Appendix C: Test Data for E-UTRA Band 4

Product Name: 4G Mi-Fi Trade Mark: LOGIC, iSWAG, UNONU **Test Model: ML10**

Environmental Conditions

Temperature:	23.1° C
Relative Humidity:	53.6%
ATM Pressure:	100.0 kPa
Test Engineer:	DIAMOND.LU
Supervised by:	LI HUAN

C.1 Conducted Output Power

Conducted Output Power Test Result (Channel Bandwidth: 1.4 MHz)								
Modulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	Verdict		
Modulation	Channel	Size	Offset	QPSK	16QAM	verdict		
		1	0	23.46	22.59	PASS		
		1	3	23.37	22.65	PASS		
		1	5	23.20	22.52	PASS		
	LCH	3	0	23.30	22.52	PASS		
		3	2	23.23	22.44	PASS		
		3	3	23.14	22.34	PASS		
		6	0	22.61	21.54	PASS		
		1	0	22.79	22.13	PASS		
	MCH	1	3	22.77	22.03	PASS		
ODCK /		1	5	22.74	21.94	PASS		
QPSK / 16QAM		3	0	22.83	22.04	PASS		
IOQAIVI		3	2	22.82	21.89	PASS		
		3	3	22.72	21.70	PASS		
		6	0	21.72	20.60	PASS		
		1	0	23.58	22.41	PASS		
		1	3	24.09	22.61	PASS		
		1	5	23.64	22.54	PASS		
	HCH	3	0	23.69	22.60	PASS		
		3	2	23.86	22.61	PASS		
		3	3	23.84	22.36	PASS		
		6	0	22.59	21.84	PASS		

	Conducted Output Power Test Result (Channel Bandwidth: 3 MHz)								
Madulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	\/a.u.di.a.t			
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict			
		1	0	23.23	22.42	PASS			
		1	7	22.91	22.31	PASS			
		1	14	22.59	21.97	PASS			
	LCH	8	0	22.81	22.11	PASS			
		8	4	22.60	22.01	PASS			
		8	7	22.64	21.84	PASS			
		15	0	22.76	21.88	PASS			
		1	0	22.86	21.90	PASS			
	MCH	1	7	23.11	21.84	PASS			
ODCK /		1	14	22.83	21.66	PASS			
QPSK / 16QAM		8	0	21.83	20.69	PASS			
IOQAIVI		8	4	21.91	20.57	PASS			
		8	7	21.68	20.47	PASS			
		15	0	21.70	20.71	PASS			
		1	0	23.53	22.60	PASS			
		1	7	23.89	22.96	PASS			
		1	14	23.85	23.01	PASS			
	HCH	8	0	22.52	21.52	PASS			
		8	4	22.56	21.59	PASS			
		8	7	22.65	21.69	PASS			
		15	0	22.50	21.51	PASS			

Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)								
Modulation	Channal	RB Configuration		Average Power [dBm]	Average Power [dBm]	\/a nali a t		
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict		
		1	0	23.39	22.32	PASS		
		1	12	23.08	21.93	PASS		
		1	24	22.66	21.93	PASS		
	LCH	12	0	22.63	21.68	PASS		
		12	6	22.63	21.60	PASS		
		12	13	22.58	21.47	PASS		
		25	0	22.73	21.86	PASS		
		1	0	22.78	21.62	PASS		
	MCH	1	12	23.19	21.41	PASS		
QPSK /		1	24	23.39	21.61	PASS		
16QAM		12	0	21.83	20.83	PASS		
TOQAW		12	6	21.88	20.79	PASS		
		12	13	21.72	20.65	PASS		
		25	0	21.68	20.81	PASS		
		1	0	23.67	21.71	PASS		
		1	12	24.43	22.39	PASS		
		1	24	24.03	22.45	PASS		
	HCH	12	0	22.53	21.46	PASS		
		12	6	22.72	21.49	PASS		
		12	13	22.74	21.67	PASS		
		25	0	22.59	21.76	PASS		

Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)								
Madulation	Channal	RB Configuration		Average Power [dBm]	Average Power [dBm]	\/a ==li =4		
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict		
		1	0	22.37	21.54	PASS		
		1	24	22.45	21.95	PASS		
		1	49	22.44	21.83	PASS		
	LCH	25	0	22.28	21.38	PASS		
		25	12	22.42	21.52	PASS		
		25	25	22.43	21.56	PASS		
		50	0	22.34	21.47	PASS		
		1	0	22.19	21.56	PASS		
	МСН	1	24	23.10	22.49	PASS		
QPSK /		1	49	22.58	22.08	PASS		
16QAM		25	0	21.84	20.88	PASS		
TOQAW		25	12	21.92	20.85	PASS		
		25	25	21.69	20.78	PASS		
		50	0	21.73	20.81	PASS		
		1	0	22.67	21.99	PASS		
		1	24	23.75	23.12	PASS		
		1	49	24.00	23.36	PASS		
	HCH	25	0	22.37	21.30	PASS		
		25	12	22.60	21.60	PASS		
		25	25	22.69	21.75	PASS		
		50	0	22.41	21.48	PASS		

	Conducted Output Power Test Result (Channel Bandwidth: 15 MHz)								
Madulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	\/andiat			
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict			
		1	0	22.24	21.53	PASS			
		1	37	22.97	22.36	PASS			
		1	74	22.83	22.19	PASS			
	LCH	37	0	22.28	21.37	PASS			
		37	18	22.79	21.89	PASS			
		37	38	23.13	22.11	PASS			
		75	0	22.66	21.79	PASS			
		1	0	22.36	21.83	PASS			
	мсн	1	37	22.94	22.39	PASS			
QPSK /		1	74	23.01	22.68	PASS			
16QAM		37	0	22.02	21.18	PASS			
IOQAIVI		37	18	21.95	20.94	PASS			
		37	38	21.68	20.76	PASS			
		75	0	21.89	21.02	PASS			
		1	0	23.08	21.76	PASS			
		1	37	23.17	22.46	PASS			
		1	74	23.69	23.03	PASS			
	HCH	37	0	22.03	21.09	PASS			
		37	18	22.40	21.46	PASS			
		37	38	22.69	21.80	PASS			
		75	0	22.42	21.43	PASS			

	Conducted Output Power Test Result (Channel Bandwidth: 20 MHz)								
Modulation	Channel		figuration	Average Power [dBm]	Average Power [dBm]	Verdict			
		Size	Offset	QPSK	16QAM				
		1	0	21.80	20.97	PASS			
		1	49	23.49	22.71	PASS			
		1	99	21.66	20.84	PASS			
	LCH	50	0	22.23	21.30	PASS			
		50	25	23.09	22.17	PASS			
		50	50	22.61	21.53	PASS			
		100	0	22.57	21.65	PASS			
		1	0	22.54	21.50	PASS			
	MCH	1	49	18.94	20.72	PASS			
QPSK /		1	99	18.74	21.22	PASS			
16QAM		50	0	22.23	21.25	PASS			
TOQAM		50	25	21.99	21.00	PASS			
		50	50	21.77	20.87	PASS			
		100	0	22.00	20.91	PASS			
		1	0	22.72	21.53	PASS			
		1	49	23.16	22.03	PASS			
		1	99	23.34	22.64	PASS			
	HCH	50	0	21.87	20.94	PASS			
		50	25	22.14	21.13	PASS			
		50	50	22.49	21.39	PASS			
		100	0	22.13	21.17	PASS			

C.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	5.21	<13	PASS			
QPSK	MCH	5.33	<13	PASS			
	HCH	5.18	<13	PASS			
	LCH	6.1	<13	PASS			
16QAM	MCH	6.17	<13	PASS			
	HCH	6.02	<13	PASS			

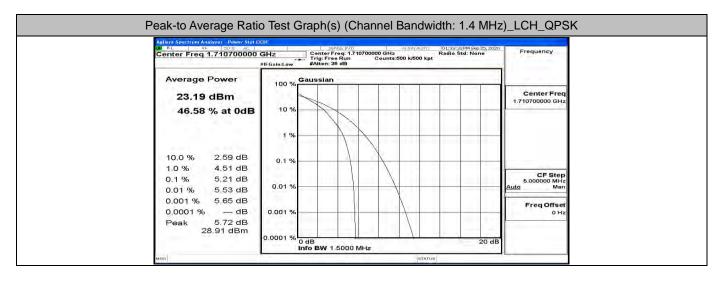
Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict			
Modulation	Charmer	[dB]	[dB]	verdict			
QPSK	LCH	5.3	<13	PASS			
	MCH	5.34	<13	PASS			
	HCH	5.23	<13	PASS			
	LCH	6.21	<13	PASS			
16QAM	MCH	6.1	<13	PASS			
	HCH	6.13	<13	PASS			

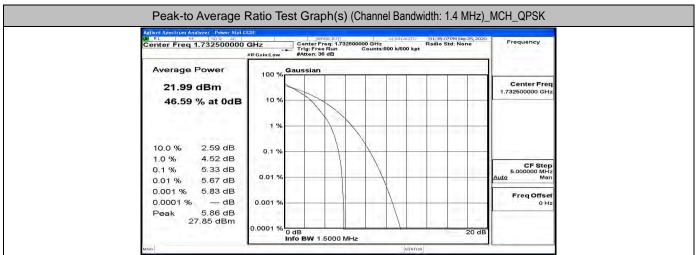
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict		
iviodulation	Griannei	[dB]	[dB]	verdict		
	LCH	5.31	<13	PASS		
QPSK	MCH	4.43	<13	PASS		
	HCH	5.59	<13	PASS		
	LCH	6.02	<13	PASS		
16QAM	MCH	5.28	<13	PASS		
	HCH	6.3	<13	PASS		

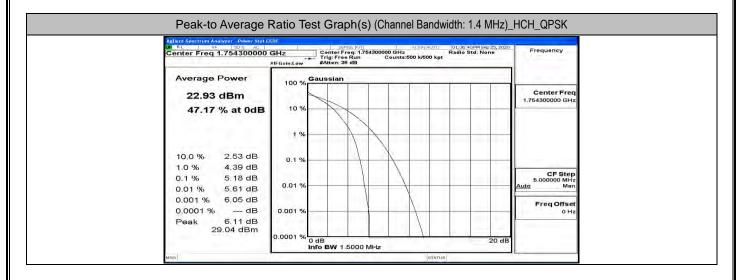
Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict			
Modulation	Griannei	[dB]	[dB]	verdict			
	LCH	5.44	<13	PASS			
QPSK	MCH	4.64	<13	PASS			
	HCH	5.6	<13	PASS			
	LCH	6.14	<13	PASS			
16QAM	MCH	5.42	<13	PASS			
	HCH	6.33	<13	PASS			

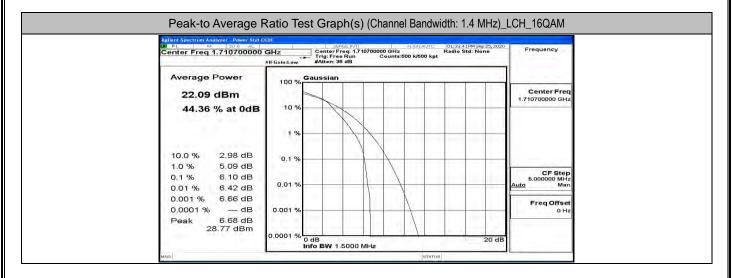
Peak-to Average Ratio Test Result (Channel Bandwidth: 15 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Vardiet			
Modulation	Chamer	[dB]	[dB]	Verdict			
	LCH	5.12	<13	PASS			
QPSK	MCH	4.89	<13	PASS			
	HCH	5.09	<13	PASS			
	LCH	6.28	<13	PASS			
16QAM	MCH	5.96	<13	PASS			
	HCH	6.26	<13	PASS			

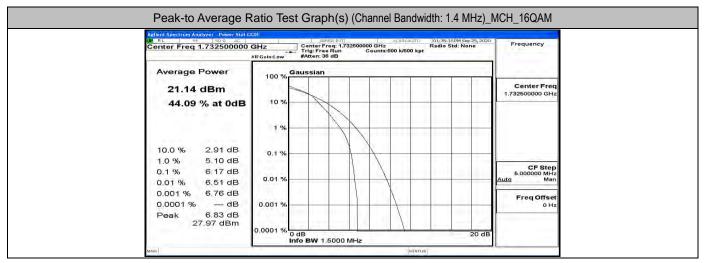
Peak-to Average Ratio Test Result (Channel Bandwidth: 20 MHz)					
Mandada Gara	Channel	Peak-to-Average Ratio	Limit	Verdict	
Modulation		[dB]	[dB]	verdict	
QPSK	LCH	5.84	<13	PASS	
	MCH	5.72	<13	PASS	
	HCH	5.82	<13	PASS	
16QAM	LCH	6.79	<13	PASS	
	MCH	6.55	<13	PASS	
	HCH	6.66	<13	PASS	

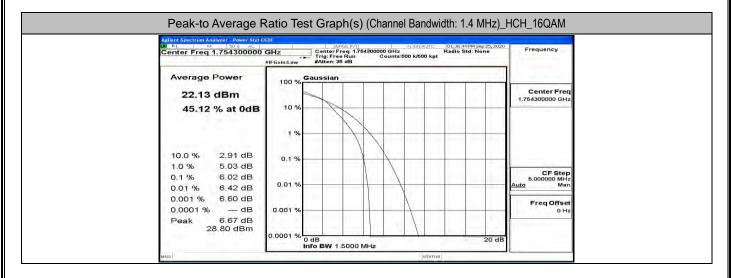


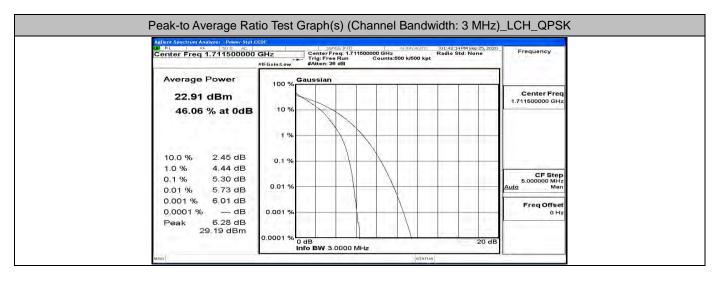


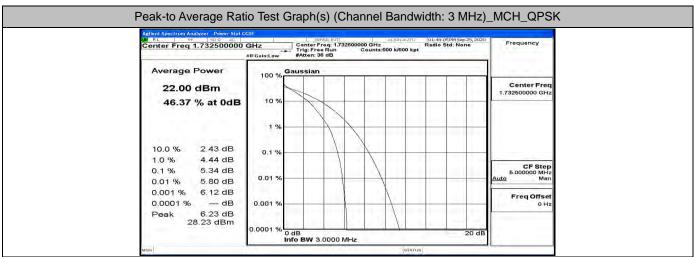


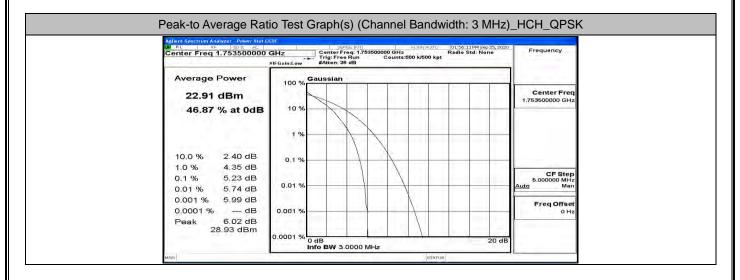


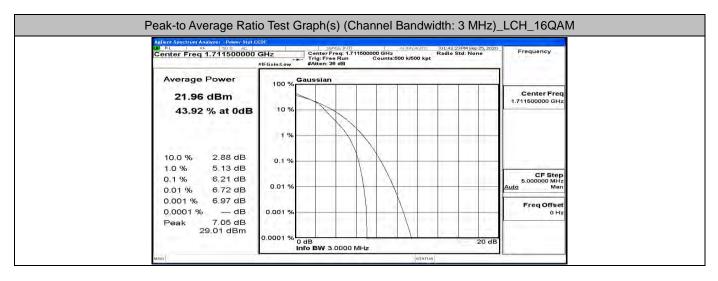


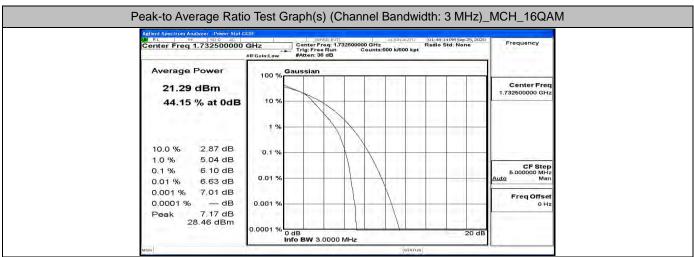


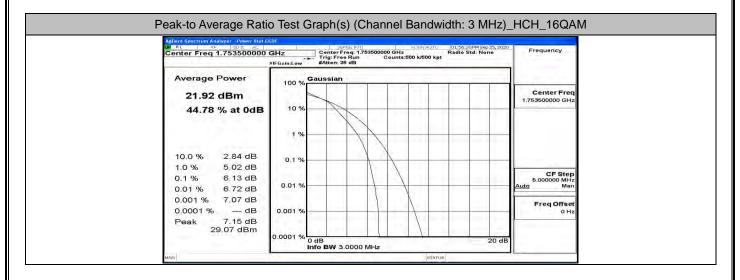


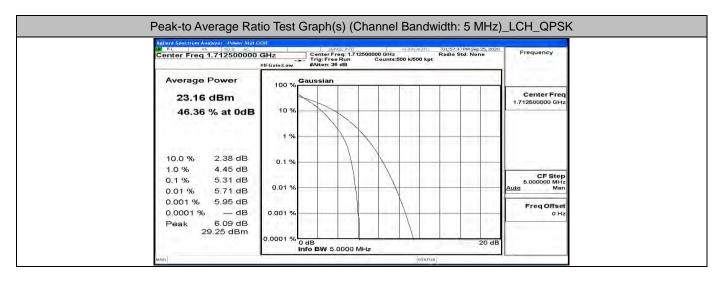


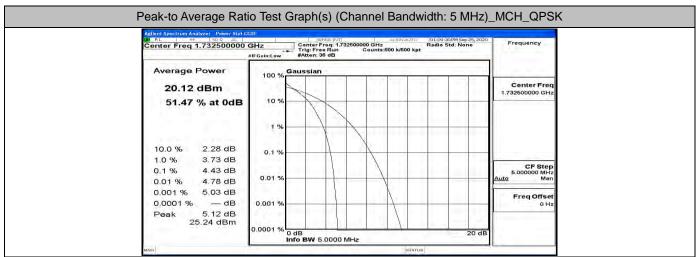


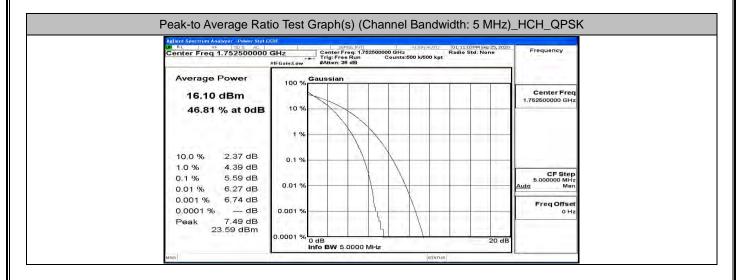


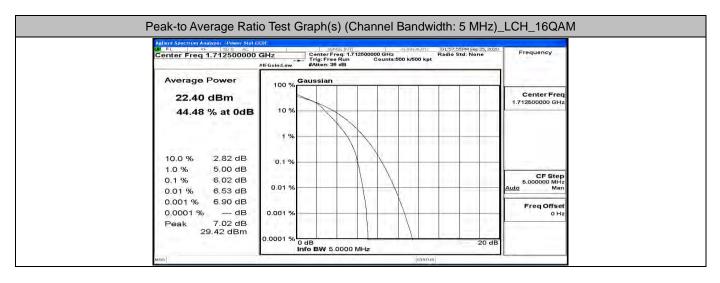


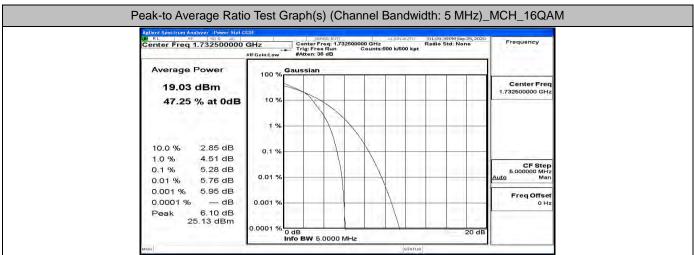


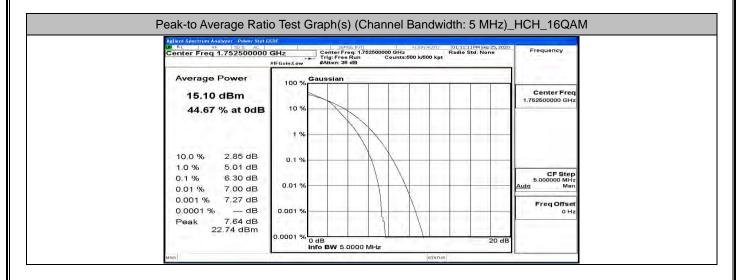




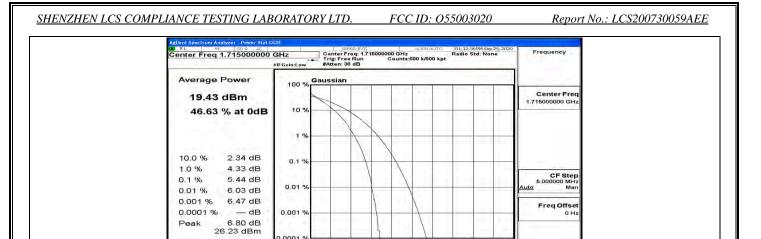








Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK

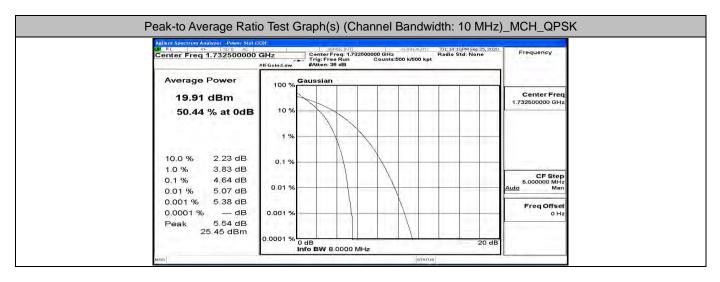


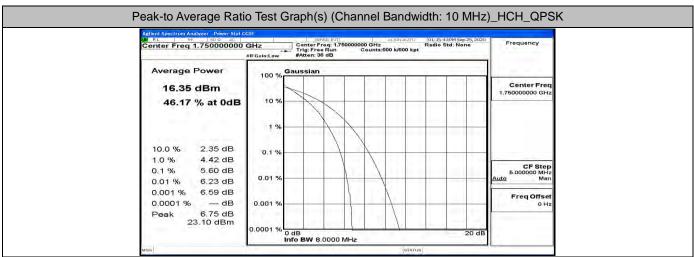
20 dB

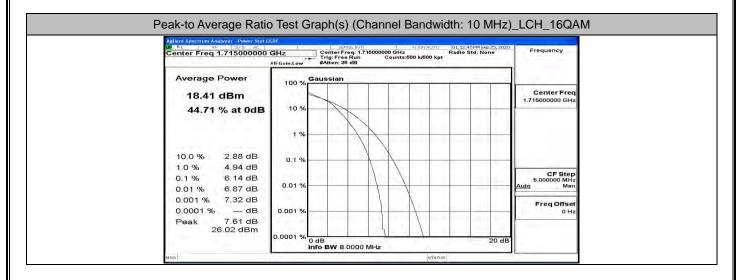
Peak

0.0001 %

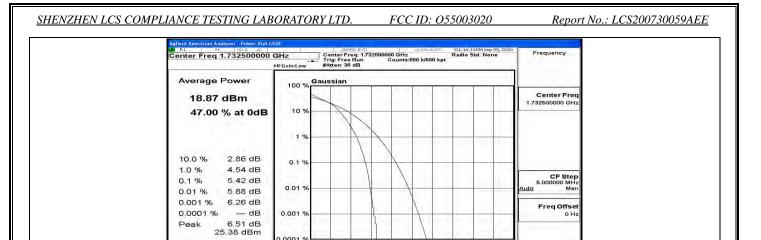
0 dB Info BW 8.0000 MHz







Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM



20 dB

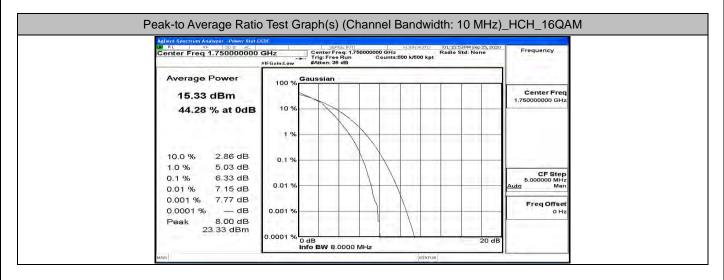
0.0001 %

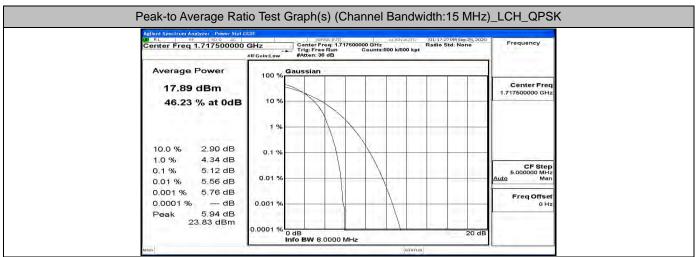
Peak

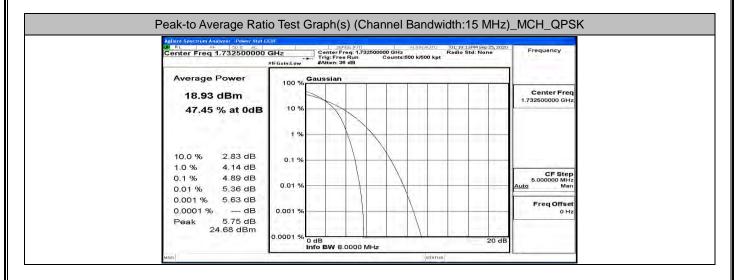
0.001 %

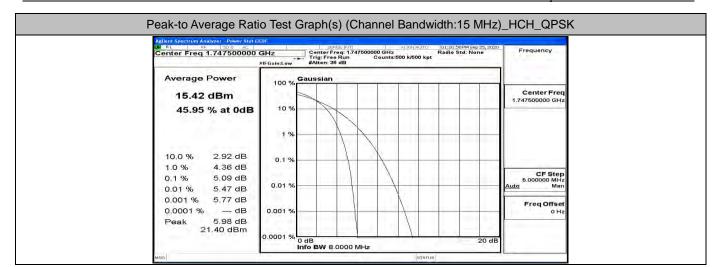
0.0001 %

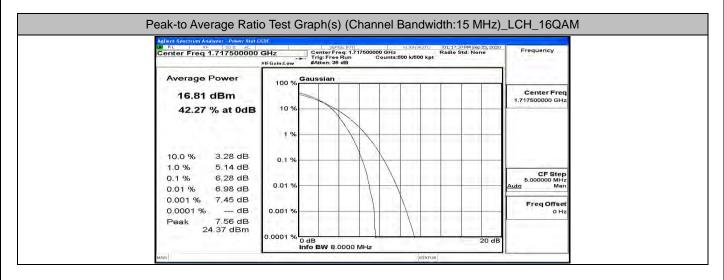
0 dB Info BW 8.0000 MHz

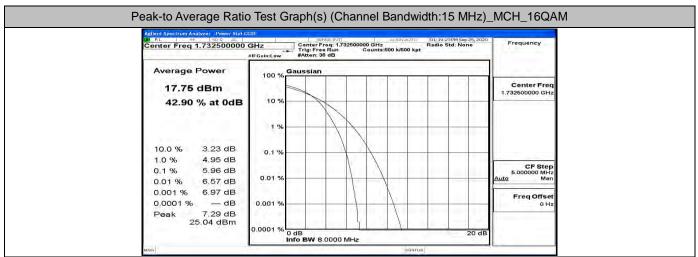


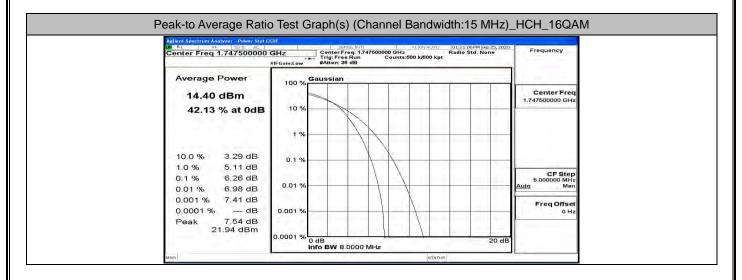


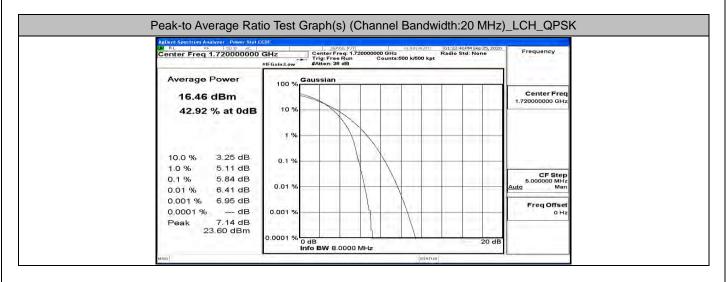


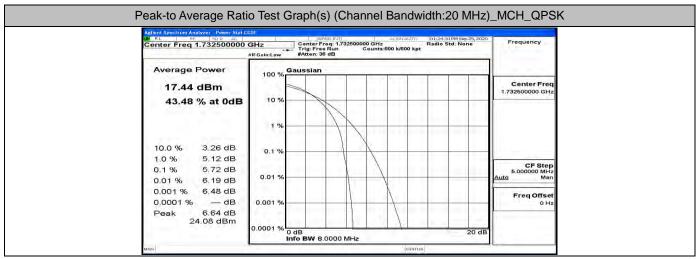


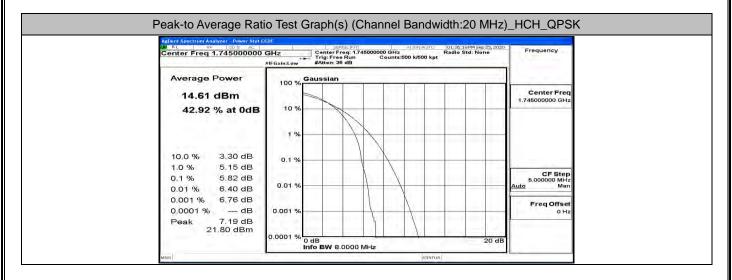


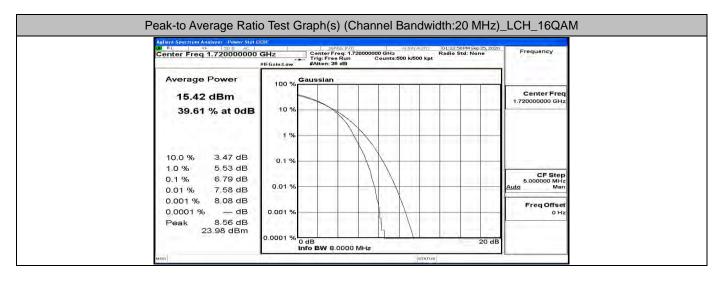


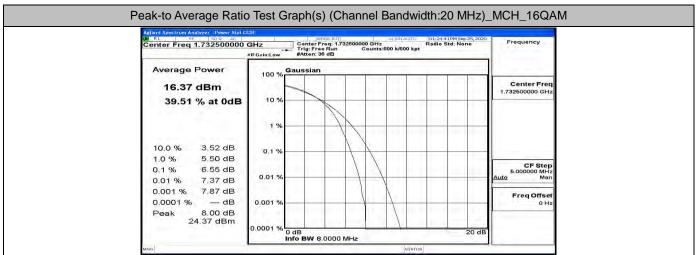


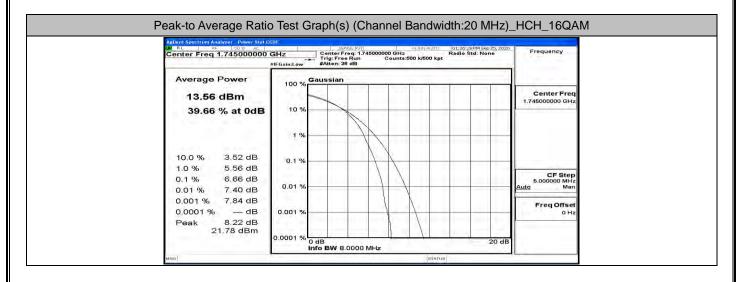












C.3 26dB Bandwidth and Occupied Bandwidth

EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	1.0766	1.240	PASS
	MCH	1.0743	1.242	PASS
	HCH	1.0782	1.239	PASS
16QAM	LCH	1.0772	1.241	PASS
	MCH	1.0796	1.235	PASS
	HCH	1.0770	1.238	PASS

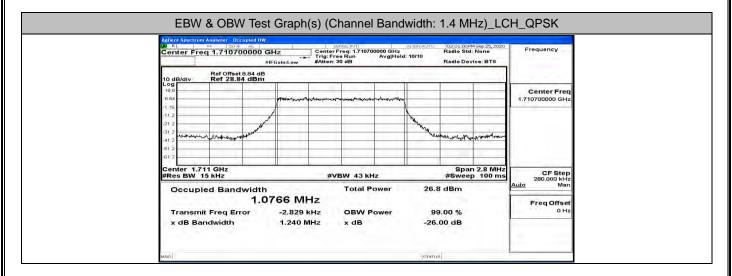
EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
		(MHz)	(MHz)	
QPSK	LCH	2.6798	2.843	PASS
	MCH	2.6808	2.912	PASS
	HCH	2.6826	2.879	PASS
16QAM	LCH	2.6805	2.878	PASS
	MCH	2.6908	2.880	PASS
	HCH	2.6844	2.893	PASS

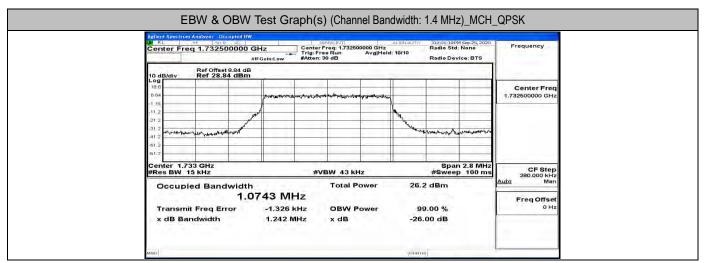
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
		(MHz)	(MHz)	
QPSK	LCH	4.4761	4.785	PASS
	MCH	4.4789	4.786	PASS
	HCH	4.4701	4.786	PASS
16QAM	LCH	4.4842	4.772	PASS
	MCH	4.4699	4.803	PASS
	HCH	4.4663	4.776	PASS

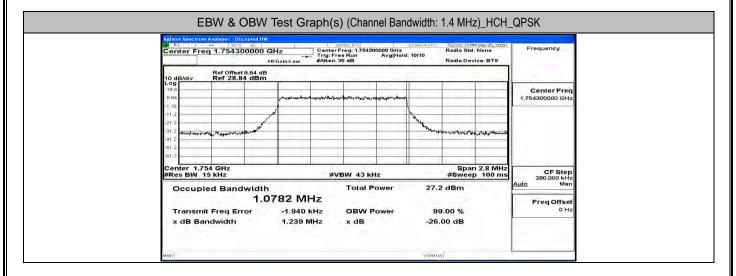
EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9309	9.510	PASS
	MCH	8.9225	9.432	PASS
	HCH	8.9394	9.423	PASS
16QAM	LCH	8.9310	9.509	PASS
	MCH	8.9300	9.477	PASS
	HCH	8.9168	9.390	PASS

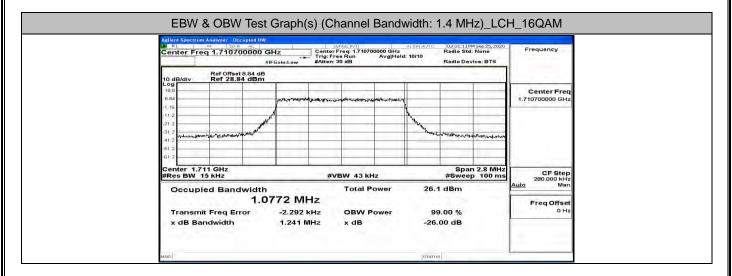
EBW & OBW Test Result (Channel Bandwidth: 15 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
		(MHz)	(MHz)	
QPSK	LCH	13.390	14.05	PASS
	MCH	13.378	13.98	PASS
	HCH	13.405	14.18	PASS
16QAM	LCH	13.381	13.99	PASS
	MCH	13.407	14.09	PASS
	HCH	13.408	14.09	PASS

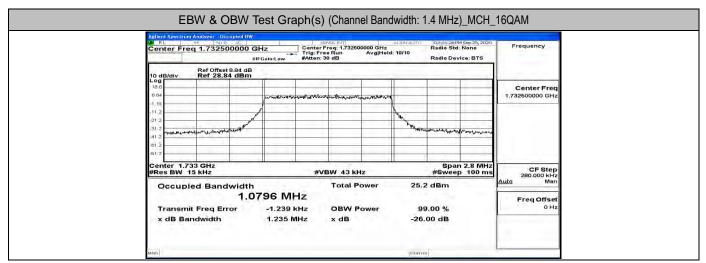
EBW & OBW Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
		(MHz)	(MHz)	
QPSK	LCH	17.810	18.57	PASS
	MCH	17.830	18.60	PASS
	HCH	17.858	18.61	PASS
16QAM	LCH	17.797	18.53	PASS
	MCH	17.830	18.56	PASS
	HCH	17.837	18.62	PASS

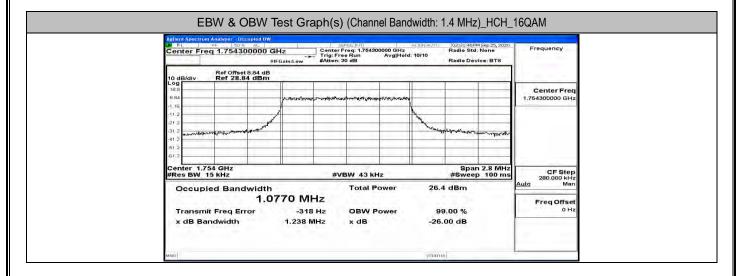


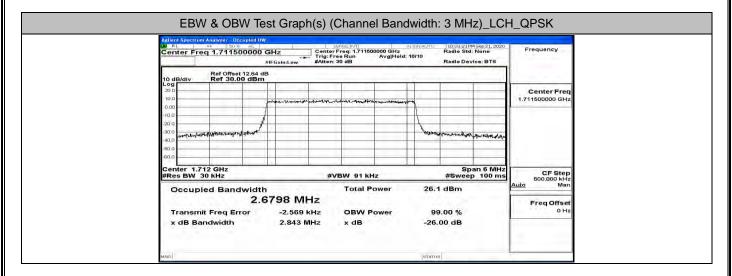


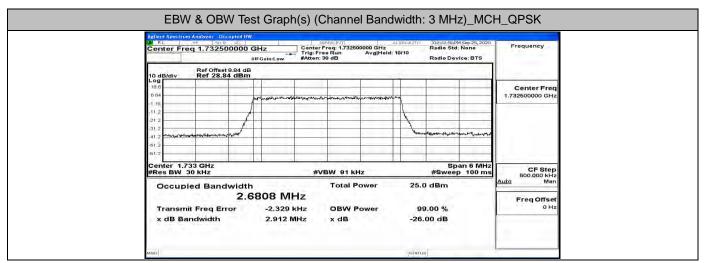


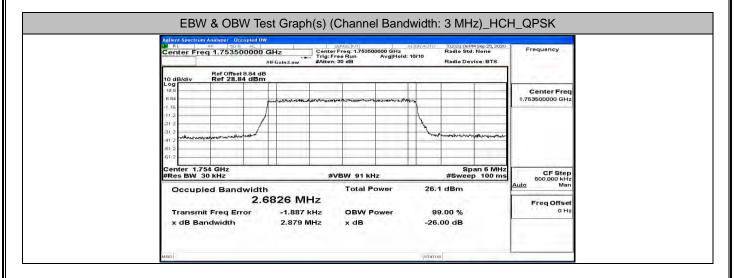


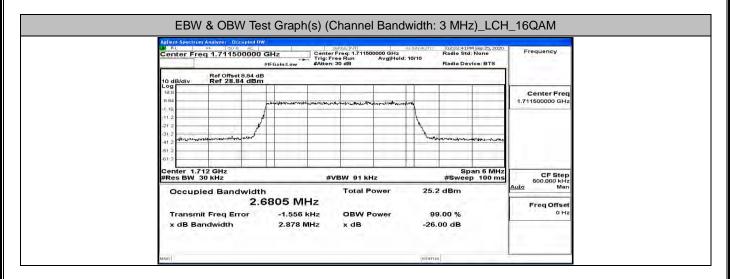


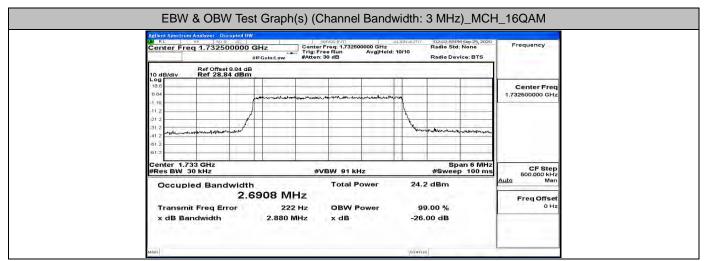


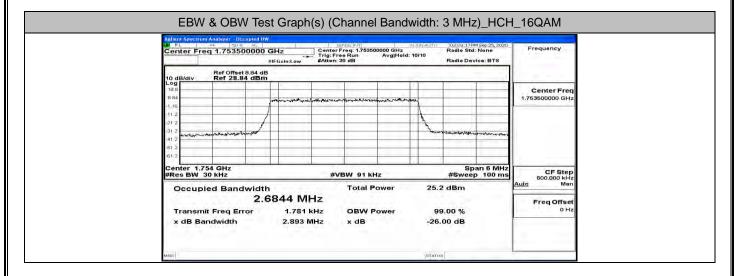


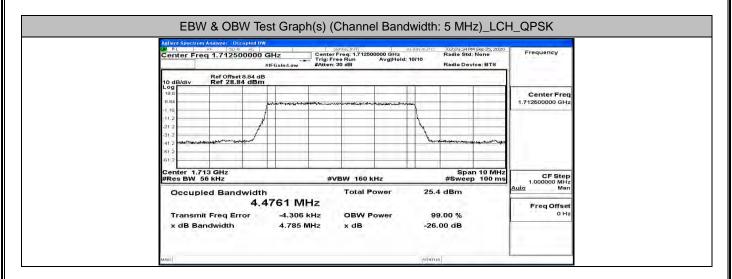


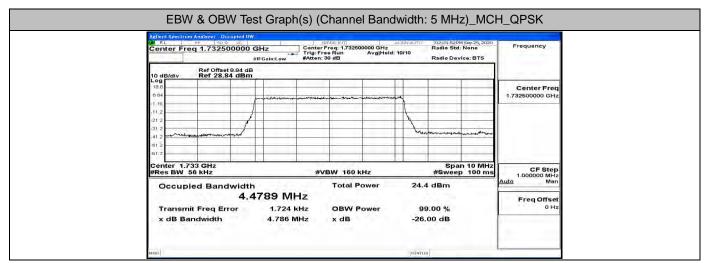


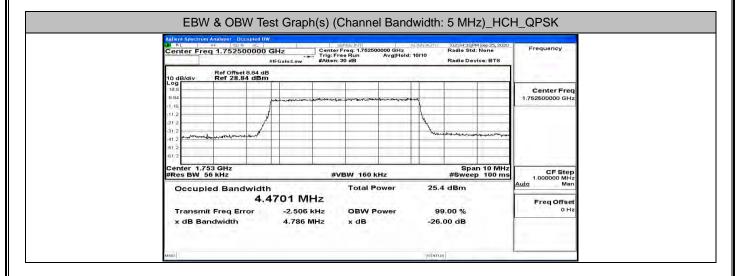


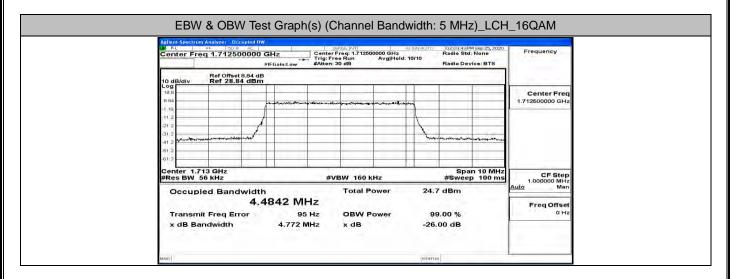


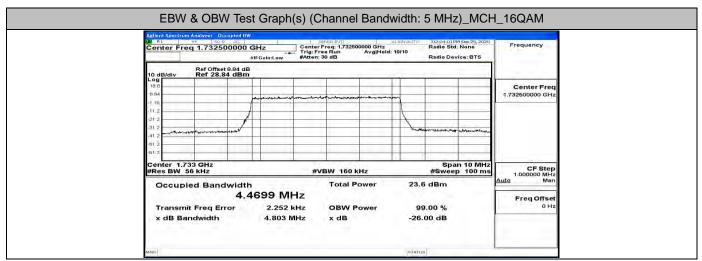


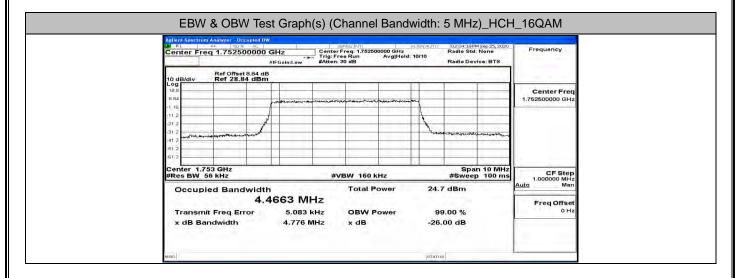


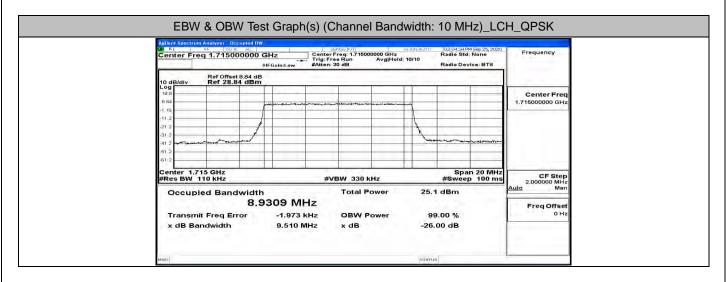


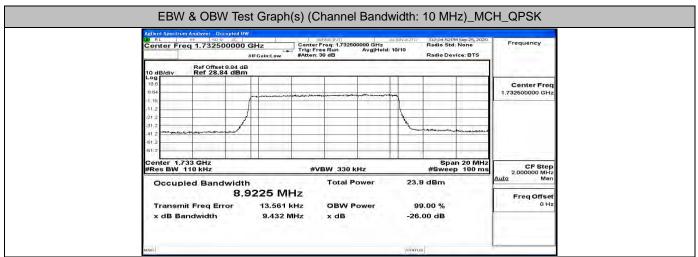


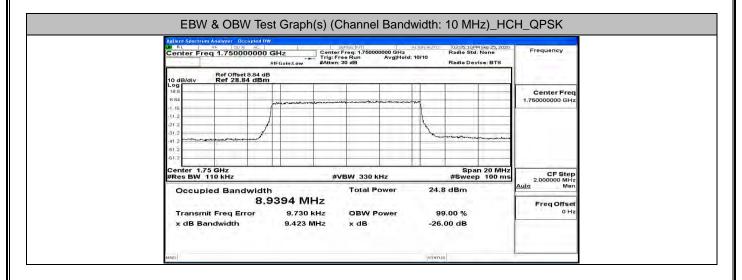


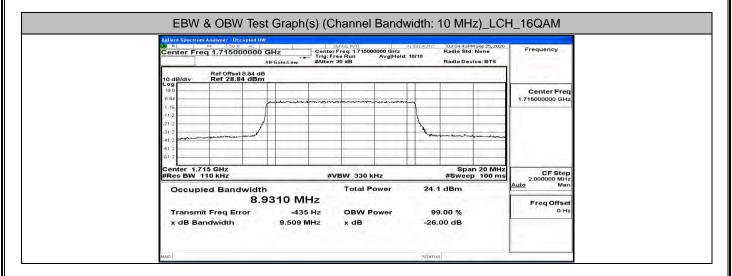


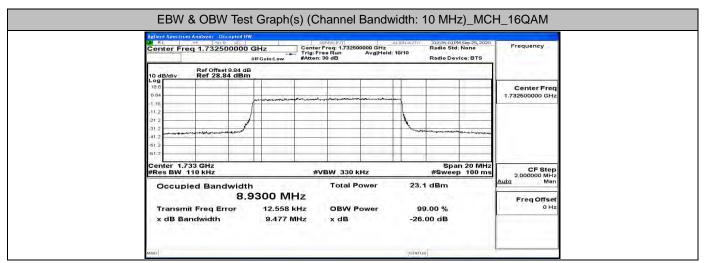


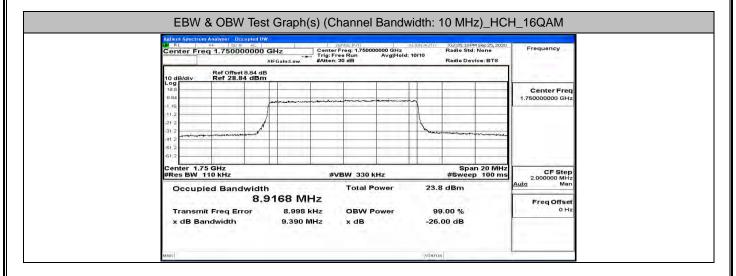


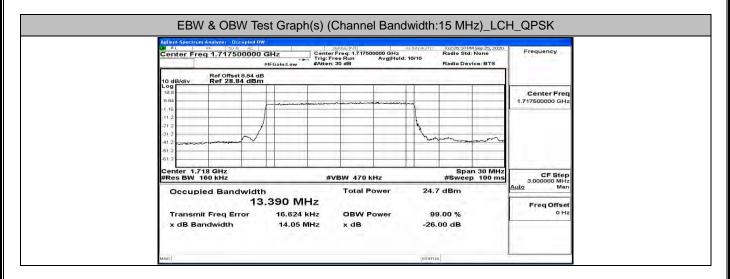


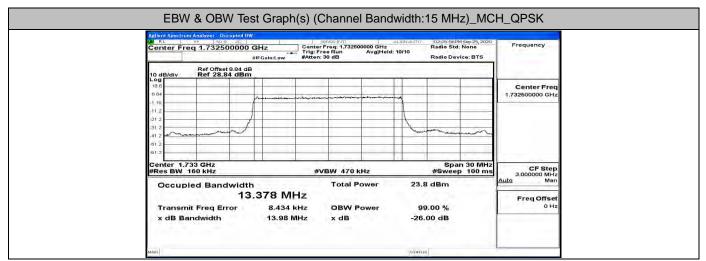


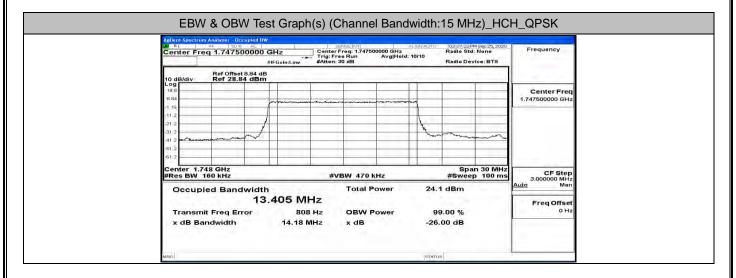


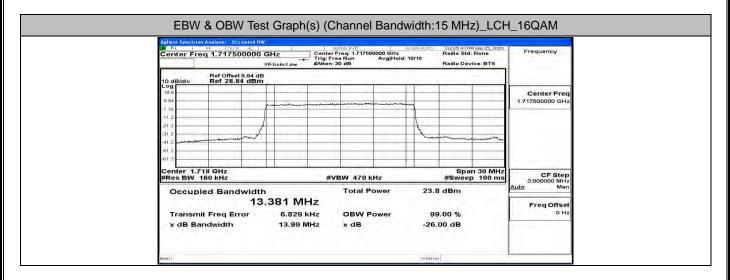


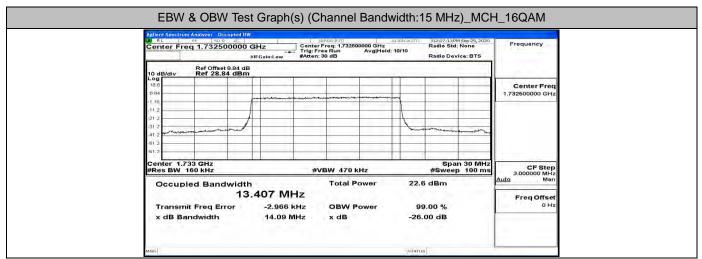


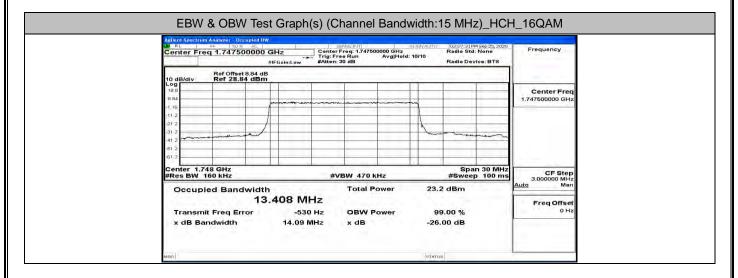


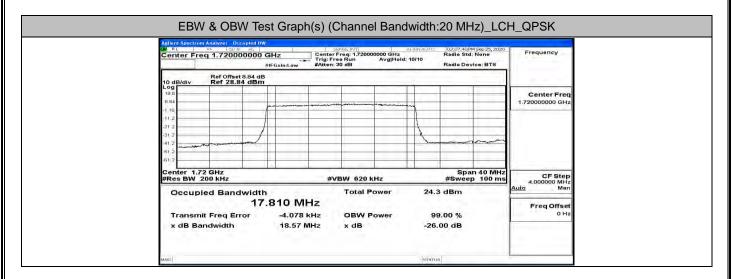


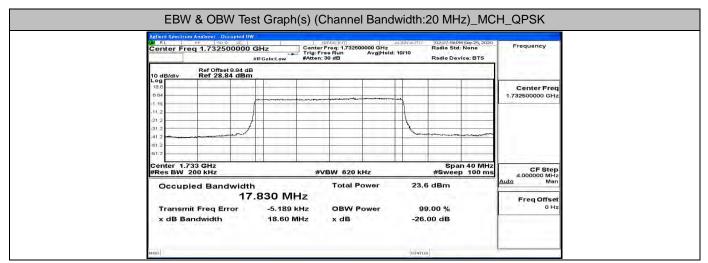


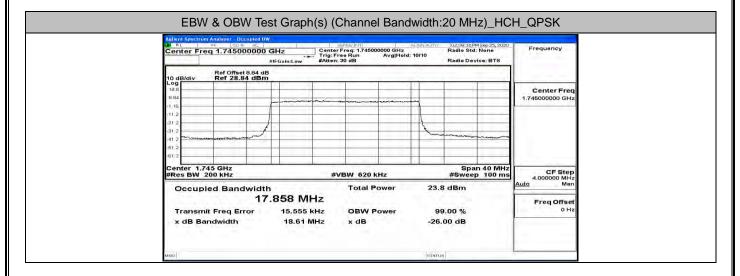


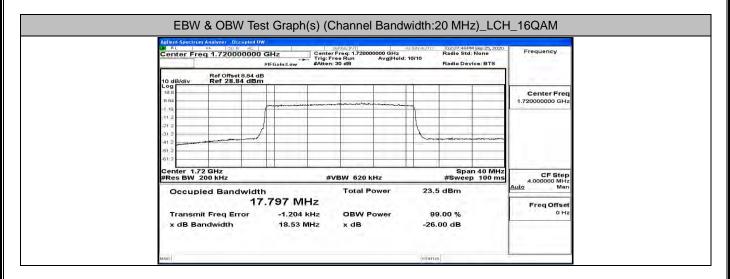


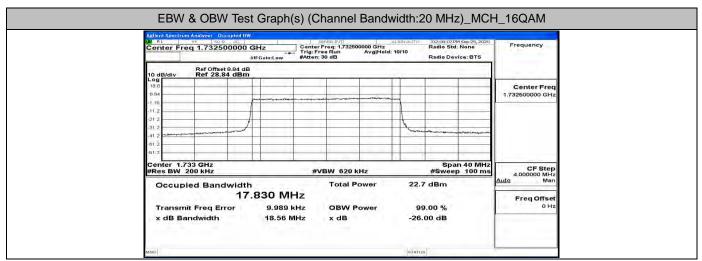


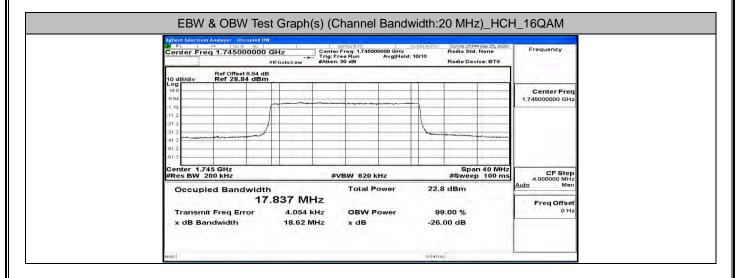




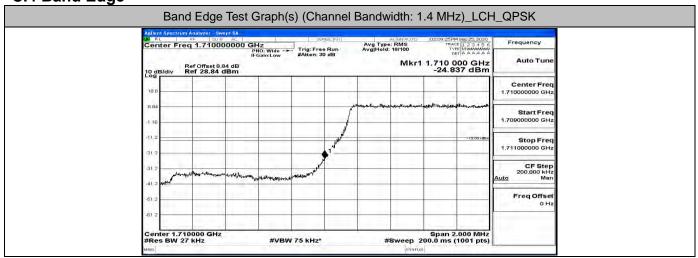


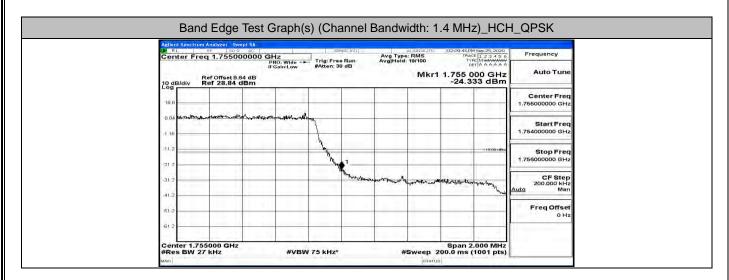


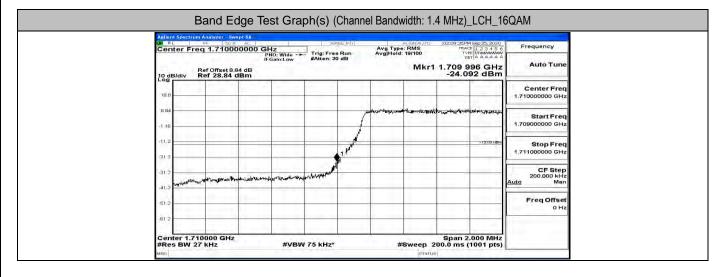


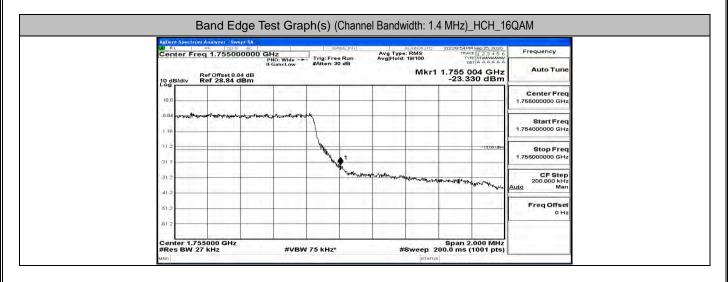


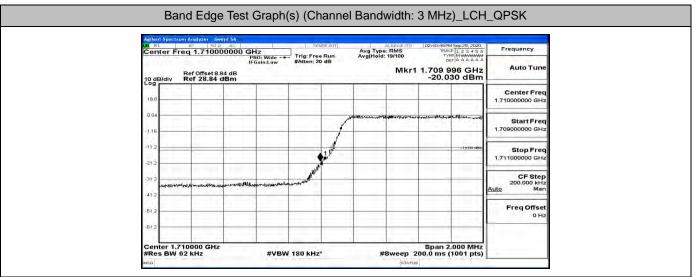
C.4 Band Edge

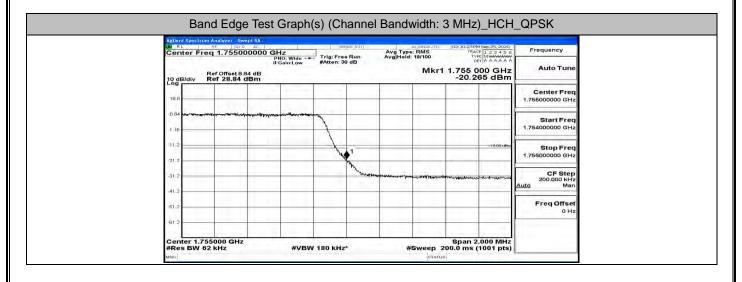


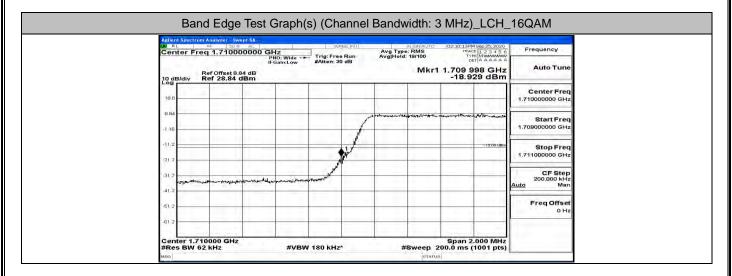


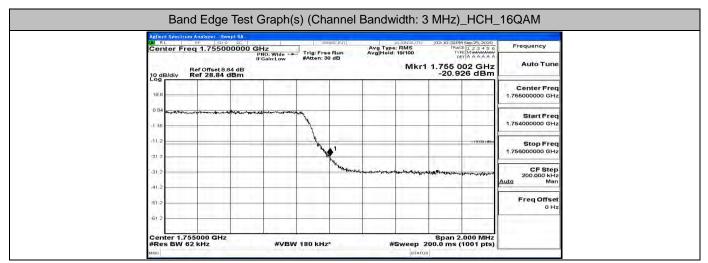


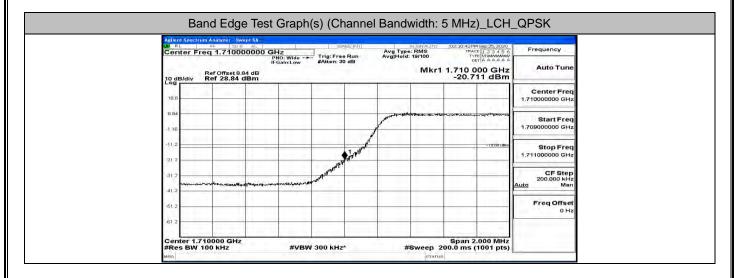


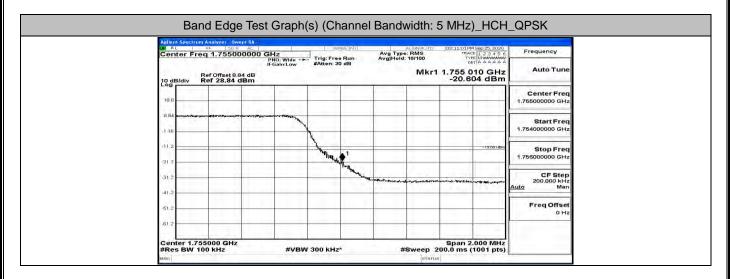


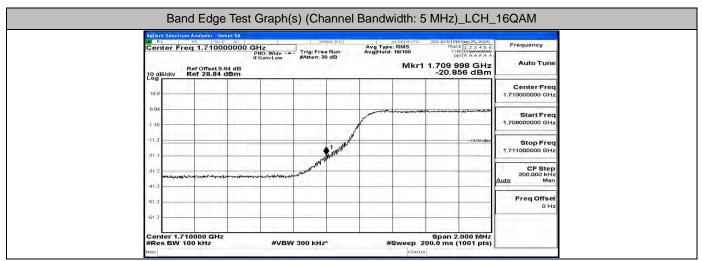


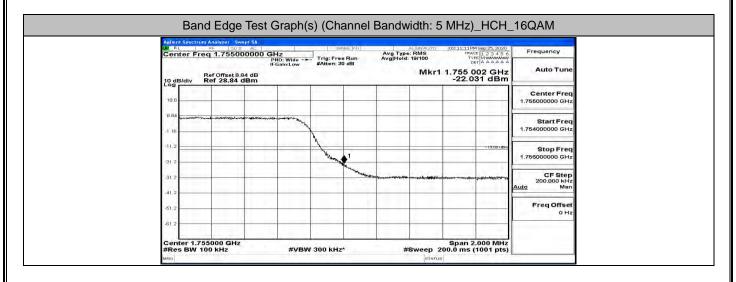




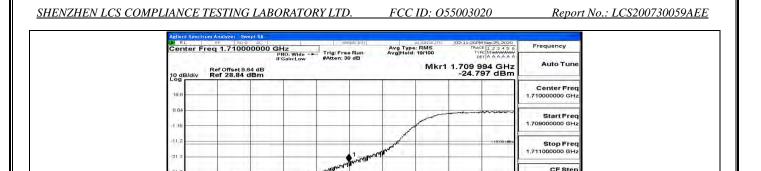








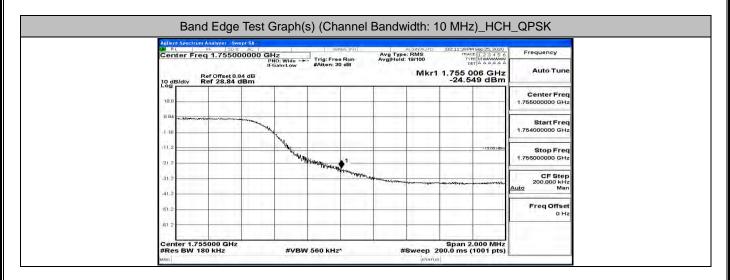
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK

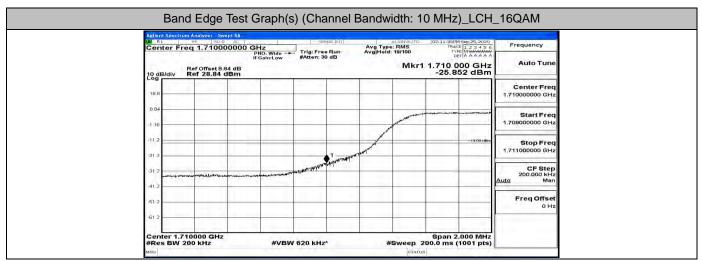


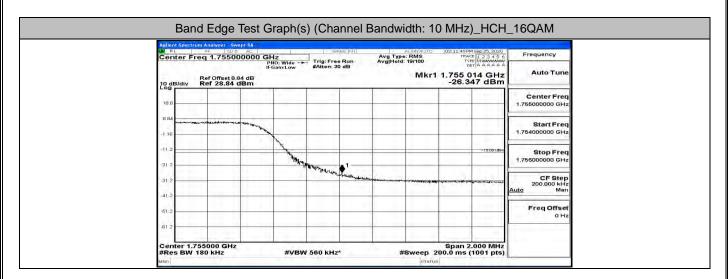
#VBW 620 kHz*

Center 1.710000 GHz #Res BW 200 kHz Freq Offset

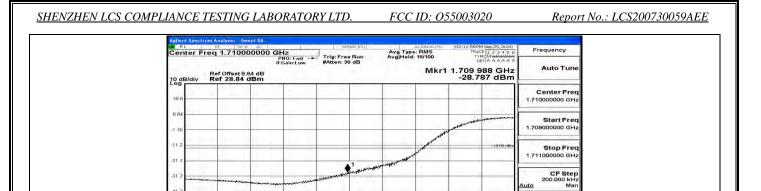
Span 2.000 MHz #Sweep 200.0 ms (1001 pts)







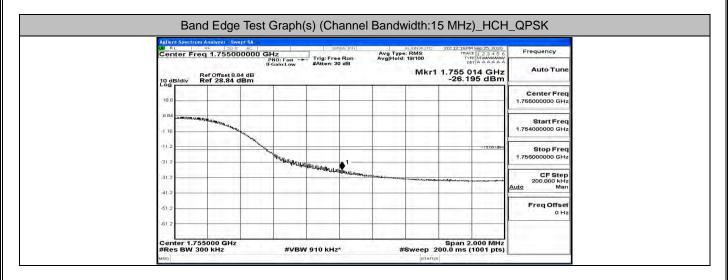
Band Edge Test Graph(s) (Channel Bandwidth:15 MHz)_LCH_QPSK

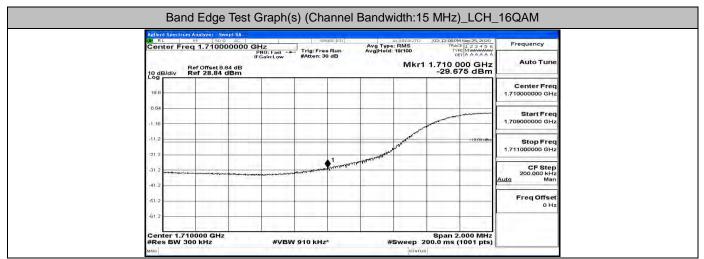


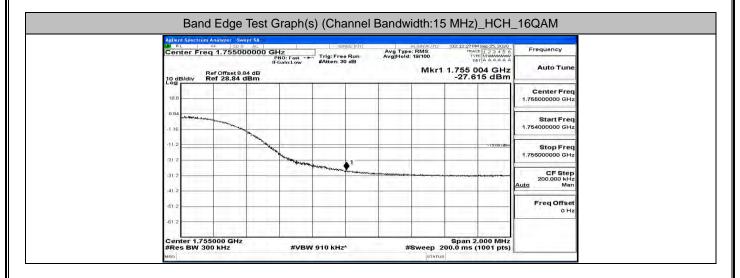
#VBW 910 kHz*

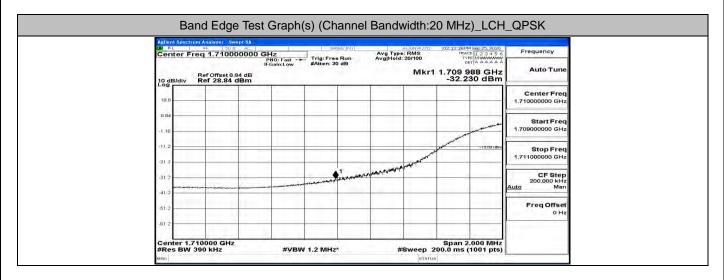
Center 1.710000 GHz #Res BW 300 kHz Freq Offset

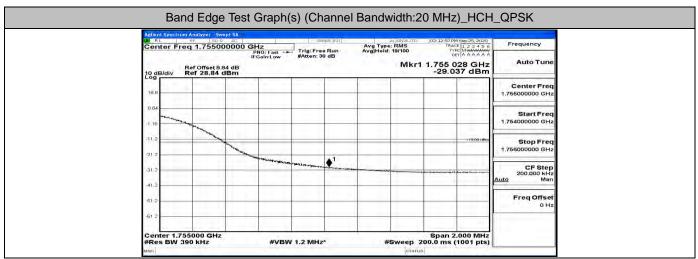
Span 2.000 MHz #Sweep 200.0 ms (1001 pts)

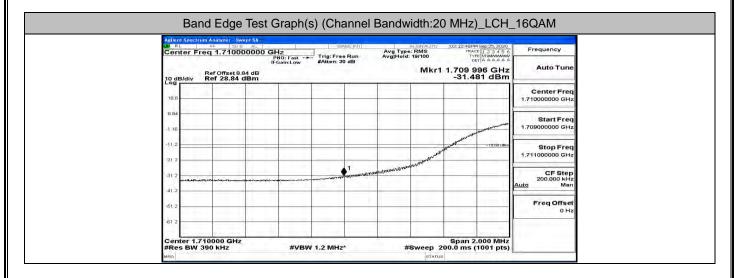


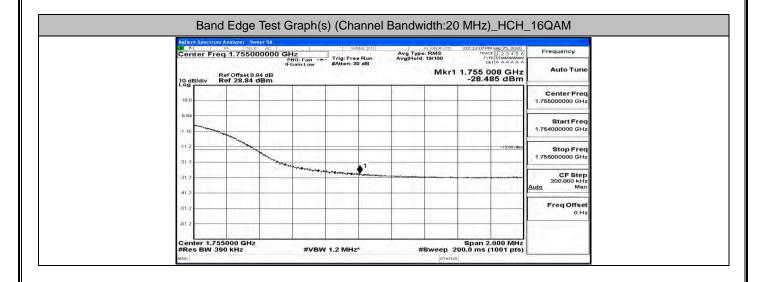






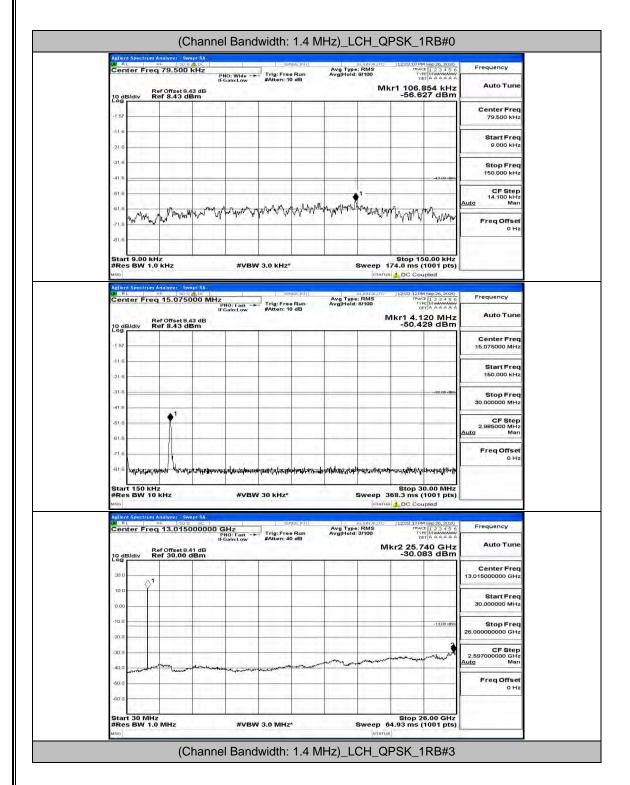


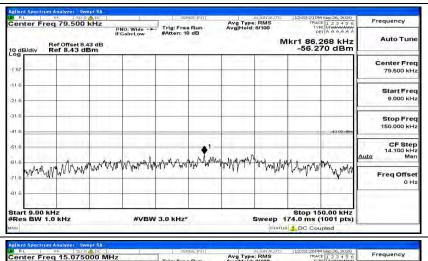


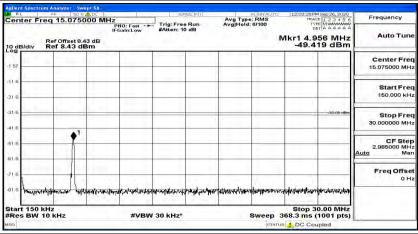


C.5 Conducted Spurious Emission

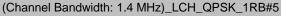
Channel Bandwidth: 1.4 MHz

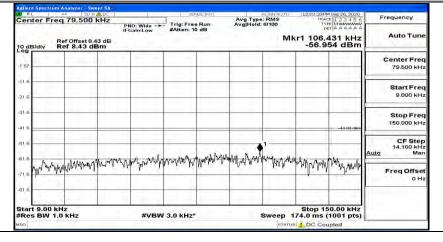


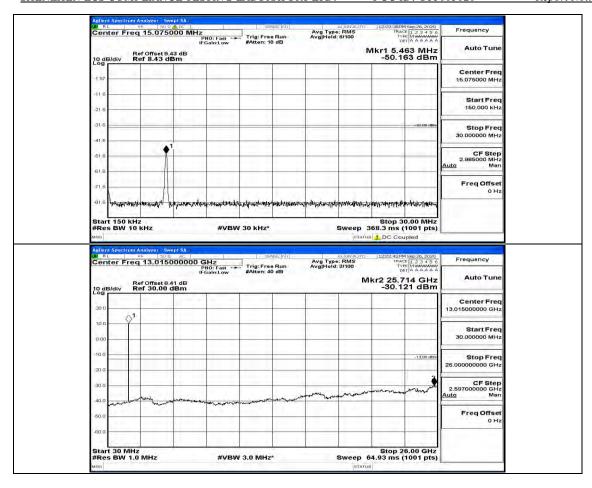


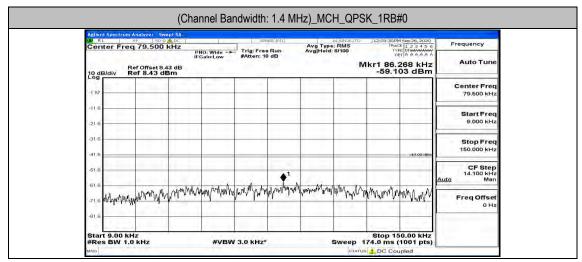


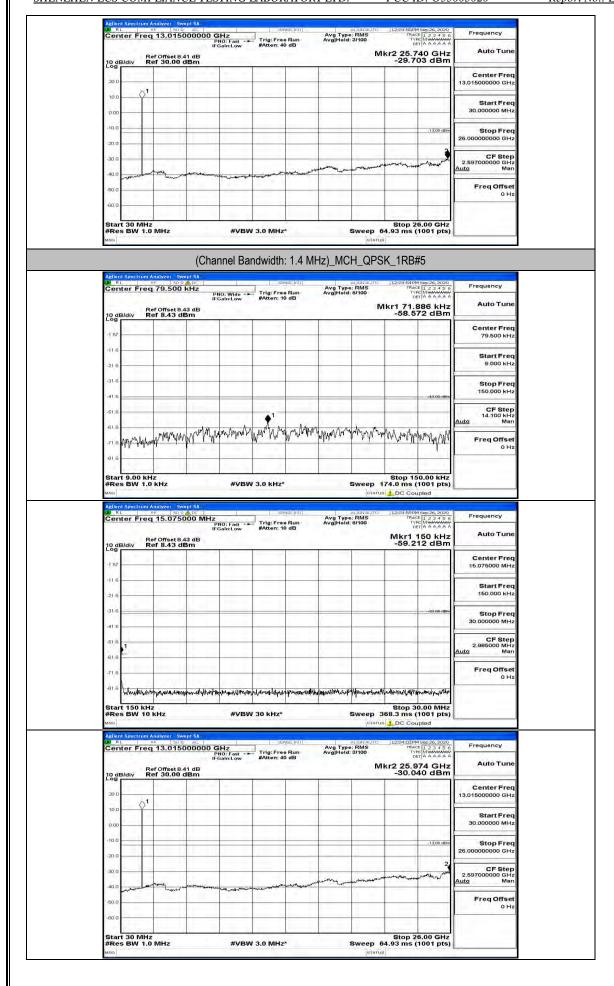


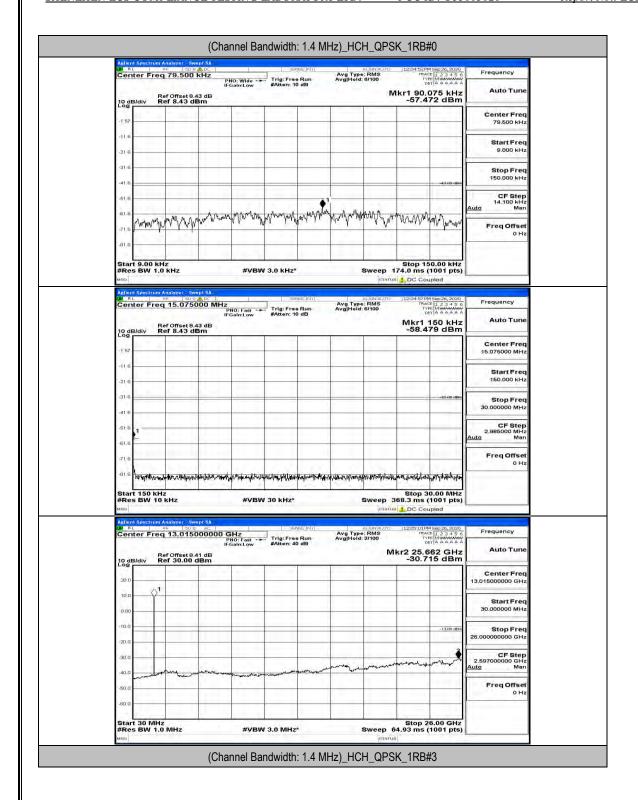




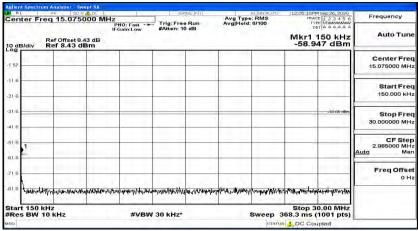




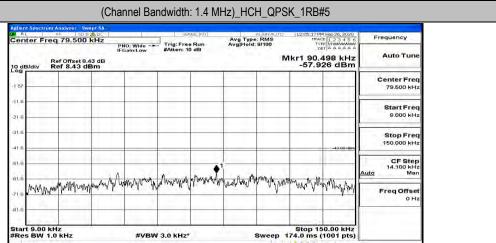


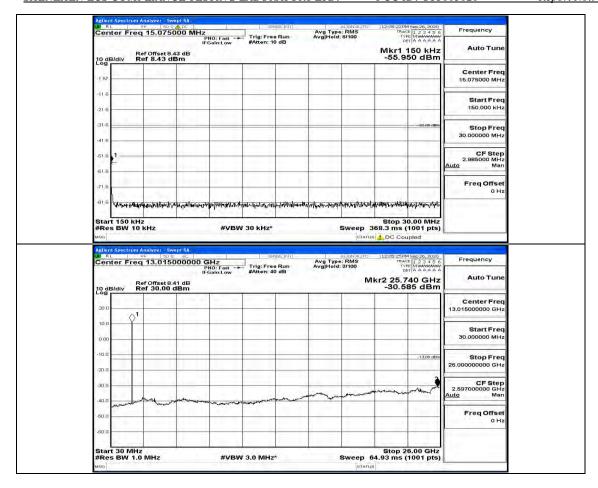


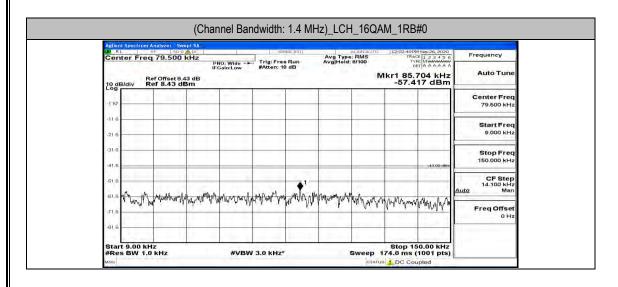


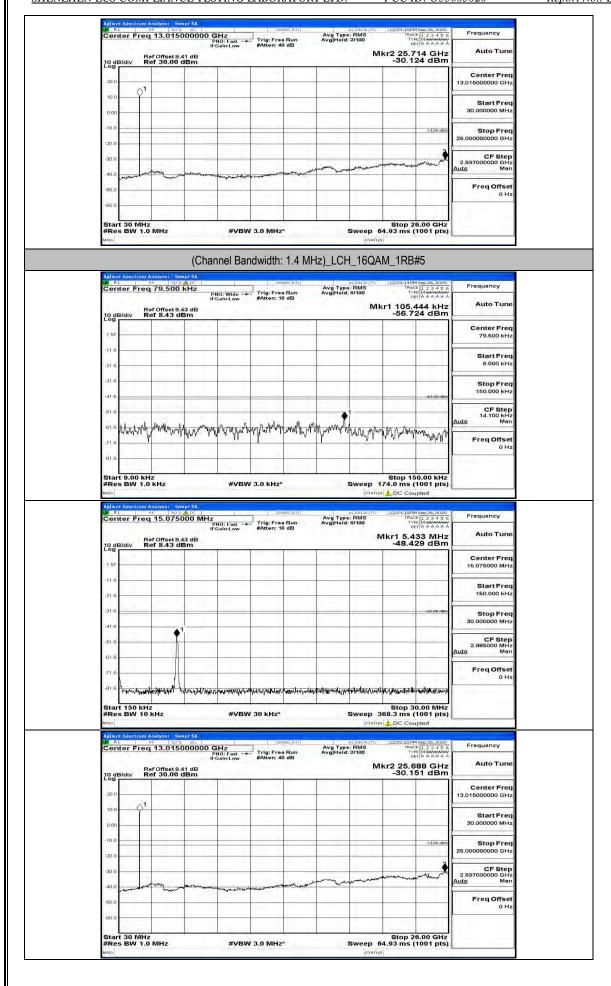


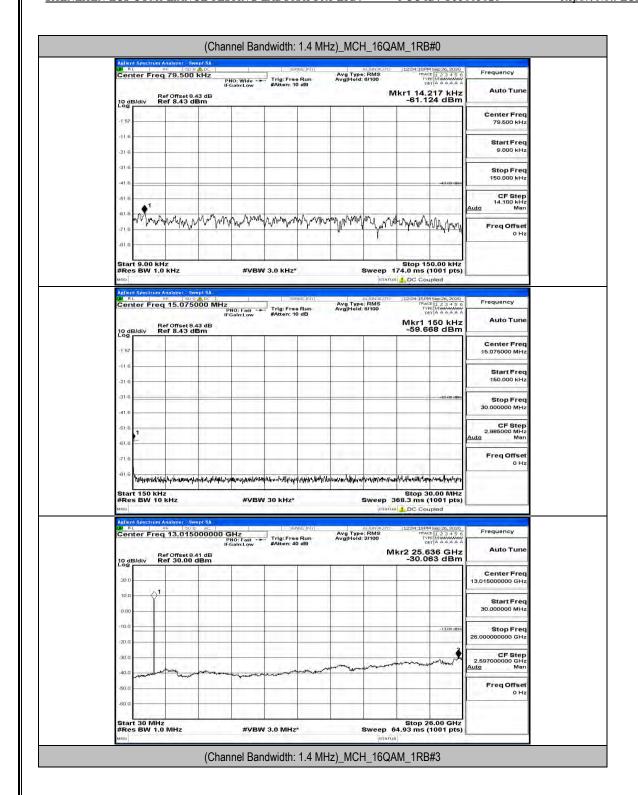






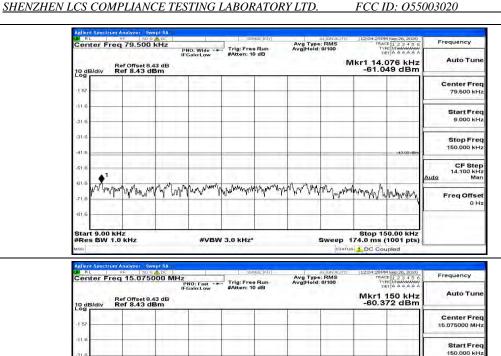


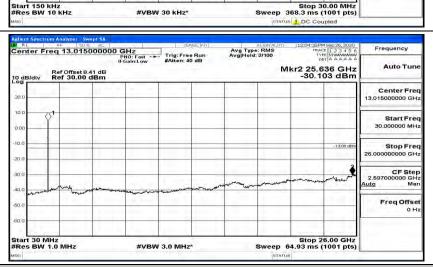




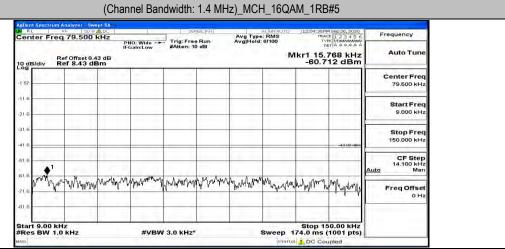
Stop Fre 30.000000 MH 2.985000 MHz

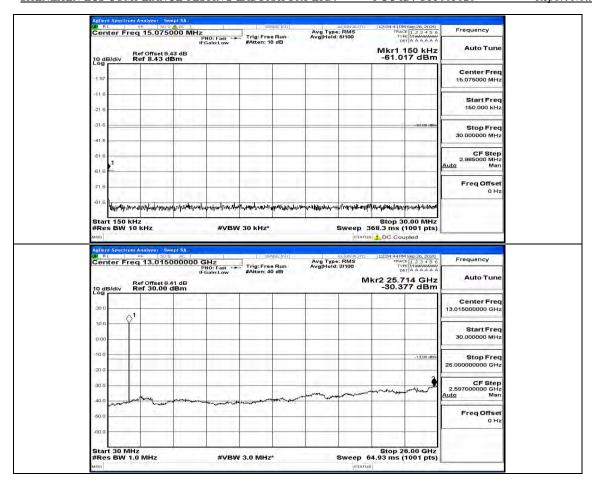
Freq Offset

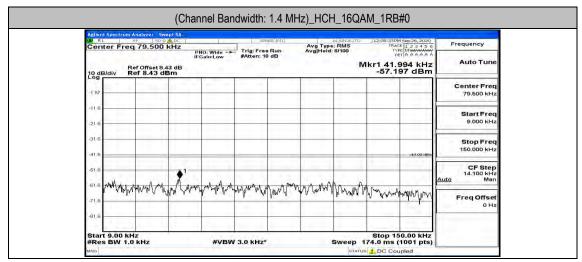


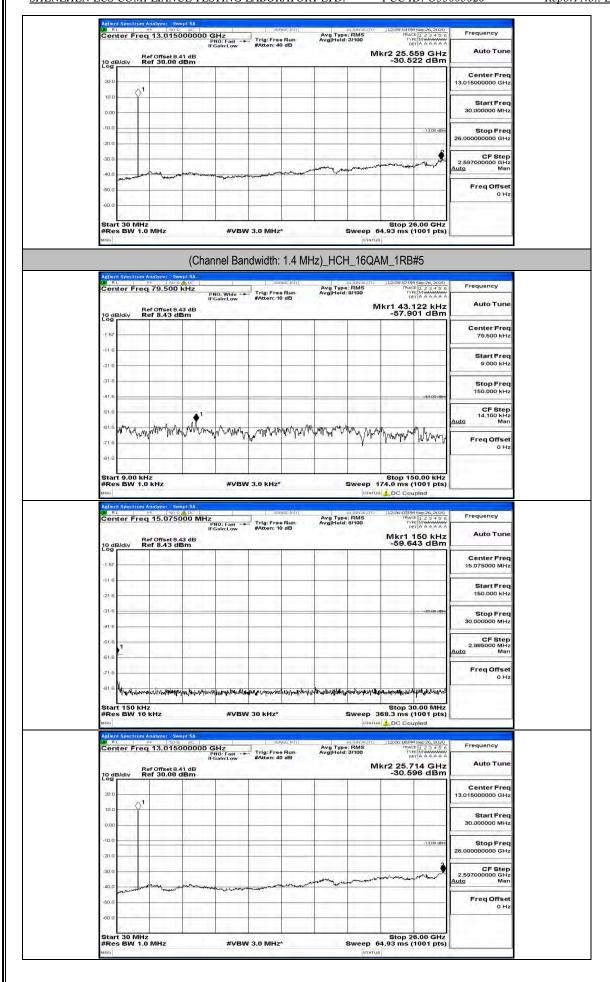


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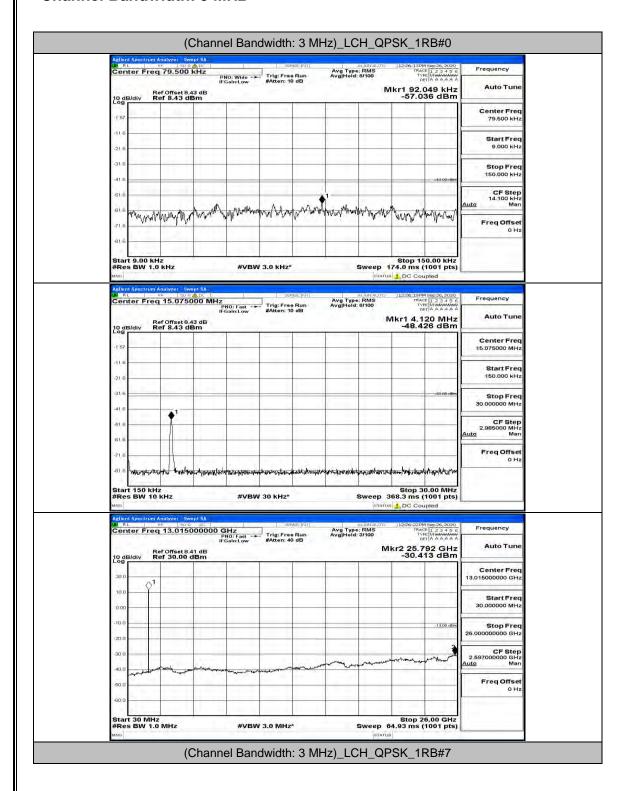


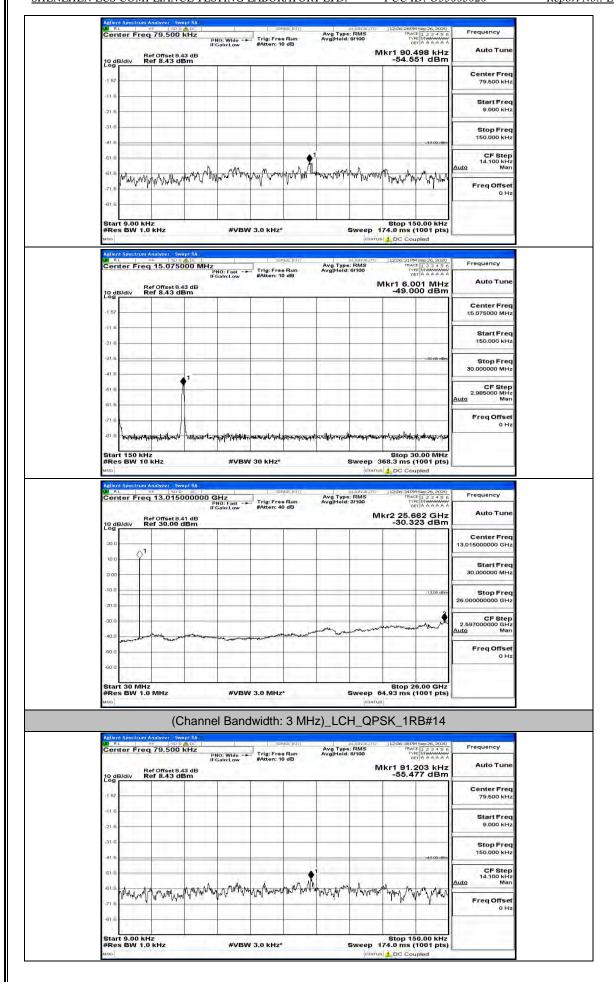


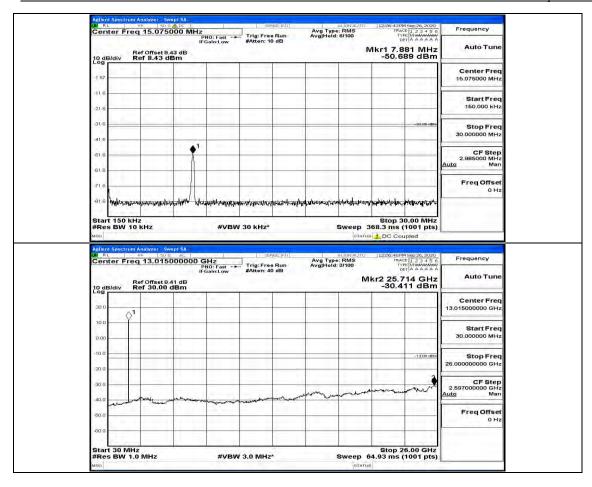


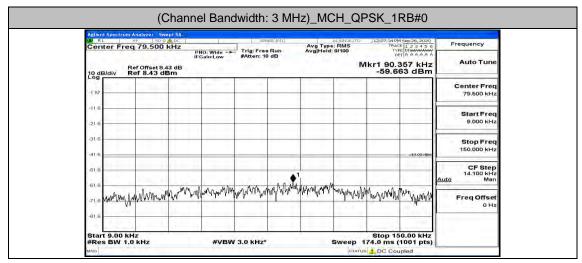


Channel Bandwidth: 3 MHz









FCC ID: 055003020

Report No.: LCS200730059AEE

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*

Stop Free 6.000000000 GH

> Freq Offset 0 Hz

