# Appendix K: Test Data for E-UTRA Band 12

**Product Name: Smart Phone Trade Mark: HYUNDAI Test Model: Eternity P7** 

#### **Environmental Conditions**

Temperature:	22.5°C
Relative Humidity:	51.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Tom.Liu

## **K.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
IVIOGUIATION	Chamilei	Size	Offset	QPSK	16QAM	verdict
		1	0	21.85	20.53	PASS
		1	3	21.97	20.15	PASS
		1	5	22.06	20.18	PASS
	LCH	3	0	21.02	20.31	PASS
		3	2	21.09	20.32	PASS
		3	3	21.12	20.32	PASS
		6	0	20.05	19.34	PASS
		1	0	22.29	21.63	PASS
	мсн	1	3	22.48	21.77	PASS
QPSK /		1	5	22.46	21.79	PASS
16QAM		3	0	22.55	21.79	PASS
TOQAIVI		3	2	22.61	21.88	PASS
		3	3	22.63	21.87	PASS
		6	0	21.58	20.76	PASS
		1	0	22.03	21.64	PASS
		1	3	21.96	21.61	PASS
		1	5	21.91	21.52	PASS
	HCH	3	0	22.16	21.26	PASS
		3	2	22.14	21.24	PASS
		3	3	22.08	21.22	PASS
		6	0	21.17	20.27	PASS

Conducted Output Power Test Result (Channel Bandwidth: 3 MHz)						
Modulation	Channel	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	Verdict
Modulation	Channel	Size	Offset	QPSK	16QAM	verdict
		1	0	20.84	20.03	PASS
		1	7	21.19	20.34	PASS
		1	14	21.32	20.45	PASS
	LCH	8	0	20.14	19.12	PASS
		8	4	20.31	19.32	PASS
		8	7	20.38	19.42	PASS
		15	0	20.26	19.37	PASS
		1	0	22.32	21.52	PASS
	MCH	1	7	22.67	21.85	PASS
ODCK /		1	14	22.67	21.83	PASS
QPSK / 16QAM		8	0	21.61	20.71	PASS
IOQAW		8	4	21.71	20.85	PASS
		8	7	21.82	20.94	PASS
		15	0	21.79	20.89	PASS
		1	0	22.57	21.77	PASS
		1	7	22.50	21.71	PASS
		1	14	22.11	21.29	PASS
	HCH	8	0	21.67	20.83	PASS
		8	4	21.52	20.69	PASS
		8	7	21.47	20.63	PASS
		15	0	21.56	20.57	PASS

Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)						
Madulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	\/a ==li =4
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict
		1	0	20.95	20.17	PASS
		1	12	21.44	20.66	PASS
		1	24	21.82	21.06	PASS
	LCH	12	0	20.09	19.03	PASS
		12	6	20.47	19.39	PASS
		12	13	20.50	19.40	PASS
		25	0	20.30	19.36	PASS
		1	0	22.20	21.44	PASS
	МСН	1	12	22.68	21.90	PASS
QPSK /		1	24	22.79	21.99	PASS
16QAM		12	0	21.50	20.42	PASS
TOQAW		12	6	21.70	20.64	PASS
		12	13	22.00	20.94	PASS
		25	0	21.80	20.82	PASS
		1	0	22.73	22.09	PASS
		1	12	22.67	22.04	PASS
		1	24	22.15	21.49	PASS
	HCH	12	0	21.91	20.96	PASS
		12	6	21.69	20.74	PASS
		12	13	21.59	20.63	PASS
		25	0	21.74	20.82	PASS

Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)						
Madulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	Vandiat
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict
		1	0	21.14	20.32	PASS
		1	24	21.99	21.16	PASS
		1	49	22.84	22.00	PASS
	LCH	25	0	20.69	19.75	PASS
		25	12	21.00	20.06	PASS
		25	25	21.48	20.53	PASS
		50	0	20.99	20.04	PASS
		1	0	21.86	21.02	PASS
	MCH	1	24	22.72	21.88	PASS
QPSK /		1	49	22.88	21.98	PASS
16QAM		25	0	21.56	20.64	PASS
IOQAW		25	12	21.73	20.77	PASS
		25	25	22.09	21.14	PASS
		50	0	21.89	20.96	PASS
		1	0	22.58	21.82	PASS
		1	24	22.83	22.04	PASS
		1	49	22.32	21.51	PASS
	HCH	25	0	21.54	20.59	PASS
		25	12	21.81	20.88	PASS
		25	25	21.55	20.60	PASS
		50	0	21.55	20.55	PASS

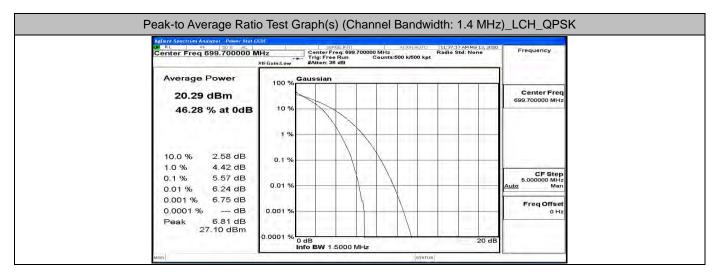
### K.2 Peak-to-Average Ratio

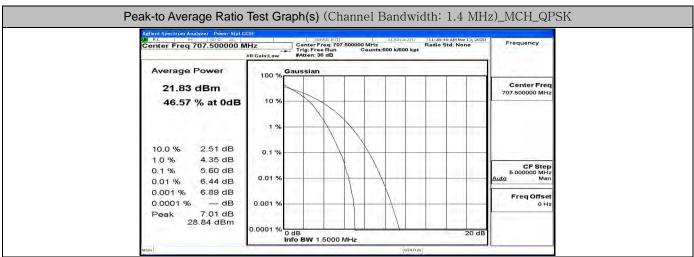
Peak-to Average Ratio Test Result (Channel Bandwidth: 1.4 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict		
iviodulation	Griannei	[dB]	[dB]	verdict		
	LCH	5.57	<13	PASS		
QPSK	MCH	5.6	<13	PASS		
	HCH	5.39	<13	PASS		
16QAM	LCH	6.46	<13	PASS		
	MCH	6.57	<13	PASS		
	HCH	6.27	<13	PASS		

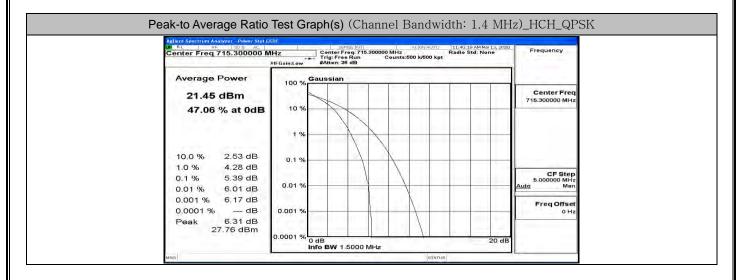
Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)					
Modulation	Channel	Peak-to-Average Ratio	Limit	Vordict	
iviodulation	Griannei	[dB]	[dB]	Verdict	
	LCH	5.43	<13	PASS	
QPSK	MCH	5.64	<13	PASS	
	HCH	5.55	<13	PASS	
	LCH	6.4	<13	PASS	
16QAM	MCH	6.63	<13	PASS	
	HCH	6.26	<13	PASS	

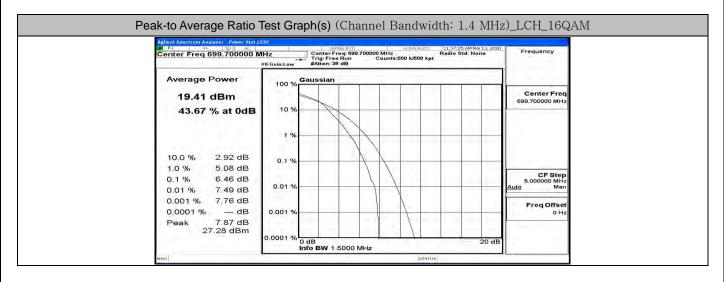
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Vordict		
Modulation	Griannei	[dB]	[dB]	Verdict		
QPSK	LCH	5.39	<13	PASS		
	MCH	5.72	<13	PASS		
	HCH	5.55	<13	PASS		
16QAM	LCH	6.21	<13	PASS		
	MCH	6.52	<13	PASS		
	HCH	6.34	<13	PASS		

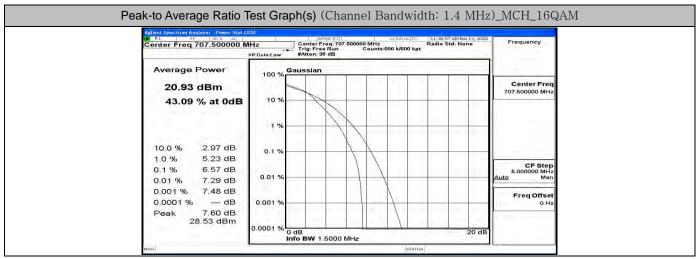
Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)					
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict	
iviodulation	Chame	[dB]	[dB]	verdict	
	LCH	5.71	<13	PASS	
QPSK	MCH	5.77	<13	PASS	
	HCH	5.35	<13	PASS	
	LCH	6.44	<13	PASS	
16QAM	MCH	6.51	<13	PASS	
	HCH	6.17	<13	PASS	

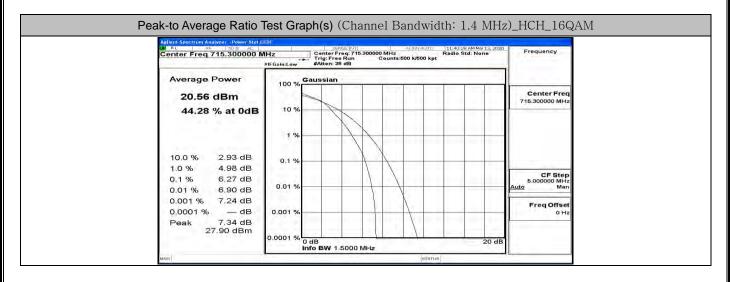


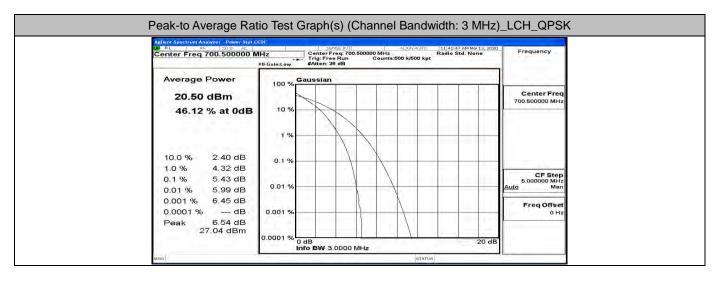


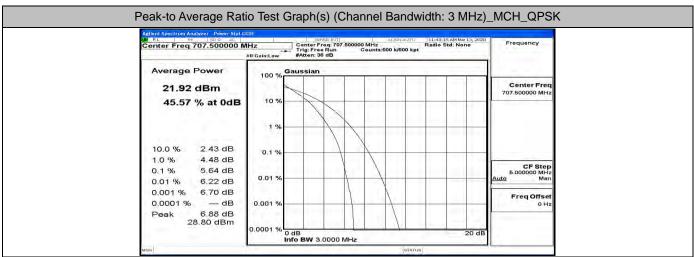


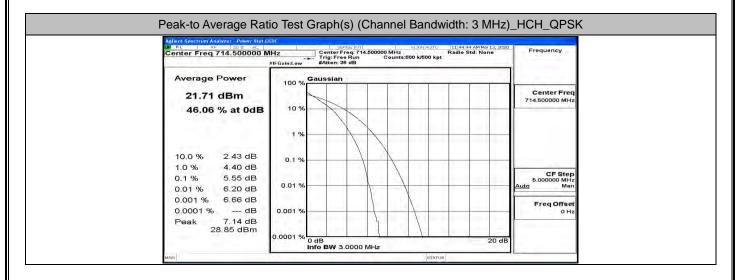


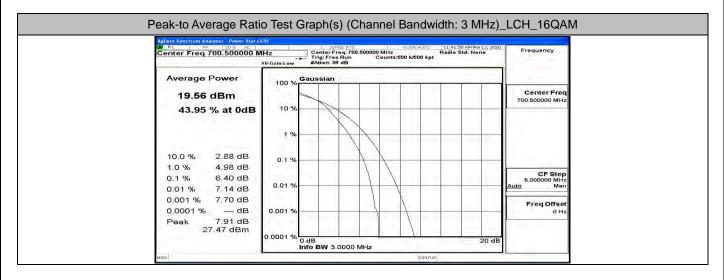


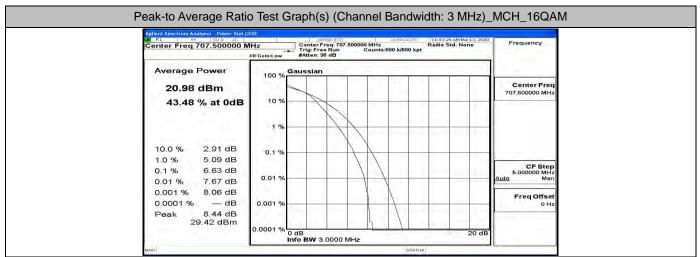


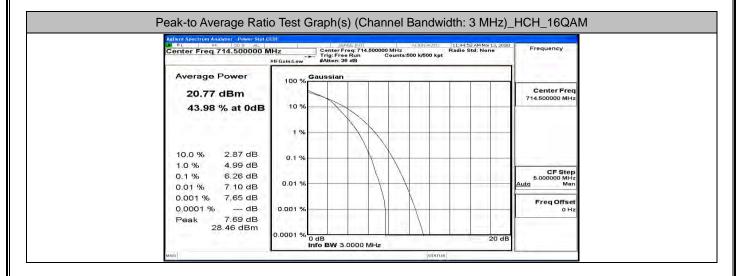


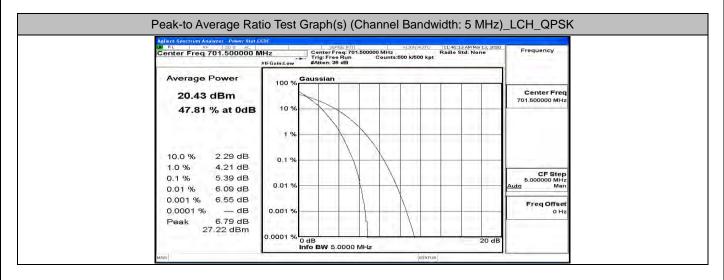


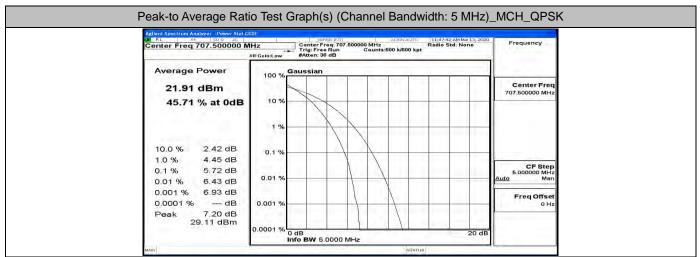


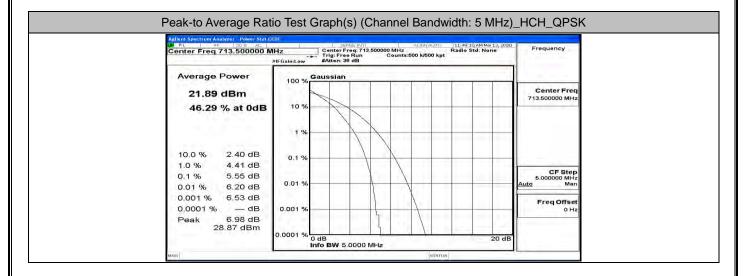


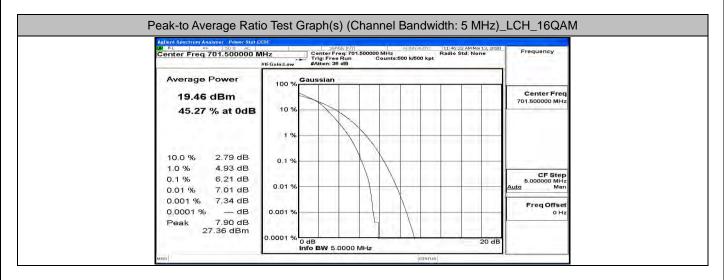


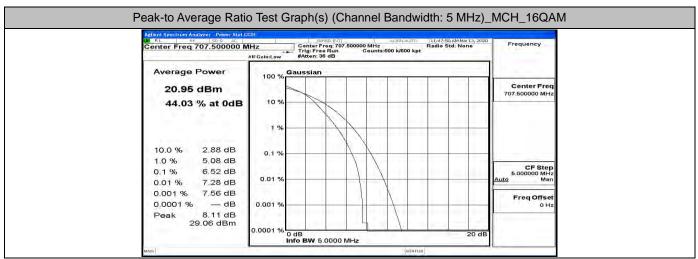


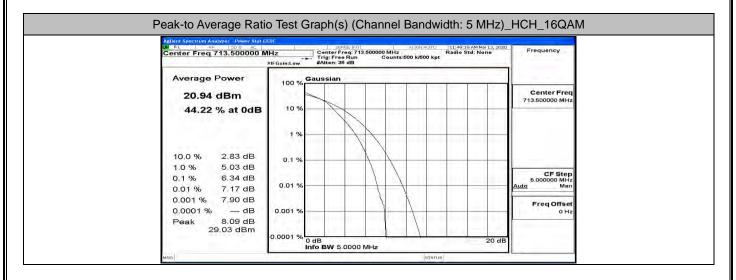


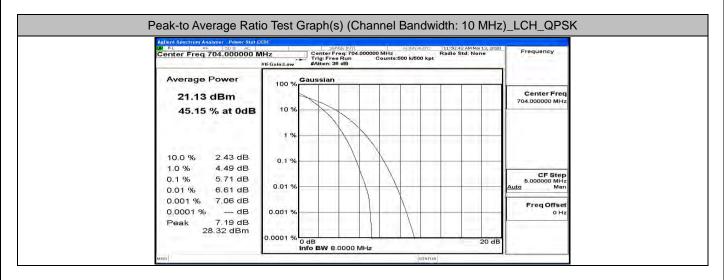


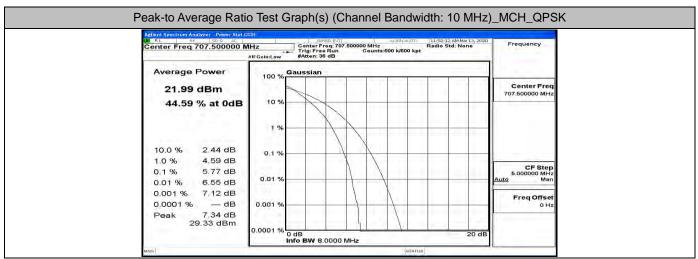


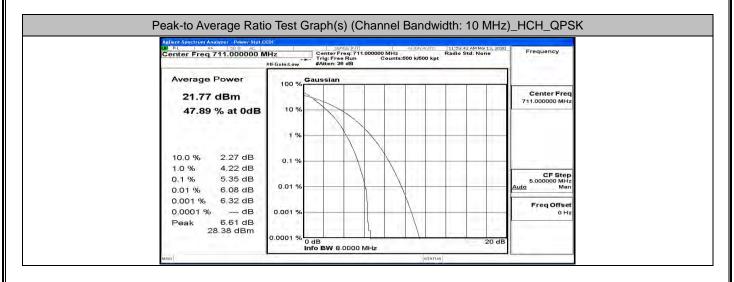


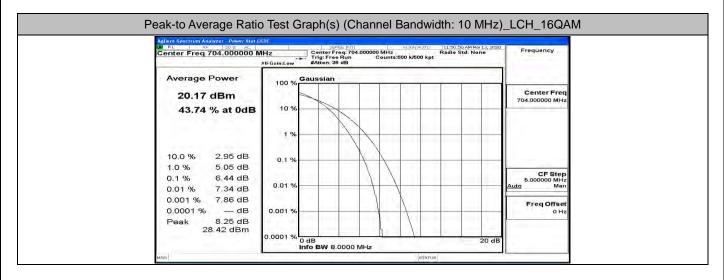


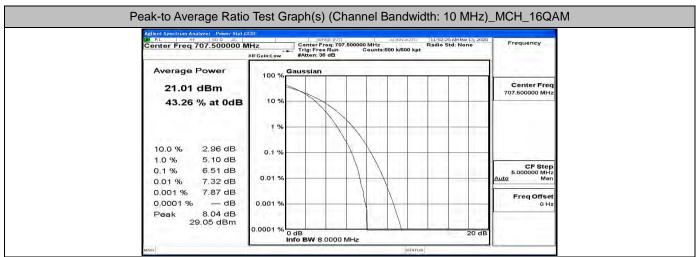


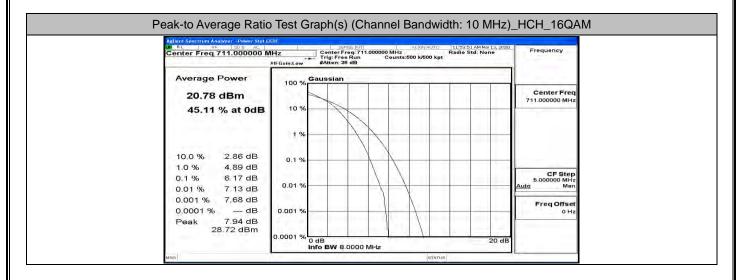












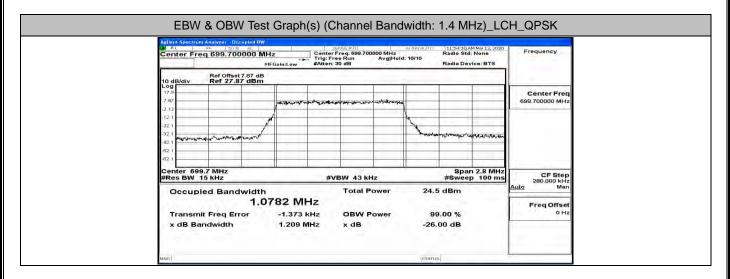
### K.3 26dB Bandwidth and Occupied Bandwidth

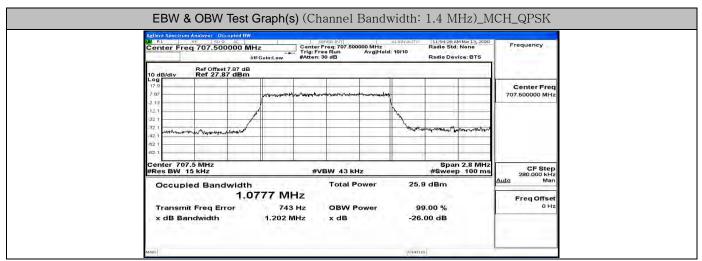
	EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)						
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict			
	LCH	1.0782	1.209	PASS			
QPSK	MCH	1.0777	1.202	PASS			
	HCH	1.0777	1.218	PASS			
16QAM	LCH	1.0740	1.213	PASS			
	MCH	1.0756	1.200	PASS			
	HCH	1.0777	1.218	PASS			

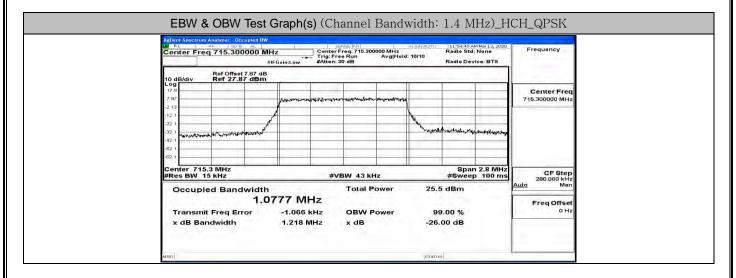
EBW & OBW Test Result (Channel Bandwidth: 3 MHz)					
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict	
Modulation	Chamie	(MHz)	(MHz)	Verdict	
QPSK	LCH	2.6768	2.858	PASS	
	MCH	2.6821	2.870	PASS	
	HCH	2.6894	2.893	PASS	
16QAM	LCH	2.6779	2.874	PASS	
	MCH	2.6864	2.867	PASS	
	HCH	2.6849	2.861	PASS	

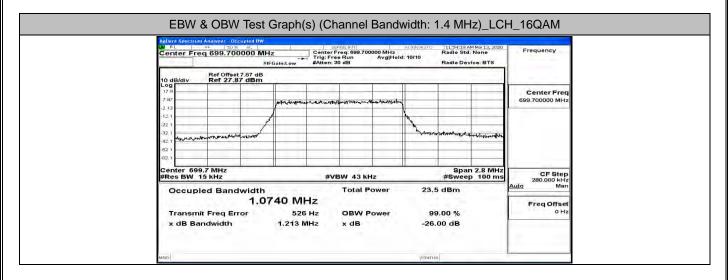
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Vordict		
Modulation	Griannei	(MHz)	(MHz)	Verdict		
QPSK	LCH	4.4618	4.772	PASS		
	MCH	4.4697	4.818	PASS		
	HCH	4.4837	4.810	PASS		
16QAM	LCH	4.4591	4.748	PASS		
	MCH	4.4742	4.799	PASS		
	HCH	4.4828	4.813	PASS		

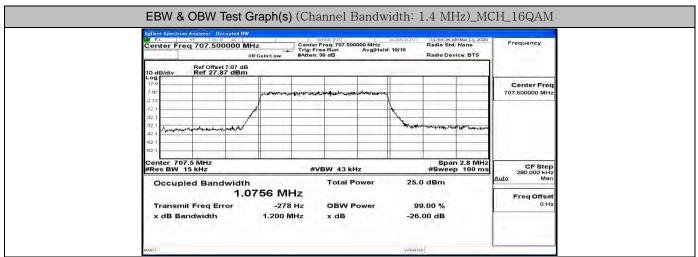
EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
		(MHz)	(MHz)	
QPSK	LCH	8.9410	9.423	PASS
	MCH	8.9567	9.440	PASS
	HCH	8.9213	9.417	PASS
16QAM	LCH	8.9426	9.449	PASS
	MCH	8.9577	9.464	PASS
	HCH	8.9167	9.382	PASS

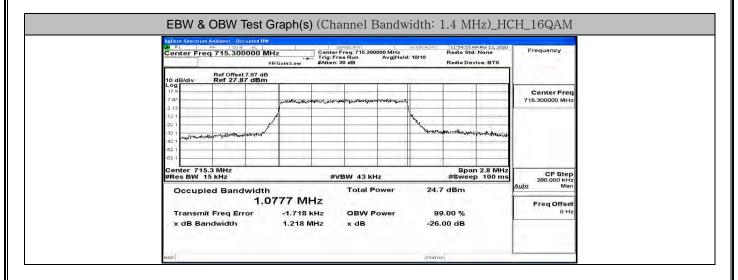


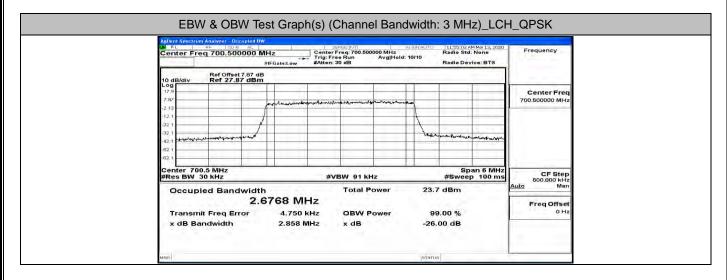


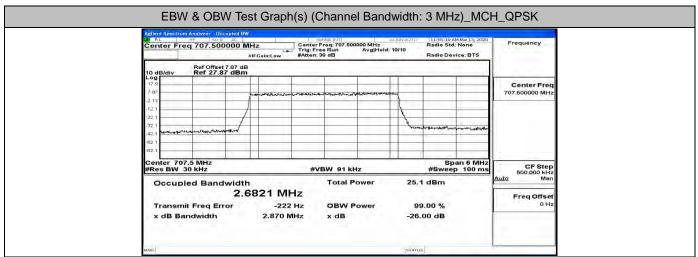


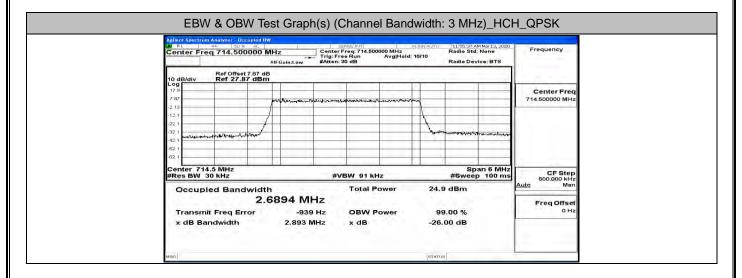


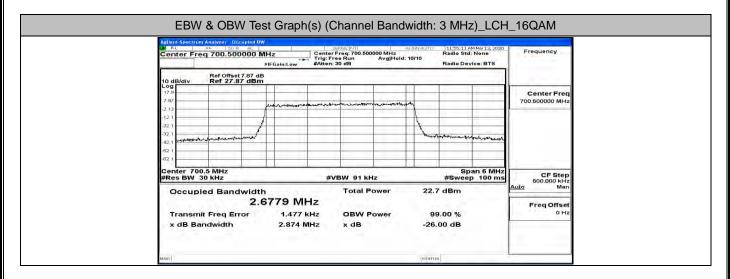


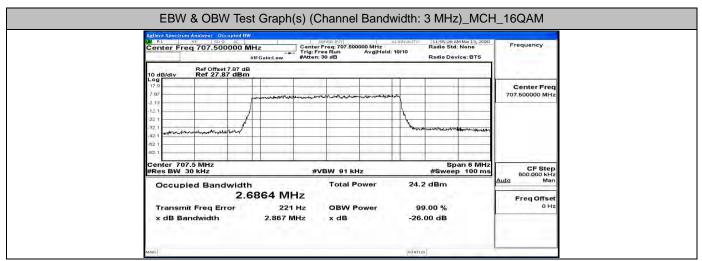


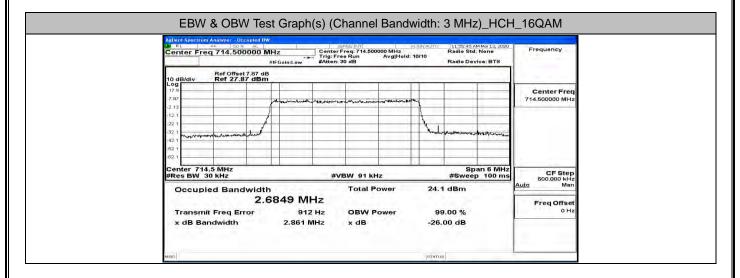


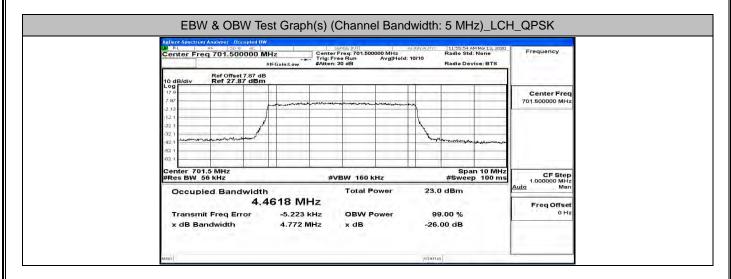


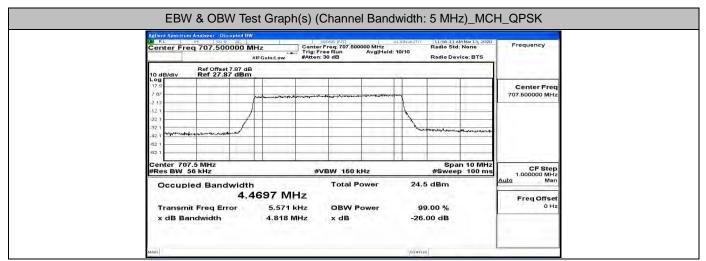


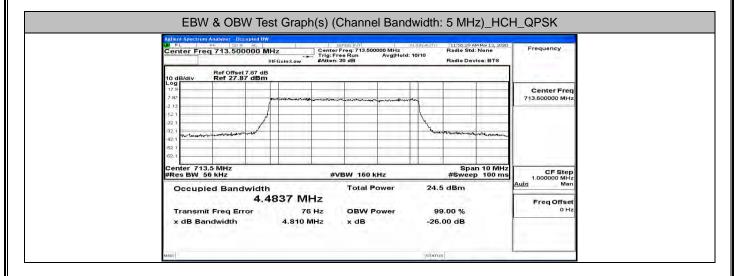


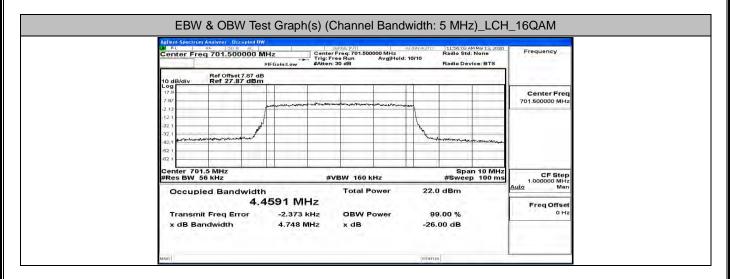


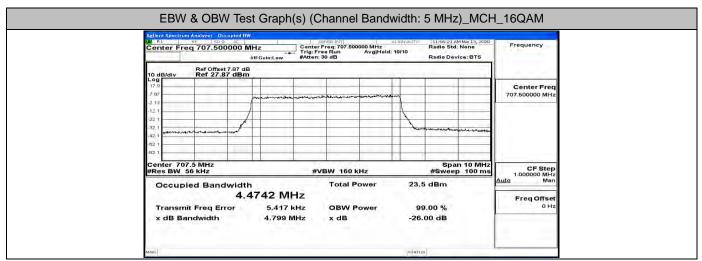


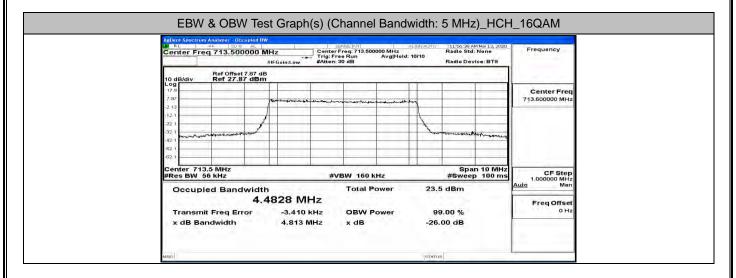


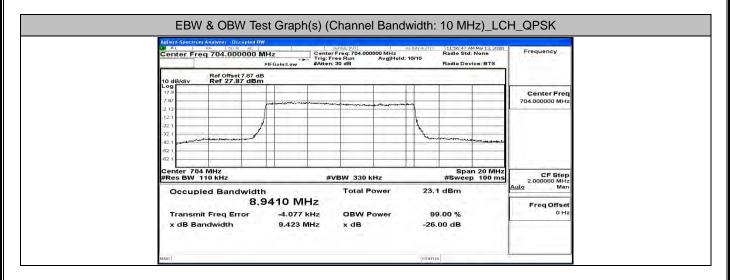


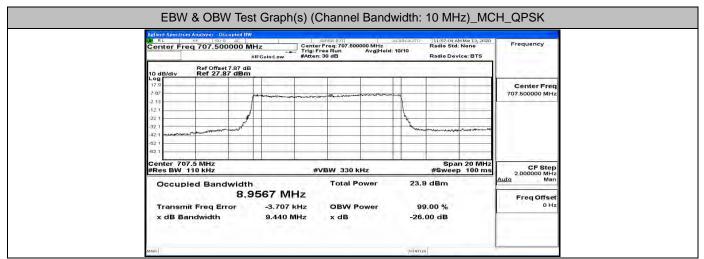


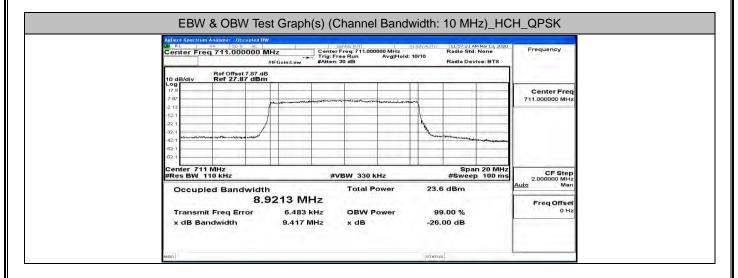


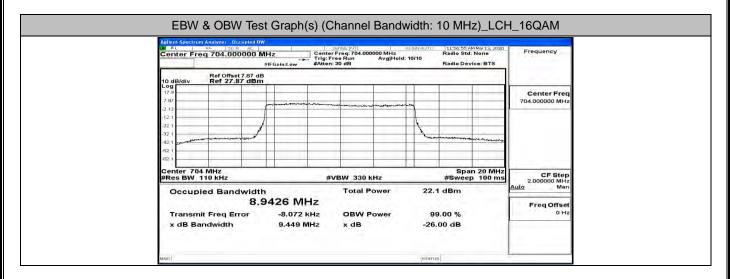


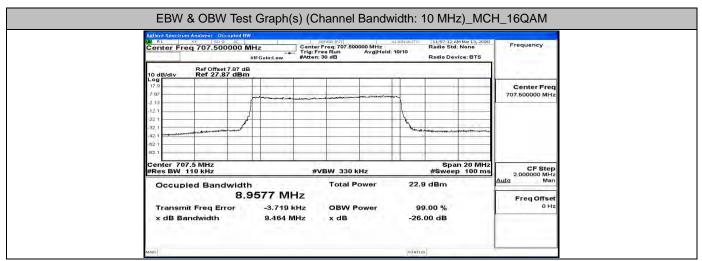


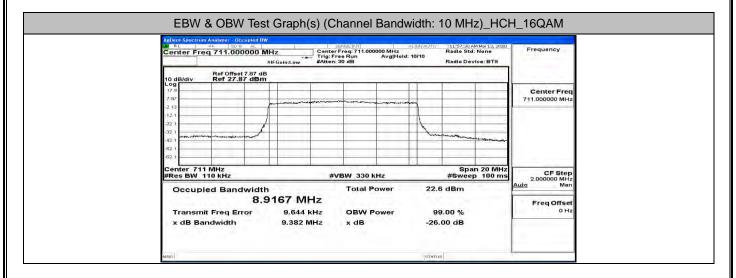




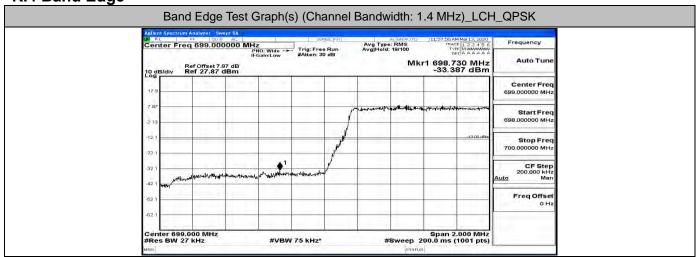


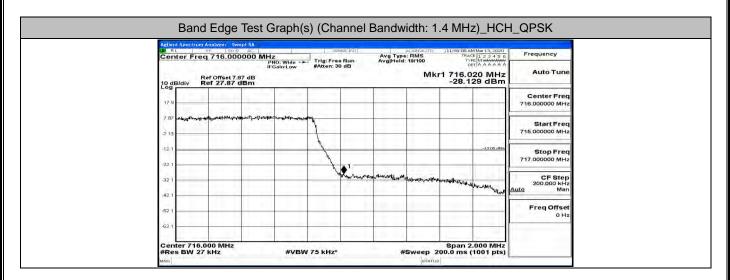


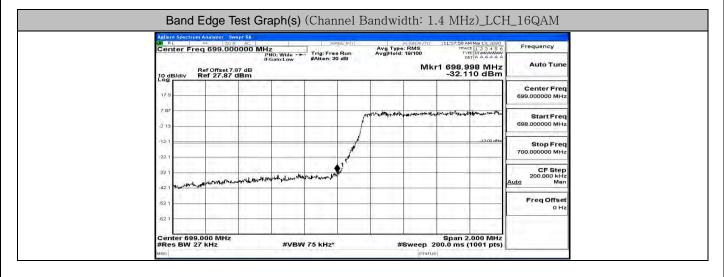


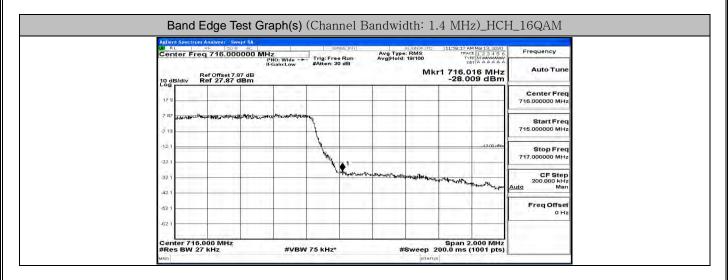


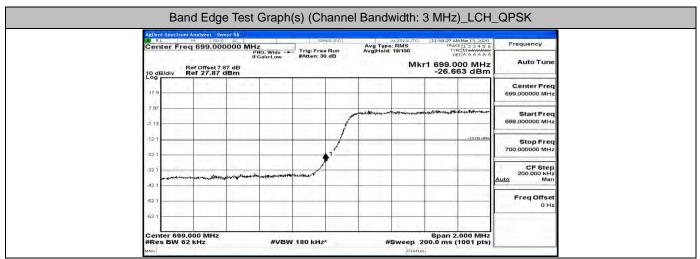
K.4 Band Edge

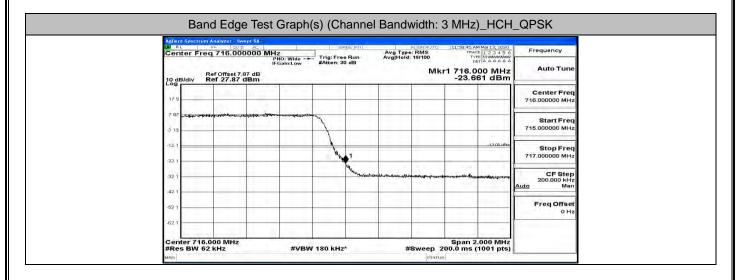


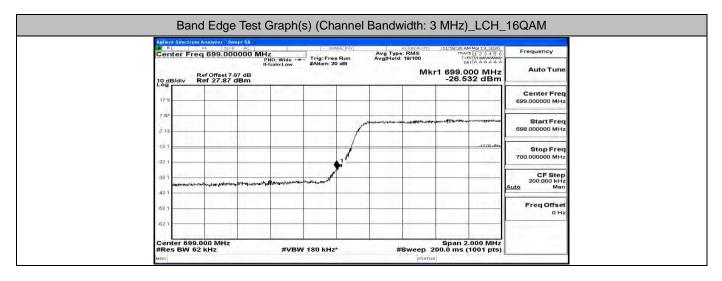


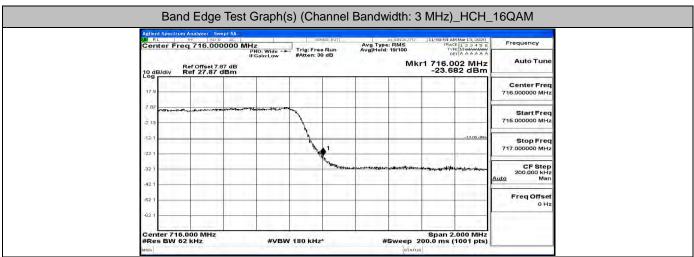


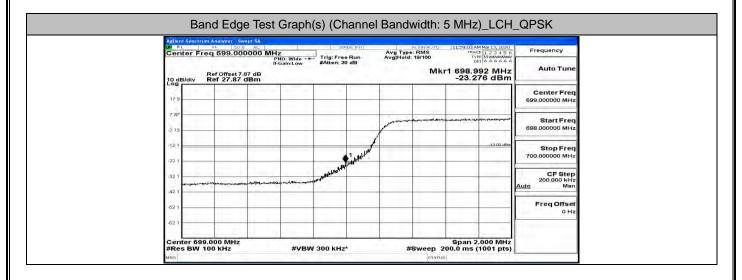


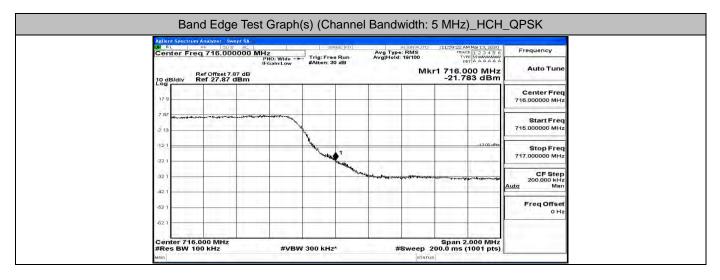


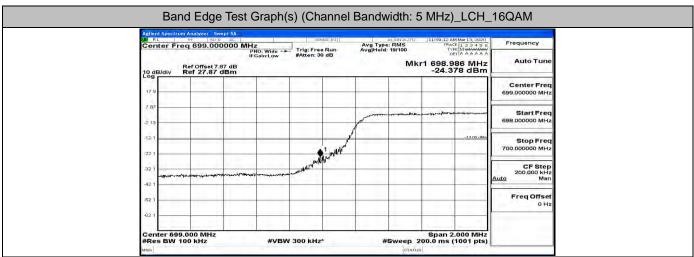


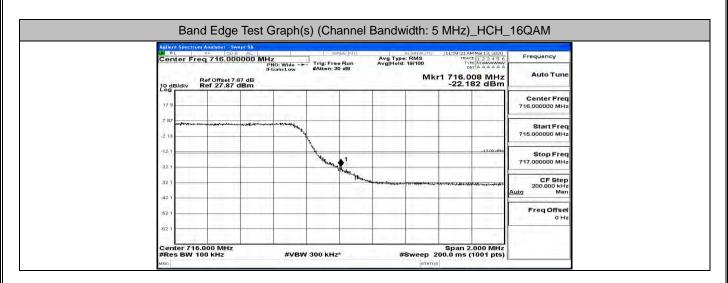




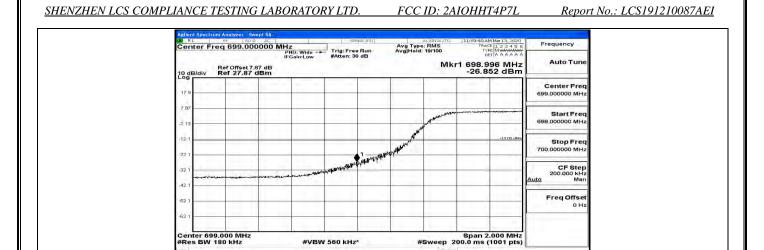




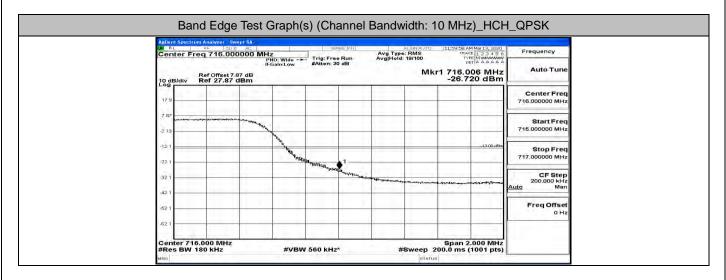


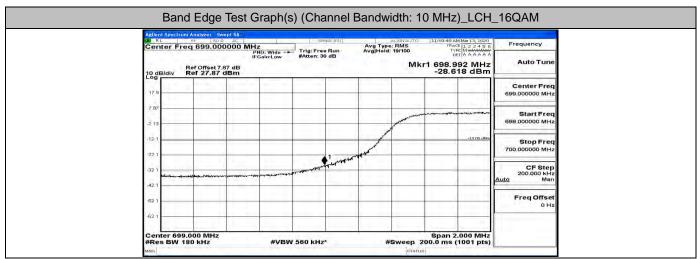


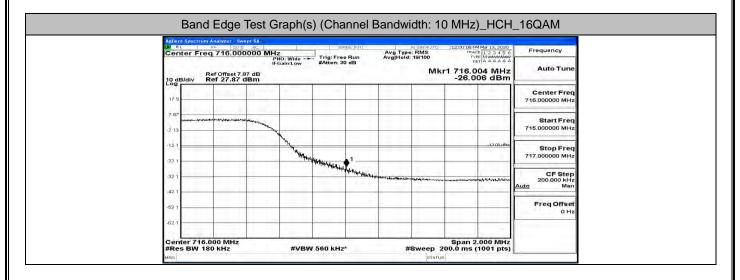
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_QPSK



#VBW 560 kHz\*

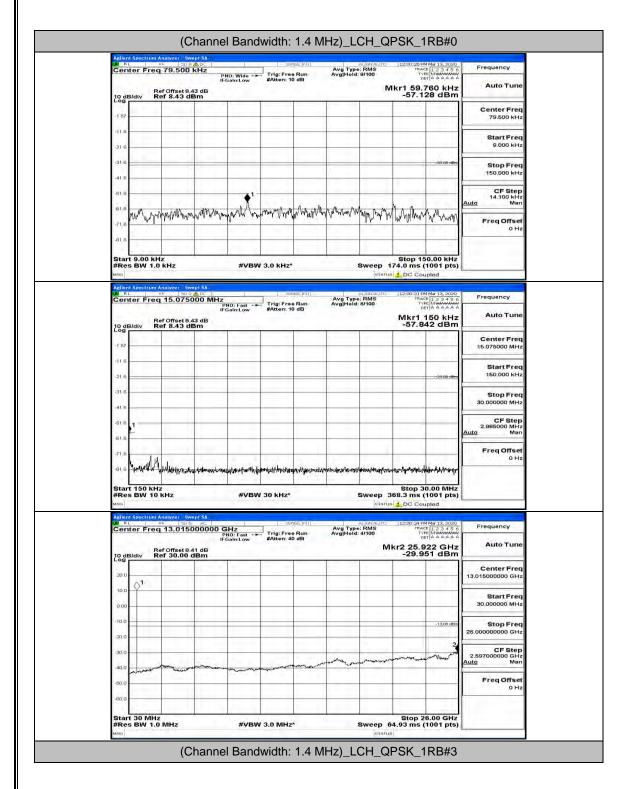


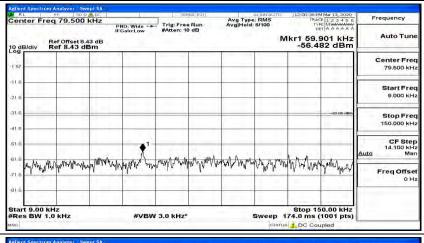


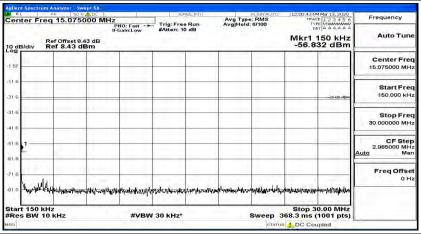


#### **K.5 Conducted Spurious Emission**

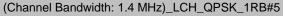
**Channel Bandwidth: 1.4 MHz** 

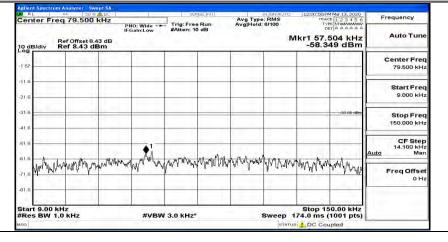


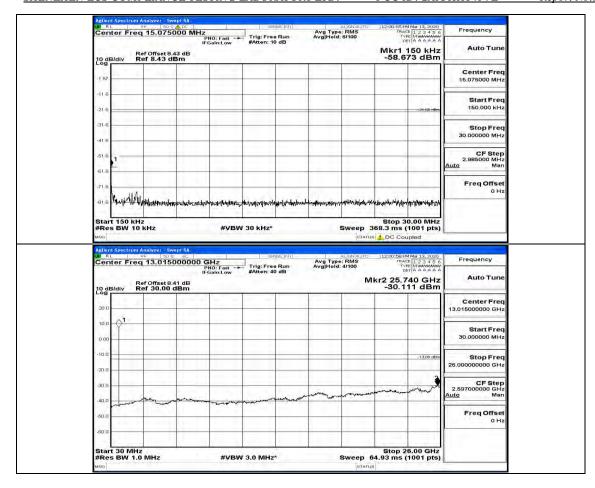


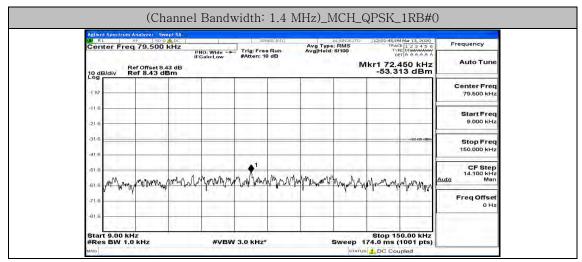


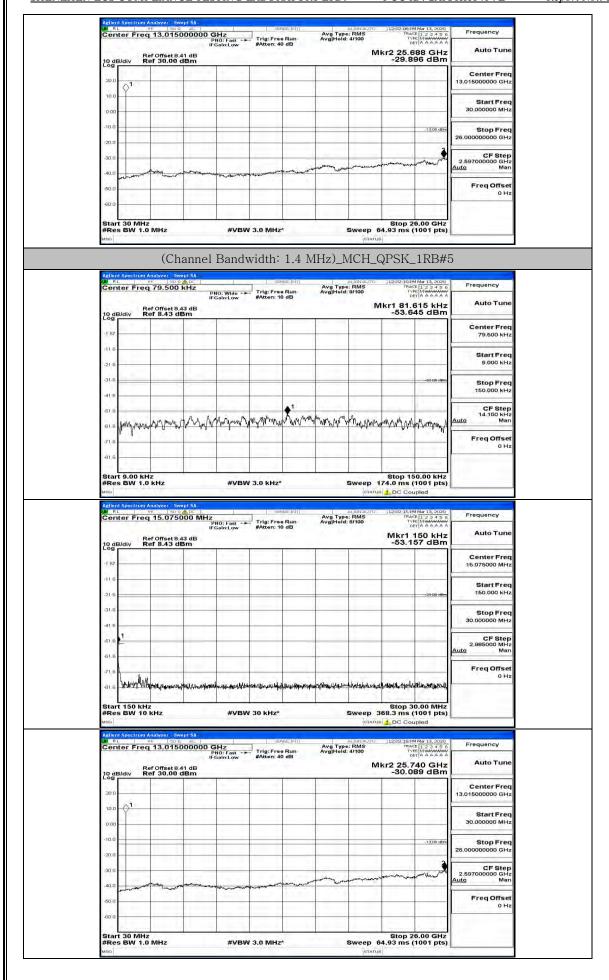


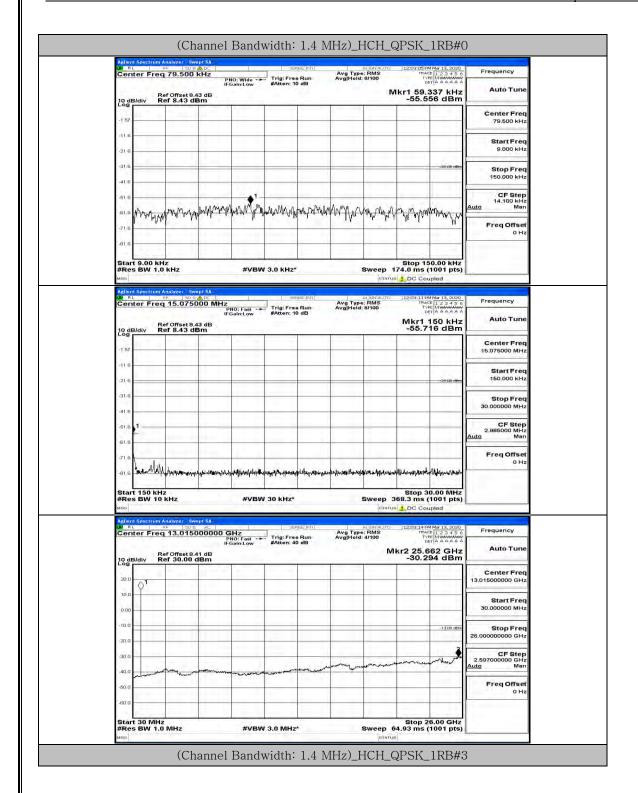


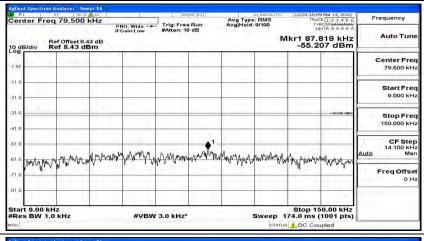


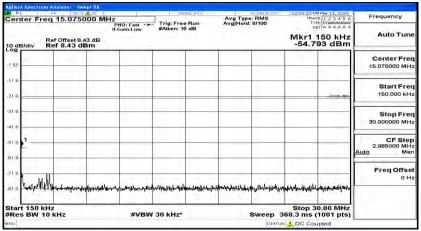




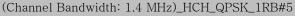


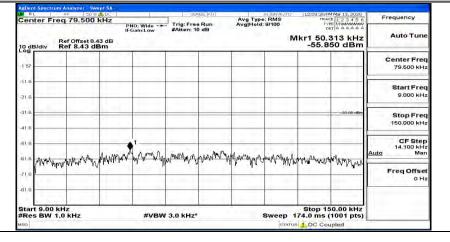


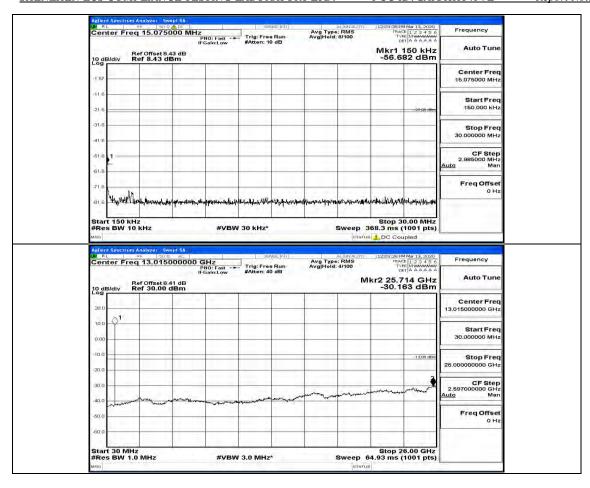


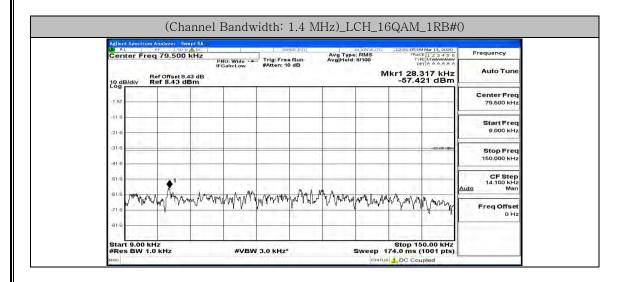


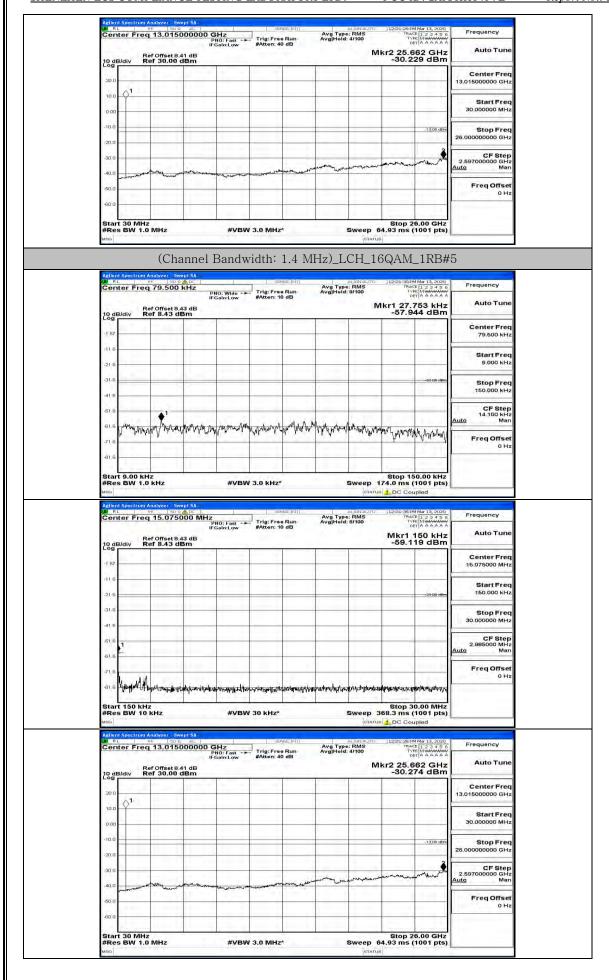


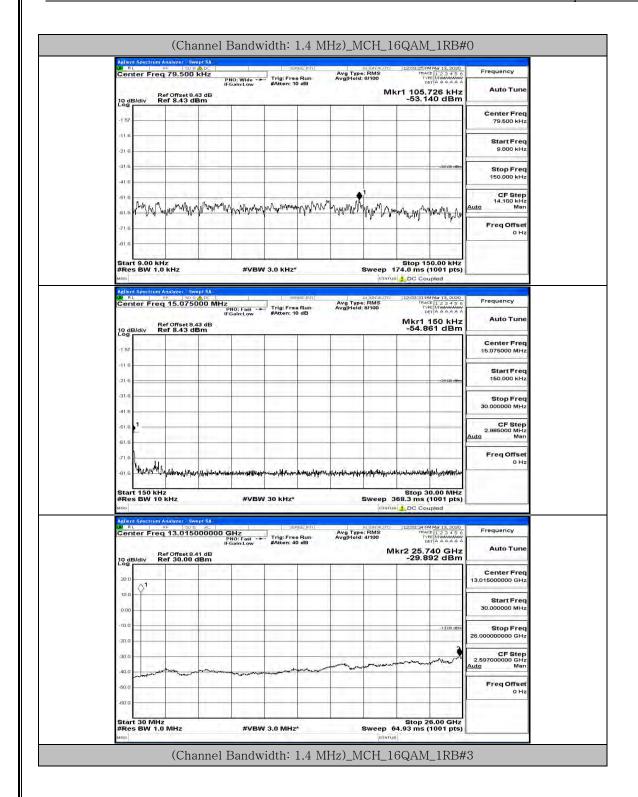


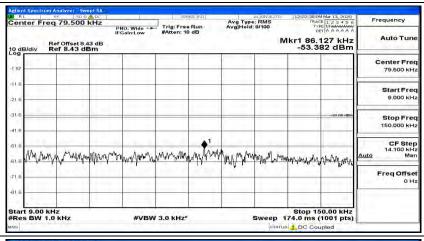


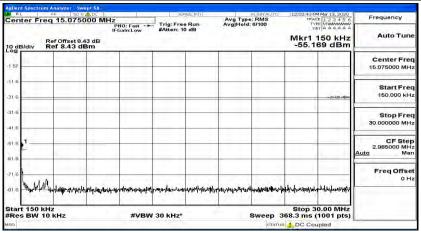




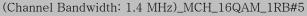


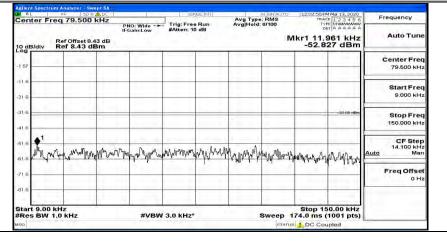


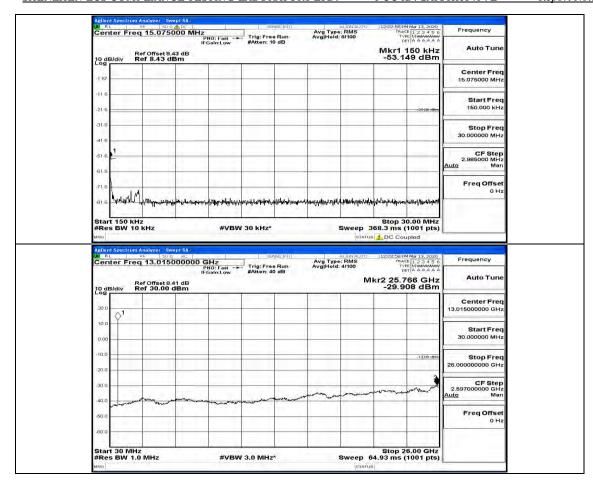


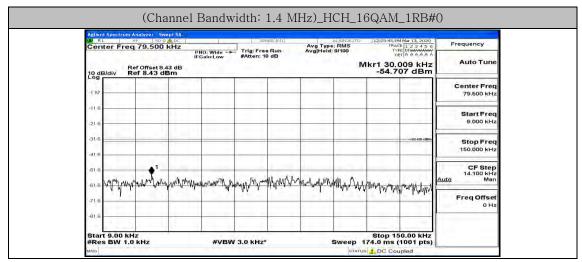










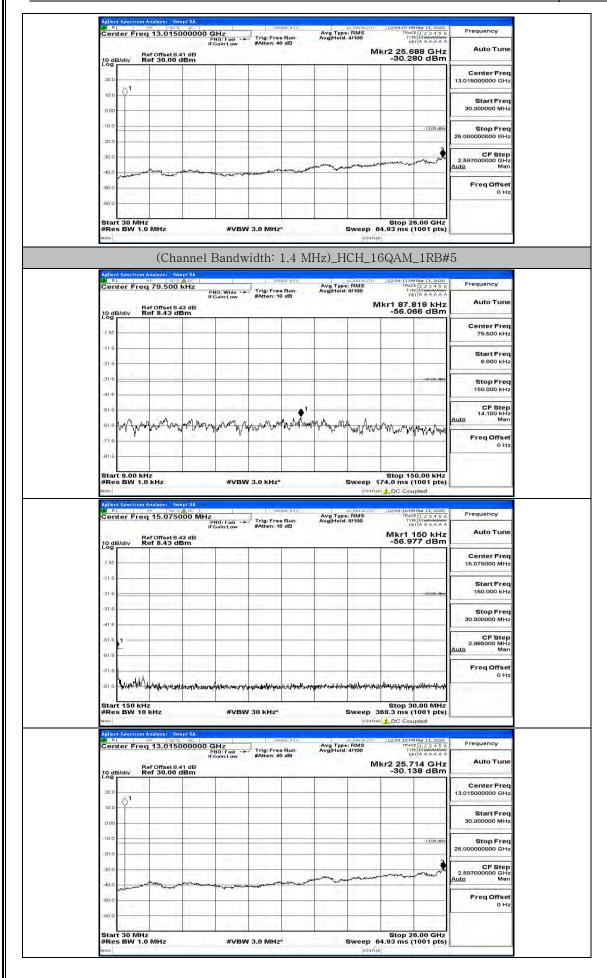


Stop 30.00 MHz Sweep 368.3 ms (1001 pts)

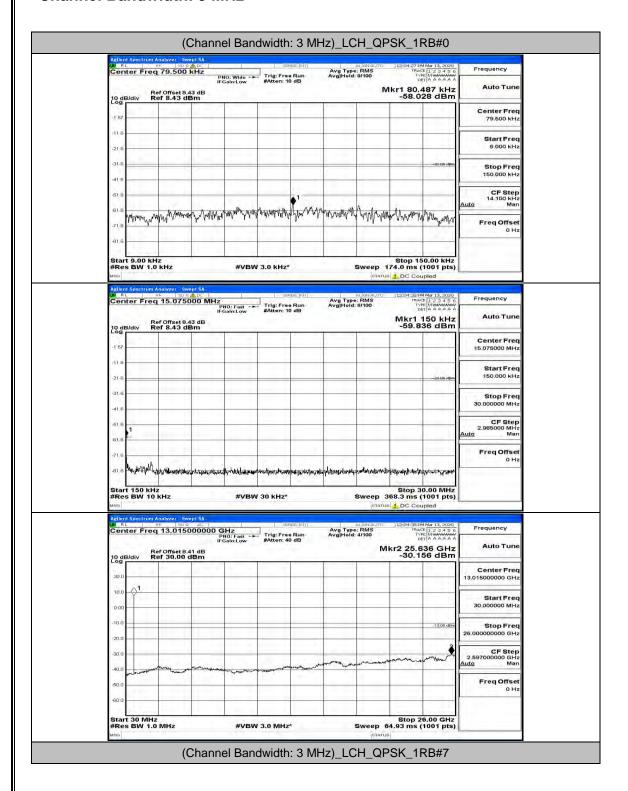
Start 150 kHz #Res BW 10 kHz

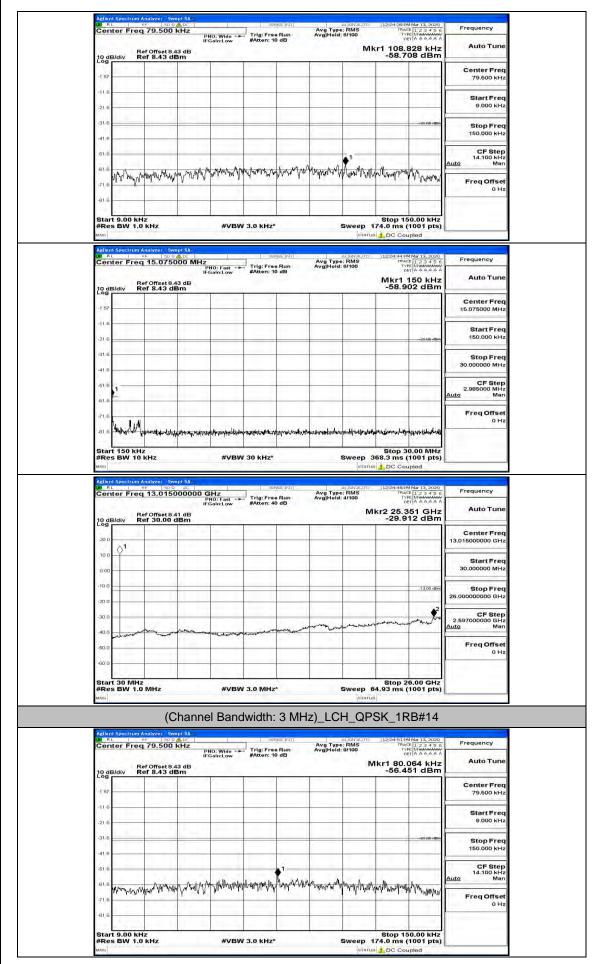
#VBW 30 kHz\*

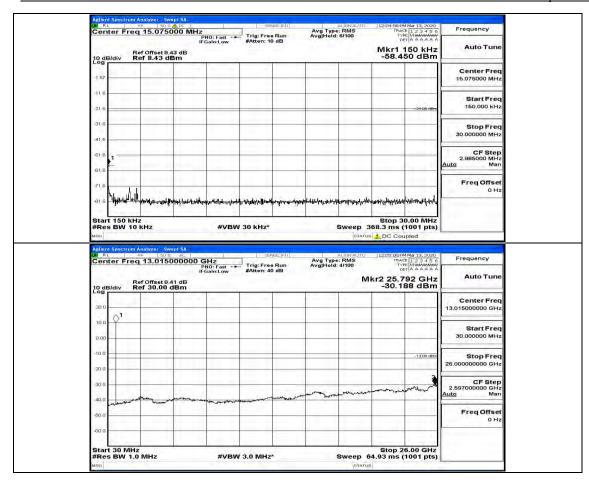
Freq Offse

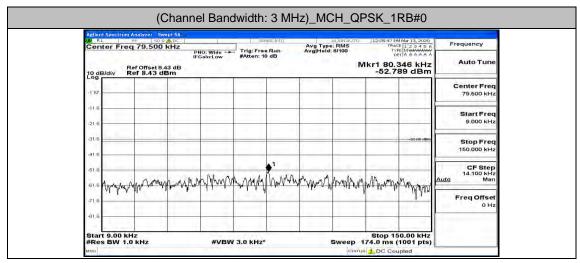


## **Channel Bandwidth: 3 MHz**





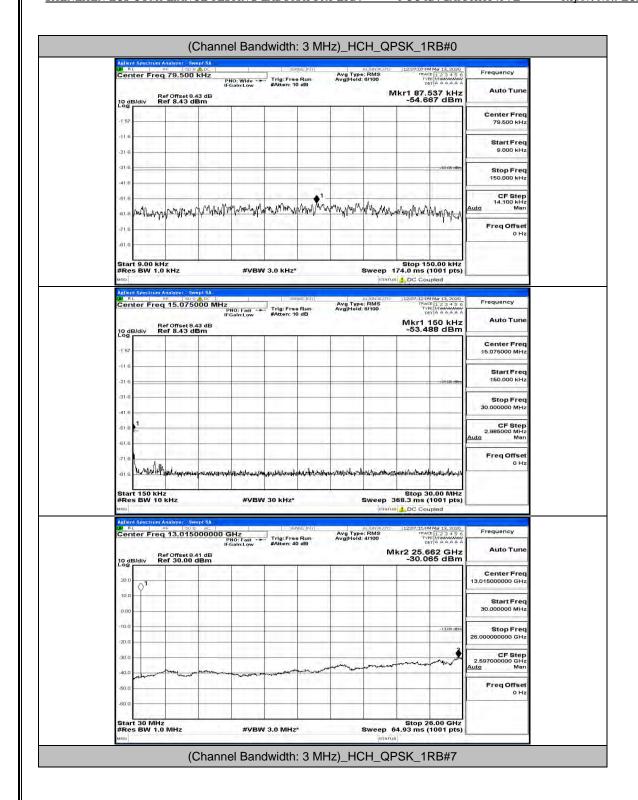


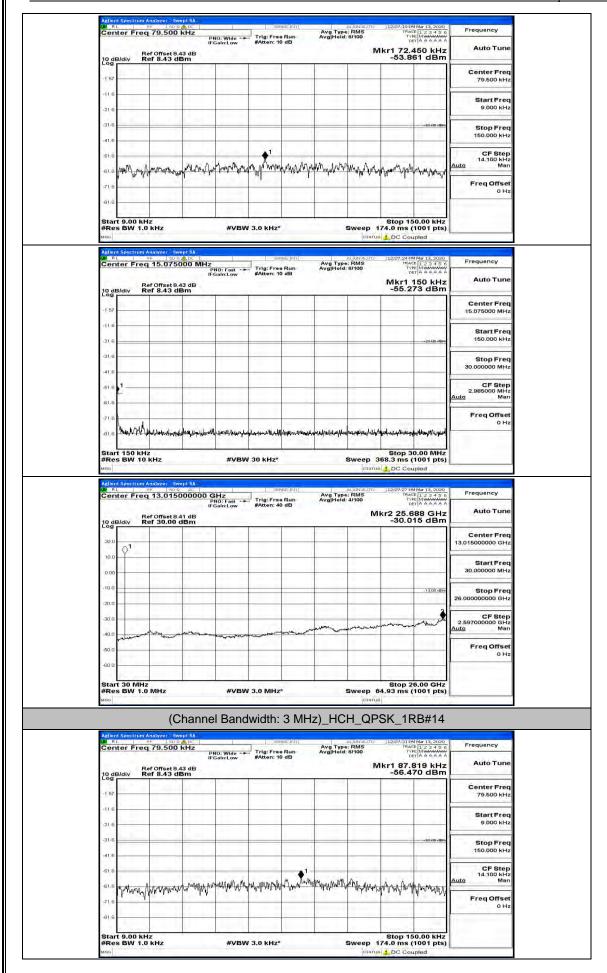


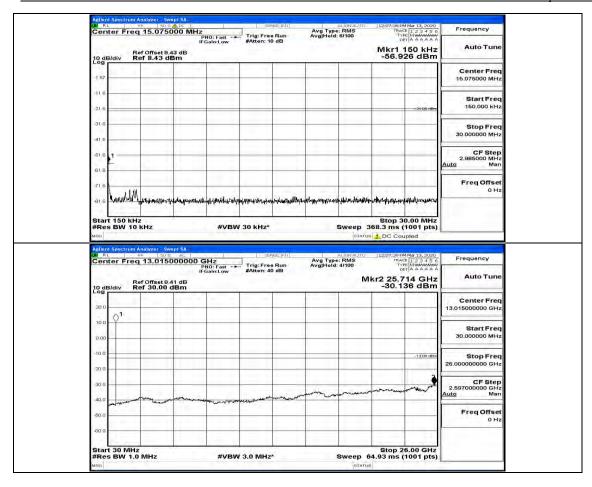
Stop 26.00 GHz Sweep 64.93 ms (1001 pts)

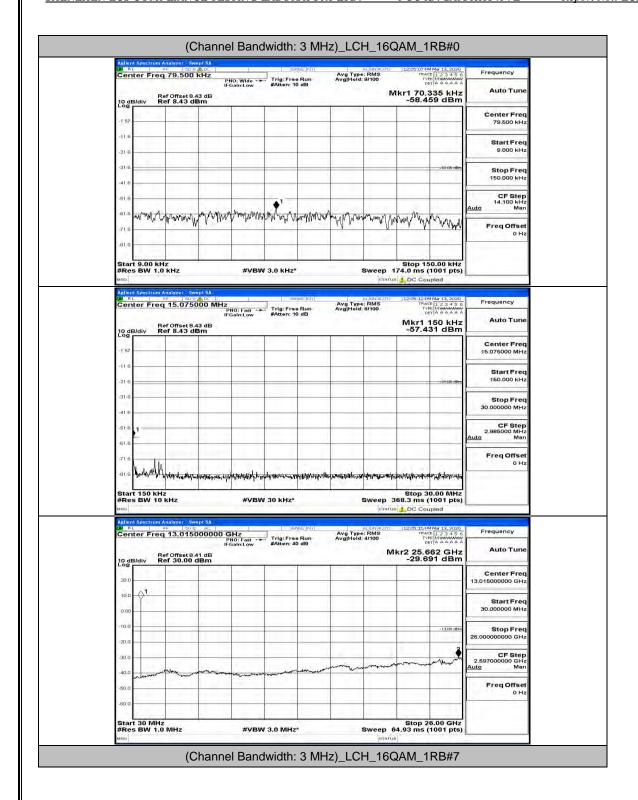
Start 30 MHz #Res BW 1.0 MHz

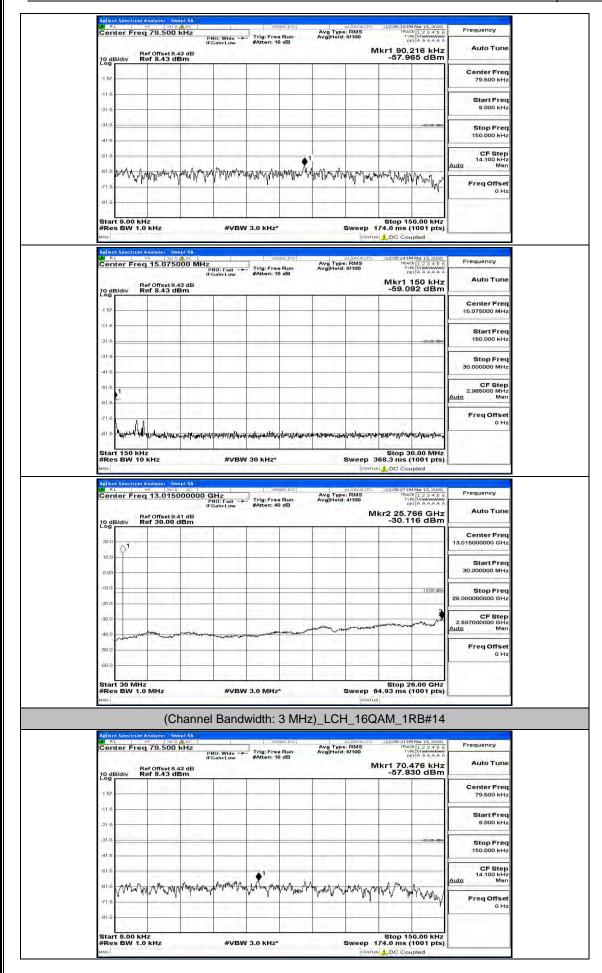
#VBW 3.0 MHz\*

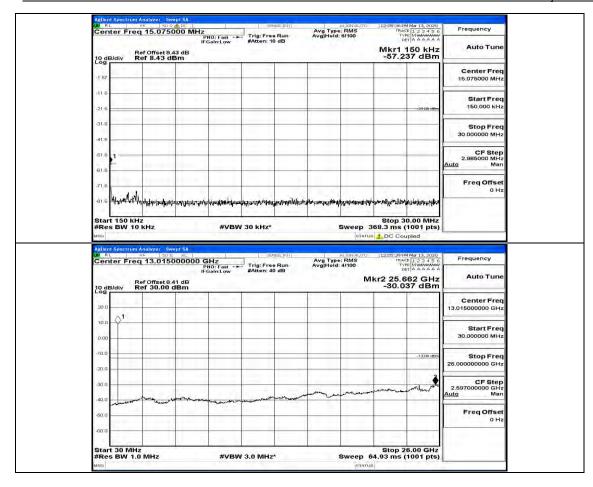


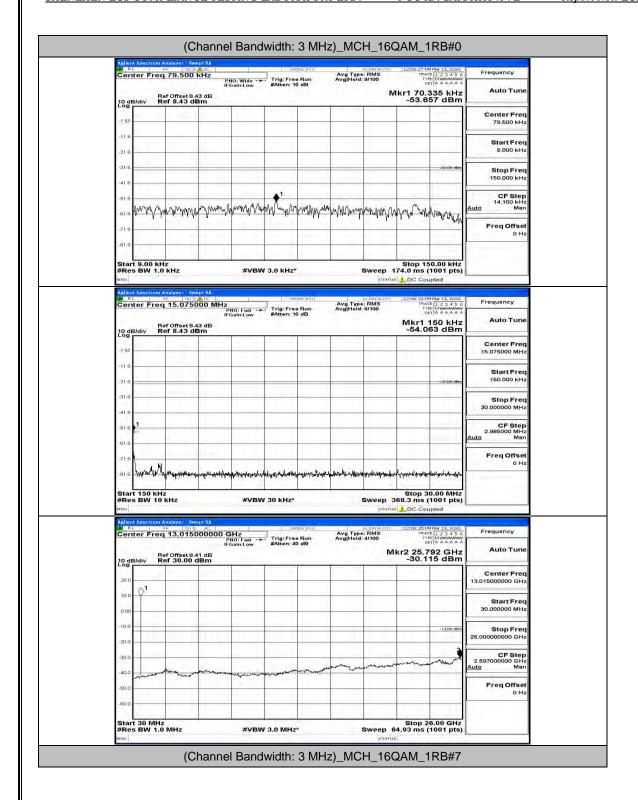


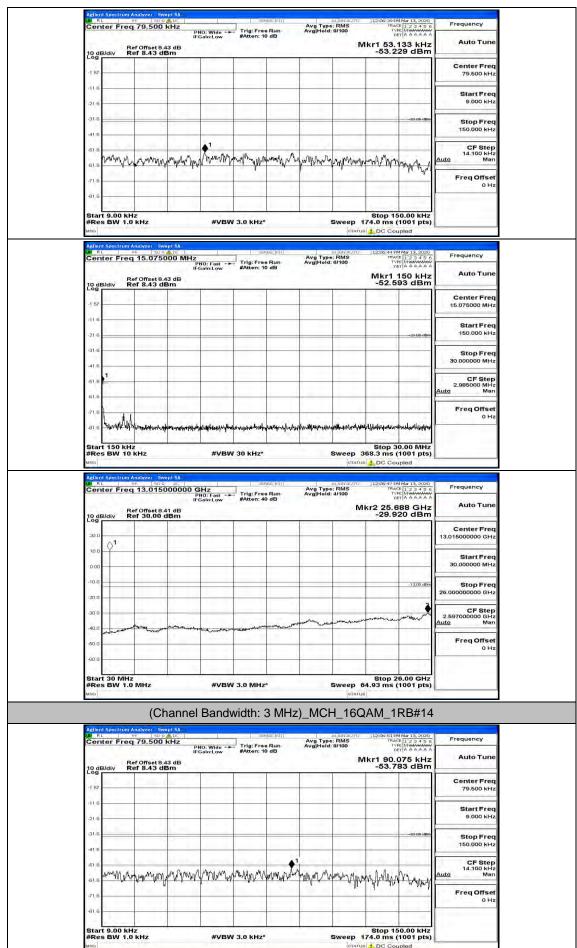


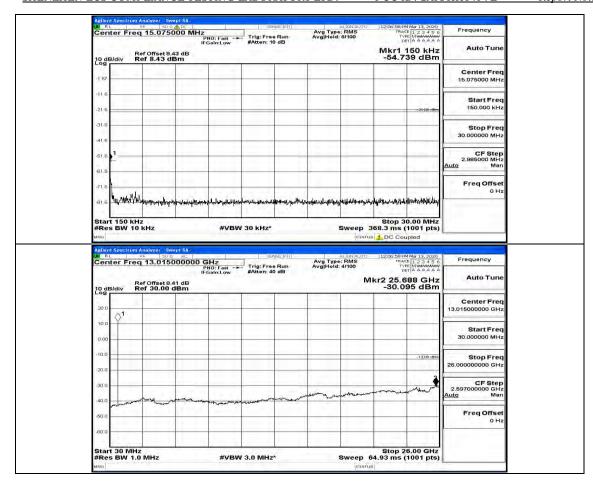


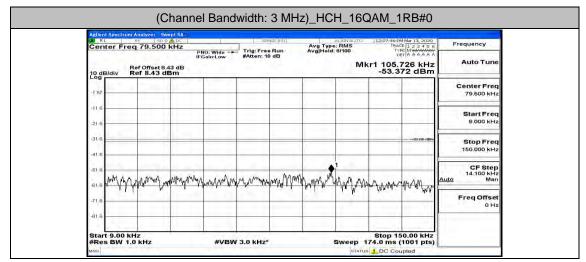












FCC ID: 2AIOHHT4P7L

Report No.: LCS191210087AEI

SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD.

Stop 26.00 GHz Sweep 64.93 ms (1001 pts)

Start 30 MHz #Res BW 1.0 MHz

#VBW 3.0 MHz\*