Appendix G: Test Data for E-UTRA Band 4

Product Name: 3-D VR Smartphone
Trade Mark: Q PHONE
Test Model: Qphone2019_A

Environmental Conditions

Temperature:	23.1 ° C
Relative Humidity:	53.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Tom.Liu
Supervised by:	Jayden Zhuo

G.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]	Verdict		
Modulation	Channel	Size	Offset	QPSK	16QAM	verdict		
		1	0	22.70	21.66	PASS		
		1	3	22.69	21.67	PASS		
		1	5	22.72	21.67	PASS		
	LCH	3	0	22.66	21.79	PASS		
		3	2	22.69	21.74	PASS		
		3	3	22.65	21.71	PASS		
		6	0	21.80	20.93	PASS		
		1	0	22.45	21.70	PASS		
		1	3	22.56	21.76	PASS		
QPSK /		1	5	22.51	21.75	PASS		
16QAM	MCH	3	0	22.66	21.79	PASS		
TOQAW		3	2	22.67	21.85	PASS		
		3	3	22.64	21.82	PASS		
		6	0	21.71	20.79	PASS		
		1	0	22.84	21.87	PASS		
		1	3	22.89	21.96	PASS		
		1	5	22.89	21.95	PASS		
	HCH	3	0	22.95	21.65	PASS		
		3	2	22.98	21.96	PASS		
		3	3	22.81	21.91	PASS		
		6	0	22.05	21.10	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	22.71	21.66	PASS	
		1	7	22.77	21.64	PASS	
		1	14	22.64	21.49	PASS	
	LCH	8	0	21.86	20.79	PASS	
		8	4	21.84	20.77	PASS	
		8	7	21.81	20.76	PASS	
		15	0	21.77	20.76	PASS	
		1	0	22.59	21.65	PASS	
		1	7	22.71	21.77	PASS	
QPSK /		1	14	22.61	21.66	PASS	
16QAM	MCH	8	0	21.77	20.76	PASS	
IOQAW		8	4	21.78	20.77	PASS	
		8	7	21.80	20.76	PASS	
		15	0	21.74	20.77	PASS	
		1	0	22.87	21.99	PASS	
		1	7	22.79	21.96	PASS	
		1	14	22.71	21.87	PASS	
	HCH	8	0	22.06	21.18	PASS	
		8	4	22.07	21.19	PASS	
		8	7	22.09	21.21	PASS	
		15	0	22.08	21.04	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	22.60	21.68	PASS	
		1	12	22.63	21.72	PASS	
		1	24	22.51	21.61	PASS	
	LCH	12	0	21.74	20.59	PASS	
		12	6	21.66	20.52	PASS	
		12	13	21.59	20.45	PASS	
		25	0	21.66	20.65	PASS	
		1	0	22.52	21.68	PASS	
		1	12	22.63	21.78	PASS	
QPSK /		1	24	22.56	21.71	PASS	
16QAM	MCH	12	0	21.65	20.55	PASS	
IOQAW		12	6	21.67	20.57	PASS	
		12	13	21.66	20.54	PASS	
		25	0	21.66	20.69	PASS	
		1	0	22.58	21.74	PASS	
		1	12	22.64	21.78	PASS	
		1	24	22.91	21.83	PASS	
	HCH	12	0	21.97	20.97	PASS	
		12	6	21.99	20.98	PASS	
		12	13	21.98	20.98	PASS	
		25	0	21.96	20.98	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	22.82	21.77	PASS		
		1	24	22.67	21.66	PASS		
		1	49	22.72	21.77	PASS		
	LCH	25	0	21.75	20.74	PASS		
		25	12	21.64	20.64	PASS		
		25	25	21.70	20.69	PASS		
		50	0	21.71	20.71	PASS		
		1	0	22.67	21.74	PASS		
	мсн	1	24	22.70	21.74	PASS		
QPSK /		1	49	22.77	21.82	PASS		
16QAM		25	0	21.67	20.71	PASS		
IOQAW		25	12	21.67	20.71	PASS		
		25	25	21.72	20.72	PASS		
		50	0	21.69	20.74	PASS		
		1	0	21.88	21.00	PASS		
		1	24	21.90	21.04	PASS		
		1	49	21.96	21.12	PASS		
	HCH	25	0	22.00	21.00	PASS		
		25	12	21.95	20.94	PASS		
		25	25	21.95	20.96	PASS		
		50	0	21.98	20.91	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	22.91	21.83	PASS		
		1	37	22.68	21.71	PASS		
		1	74	22.81	21.88	PASS		
	LCH	37	0	21.86	20.79	PASS		
		37	18	21.75	20.68	PASS		
		37	38	21.83	20.80	PASS		
		75	0	21.86	20.85	PASS		
		1	0	22.73	21.78	PASS		
	мсн	1	37	22.70	21.76	PASS		
QPSK /		1	74	22.86	21.90	PASS		
16QAM		37	0	21.75	20.71	PASS		
IOQAW		37	18	21.74	20.71	PASS		
		37	38	21.83	20.77	PASS		
		75	0	21.79	20.79	PASS		
		1	0	22.00	21.19	PASS		
		1	37	22.02	21.19	PASS		
		1	74	22.23	21.43	PASS		
	HCH	37	0	22.04	21.00	PASS		
		37	18	21.98	20.93	PASS		
		37	38	22.00	20.96	PASS		
		75	0	22.02	20.97	PASS		

	Conducted Output Power Test Result (Channel Bandwidth: 20 MHz)							
Madulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	\/andiat		
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict		
		1	0	21.88	21.16	PASS		
		1	49	21.82	21.29	PASS		
		1	99	21.90	21.36	PASS		
	LCH	50	0	21.80	20.75	PASS		
		50	25	21.71	20.69	PASS		
		50	50	21.95	20.95	PASS		
		100	0	21.90	20.85	PASS		
		1	0	21.96	21.43	PASS		
	мсн	1	49	21.84	21.30	PASS		
QPSK /		1	99	22.12	21.55	PASS		
16QAM		50	0	21.71	20.69	PASS		
IOQAW		50	25	21.71	20.71	PASS		
		50	50	21.86	20.85	PASS		
		100	0	21.80	20.76	PASS		
		1	0	22.00	21.05	PASS		
		1	49	22.94	21.94	PASS		
		1	99	22.27	21.33	PASS		
	НСН	50	0	21.88	20.86	PASS		
		50	25	21.83	20.83	PASS		
		50	50	21.83	20.81	PASS		
		100	0	21.90	20.88	PASS		

G.2 Peak-to-Average Ratio

Peak-to Average Ratio Test Result (Channel Bandwidth: 1.4 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict			
Modulation	Chame	[dB]	[dB]	verdict			
	LCH	4.56	<13	PASS			
QPSK	MCH	5.16	<13	PASS			
	HCH	5.21	<13	PASS			
	LCH	5.38	<13	PASS			
16QAM	MCH	6.21	<13	PASS			
	HCH	5.99	<13	PASS			

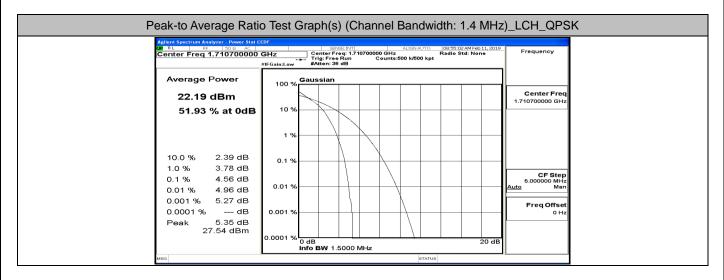
Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict		
Modulation	Channel	[dB]	[dB]	verdict		
	LCH	4.73	<13	PASS		
QPSK	MCH	5.24	<13	PASS		
	HCH	5.23	<13	PASS		
	LCH	5.65	<13	PASS		
16QAM	MCH	6.24	<13	PASS		
	HCH	5.96	<13	PASS		

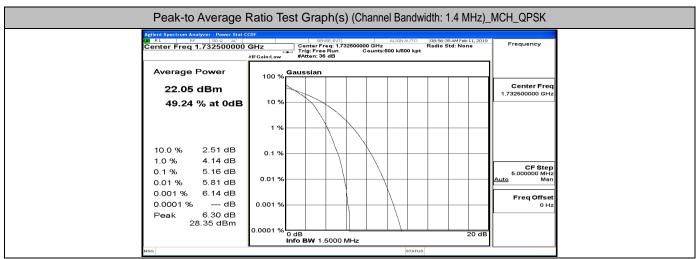
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Vordict		
iviodulation	Griannei	[dB]	[dB]	Verdict		
	LCH	4.83	<13	PASS		
QPSK	MCH	5.3	<13	PASS		
	HCH	5.19	<13	PASS		
	LCH	5.59	<13	PASS		
16QAM	MCH	6.08	<13	PASS		
	HCH	6.02	<13	PASS		

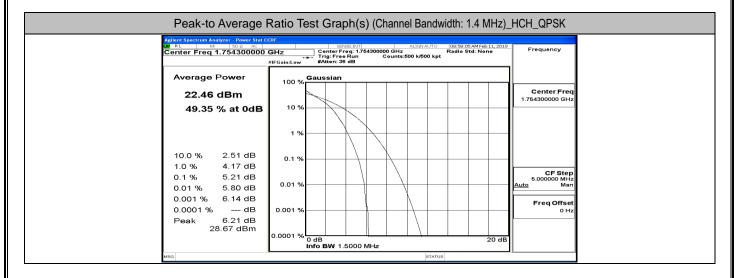
Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict		
Modulation	Griannei	[dB]	[dB]	verdict		
	LCH	5.18	<13	PASS		
QPSK	MCH	5.44	<13	PASS		
	HCH	5.25	<13	PASS		
	LCH	5.9	<13	PASS		
16QAM	MCH	6.22	<13	PASS		
	HCH	6	<13	PASS		

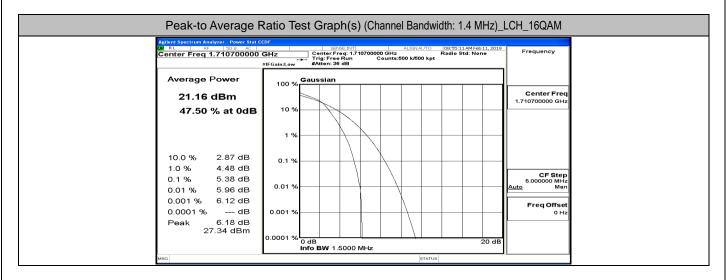
	Peak-to Average Ratio Test Result (Channel Bandwidth: 15 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict			
Modulation	Griannei	[dB]	[dB]	verdict			
	LCH	5.05	<13	PASS			
QPSK	MCH	5.02	<13	PASS			
	HCH	4.95	<13	PASS			
	LCH	6.11	<13	PASS			
16QAM	MCH	6.17	<13	PASS			
	HCH	6.01	<13	PASS			

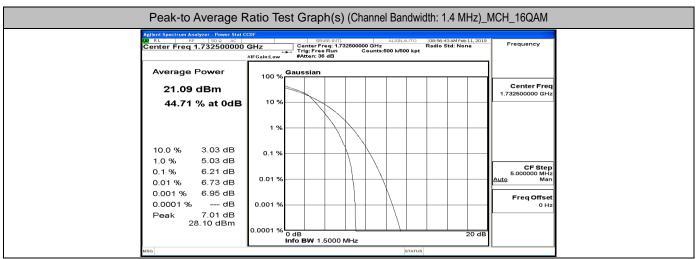
Peak-to Average Ratio Test Result (Channel Bandwidth: 20 MHz)				
M. I.I.C	Channel	Peak-to-Average Ratio	Limit	Verdict
Modulation		[dB]	[dB]	
QPSK	LCH	5.8	<13	PASS
	MCH	5.75	<13	PASS
	HCH	5.72	<13	PASS
16QAM	LCH	6.77	<13	PASS
	MCH	6.73	<13	PASS
	HCH	6.58	<13	PASS

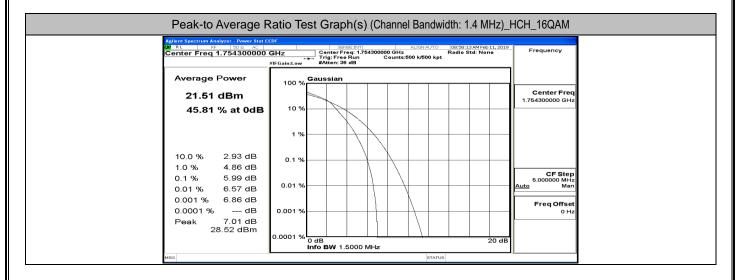


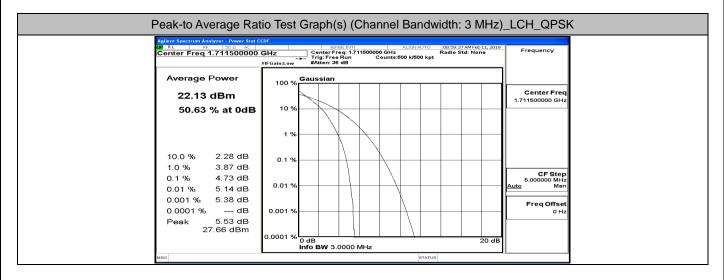


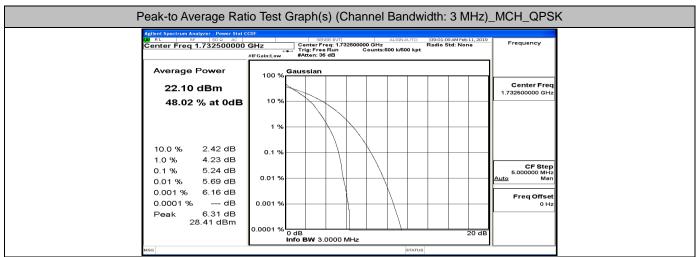


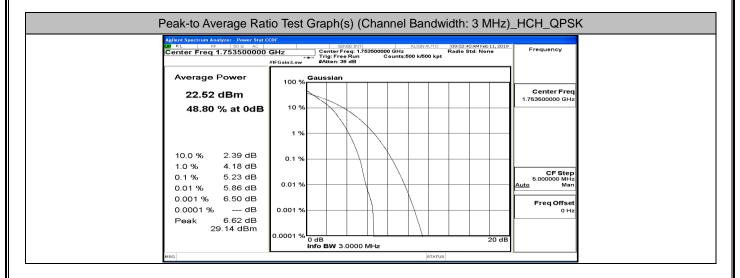


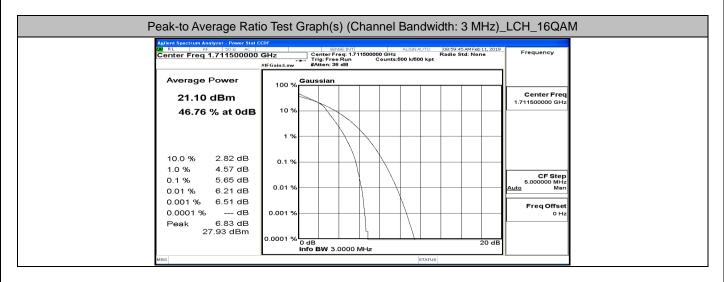


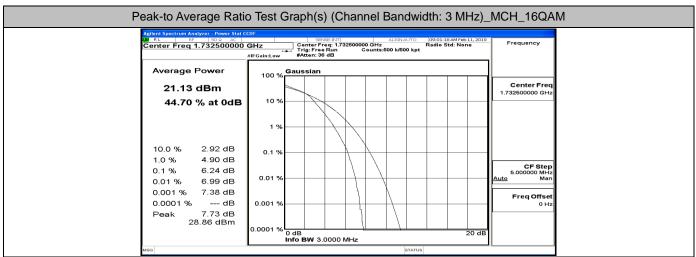


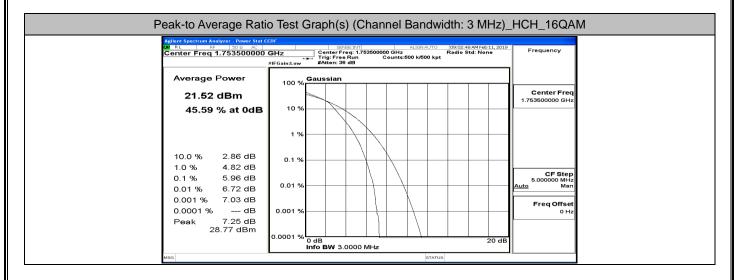


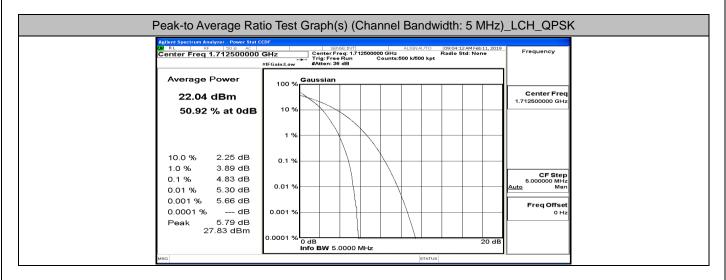


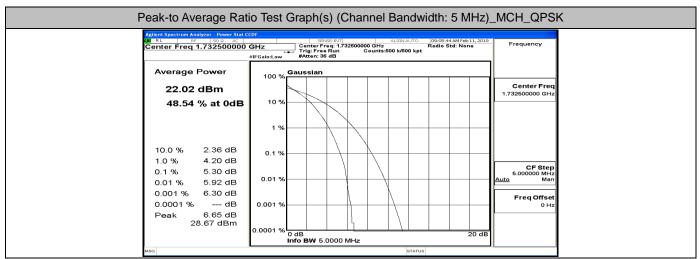


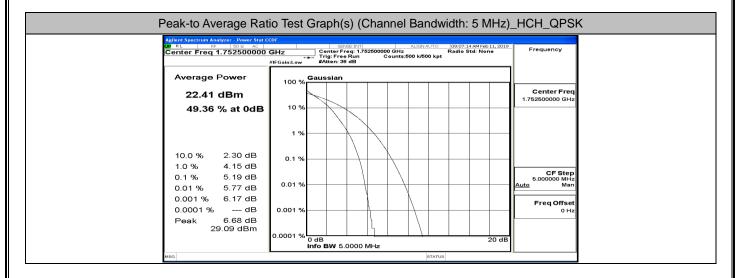


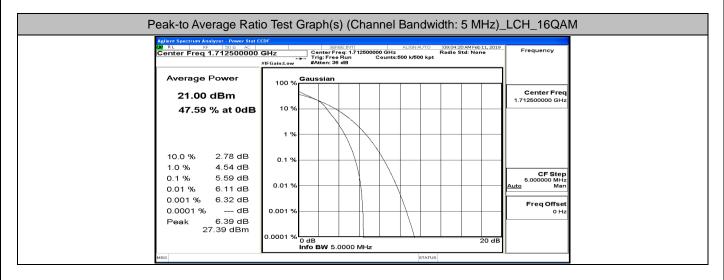


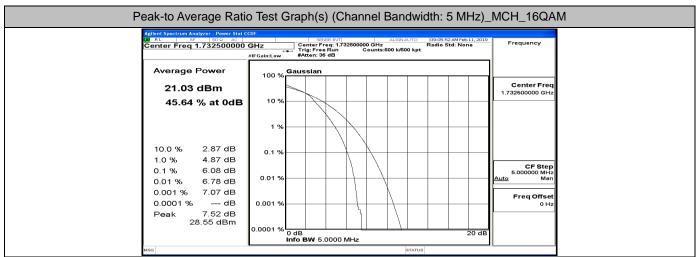


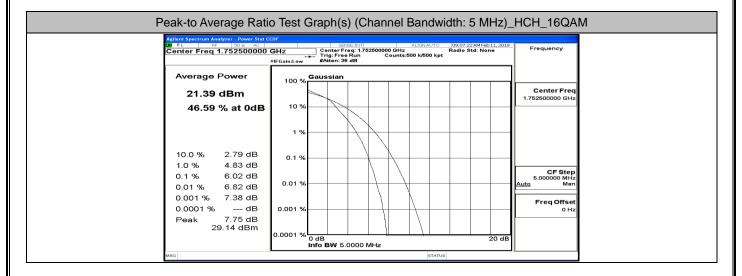


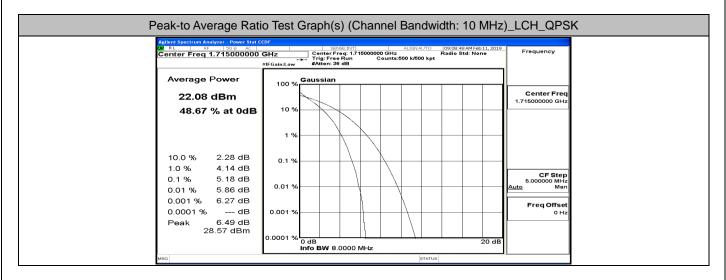


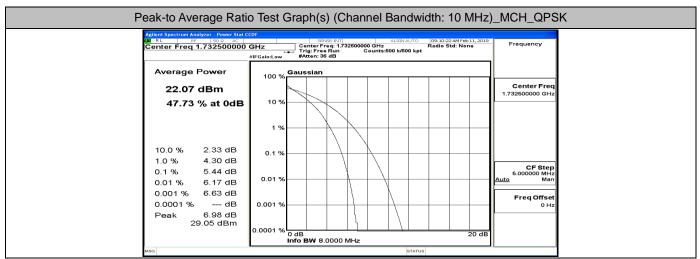


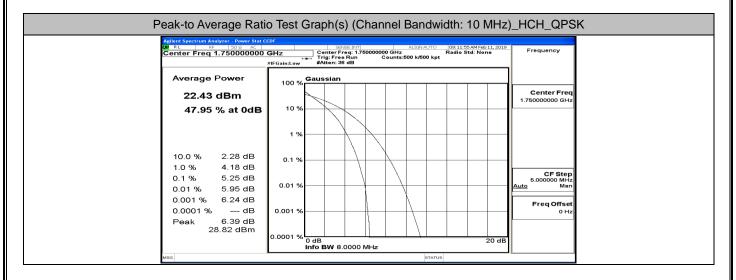


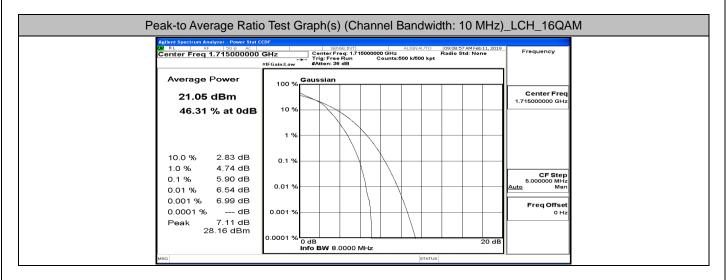


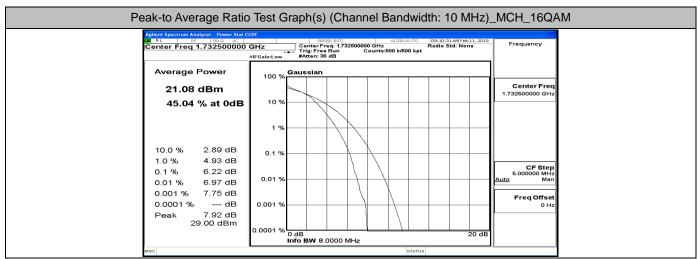


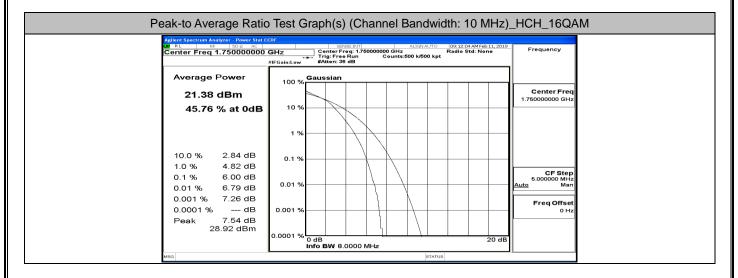


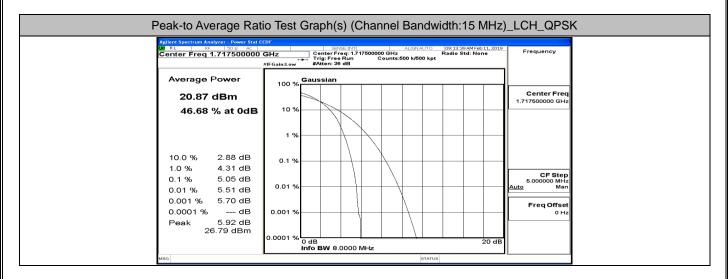


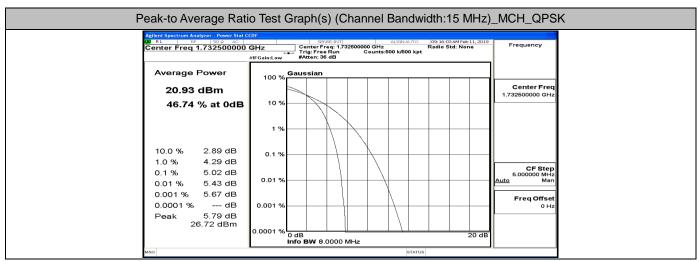


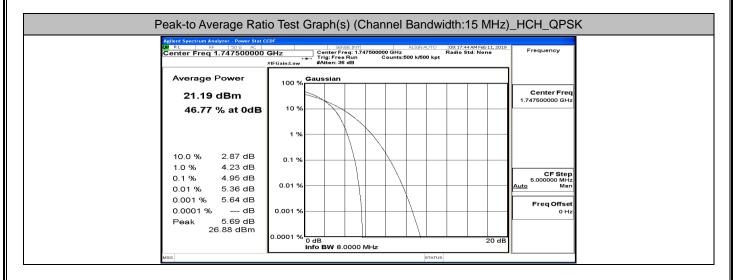


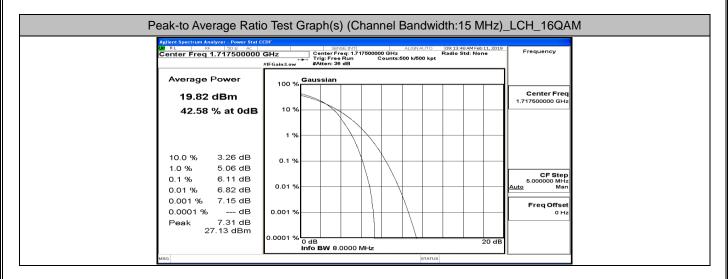


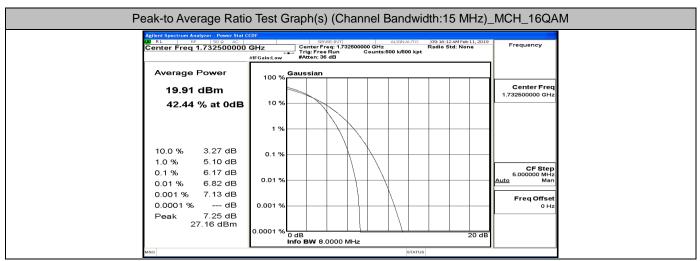


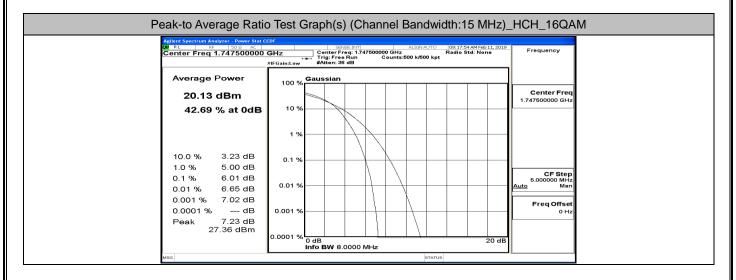


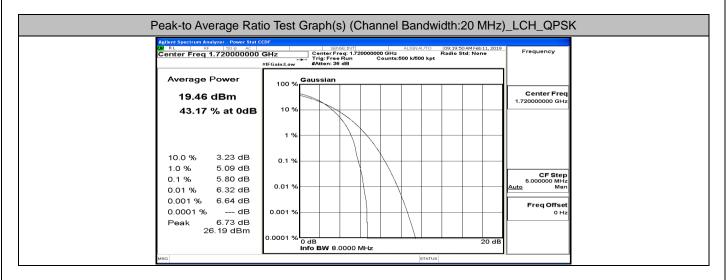


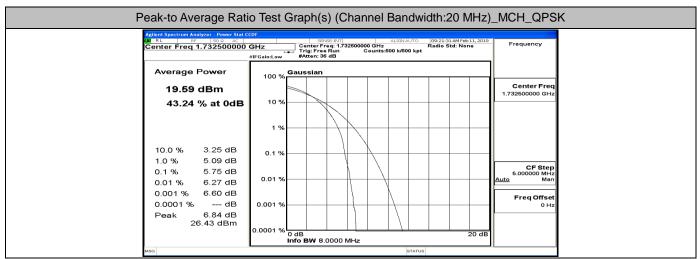


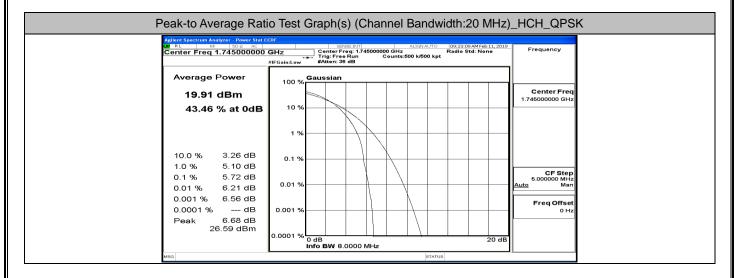


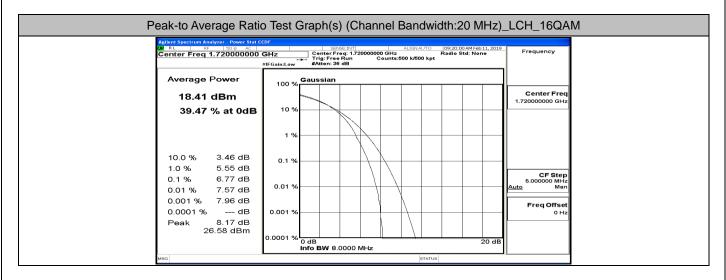


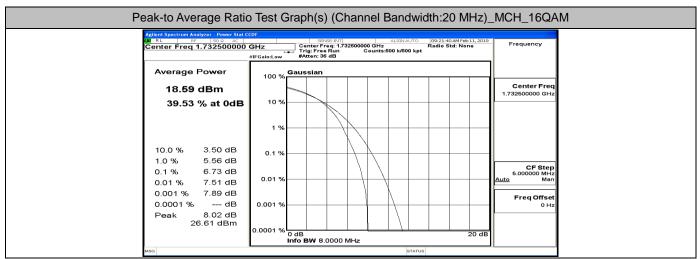


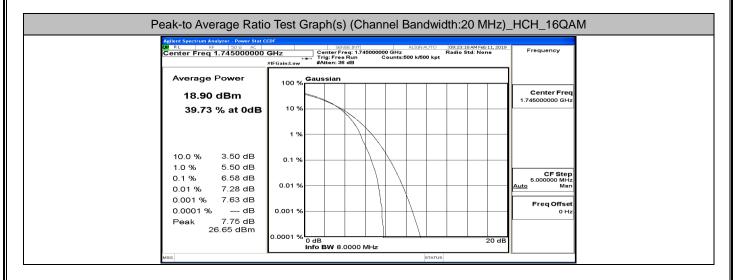












G.3 26dB Bandwidth and Occupied Bandwidth

EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
iviodulation		(MHz)	(MHz)	
QPSK	LCH	1.0750	1.219	PASS
	MCH	1.0758	1.197	PASS
	HCH	1.0773	1.215	PASS
16QAM	LCH	1.0768	1.204	PASS
	MCH	1.0790	1.207	PASS
	HCH	1.0785	1.221	PASS

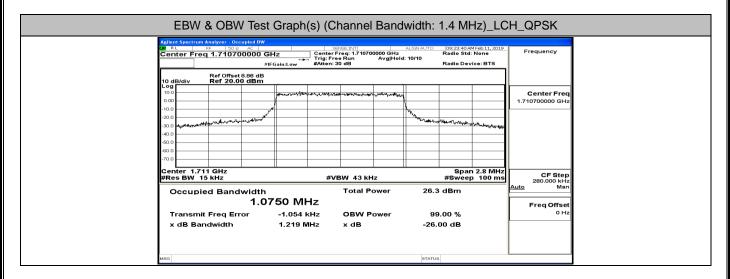
EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Madulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	2.6822	2.868	PASS
	MCH	2.6790	2.879	PASS
	HCH	2.6887	2.888	PASS
16QAM	LCH	2.6856	2.900	PASS
	MCH	2.6814	2.871	PASS
	HCH	2.6820	2.857	PASS

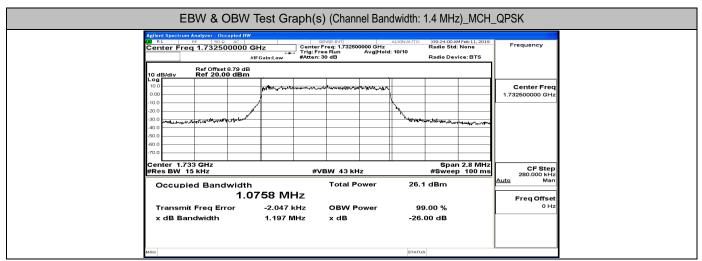
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	4.4667	4.827	PASS
	MCH	4.4713	4.800	PASS
	HCH	4.4700	4.810	PASS
16QAM	LCH	4.4630	4.817	PASS
	MCH	4.4732	4.816	PASS
	HCH	4.4755	4.828	PASS

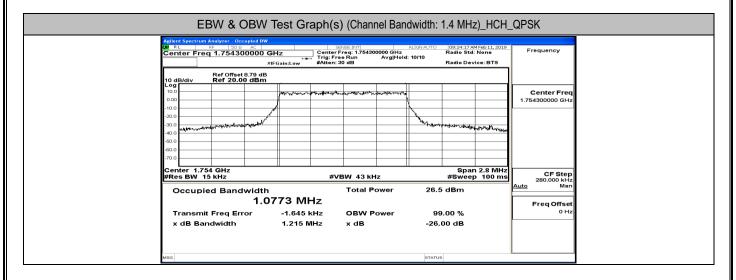
EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	8.9622	9.527	PASS
	MCH	8.9400	9.456	PASS
	HCH	8.9513	9.465	PASS
16QAM	LCH	8.9561	9.470	PASS
	MCH	8.9388	9.508	PASS
	HCH	8.9440	9.486	PASS

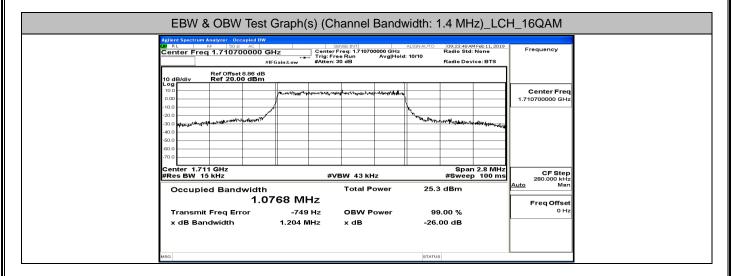
EBW & OBW Test Result (Channel Bandwidth: 15 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	13.435	14.10	PASS
	MCH	13.425	14.14	PASS
	HCH	13.436	14.07	PASS
16QAM	LCH	13.421	14.18	PASS
	MCH	13.419	14.10	PASS
	HCH	13.420	14.09	PASS

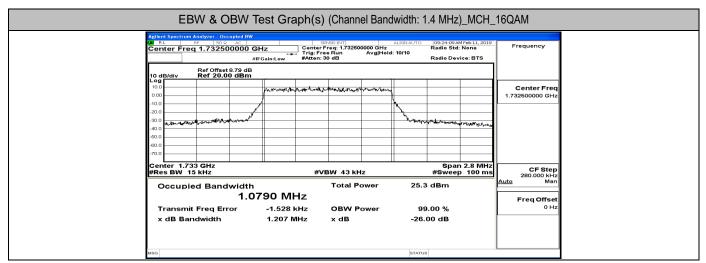
EBW & OBW Test Result (Channel Bandwidth: 20 MHz)				
Mandada Gara	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	17.892	18.60	PASS
	MCH	17.884	18.61	PASS
	HCH	17.852	18.62	PASS
16QAM	LCH	17.896	18.66	PASS
	MCH	17.867	18.64	PASS
	HCH	17.856	18.71	PASS

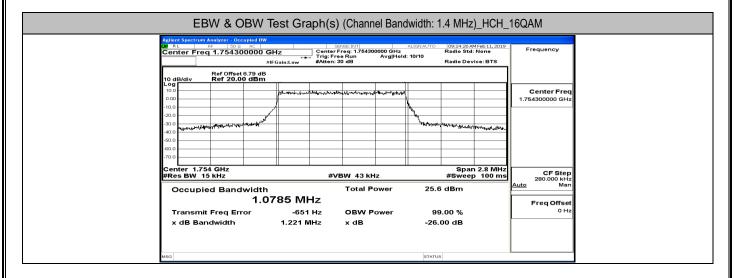


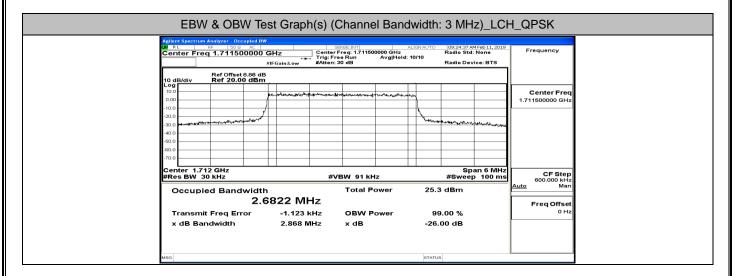


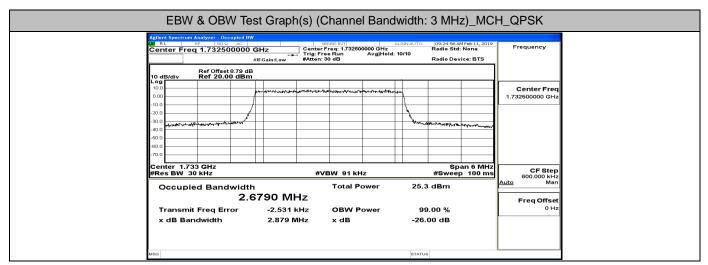


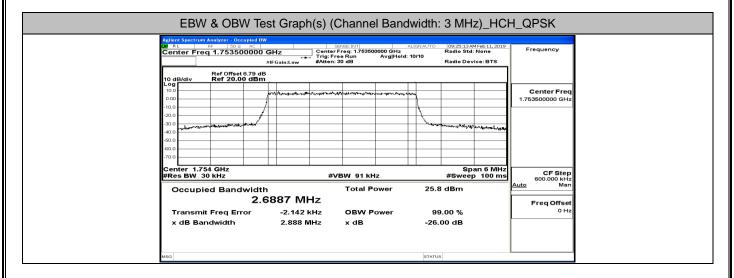


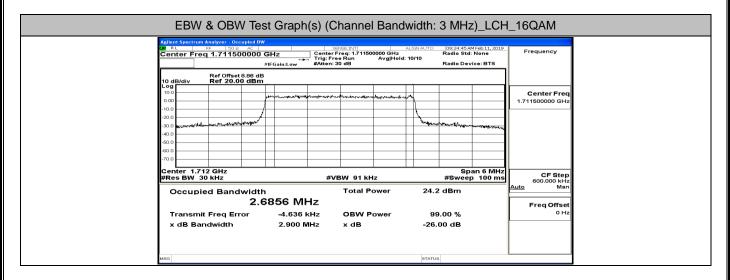


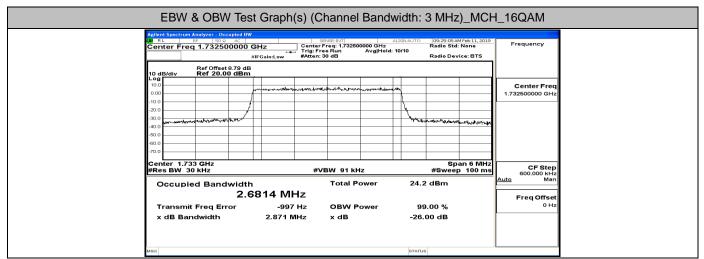


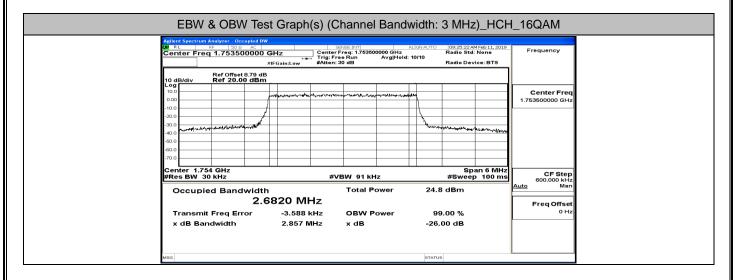


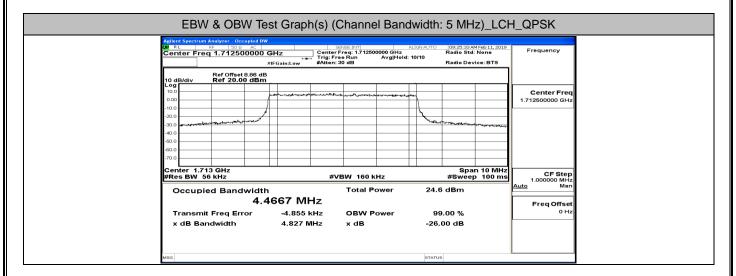


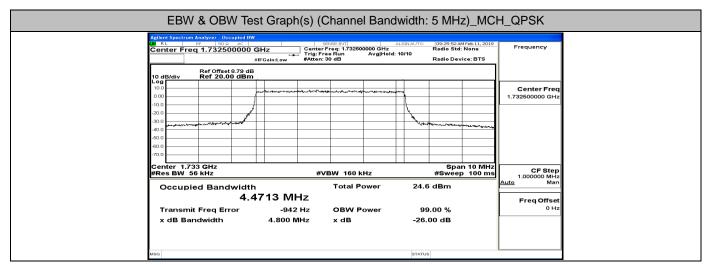


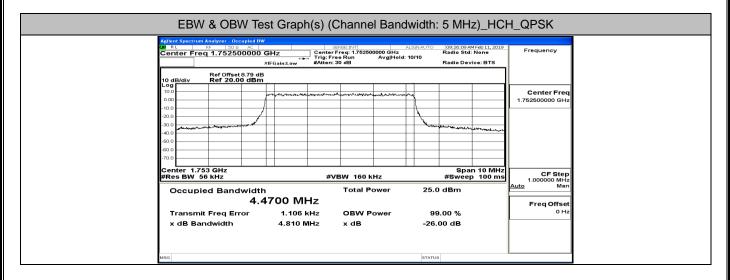


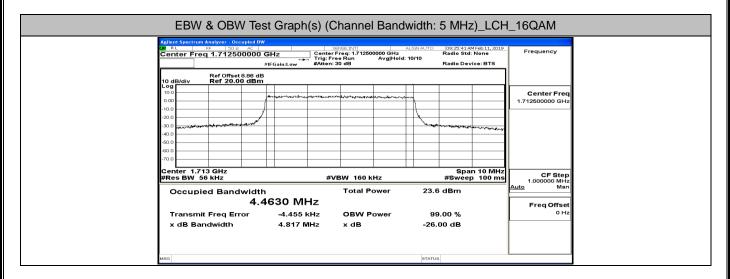


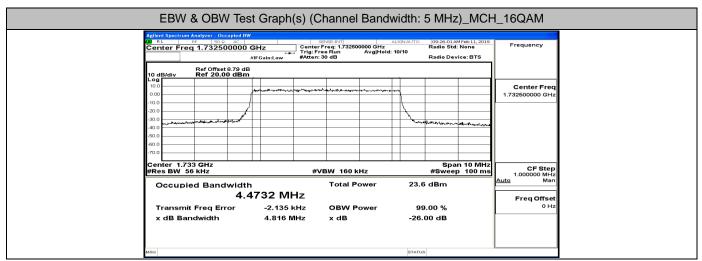


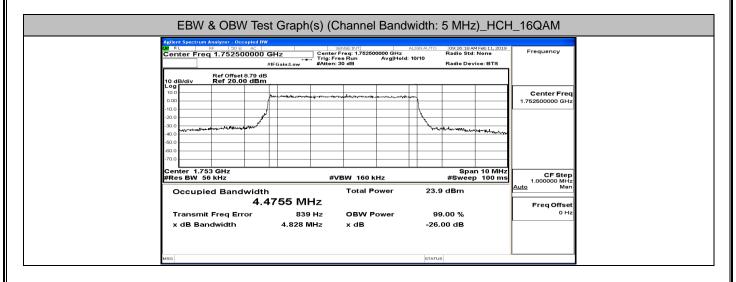


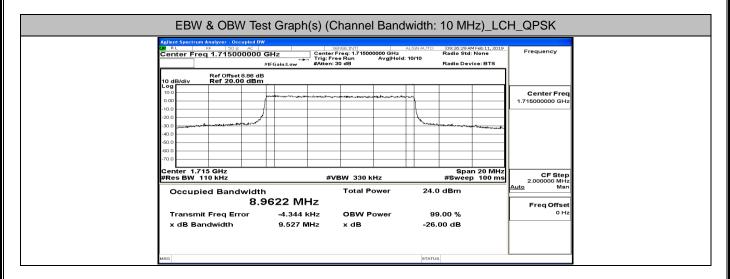


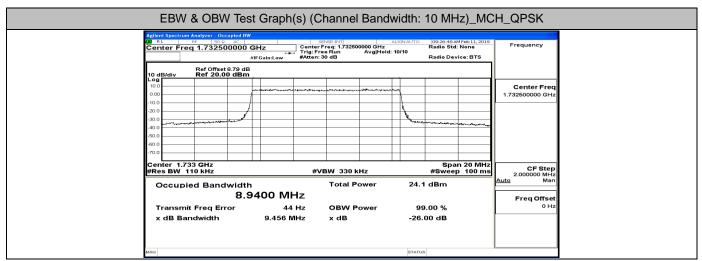


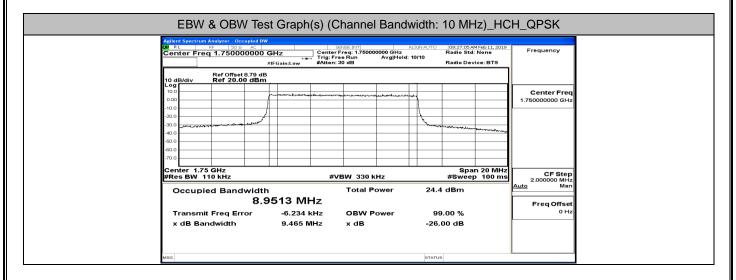


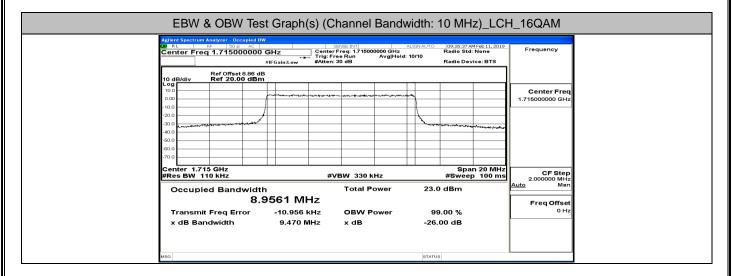


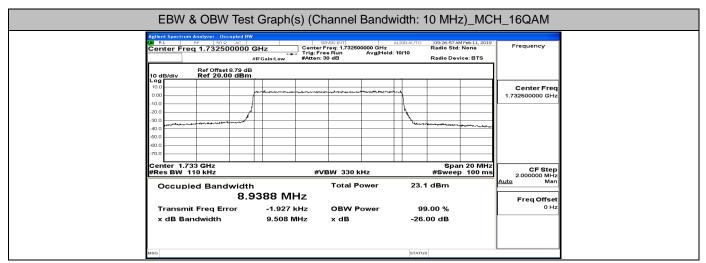


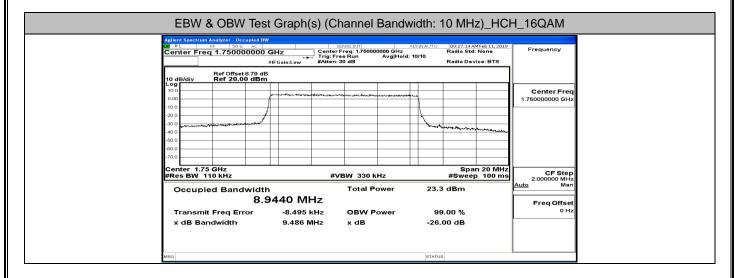


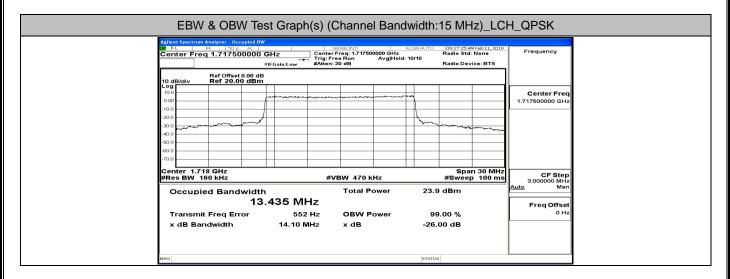


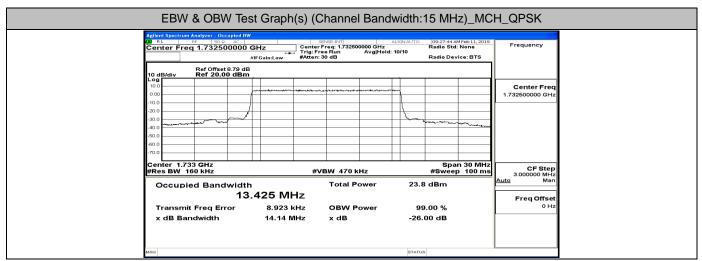


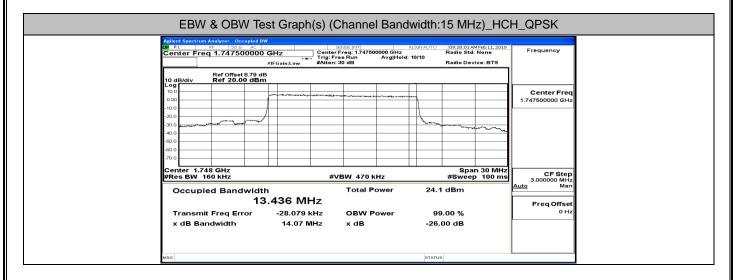


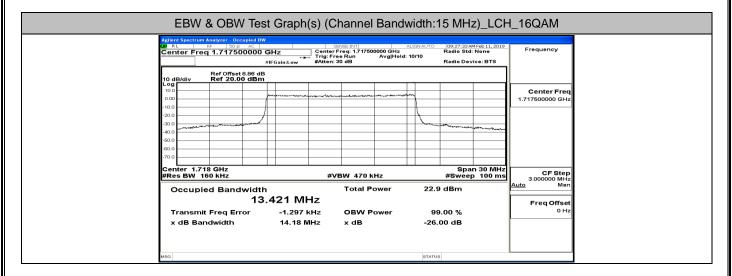


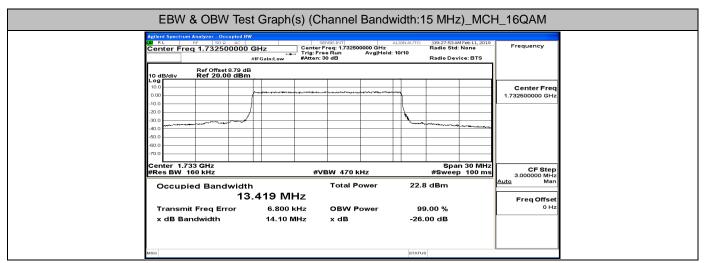


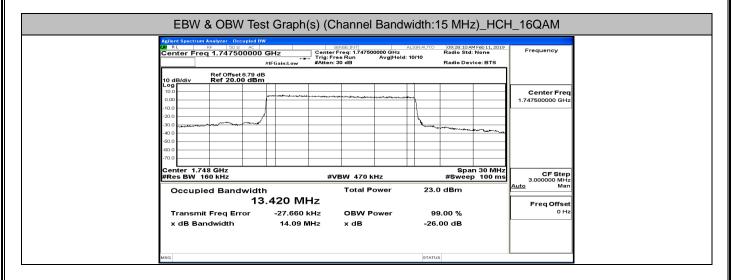


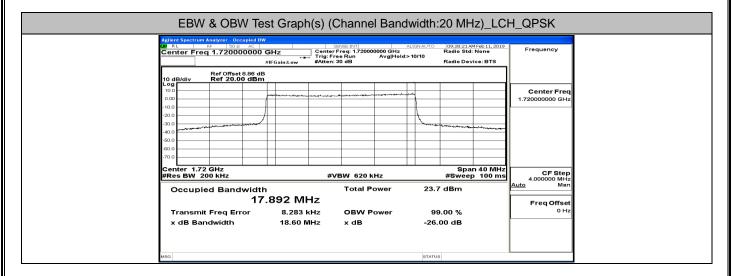


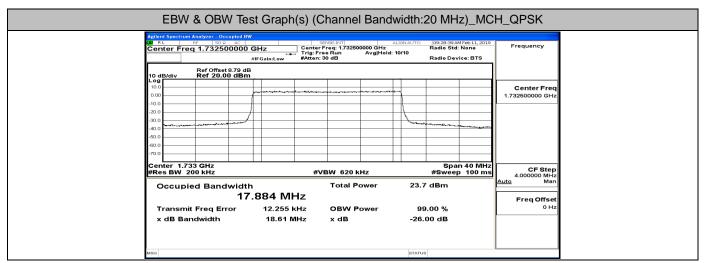


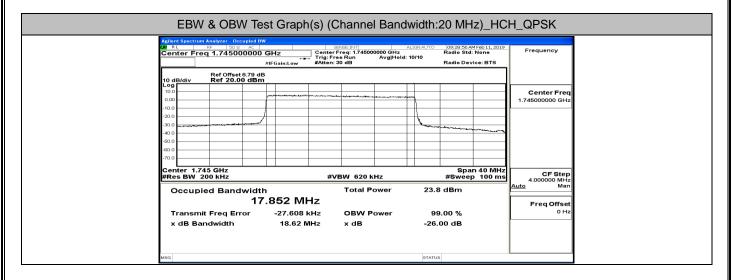


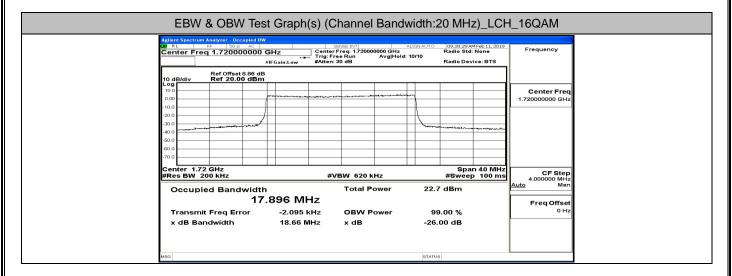


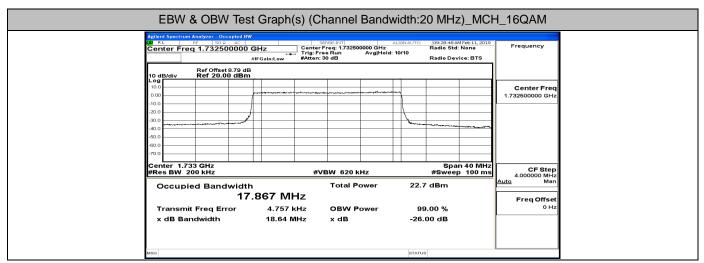


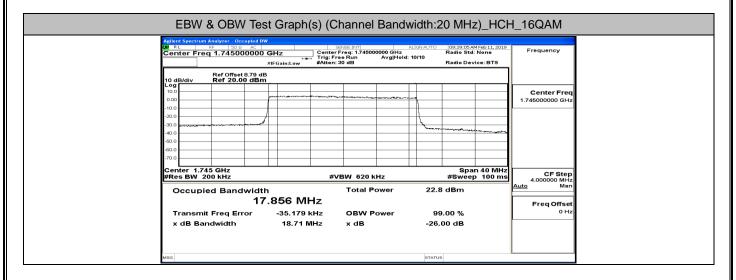




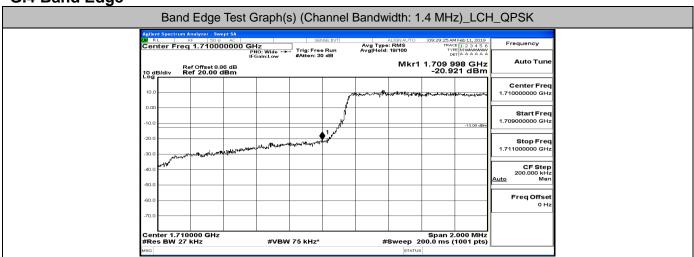


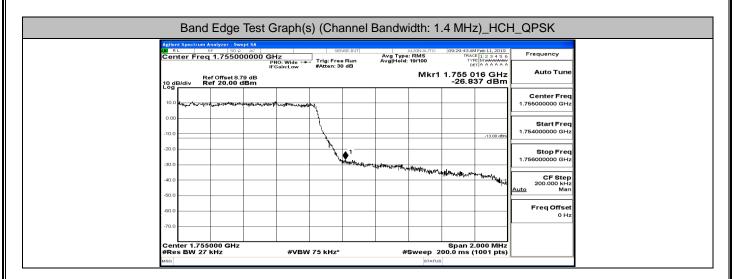


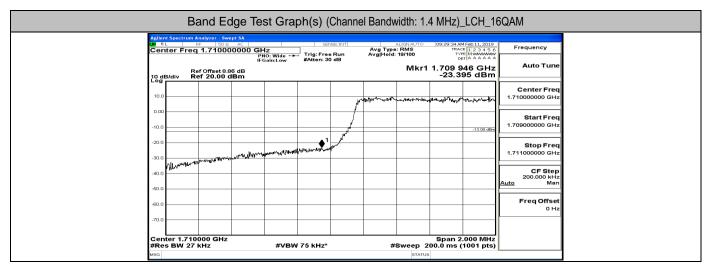


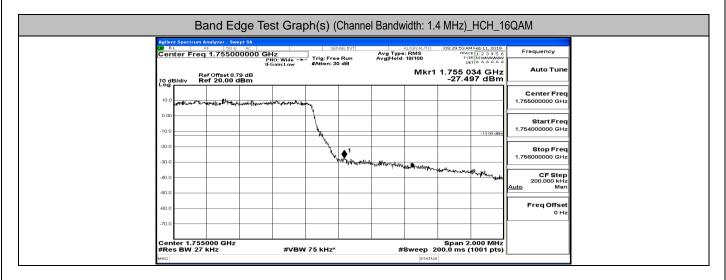


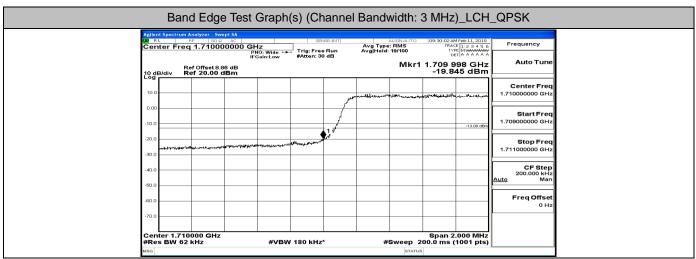
G.4 Band Edge

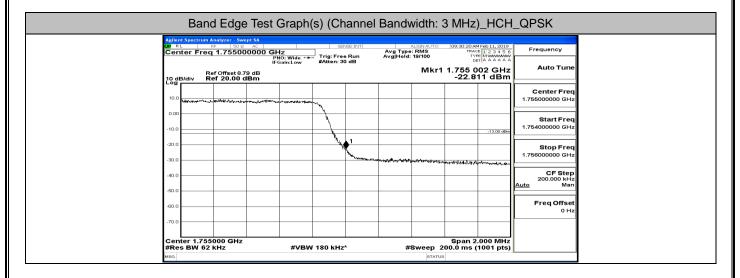


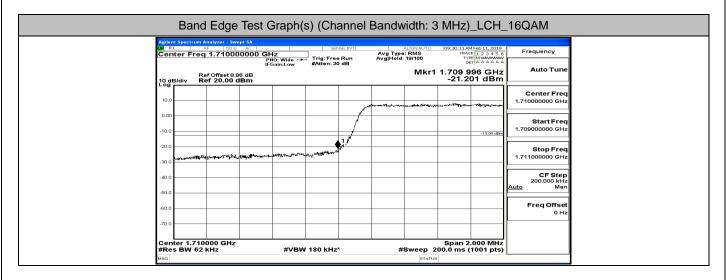


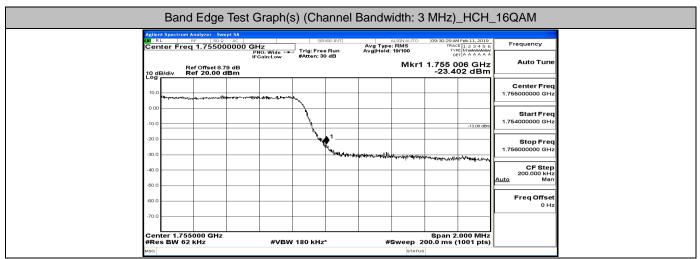


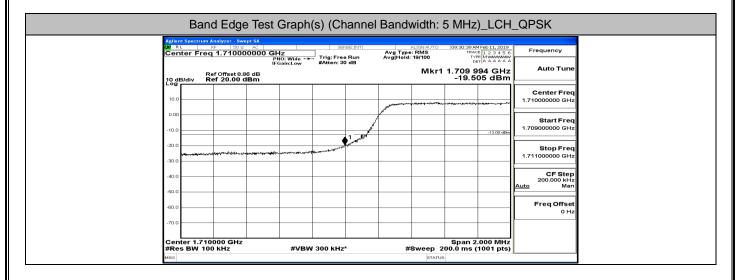


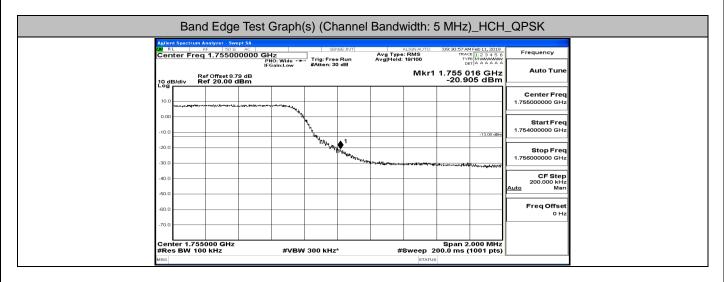


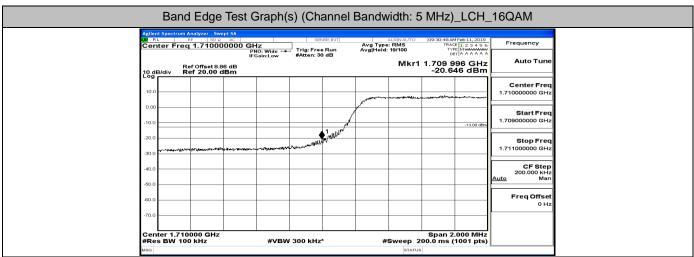


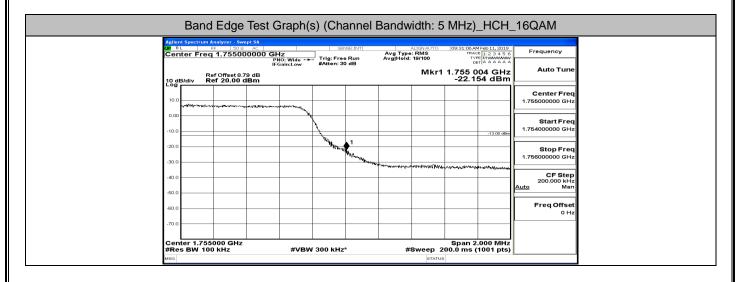


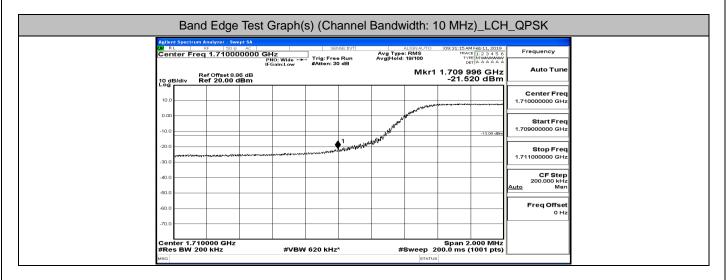


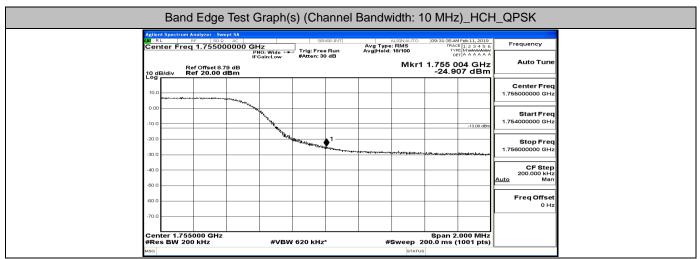


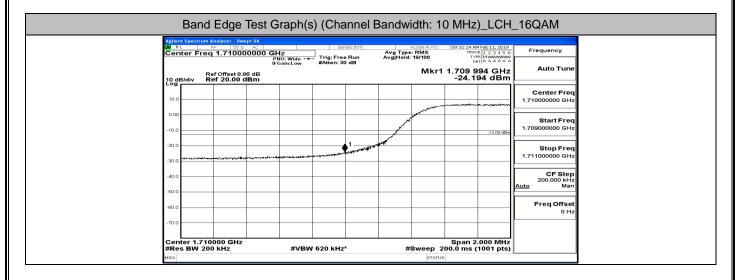


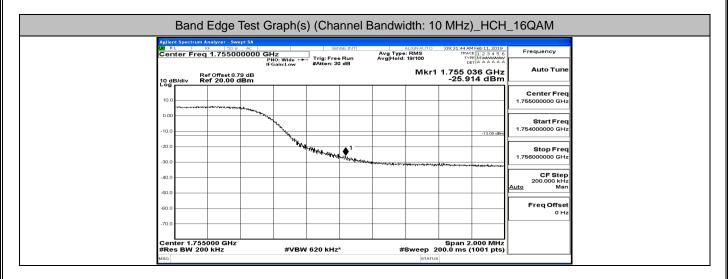


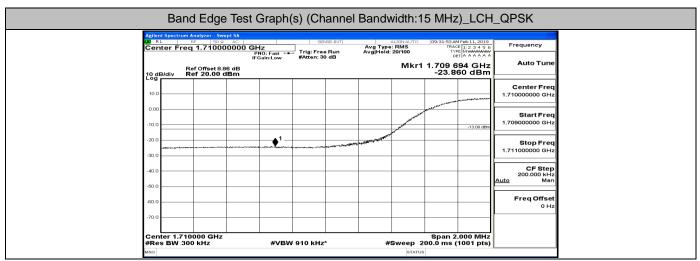


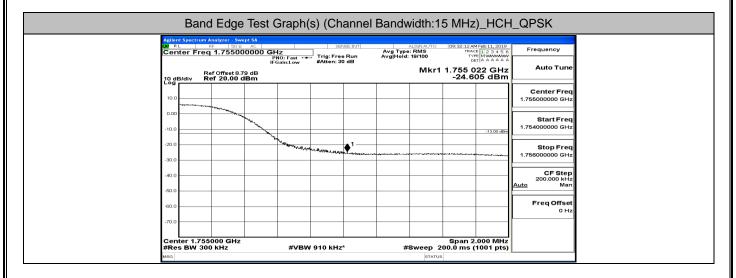


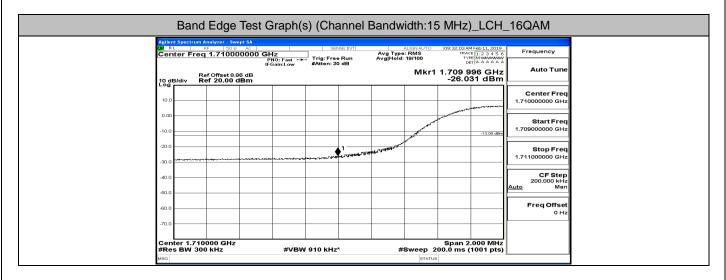


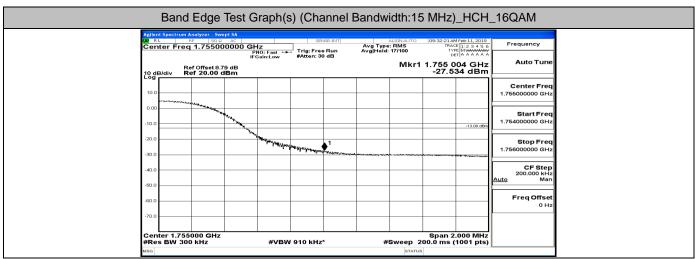


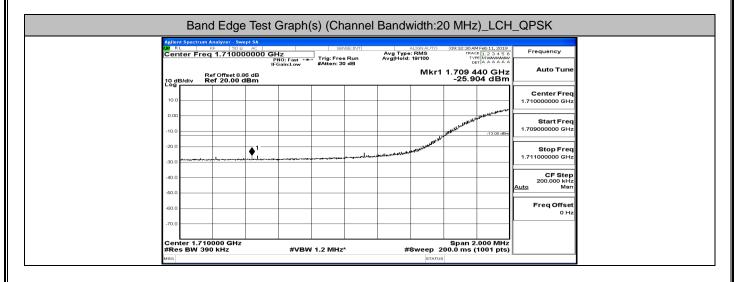


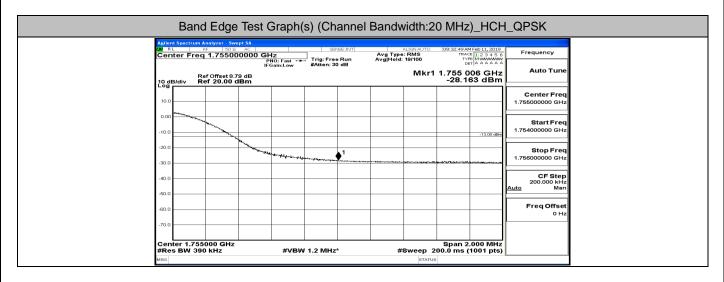


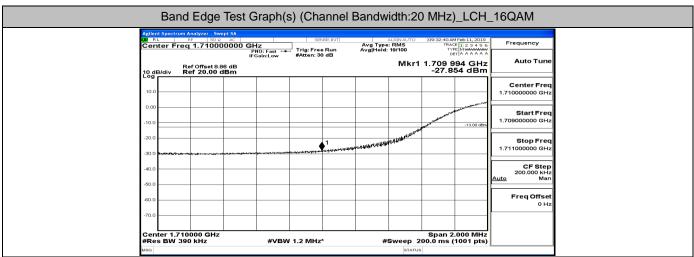


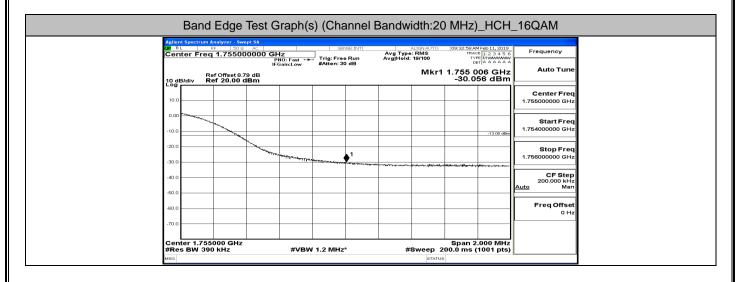












G.5 Conducted Spurious Emission

