Appendix D: Test Data for E-UTRA Band 2

Product Name: MEITRACK GPS P88L Trade Mark: MEITRACK®Test Model: P88L-A

Environmental Conditions

Temperature:	22.8° C
Relative Humidity:	53.3%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Li Huan

D.1 Conducted Output Power

Conducted Output Power Test Result (Channel Bandwidth: 1.4 MHz)								
Modulation	Channel	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	Verdict		
IVIOGUIATION	Channel	Size	Offset	QPSK	16QAM	verdict		
		1	0	23.81	22.96	PASS		
		1	3	23.88	23.06	PASS		
		1	5	23.86	23.01	PASS		
	LCH	3	0	23.78	22.54	PASS		
		3	2	23.70	22.53	PASS		
		3	3	23.80	22.70	PASS		
		6	0	22.77	21.82	PASS		
		1	0	24.12	23.55	PASS		
	MCH	1	3	24.11	23.45	PASS		
QPSK /		1	5	24.07	23.25	PASS		
16QAM		3	0	24.28	22.88	PASS		
TOQAM		3	2	24.09	22.87	PASS		
		3	3	24.21	22.59	PASS		
		6	0	23.10	22.01	PASS		
		1	0	24.31	23.41	PASS		
		1	3	24.08	23.42	PASS		
		1	5	24.12	23.25	PASS		
	HCH	3	0	24.12	22.92	PASS		
		3	2	24.19	22.92	PASS		
		3	3	24.05	22.79	PASS		
		6	0	23.04	22.21	PASS		

Conducted Output Power Test Result (Channel Bandwidth: 3 MHz)								
Modulation	Channal	RB Configuration		Average Power [dBm]	Average Power [dBm]	Vardiet		
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict		
		1	0	23.79	22.76	PASS		
		1	7	23.91	22.90	PASS		
		1	14	23.87	22.63	PASS		
	LCH	8	0	22.71	21.69	PASS		
		8	4	22.79	21.72	PASS		
		8	7	22.81	21.70	PASS		
		15	0	22.87	21.79	PASS		
		1	0	24.17	22.91	PASS		
	MCH	1	7	24.01	22.86	PASS		
ODCK /		1	14	24.12	22.78	PASS		
QPSK / 16QAM		8	0	23.32	22.42	PASS		
TOQAW		8	4	23.32	22.41	PASS		
		8	7	23.12	22.16	PASS		
		15	0	23.15	22.18	PASS		
		1	0	24.10	23.81	PASS		
		1	7	23.97	23.43	PASS		
		1	14	23.94	23.16	PASS		
	HCH	8	0	23.13	22.40	PASS		
		8	4	23.12	22.41	PASS		
		8	7	23.06	22.03	PASS		
		15	0	23.08	22.32	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	23.90	22.00	PASS		
		1	12	24.08	22.04	PASS		
		1	24	23.77	21.81	PASS		
	LCH	12	0	22.86	21.99	PASS		
		12	6	22.85	21.99	PASS		
		12	13	22.75	21.96	PASS		
		25	0	22.85	21.91	PASS		
		1	0	24.17	23.36	PASS		
	МСН	1	12	24.21	22.99	PASS		
QPSK /		1	24	24.09	22.96	PASS		
16QAM		12	0	23.13	22.07	PASS		
IOQAW		12	6	23.12	22.07	PASS		
		12	13	23.00	21.92	PASS		
		25	0	23.15	22.29	PASS		
		1	0	23.99	22.75	PASS		
		1	12	24.09	22.61	PASS		
		1	24	23.97	22.49	PASS		
	HCH	12	0	23.11	22.13	PASS		
		12	6	23.11	22.21	PASS		
		12	13	23.02	22.03	PASS		
		25	0	23.07	22.20	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	23.94	22.80	PASS		
		1	24	24.06	22.64	PASS		
		1	49	23.10	22.46	PASS		
	LCH	25	0	22.91	22.16	PASS		
		25	12	22.82	21.98	PASS		
		25	25	22.77	21.97	PASS		
		50	0	22.79	21.91	PASS		
		1	0	24.28	23.47	PASS		
	МСН	1	24	24.63	24.03	PASS		
QPSK /		1	49	24.02	23.19	PASS		
16QAM		25	0	23.27	22.57	PASS		
TOQAW		25	12	23.27	22.57	PASS		
		25	25	23.05	22.12	PASS		
		50	0	23.15	22.08	PASS		
		1	0	22.58	21.78	PASS		
		1	24	24.57	23.83	PASS		
		1	49	23.29	22.52	PASS		
	HCH	25	0	23.13	22.22	PASS		
		25	12	23.11	22.22	PASS		
		25	25	23.19	22.35	PASS		
		50	0	23.20	22.17	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	23.94	23.68	PASS		
		1	37	24.12	23.65	PASS		
		1	74	22.06	21.30	PASS		
	LCH	37	0	23.01	22.98	PASS		
		37	18	23.00	22.97	PASS		
		37	38	23.00	23.05	PASS		
		75	0	23.04	22.11	PASS		
		1	0	23.65	22.99	PASS		
	мсн	1	37	24.95	23.93	PASS		
QPSK /		1	74	23.88	22.47	PASS		
16QAM		37	0	23.31	23.29	PASS		
TOQAIVI		37	18	23.31	23.29	PASS		
		37	38	23.30	23.29	PASS		
		75	0	23.33	22.49	PASS		
		1	0	22.53	21.47	PASS		
		1	37	23.77	22.73	PASS		
		1	74	22.93	21.94	PASS		
	HCH	37	0	23.17	23.23	PASS		
		37	18	23.16	23.22	PASS		
		37	38	23.14	23.21	PASS		
		75	0	23.19	22.20	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	24.16	23.51	PASS			
		1	49	23.34	22.43	PASS			
		1	99	22.13	21.17	PASS			
	LCH	50	0	23.15	22.17	PASS			
		50	25	23.15	22.19	PASS			
		50	50	22.21	21.39	PASS			
		100	0	23.02	22.04	PASS			
		1	0	22.49	21.67	PASS			
	MCH	1	49	25.11	23.87	PASS			
QPSK /		1	99	23.67	22.19	PASS			
16QAM		50	0	23.34	22.43	PASS			
TOQAIVI		50	25	23.34	22.52	PASS			
		50	50	23.27	22.32	PASS			
		100	0	23.31	22.35	PASS			
		1	0	23.52	22.63	PASS			
		1	49	22.91	22.09	PASS			
		1	99	22.55	21.68	PASS			
	HCH	50	0	22.93	22.06	PASS			
		50	25	22.92	22.06	PASS			
		50	50	23.35	22.46	PASS			
		100	0	23.08	22.20	PASS			

D.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	4.74	<13	PASS			
QPSK	MCH	5.11	<13	PASS			
	HCH	4.97	<13	PASS			
16QAM	LCH	5.59	<13	PASS			
	MCH	5.82	<13	PASS			
	HCH	5.76	<13	PASS			

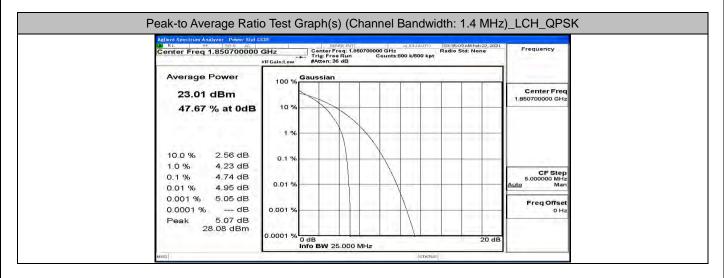
Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Vordict		
Modulation	Channel	[dB]	[dB]	Verdict		
	LCH	4.8	<13	PASS		
QPSK	MCH	5.2	<13	PASS		
	HCH	5.03	<13	PASS		
16QAM	LCH	5.61	<13	PASS		
	MCH	5.93	<13	PASS		
	HCH	5.89	<13	PASS		

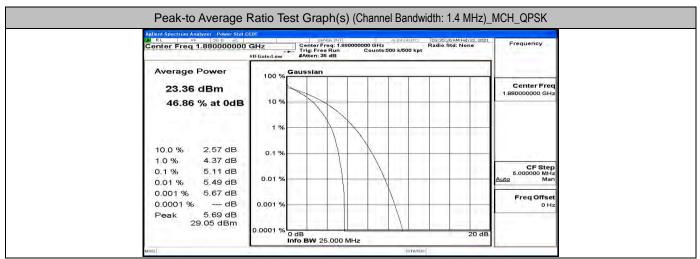
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)							
Modulation	Channel	Peak-to-Average Ratio	Limit	Vordiet			
Modulation	Chamer	[dB]	[dB]	Verdict			
	LCH	4.82	<13	PASS			
QPSK	MCH	5.18	<13	PASS			
	HCH	5.1	<13	PASS			
16QAM	LCH	5.64	<13	PASS			
	MCH	5.97	<13	PASS			
	HCH	5.92	<13	PASS			

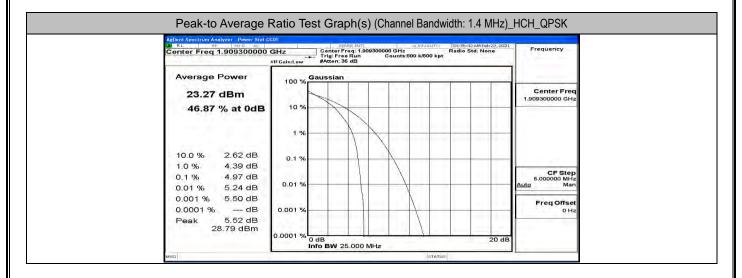
Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict		
iviodulation	Griannei	[dB]	[dB]	verdict		
	LCH	4.94	<13	PASS		
QPSK	MCH	5.1	<13	PASS		
	HCH	5.08	<13	PASS		
	LCH	5.76	<13	PASS		
16QAM	MCH	5.89	<13	PASS		
	HCH	5.92	<13	PASS		

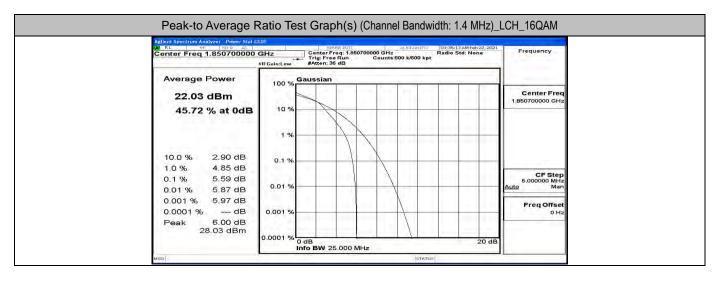
Peak-to Average Ratio Test Result (Channel Bandwidth: 15 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict		
Modulation	Griannei	[dB]	[dB]	verdict		
	LCH	5.25	<13	PASS		
QPSK	MCH	5.2	<13	PASS		
	HCH	5.35	<13	PASS		
	LCH	5.94	<13	PASS		
16QAM	MCH	5.94	<13	PASS		
	HCH	6.1	<13	PASS		

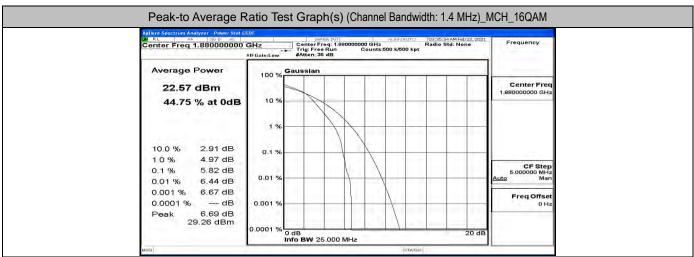
Peak-to Average Ratio Test Result (Channel Bandwidth: 20 MHz)					
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict	
iviodulation		[dB]	[dB]		
QPSK	LCH	5.25	<13	PASS	
	MCH	5.02	<13	PASS	
	HCH	5.41	<13	PASS	
16QAM	LCH	6.01	<13	PASS	
	MCH	5.83	<13	PASS	
	HCH	6.14	<13	PASS	

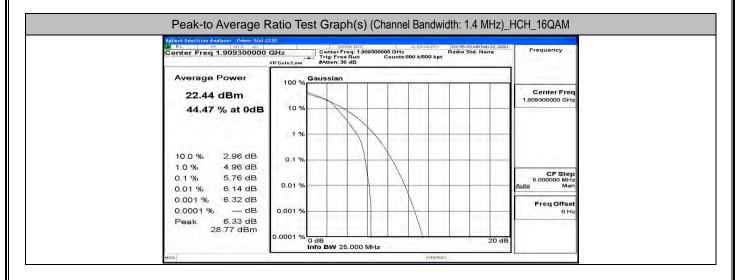


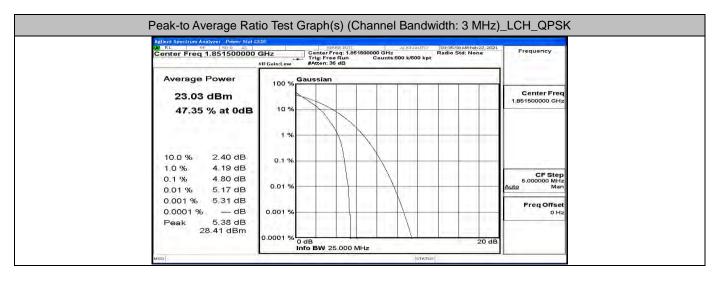


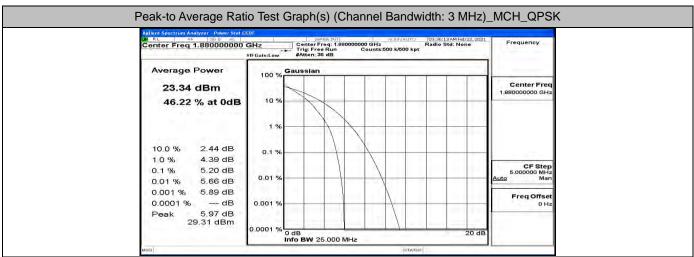


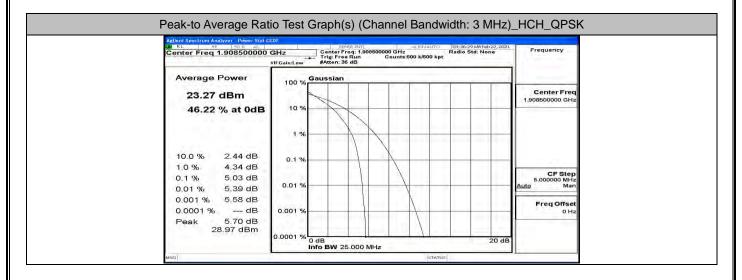


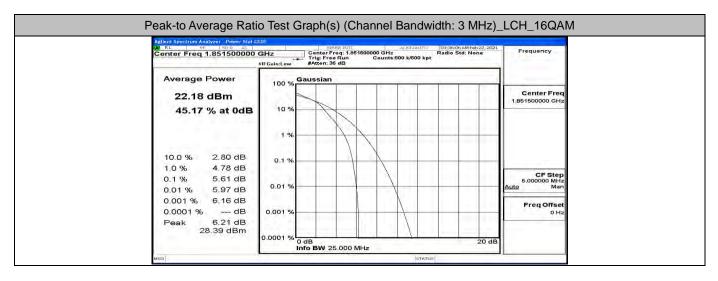


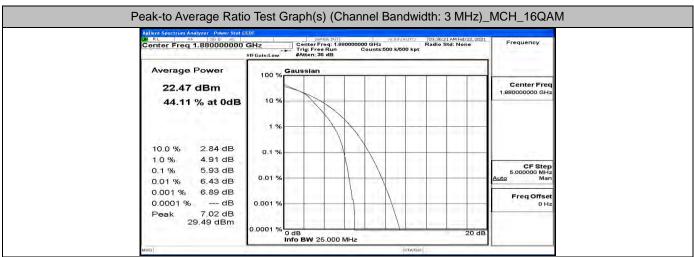


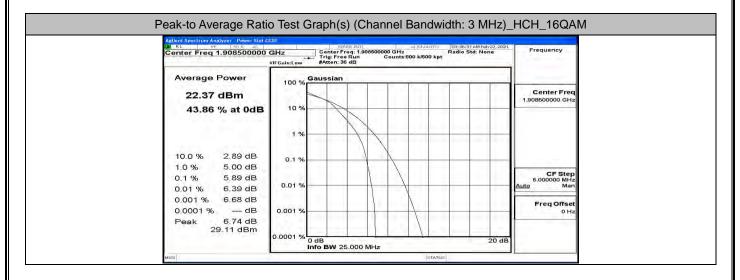


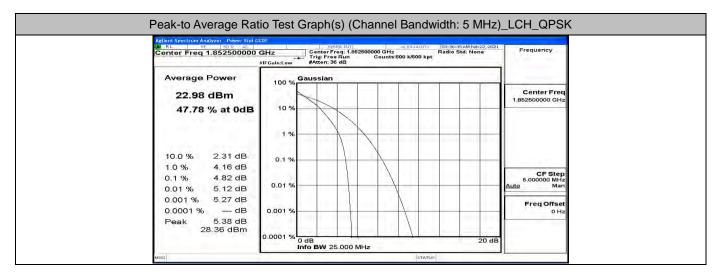


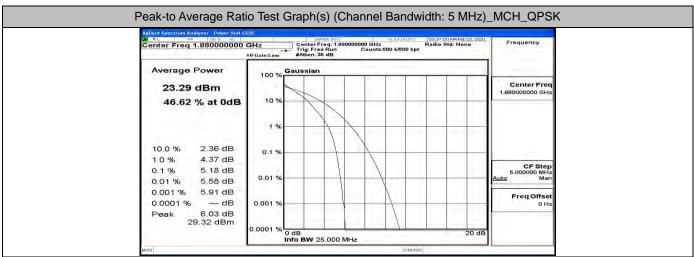


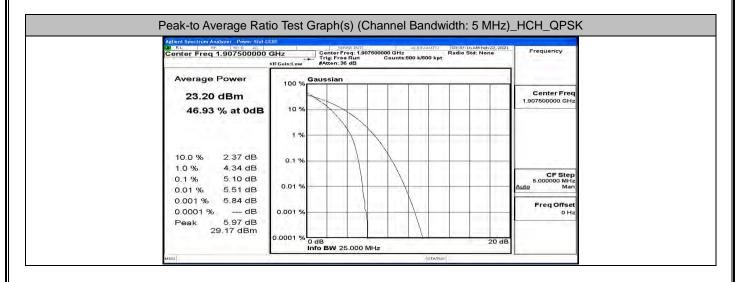


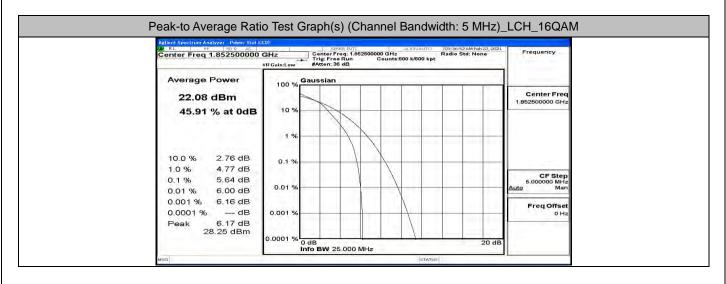


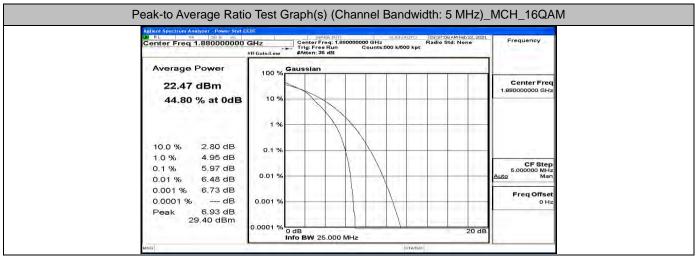


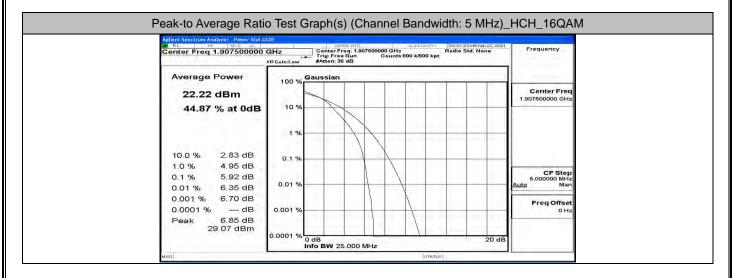




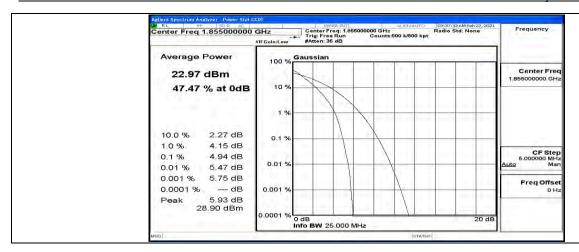


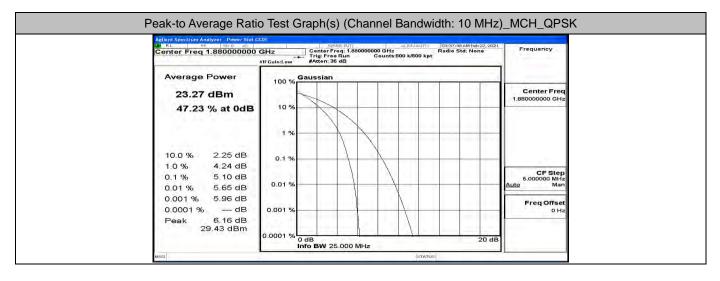


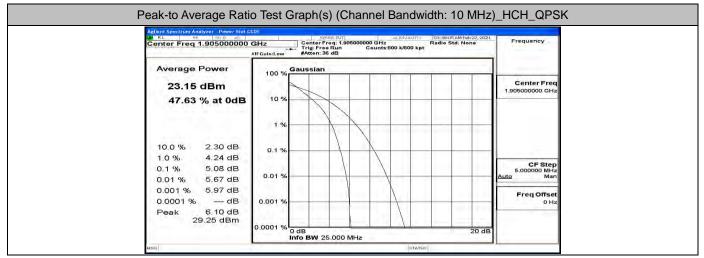


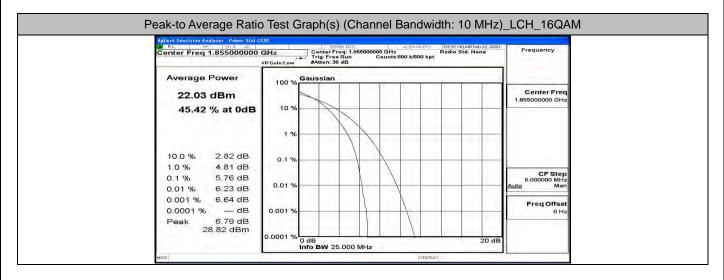


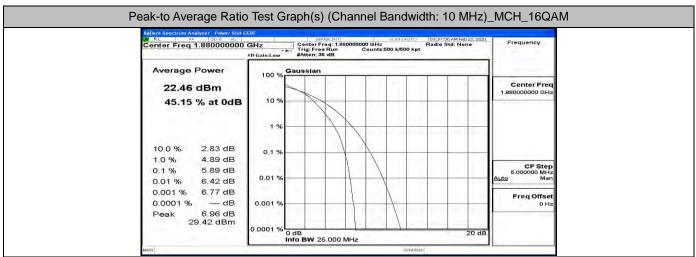
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK

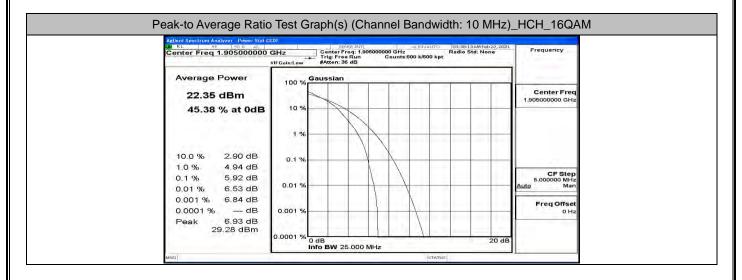


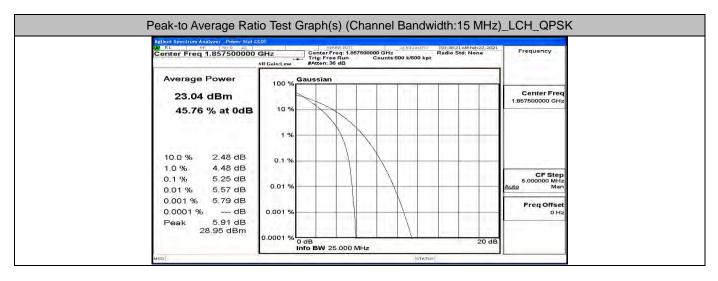


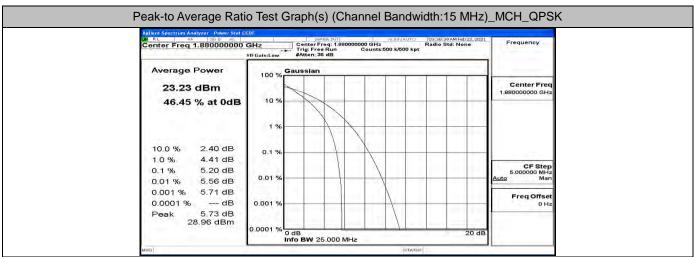


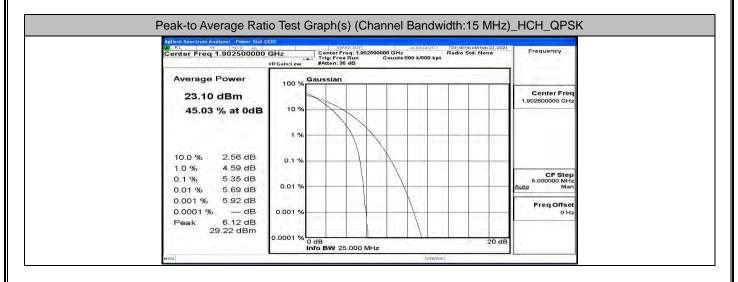


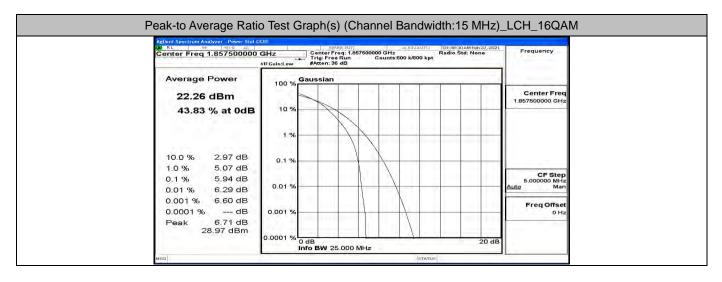


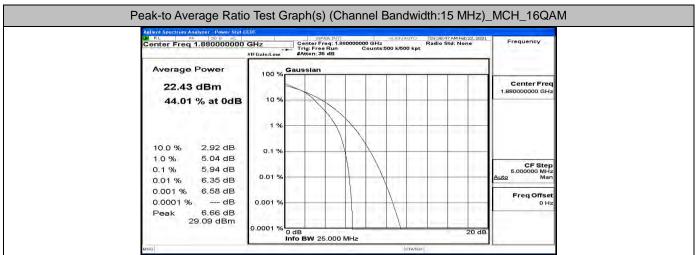


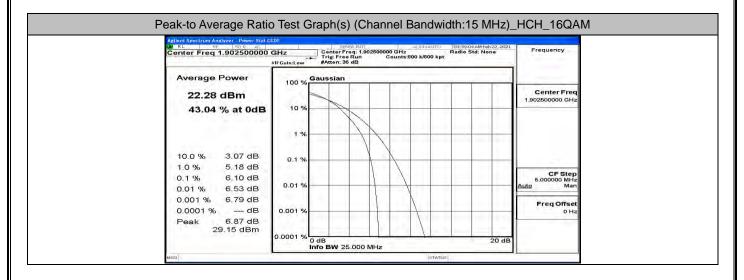


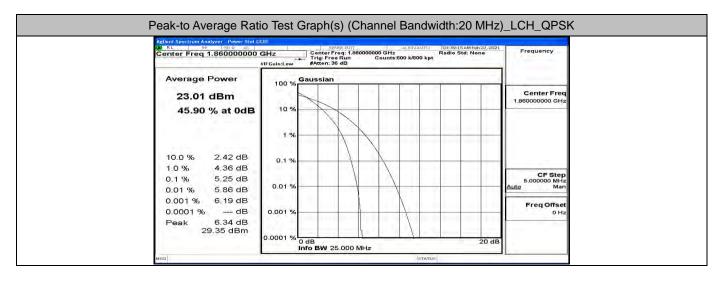


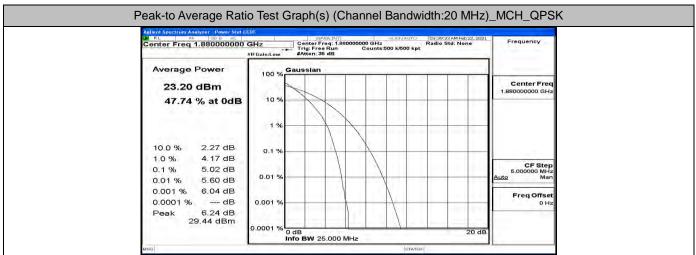


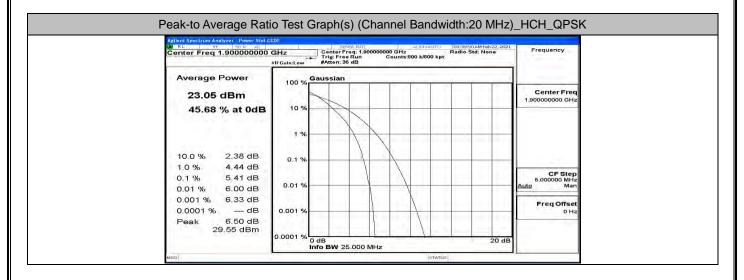


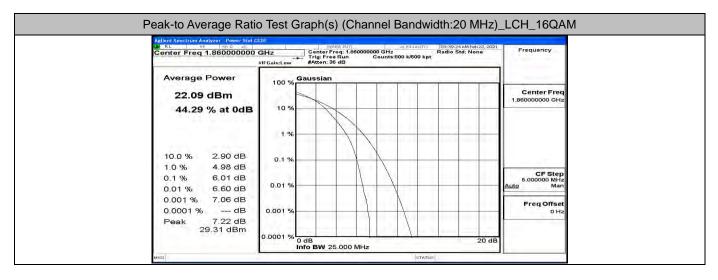


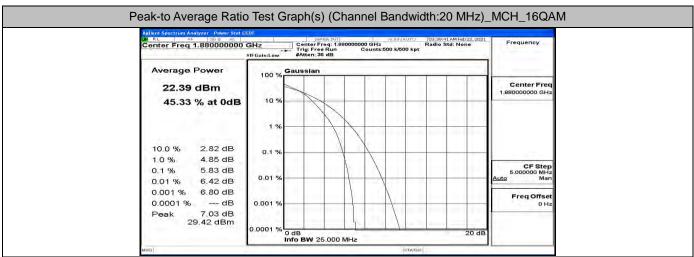


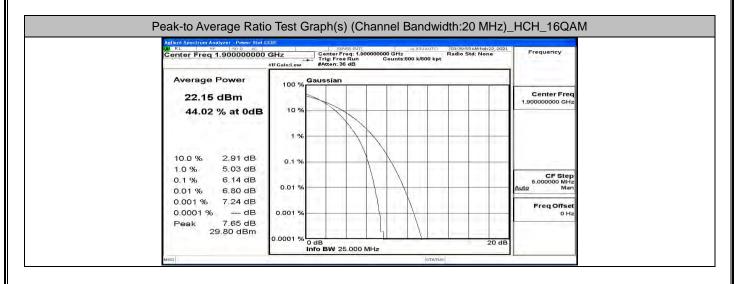












D.3 26dB Bandwidth and Occupied Bandwidth

EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
iviodulation		(MHz)	(MHz)	
QPSK	LCH	1.0763	1.207	PASS
	MCH	1.0768	1.234	PASS
	HCH	1.0765	1.241	PASS
16QAM	LCH	1.0787	1.237	PASS
	MCH	1.0745	1.227	PASS
	HCH	1.0789	1.242	PASS

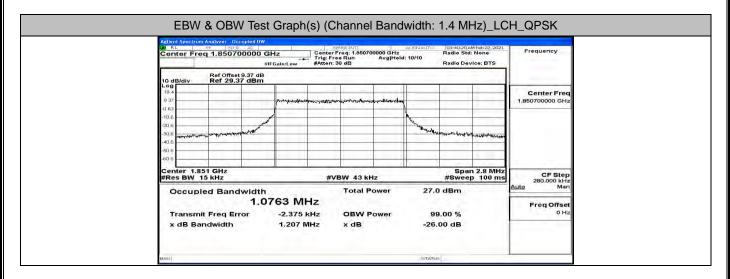
EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	2.6791	2.883	PASS
	MCH	2.6872	2.889	PASS
	HCH	2.6837	2.881	PASS
16QAM	LCH	2.6834	2.909	PASS
	MCH	2.6866	2.924	PASS
	HCH	2.6769	2.890	PASS

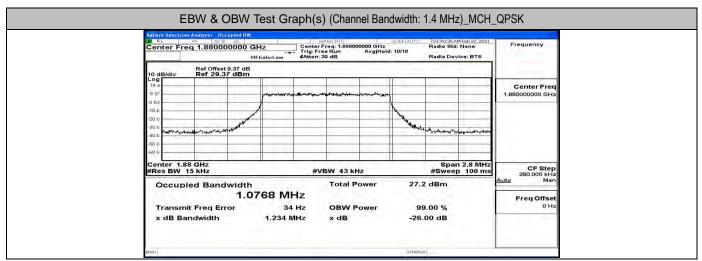
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	4.4719	4.846	PASS
	MCH	4.4767	4.753	PASS
	HCH	4.4664	4.820	PASS
16QAM	LCH	4.4692	4.814	PASS
	MCH	4.4698	4.812	PASS
	HCH	4.4770	4.781	PASS

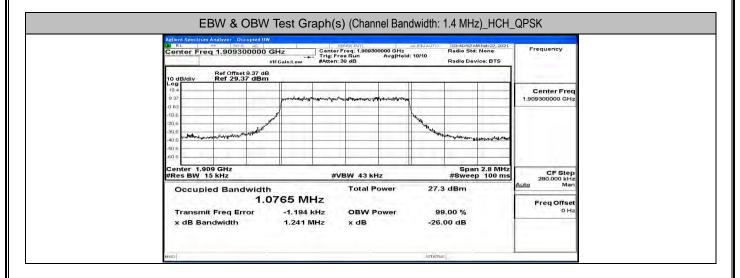
EBW & OBW Test Result (Channel Bandwidth: 10 MHz)					
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict	
Modulation		(MHz)	(MHz)		
QPSK	LCH	8.9164	9.416	PASS	
	MCH	8.9211	9.414	PASS	
	HCH	8.9095	9.382	PASS	
16QAM	LCH	8.8891	9.374	PASS	
	MCH	8.9228	9.418	PASS	
	HCH	8.8989	9.359	PASS	

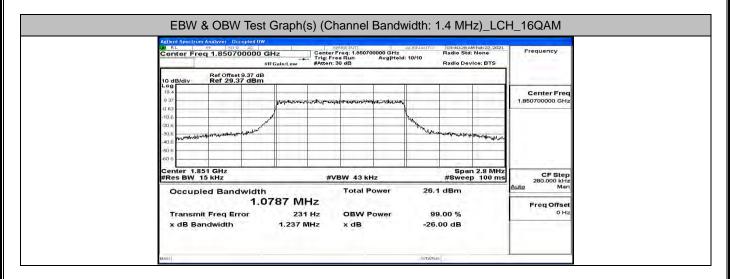
EBW & OBW Test Result (Channel Bandwidth: 15 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
Modulation		(MHz)	(MHz)	
QPSK	LCH	13.367	14.00	PASS
	MCH	13.361	13.96	PASS
	HCH	13.369	13.95	PASS
16QAM	LCH	13.358	13.98	PASS
	MCH	13.358	14.00	PASS
	HCH	13.362	14.02	PASS

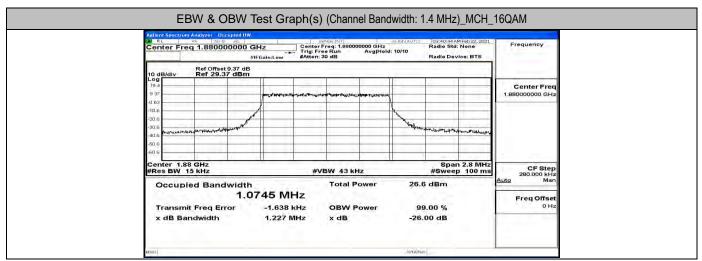
EBW & OBW Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
		(MHz)	(MHz)	
QPSK	LCH	17.844	18.54	PASS
	MCH	17.781	18.62	PASS
	HCH	17.842	18.61	PASS
16QAM	LCH	17.853	18.56	PASS
	MCH	17.760	18.50	PASS
	HCH	17.845	18.61	PASS

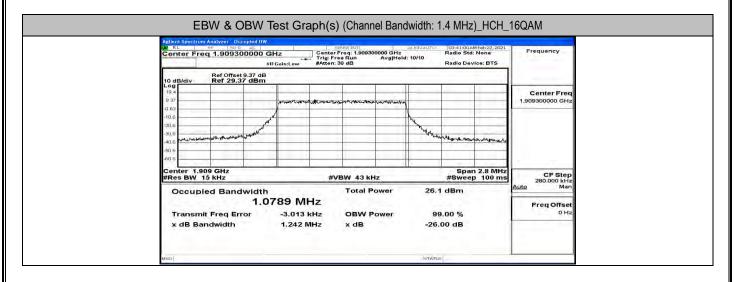


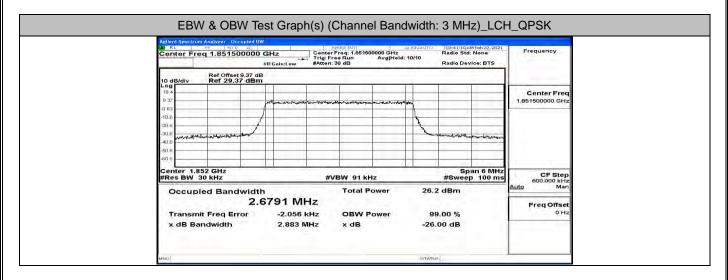


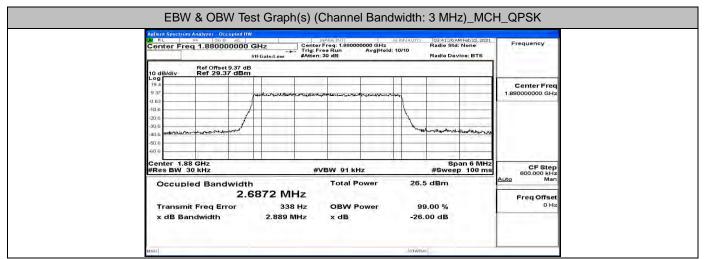


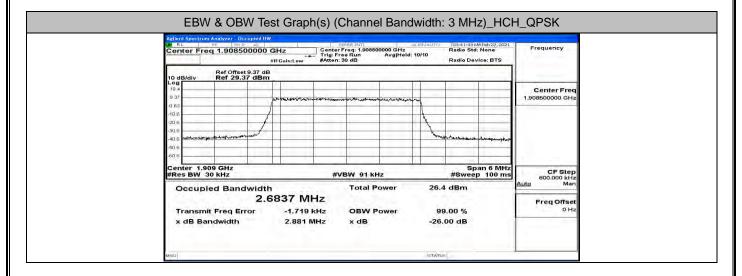


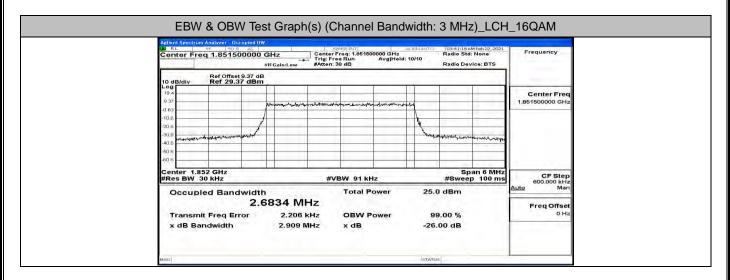


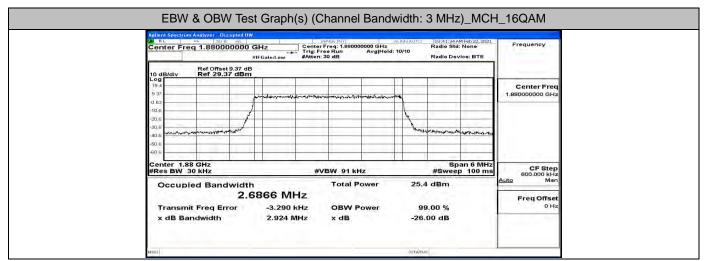


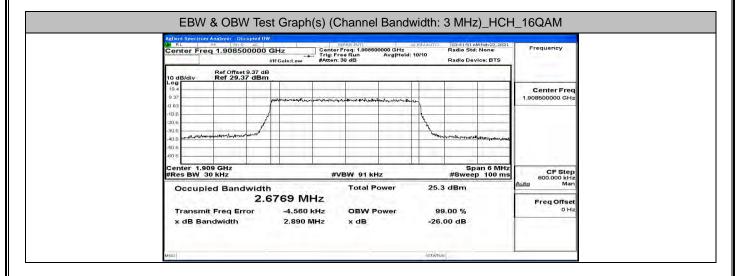


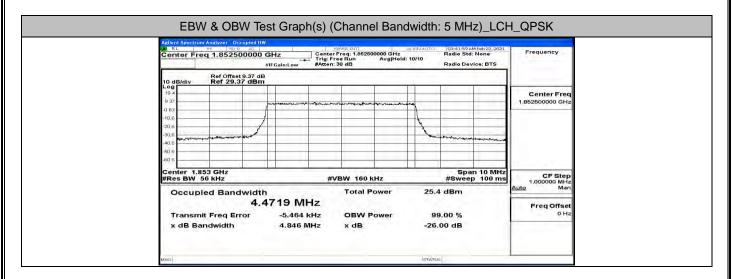


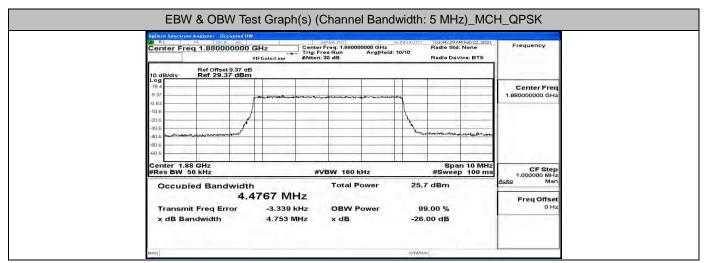


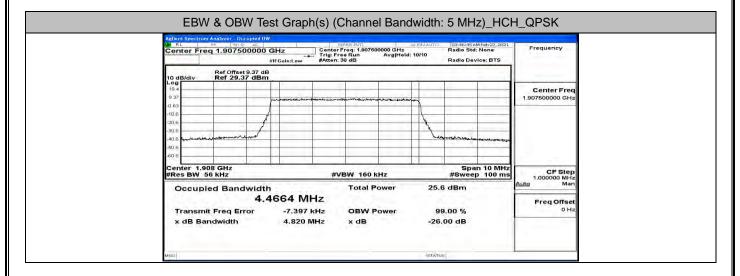


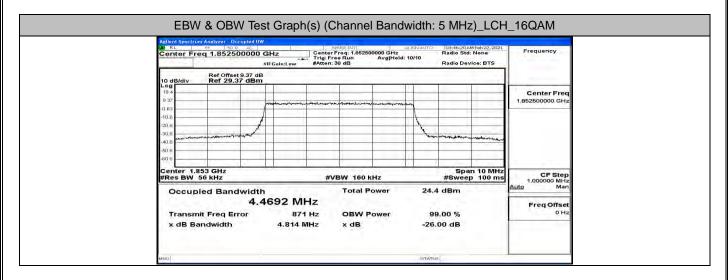


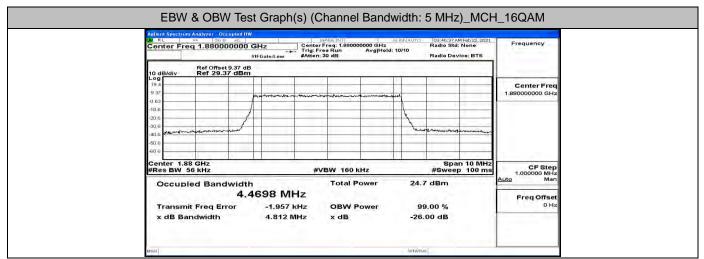


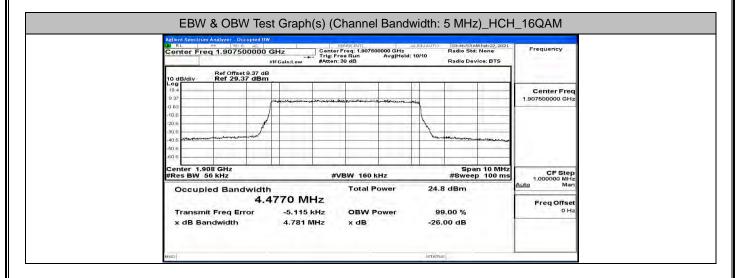


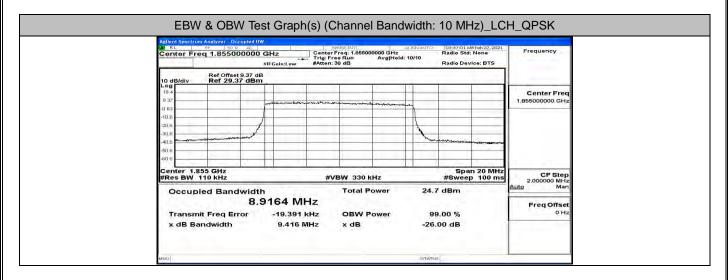


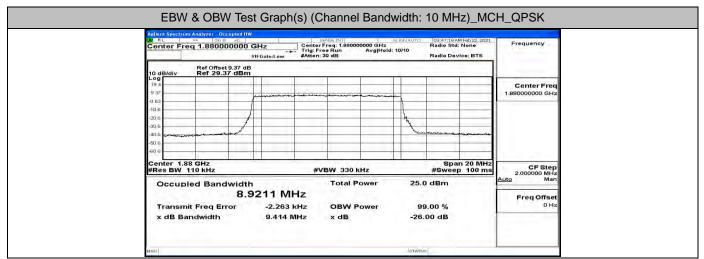


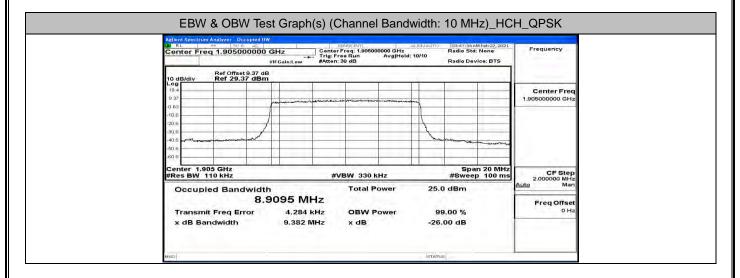


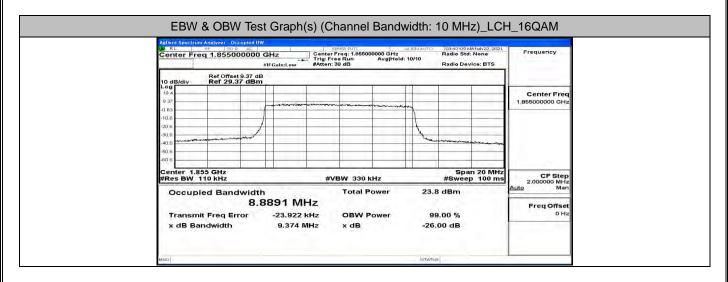


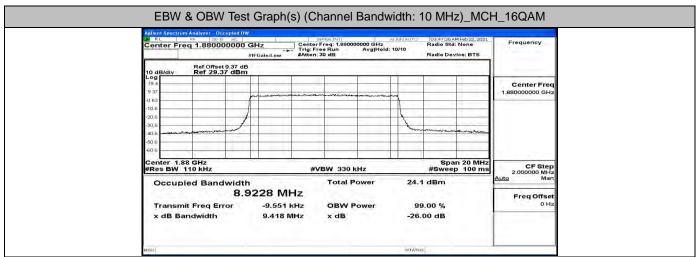


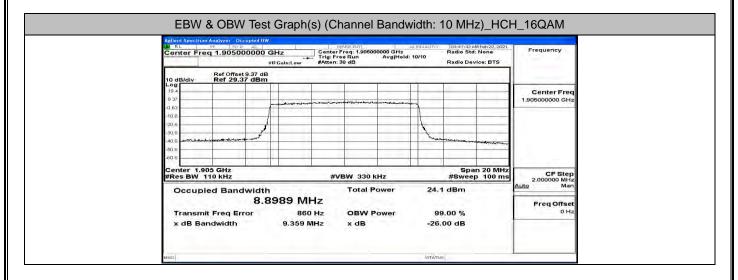


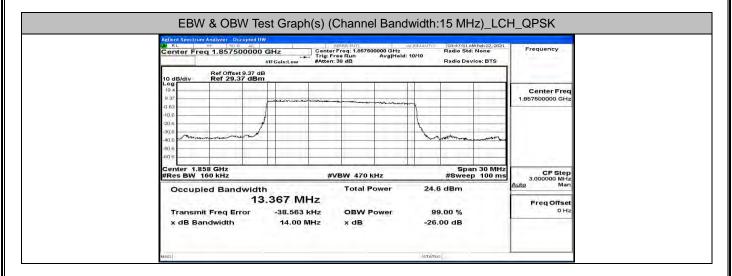


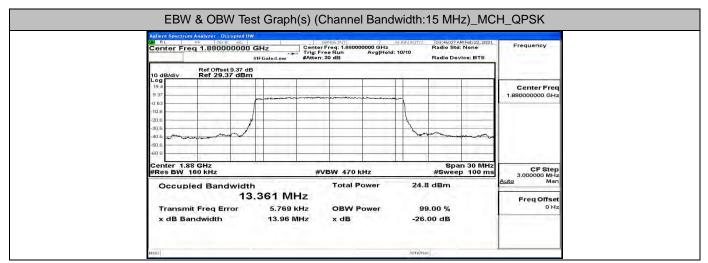


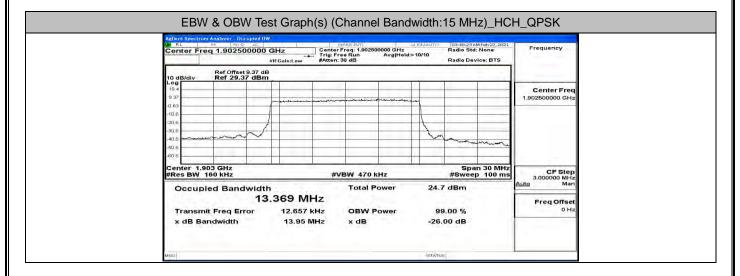


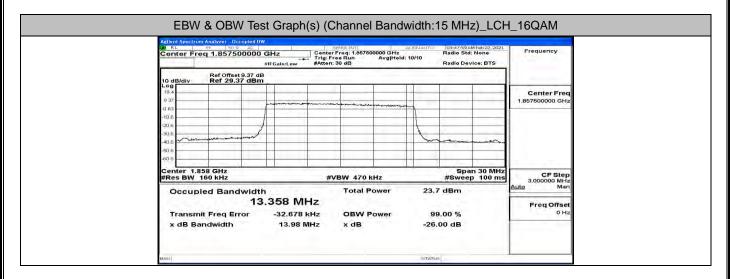


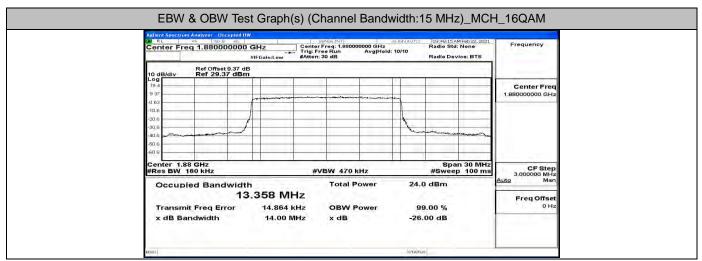


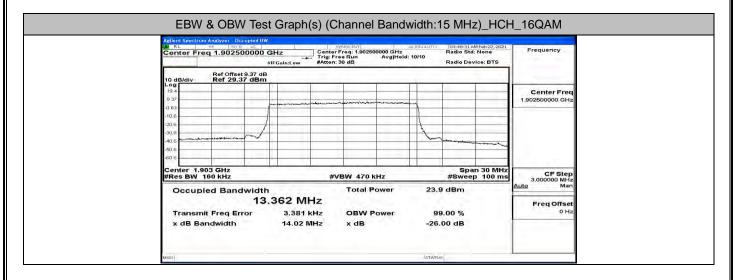


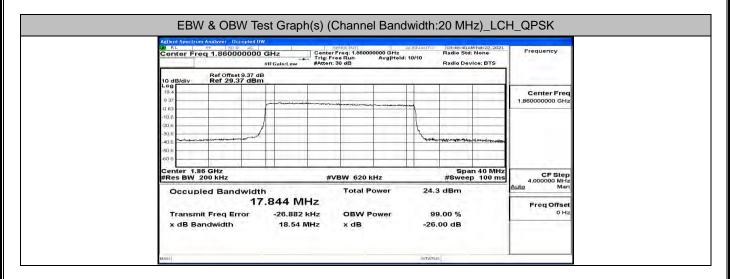


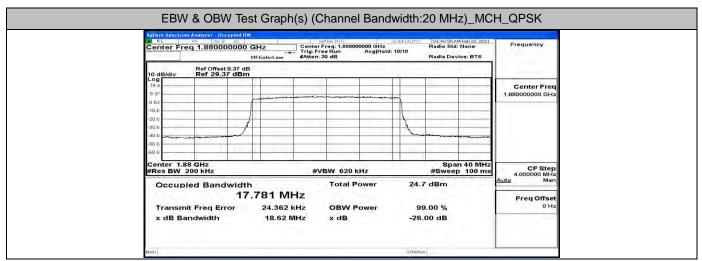


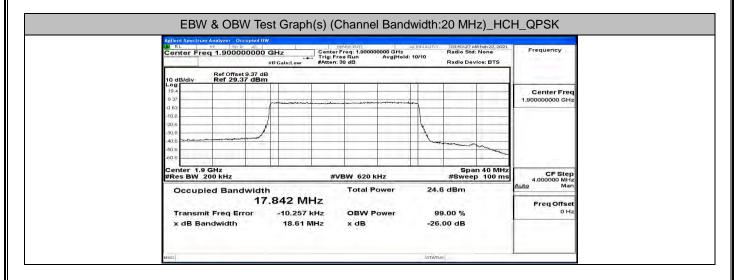


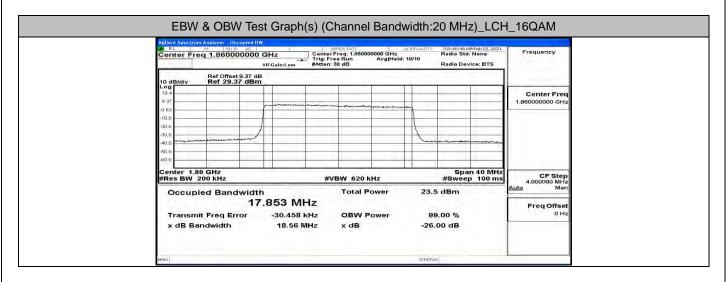


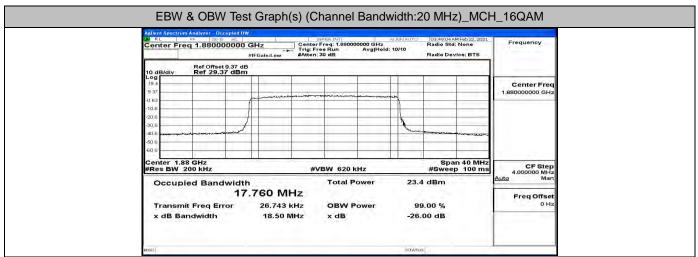


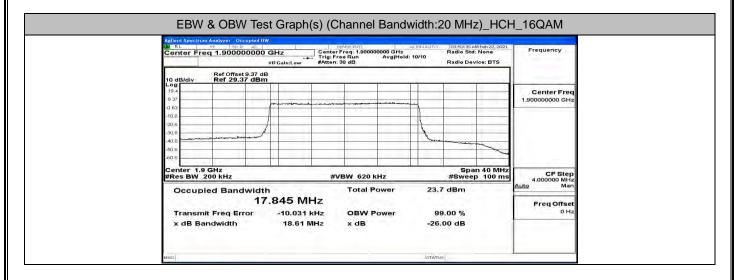




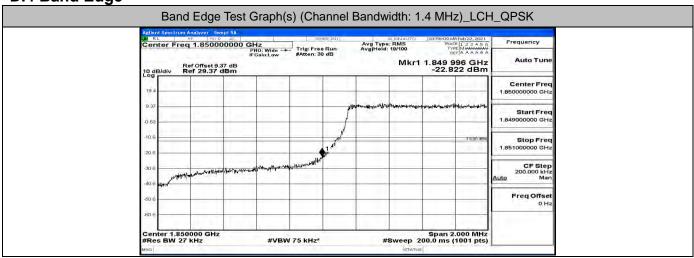


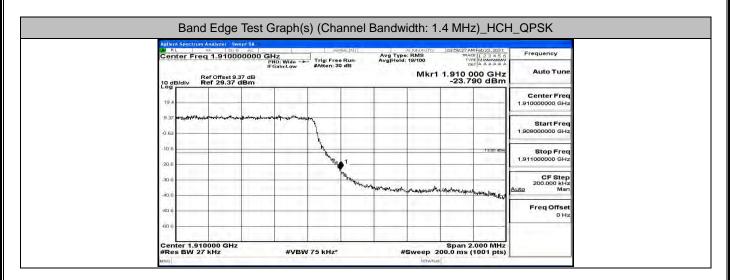


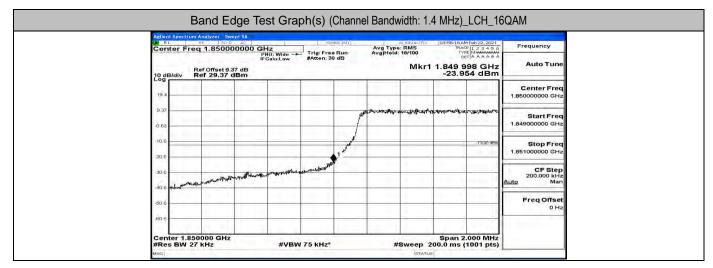


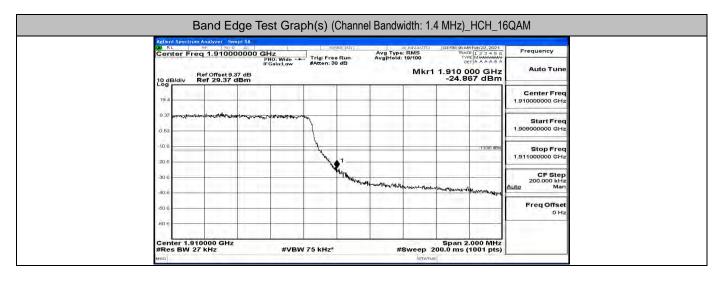


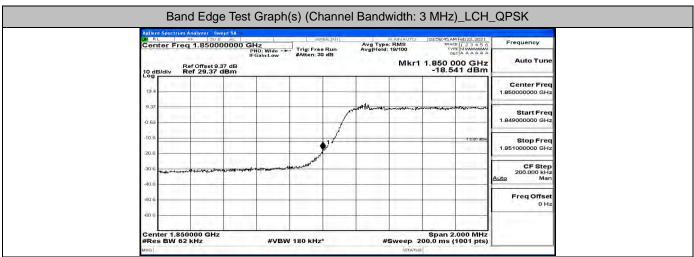
D.4 Band Edge

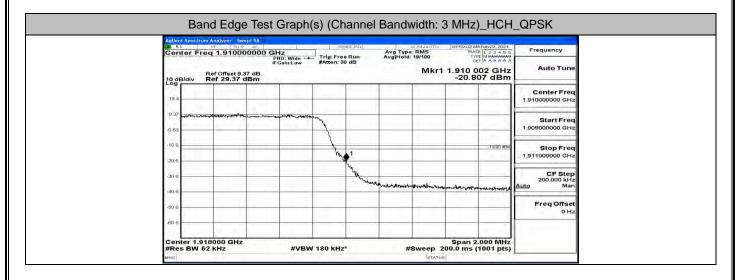


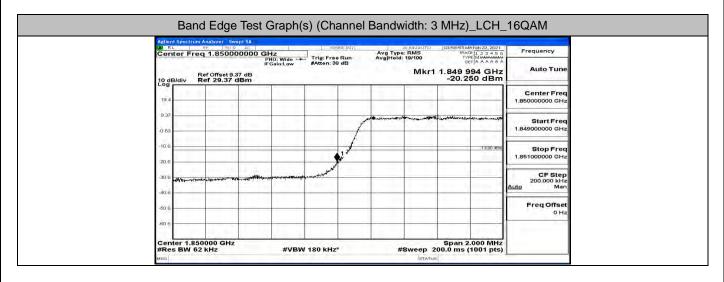


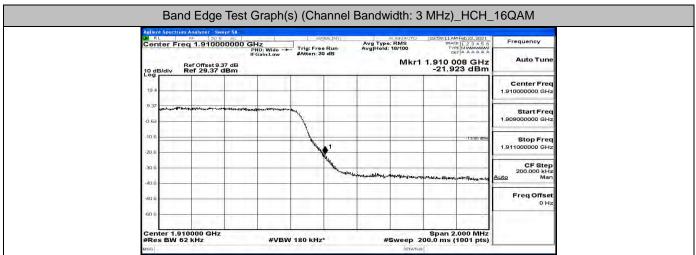


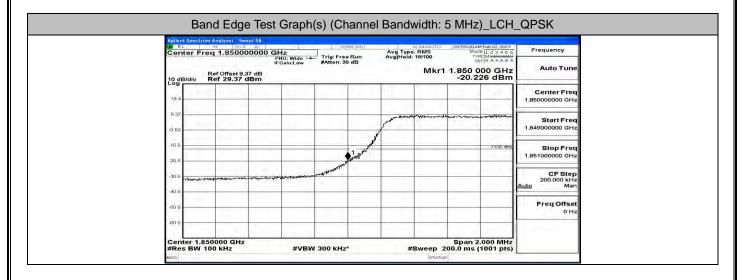


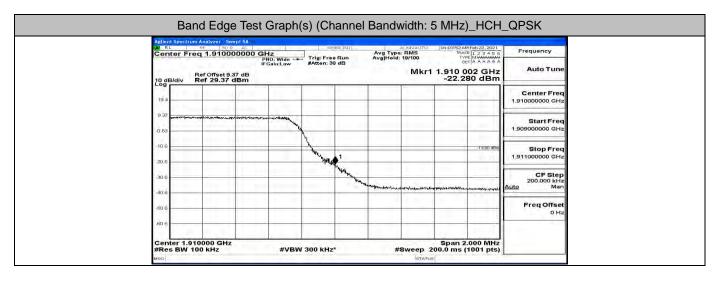


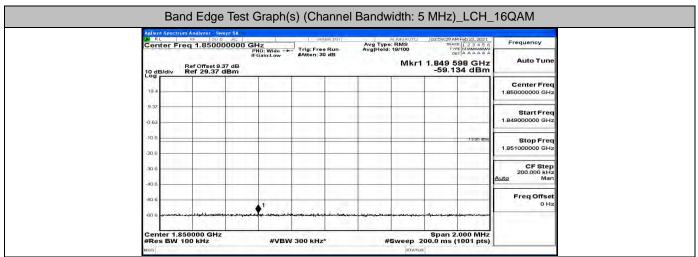


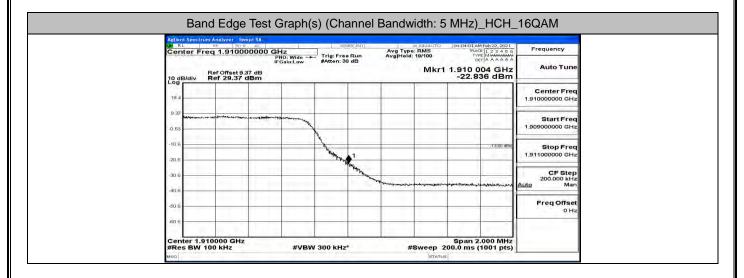


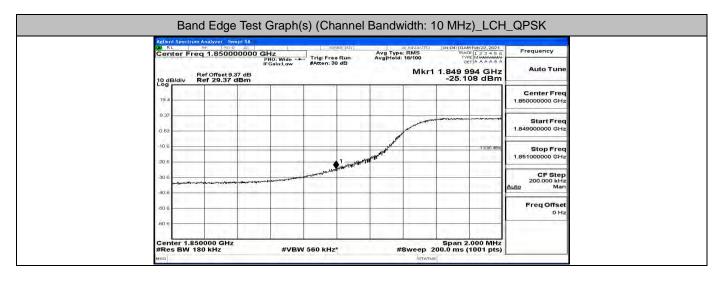


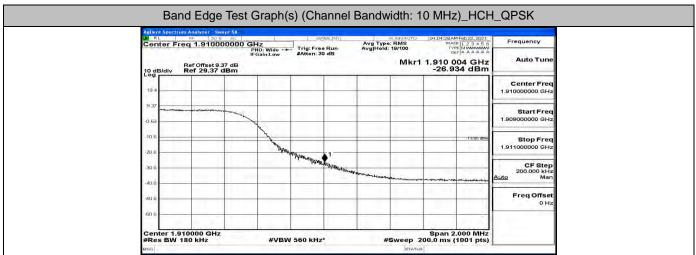


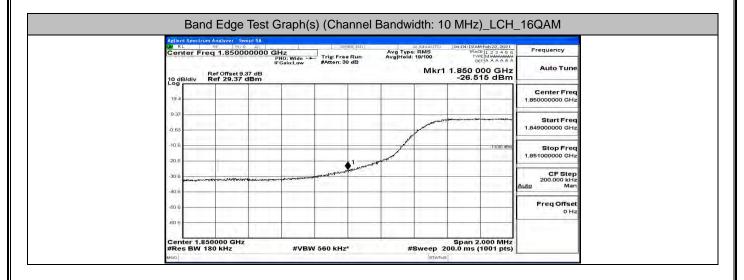


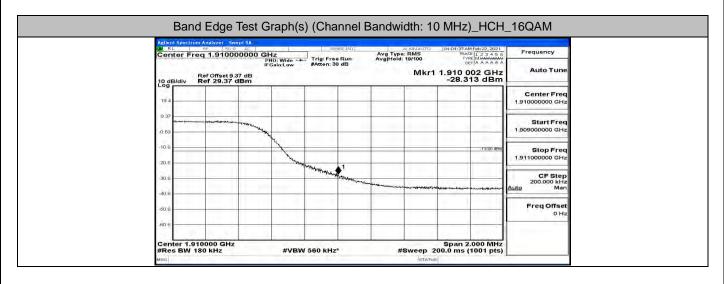


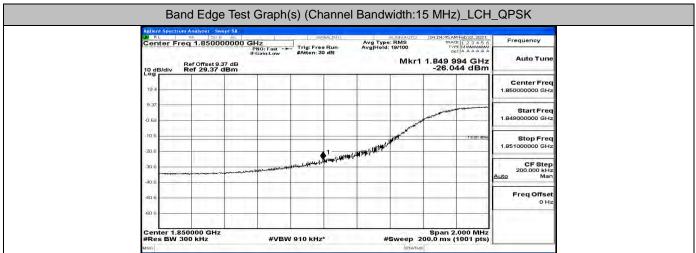


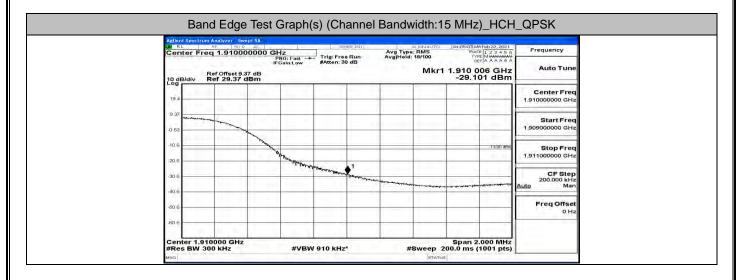


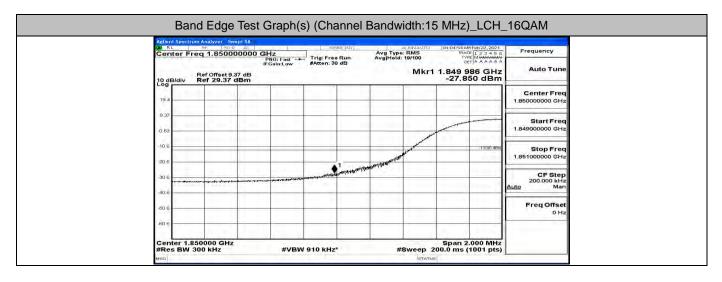


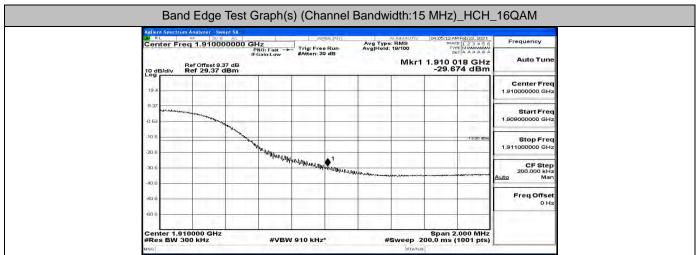


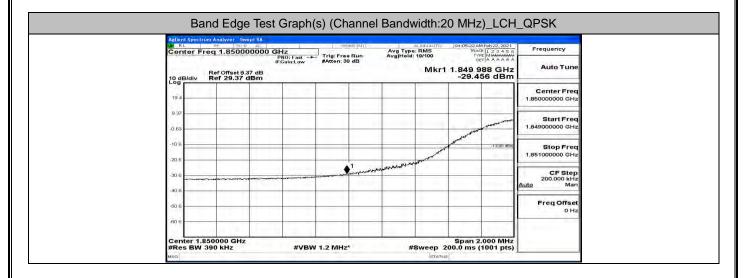


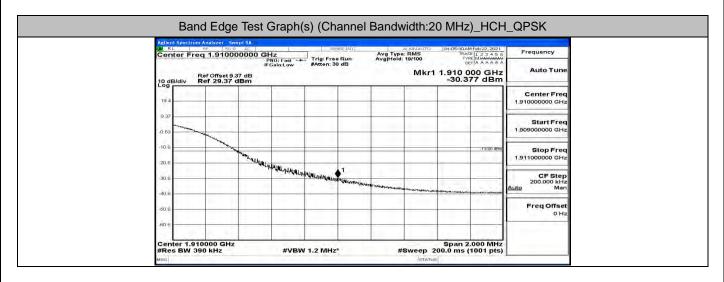


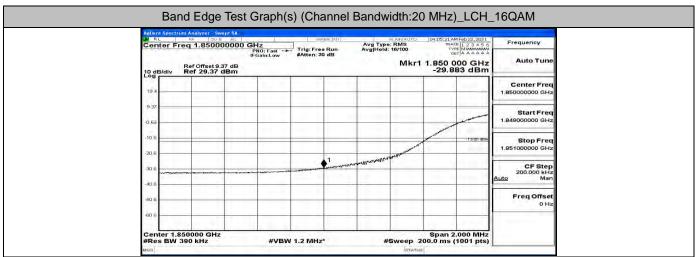


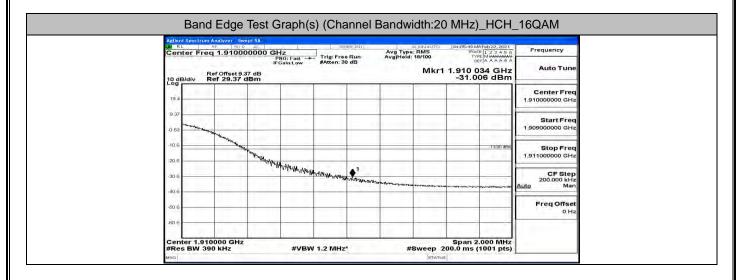






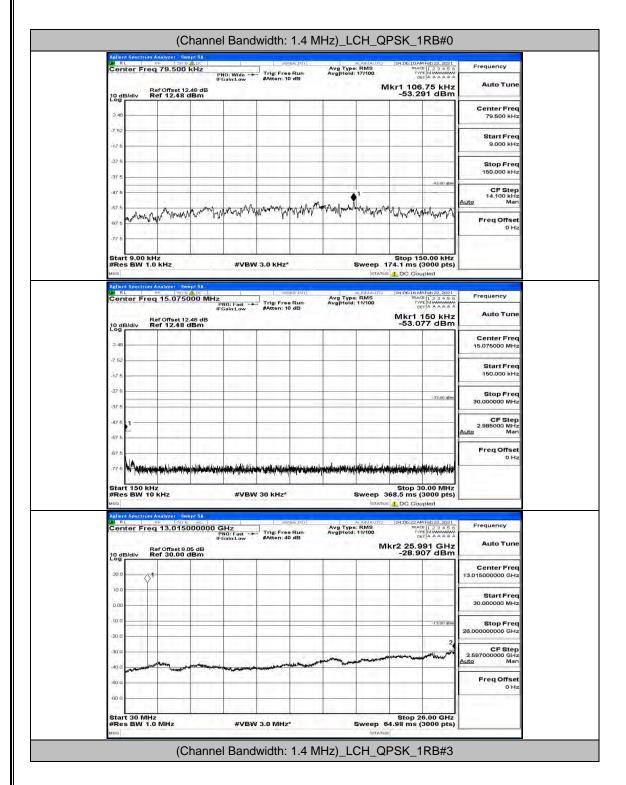




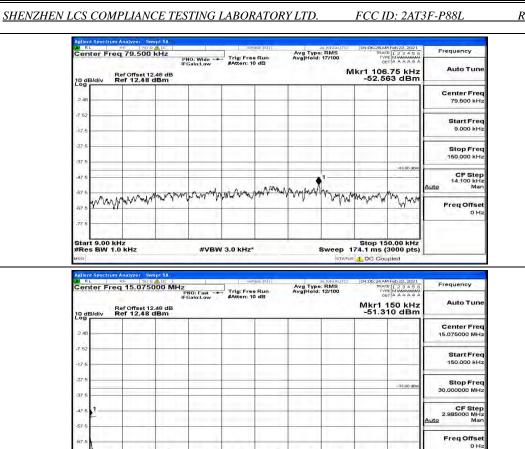


D.5 Conducted Spurious Emission

Channel Bandwidth: 1.4 MHz



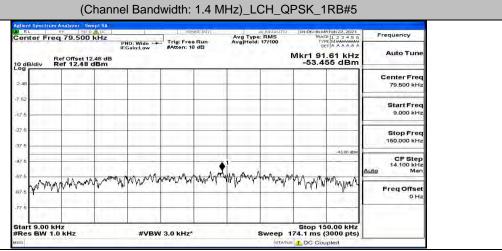
Start 150 kHz #Res BW 10 kHz

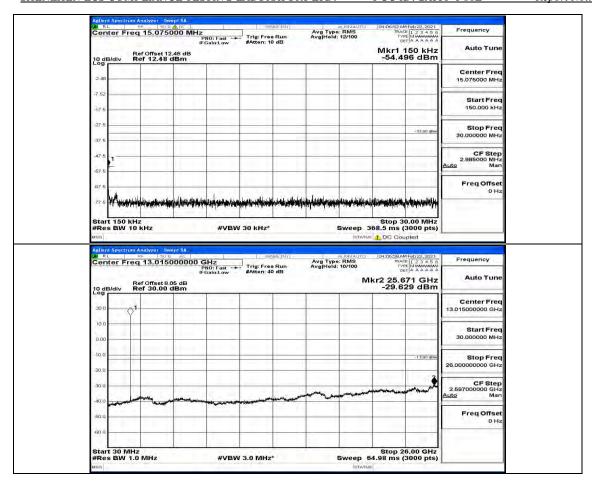


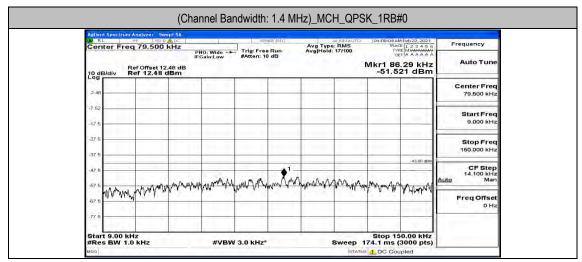


#VBW 30 kHz*

Stop 30.00 MHz Sweep 368.5 ms (3000 pts)



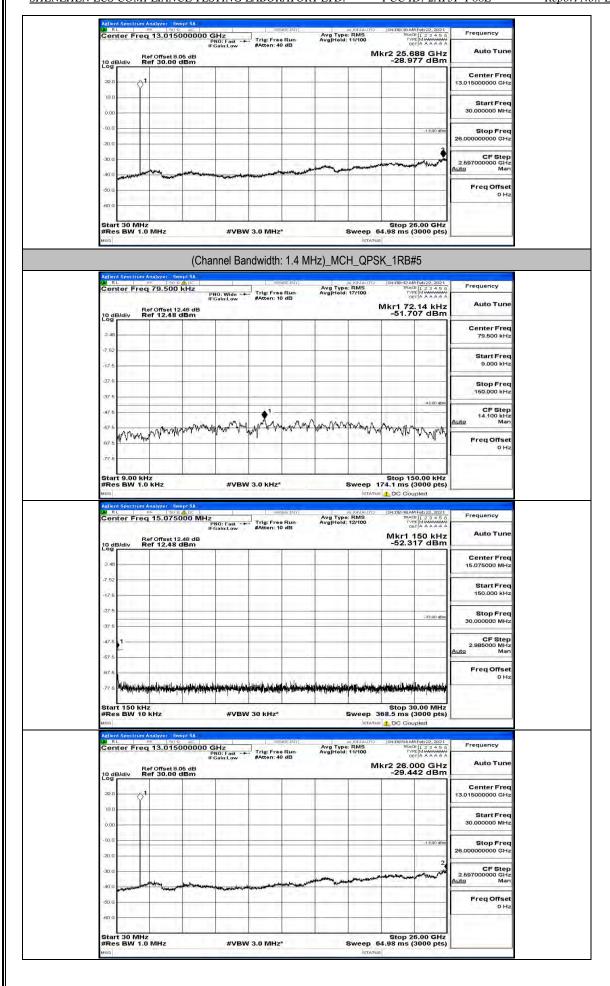


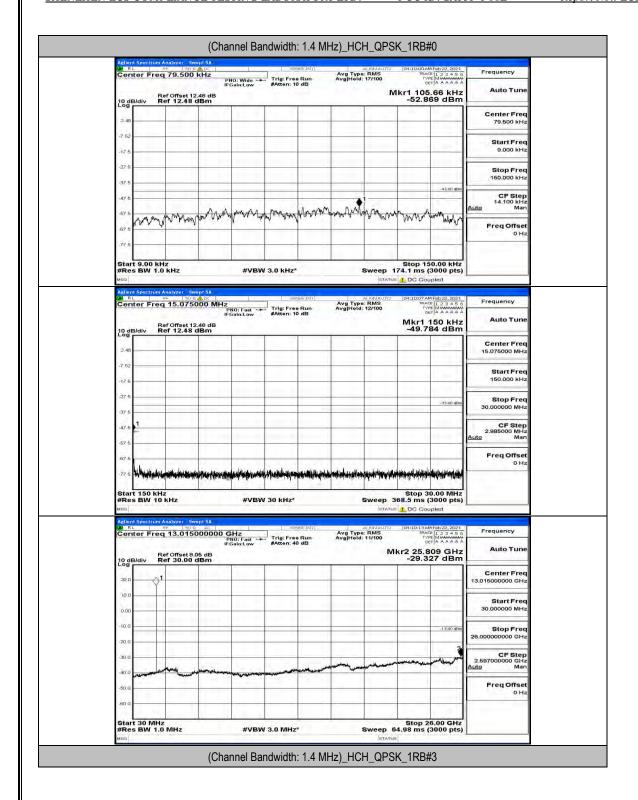


Stop 30.00 MHz Sweep 368.5 ms (3000 pts)

Start 150 kHz #Res BW 10 kHz

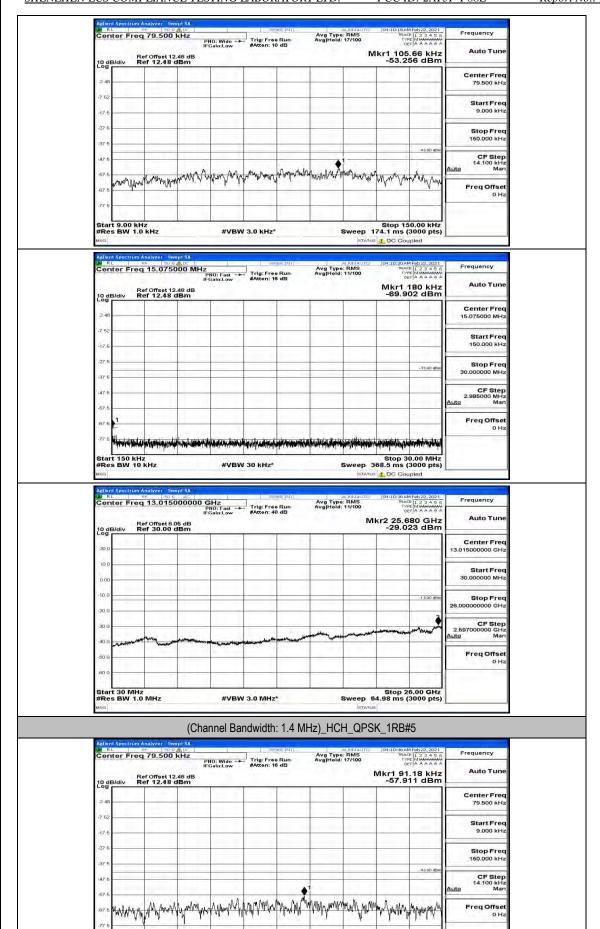
#VBW 30 kHz*



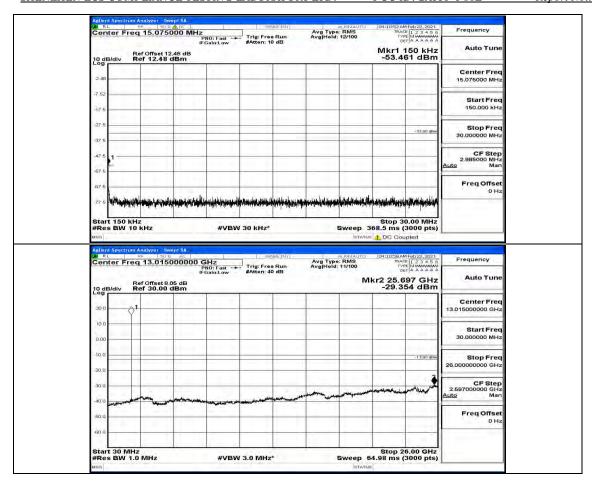


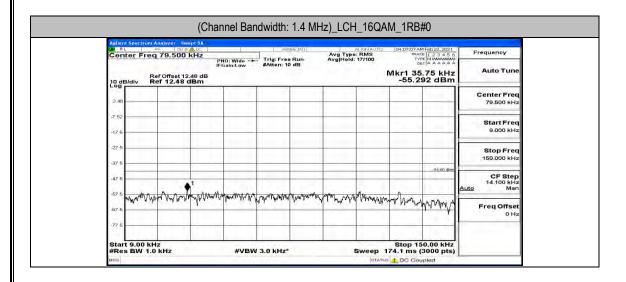
Start 9.00 kHz #Res BW 1.0 kHz

#VBW 3.0 kHz*



Stop 150.00 kHz Sweep 174.1 ms (3000 pts)



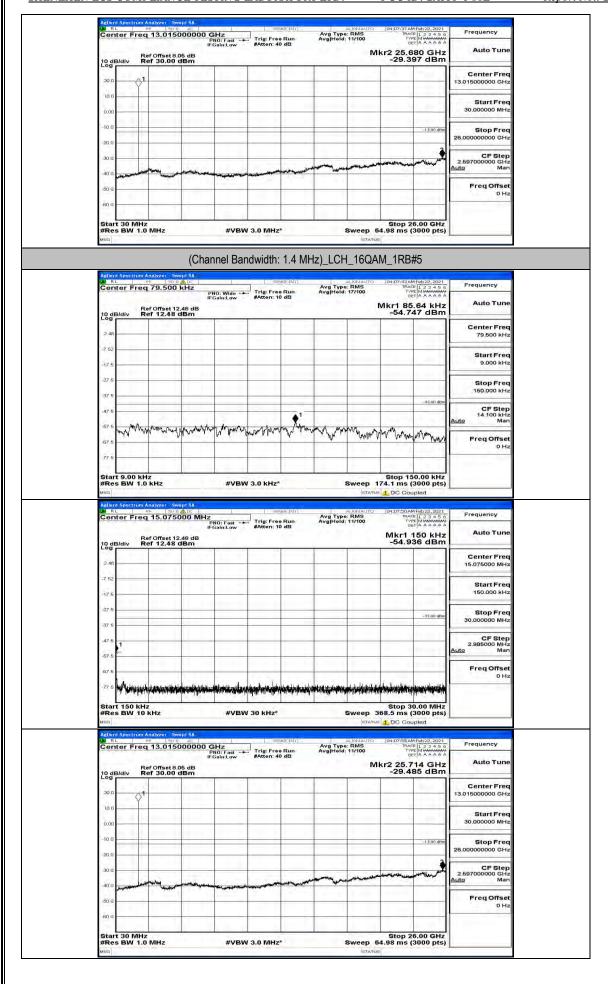


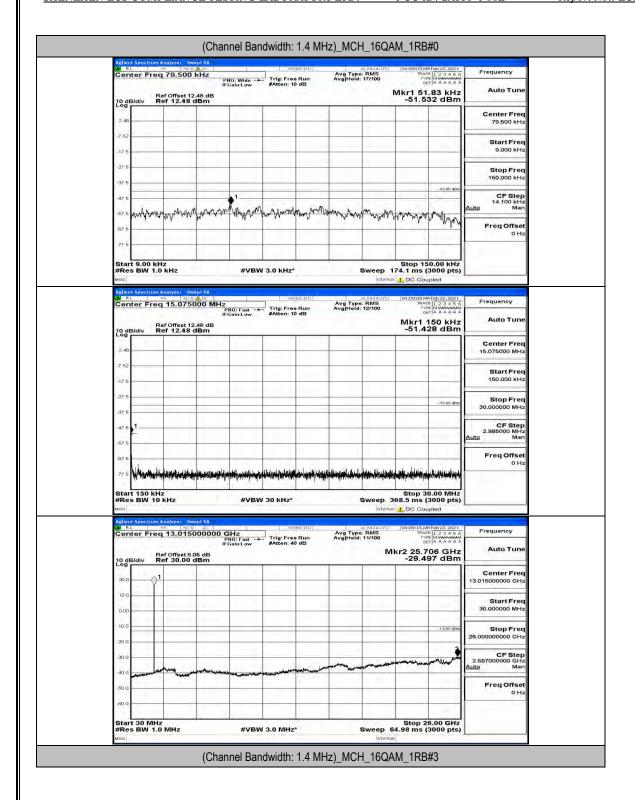
Stop 30.00 MHz Sweep 368.5 ms (3000 pts)

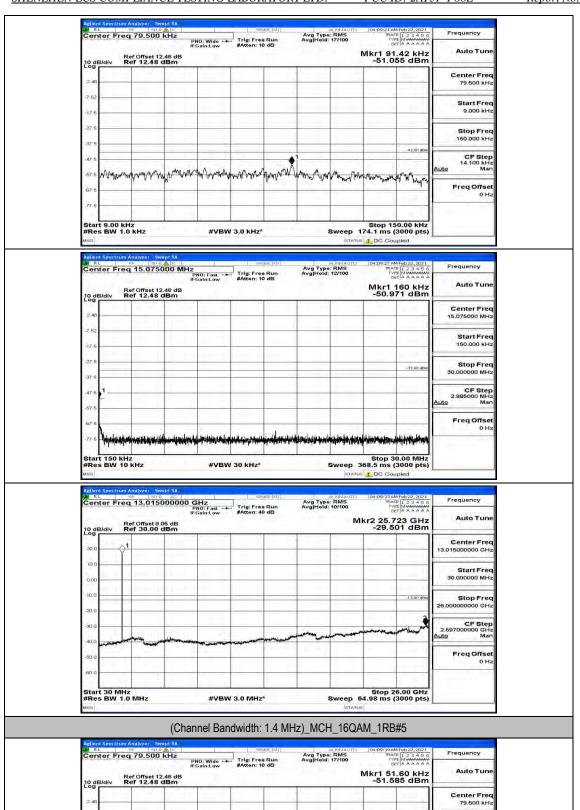
Start 150 kHz #Res BW 10 kHz

#VBW 30 kHz*

CF Step 2.985000 MHz Man







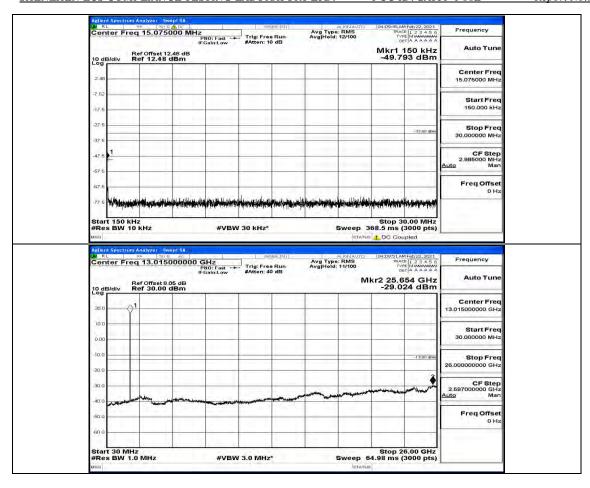
Stop 150.00 kHz Sweep 174.1 ms (3000 pts)

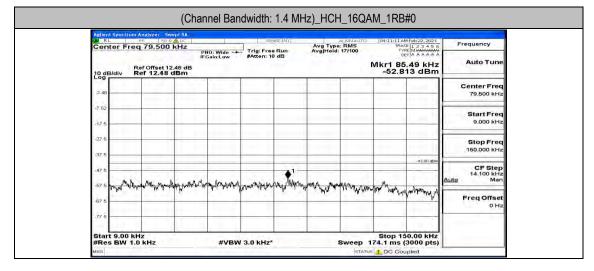
growing the property when the party of the property of the pro

#VBW 3.0 kHz*

Start 9.00 kHz #Res BW 1.0 kHz Start Fred 9.000 kH

Stop Fred 150,000 kH:

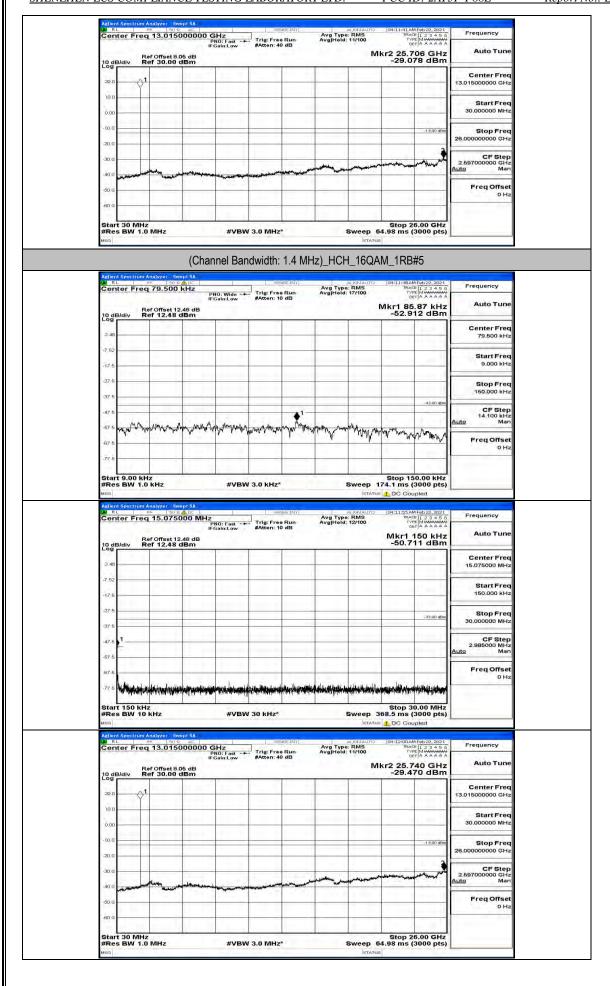




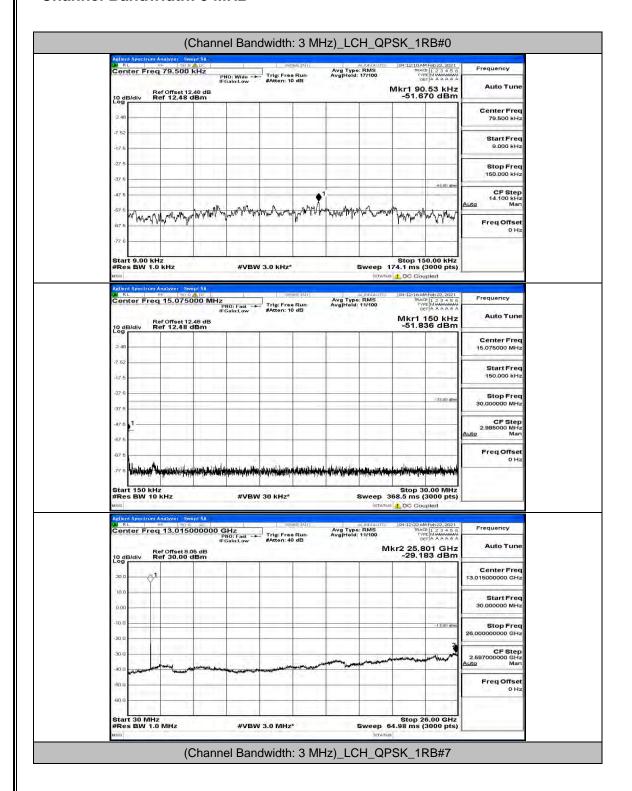
Stop 30.00 MHz Sweep 368.5 ms (3000 pts)

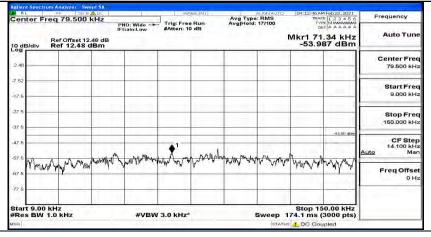
Start 150 kHz #Res BW 10 kHz

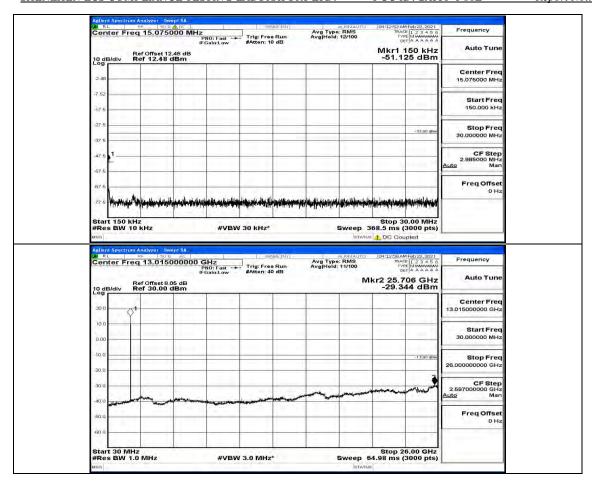
#VBW 30 kHz*

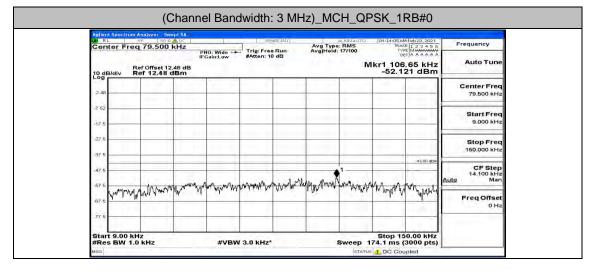


Channel Bandwidth: 3 MHz









FCC ID: 2AT3F-P88L

Report No.: LCS201224064AEF

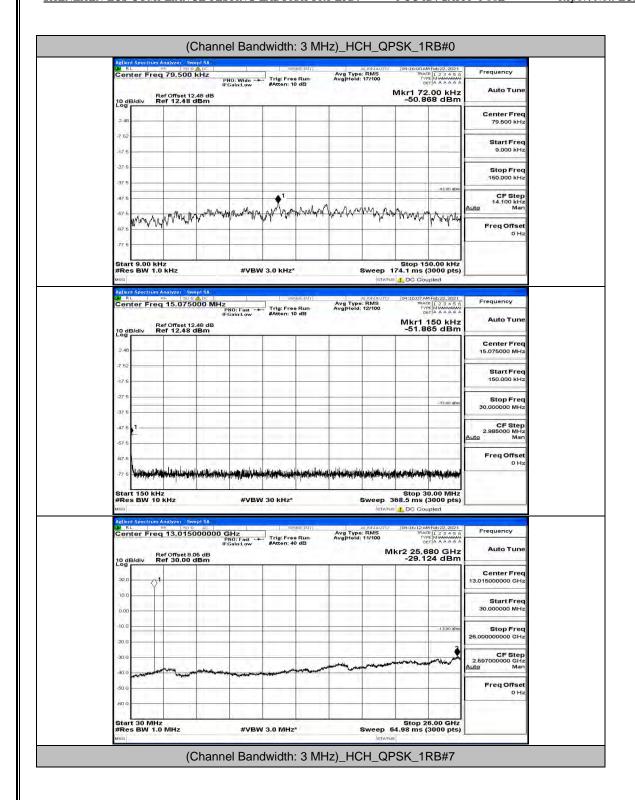
SHENZHEN LCS COMPLIANCE TESTING LABORATORY LTD.

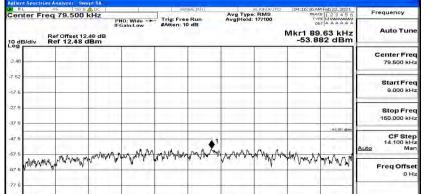
Stop 26.00 GHz Sweep 64.98 ms (3000 pts)

Start 30 MHz #Res BW 1.0 MHz

#VBW 3.0 MHz*

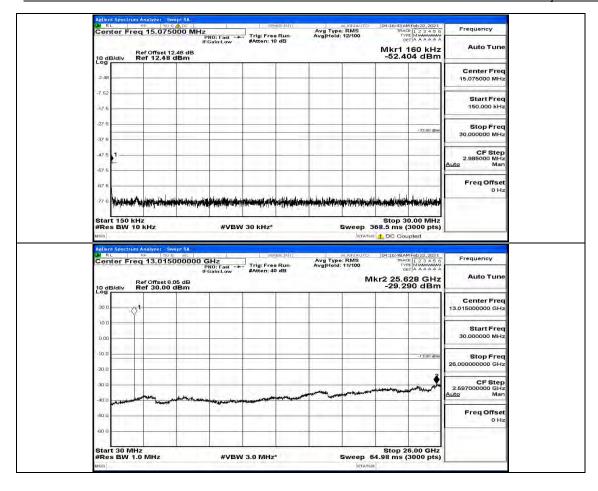
Stop Free

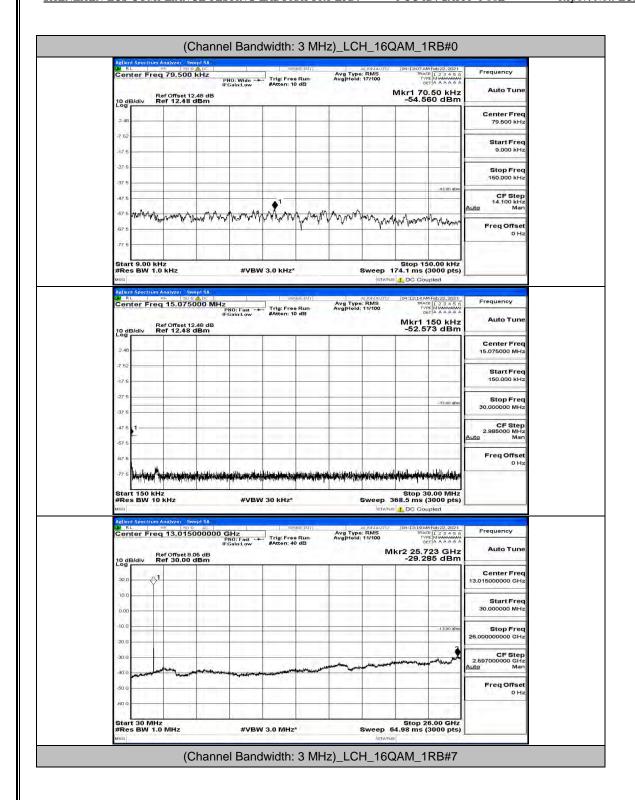


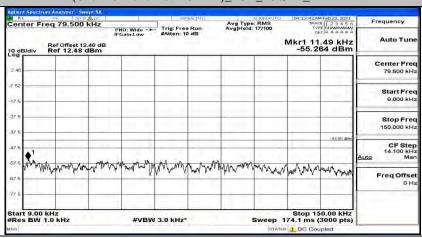


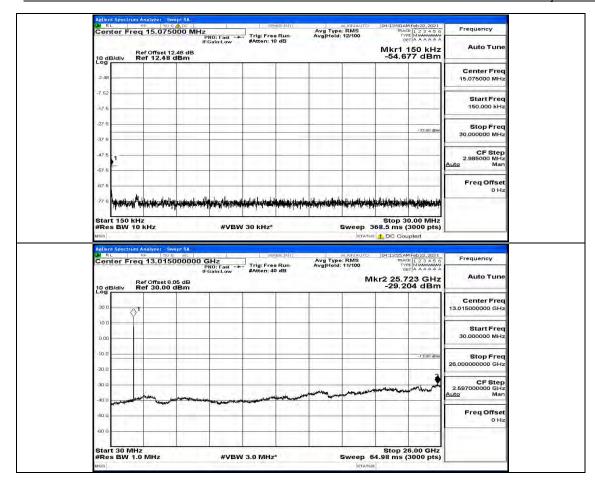
#VBW 3.0 kHz*

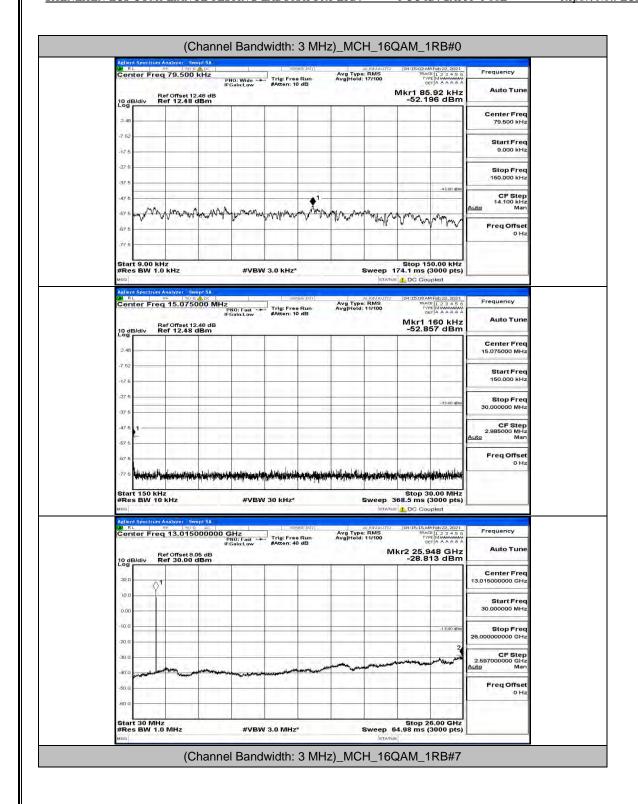
Start 9.00 kHz #Res BW 1.0 kHz Stop 150.00 kHz Sweep 174.1 ms (3000 pts)

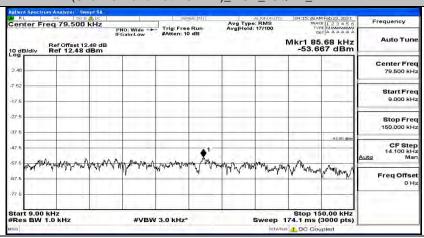


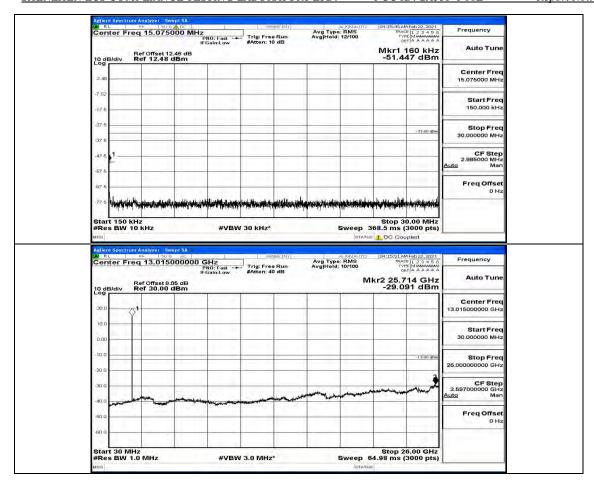


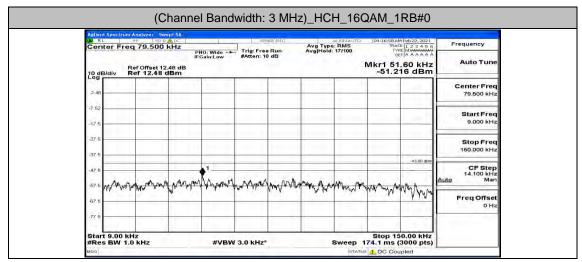












Start 30 MHz #Res BW 1.0 MHz

#VBW 3.0 MHz*

Stop 26.00 GHz Sweep 64.98 ms (3000 pts)

Channel Bandwidth: 5 MHz

