Appendix B: Test Data for E-UTRA Band 4

Product Name: LTE GSM/WCDMA Smartphone

Trade Mark: DOOGEE Test Model: S60 Lite

Environmental Conditions

Temperature:	24.1 ° C	
Relative Humidity:	53.1%	
ATM Pressure:	100.0 kPa	
Test Engineer:	Tom.Liu	
Supervised by:	Jayden Zhuo	

B.1 Conducted Output Power

Conducted Output Power Test Result (Channel Bandwidth: 1.4 MHz)							
NA - alcol - 45 - a-	Observat	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	\	
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict	
		1	0	24.78	24.10	PASS	
		1	3	24.96	24.25	PASS	
		1	5	24.84	24.10	PASS	
	LCH	3	0	24.92	24.11	PASS	
		3	2	24.98	24.12	PASS	
		3	3	24.95	24.11	PASS	
		6	0	23.87	22.84	PASS	
		1	0	24.82	24.18	PASS	
	MCH	1	3	24.81	24.35	PASS	
QPSK /		1	5	24.73	24.18	PASS	
16QAM		3	0	24.88	23.90	PASS	
TOQAIVI		3	2	24.83	23.93	PASS	
		3	3	24.83	23.90	PASS	
		6	0	23.78	22.73	PASS	
		1	0	24.93	24.18	PASS	
		1	3	25.07	24.45	PASS	
		1	5	24.98	24.28	PASS	
	HCH	3	0	25.07	24.03	PASS	
		3	2	25.14	24.17	PASS	
		3	3	25.00	24.18	PASS	
		6	0	24.00	23.12	PASS	

Conducted Output Power Test Result (Channel Bandwidth: 3 MHz)								
Madulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	\/a ==li =4		
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict		
		1	0	24.82	24.14	PASS		
		1	7	25.08	24.59	PASS		
		1	14	24.85	24.15	PASS		
	LCH	8	0	23.72	22.90	PASS		
		8	4	23.85	22.94	PASS		
		8	7	23.69	22.82	PASS		
		15	0	23.81	22.72	PASS		
		1	0	24.77	23.85	PASS		
		1	7	24.72	24.00	PASS		
ODCK /		1	14	24.52	23.86	PASS		
QPSK / 16QAM	MCH	8	0	23.74	22.89	PASS		
IOQAW		8	4	23.73	22.81	PASS		
		8	7	23.56	22.76	PASS		
		15	0	23.75	22.63	PASS		
		1	0	24.63	24.04	PASS		
		1	7	24.90	24.43	PASS		
		1	14	24.67	24.18	PASS		
	HCH	8	0	23.75	22.86	PASS		
		8	4	23.88	22.90	PASS		
		8	7	23.93	22.91	PASS		
		15	0	23.79	22.83	PASS		

Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)								
Madulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	\/a nali a4		
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict		
		1	0	24.78	23.75	PASS		
		1	12	25.02	24.11	PASS		
		1	24	24.55	23.78	PASS		
	LCH	12	0	23.36	22.52	PASS		
		12	6	23.39	22.54	PASS		
		12	13	23.33	22.55	PASS		
		25	0	23.38	22.40	PASS		
		1	0	24.29	23.76	PASS		
		1	12	24.52	23.98	PASS		
QPSK /		1	24	23.98	23.48	PASS		
16QAM	MCH	12	0	23.38	22.54	PASS		
IOQAW		12	6	23.36	22.71	PASS		
		12	13	23.16	22.38	PASS		
		25	0	23.51	22.44	PASS		
		1	0	24.19	23.33	PASS		
		1	12	24.43	23.67	PASS		
		1	24	24.43	23.51	PASS		
	HCH	12	0	23.48	22.47	PASS		
		12	6	23.45	22.67	PASS		
		12	13	23.50	22.74	PASS		
		25	0	23.65	22.78	PASS		

	Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)								
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict			
Modulation	Channel	Size	Offset	QPSK	16QAM	verdict			
		1	0	24.44	23.64	PASS			
		1	24	24.72	23.95	PASS			
		1	49	24.62	23.95	PASS			
	LCH	25	0	23.49	22.55	PASS			
		25	12	23.51	22.49	PASS			
		25	25	23.62	22.62	PASS			
		50	0	23.53	22.55	PASS			
	мсн	1	0	24.47	23.84	PASS			
		1	24	24.47	23.80	PASS			
QPSK /		1	49	23.92	23.25	PASS			
16QAM		25	0	23.50	22.53	PASS			
TOQAM		25	12	23.35	22.31	PASS			
		25	25	23.22	22.25	PASS			
		50	0	23.34	22.34	PASS			
		1	0	23.87	23.37	PASS			
		1	24	24.33	23.85	PASS			
		1	49	24.39	23.84	PASS			
	HCH	25	0	23.11	22.61	PASS			
		25	12	23.31	22.73	PASS			
		25	25	23.41	22.70	PASS			
		50	0	23.62	22.70	PASS			

	Conducted Output Power Test Result (Channel Bandwidth: 15 MHz)								
Modulation	Channel	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	Verdict			
Modulation	Channel	Size	Offset	QPSK	16QAM	verdict			
		1	0	24.78	23.66	PASS			
		1	37	25.27	24.12	PASS			
		1	74	25.14	24.03	PASS			
	LCH	37	0	23.46	22.48	PASS			
		37	18	23.63	22.64	PASS			
		37	38	23.78	22.77	PASS			
		75	0	23.66	22.59	PASS			
	МСН	1	0	24.62	23.96	PASS			
		1	37	24.69	24.02	PASS			
QPSK /		1	74	23.91	23.46	PASS			
16QAM		37	0	23.72	22.98	PASS			
TOQAIVI		37	18	23.76	22.80	PASS			
		37	38	23.62	22.61	PASS			
		75	0	23.85	22.78	PASS			
		1	0	24.22	23.59	PASS			
		1	37	24.69	23.93	PASS			
		1	74	24.80	24.19	PASS			
	HCH	37	0	23.41	22.42	PASS			
		37	18	23.54	22.54	PASS			
		37	38	23.61	22.63	PASS			
		75	0	23.52	22.50	PASS			

	Conducted Output Power Test Result (Channel Bandwidth: 20 MHz)								
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Vardiet			
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict			
		1	0	24.79	24.01	PASS			
		1	49	25.47	24.66	PASS			
		1	99	25.10	24.29	PASS			
	LCH	50	0	23.99	23.01	PASS			
		50	25	24.18	23.12	PASS			
		50	50	24.30	23.29	PASS			
		100	0	24.05	23.10	PASS			
	мсн	1	0	25.04	24.22	PASS			
		1	49	25.10	24.28	PASS			
QPSK /		1	99	24.30	23.41	PASS			
16QAM		50	0	23.98	22.99	PASS			
TOQAM		50	25	23.85	22.81	PASS			
		50	50	23.64	22.63	PASS			
		100	0	23.81	22.82	PASS			
		1	0	24.49	23.87	PASS			
		1	49	24.64	24.02	PASS			
		1	99	24.80	24.22	PASS			
	HCH	50	0	23.29	22.33	PASS			
		50	25	23.46	22.48	PASS			
		50	50	23.47	22.48	PASS			
		100	0	23.34	22.32	PASS			

B.2 Peak-to-Average Ratio

Peak-to Average Ratio Test Result (Channel Bandwidth: 1.4 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict			
Modulation	Grianner	[dB]	[dB]	verdict			
	LCH	5.75	<13	PASS			
QPSK	MCH	5.75	<13	PASS			
	HCH	5.64	<13	PASS			
	LCH	6.67	<13	PASS			
16QAM	MCH	6.70	<13	PASS			
	HCH	6.63	<13	PASS			

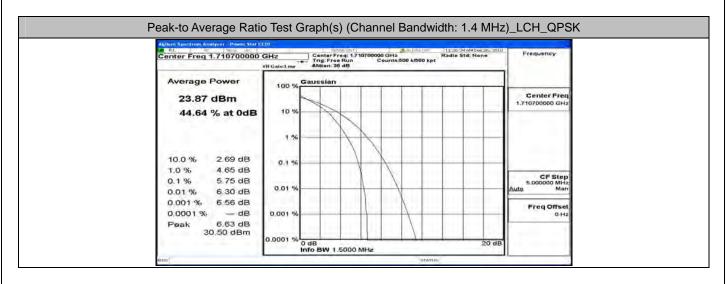
Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict		
Modulation	Channel	[dB]	[dB]	verdict		
	LCH	5.79	<13	PASS		
QPSK	MCH	5.75	<13	PASS		
	HCH	5.81	<13	PASS		
	LCH	6.73	<13	PASS		
16QAM	MCH	6.81	<13	PASS		
	HCH	6.57	<13	PASS		

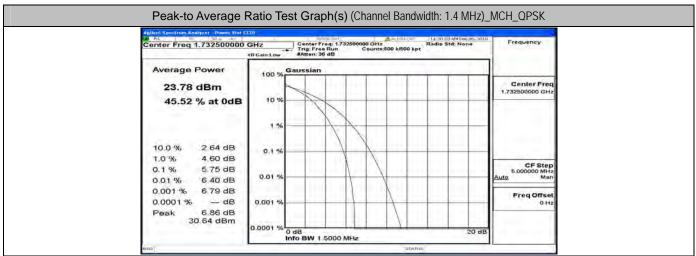
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict		
iviodulation	Channel	[dB]	[dB]	verdict		
	LCH	5.89	<13	PASS		
QPSK	MCH	5.85	<13	PASS		
	HCH	5.77	<13	PASS		
	LCH	6.68	<13	PASS		
16QAM	MCH	6.62	<13	PASS		
	HCH	6.55	<13	PASS		

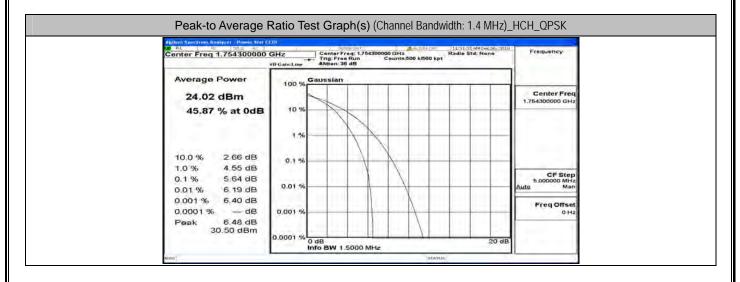
Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Vordict		
Modulation	Griannei	[dB]	[dB]	Verdict		
	LCH	5.91	<13	PASS		
QPSK	MCH	5.81	<13	PASS		
	HCH	5.76	<13	PASS		
	LCH	6.63	<13	PASS		
16QAM	MCH	6.52	<13	PASS		
	HCH	6.47	<13	PASS		

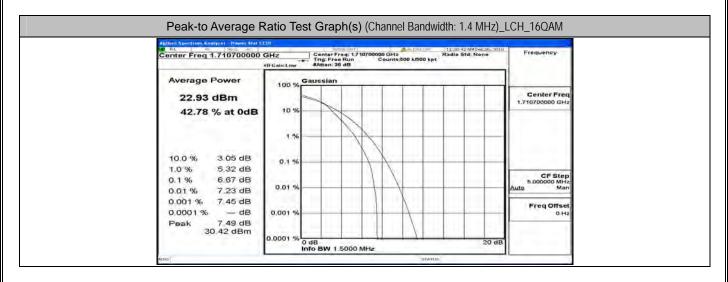
Peak-to Average Ratio Test Result (Channel Bandwidth: 15 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict			
iviodulation	Grianner	[dB]	[dB]	verdict			
	LCH	5.12	<13	PASS			
QPSK	MCH	5.01	<13	PASS			
	HCH	4.92	<13	PASS			
	LCH	6.44	<13	PASS			
16QAM	MCH	6.37	<13	PASS			
	HCH	6.31	<13	PASS			

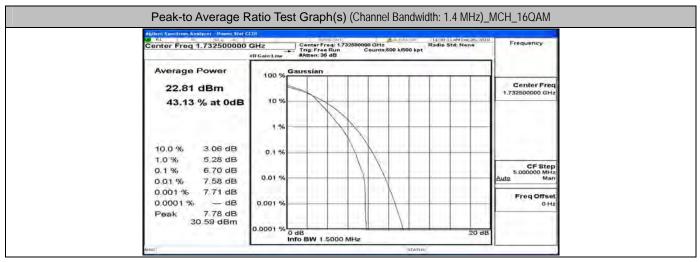
Peak-to Average Ratio Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict
Modulation		[dB]	[dB]	
QPSK	LCH	5.75	<13	PASS
	MCH	5.74	<13	PASS
	HCH	5.7	<13	PASS
16QAM	LCH	6.87	<13	PASS
	MCH	6.80	<13	PASS
	HCH	6.73	<13	PASS

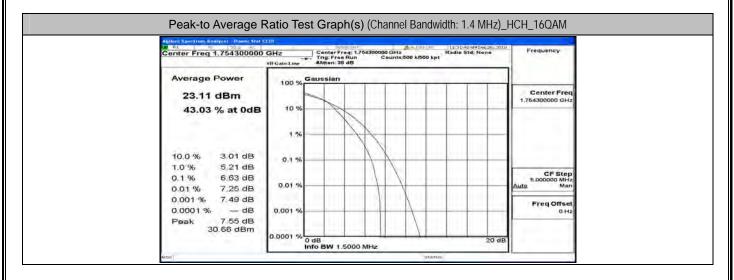


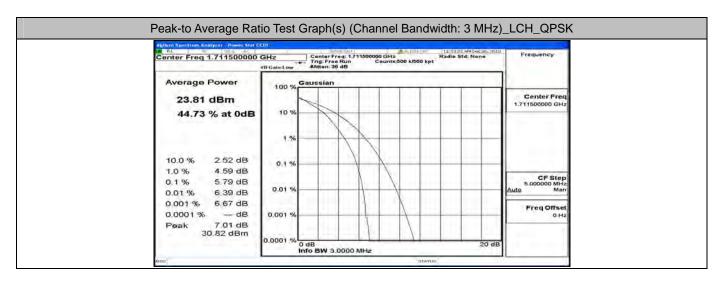


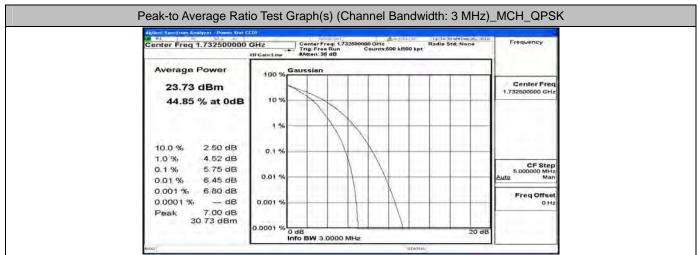


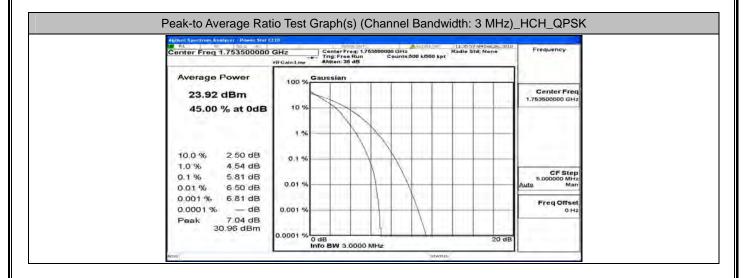


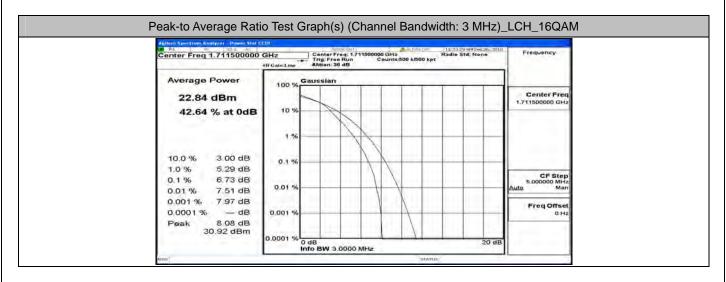


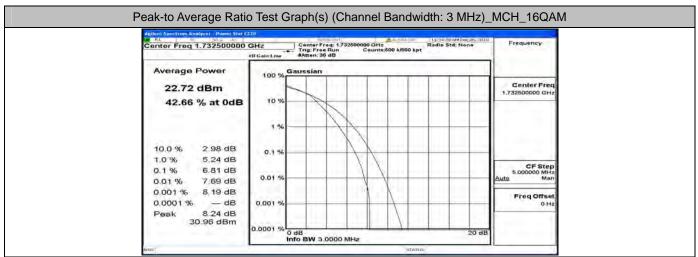


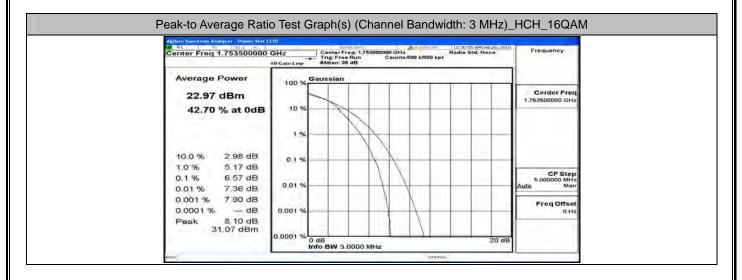


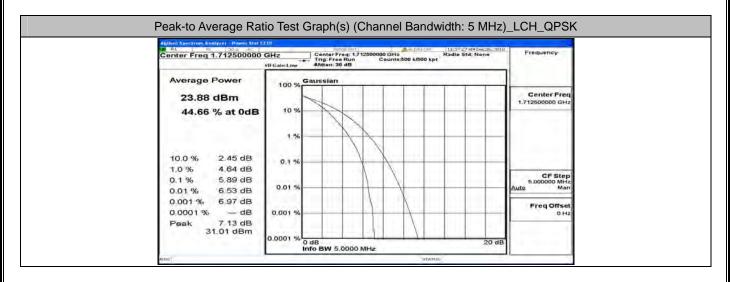


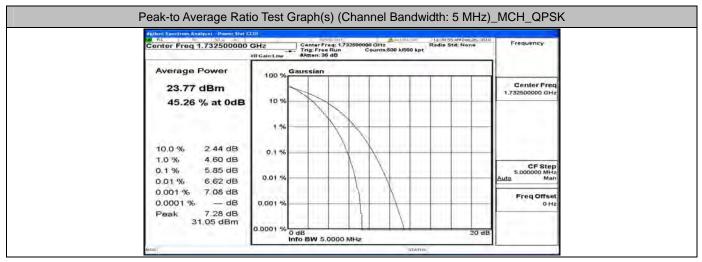


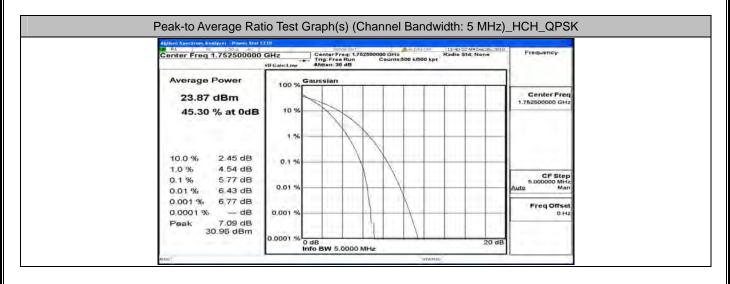


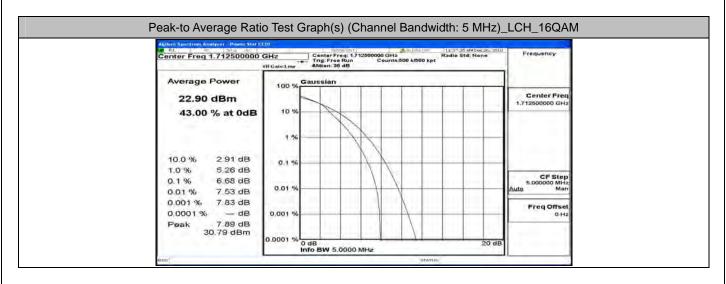


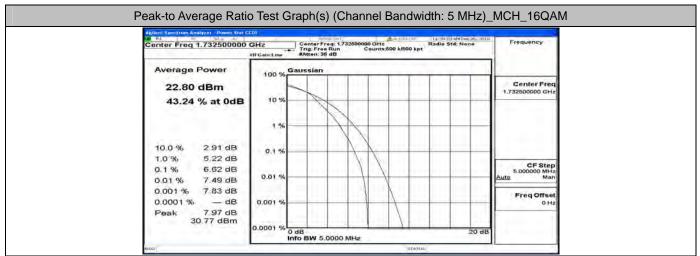


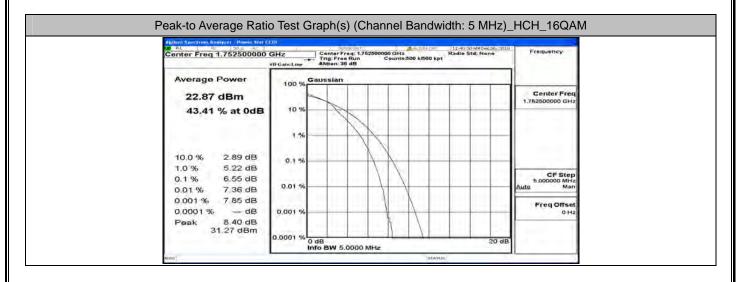


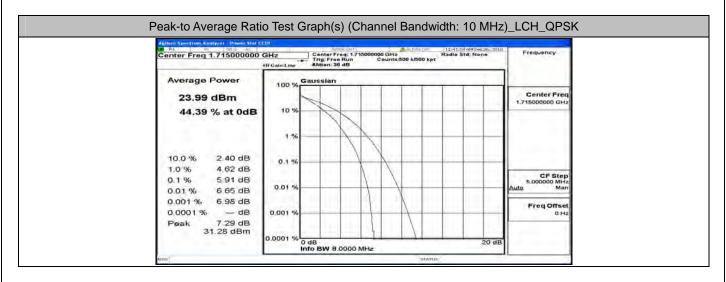


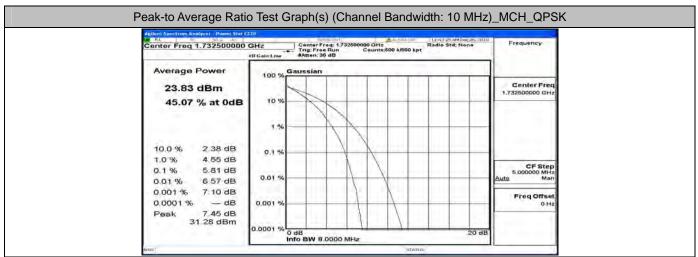


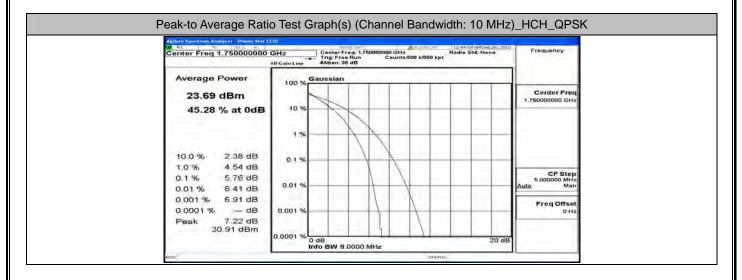


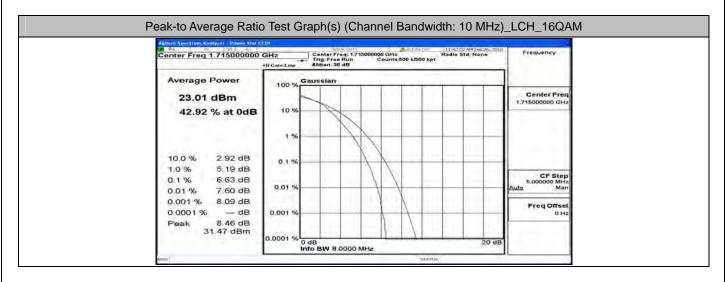


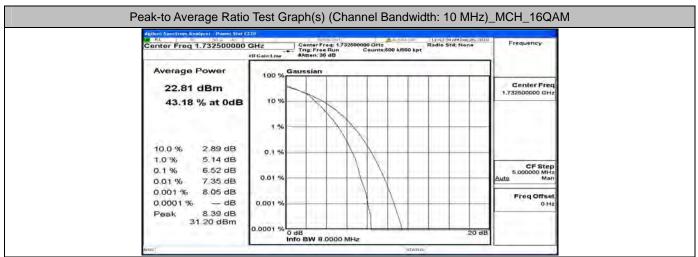


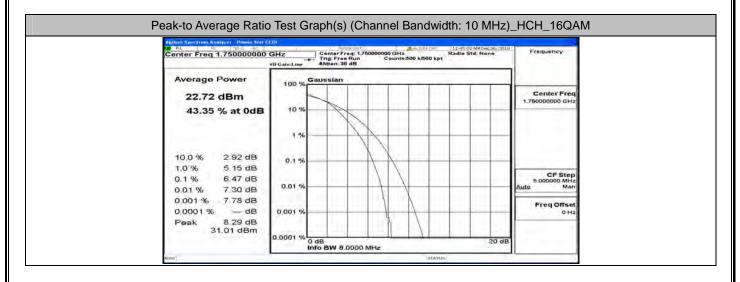


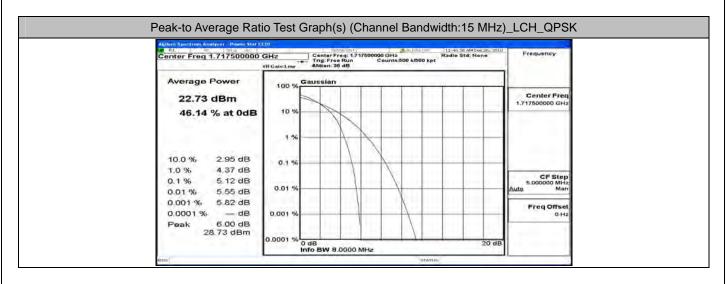


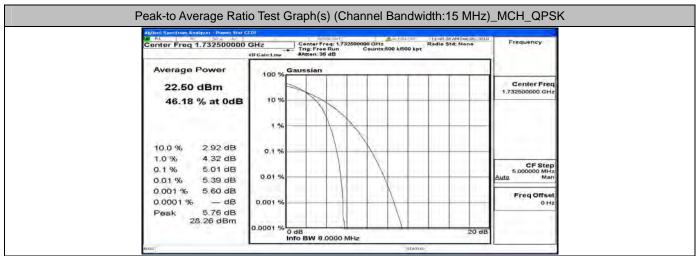


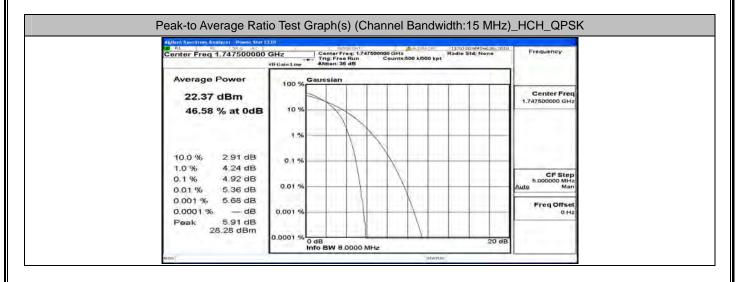


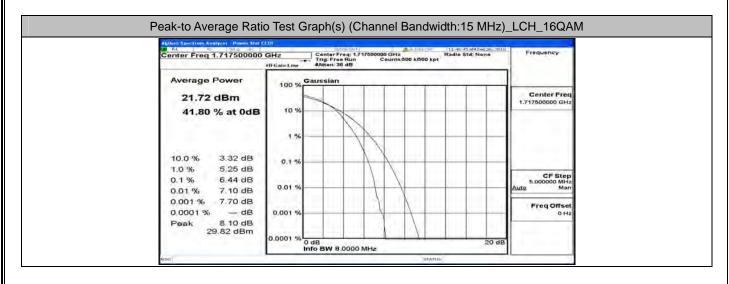


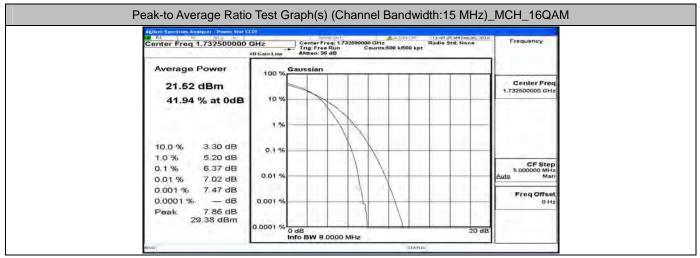


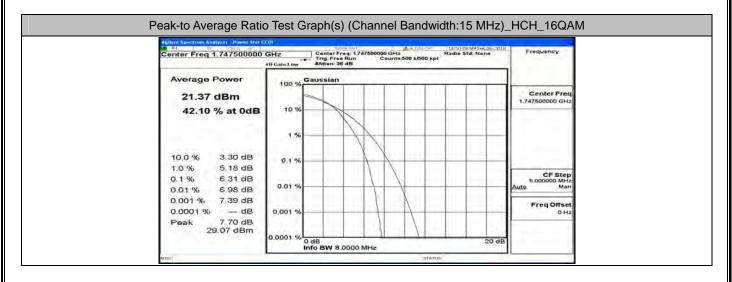


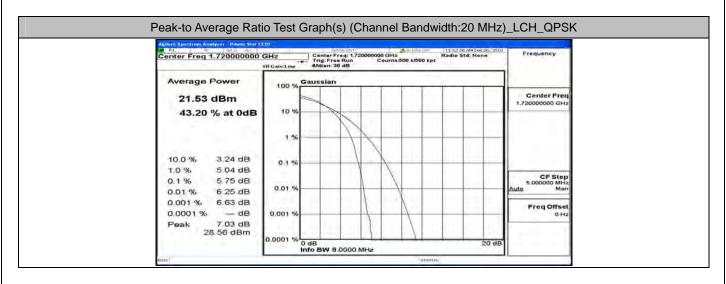


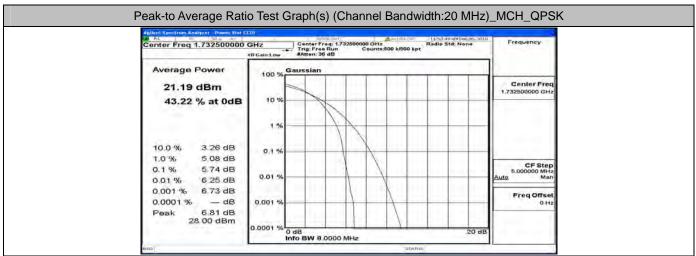


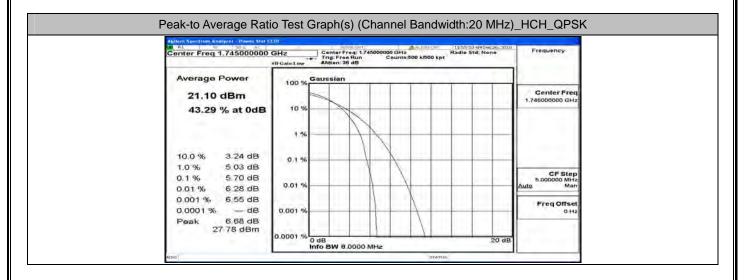


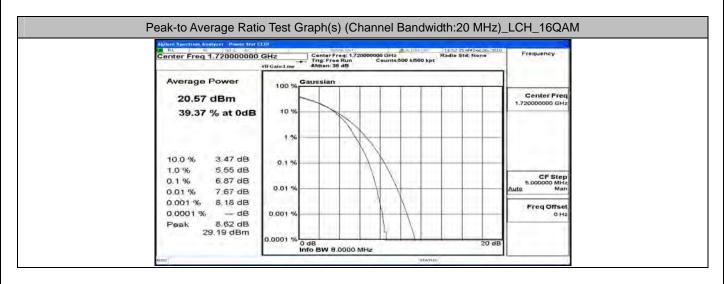


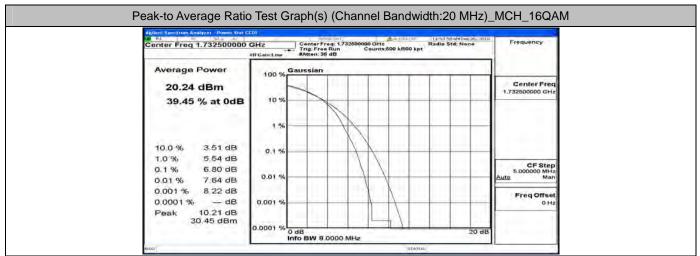


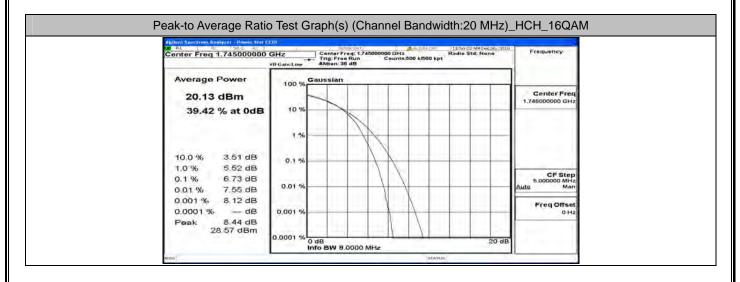












B.3 26dB Bandwidth and Occupied Bandwidth

EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	1.0760	1.225	PASS
	MCH	1.0763	1.207	PASS
	HCH	1.0778	1.233	PASS
16QAM	LCH	1.0792	1.242	PASS
	MCH	1.0775	1.236	PASS
	HCH	1.0743	1.231	PASS

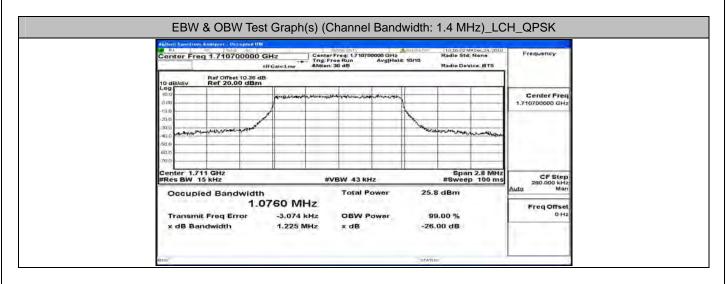
EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
		(MHz)	(MHz)	
QPSK	LCH	2.6807	2.822	PASS
	MCH	2.6826	2.827	PASS
	HCH	2.6812	2.830	PASS
16QAM	LCH	2.6786	2.829	PASS
	MCH	2.6806	2.831	PASS
	HCH	2.6863	2.828	PASS

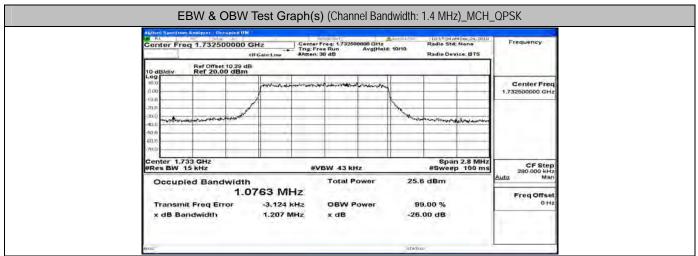
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
		(MHz)	(MHz)	
QPSK	LCH	4.4819	4.757	PASS
	MCH	4.4739	4.744	PASS
	HCH	4.4691	4.726	PASS
16QAM	LCH	4.4678	4.740	PASS
	MCH	4.4742	4.734	PASS
	HCH	4.4790	4.728	PASS

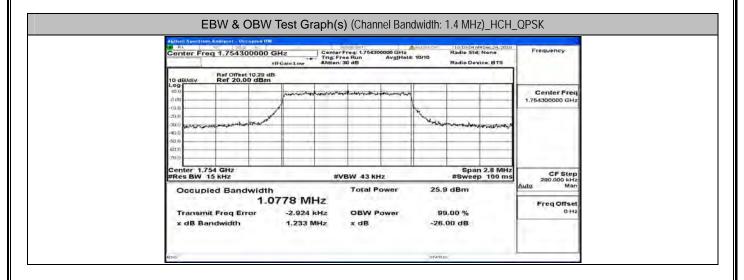
EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	8.9369	9.369	PASS
	MCH	8.9466	9.406	PASS
	HCH	8.9305	9.345	PASS
16QAM	LCH	8.9380	9.415	PASS
	MCH	8.9378	9.367	PASS
	HCH	8.9513	9.322	PASS

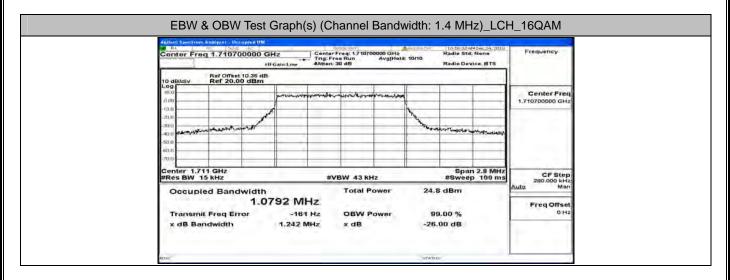
EBW & OBW Test Result (Channel Bandwidth: 15 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
iviodulation		(MHz)	(MHz)	
QPSK	LCH	13.399	13.95	PASS
	MCH	13.409	13.97	PASS
	HCH	13.395	13.98	PASS
16QAM	LCH	13.380	13.92	PASS
	MCH	13.392	13.99	PASS
	HCH	13.410	13.94	PASS

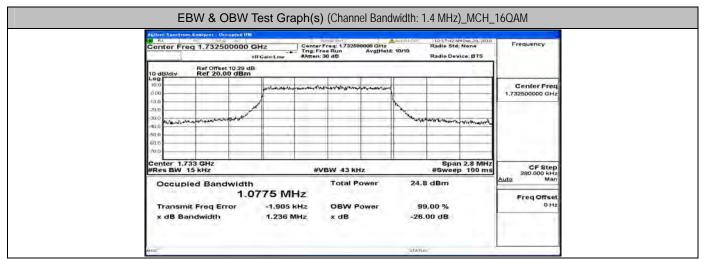
EBW & OBW Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	17.807	18.52	PASS
	MCH	17.835	18.55	PASS
	HCH	17.836	18.60	PASS
16QAM	LCH	17.795	18.52	PASS
	MCH	17.835	18.54	PASS
	HCH	17.824	18.62	PASS

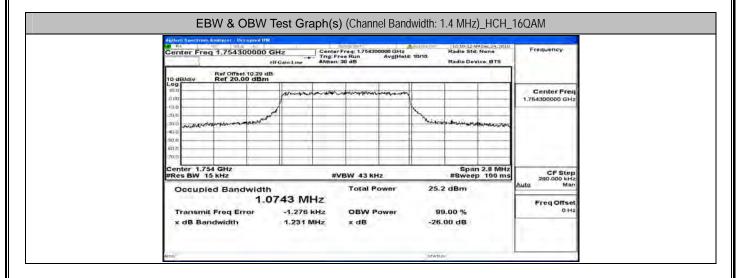


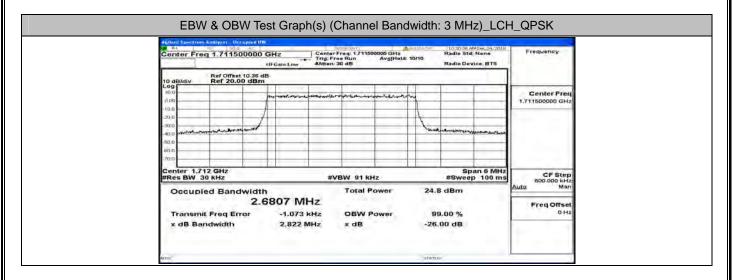


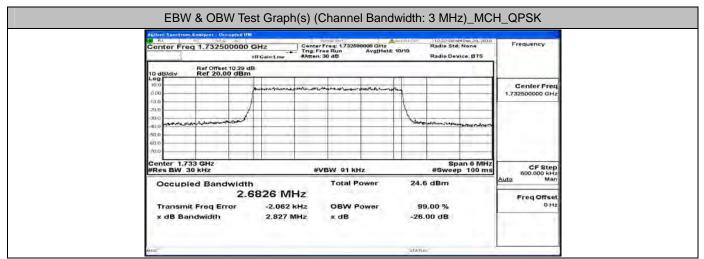


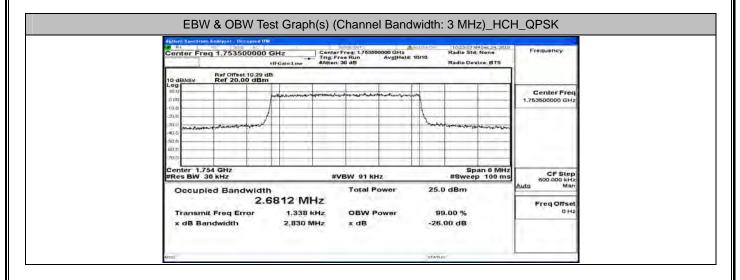


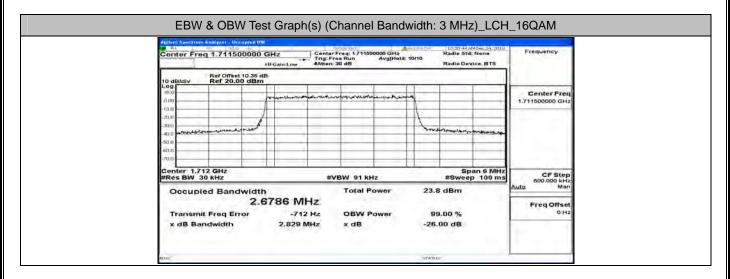


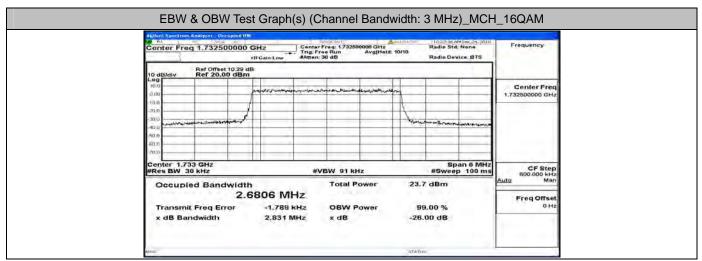


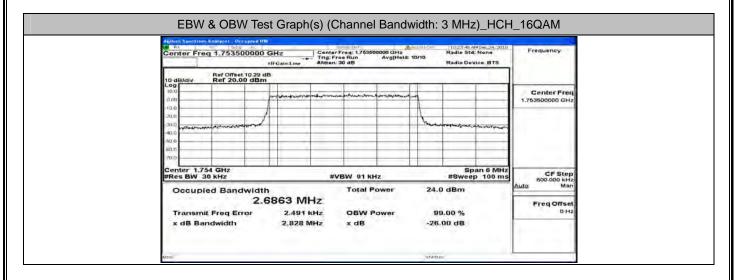


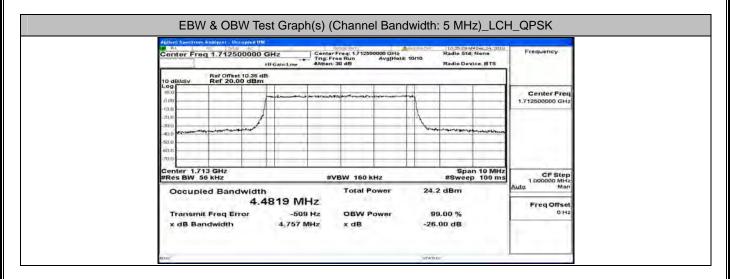


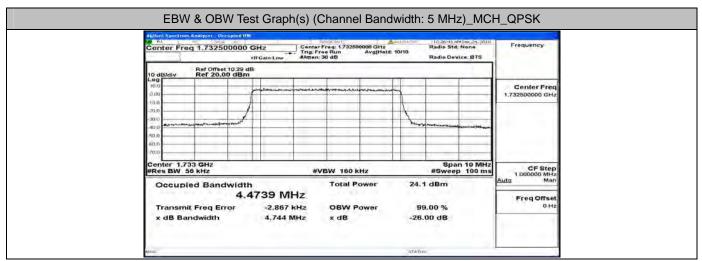


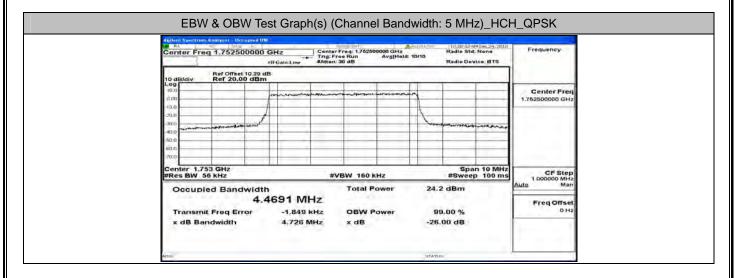


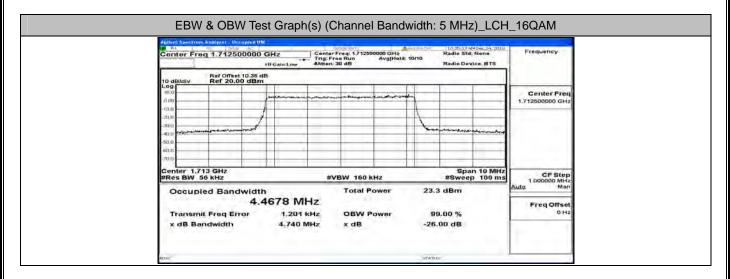


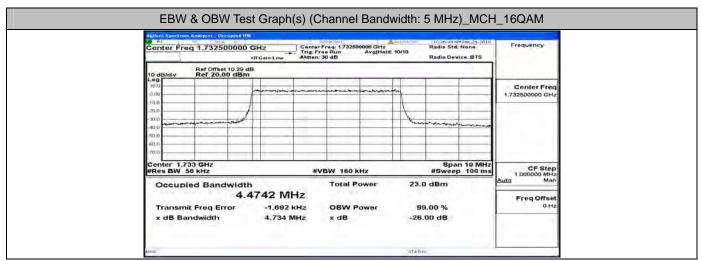


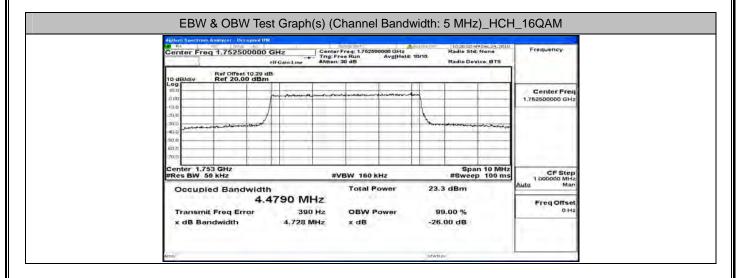


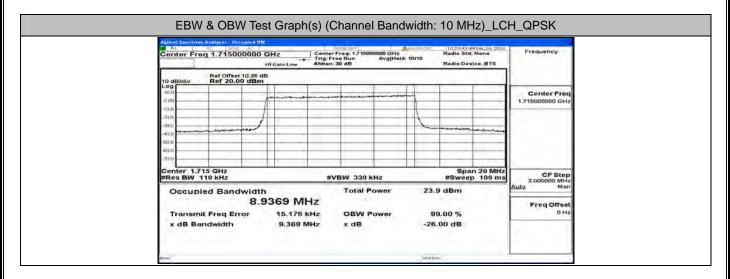


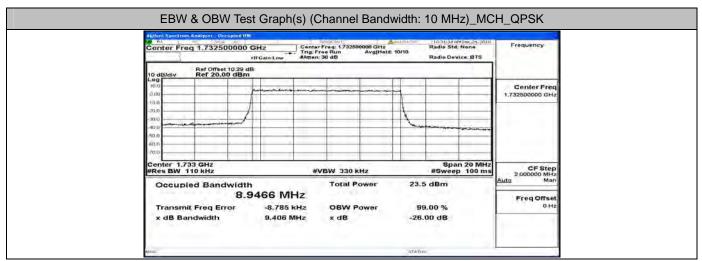


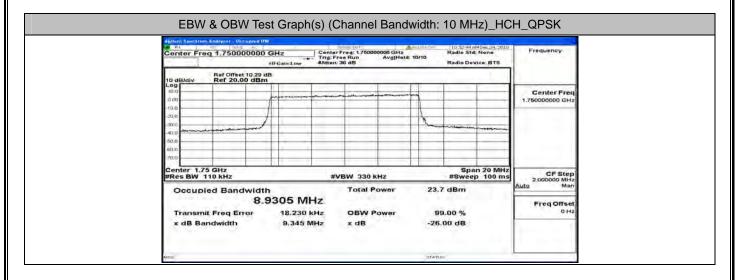


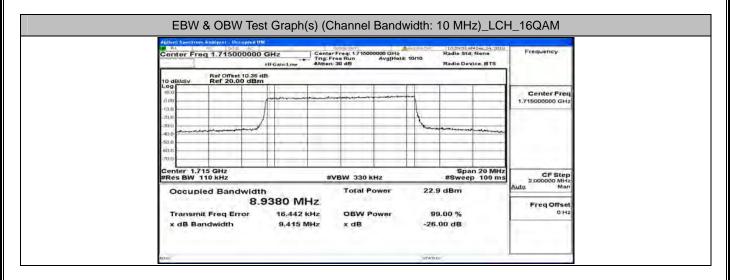


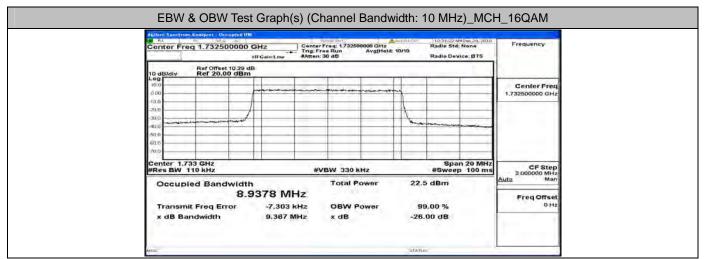


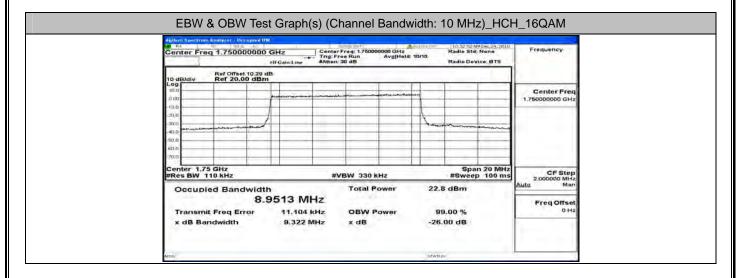


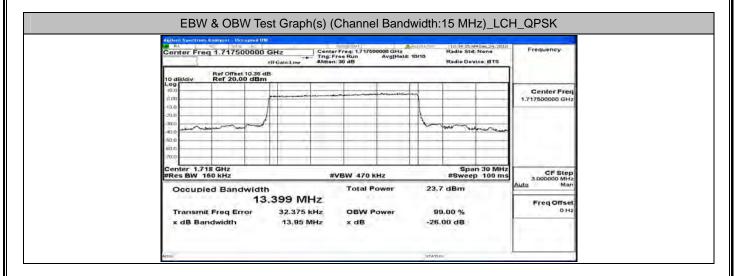


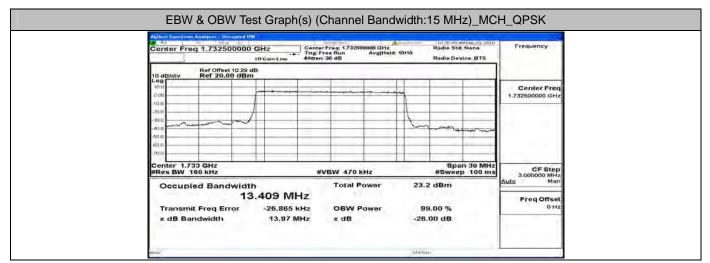


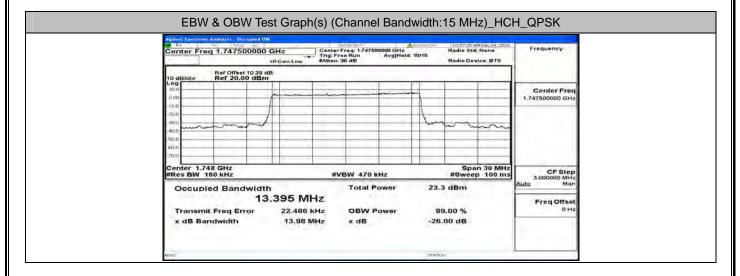


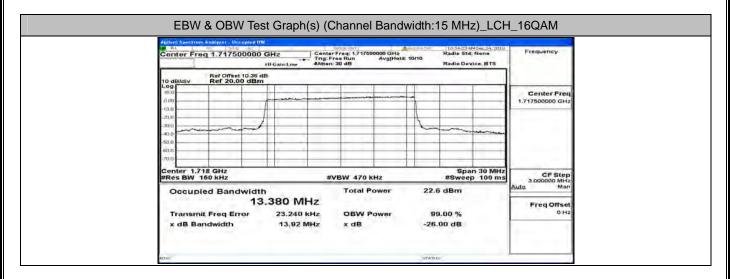


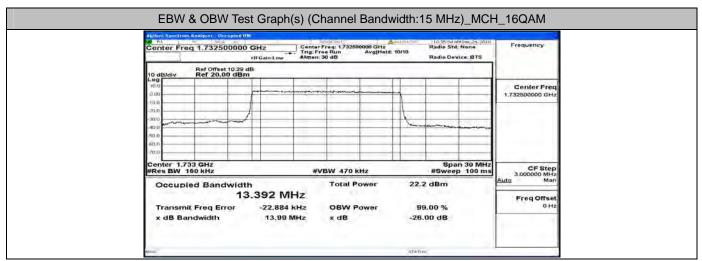


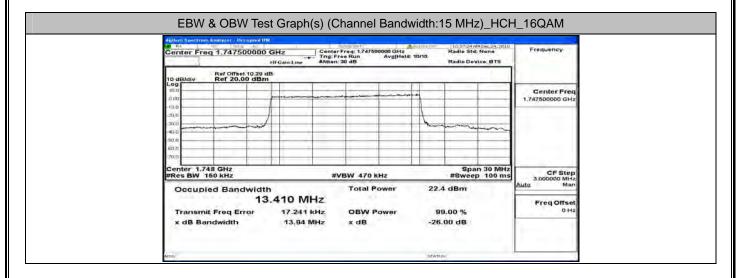


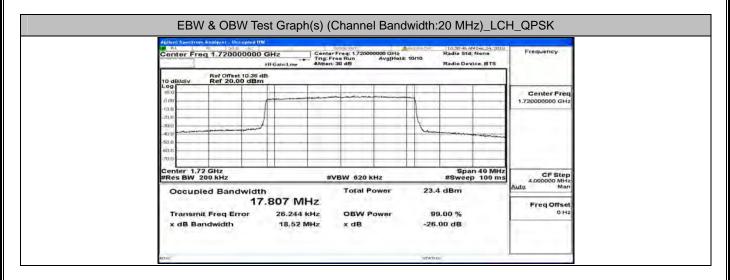


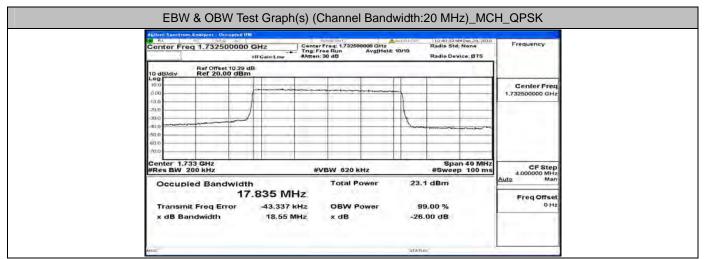


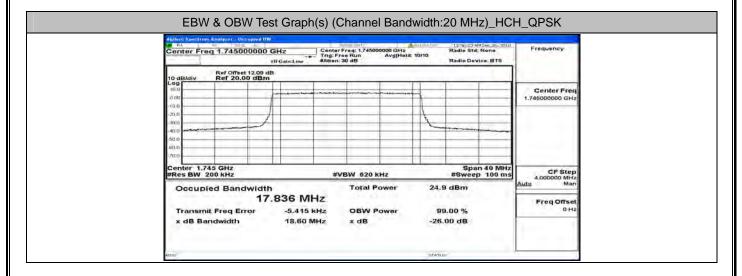


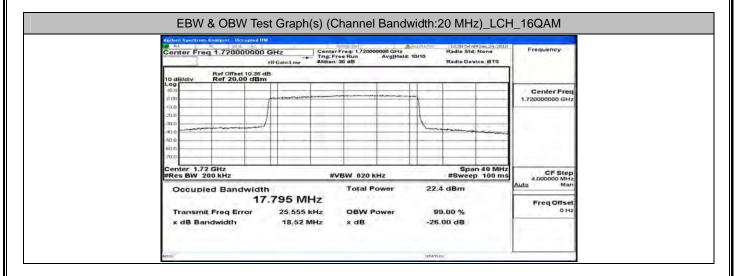


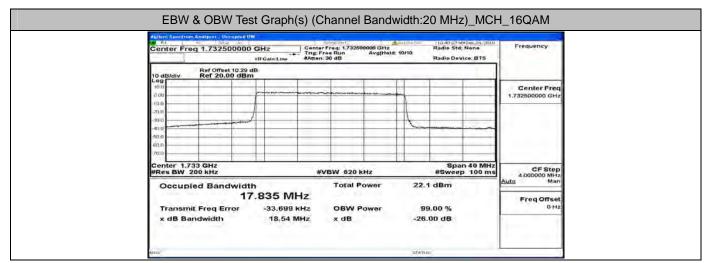


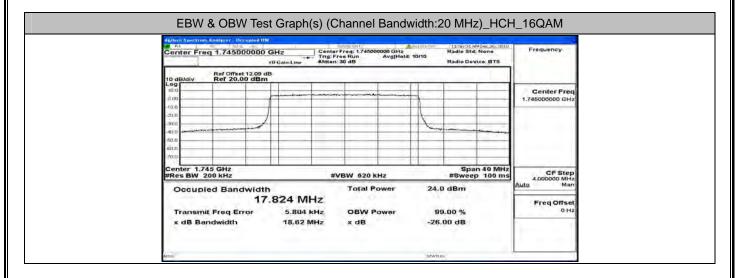




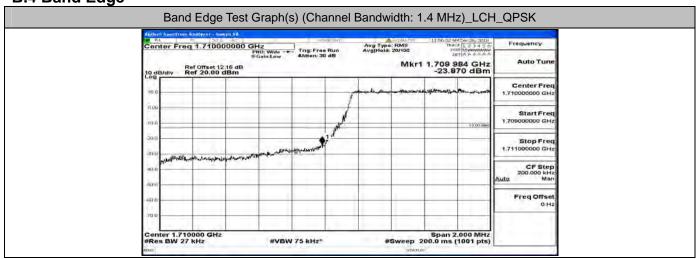


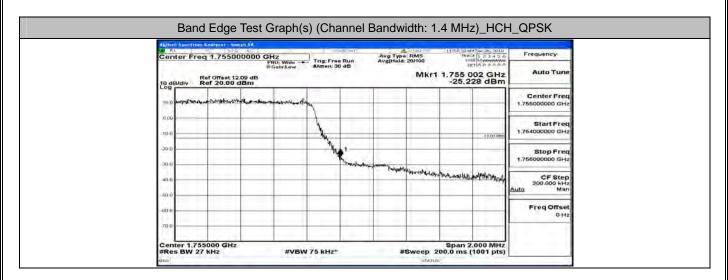


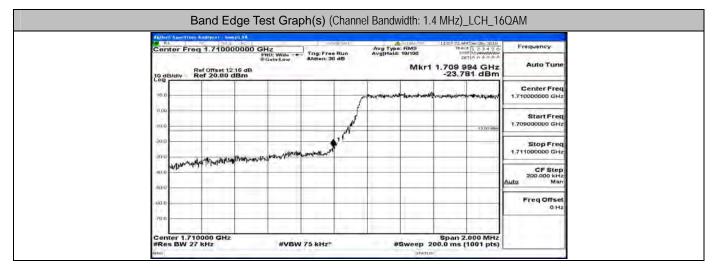


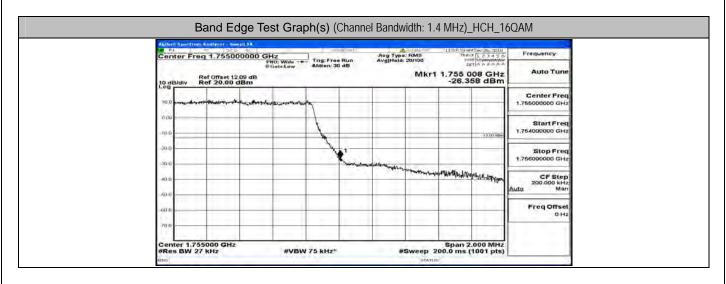


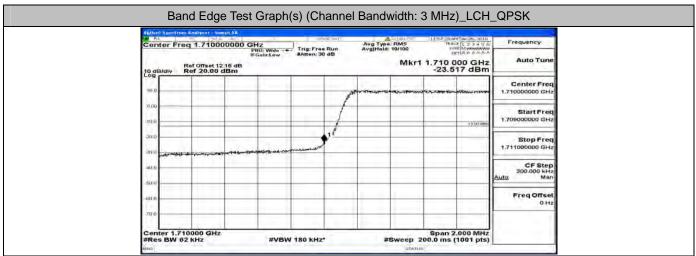
B.4 Band Edge

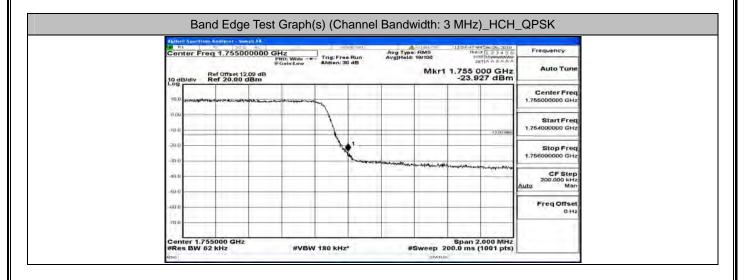


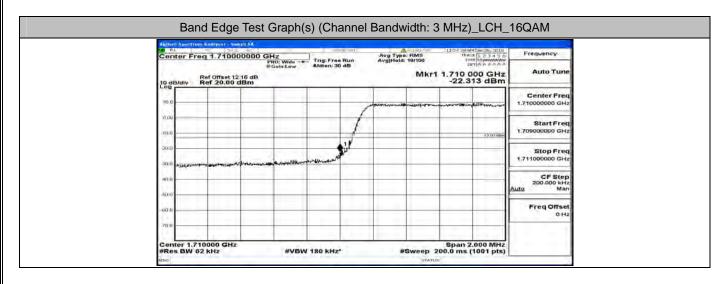


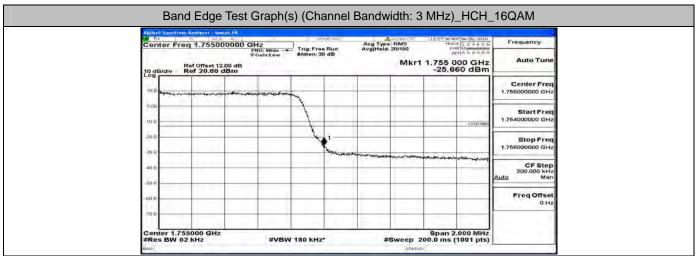


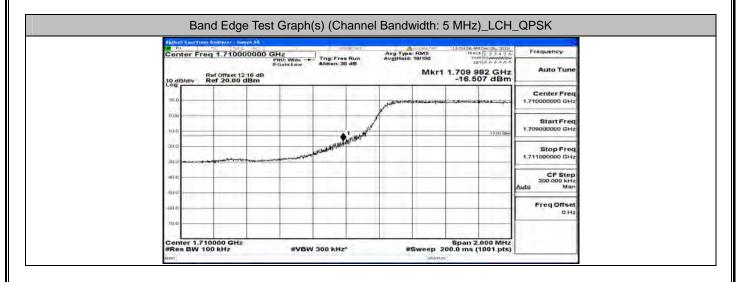


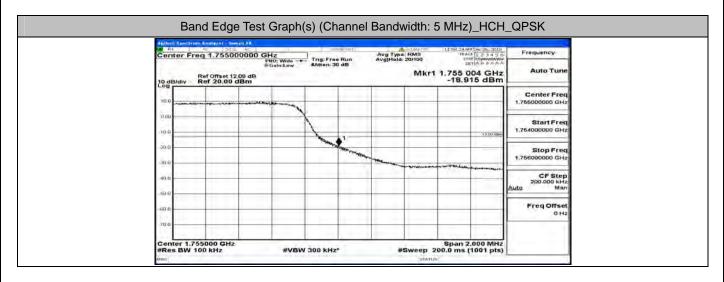


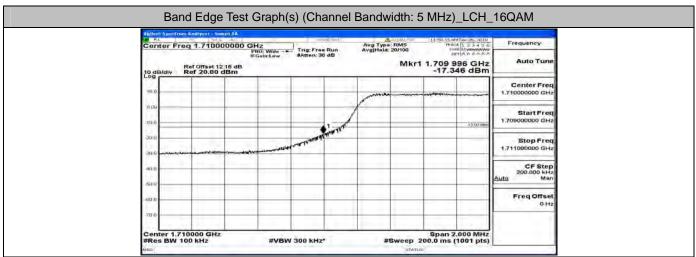


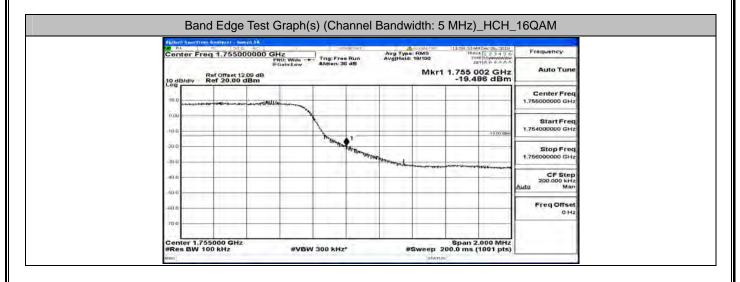


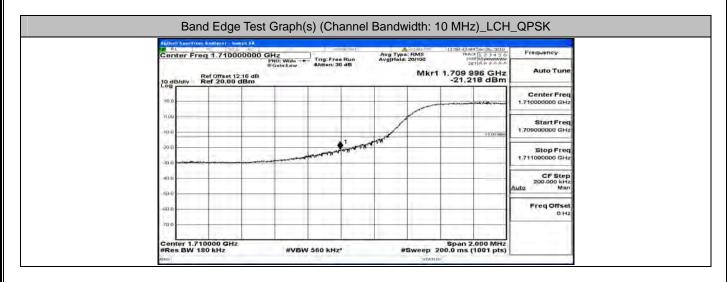


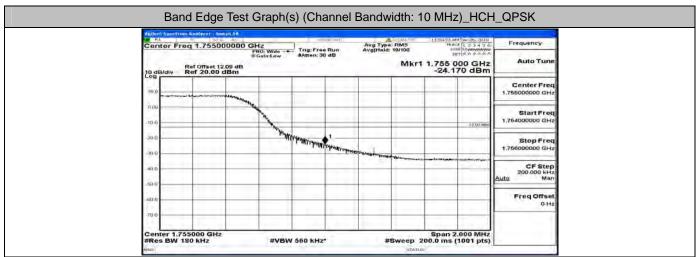


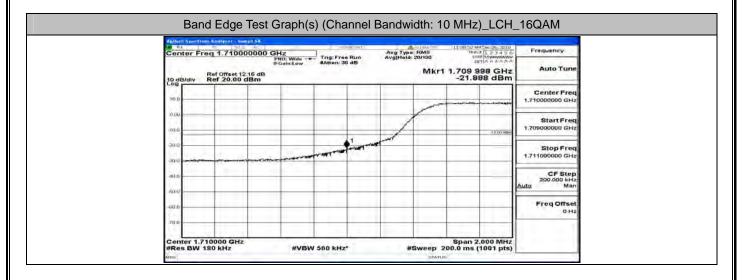


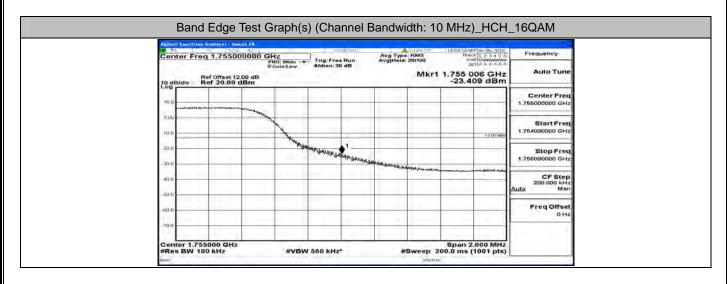


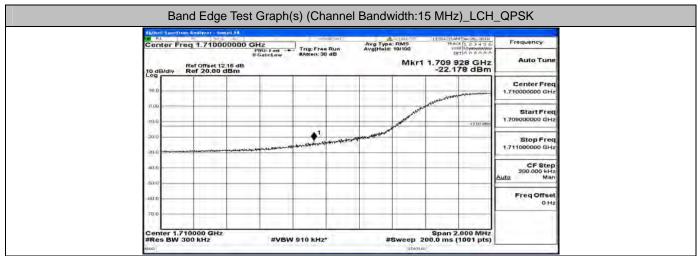


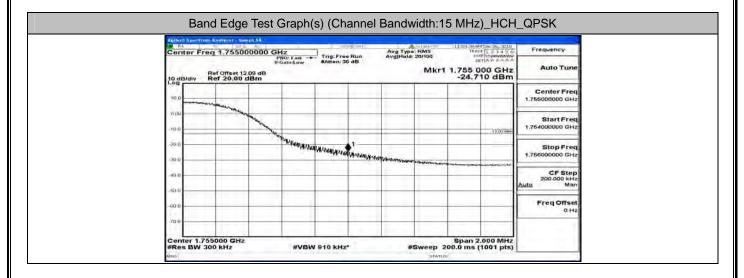


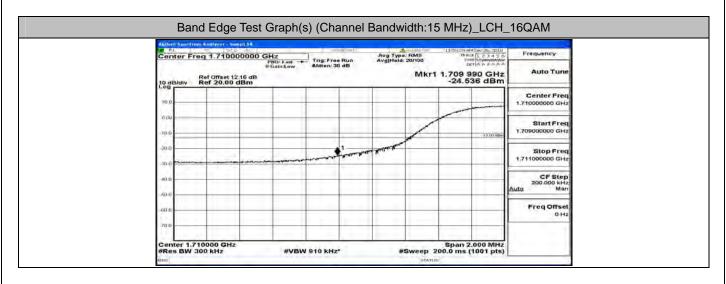


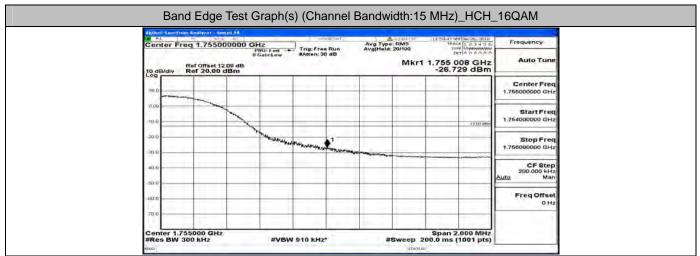


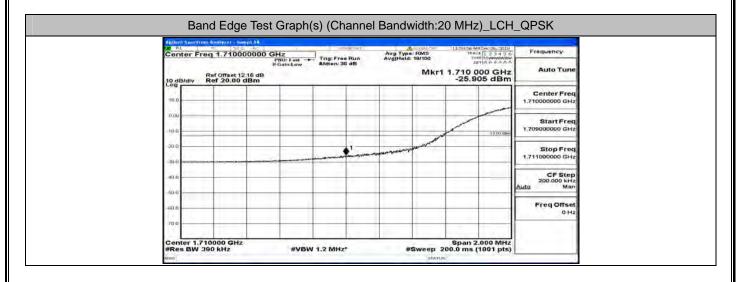


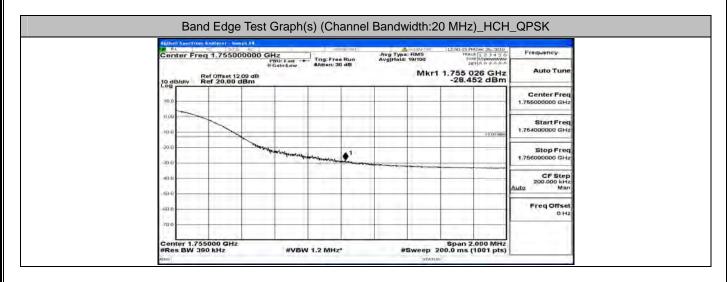


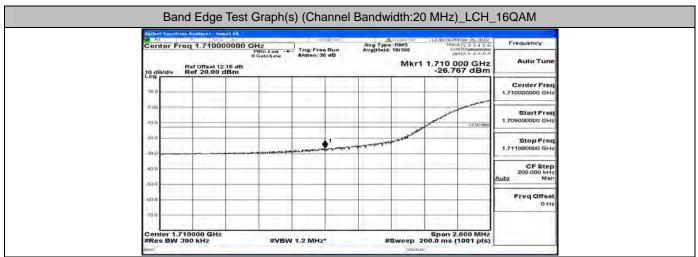


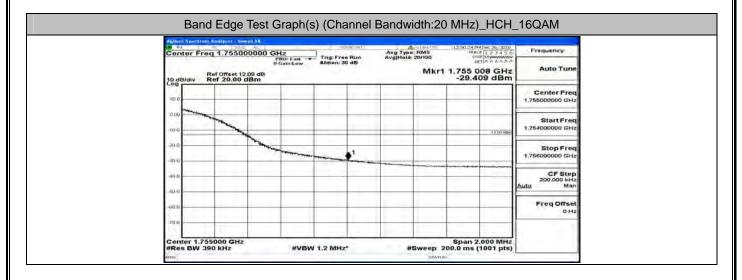




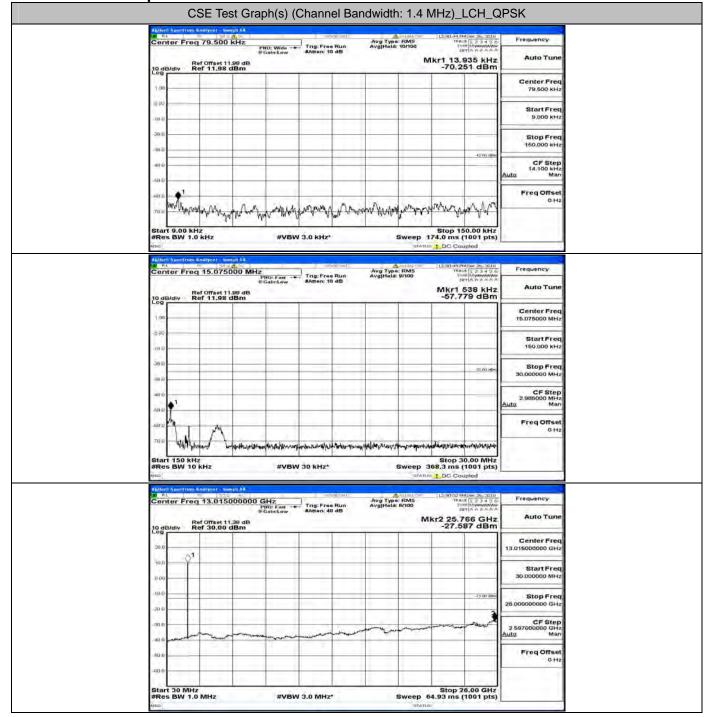


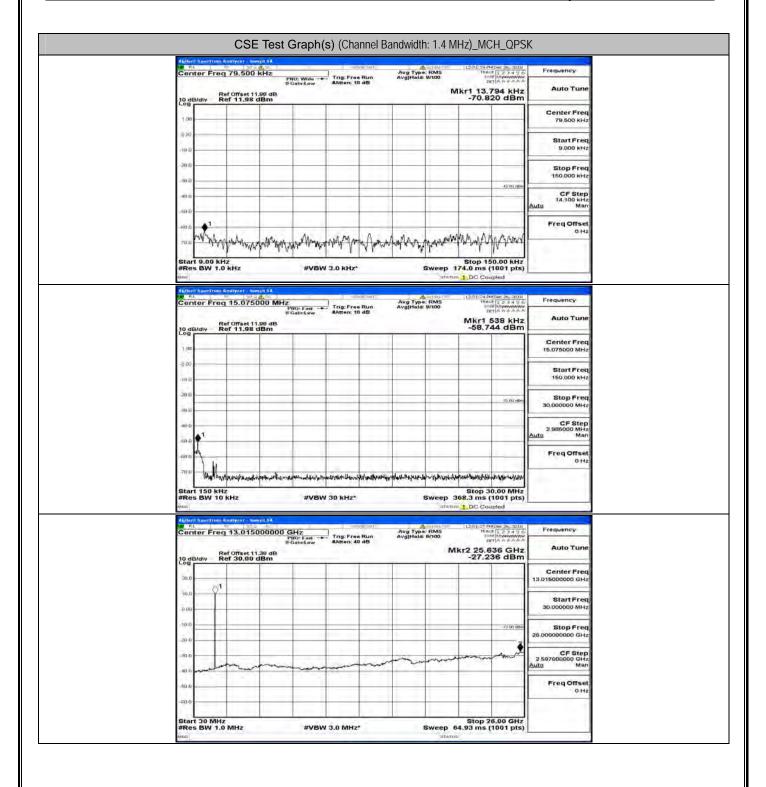


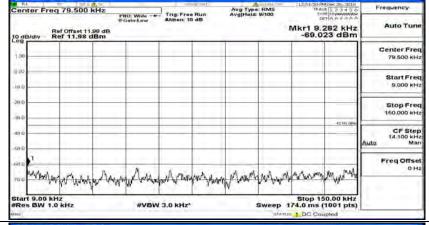


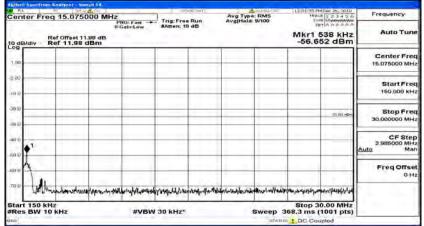


B.5 Conducted Spurious Emission

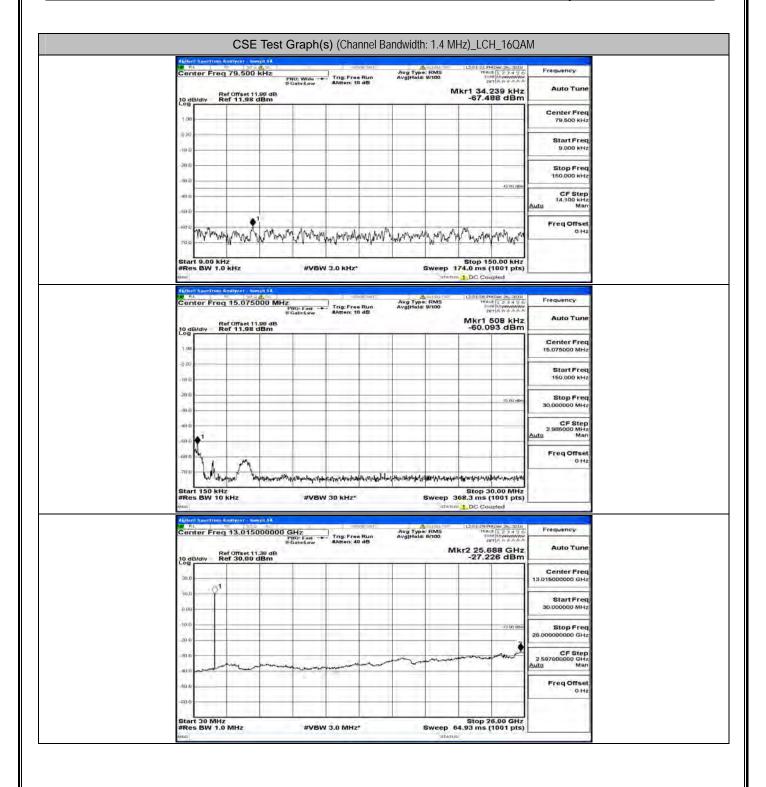


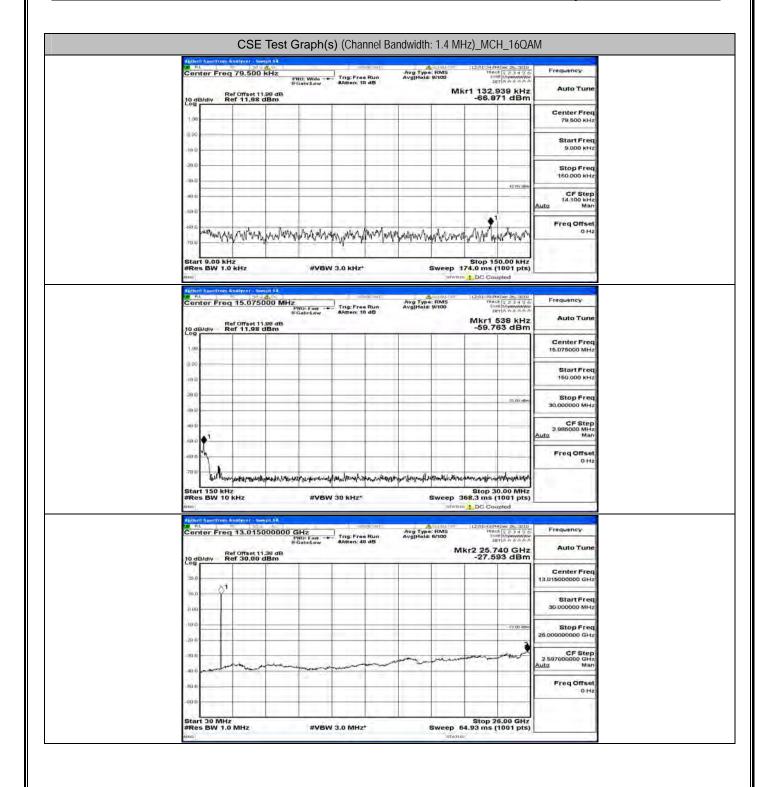


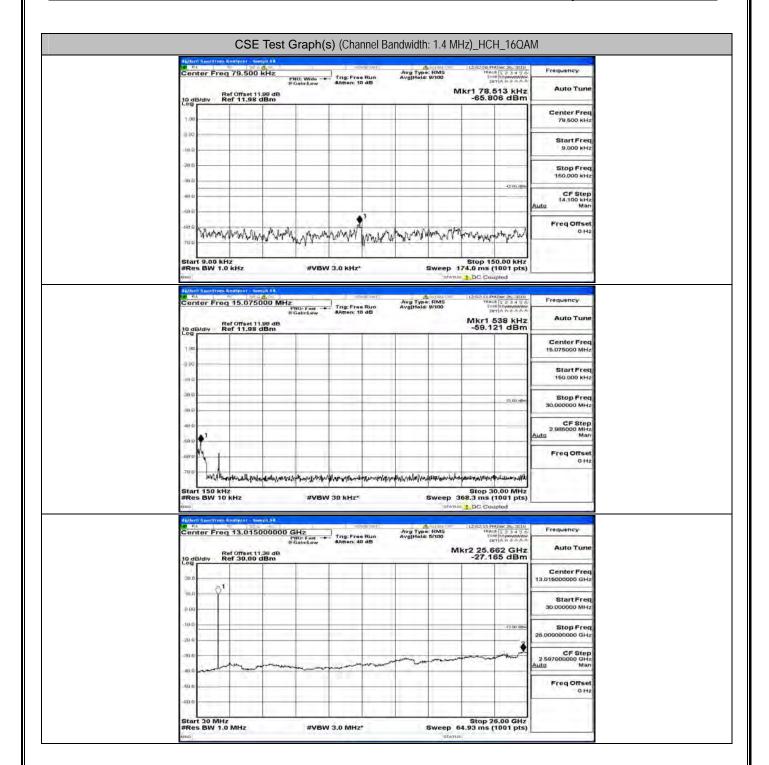


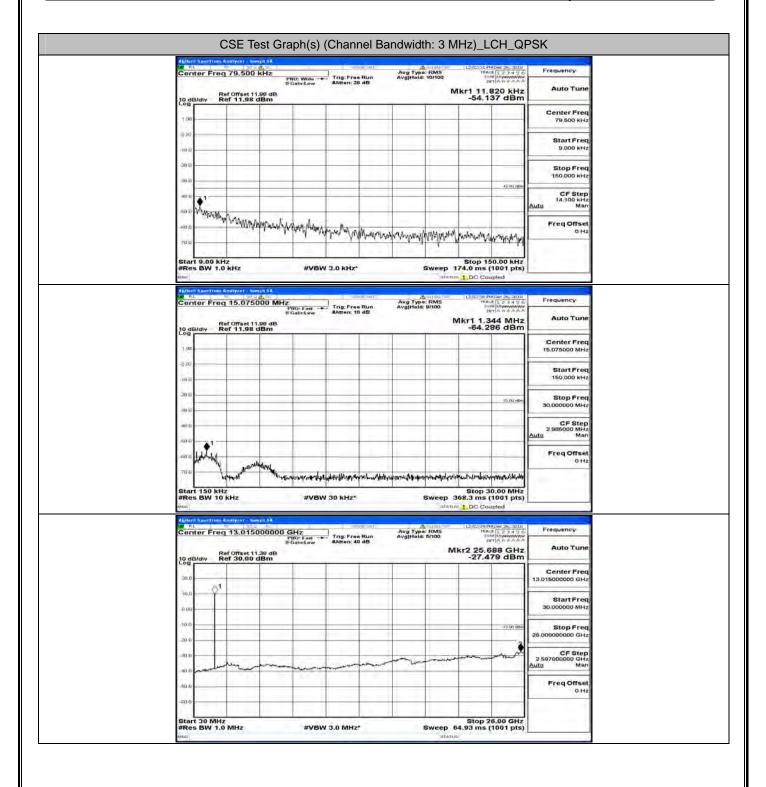


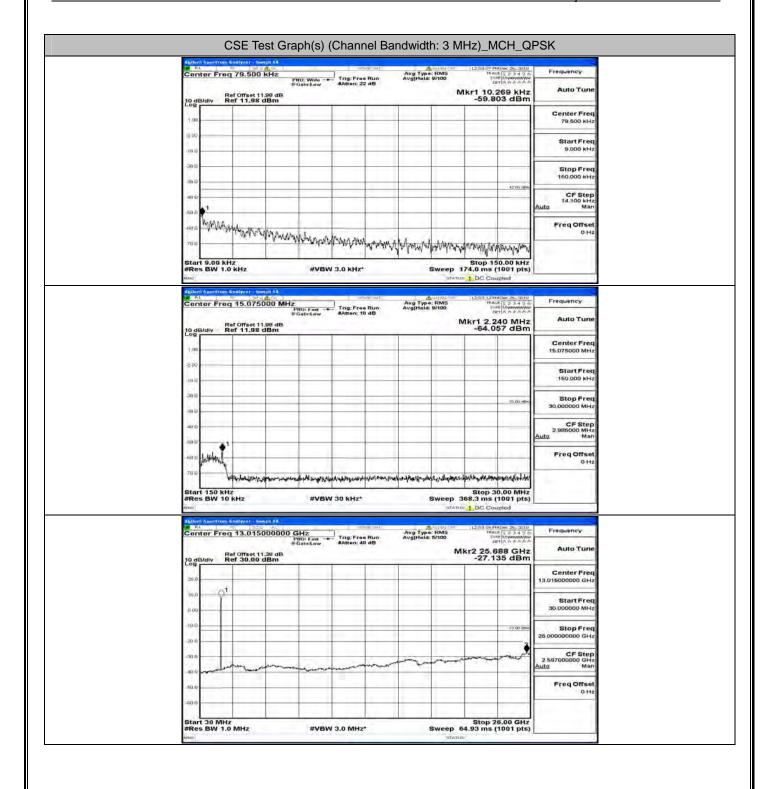


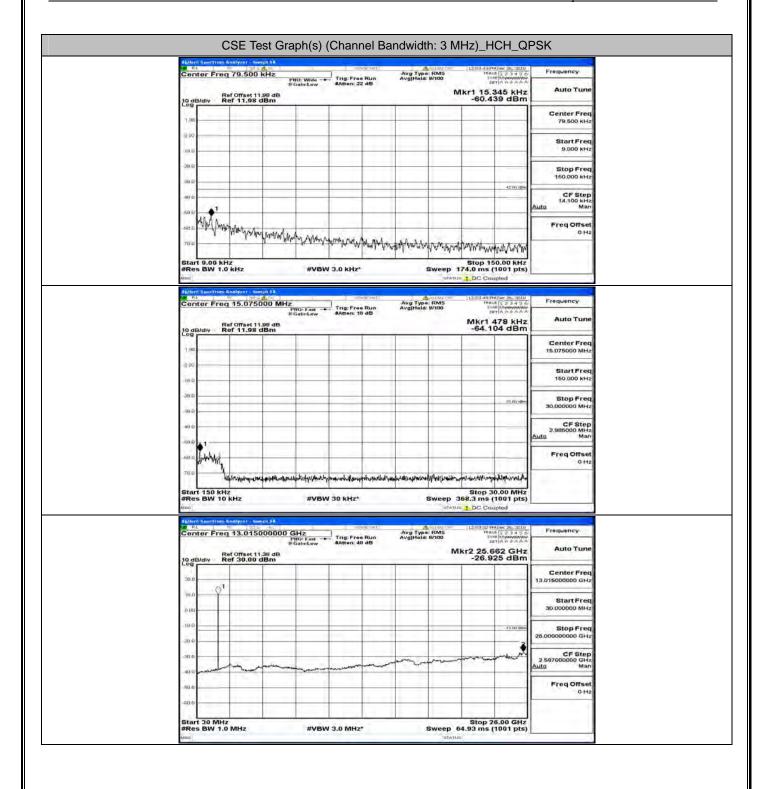


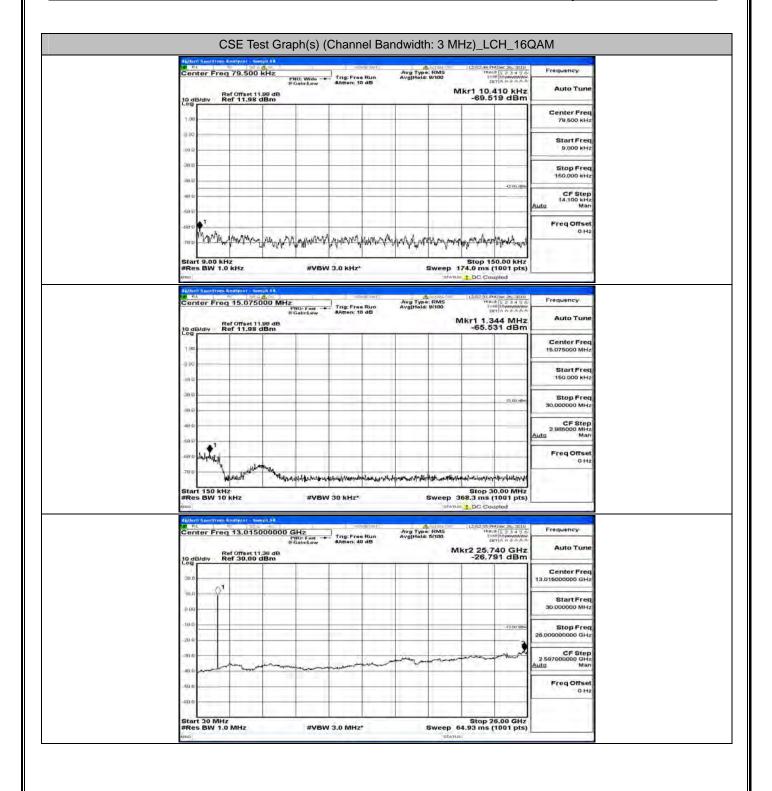


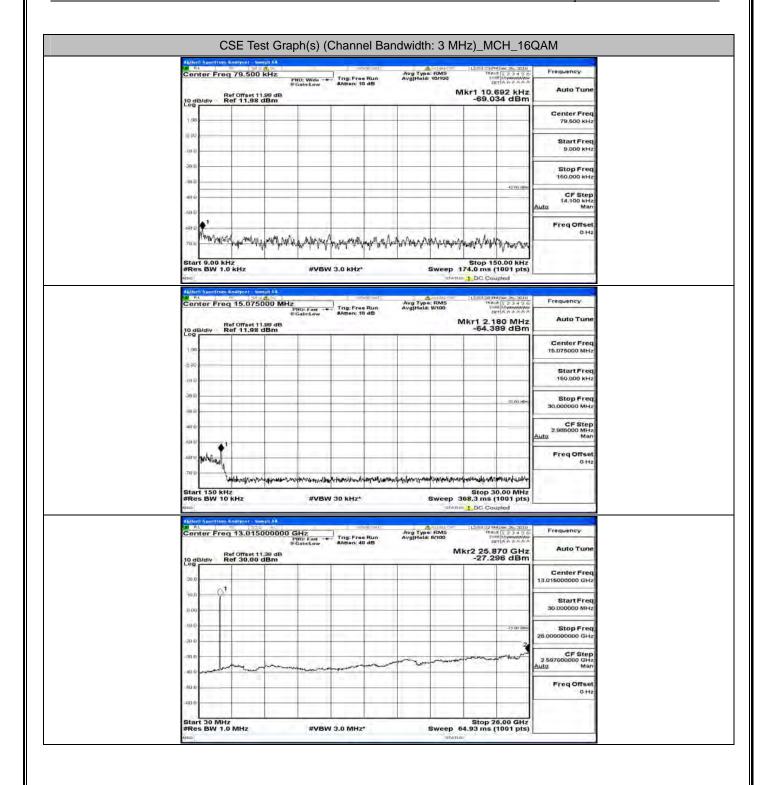


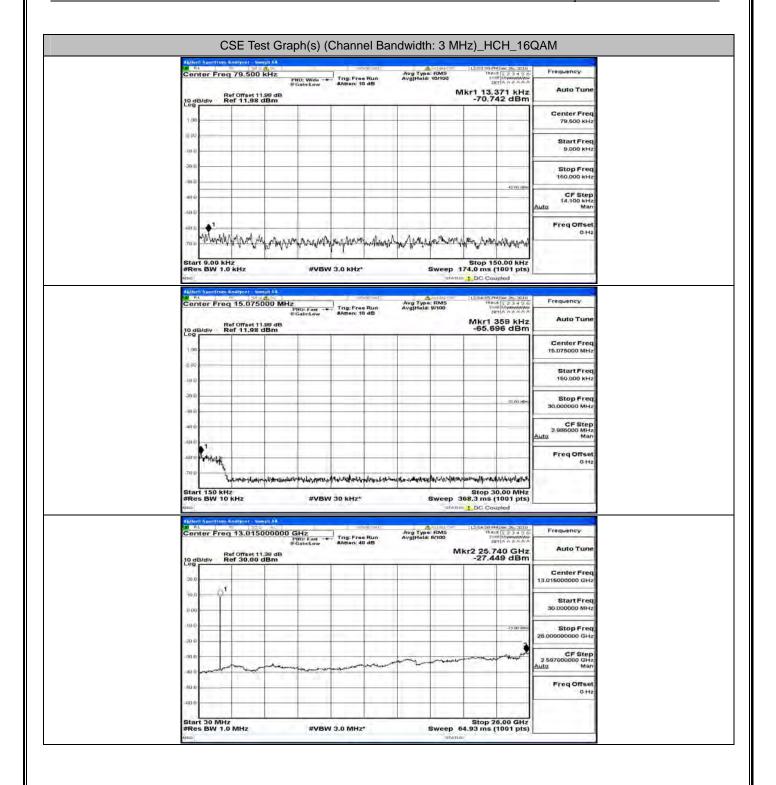


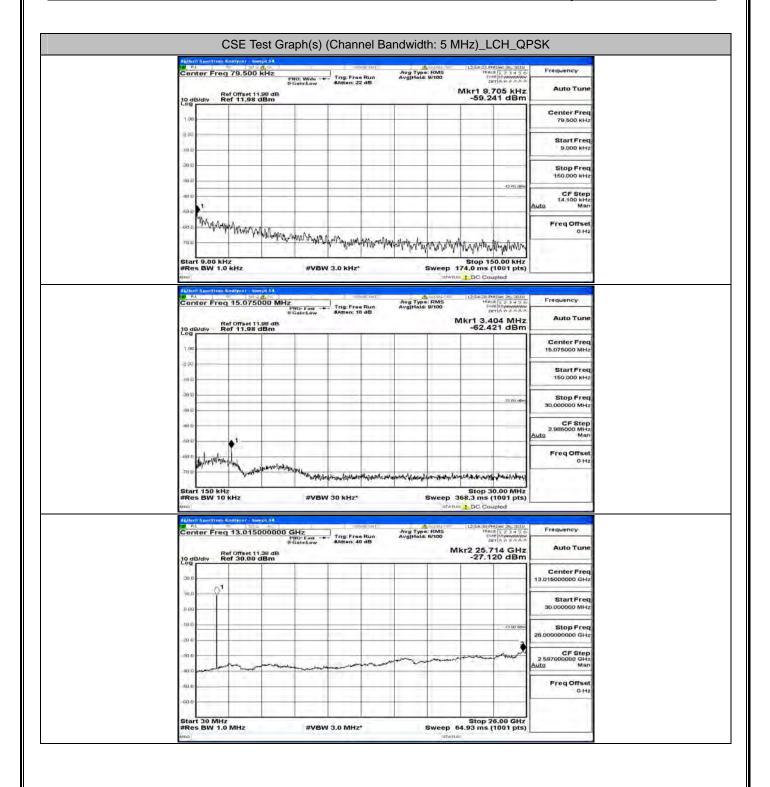


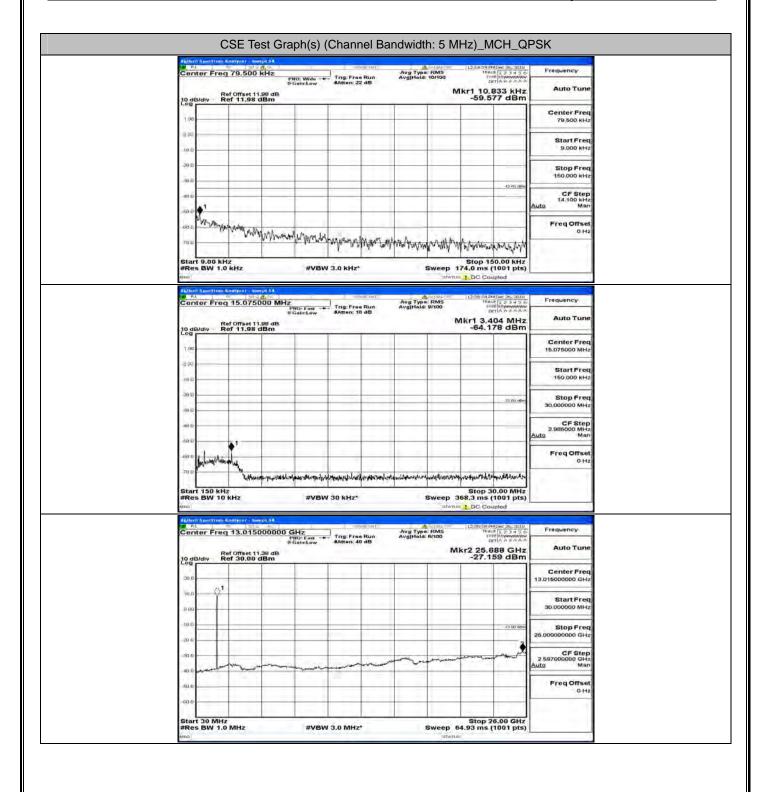


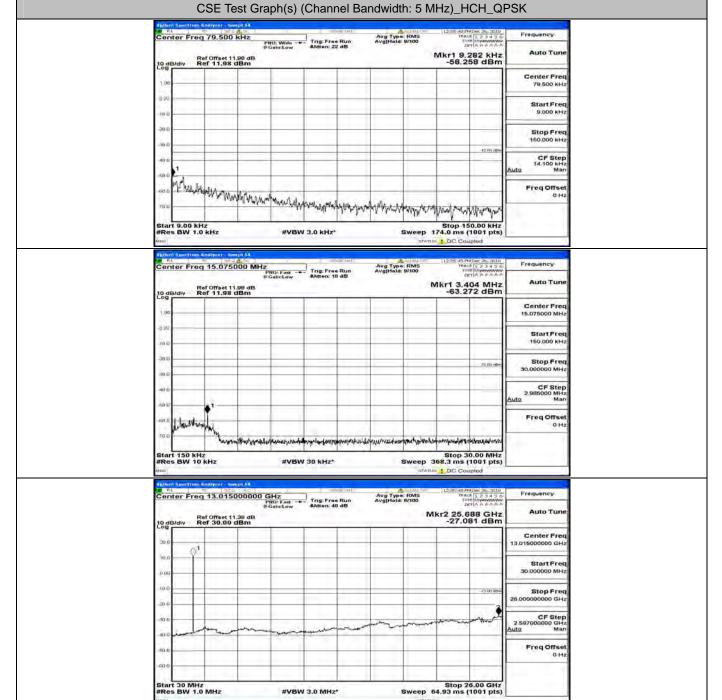




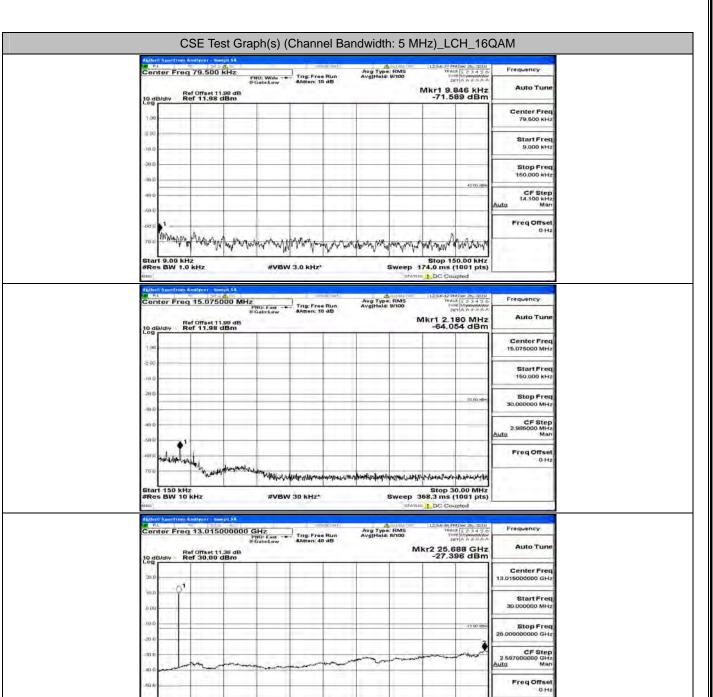








Start 30 MHz #Res BW 1.0 MHz



#VBW 3.0 MHz*

Stop 26.00 GHz Sweep 64.93 ms (1001 pts)

