# Appendix E: Test Data for E-UTRA Band 7

**Product Name: Smart phone** Trade Mark: S SMOOTH **Test Model: SMOOTH 5.5** 

#### **Environmental Conditions**

Temperature:	22.5° C
Relative Humidity:	53.7%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Li Huan

# **E.1 Conducted Output Power**

Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	RB Configuration Size Offset		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		1	0	21.96	21.52	PASS
		1	12	21.82	21.41	PASS
		1	24	21.79	21.40	PASS
	LCH	12	0	21.05	20.13	PASS
		12	6	20.90	20.00	PASS
		12	13	20.94	20.00	PASS
		25	0	20.87	20.18	PASS
	мсн	1	0	22.81	21.38	PASS
		1	12	22.85	21.46	PASS
QPSK /		1	24	22.84	21.47	PASS
16QAM		12	0	21.74	20.66	PASS
TOQAM		12	6	21.85	20.75	PASS
		12	13	21.84	20.80	PASS
		25	0	21.78	20.90	PASS
		1	0	22.50	21.34	PASS
		1	12	22.60	21.37	PASS
		1	24	22.66	21.49	PASS
	HCH	12	0	21.48	20.53	PASS
		12	6	21.54	20.46	PASS
		12	13	21.66	20.46	PASS
		25	0	21.51	20.74	PASS

Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)						
Madulation	Channal	RB Configuration		Average Power [dBm]	Average Power [dBm]	Vandiat
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict
		1	0	21.93	22.05	PASS
		1	24	21.75	21.90	PASS
		1	49	21.74	21.85	PASS
	LCH	25	0	20.94	19.94	PASS
		25	12	20.94	20.00	PASS
		25	25	20.91	19.93	PASS
		50	0	20.95	19.98	PASS
		1	0	22.77	22.34	PASS
	МСН	1	24	22.85	22.45	PASS
QPSK /		1	49	22.86	22.52	PASS
16QAM		25	0	21.85	20.89	PASS
IOQAW		25	12	21.76	20.91	PASS
		25	25	21.81	20.95	PASS
		50	0	21.83	20.92	PASS
		1	0	22.36	21.57	PASS
		1	24	22.51	21.65	PASS
		1	49	22.68	21.85	PASS
	HCH	25	0	21.31	20.42	PASS
		25	12	21.50	20.57	PASS
		25	25	21.47	20.65	PASS
		50	0	21.38	20.56	PASS

Conducted Output Power Test Result (Channel Bandwidth: 15 MHz)						
Modulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	Vardiet
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict
		1	0	21.87	22.07	PASS
		1	37	21.77	21.83	PASS
		1	74	21.80	22.01	PASS
	LCH	37	0	20.86	20.02	PASS
		37	18	20.93	19.85	PASS
		37	38	20.95	19.90	PASS
		75	0	20.81	20.02	PASS
		1	0	22.67	22.60	PASS
	мсн	1	37	22.80	22.80	PASS
QPSK /		1	74	22.86	22.87	PASS
16QAM		37	0	21.81	20.81	PASS
TOQAIVI		37	18	21.74	20.98	PASS
		37	38	21.92	20.93	PASS
		75	0	21.68	20.96	PASS
		1	0	22.33	21.54	PASS
		1	37	22.44	21.51	PASS
		1	74	22.64	21.77	PASS
	HCH	37	0	21.22	20.36	PASS
		37	18	21.36	20.47	PASS
		37	38	21.42	20.54	PASS
		75	0	21.39	20.54	PASS

Conducted Output Power Test Result (Channel Bandwidth: 20 MHz)						
Madulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	Vardiat
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict
		1	0	22.00	20.84	PASS
		1	49	21.84	20.67	PASS
		1	99	22.08	21.46	PASS
	LCH	50	0	20.98	20.02	PASS
		50	25	20.93	20.00	PASS
		50	50	21.06	20.14	PASS
		100	0	20.98	19.94	PASS
	MCH	1	0	22.64	21.46	PASS
		1	49	23.10	21.81	PASS
QPSK /		1	99	22.98	21.75	PASS
16QAM		50	0	21.78	20.80	PASS
TOQAIVI		50	25	21.77	20.89	PASS
		50	50	21.91	20.94	PASS
		100	0	21.75	20.76	PASS
		1	0	22.43	21.72	PASS
		1	49	22.21	21.62	PASS
		1	99	22.43	21.80	PASS
	HCH	50	0	21.27	20.31	PASS
		50	25	21.19	20.30	PASS
		50	50	21.40	20.42	PASS
		100	0	21.28	20.41	PASS

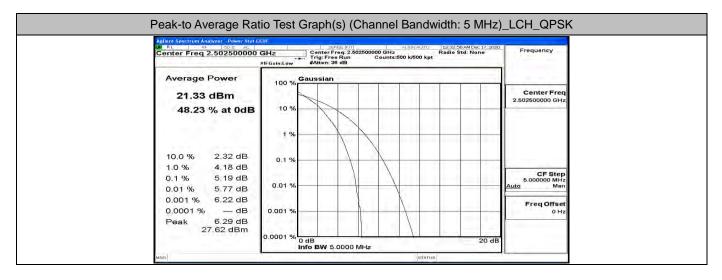
# E.2 Peak-to-Average Ratio

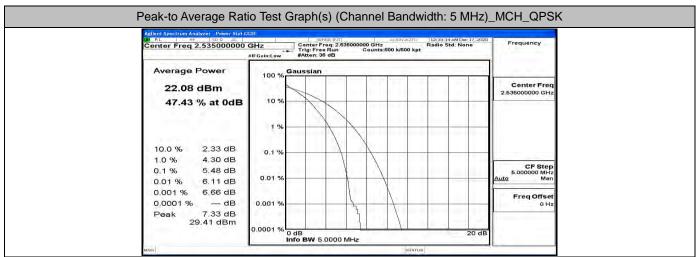
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict		
Modulation	Channel	[dB]	[dB]	verdict		
	LCH	5.19	<13	PASS		
QPSK	MCH	5.48	<13	PASS		
	HCH	5.34	<13	PASS		
16QAM	LCH	5.93	<13	PASS		
	MCH	6.17	<13	PASS		
	HCH	5.97	<13	PASS		

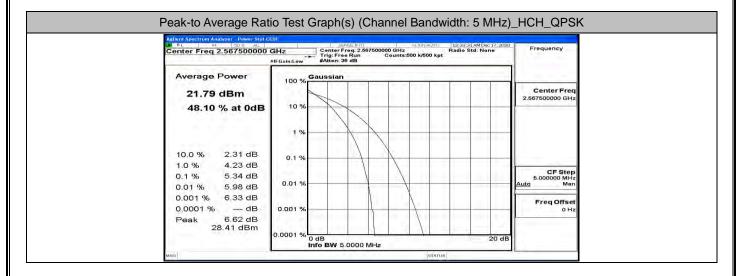
Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict		
Modulation	Griannei	[dB]	[dB]	verdict		
	LCH	5.47	<13	PASS		
QPSK	MCH	5.6	<13	PASS		
	HCH	5.4	<13	PASS		
16QAM	LCH	6.14	<13	PASS		
	MCH	6.27	<13	PASS		
	HCH	6.13	<13	PASS		

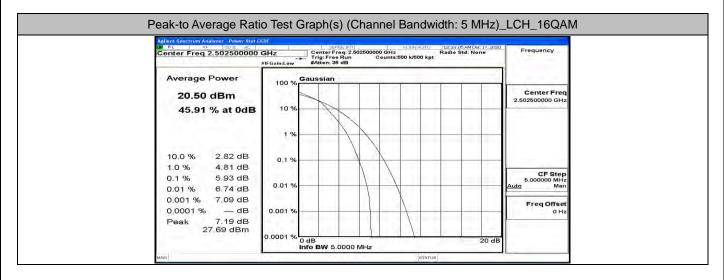
Peak-to Average Ratio Test Result (Channel Bandwidth: 15 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict		
Modulation	Grianner	[dB]	[dB]	verdict		
	LCH	5.02	<13	PASS		
QPSK	MCH	4.98	<13	PASS		
	HCH	4.88	<13	PASS		
16QAM	LCH	6.23	<13	PASS		
	MCH	6.23	<13	PASS		
	HCH	6.13	<13	PASS		

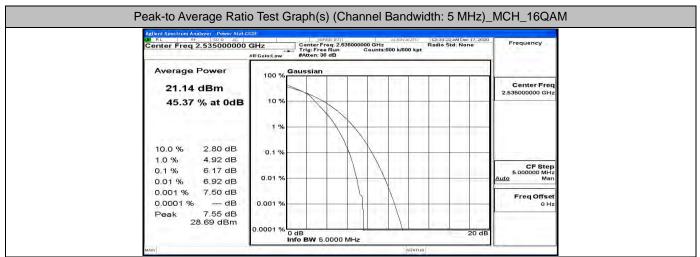
Peak-to Average Ratio Test Result (Channel Bandwidth: 20 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict		
iviodulation	Griannei	[dB]	[dB]	verdict		
	LCH	5.76	<13	PASS		
QPSK	MCH	5.76	<13	PASS		
	HCH	5.69	<13	PASS		
	LCH	6.76	<13	PASS		
16QAM	MCH	6.66	<13	PASS		
	HCH	6.69	<13	PASS		

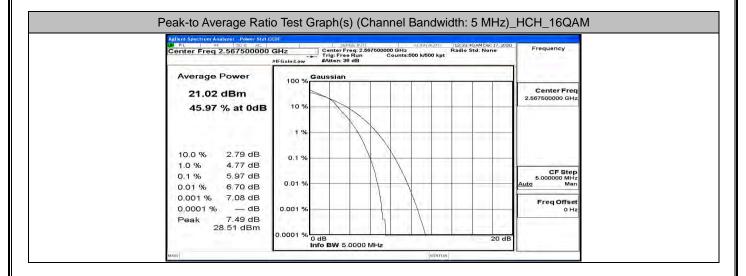


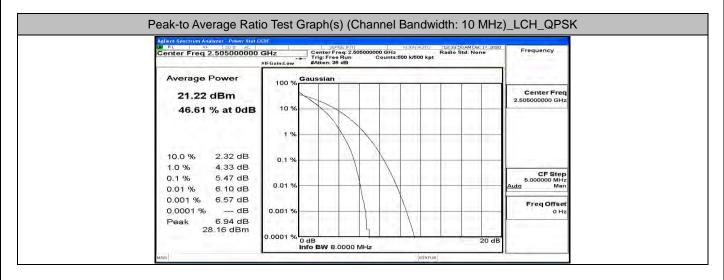


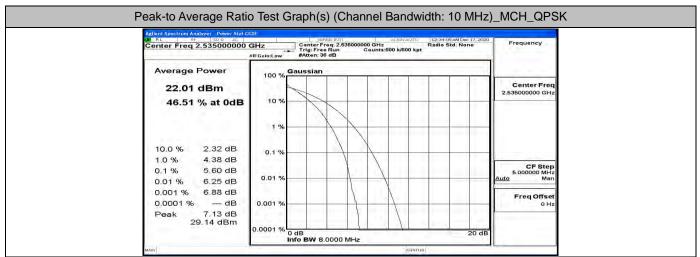


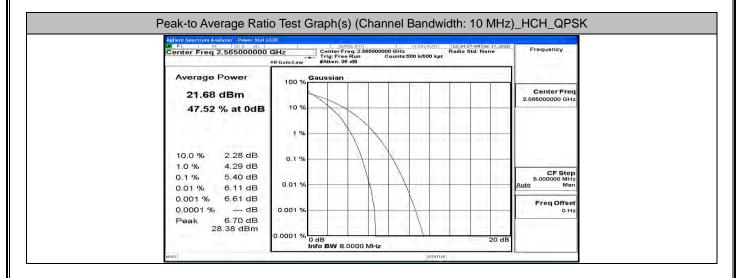


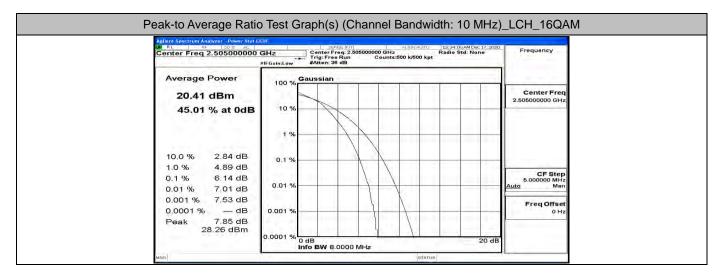


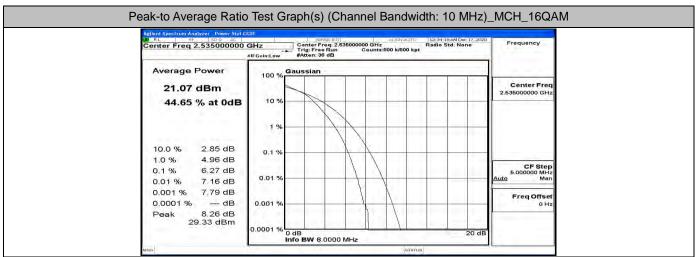


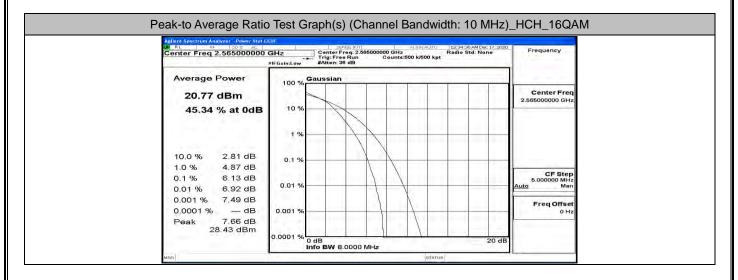


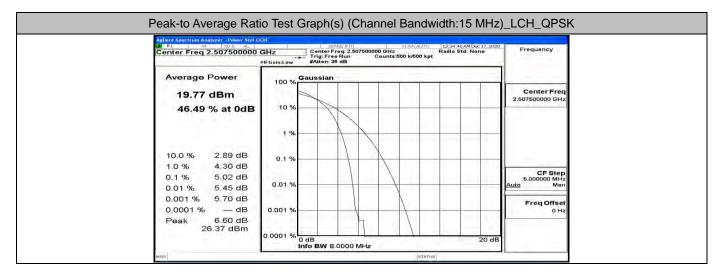


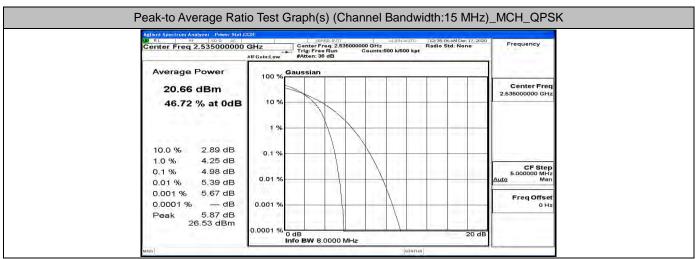


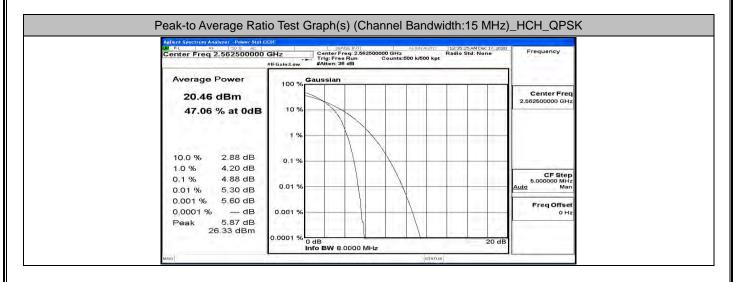


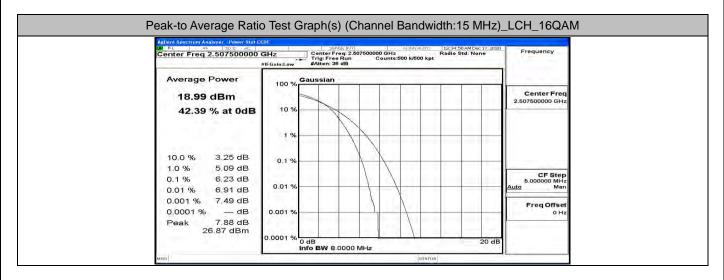


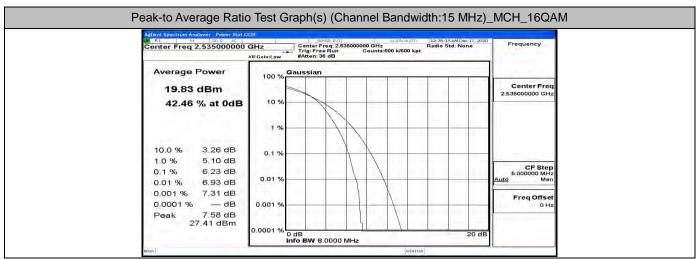


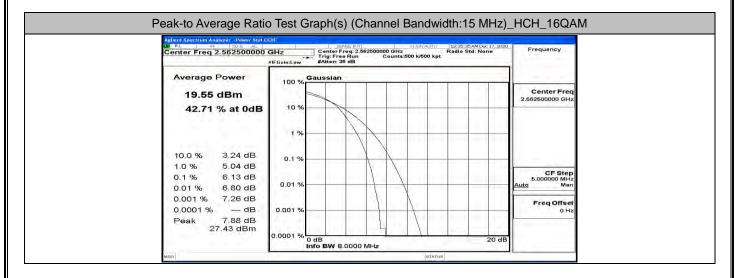


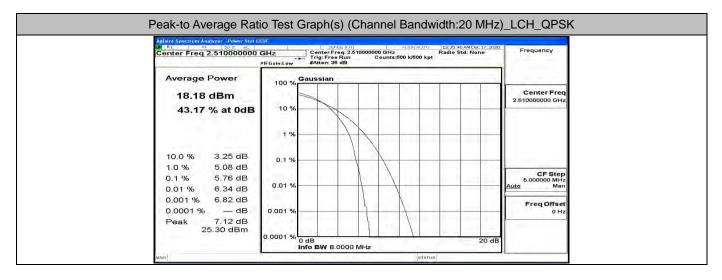


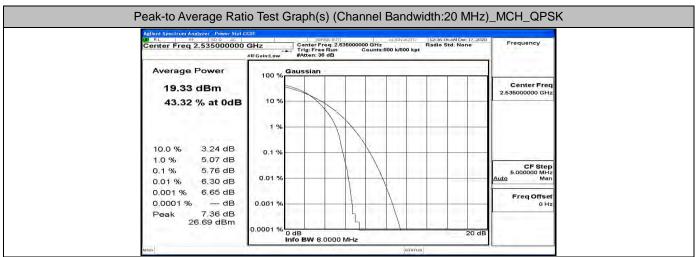


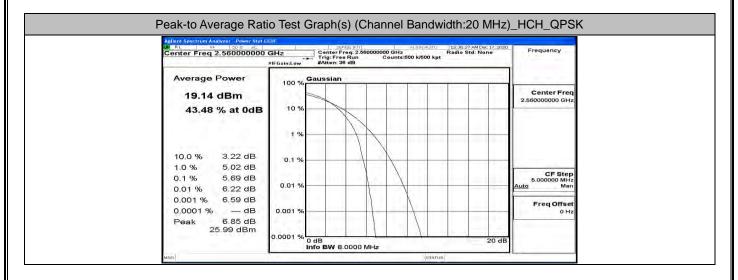


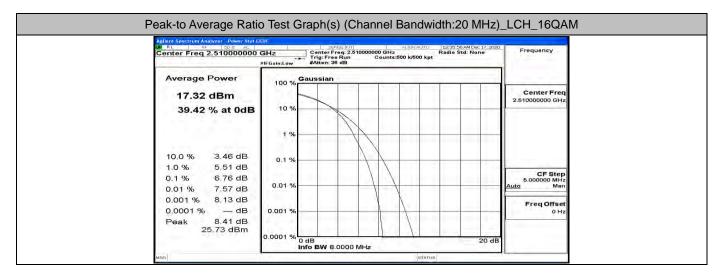


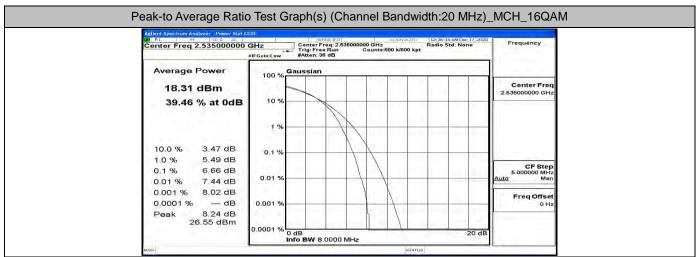


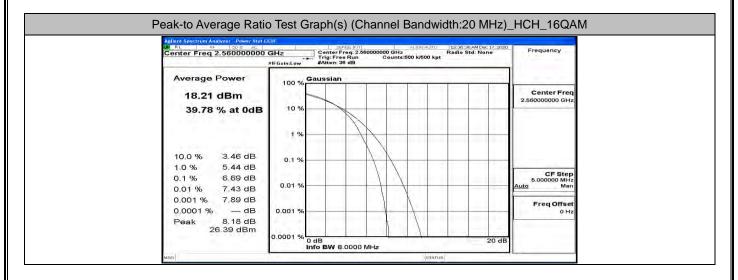












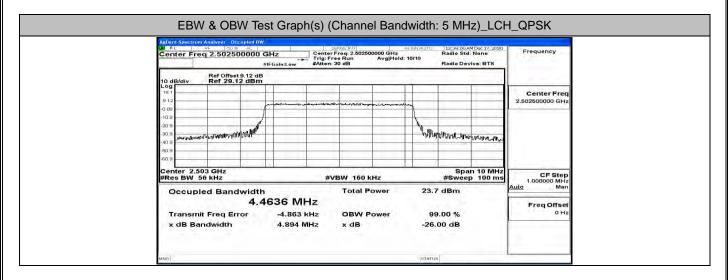
# E.3 26dB Bandwidth and Occupied Bandwidth

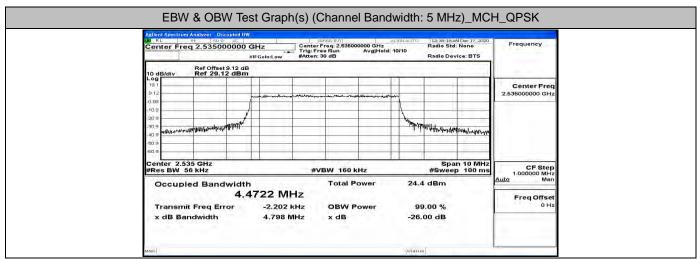
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict		
Wodulation	Chame	(MHz)	(MHz)	verdict		
QPSK	LCH	4.4636	4.894	PASS		
	MCH	4.4722	4.798	PASS		
	HCH	4.4735	4.845	PASS		
16QAM	LCH	4.4674	4.789	PASS		
	MCH	4.4671	4.831	PASS		
	HCH	4.4786	4.780	PASS		

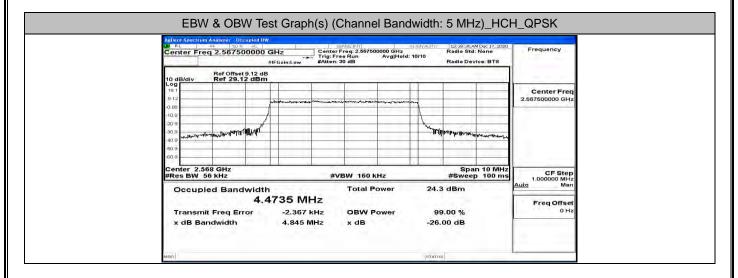
EBW & OBW Test Result (Channel Bandwidth: 10 MHz)						
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Vardiat		
Modulation	Griannei	(MHz)	(MHz)	Verdict		
	LCH	8.9446	9.609	PASS		
QPSK	MCH	8.9484	9.581	PASS		
	HCH	8.9415	9.482	PASS		
16QAM	LCH	8.9348	9.456	PASS		
	MCH	8.9432	9.520	PASS		
	HCH	8.9222	9.608	PASS		

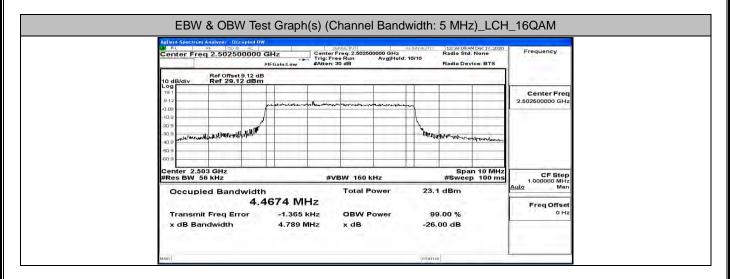
EBW & OBW Test Result (Channel Bandwidth: 15 MHz)						
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict		
Modulation	Channel	(MHz)	(MHz)	verdict		
	LCH	13.416	14.08	PASS		
QPSK	MCH	13.406	14.13	PASS		
	HCH	13.388	14.06	PASS		
16QAM	LCH	13.414	14.10	PASS		
	MCH	13.410	14.17	PASS		
	HCH	13.390	14.11	PASS		

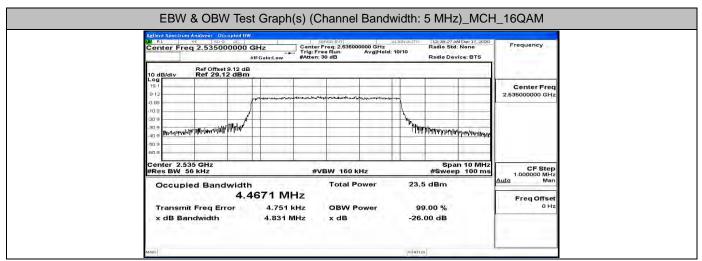
EBW & OBW Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
		(MHz)	(MHz)	
QPSK	LCH	17.913	18.66	PASS
	MCH	17.883	18.68	PASS
	HCH	17.867	18.73	PASS
16QAM	LCH	17.917	18.69	PASS
	MCH	17.894	18.78	PASS
	HCH	17.863	18.71	PASS

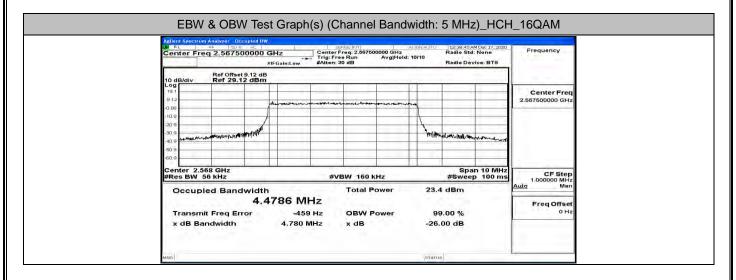


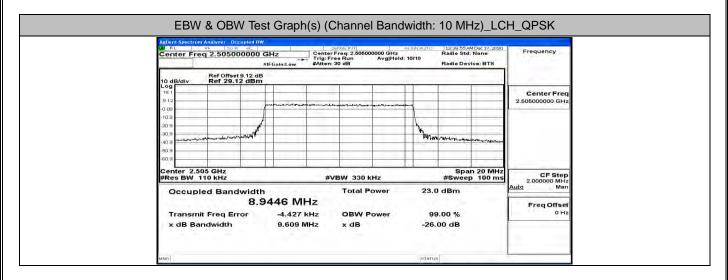


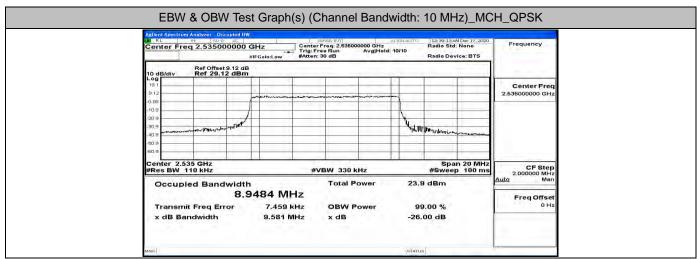


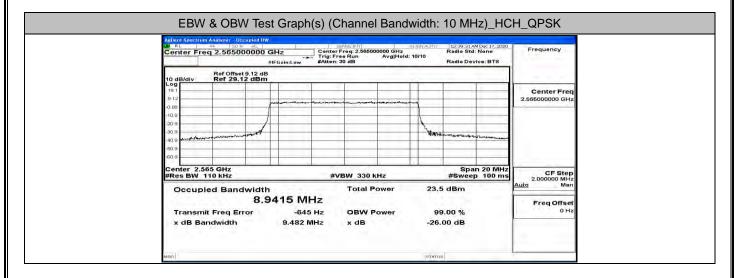


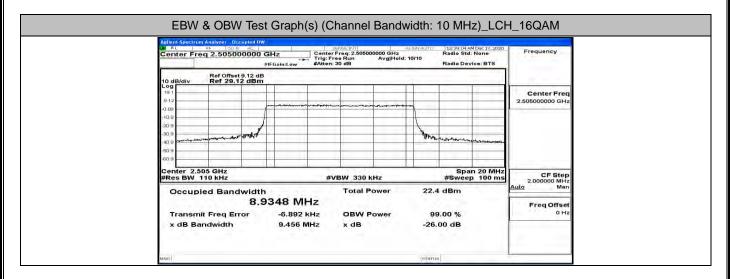


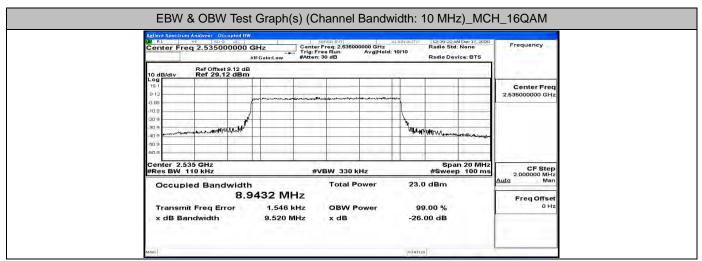


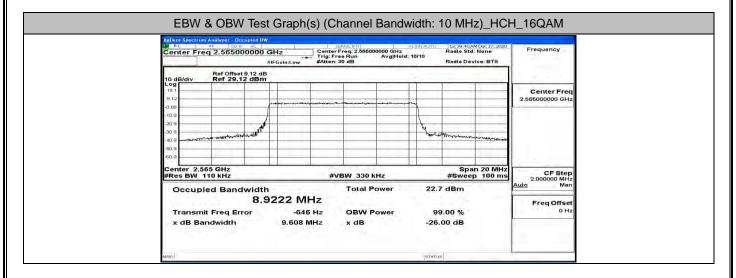


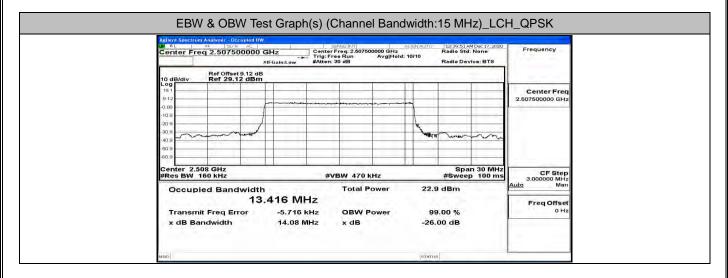


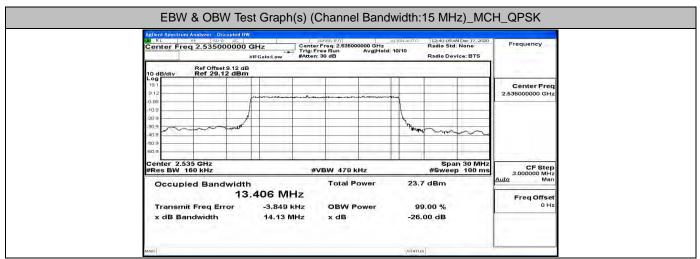


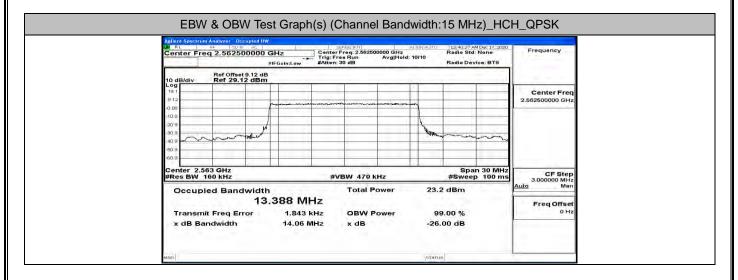


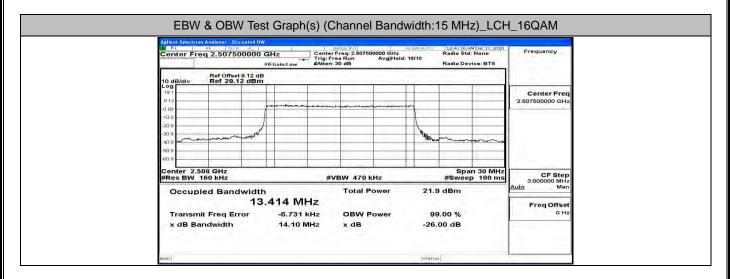


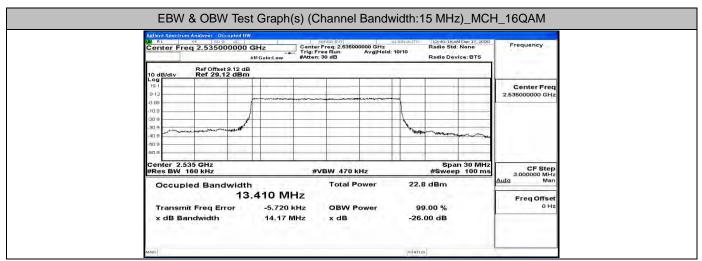


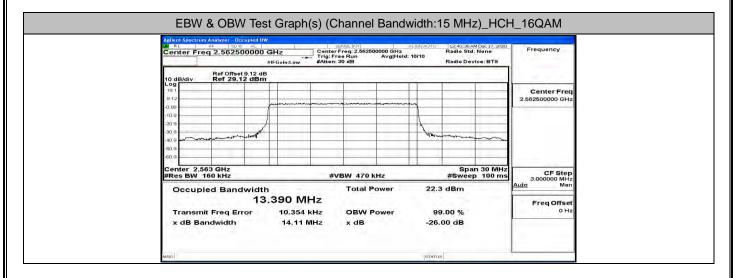


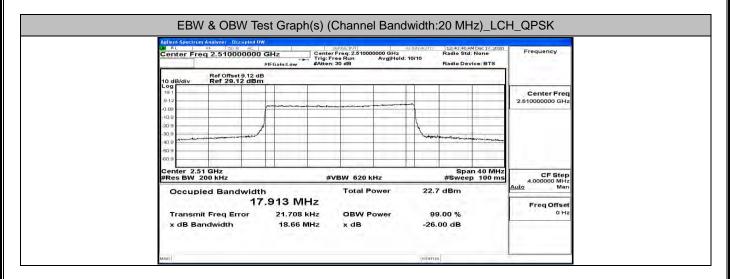


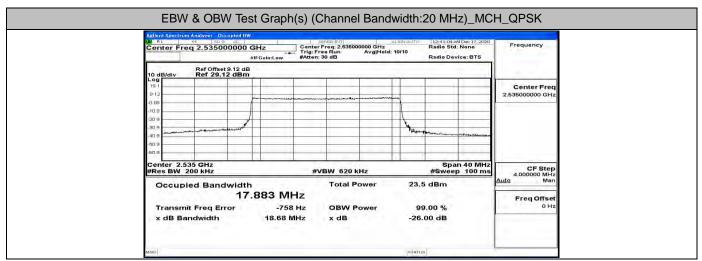


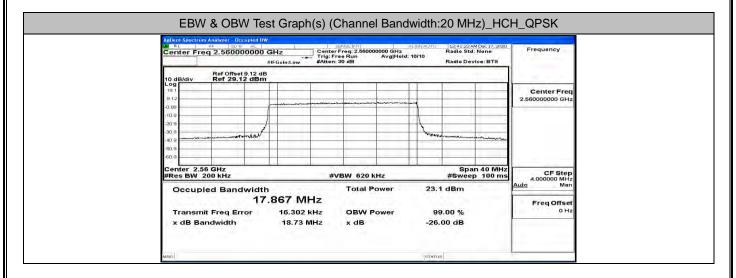


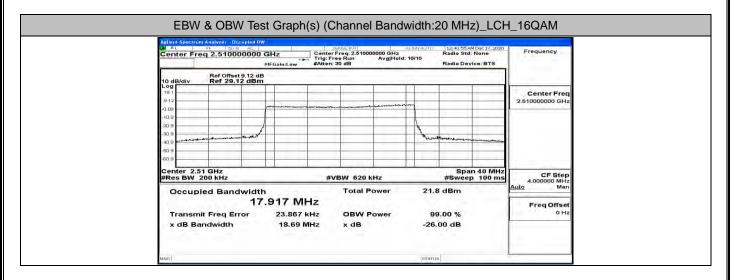


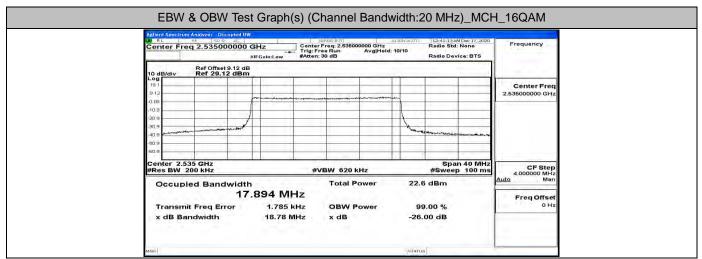


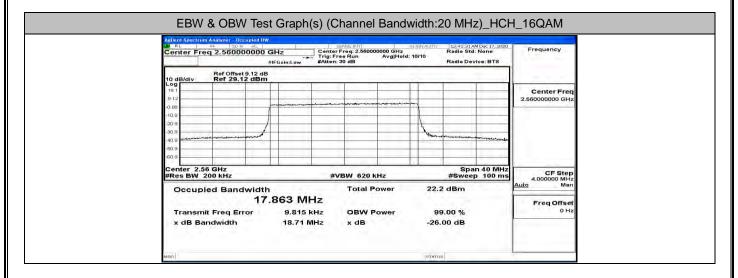




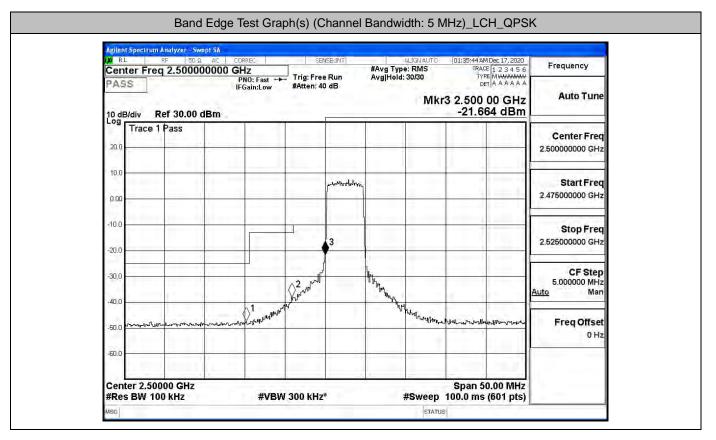


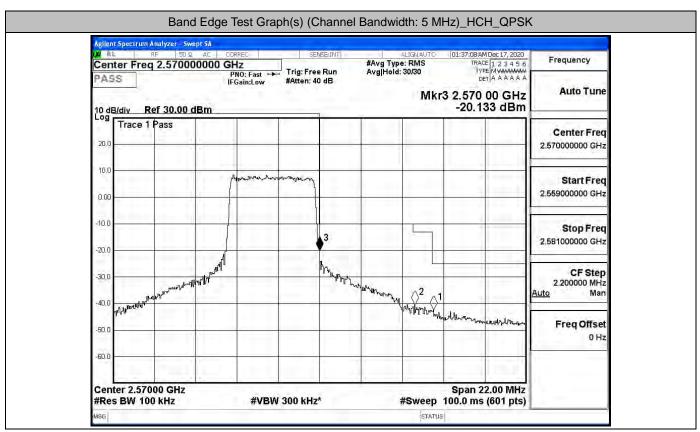


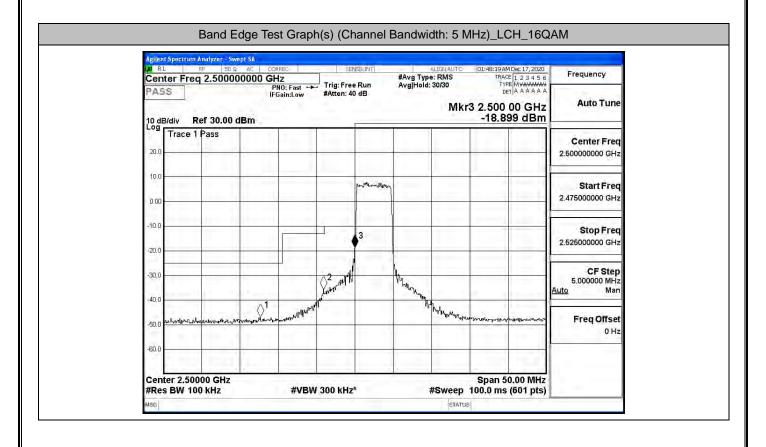


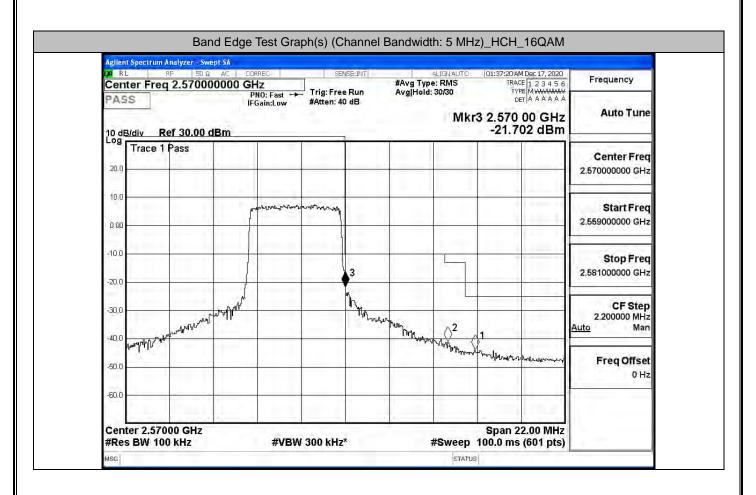


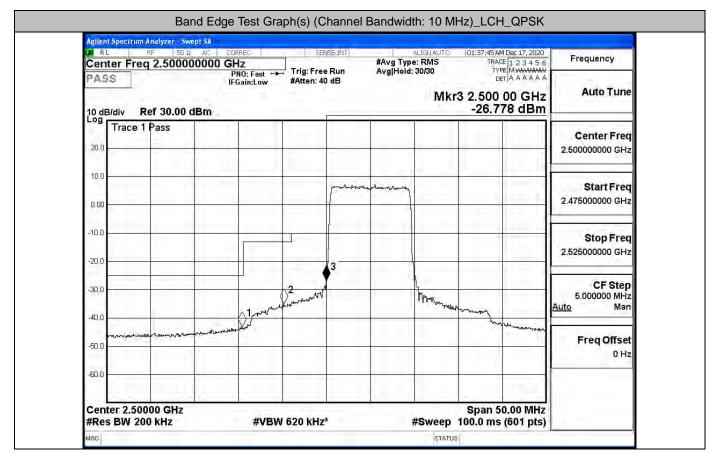
#### E.4 Band Edge

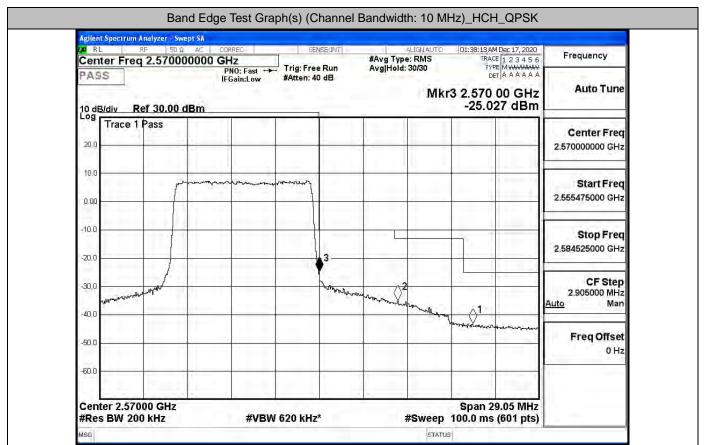


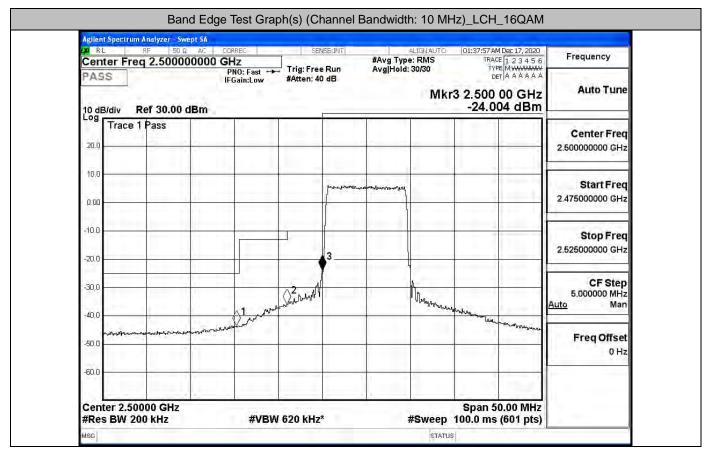


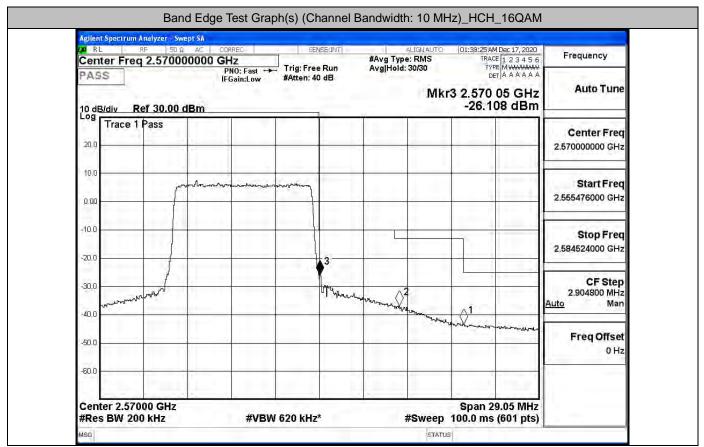


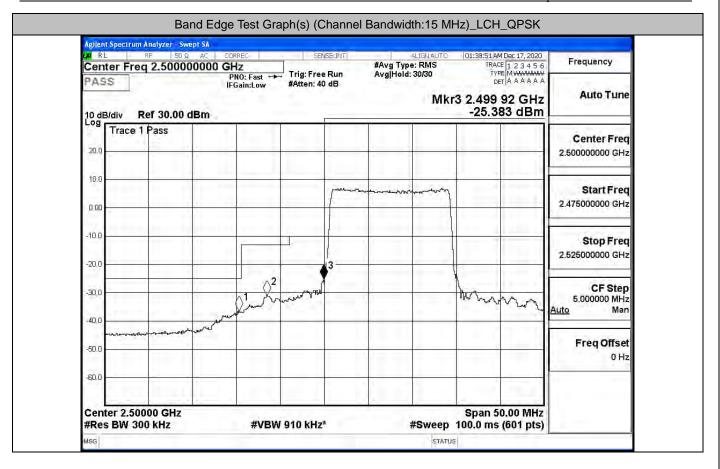


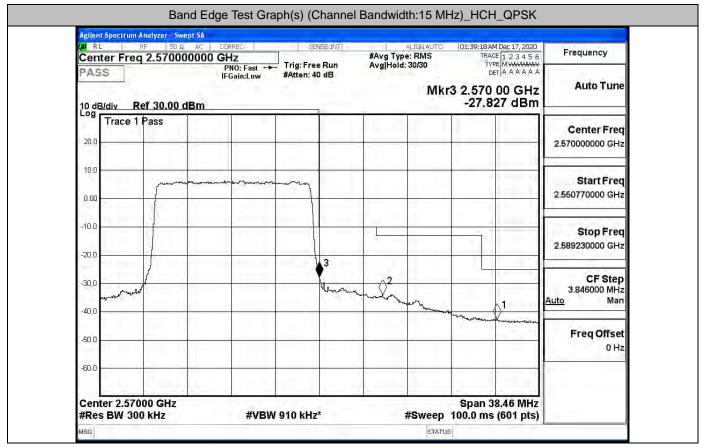


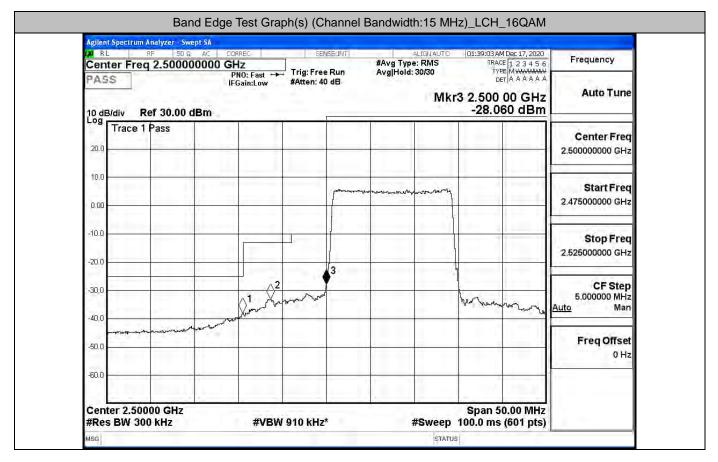


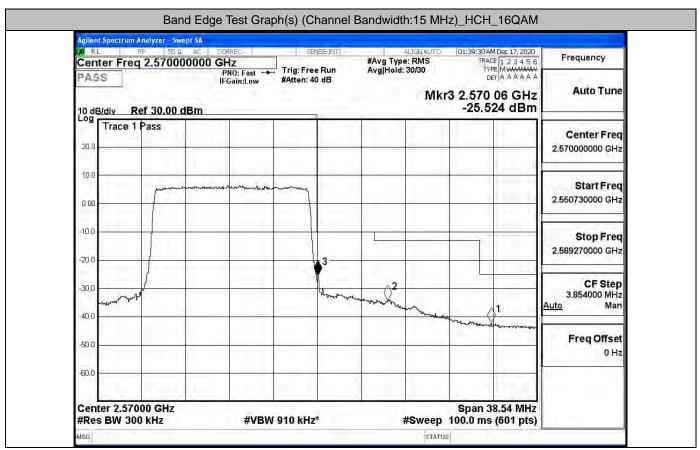


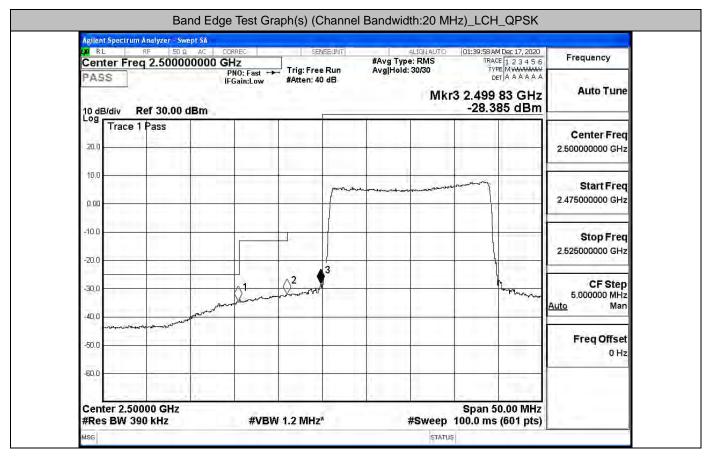


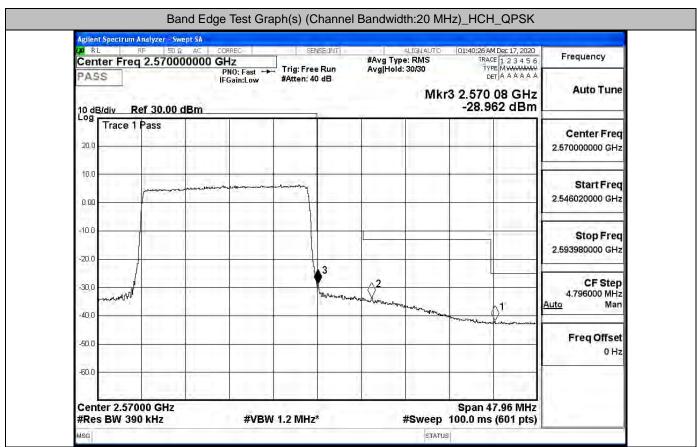


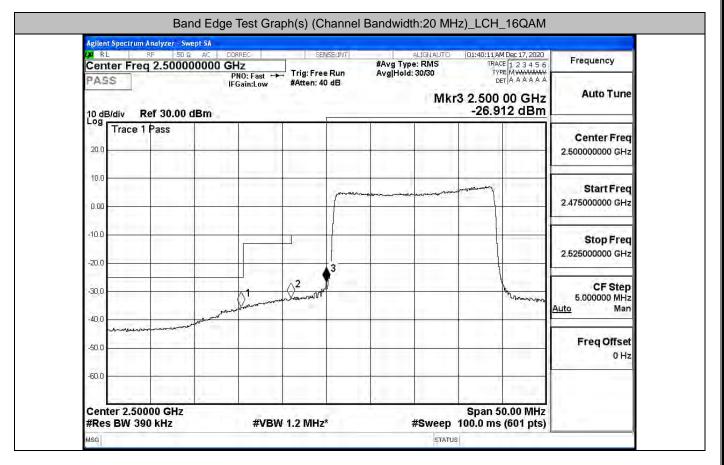


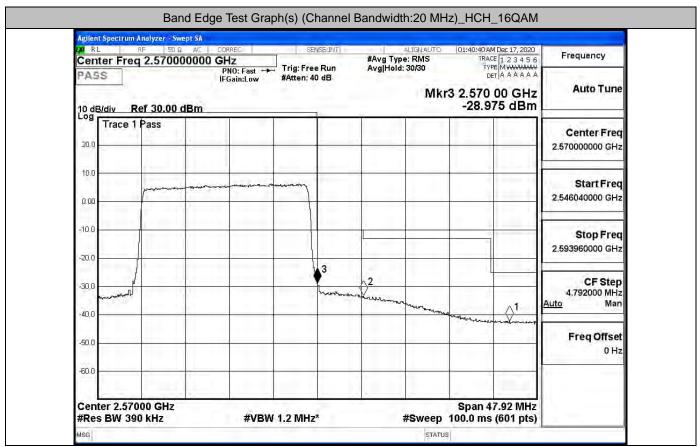






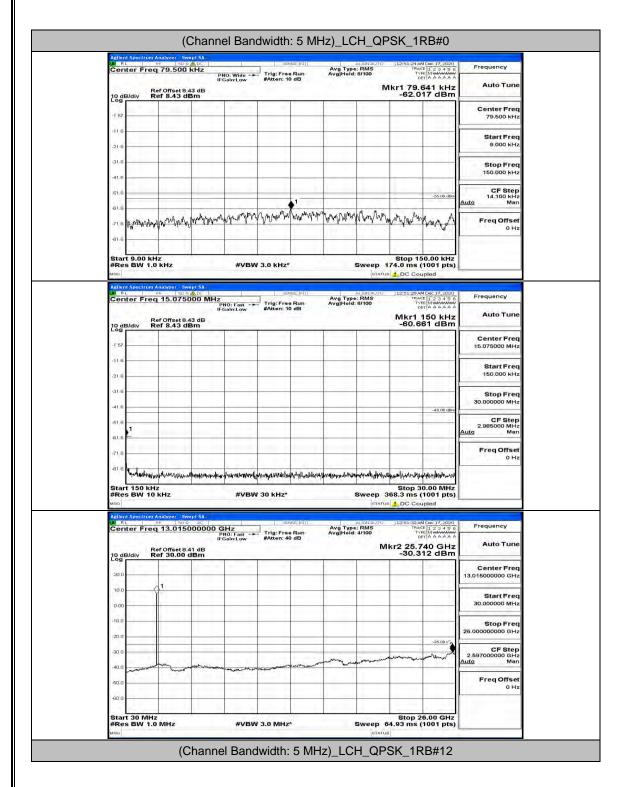






#### **E.5 Conducted Spurious Emission**

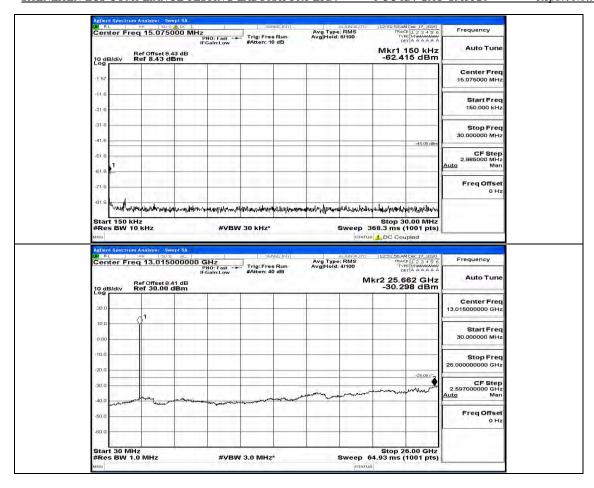
Channel Bandwidth: 5 MHz

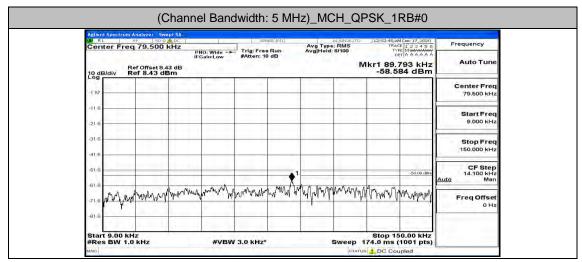


Start 9.00 kHz #Res BW 1.0 kHz

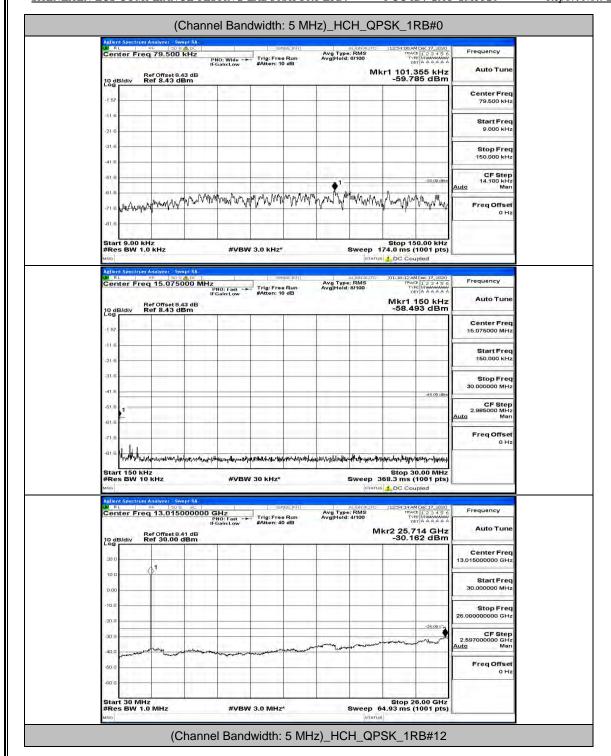
#VBW 3.0 kHz\*

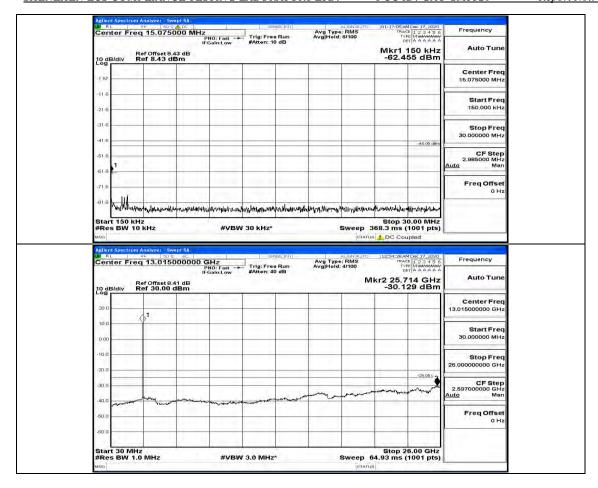
Stop 150.00 kHz Sweep 174.0 ms (1001 pts)

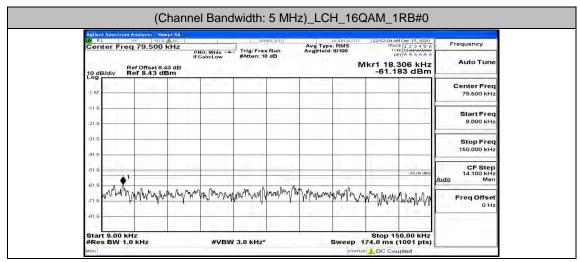




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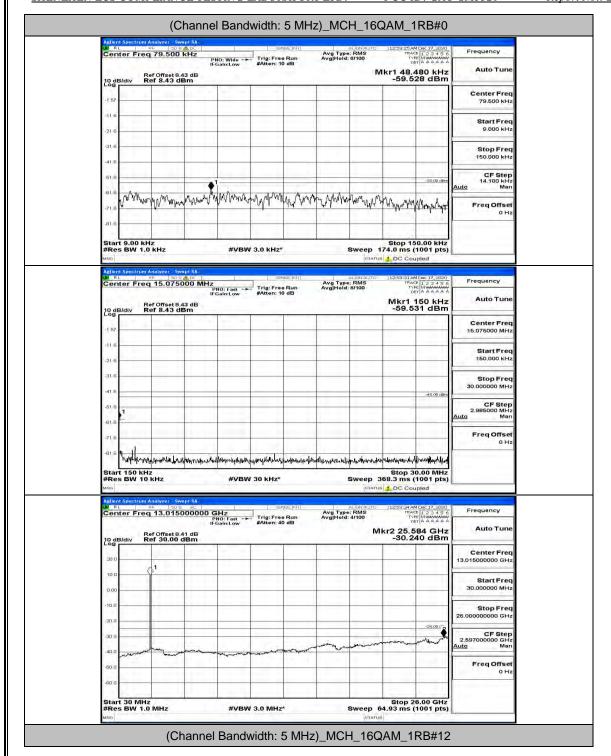


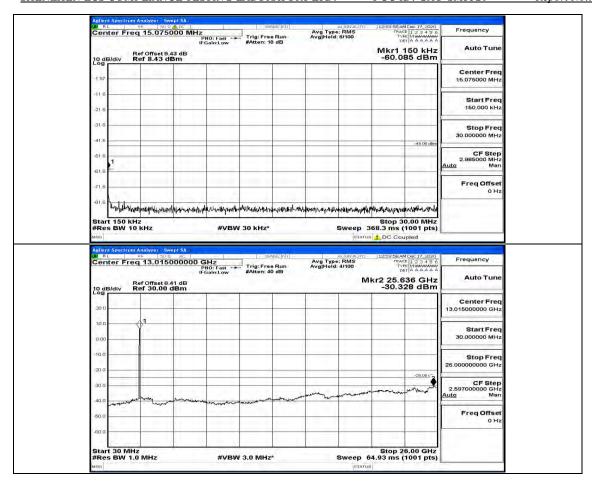
Report No.: LCS201123186AEG

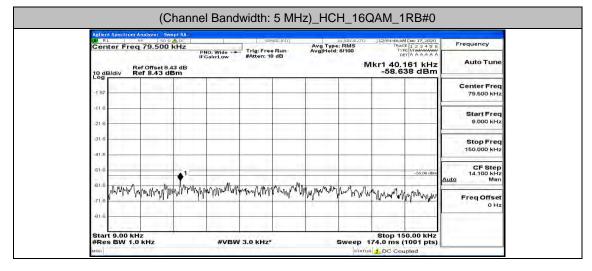
Start 30 MHz #Res BW 1.0 MHz

#VBW 3.0 MHz\*

Stop 26.00 GHz Sweep 64.93 ms (1001 pts) Freq Offset





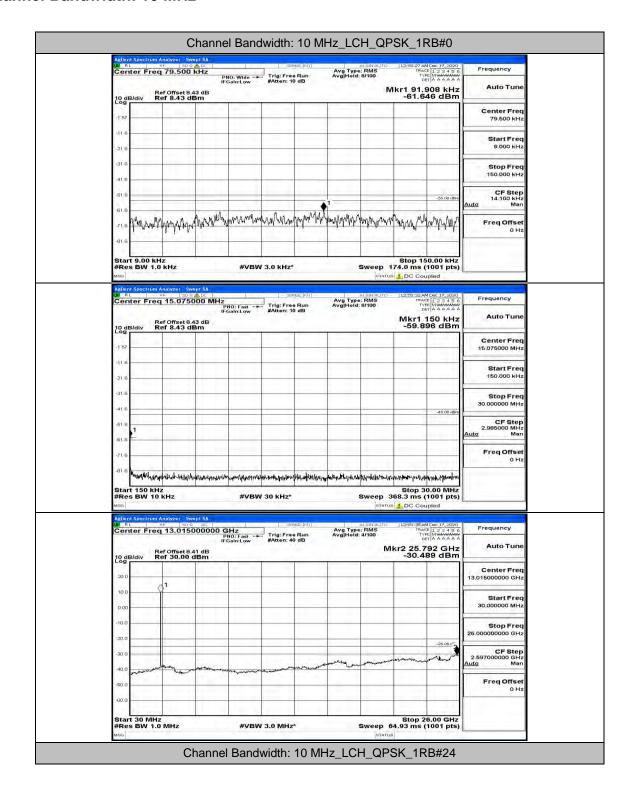


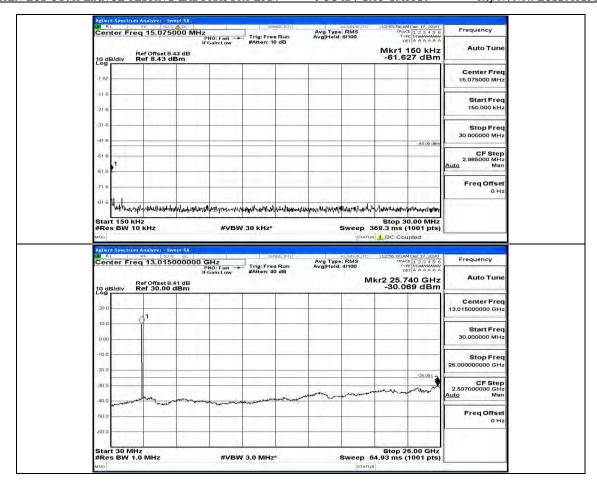
Start 30 MHz #Res BW 1.0 MHz

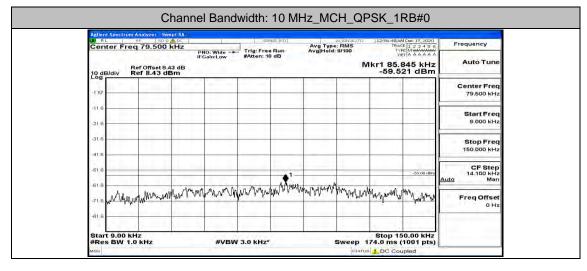
#VBW 3.0 MHz\*

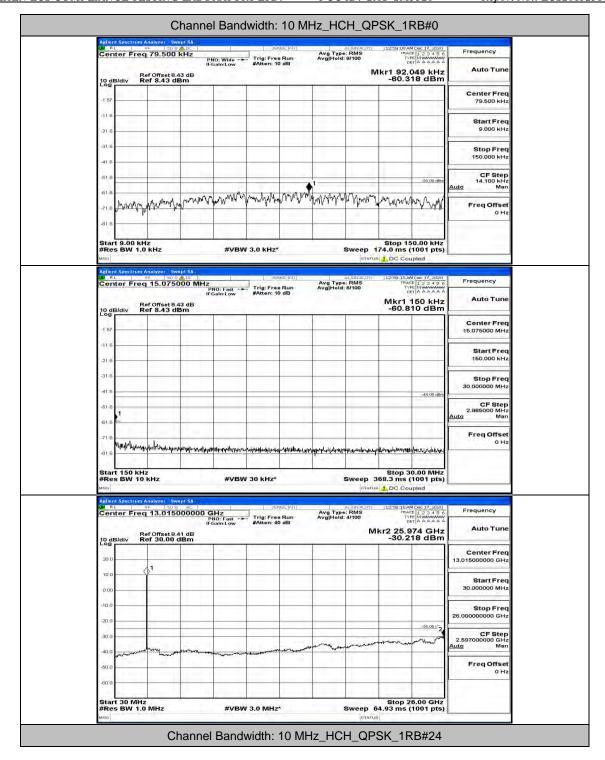
Stop 26.00 GHz Sweep 64.93 ms (1001 pts)

## **Channel Bandwidth: 10 MHz**

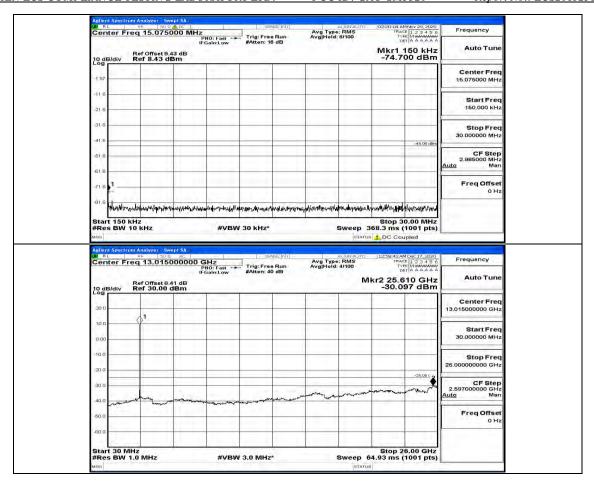


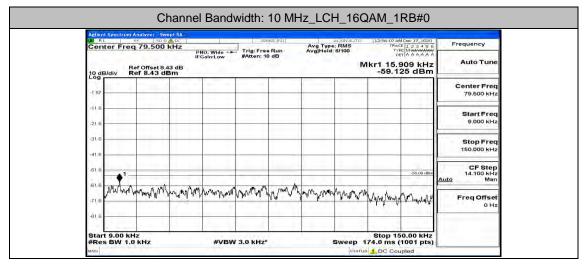






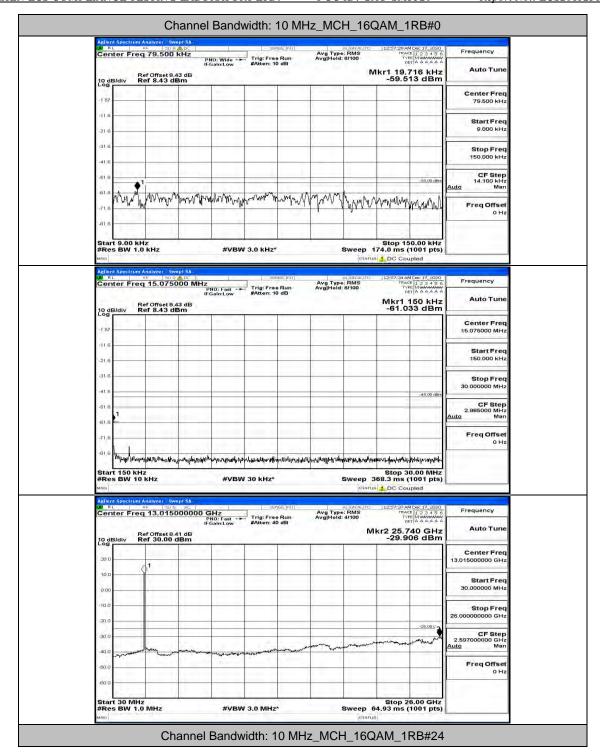
Report No.: LCS201123186AEG



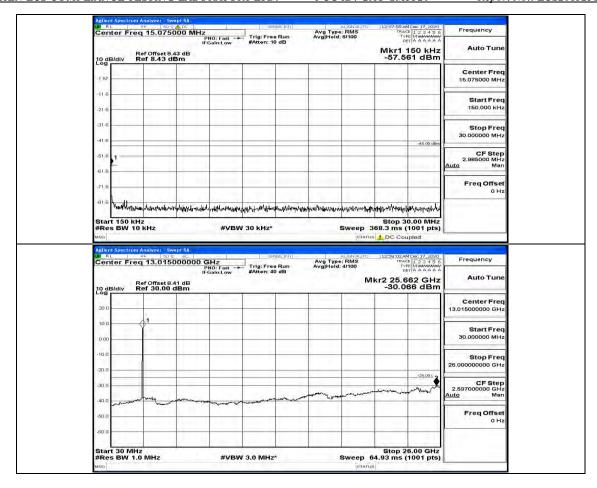


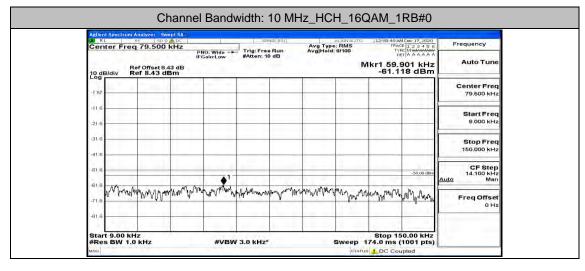
#VBW 3.0 MHz\*

Start 30 MHz #Res BW 1.0 MHz Stop 26.00 GHz Sweep 64.93 ms (1001 pts)

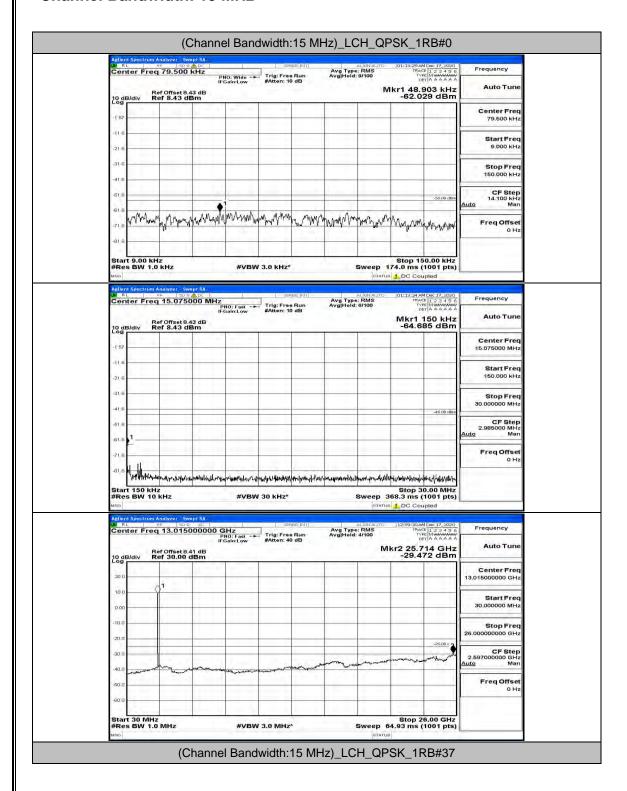


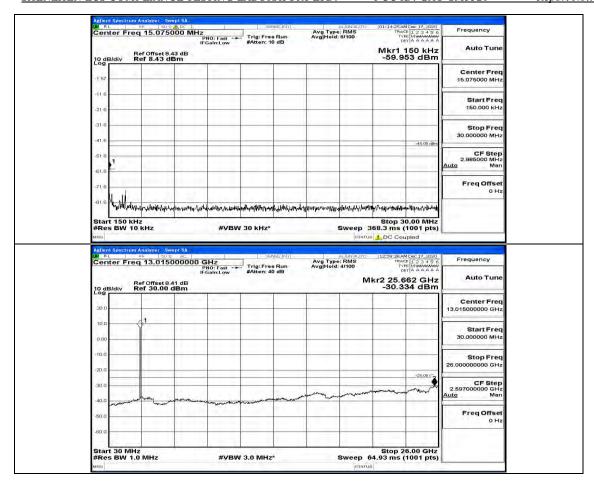
Report No.: LCS201123186AEG

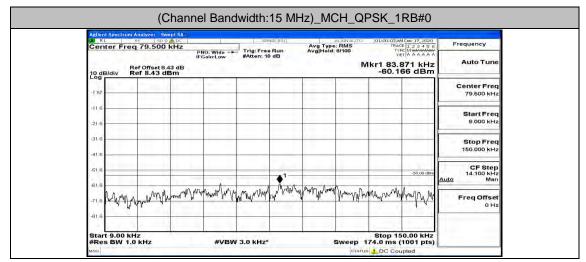




## **Channel Bandwidth: 15 MHz**





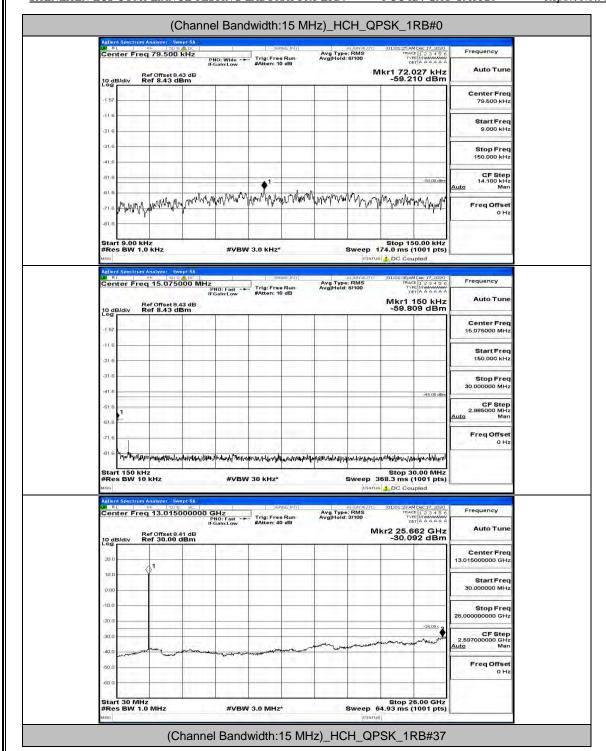


Stop 26.00 GHz Sweep 64.93 ms (1001 pts)

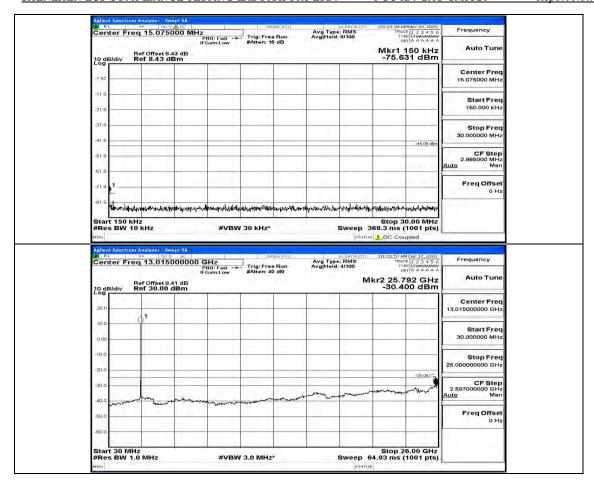
Start 30 MHz #Res BW 1.0 MHz

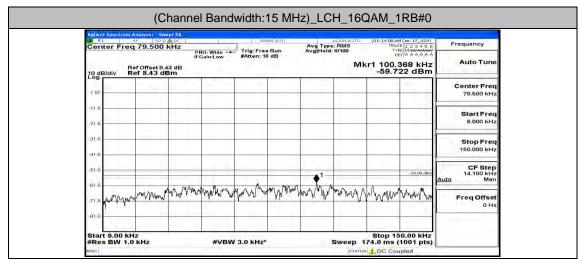
#VBW 3.0 MHz\*

Freq Offset



**#VBW 3.0 kHz\*** 





Start 30 MHz #Res BW 1.0 MHz

#VBW 3.0 MHz\*

Stop 26.00 GHz Sweep 64.93 ms (1001 pts)

