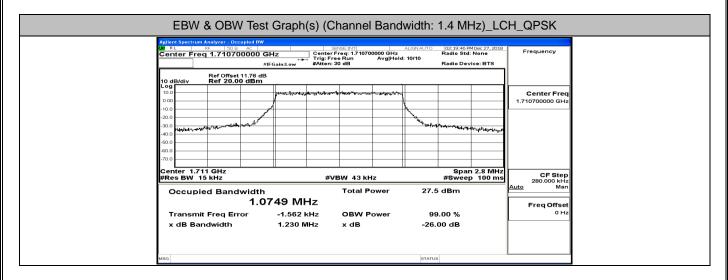
EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
iviodulation		(MHz)	(MHz)	
QPSK	LCH	2.6839	2.832	PASS
	MCH	2.6799	2.821	PASS
	HCH	2.6797	2.840	PASS
16QAM	LCH	2.6757	2.831	PASS
	MCH	2.6824	2.825	PASS
	HCH	2.6821	2.836	PASS

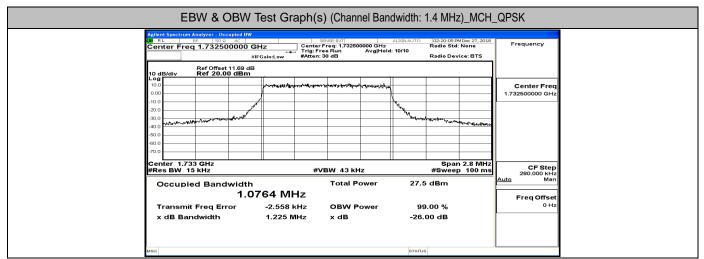
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	4.4846	4.848	PASS
	MCH	4.4738	4.833	PASS
	HCH	4.4725	4.851	PASS
16QAM	LCH	4.4758	4.895	PASS
	MCH	4.4701	4.890	PASS
	HCH	4.4845	4.868	PASS

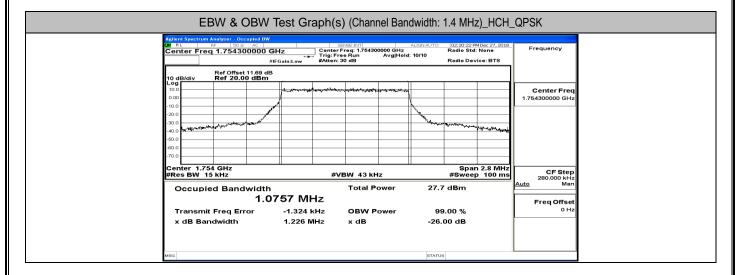
EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	8.9568	9.612	PASS
	MCH	8.9562	9.473	PASS
	HCH	8.9382	9.477	PASS
16QAM	LCH	8.9438	9.555	PASS
	MCH	8.9472	9.481	PASS
	HCH	8.9412	9.496	PASS

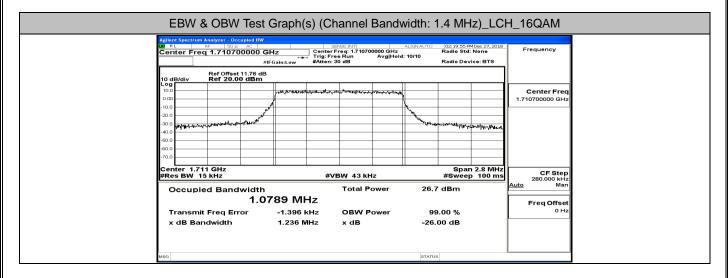
EBW & OBW Test Result (Channel Bandwidth: 15 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	13.406	14.08	PASS
	MCH	13.434	14.11	PASS
	HCH	13.381	14.00	PASS
16QAM	LCH	13.421	14.13	PASS
	MCH	13.416	14.18	PASS
	HCH	13.390	14.07	PASS

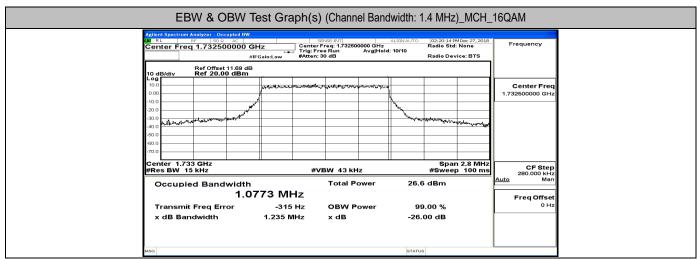
EBW & OBW Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	17.873	18.67	PASS
	MCH	17.876	18.66	PASS
	HCH	17.835	18.54	PASS
16QAM	LCH	17.873	18.63	PASS
	MCH	17.874	18.66	PASS
	HCH	17.840	18.61	PASS

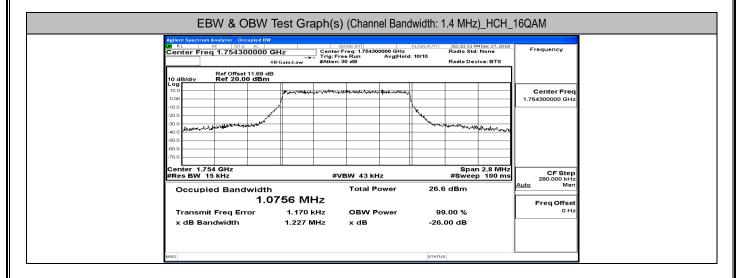


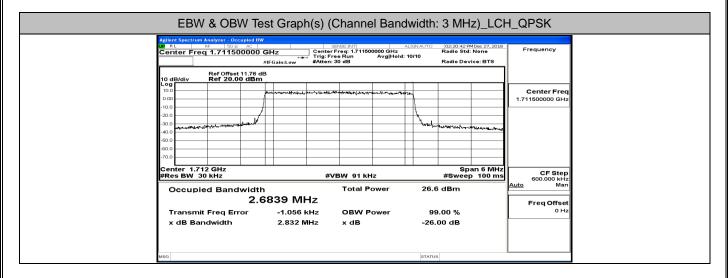


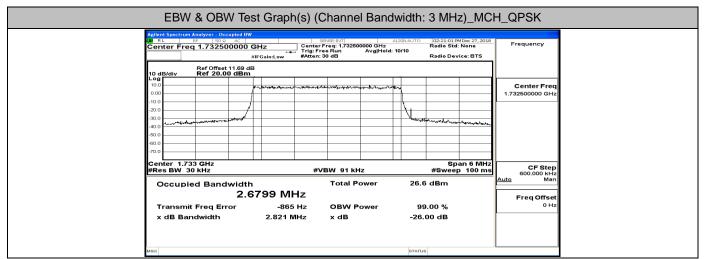


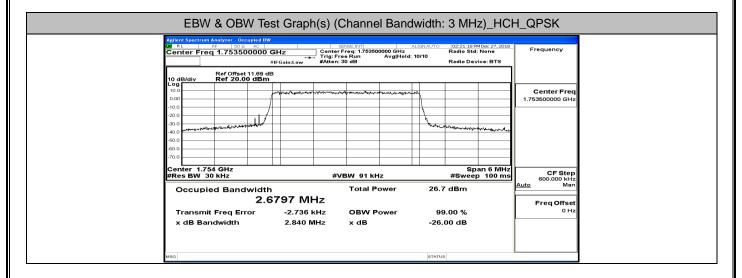


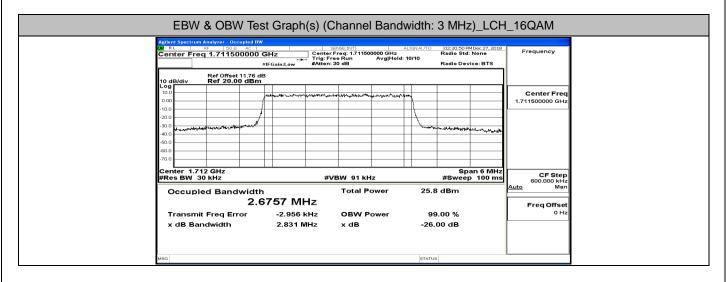


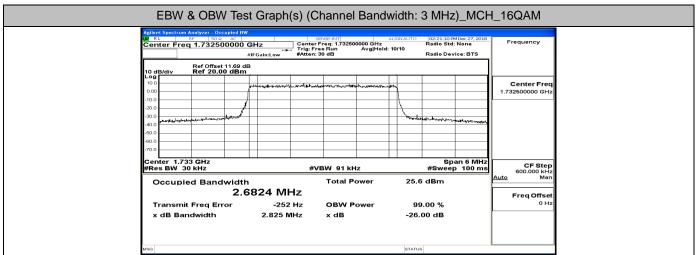


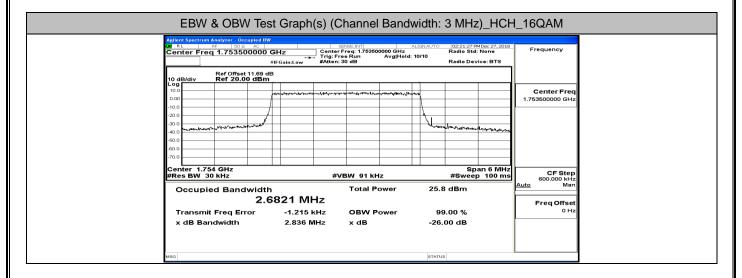


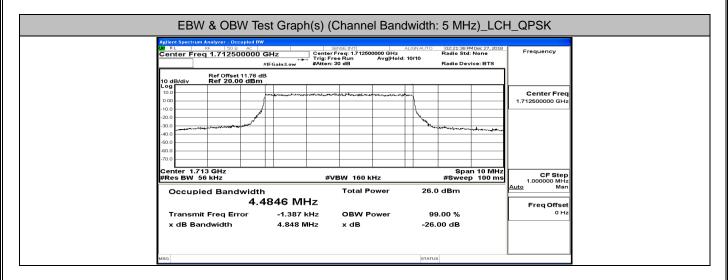


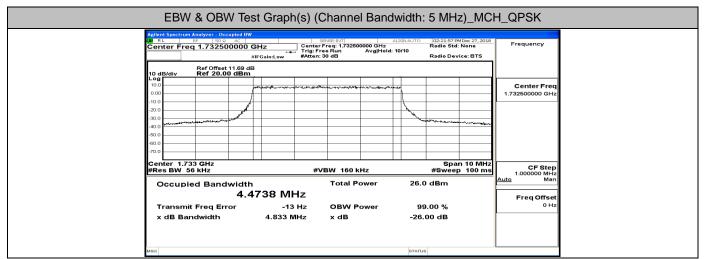


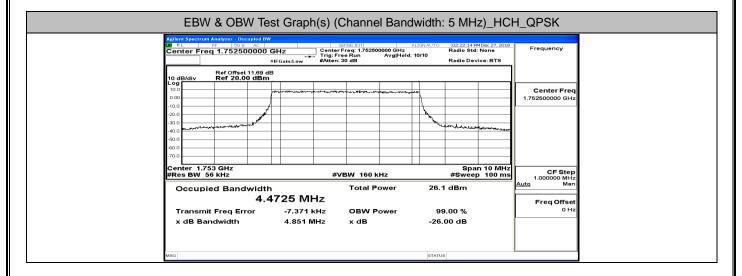


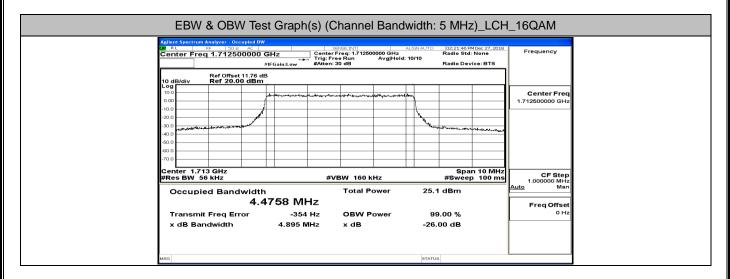


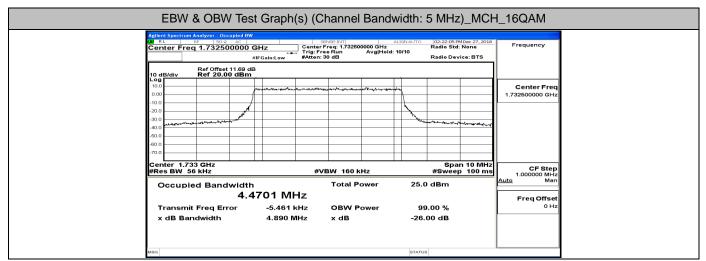


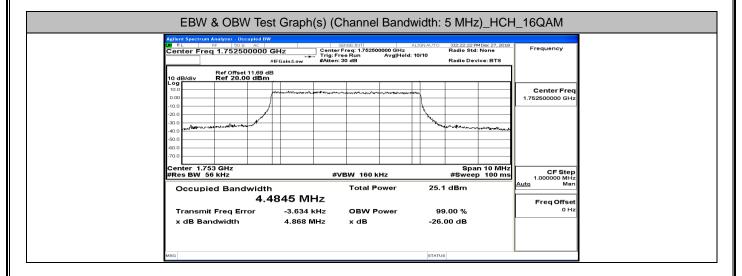


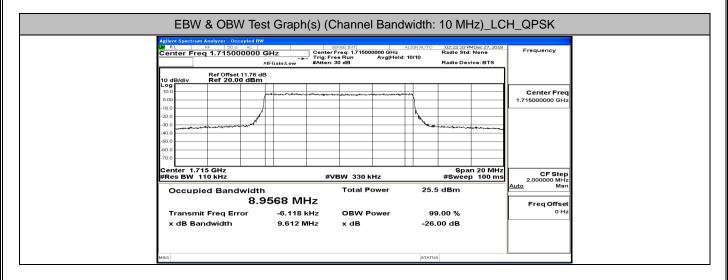


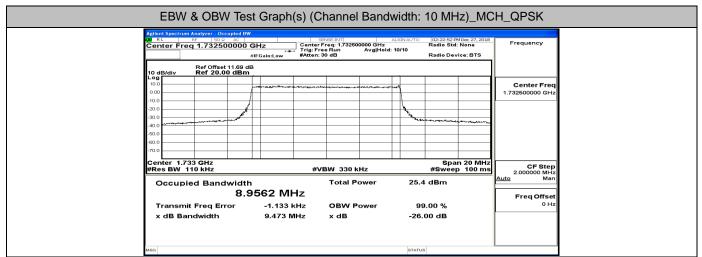


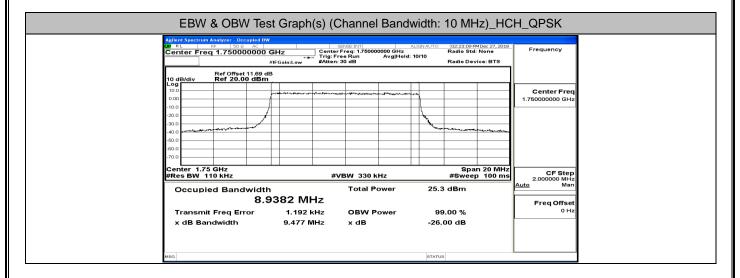


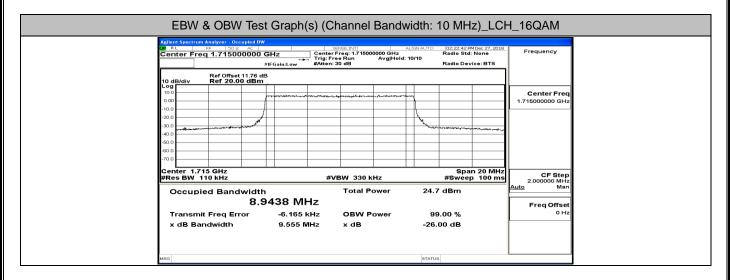


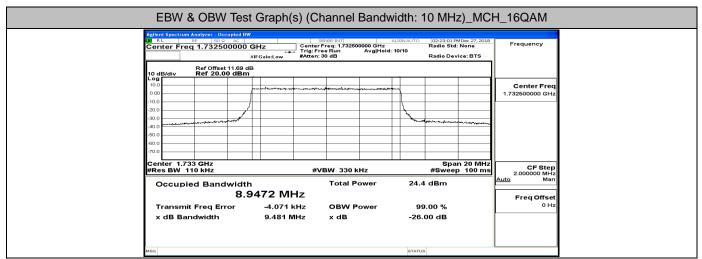


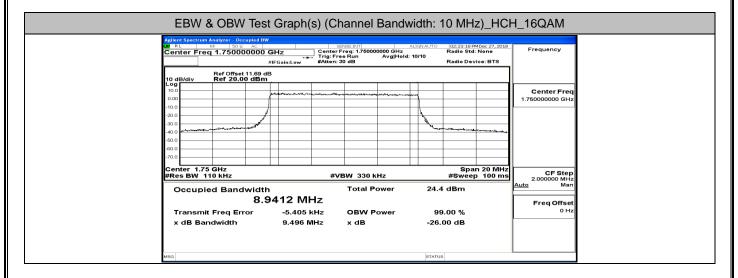


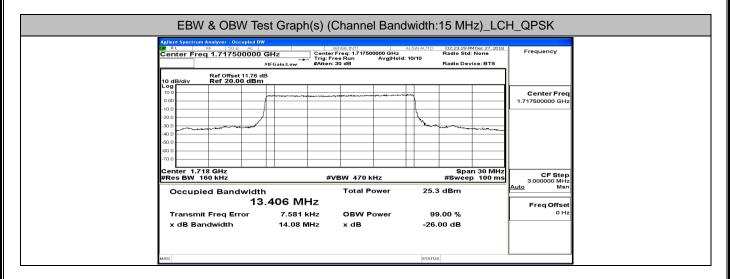


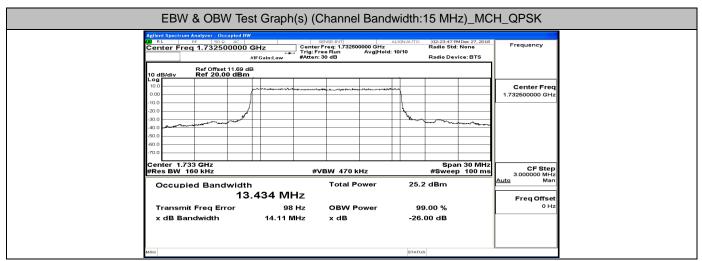


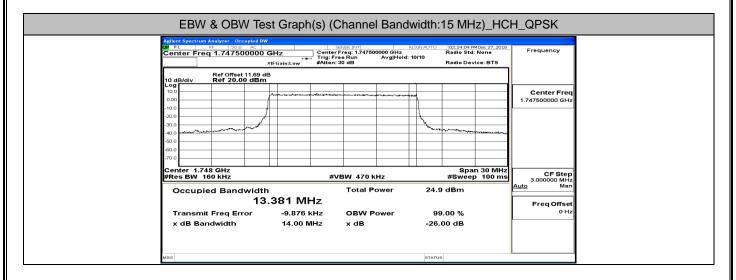


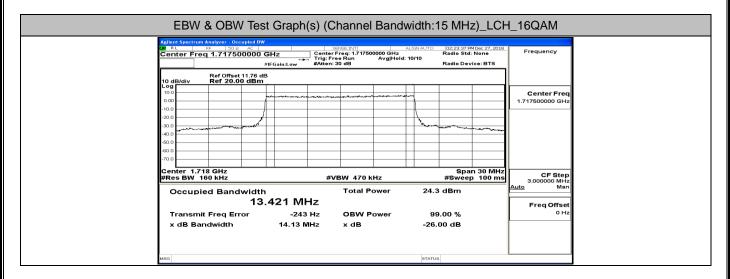


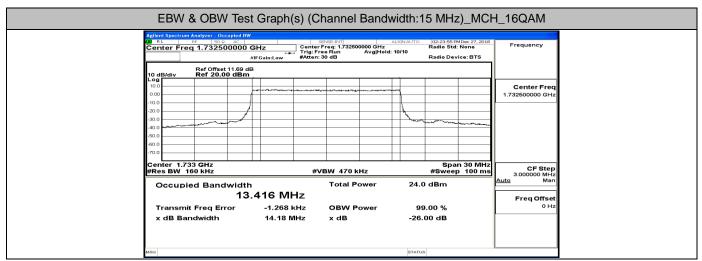


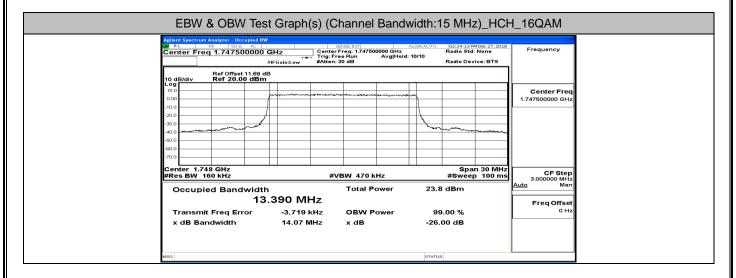


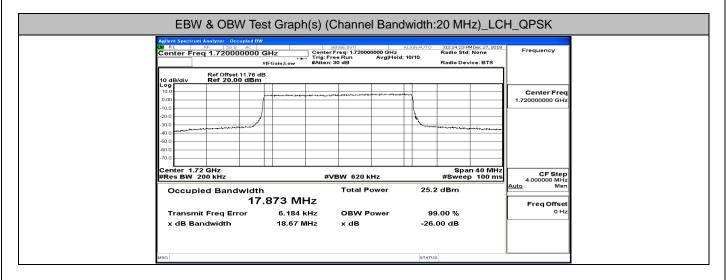


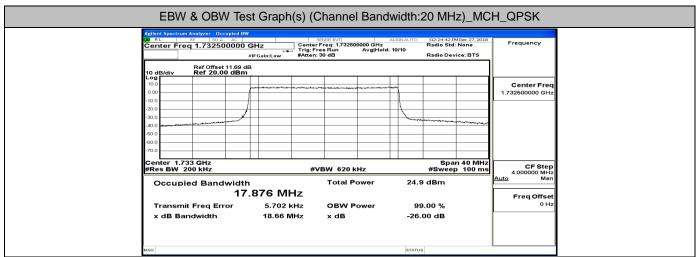


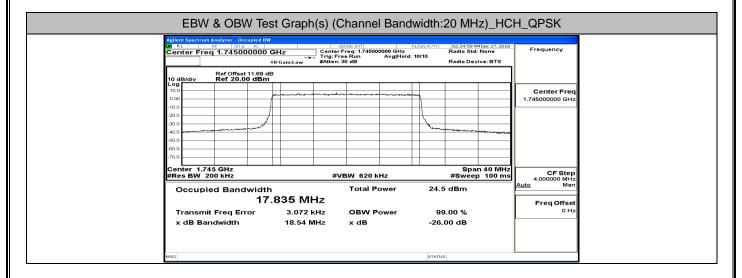


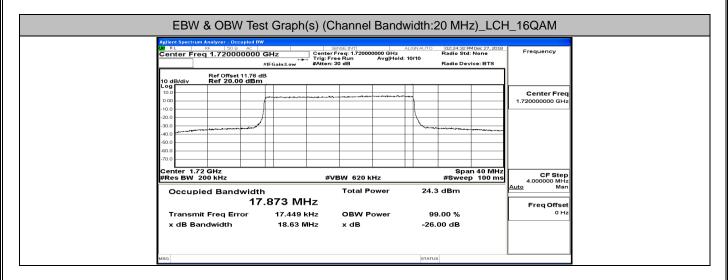


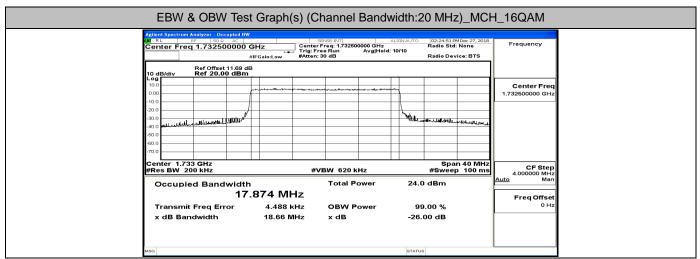


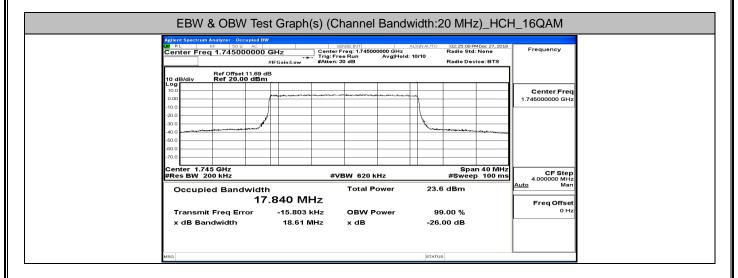




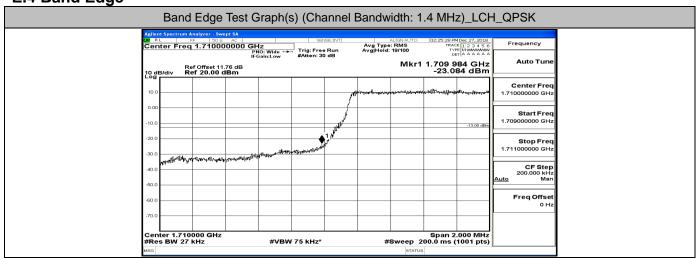


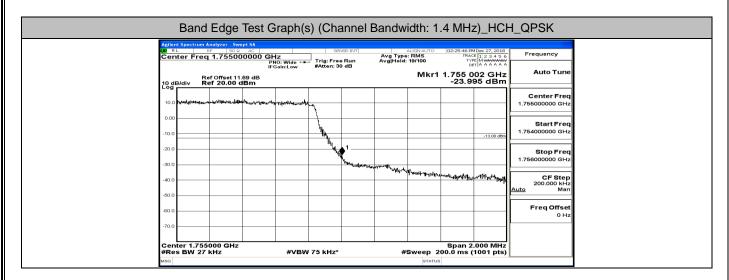


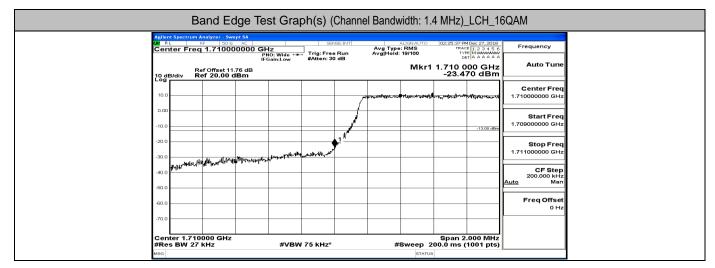


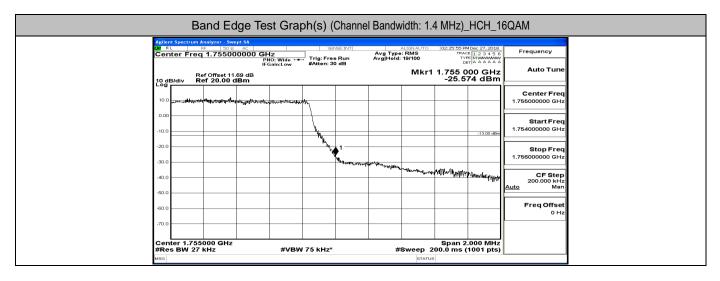


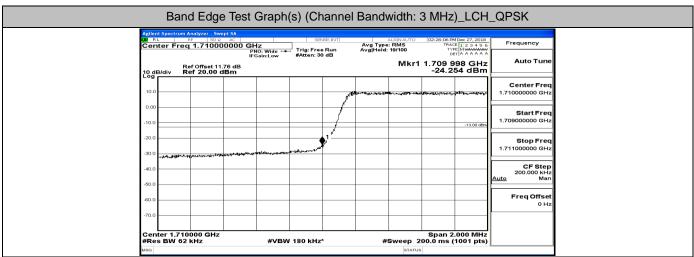
E.4 Band Edge

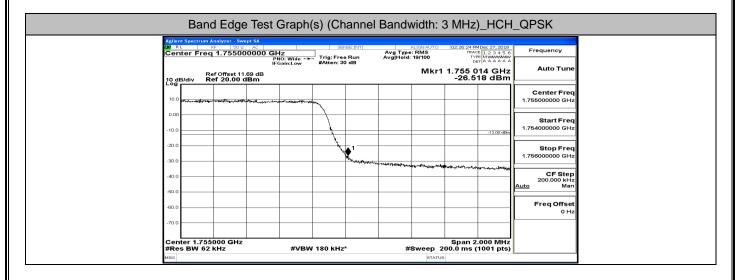


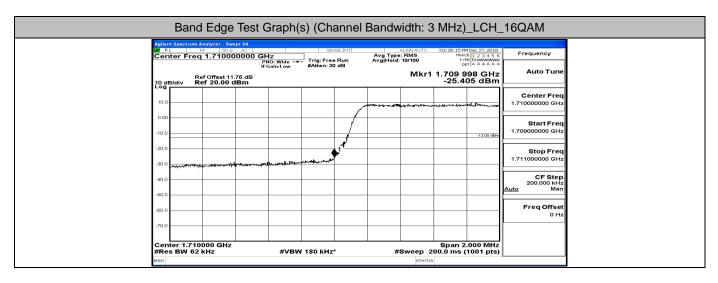


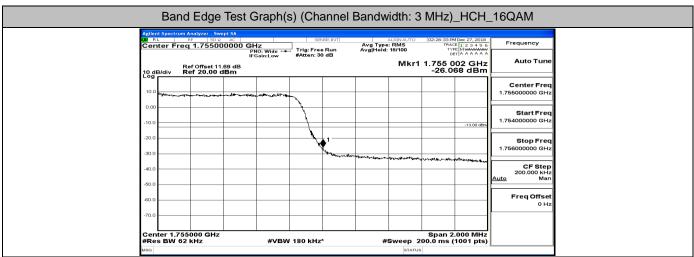


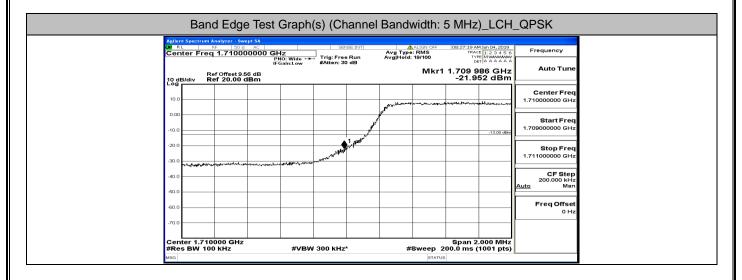


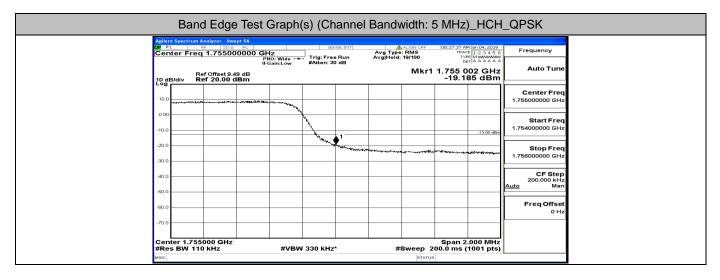


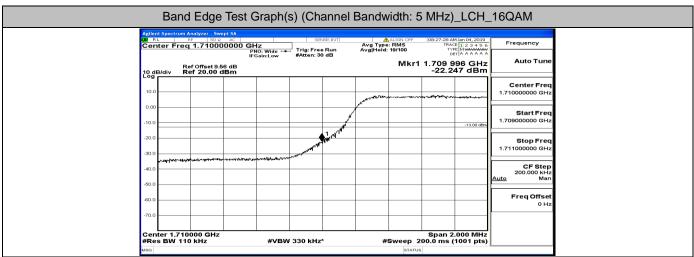


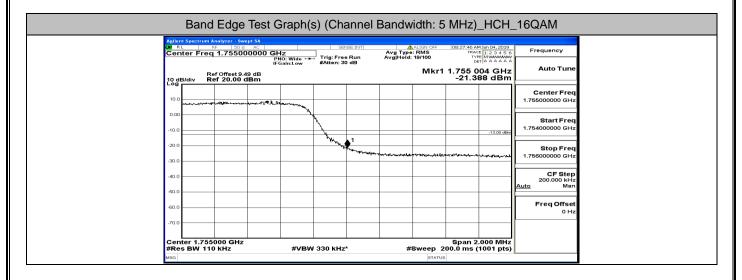


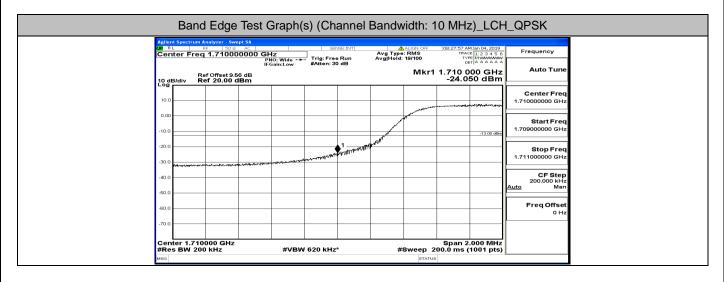


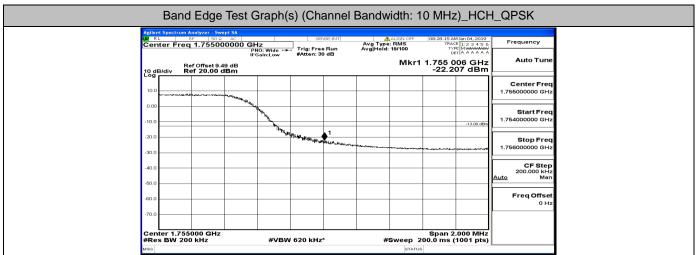


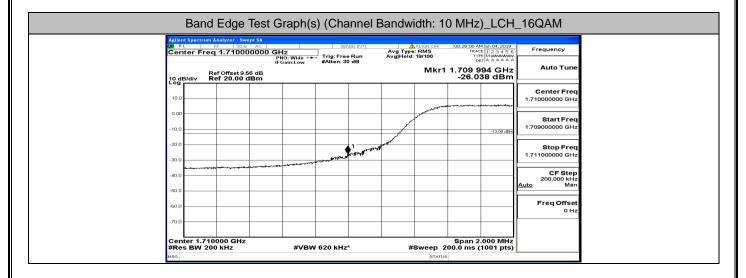


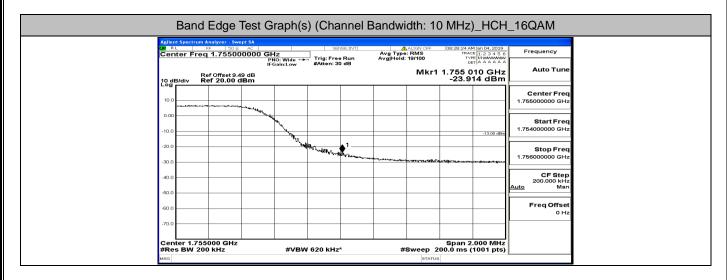


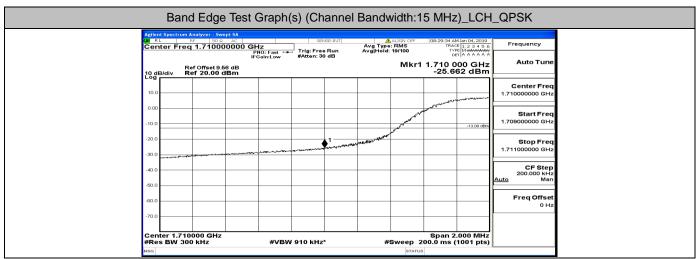


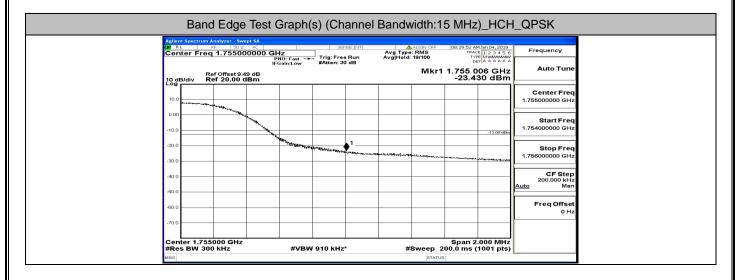


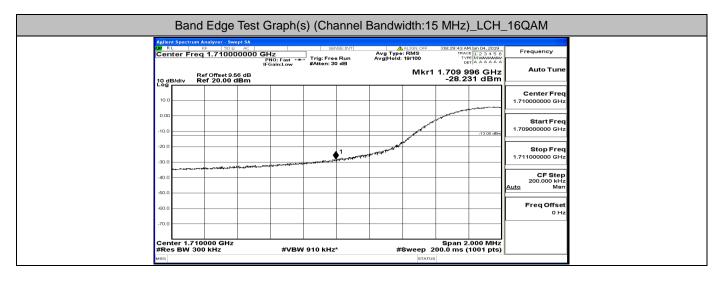


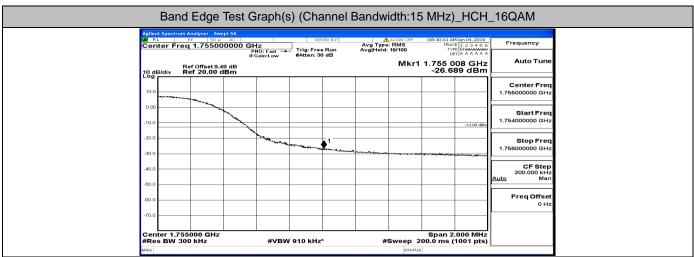


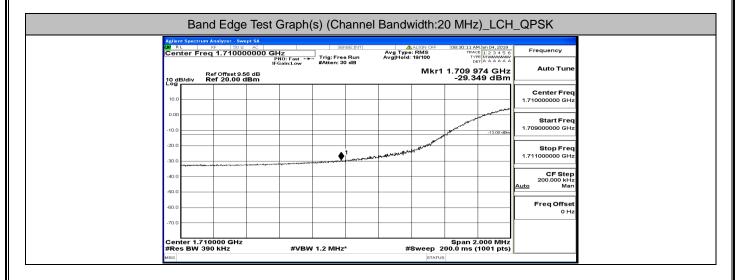


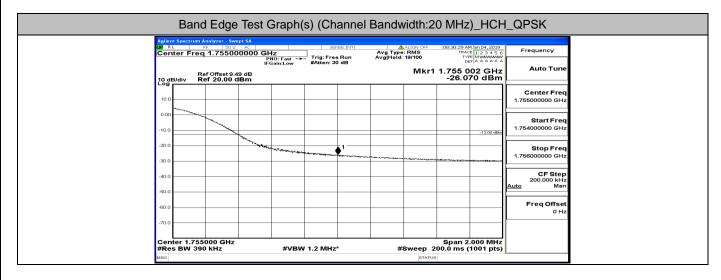


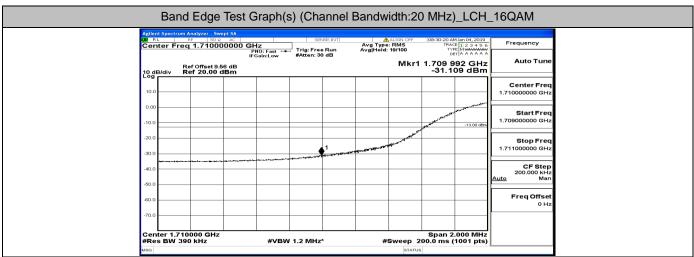


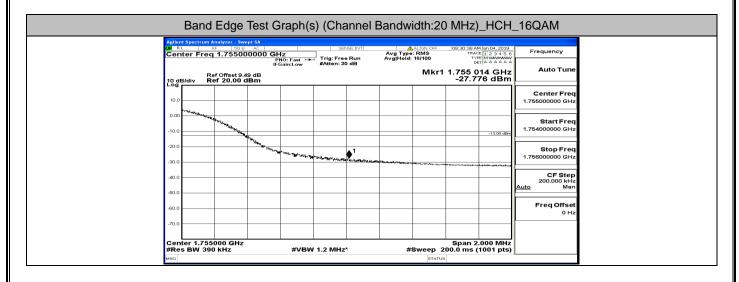












E.5 Conducted Spurious Emission

