Appendix E: Test Data for E-UTRA Band 2

Product Name: Smart POS
Trade Mark: N/A
Test Model: WIZARPOS Q3

Environmental Conditions

Temperature:	22.5° C
Relative Humidity:	53.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Li Huan
Supervised by:	Tom.Liu

E.1 Conducted Output Power

	Conducted Output Power Test Result (Channel Bandwidth: 1.4 MHz)							
Madulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	\/a ==li =4		
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict		
		1	0	23.03	22.10	PASS		
		1	3	23.14	22.22	PASS		
		1	5	23.08	22.16	PASS		
	LCH	3	0	22.82	21.90	PASS		
		3	2	22.85	21.91	PASS		
		3	3	22.90	21.85	PASS		
		6	0	21.70	20.65	PASS		
		1	0	22.89	21.83	PASS		
		1	3	22.95	21.78	PASS		
QPSK /		1	5	22.88	21.76	PASS		
16QAM	MCH	3	0	22.96	21.81	PASS		
IOQAW		3	2	23.06	21.91	PASS		
		3	3	22.93	21.99	PASS		
		6	0	21.98	20.95	PASS		
		1	0	22.74	21.65	PASS		
		1	3	22.73	21.66	PASS		
		1	5	22.65	21.59	PASS		
	HCH	3	0	22.80	22.00	PASS		
		3	2	22.71	21.89	PASS		
		3	3	22.82	21.78	PASS		
		6	0	21.83	20.57	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	22.75	22.31	PASS		
		1	7	22.91	22.58	PASS		
		1	14	22.75	21.87	PASS		
	LCH	8	0	21.73	20.69	PASS		
		8	4	21.86	20.66	PASS		
		8	7	21.69	20.54	PASS		
		15	0	21.81	20.75	PASS		
		1	0	22.90	22.52	PASS		
		1	7	23.17	22.59	PASS		
ODCK /		1	14	23.02	22.35	PASS		
QPSK / 16QAM	MCH	8	0	21.99	21.03	PASS		
IOQAIVI		8	4	21.92	21.15	PASS		
		8	7	21.95	21.06	PASS		
		15	0	21.91	20.99	PASS		
		1	0	22.74	22.43	PASS		
		1	7	22.88	22.25	PASS		
		1	14	22.55	21.77	PASS		
	HCH	8	0	21.83	21.22	PASS		
		8	4	21.74	21.00	PASS		
		8	7	21.61	20.62	PASS		
		15	0	21.81	20.90	PASS		

	Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)								
Modulation	Channel	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	Verdict			
Modulation	Channel	Size	Offset	QPSK	16QAM	verdict			
		1	0	22.94	22.21	PASS			
		1	12	23.16	22.32	PASS			
		1	24	22.68	21.90	PASS			
	LCH	12	0	21.85	21.06	PASS			
		12	6	21.83	21.05	PASS			
		12	13	21.81	20.85	PASS			
		25	0	21.82	20.95	PASS			
		1	0	22.76	22.22	PASS			
	MCH	1	12	22.96	22.35	PASS			
QPSK /		1	24	22.81	22.06	PASS			
16QAM		12	0	21.92	21.21	PASS			
TOQAW		12	6	21.95	21.14	PASS			
		12	13	21.94	21.05	PASS			
		25	0	21.90	21.02	PASS			
		1	0	22.65	22.15	PASS			
		1	12	22.98	22.34	PASS			
		1	24	22.36	21.75	PASS			
	HCH	12	0	21.82	21.04	PASS			
		12	6	21.88	21.14	PASS			
		12	13	21.72	20.93	PASS			
		25	0	21.92	20.88	PASS			

	Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)							
Madulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	\/a ==li =4		
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict		
		1	0	23.14	22.76	PASS		
		1	24	23.29	22.86	PASS		
		1	49	22.27	21.65	PASS		
	LCH	25	0	21.98	21.08	PASS		
		25	12	21.99	21.09	PASS		
		25	25	21.94	20.94	PASS		
		50	0	21.99	21.09	PASS		
		1	0	22.20	21.57	PASS		
	мсн	1	24	23.89	23.27	PASS		
QPSK /		1	49	22.83	22.12	PASS		
16QAM		25	0	22.12	21.02	PASS		
IOQAW		25	12	22.19	21.28	PASS		
		25	25	22.06	21.18	PASS		
		50	0	22.02	21.14	PASS		
		1	0	20.72	20.25	PASS		
		1	24	22.76	22.27	PASS		
		1	49	21.37	20.89	PASS		
	HCH	25	0	21.69	20.69	PASS		
		25	12	22.62	21.62	PASS		
		25	25	21.93	20.94	PASS		
		50	0	21.94	21.08	PASS		

	Conducted Output Power Test Result (Channel Bandwidth: 15 MHz)							
Madulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	\/a ==li =4		
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict		
		1	0	23.03	22.57	PASS		
		1	37	23.15	22.53	PASS		
		1	74	21.69	21.07	PASS		
	LCH	37	0	22.07	21.15	PASS		
		37	18	22.11	21.21	PASS		
		37	38	22.16	21.13	PASS		
		75	0	22.14	21.26	PASS		
		1	0	21.61	21.00	PASS		
	мсн	1	37	23.66	23.06	PASS		
QPSK /		1	74	22.98	22.43	PASS		
16QAM		37	0	22.10	21.14	PASS		
IOQAW		37	18	22.20	21.29	PASS		
		37	38	21.98	21.12	PASS		
		75	0	22.12	21.23	PASS		
		1	0	21.15	20.48	PASS		
		1	37	21.76	21.12	PASS		
		1	74	21.22	20.65	PASS		
	HCH	37	0	21.13	20.23	PASS		
		37	18	21.72	20.80	PASS		
		37	38	22.23	21.33	PASS		
		75	0	21.67	20.78	PASS		

	Conducted Output Power Test Result (Channel Bandwidth: 20 MHz)							
Madulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	\/a ==li =4		
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict		
		1	0	22.86	21.81	PASS		
		1	49	22.85	22.01	PASS		
		1	99	21.26	20.43	PASS		
	LCH	50	0	22.13	21.30	PASS		
		50	25	22.08	21.29	PASS		
		50	50	22.00	21.19	PASS		
		100	0	22.00	21.01	PASS		
		1	0	21.31	20.58	PASS		
	МСН	1	49	23.78	22.31	PASS		
QPSK /		1	99	22.70	21.13	PASS		
16QAM		50	0	22.10	21.28	PASS		
IOQAW		50	25	22.25	21.36	PASS		
		50	50	22.12	21.21	PASS		
		100	0	22.16	21.11	PASS		
		1	0	22.37	21.58	PASS		
		1	49	21.37	20.56	PASS		
		1	99	21.14	20.35	PASS		
	HCH	50	0	21.63	20.68	PASS		
		50	25	21.44	20.50	PASS		
		50	50	21.77	20.85	PASS		
		100	0	21.63	20.74	PASS		

E.2 Peak-to-Average Ratio

	Peak-to Average Ratio Test Result (Channel Bandwidth: 1.4 MHz)						
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict			
	LCH	4.94	<13	PASS			
QPSK	MCH	5.14	<13	PASS			
	HCH	5.21	<13	PASS			
	LCH	5.76	<13	PASS			
16QAM	MCH	5.99	<13	PASS			
	HCH	5.8	<13	PASS			

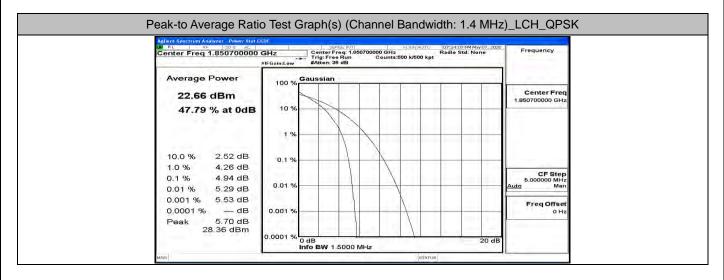
	Peak-to Average Ra	atio Test Result (Channel	Bandwidth: 3 MHz)	
Madulation	Channal	Peak-to-Average Ratio	Limit	\/a.mali.a.t
Modulation	Channel	[dB]	[dB]	Verdict
QPSK	LCH	5.1	<13	PASS
	MCH	5.21	<13	PASS
	HCH	5.06	<13	PASS
16QAM	LCH	5.93	<13	PASS
	MCH	6.09	<13	PASS
	HCH	5.9	<13	PASS

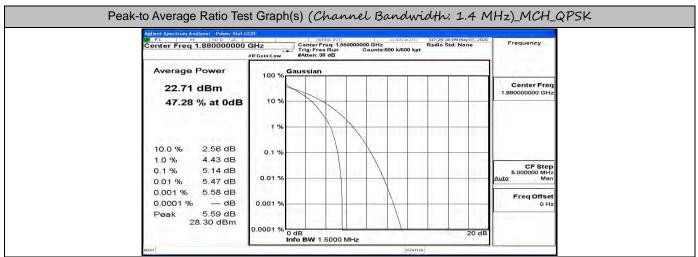
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict		
iviodulation	Griannei	[dB]	[dB]	verdict		
	LCH	5.06	<13	PASS		
QPSK	MCH	5.2	<13	PASS		
	HCH	4.98	<13	PASS		
	LCH	5.84	<13	PASS		
16QAM	MCH	5.98	<13	PASS		
	HCH	5.84	<13	PASS		

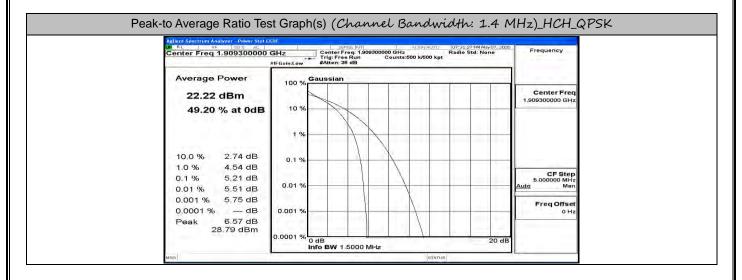
	Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict				
Modulation	Charmer	[dB]	[dB]	verdict				
	LCH	5.1	<13	PASS				
QPSK	MCH	5.14	<13	PASS				
	HCH	5.08	<13	PASS				
16QAM	LCH	5.92	<13	PASS				
	MCH	5.91	<13	PASS				
	HCH	5.92	<13	PASS				

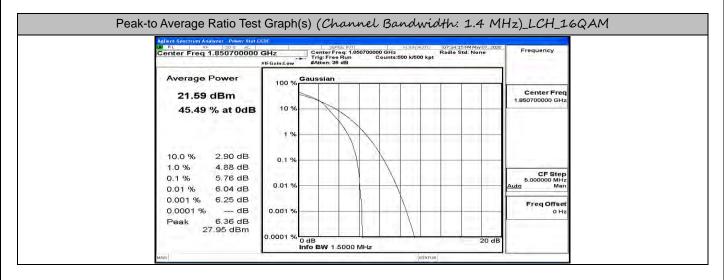
	Peak-to Average Ratio Test Result (Channel Bandwidth: 15 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict				
Modulation	Charmer	[dB]	[dB]	verdict				
	LCH	4.91	<13	PASS				
QPSK	MCH	4.87	<13	PASS				
	HCH	5.25	<13	PASS				
	LCH	6.15	<13	PASS				
16QAM	MCH	6.18	<13	PASS				
	HCH	6.47	<13	PASS				

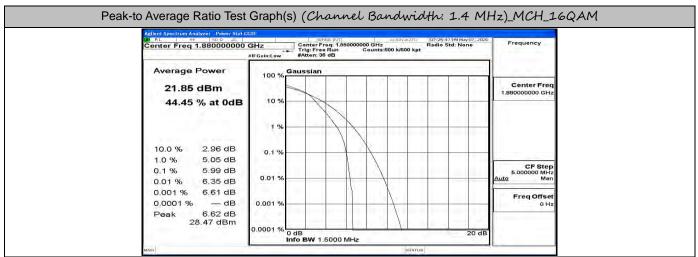
Peak-to Average Ratio Test Result (Channel Bandwidth: 20 MHz)				
M. I.I.C	Channel	Peak-to-Average Ratio	Limit	Verdict
Modulation		[dB]	[dB]	
QPSK	LCH	5.69	<13	PASS
	MCH	5.64	<13	PASS
	HCH	6.16	<13	PASS
16QAM	LCH	6.71	<13	PASS
	MCH	6.76	<13	PASS
	HCH	6.74	<13	PASS

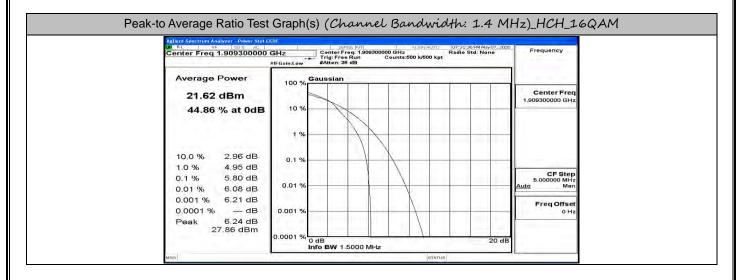


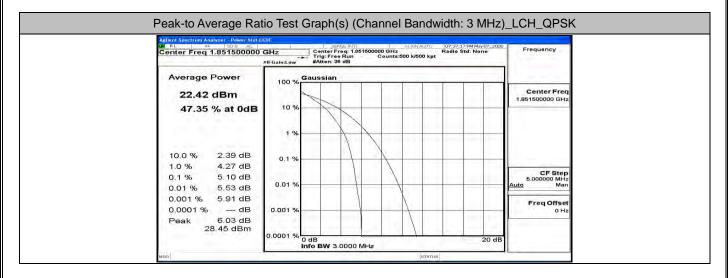


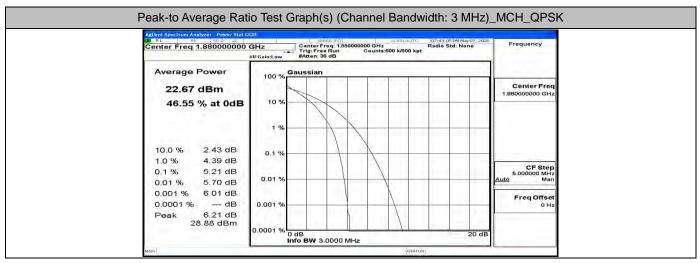


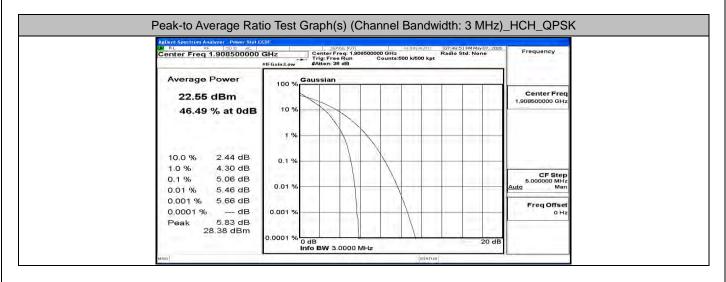


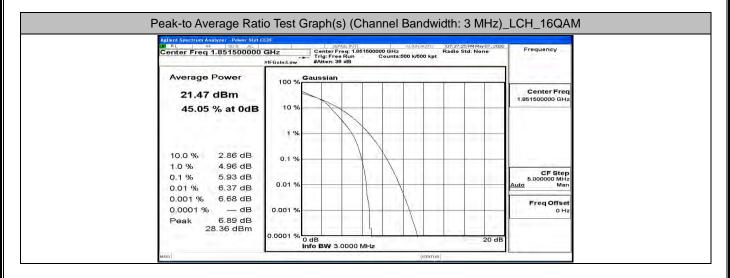


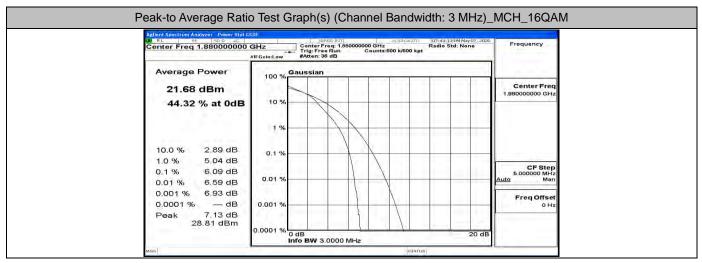


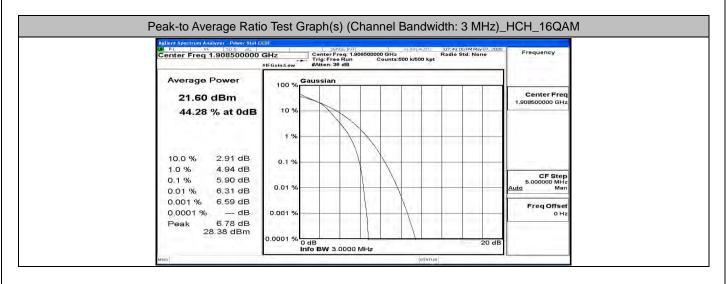


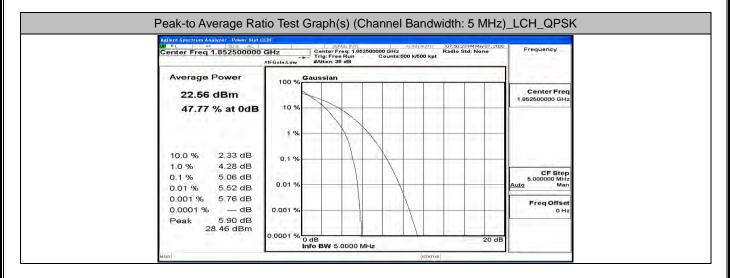


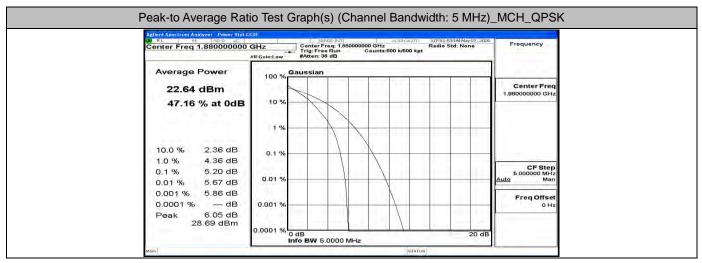


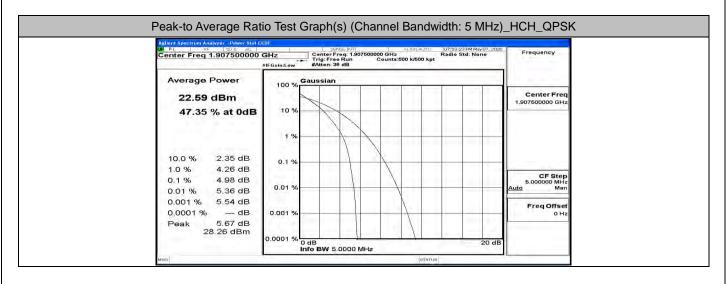


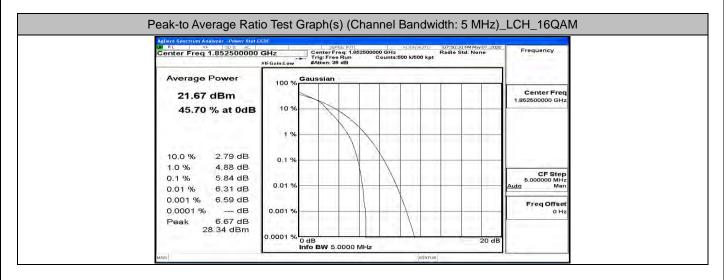


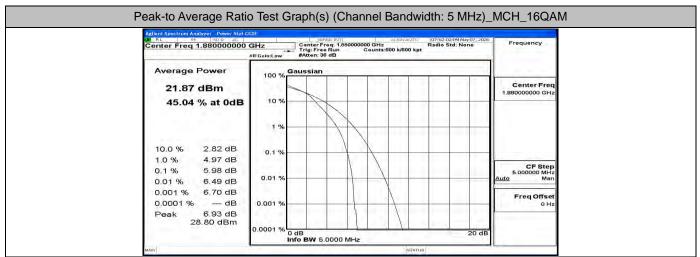


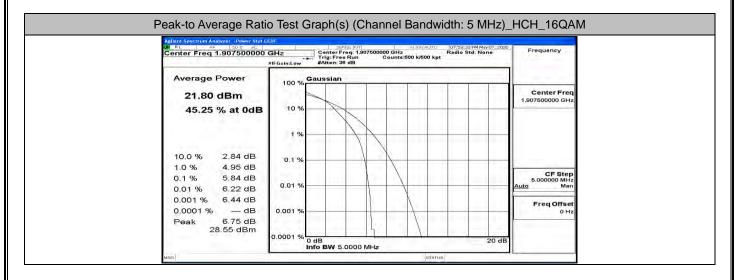


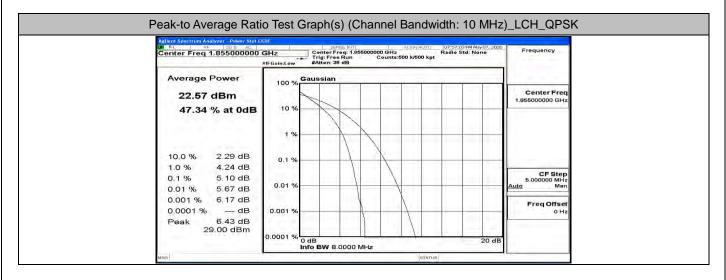


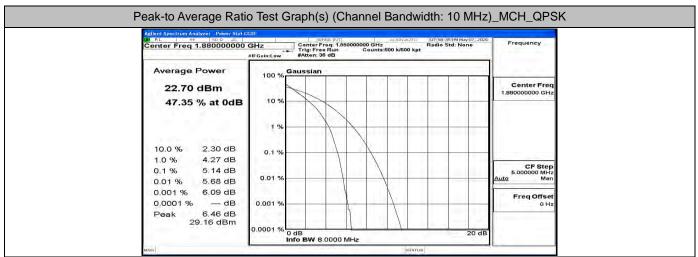


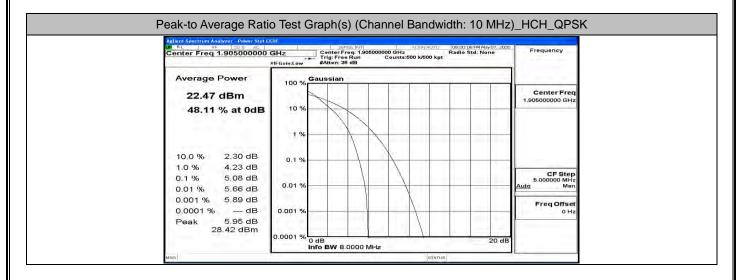


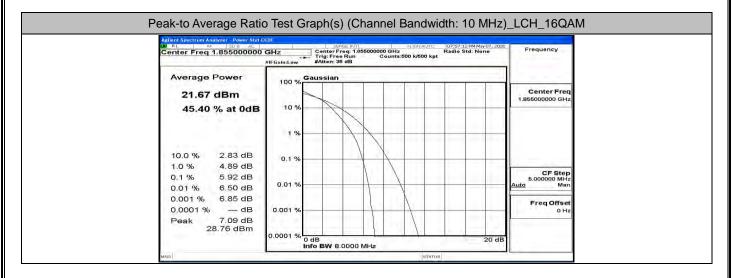


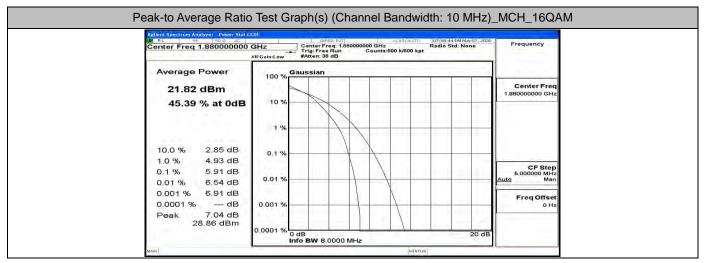


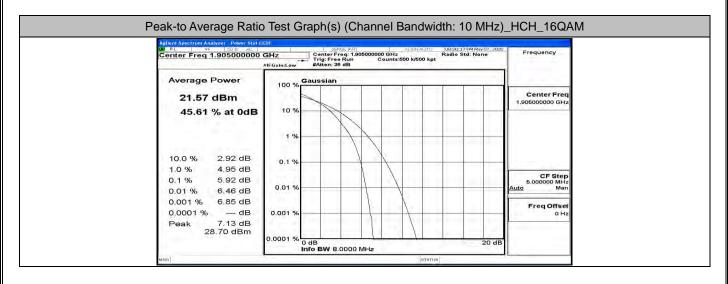


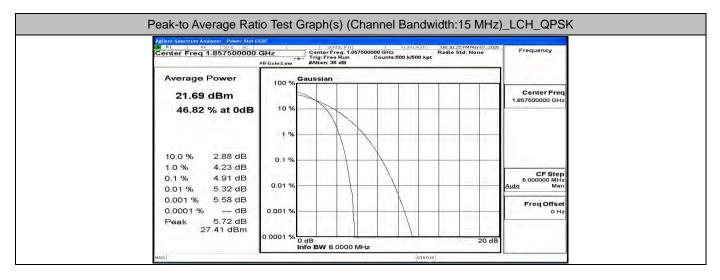


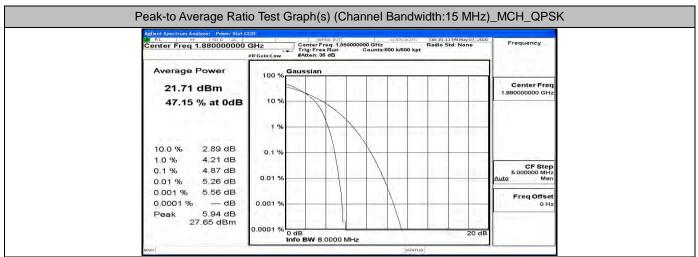


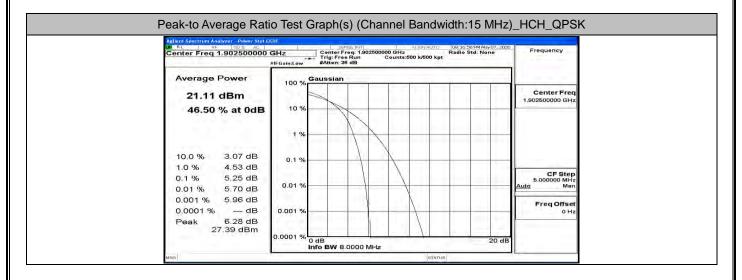


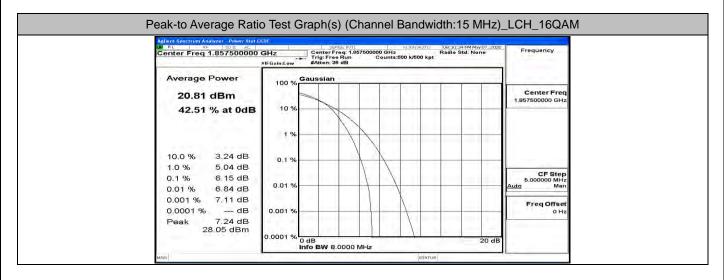


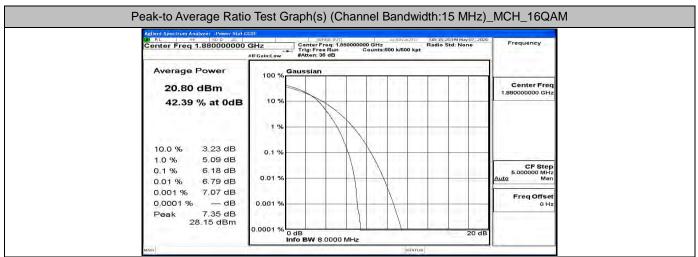


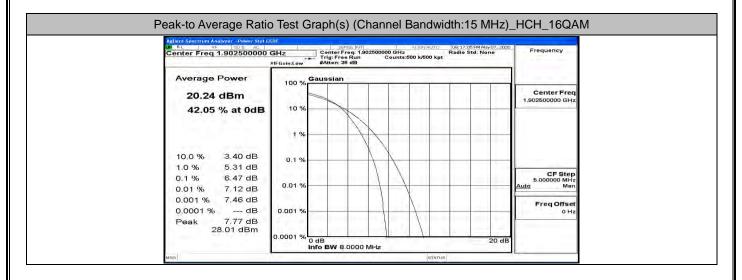


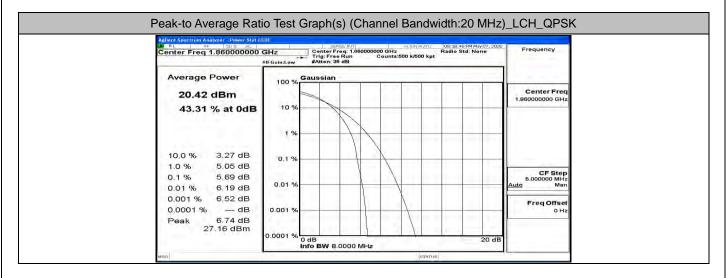


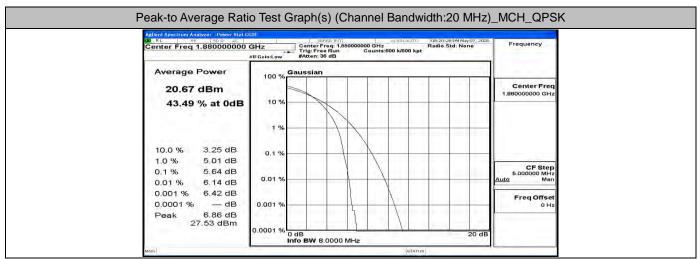


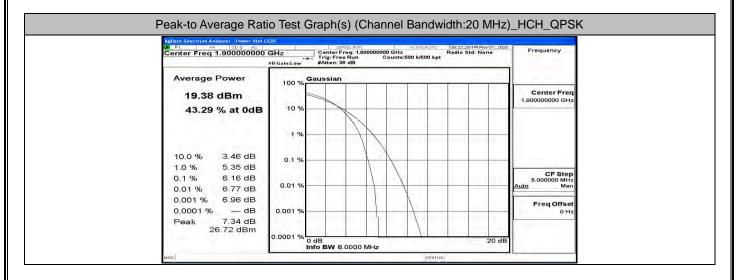


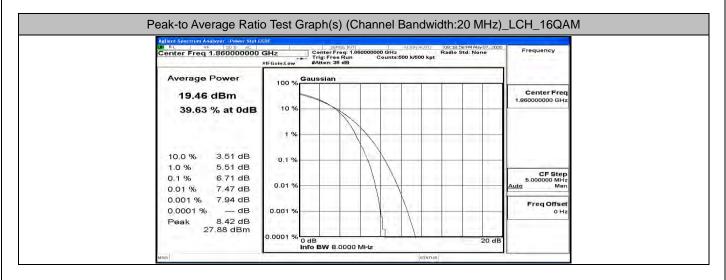


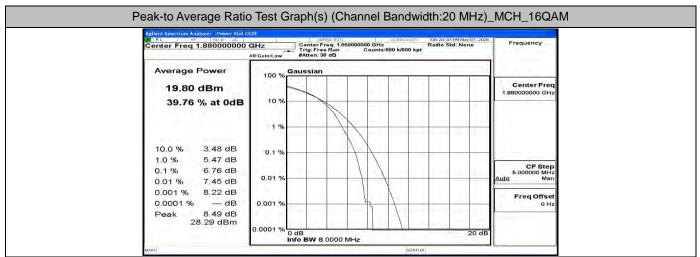


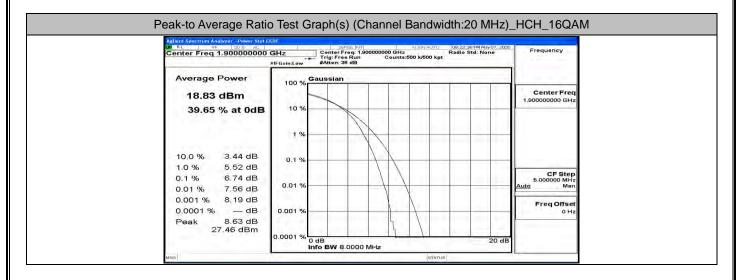












E.3 26dB Bandwidth and Occupied Bandwidth

	EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict	
	LCH	1.0751	1.250	PASS	
QPSK	MCH	1.0753	1.231	PASS	
	HCH	1.0755	1.226	PASS	
	LCH	1.0786	1.238	PASS	
16QAM	MCH	1.0802	1.254	PASS	
	HCH	1.0788	1.233	PASS	

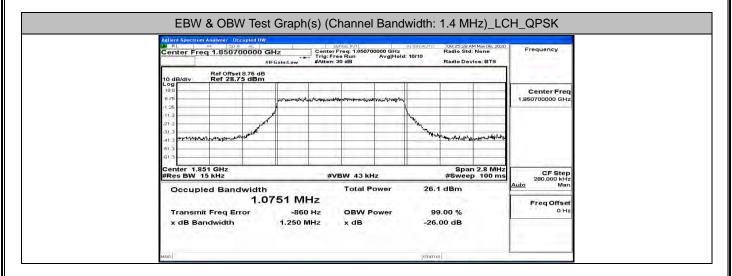
EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
		(MHz)	(MHz)	
QPSK	LCH	2.6851	2.896	PASS
	MCH	2.6844	2.897	PASS
	HCH	2.6823	2.907	PASS
16QAM	LCH	2.6884	2.910	PASS
	MCH	2.6817	2.876	PASS
	HCH	2.6856	2.887	PASS

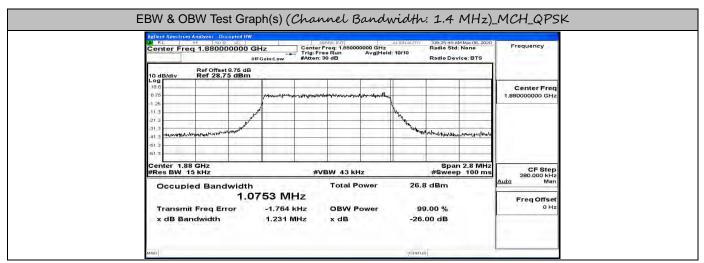
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	4.4772	4.797	PASS
	MCH	4.4738	4.770	PASS
	HCH	4.4725	4.778	PASS
16QAM	LCH	4.4633	4.826	PASS
	MCH	4.4776	4.833	PASS
	HCH	4.4783	4.780	PASS

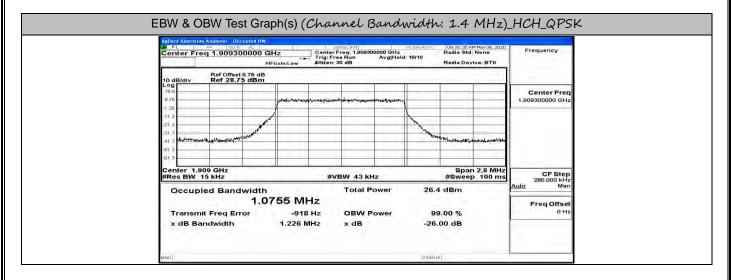
EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	8.9256	9.436	PASS
	MCH	8.9250	9.500	PASS
	HCH	8.9203	9.401	PASS
16QAM	LCH	8.9158	9.475	PASS
	MCH	8.9156	9.375	PASS
	HCH	8.9094	9.397	PASS

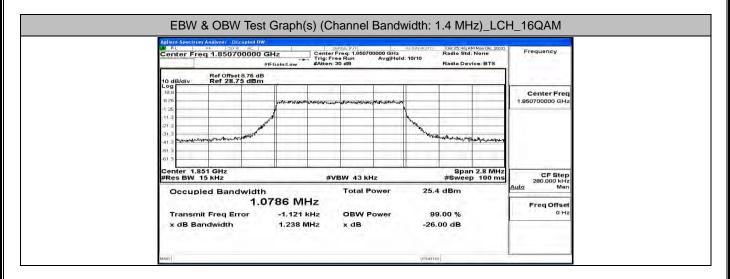
EBW & OBW Test Result (Channel Bandwidth: 15 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	13.366	14.03	PASS
	MCH	13.363	13.95	PASS
	HCH	13.386	14.02	PASS
16QAM	LCH	13.373	13.95	PASS
	MCH	13.357	14.02	PASS
	HCH	13.390	14.04	PASS

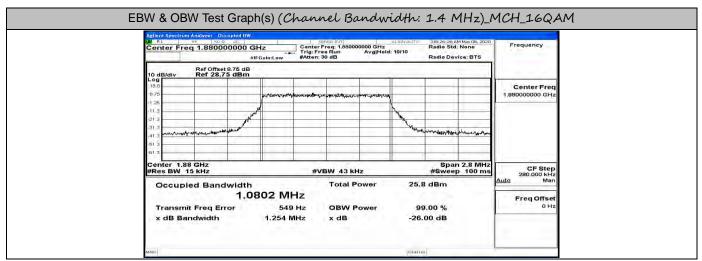
EBW & OBW Test Result (Channel Bandwidth: 20 MHz)				
Mandadatian	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	17.810	18.56	PASS
	MCH	17.805	18.56	PASS
	HCH	17.872	18.65	PASS
16QAM	LCH	17.831	18.57	PASS
	MCH	17.799	18.58	PASS
	HCH	17.851	18.55	PASS

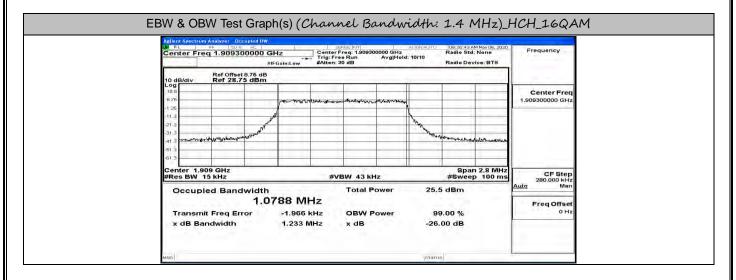


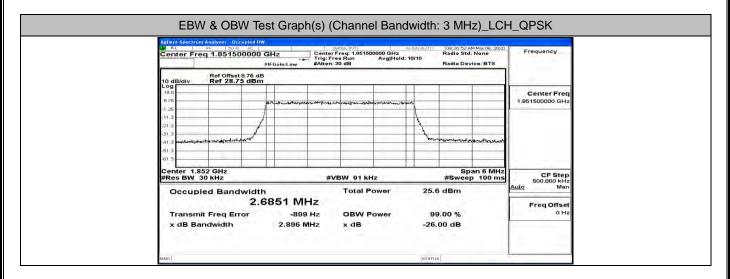


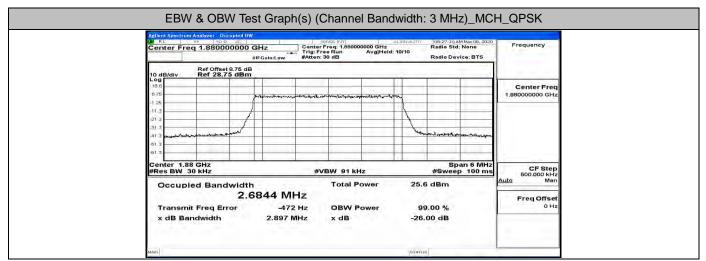


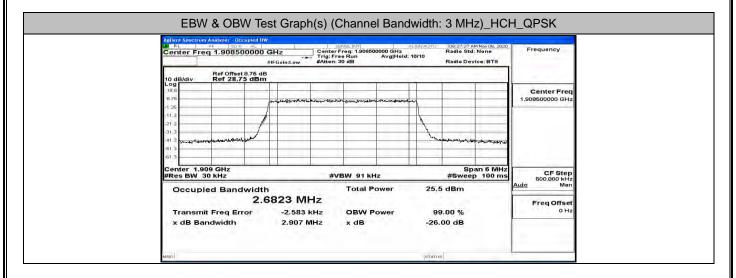


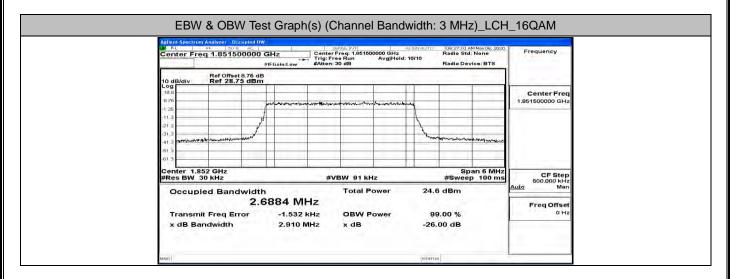


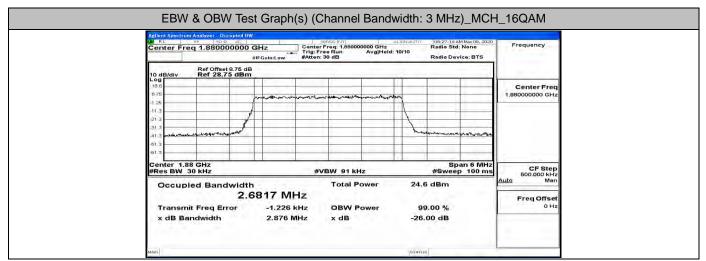


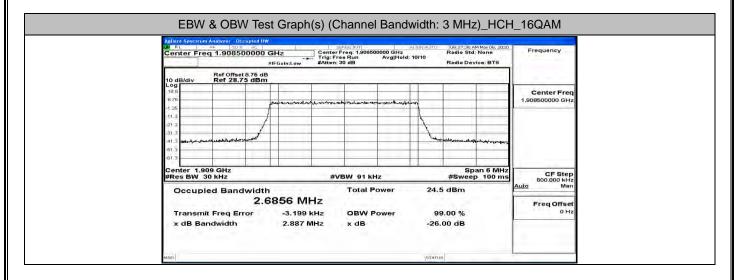


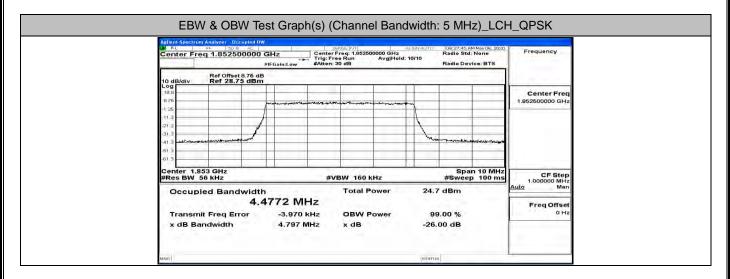


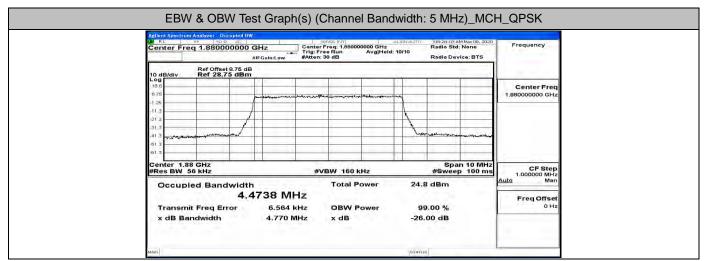


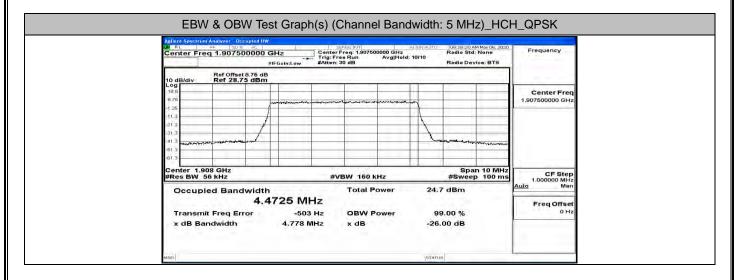


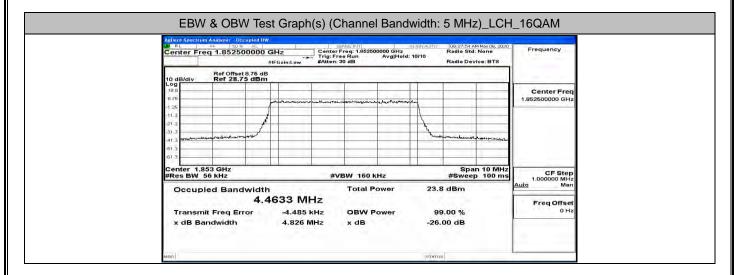


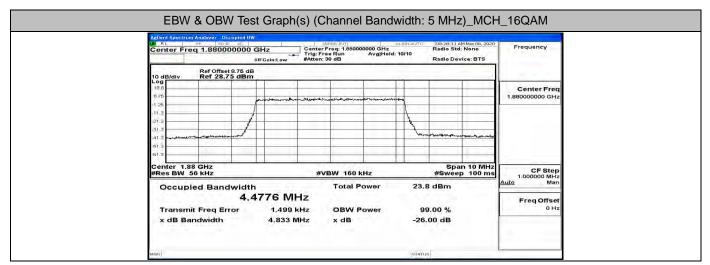


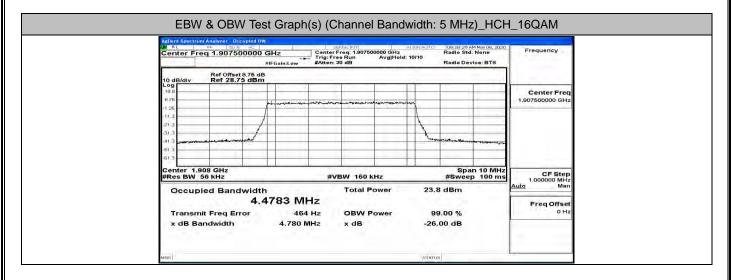


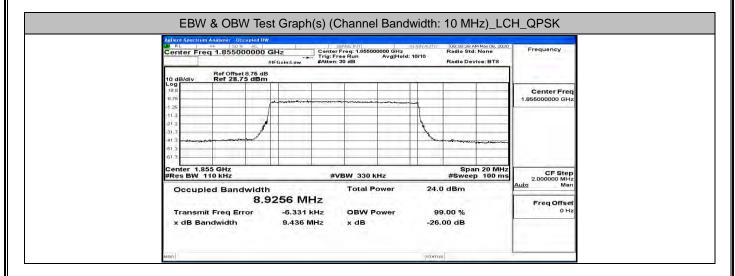


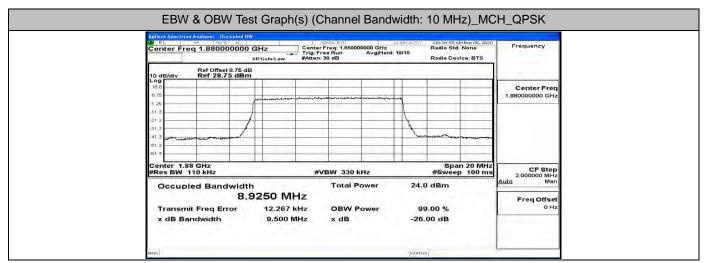


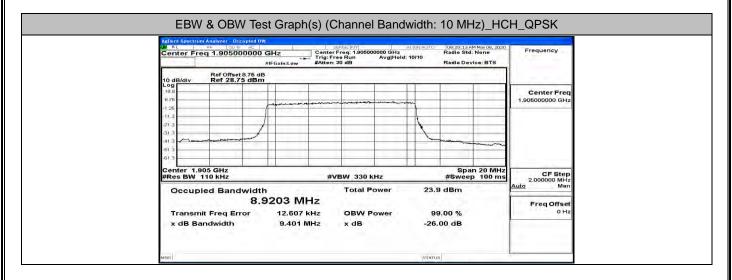


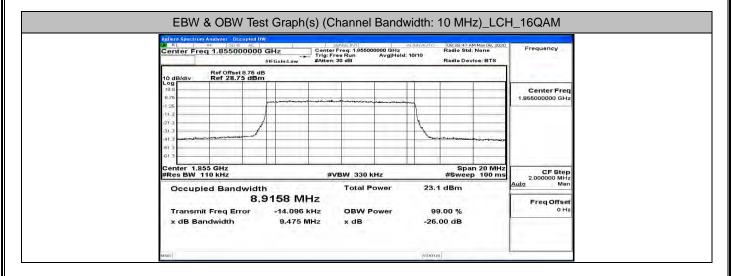


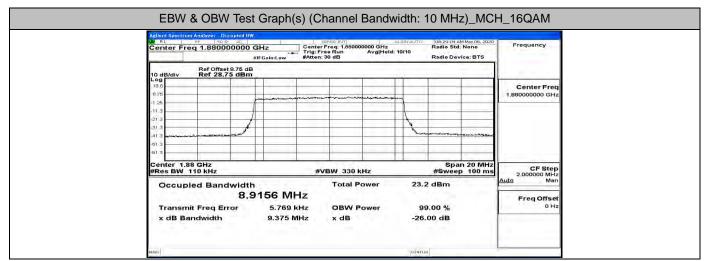


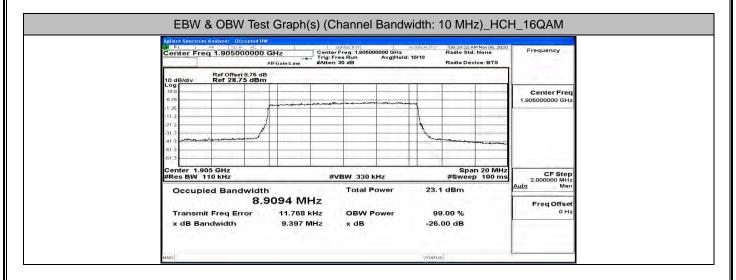


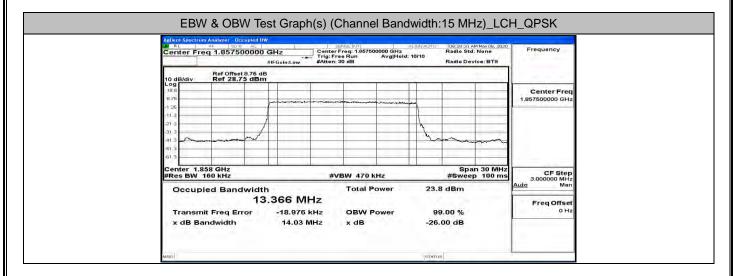


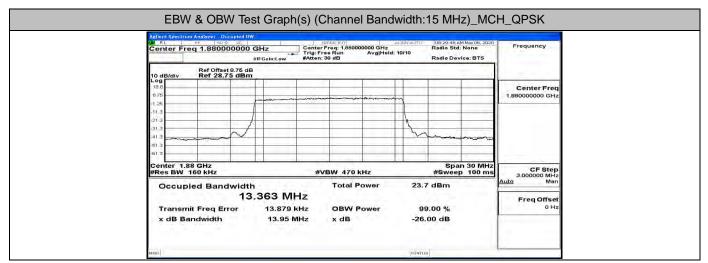


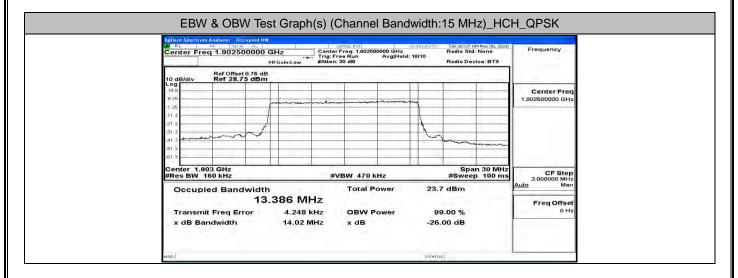


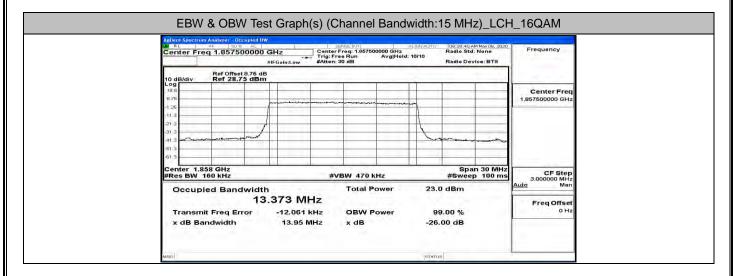


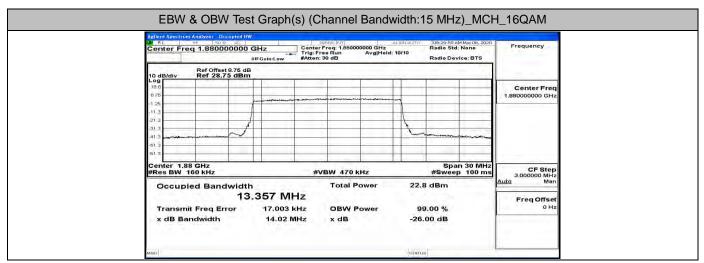


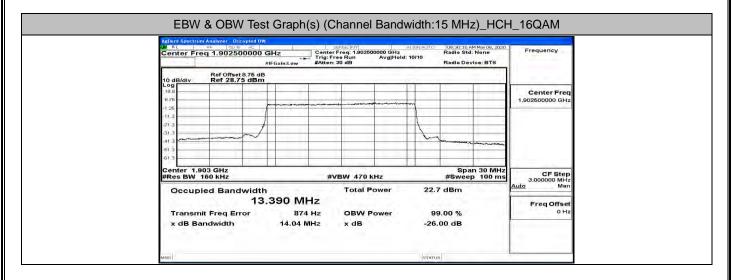


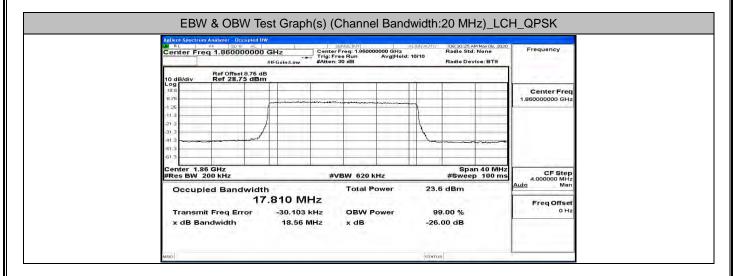


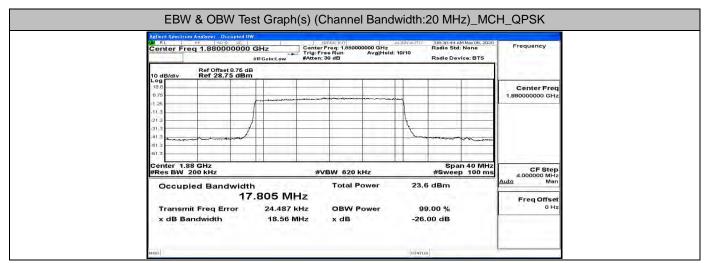


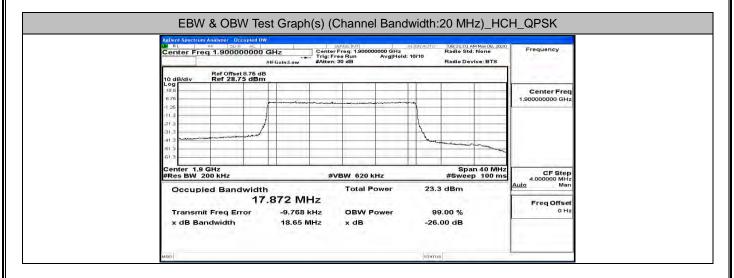


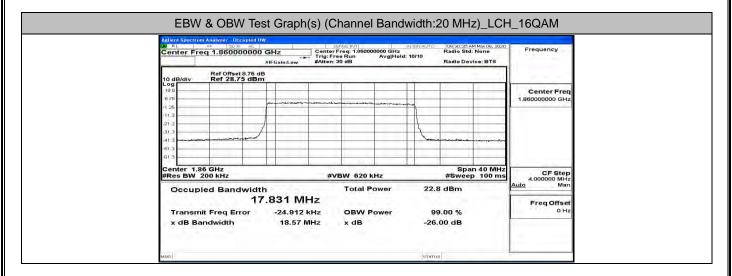


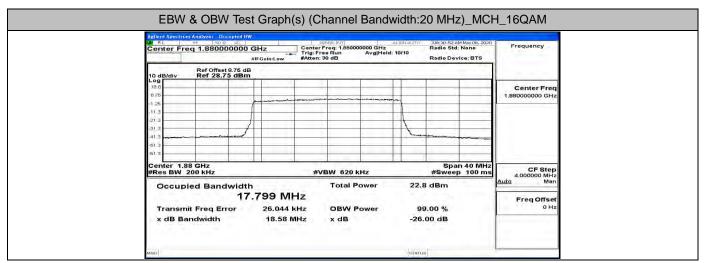


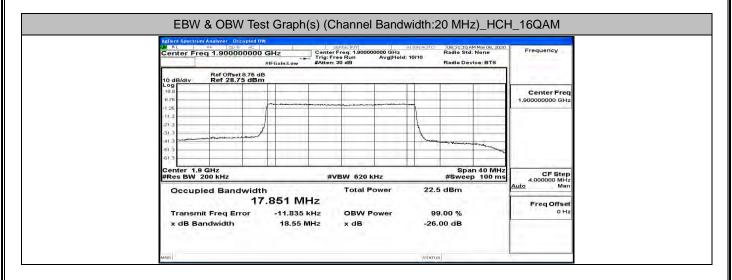




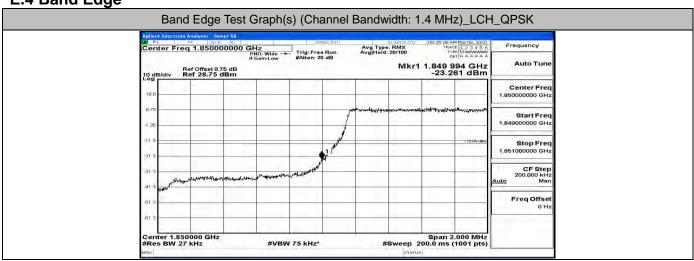


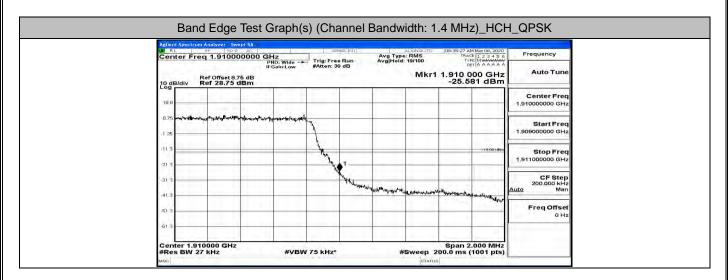


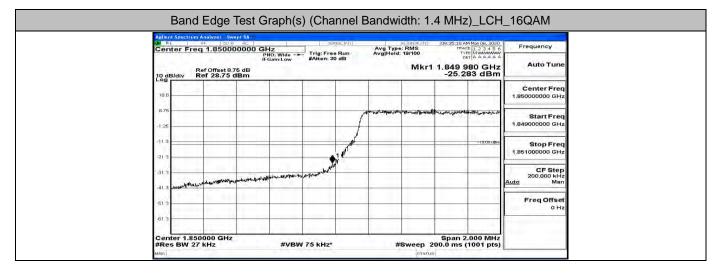


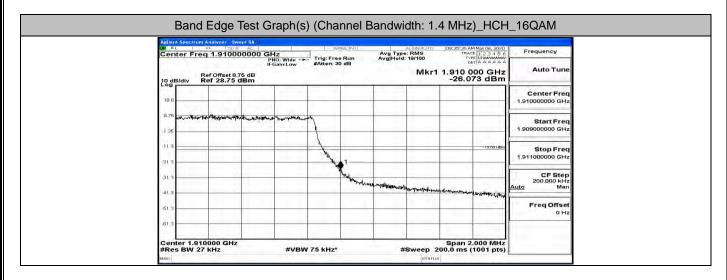


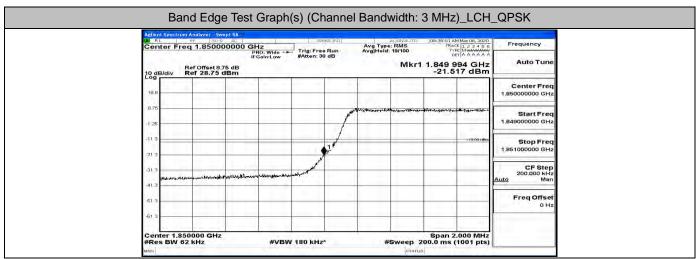
E.4 Band Edge

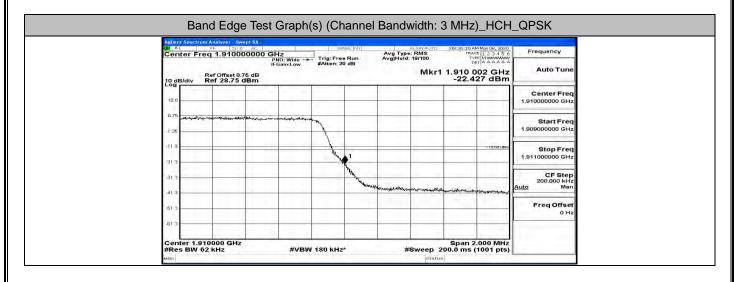


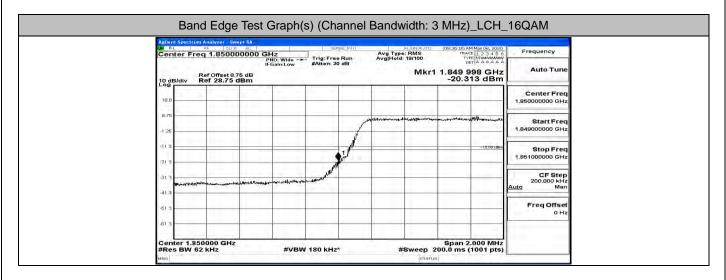


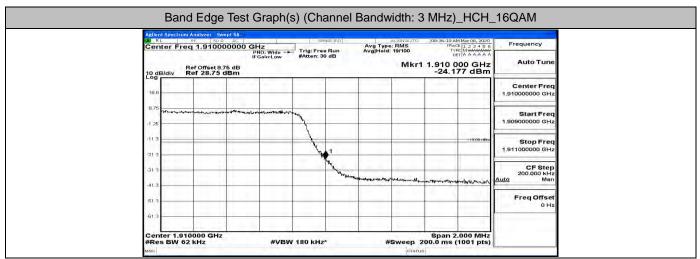


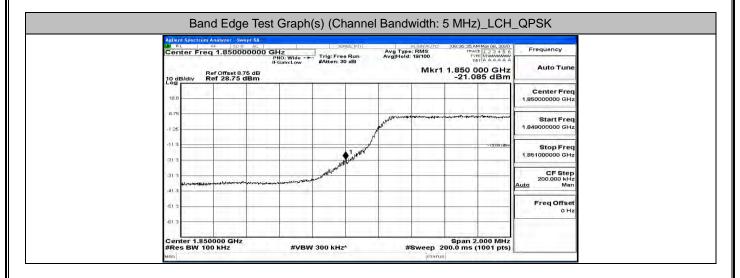


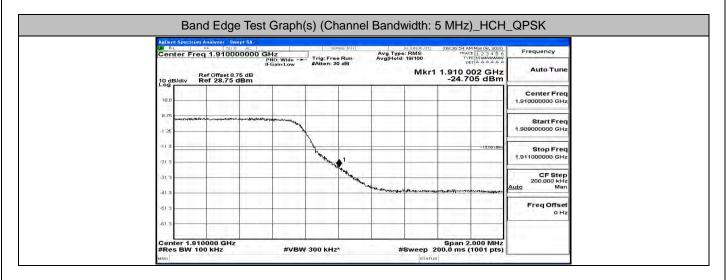


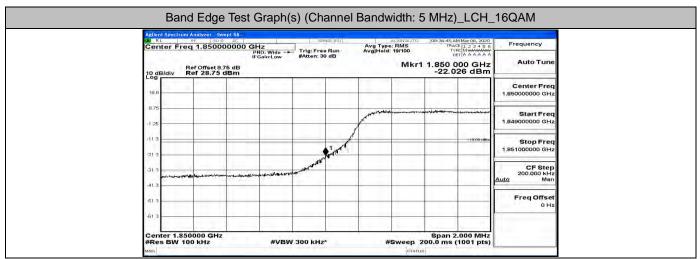


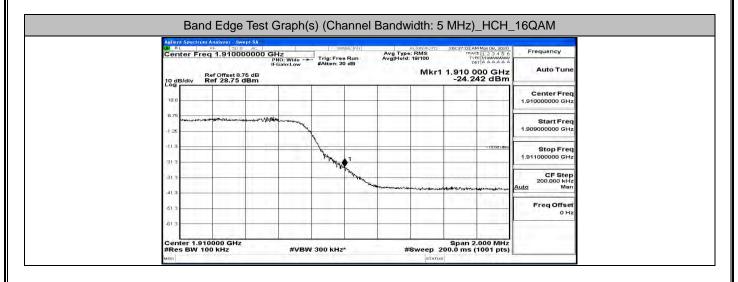


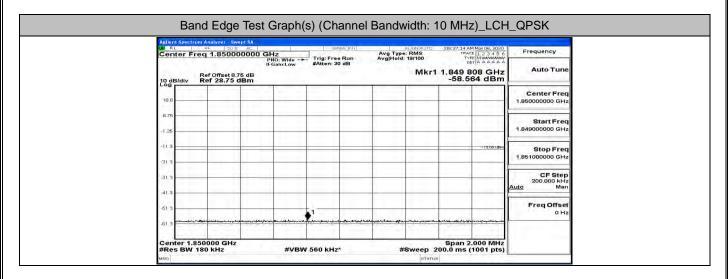


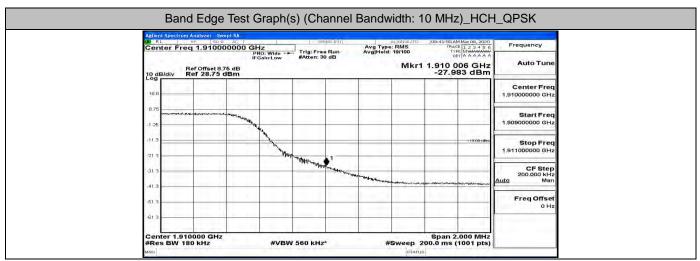


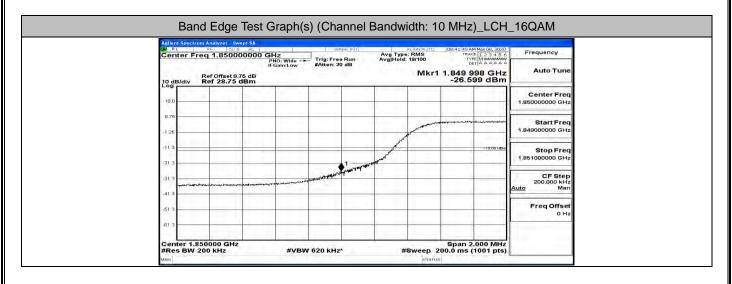


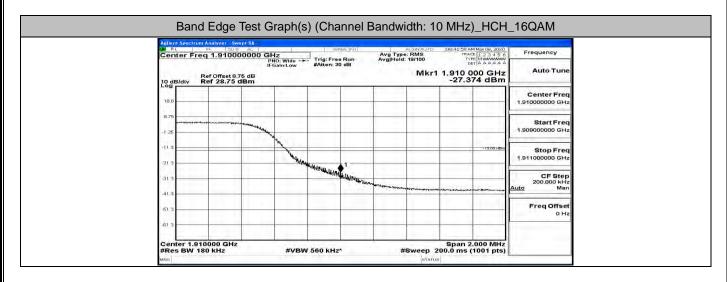


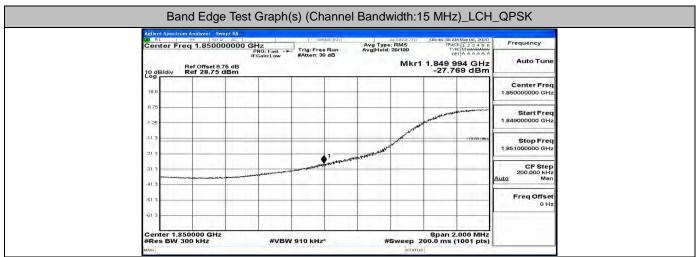


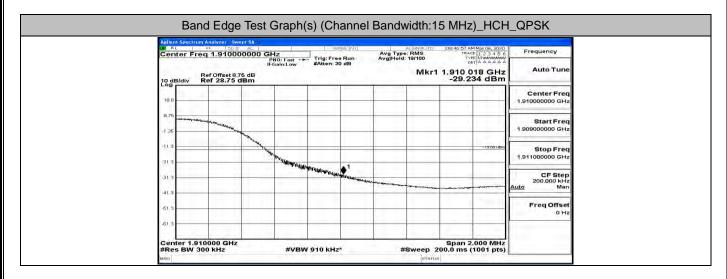


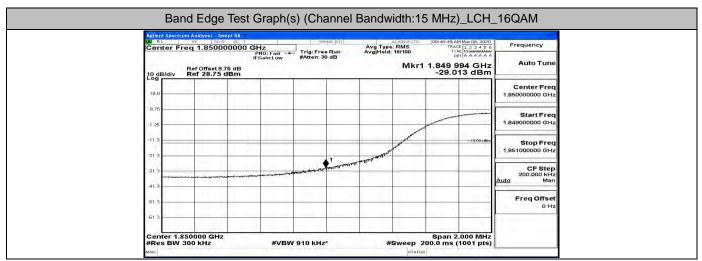


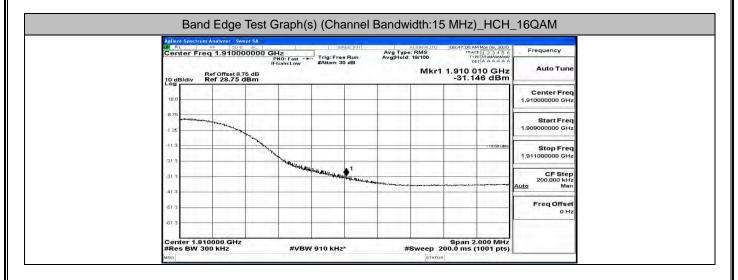


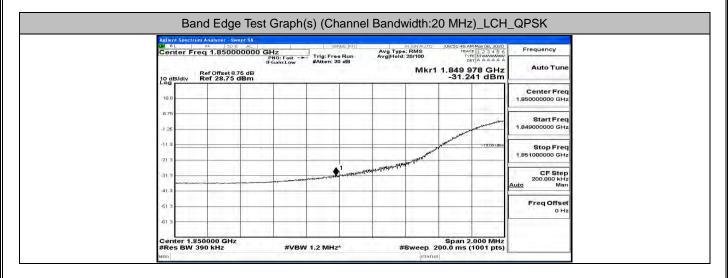


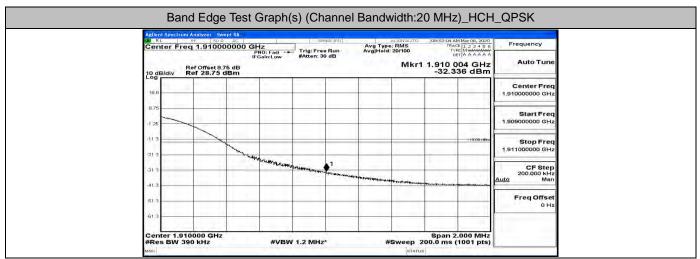


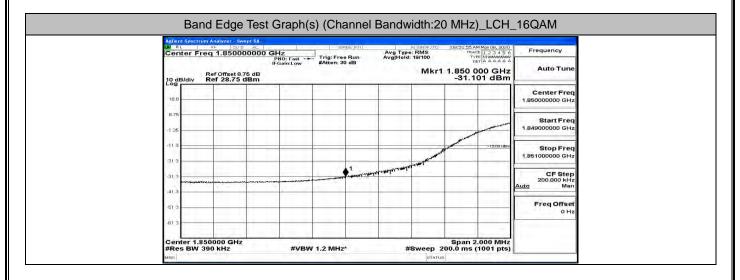


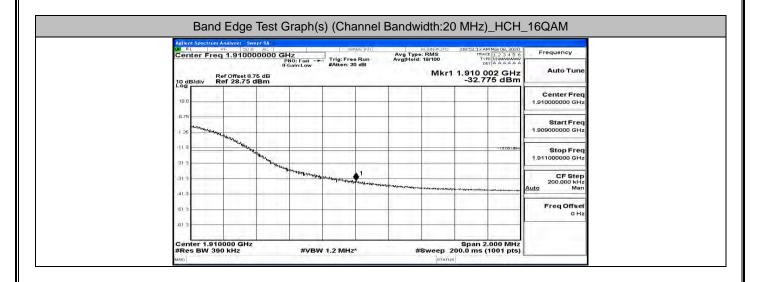




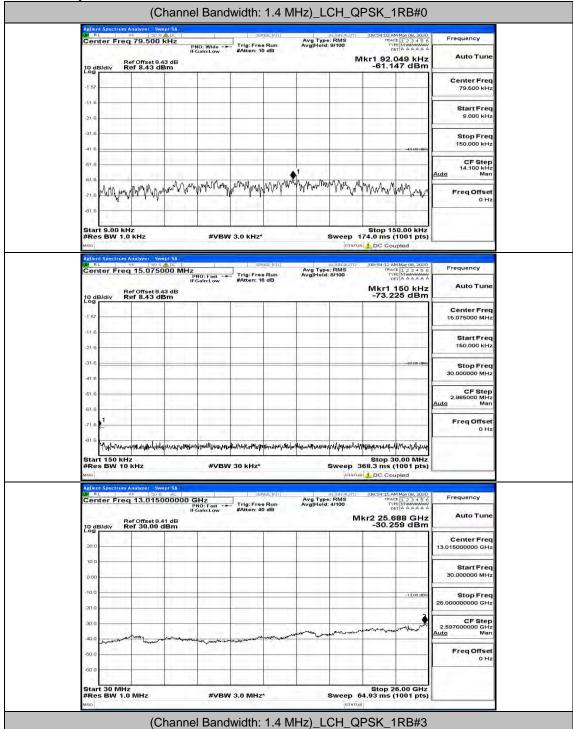


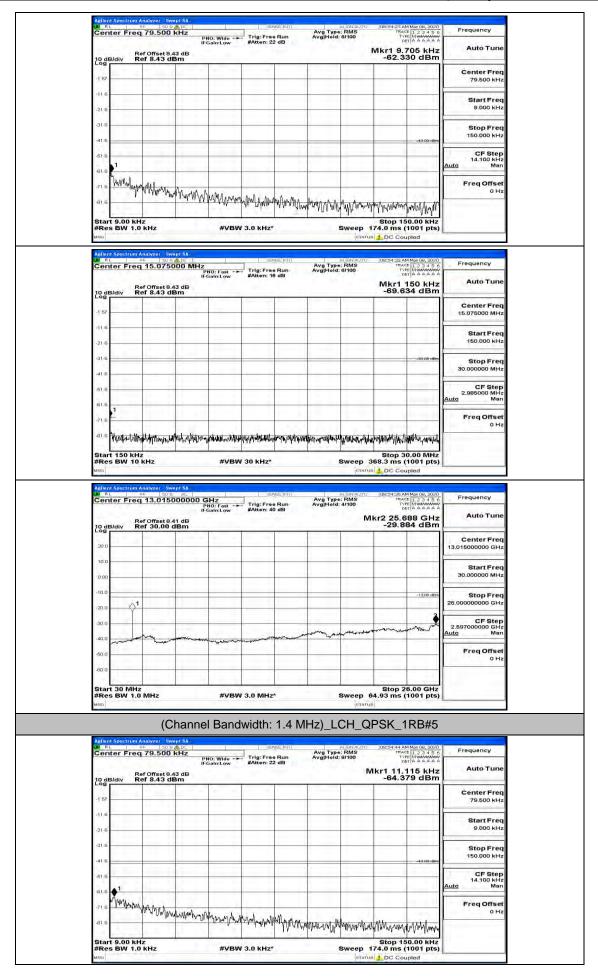


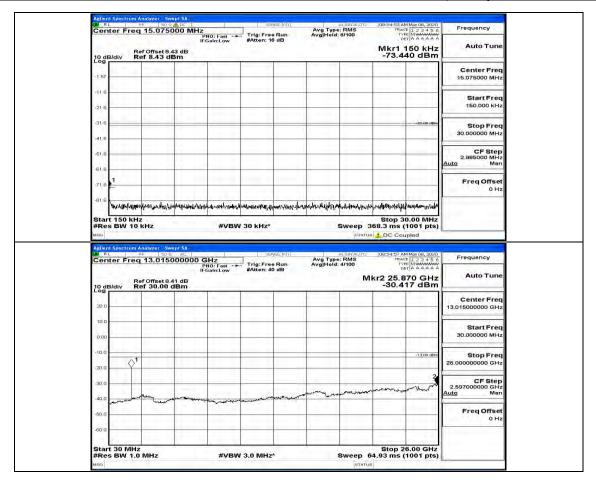


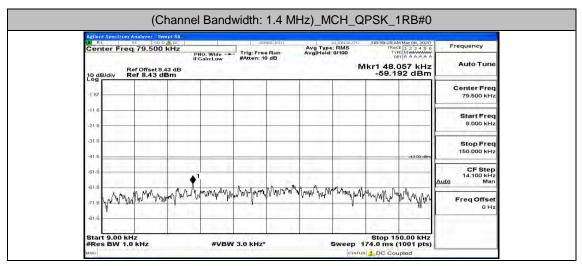


E.5 Conducted Spurious Emission



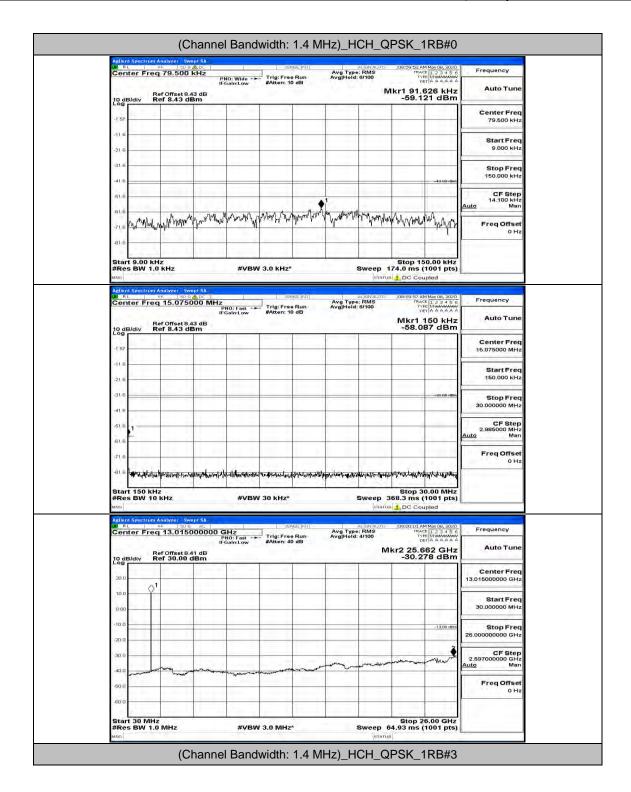


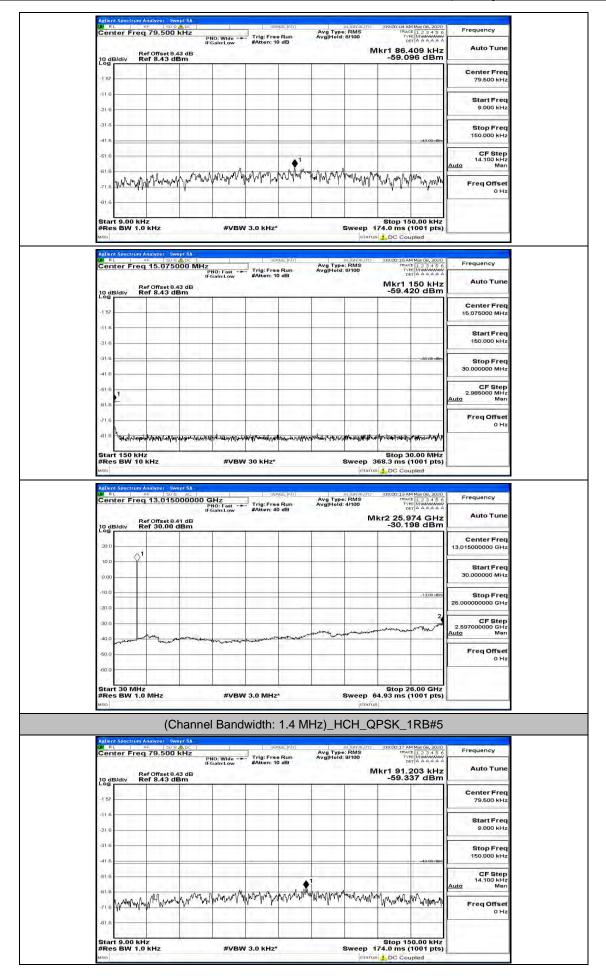


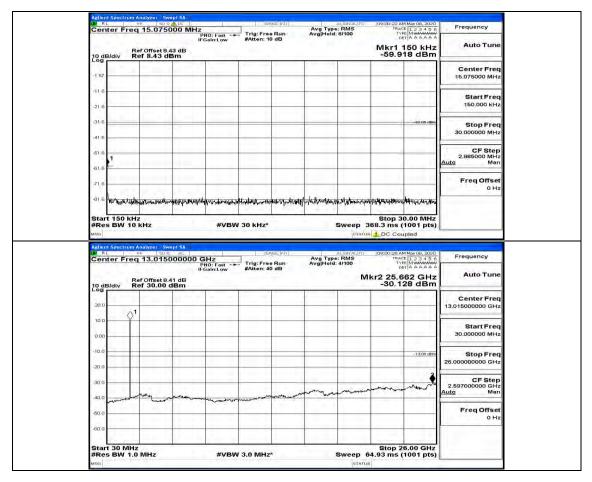


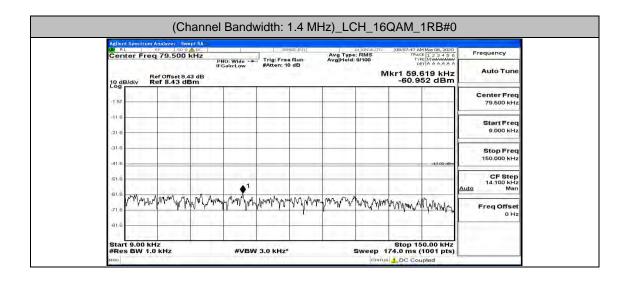
Start 30 MHz #Res BW 1.0 MHz Freq Offset 0 Hz

Stop 26.00 GHz Sweep 64.93 ms (1001 pts)



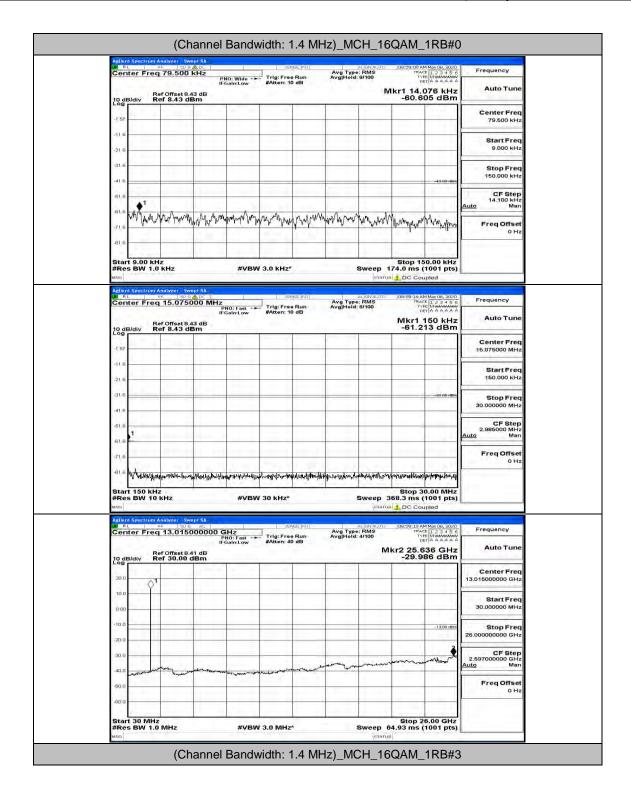


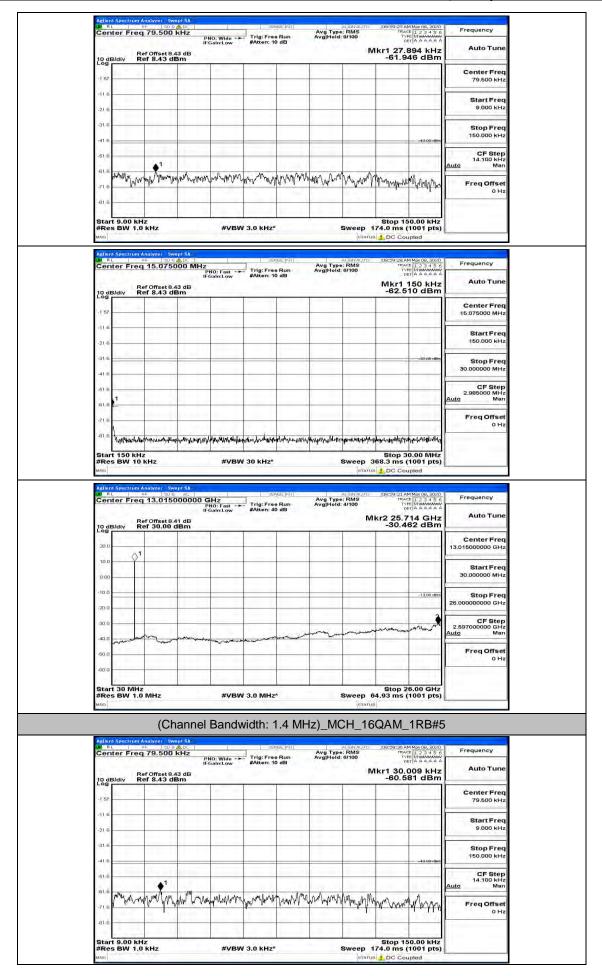


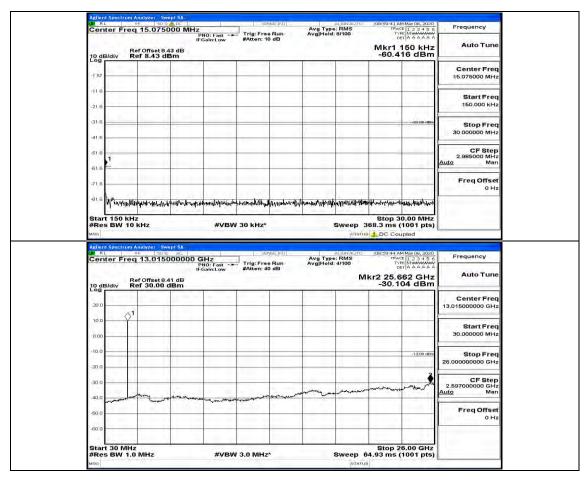


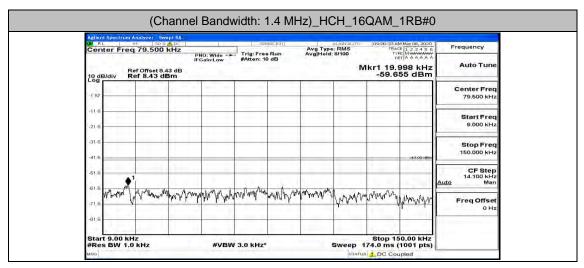
Stop 26.00 GHz Sweep 64.93 ms (1001 pts)

Start 30 MHz #Res BW 1.0 MHz









Stop 30.00 MHz Sweep 368.3 ms (1001 pts)

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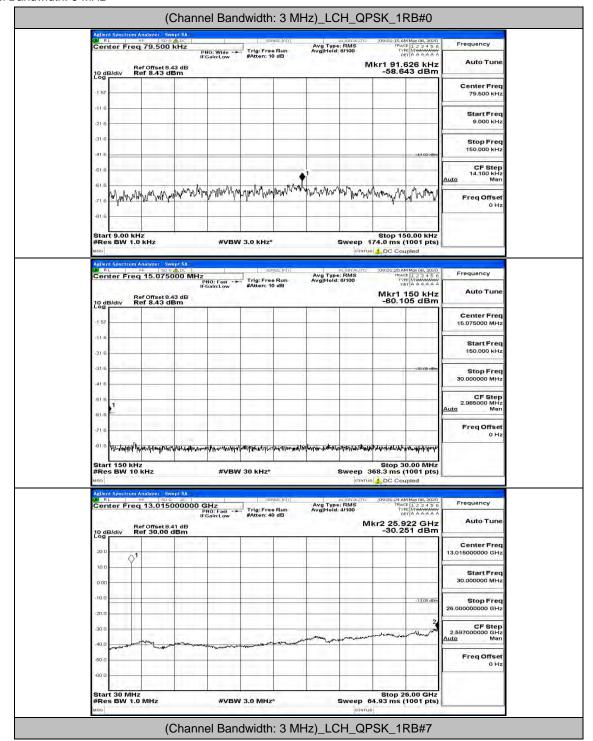
#VBW 30 kHz*

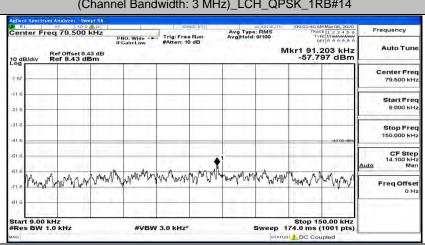
Start 150 kHz #Res BW 10 kHz

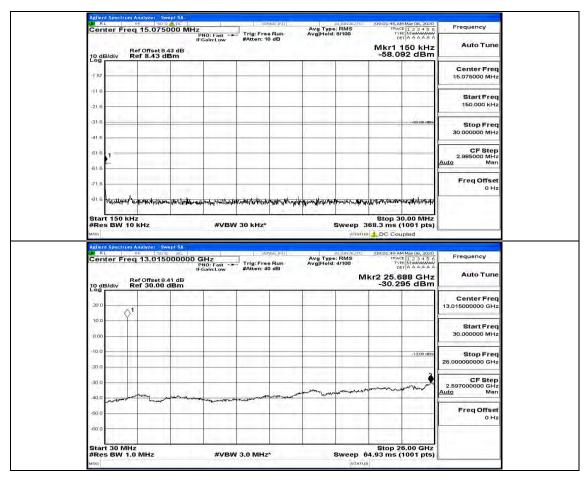
Stop 26.00 GHz Sweep 64.93 ms (1001 pts)

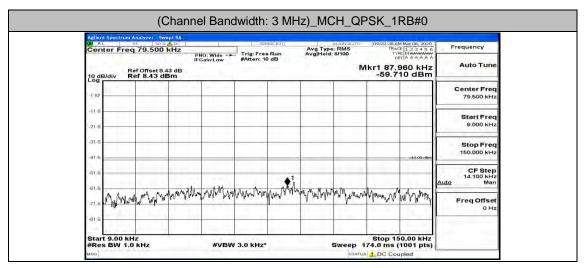
Start 30 MHz #Res BW 1.0 MHz

Channel Bandwidth: 3 MHz



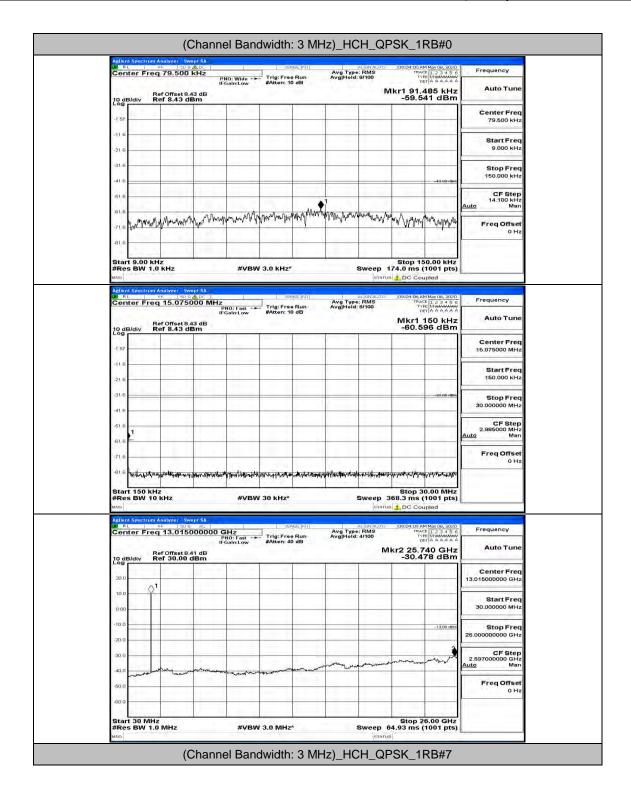






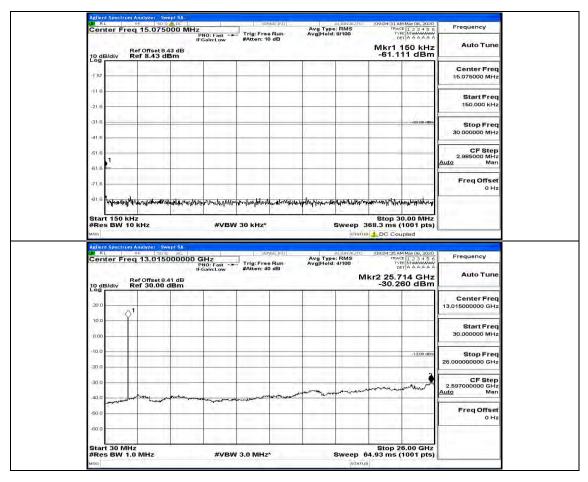
Stop 26.00 GHz Sweep 64.93 ms (1001 pts)

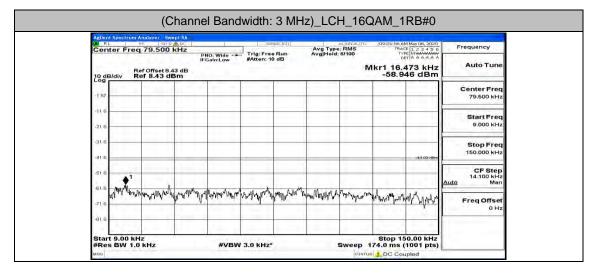
Start 30 MHz #Res BW 1.0 MHz

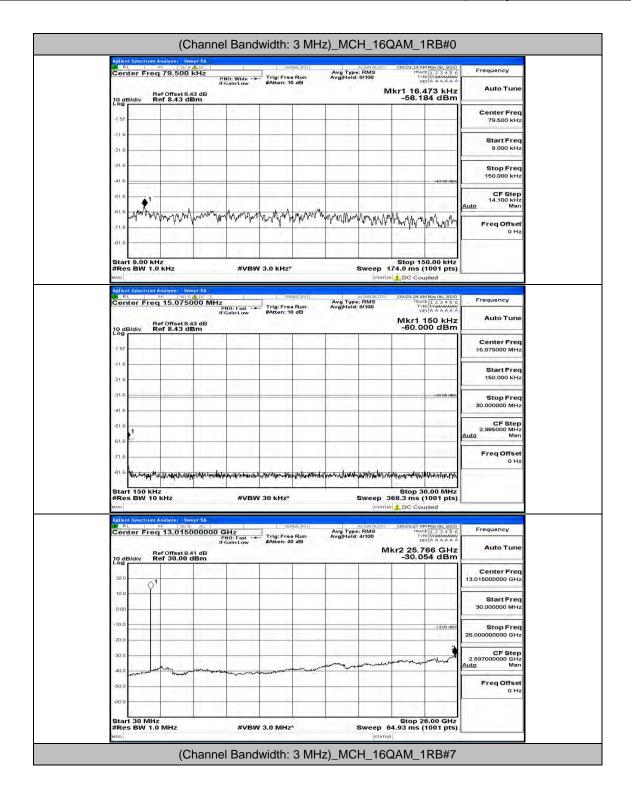


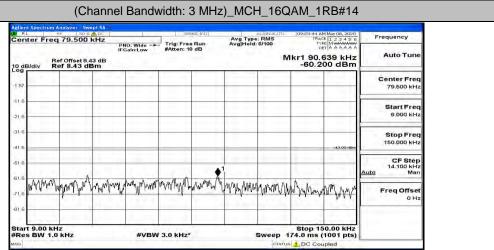
Start 9.00 kHz #Res BW 1.0 kHz Stop 150.00 kHz Sweep 174.0 ms (1001 pts) CF Step

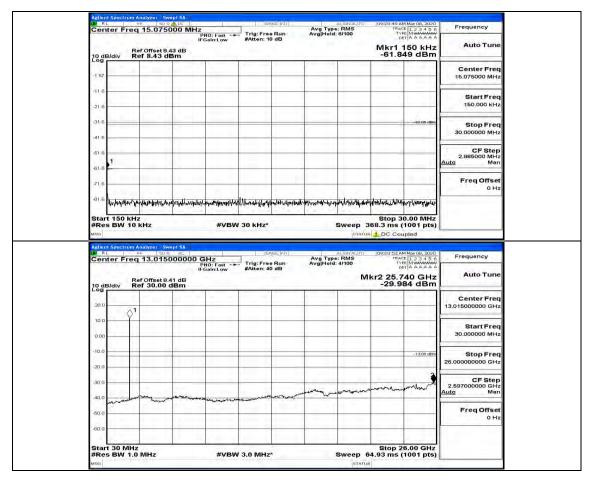
Freq Offse

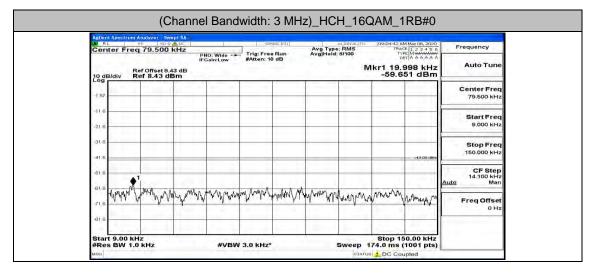












Channel Bandwidth: 5 MHz

