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

**Product Name: GNSS RECEIVER** Trade Mark: SOUTH, KOLIDA, SANDING, RUIDE, TIANYU **Test Model: NET S9** 

#### **Environmental Conditions**

Temperature:	24.6° C
Relative Humidity:	54.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Ken He
Supervised by:	Li Huan

### **E.1 Conducted Output Power**

Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)						
Madulation	Channal	RB Configuration		Average Power [dBm]	Average Power [dBm]	Vandiat
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict
		1	0	21.14	20.47	PASS
		1	12	20.97	20.37	PASS
		1	24	20.77	20.18	PASS
	LCH	12	0	20.32	19.29	PASS
		12	6	20.31	19.35	PASS
		12	13	20.04	19.10	PASS
		25	0	20.19	19.19	PASS
	МСН	1	0	22.62	21.15	PASS
		1	12	22.68	21.21	PASS
QPSK /		1	24	22.68	21.24	PASS
16QAM		12	0	21.47	20.50	PASS
IOQAIVI		12	6	21.46	20.50	PASS
		12	13	21.56	20.62	PASS
		25	0	21.55	20.66	PASS
		1	0	21.64	20.12	PASS
		1	12	21.71	20.20	PASS
		1	24	21.72	20.22	PASS
	HCH	12	0	20.61	19.74	PASS
		12	6	20.58	19.78	PASS
		12	13	20.71	19.79	PASS
		25	0	20.74	19.93	PASS

Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)						
Madulation	Channal	RB Con	figuration	Average Power [dBm]	Average Power [dBm]	Vandiat
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict
		1	0	21.14	20.14	PASS
		1	24	20.84	19.79	PASS
		1	49	20.64	19.48	PASS
	LCH	25	0	20.20	19.21	PASS
		25	12	20.20	19.21	PASS
		25	25	19.89	18.87	PASS
		50	0	19.90	19.09	PASS
	мсн	1	0	22.38	21.10	PASS
		1	24	22.64	21.30	PASS
QPSK /		1	49	22.45	21.23	PASS
16QAM		25	0	21.43	20.63	PASS
IOQAIVI		25	12	21.43	20.64	PASS
		25	25	21.66	20.76	PASS
		50	0	21.52	20.62	PASS
		1	0	21.33	20.91	PASS
		1	24	21.53	21.21	PASS
		1	49	21.61	21.29	PASS
	нсн	25	0	20.61	19.71	PASS
		25	12	20.61	19.69	PASS
		25	25	20.77	19.86	PASS
		50	0	20.59	19.73	PASS

Conducted Output Power Test Result (Channel Bandwidth: 15 MHz)						
Madulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Vandiat
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict
		1	0	21.14	20.28	PASS
		1	37	20.78	19.83	PASS
		1	74	20.45	19.68	PASS
	LCH	37	0	19.94	19.93	PASS
		37	18	19.94	19.93	PASS
		37	38	19.94	19.93	PASS
		75	0	19.94	18.88	PASS
	мсн	1	0	21.97	21.24	PASS
		1	37	22.50	21.80	PASS
QPSK /		1	74	22.30	21.64	PASS
16QAM		37	0	21.44	21.48	PASS
IOQAM		37	18	21.46	21.42	PASS
		37	38	21.41	21.52	PASS
		75	0	21.48	20.58	PASS
		1	0	21.30	20.93	PASS
		1	37	21.42	21.13	PASS
		1	74	21.63	21.28	PASS
	нсн	37	0	20.58	20.58	PASS
		37	18	20.58	20.58	PASS
		37	38	20.58	20.58	PASS
		75	0	20.58	19.63	PASS

Conducted Output Power Test Result (Channel Bandwidth: 20 MHz)						
Madulation	Channal	RB Configuration		Average Power [dBm]	Average Power [dBm]	Vardiet
Modulation	Channel	Size	Offset	QPSK	16QAM	Verdict
		1	0	21.35	20.13	PASS
		1	49	20.77	19.49	PASS
		1	99	20.96	19.67	PASS
	LCH	50	0	20.00	19.08	PASS
		50	25	19.99	19.09	PASS
		50	50	19.58	18.85	PASS
		100	0	19.76	18.87	PASS
	MCH	1	0	21.80	21.24	PASS
		1	49	22.70	22.06	PASS
QPSK /		1	99	22.20	21.65	PASS
16QAM		50	0	21.15	20.42	PASS
IOQAM		50	25	21.28	20.43	PASS
		50	50	21.50	20.59	PASS
		100	0	21.41	20.55	PASS
		1	0	21.67	20.63	PASS
		1	49	21.54	20.45	PASS
		1	99	21.82	20.72	PASS
	нсн	50	0	20.35	19.54	PASS
		50	25	20.49	19.55	PASS
		50	50	20.62	19.82	PASS
		100	0	20.53	19.53	PASS

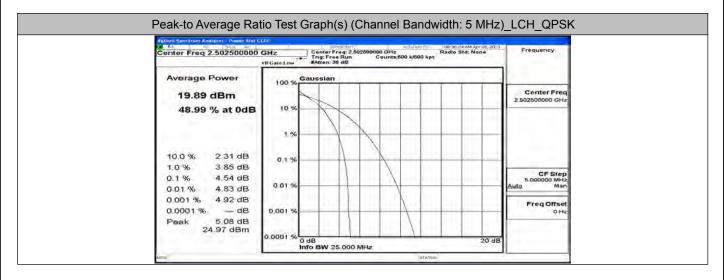
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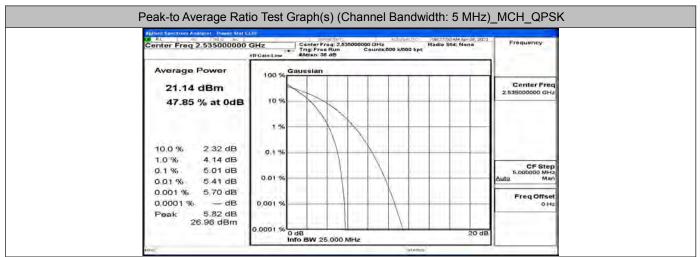
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict		
Modulation	Channel	[dB]	[dB]	verdict		
	LCH	4.54	<13	PASS		
QPSK	MCH	5.01	<13	PASS		
	HCH	4.59	<13	PASS		
16QAM	LCH	5.38	<13	PASS		
	MCH	5.81	<13	PASS		
	HCH	5.31	<13	PASS		

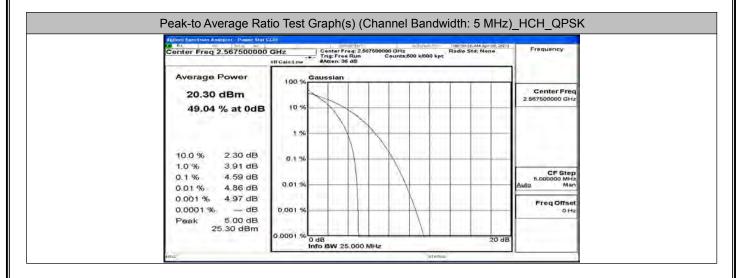
Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict		
iviodulation	Chame	[dB]	[dB]	verdict		
	LCH	4.87	<13	PASS		
QPSK	MCH	5.04	<13	PASS		
	HCH	4.59	<13	PASS		
	LCH	5.58	<13	PASS		
16QAM	MCH	5.81	<13	PASS		
	HCH	5.46	<13	PASS		

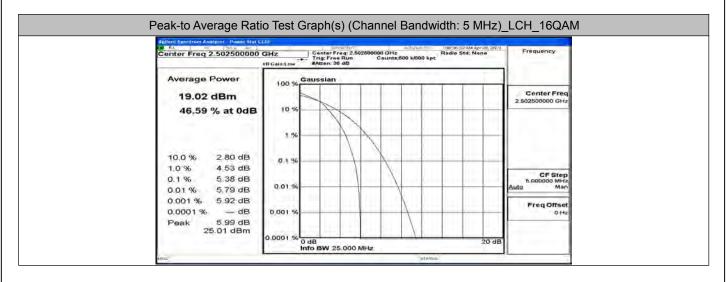
Peak-to Average Ratio Test Result (Channel Bandwidth: 15 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Vordict		
iviodulation	Grianner	[dB]	[dB]	Verdict		
	LCH	5.25	<13	PASS		
QPSK	MCH	5.22	<13	PASS		
	HCH	5.05	<13	PASS		
16QAM	LCH	5.91	<13	PASS		
	MCH	5.85	<13	PASS		
	HCH	5.67	<13	PASS		

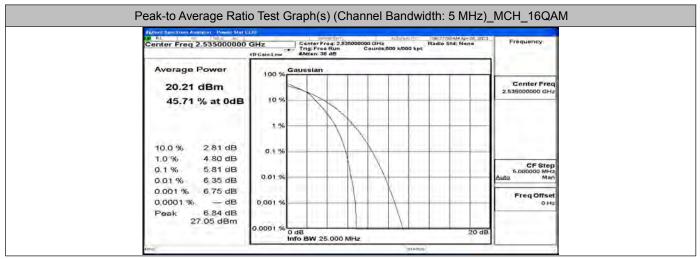
Peak-to Average Ratio Test Result (Channel Bandwidth: 20 MHz)						
Modulation	Channel	Peak-to-Average Ratio	Limit	Verdict		
iviodulation	Glialillei	[dB]	[dB]	verdict		
	LCH	5.20	<13	PASS		
QPSK	MCH	5.17	<13	PASS		
	HCH	5.16	<13	PASS		
	LCH	5.95	<13	PASS		
16QAM	MCH	5.89	<13	PASS		
	HCH	5.85	<13	PASS		

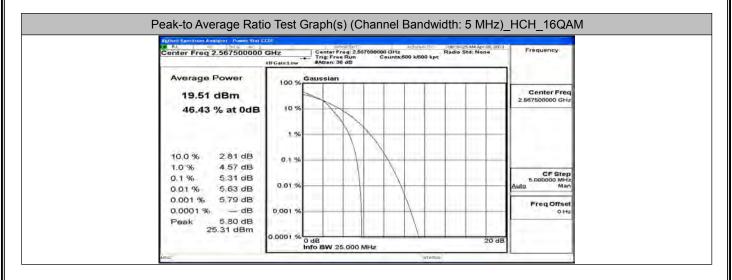


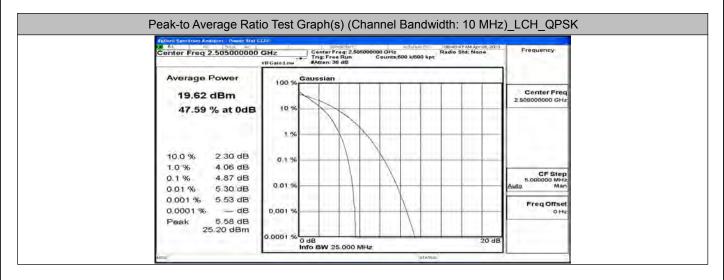


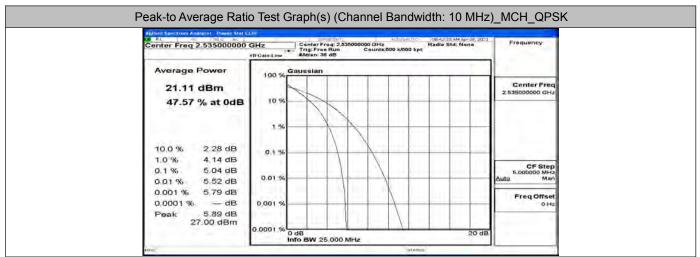


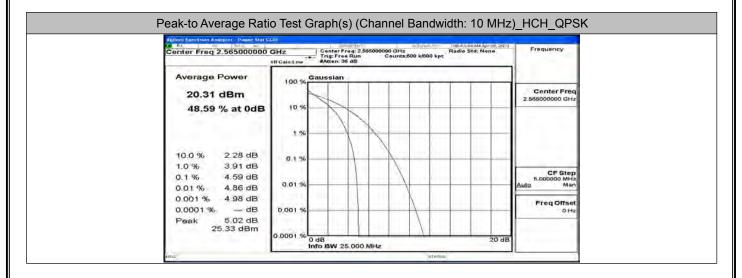


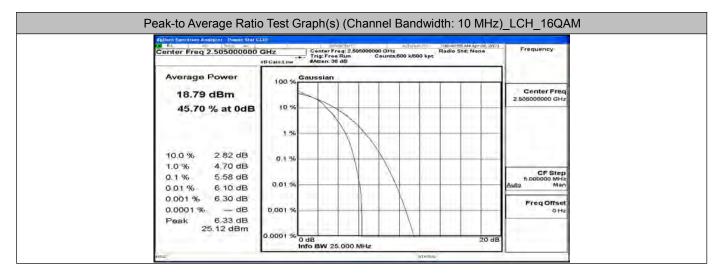


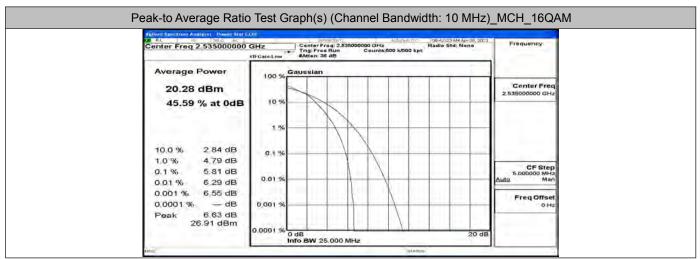


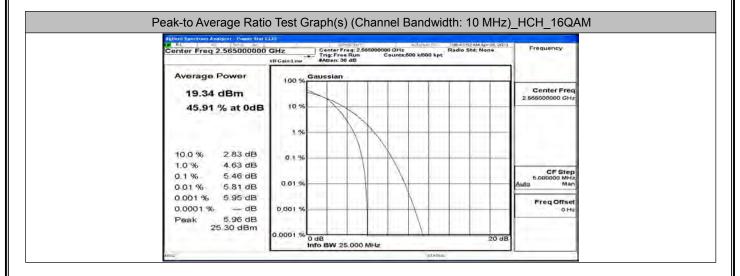


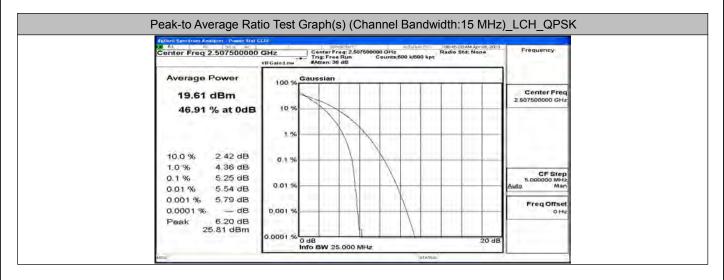


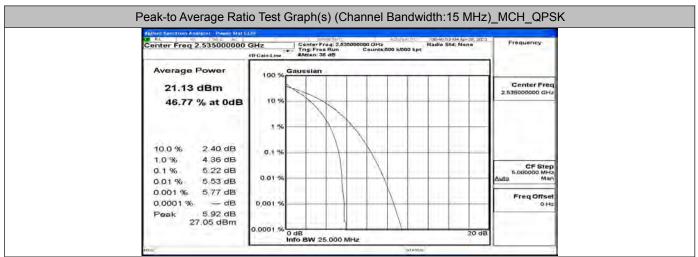


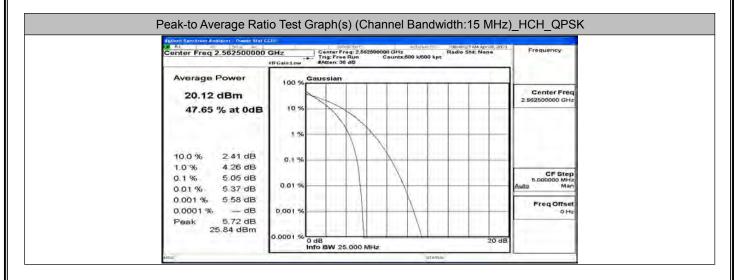


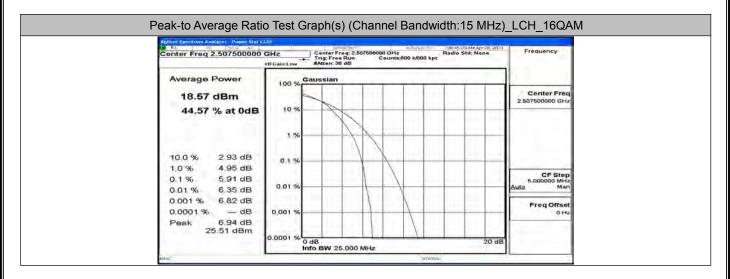


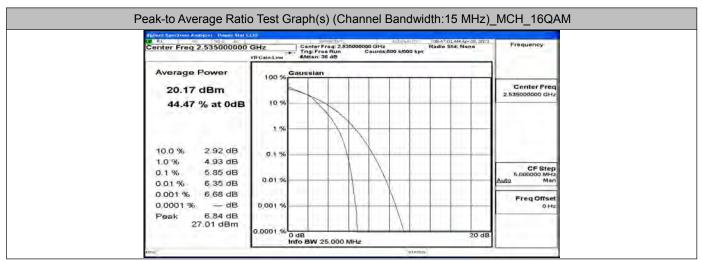


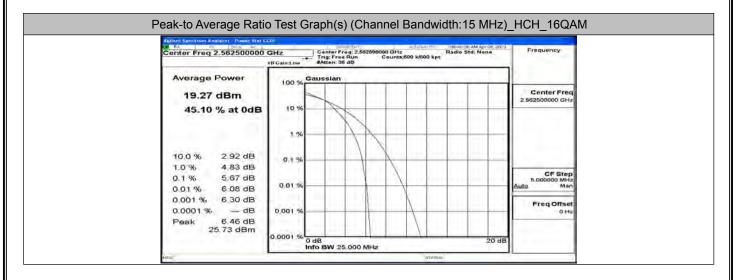


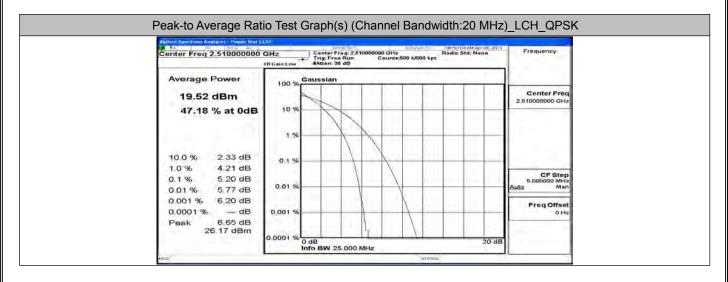


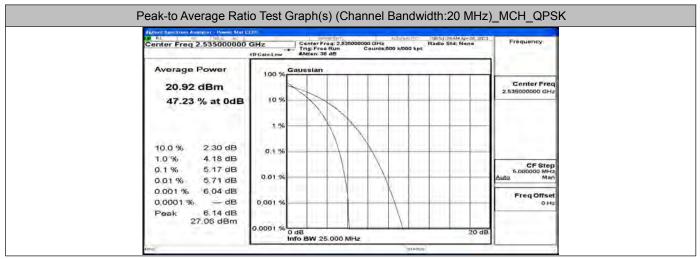


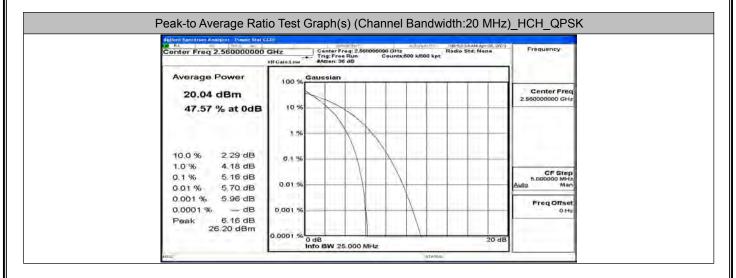


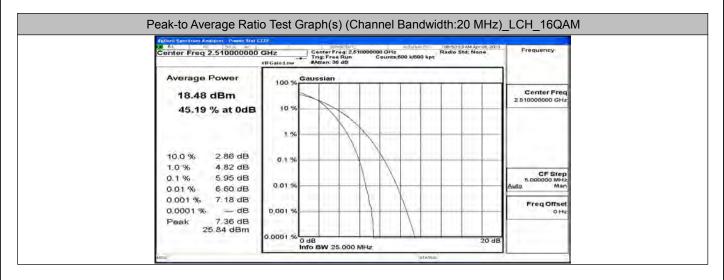


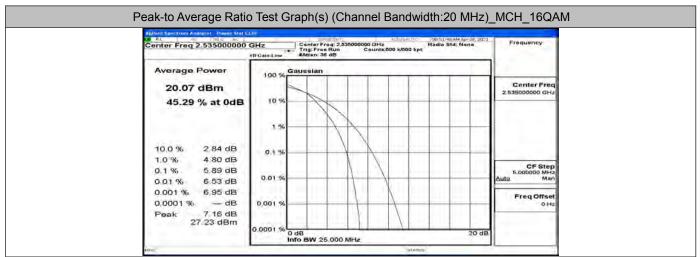


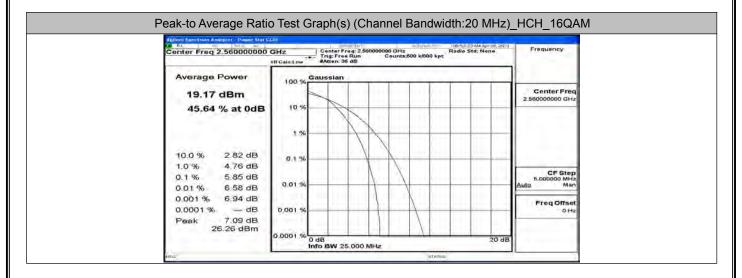












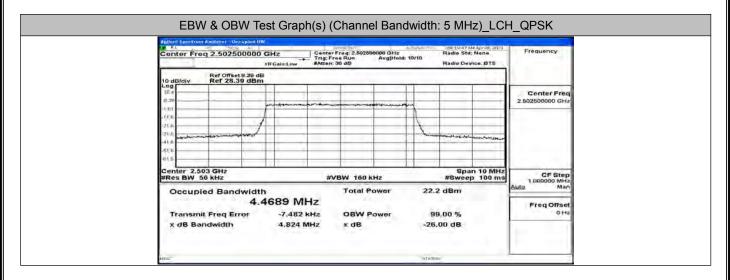
# E.3 26dB Bandwidth and Occupied Bandwidth

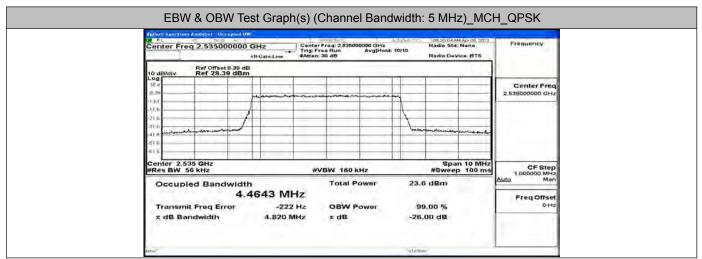
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Vordict		
Modulation	Chamer	(MHz)	(MHz)	Verdict		
	LCH	4.4689	4.824	PASS		
QPSK	MCH	4.4643	4.820	PASS		
	HCH	4.4692	4.814	PASS		
16QAM	LCH	4.4681	4.815	PASS		
	MCH	4.4736	4.829	PASS		
	HCH	4.4749	4.828	PASS		

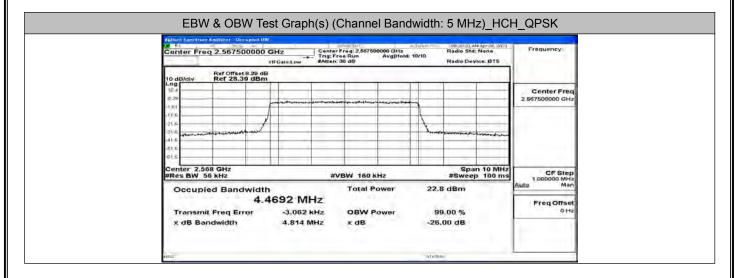
EBW & OBW Test Result (Channel Bandwidth: 10 MHz)						
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict		
iviodulation	Channel	(MHz)	(MHz)	verdict		
	LCH	8.9679	9.511	PASS		
QPSK	MCH	8.9386	9.469	PASS		
	HCH	8.9305	9.452	PASS		
16QAM	LCH	8.9386	9.505	PASS		
	MCH	8.9385	9.532	PASS		
	HCH	8.9441	9.517	PASS		

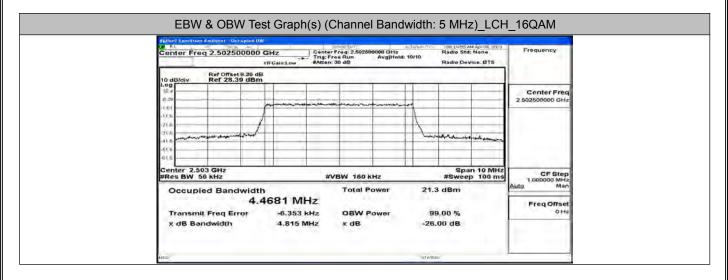
EBW & OBW Test Result (Channel Bandwidth: 15 MHz)						
Maria La Cara	Channel	Occupied Bandwidth	26dB Bandwidth	Vordict		
Modulation	Chamer	(MHz)	(MHz)	Verdict		
	LCH	13.420	14.06	PASS		
QPSK	MCH	13.373	14.12	PASS		
	HCH	13.407	14.11	PASS		
16QAM	LCH	13.414	14.22	PASS		
	MCH	13.386	14.05	PASS		
	HCH	13.400	14.22	PASS		

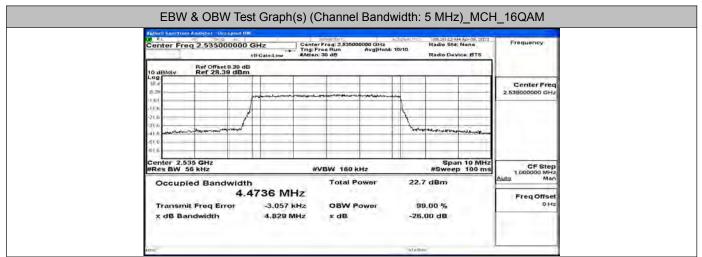
EBW & OBW Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Occupied Bandwidth	26dB Bandwidth	Verdict
		(MHz)	(MHz)	
QPSK	LCH	17.914	18.67	PASS
	MCH	17.836	18.78	PASS
	HCH	17.881	18.70	PASS
16QAM	LCH	17.890	18.70	PASS
	MCH	17.841	18.61	PASS
	HCH	17.888	18.80	PASS

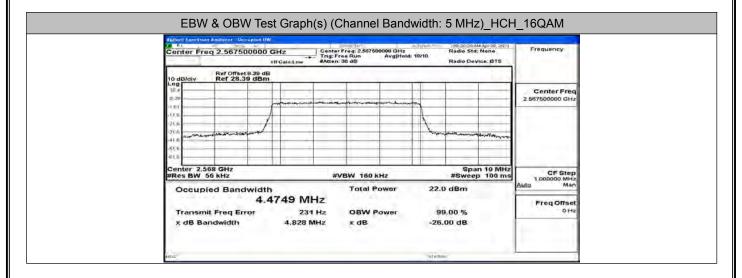


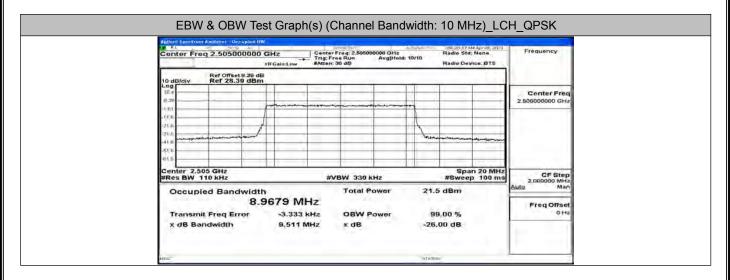


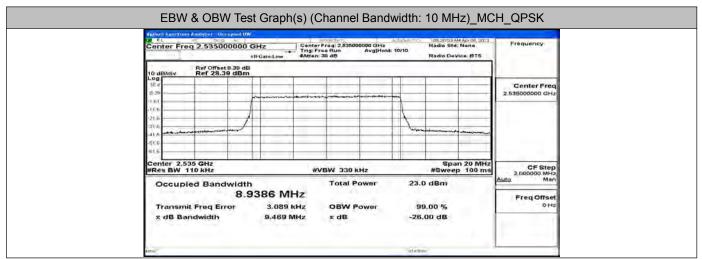


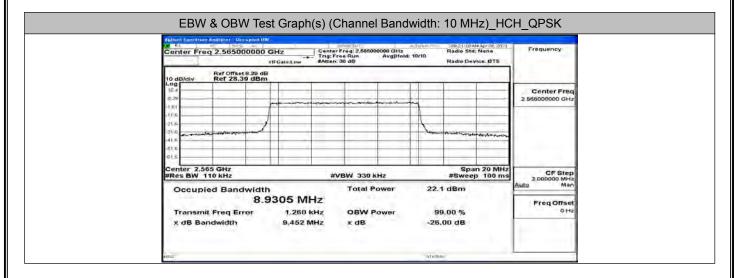


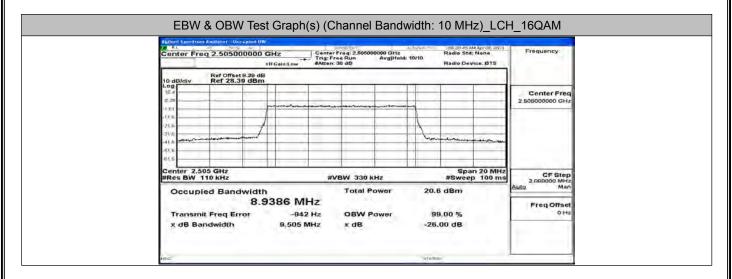


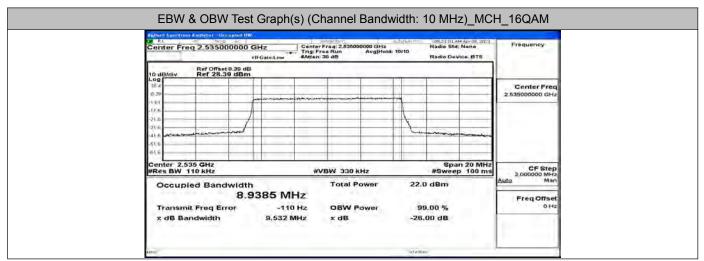


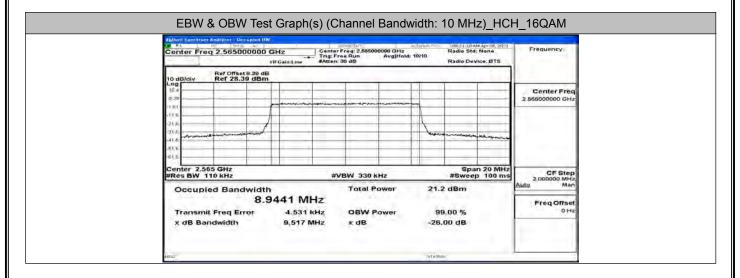


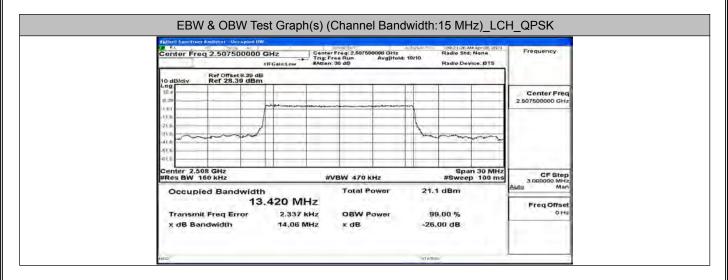


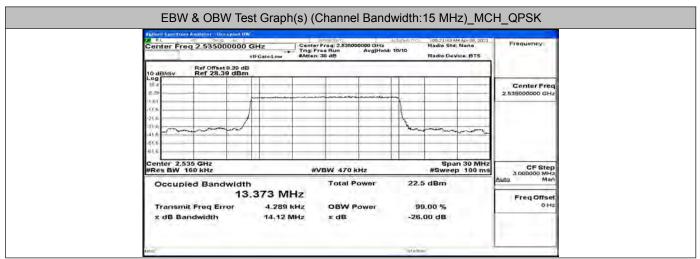


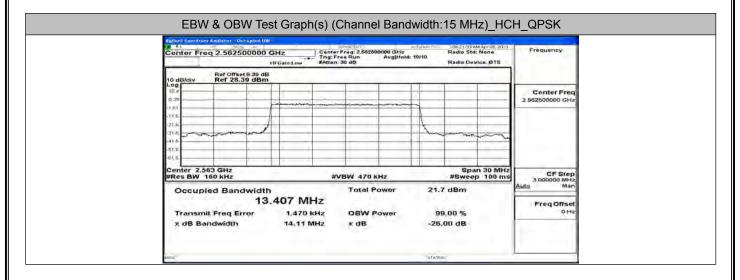


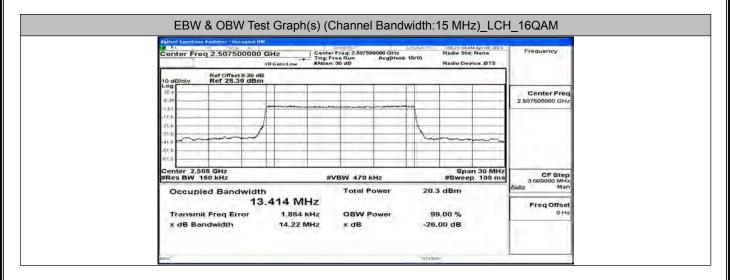


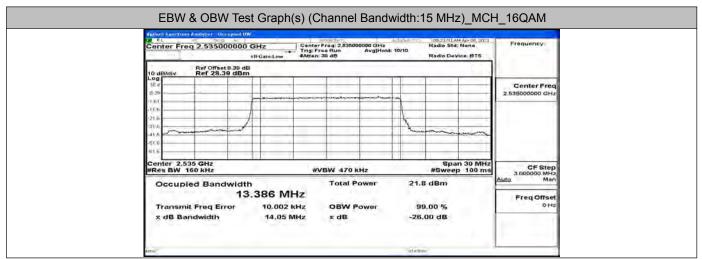


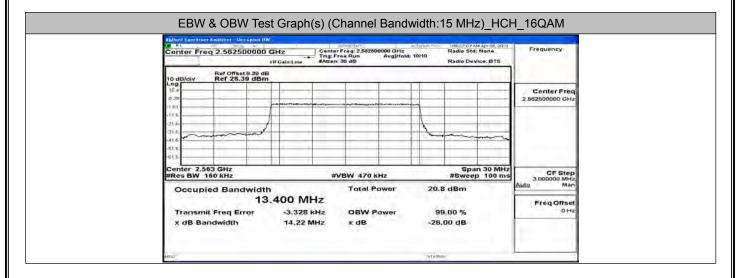


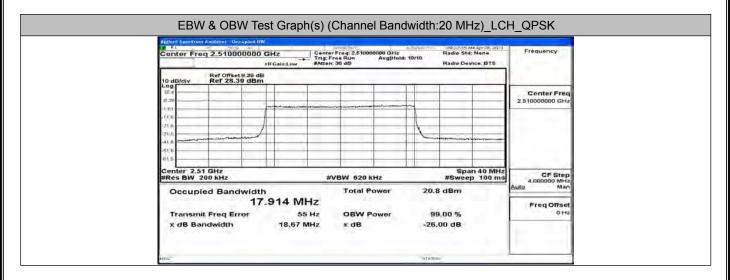


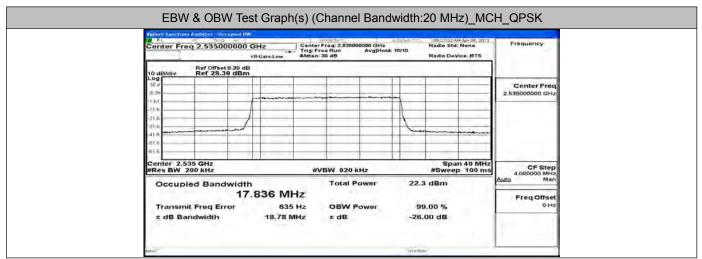


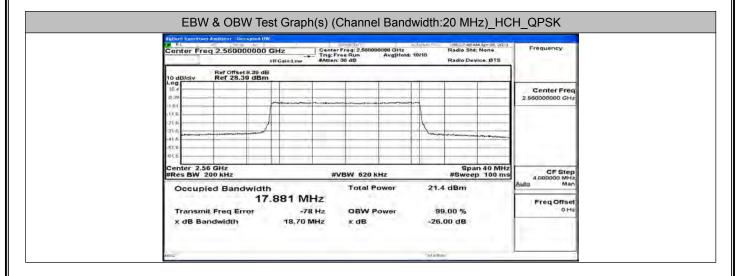


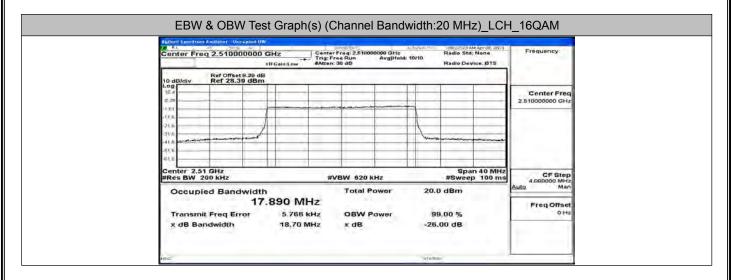


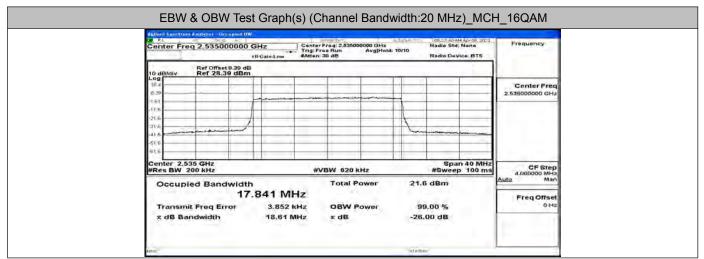


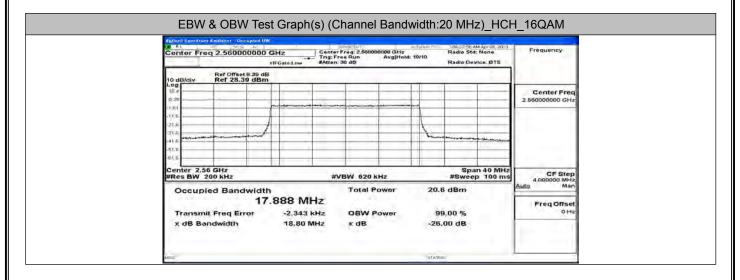




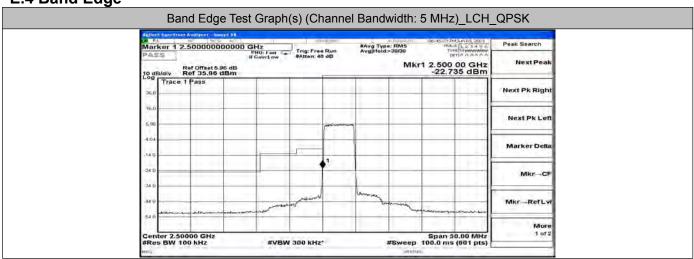


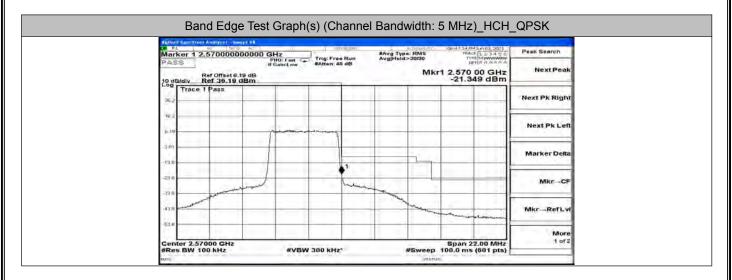


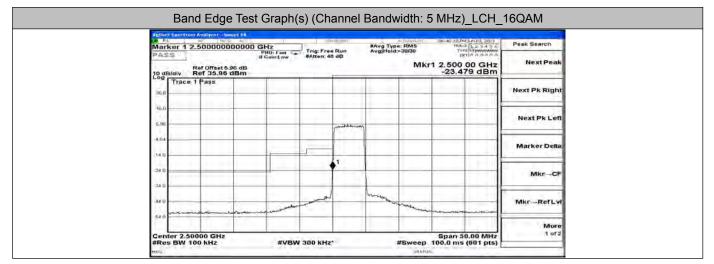


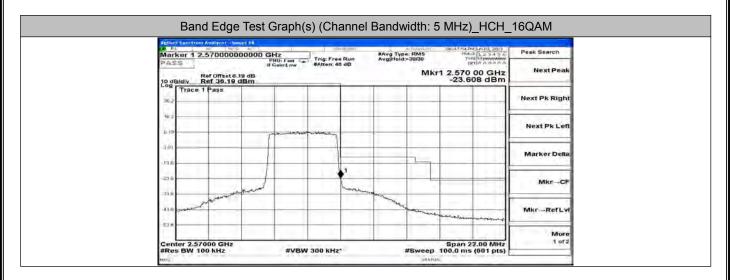


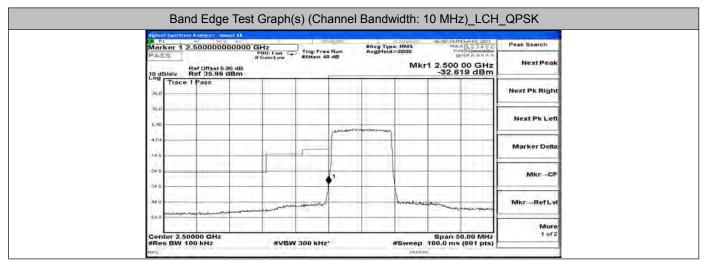
E.4 Band Edge

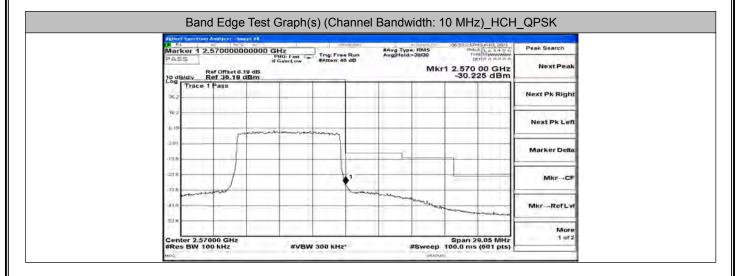


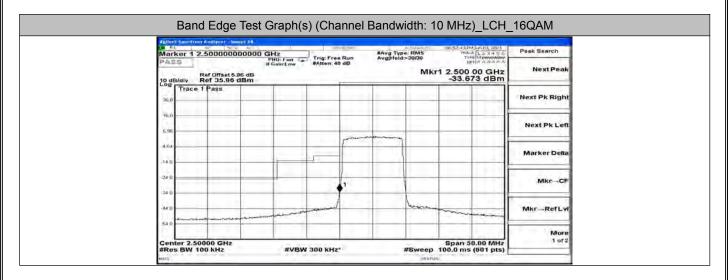


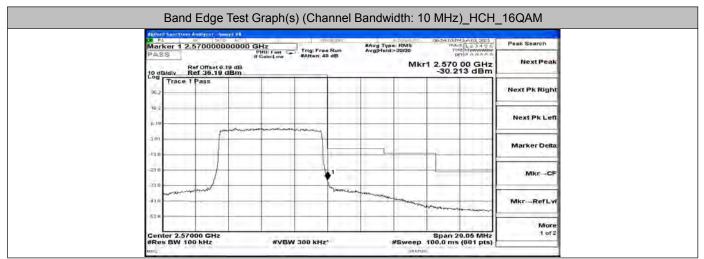


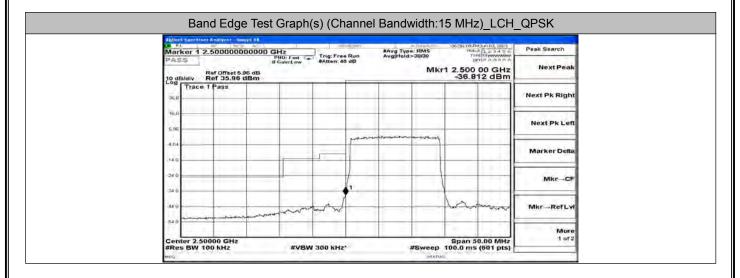


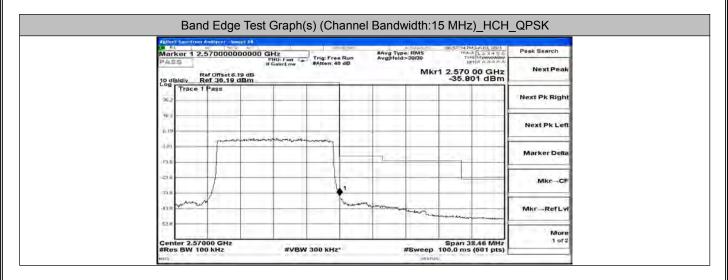


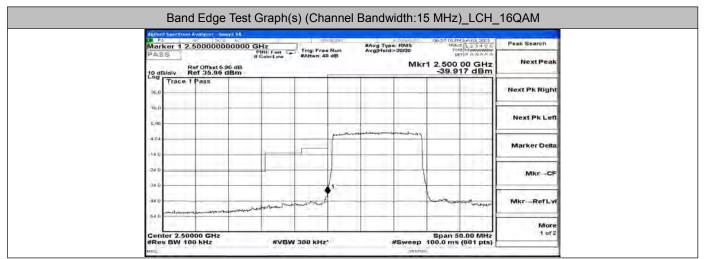


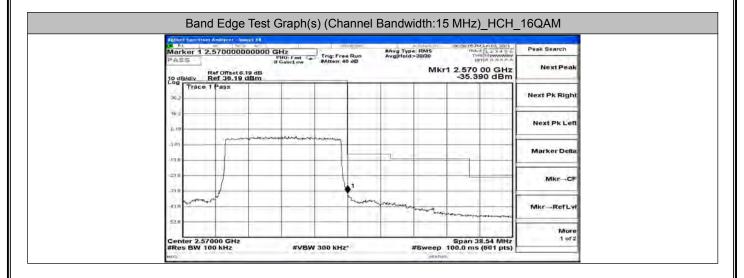




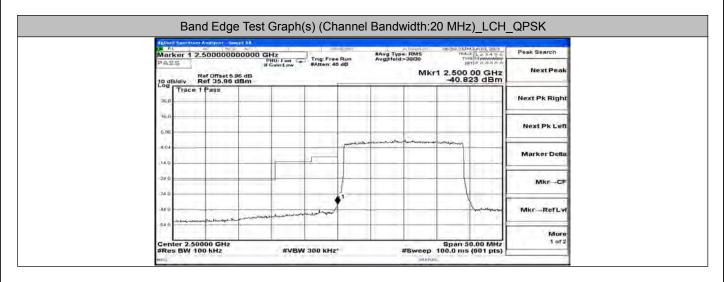


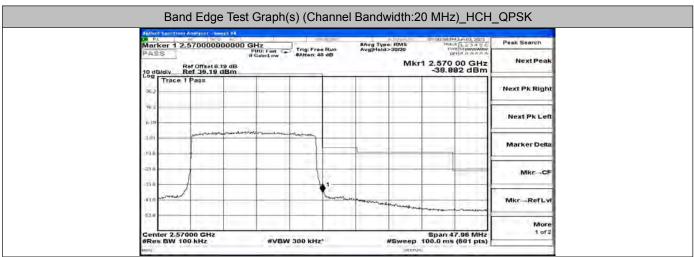


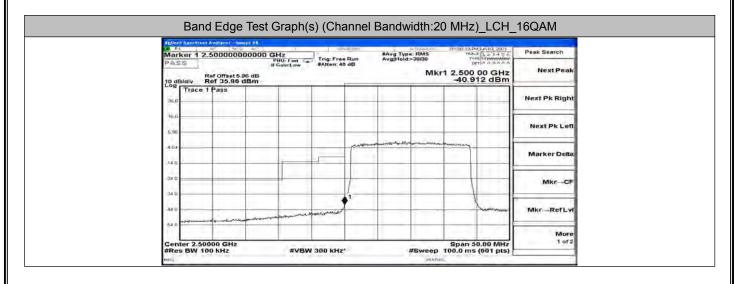


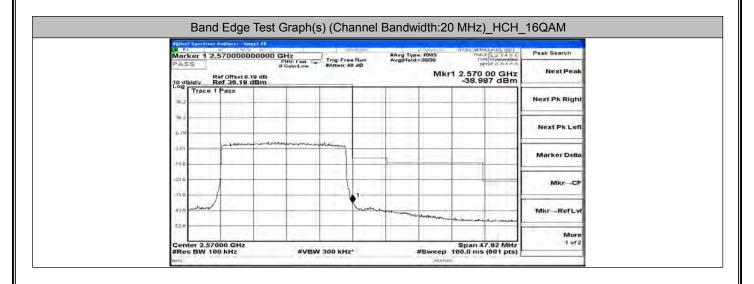


FCC ID: 2AJTU-NETS9





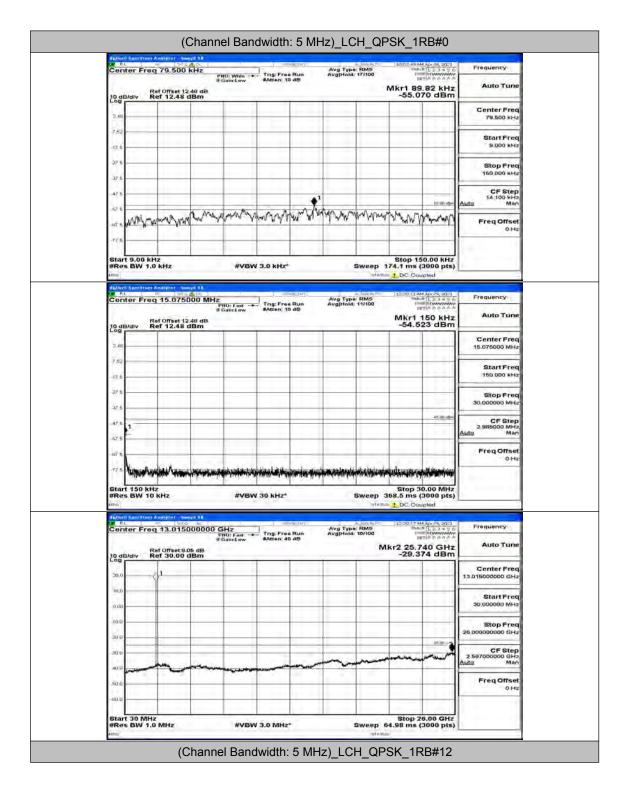


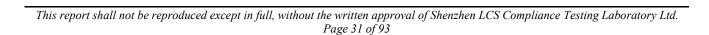


## **E.5 Conducted Spurious Emission**

#### **Test Graphs**

**Channel Bandwidth: 5 MHz** 



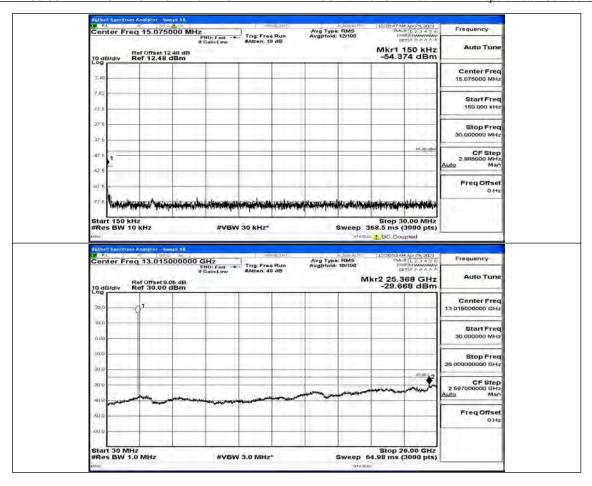


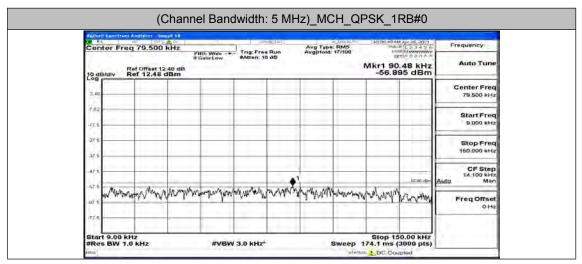
#VBW 3.0 kHz\*

Start 9.00 kHz Res BW 1.0 kHz CF Step

Freq Offset

Stop 150.00 kHz Sweep 174.1 ms (3000 pts)



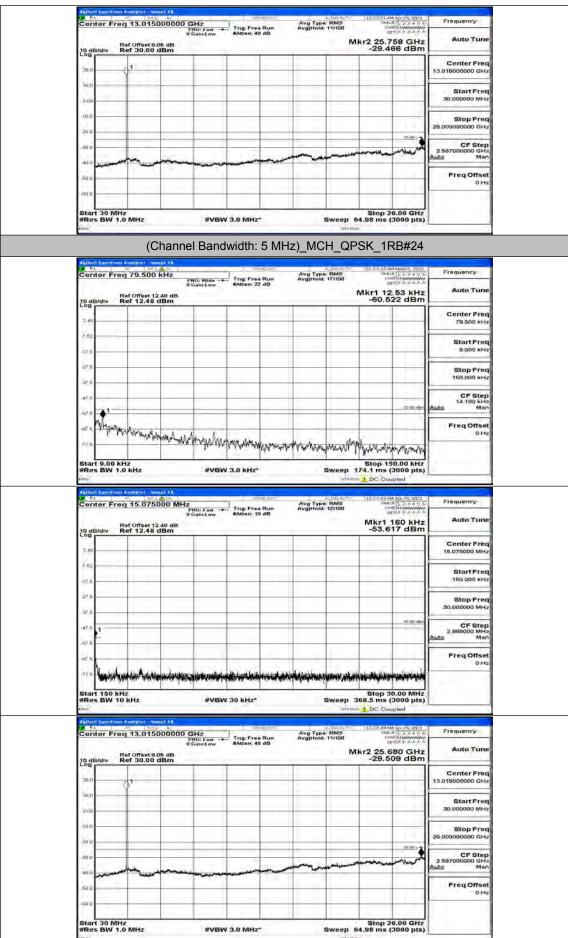


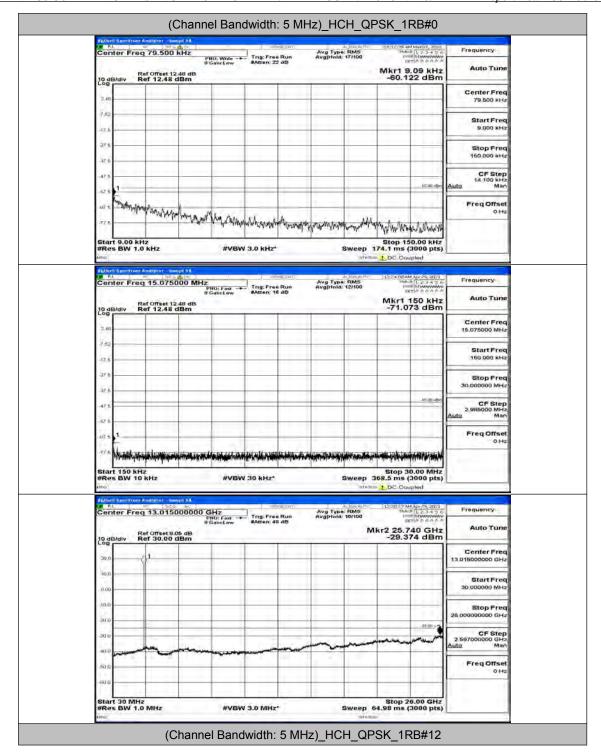
#VBW 30 kHz\*

tart 150 kHz Res BW 10 kHz Start Freq

Freq Offset

Stop 30.00 MHz Sweep 368.5 ms (3000 pts)





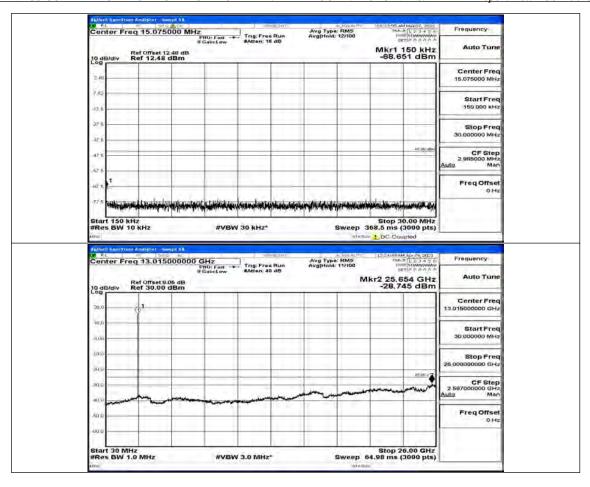
The proper desirable property with the property with the property of the prope

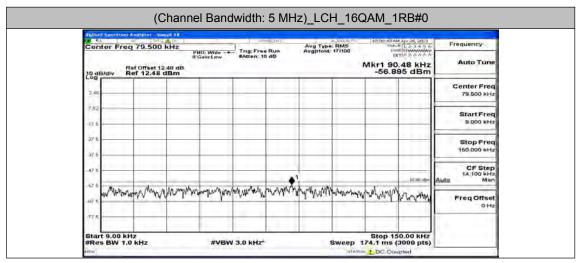
#VBW 3.0 kHz\*

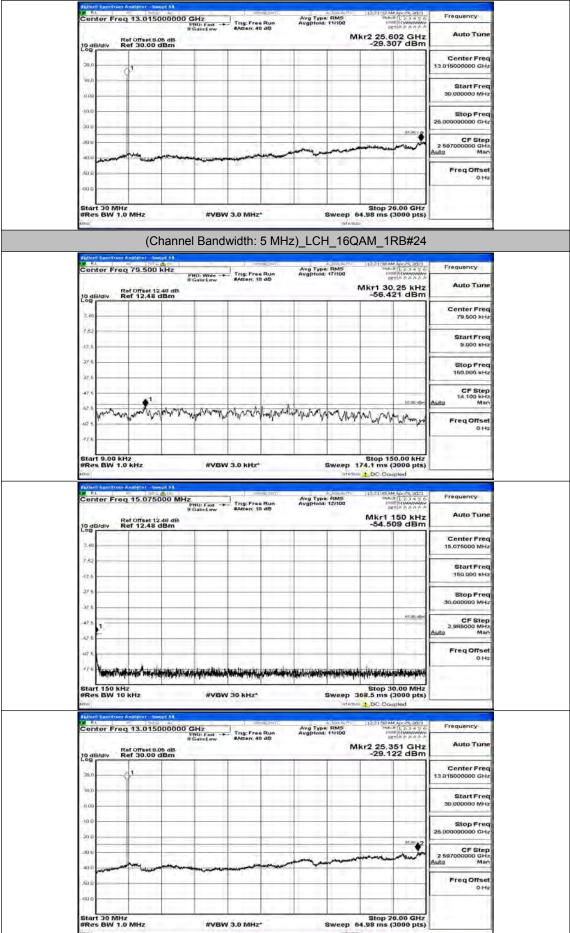
Start 9.00 kHz Res BW 1.0 kHz CF Step

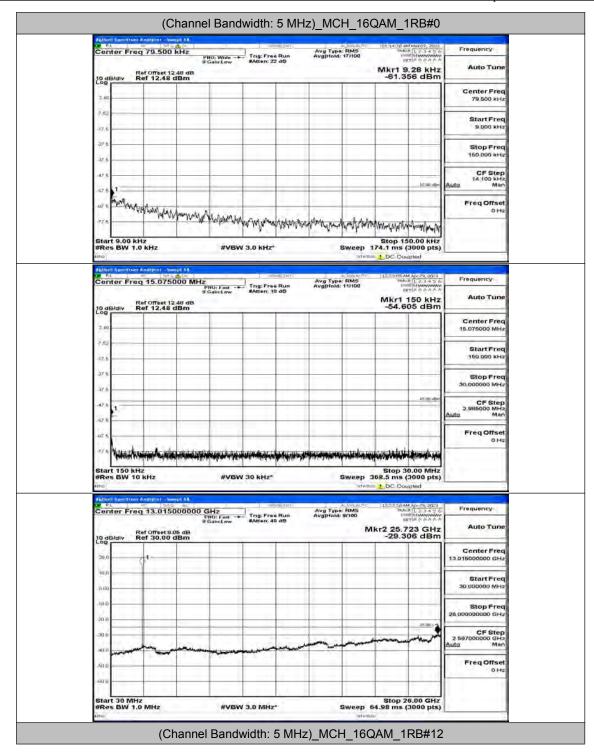
Freq Offset

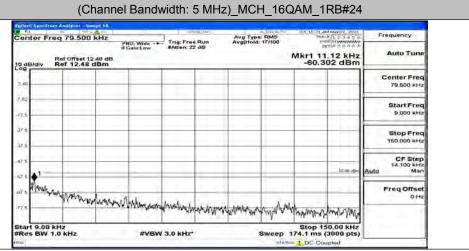
Stop 150.00 kHz Sweep 174.1 ms (3000 pts)

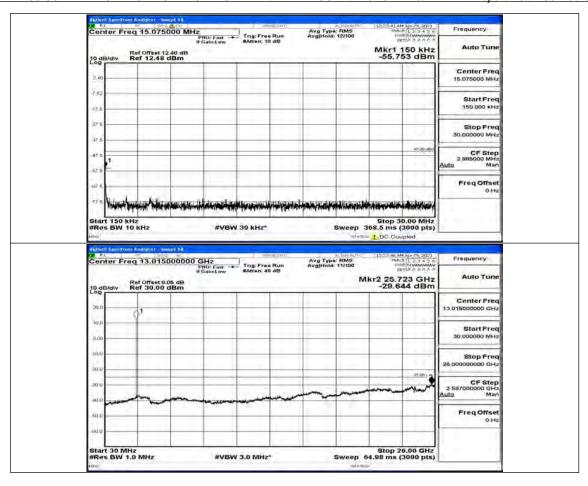


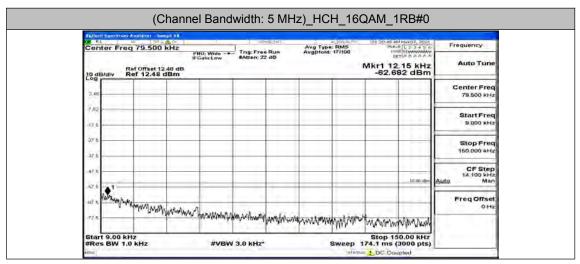












#VBW 30 kHz\*

Start 150 kHz #Res BW 10 kHz 2.985000 MHz

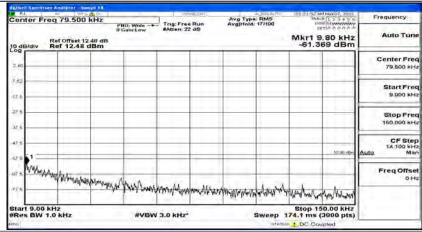
Freq Offset

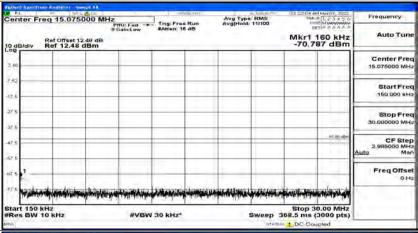
Stop 30.00 MHz Sweep 368.5 ms (3000 pts)

## (Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_1RB#24

#VBW 3.0 MHz\*

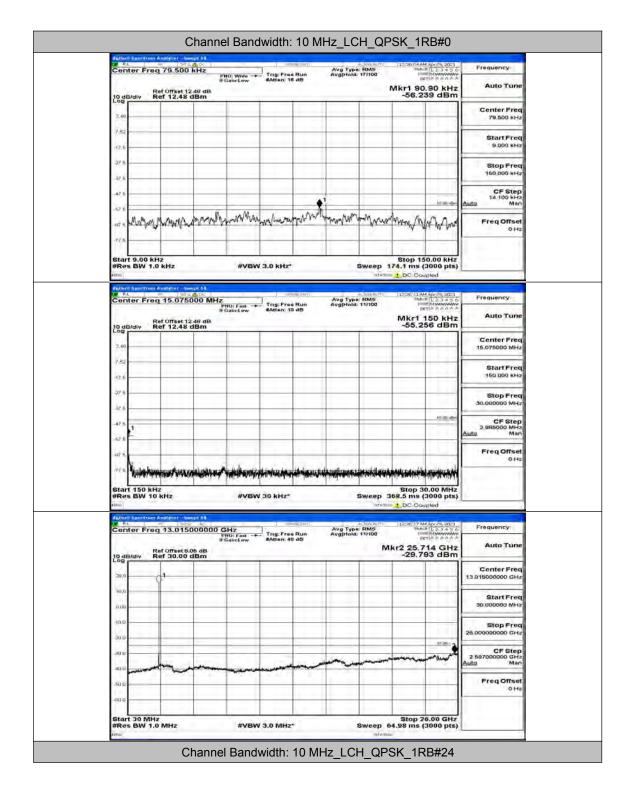
Start 30 MHz #Res BW 1.0 MHz Stop 26.00 GHz Sweep 64.98 ms (3000 pts) Freq Offse

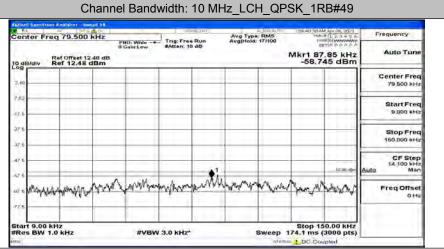


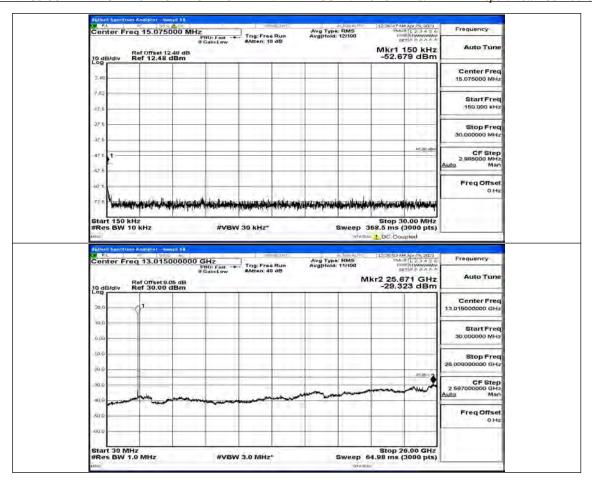


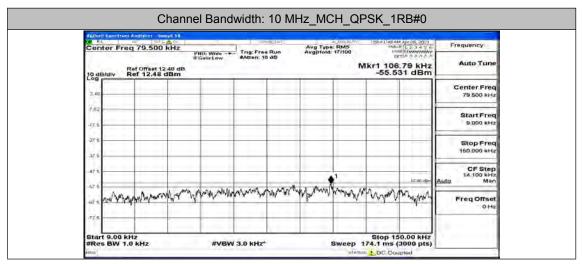


## **Channel Bandwidth: 10 MHz**







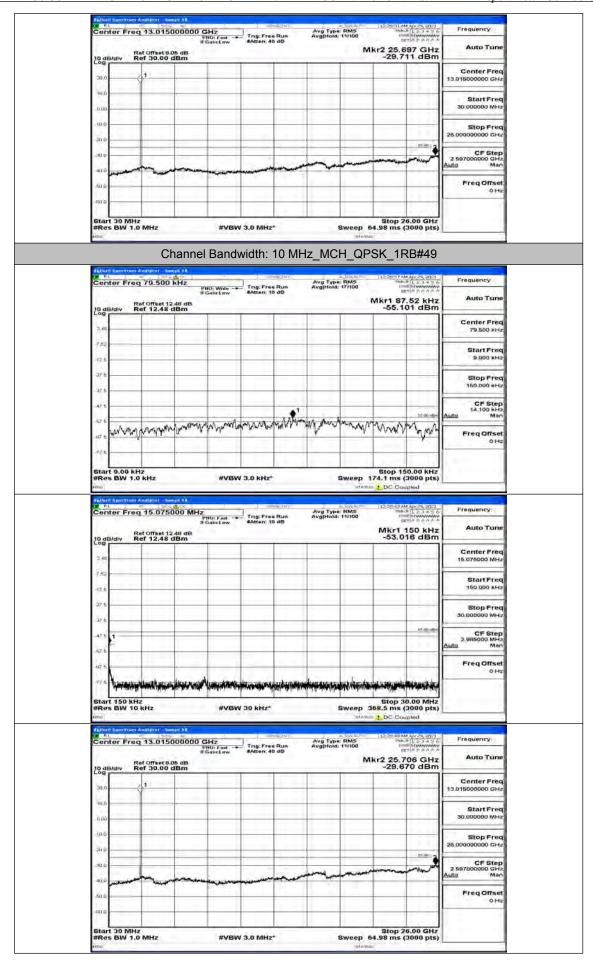


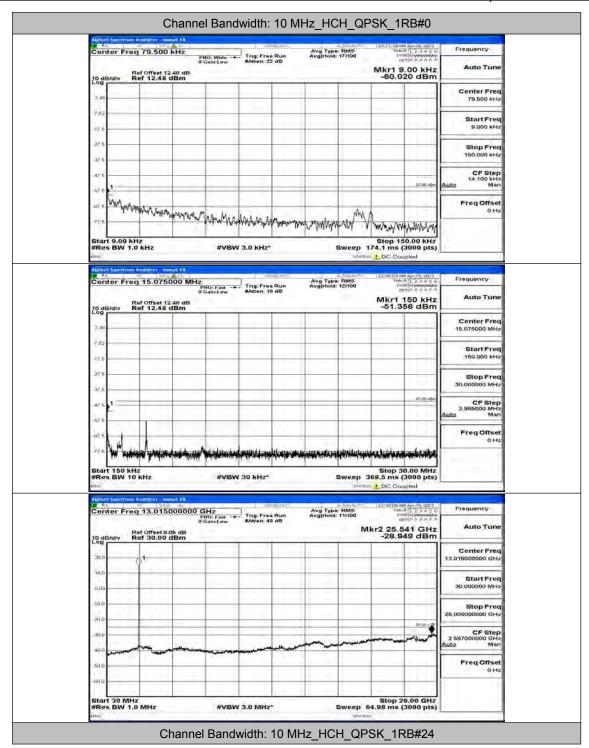
#VBW 30 KHZ\*

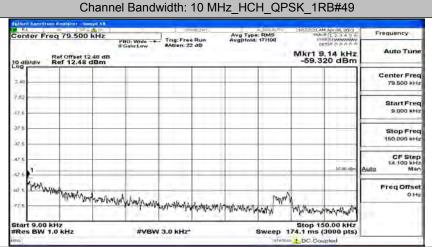
tart 150 kHz Res BW 10 kHz 2.985000 MHz

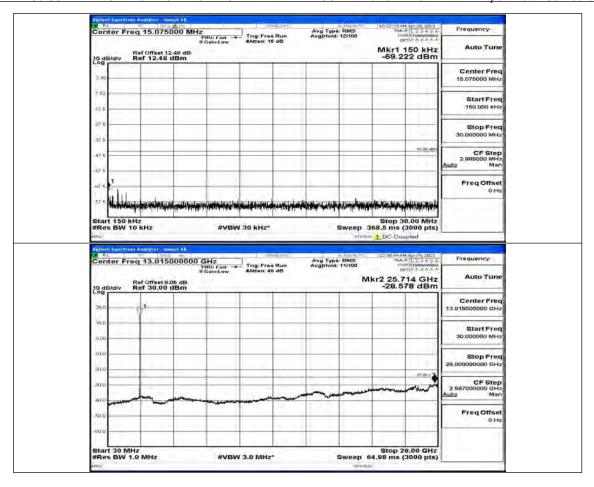
Freq Offset

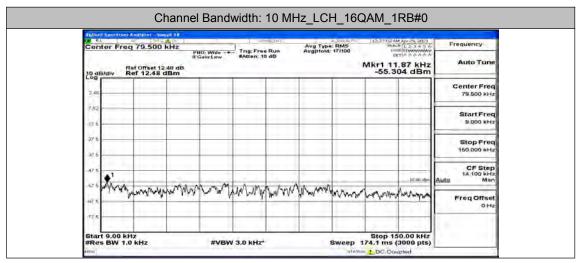
Stop 30.00 MHz Sweep 368.5 ms (3000 pts)









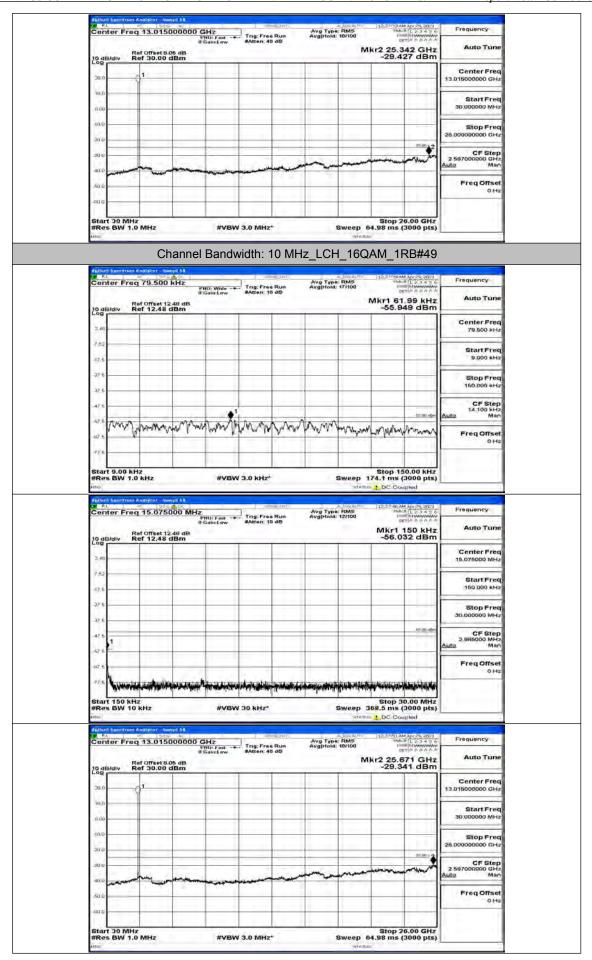


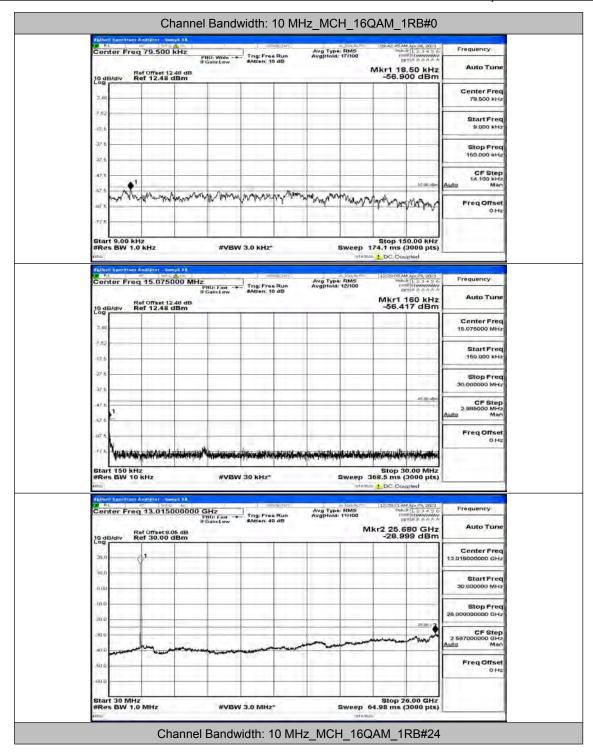
#VBW 30 KHZ\*

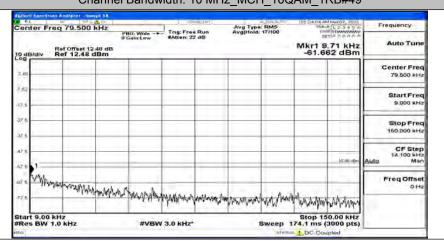
Start 150 kHz #Res BW 10 kHz 2.985000 MHz

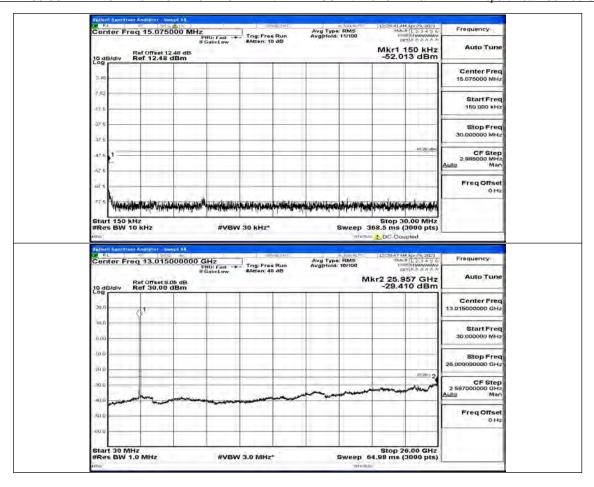
Freq Offset

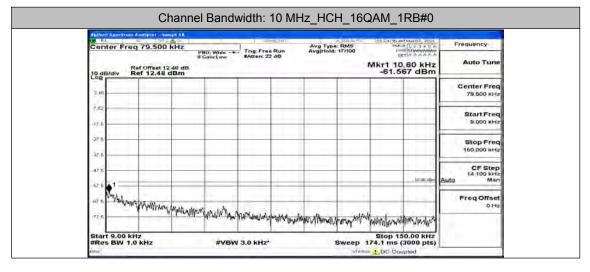
Stop 30.00 MHz Sweep 368,5 ms (3000 pts)











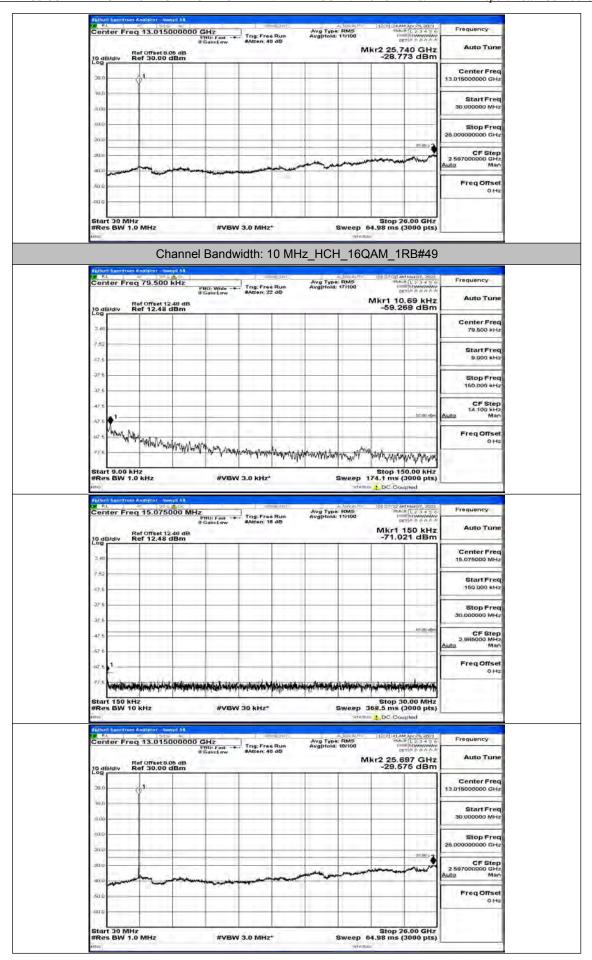
#VBW 30 KHZ\*

Start 150 kHz Res BW 10 kHz Start Freq

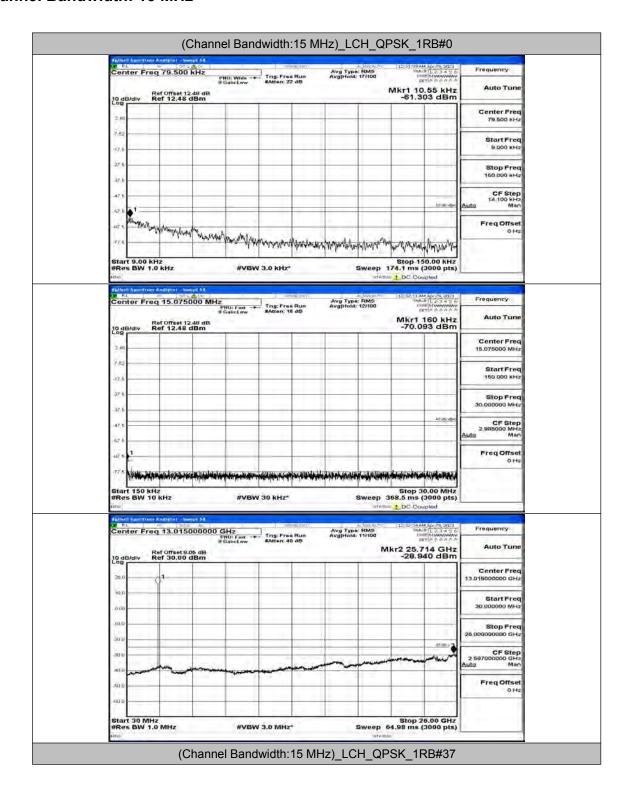
2.985000 MHz

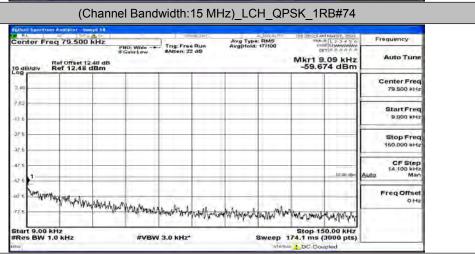
Freq Offset

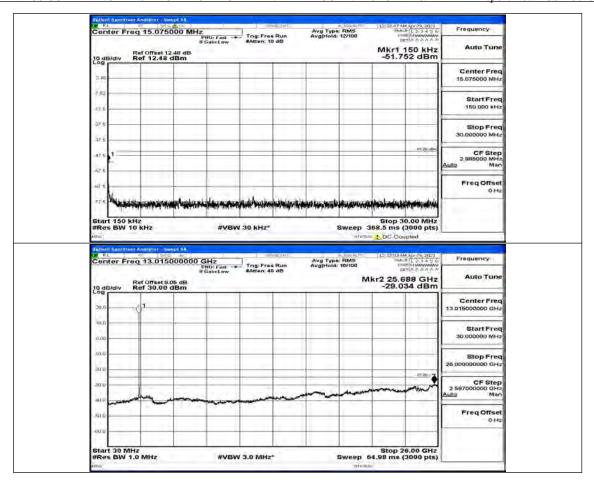
Stop 30.00 MHz Sweep 368,5 ms (3000 pts)

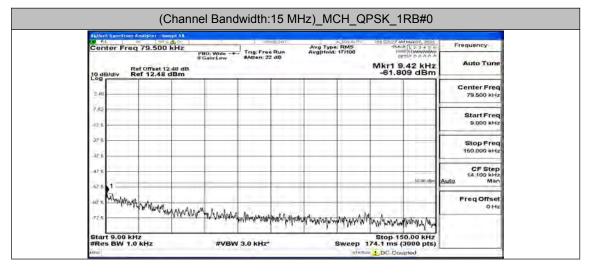


## **Channel Bandwidth: 15 MHz**







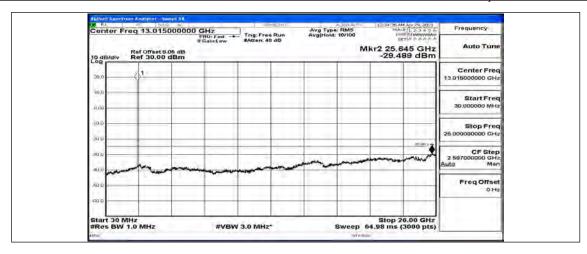


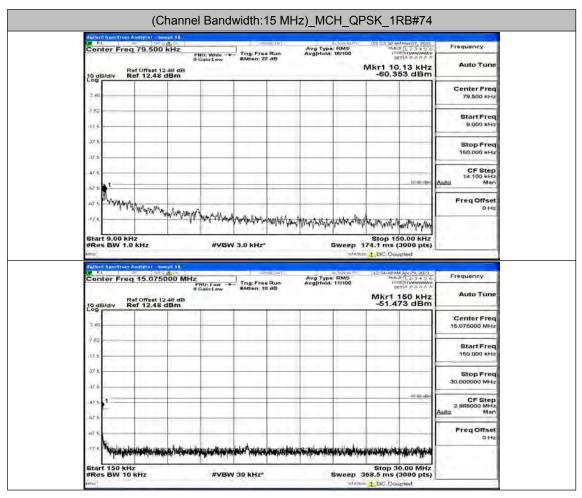
#VBW 30 kHz\*

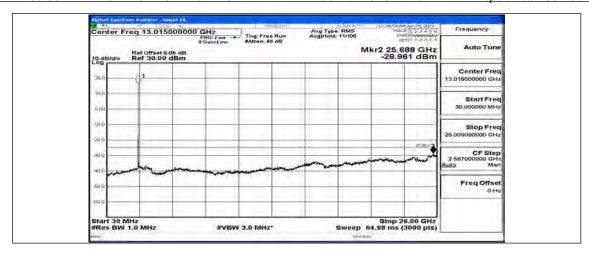
tart 150 kHz Res BW 10 kHz 2.985000 MHz

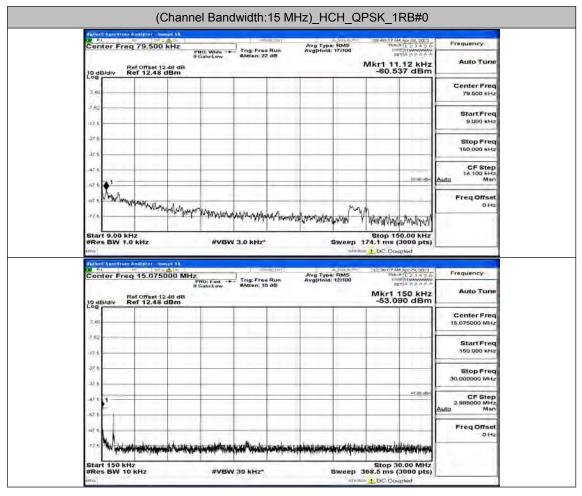
Freq Offset

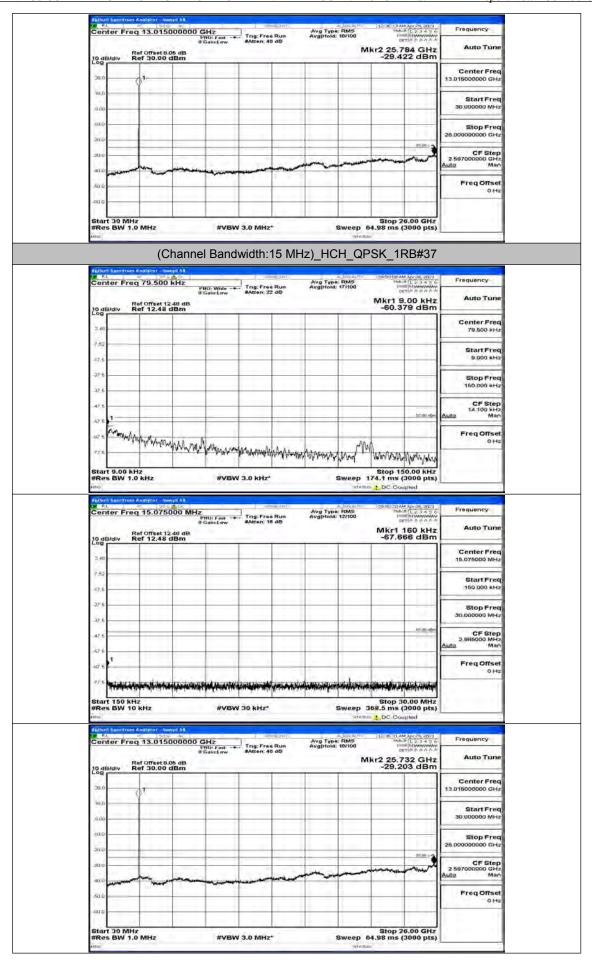
Stop 30.00 MHz Sweep 368.5 ms (3000 pts)

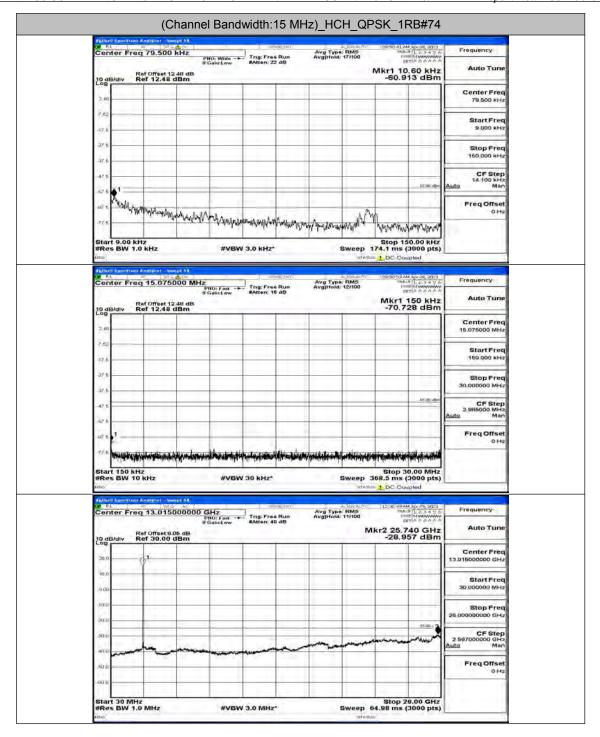




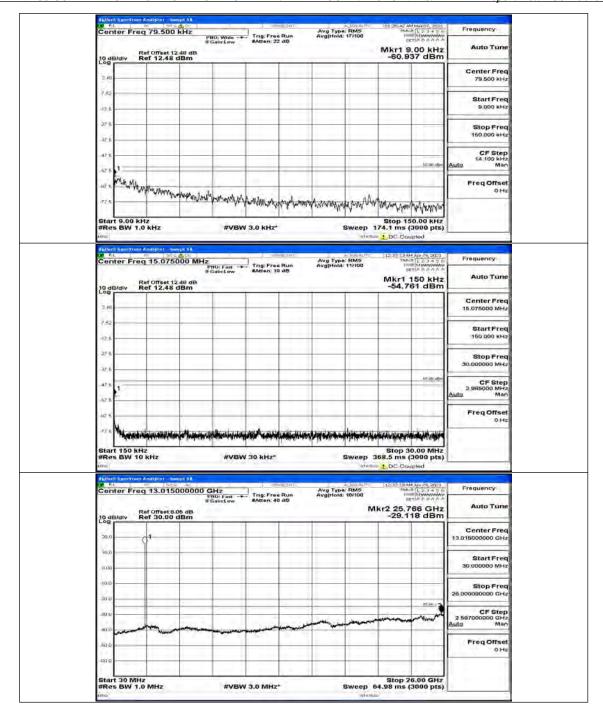


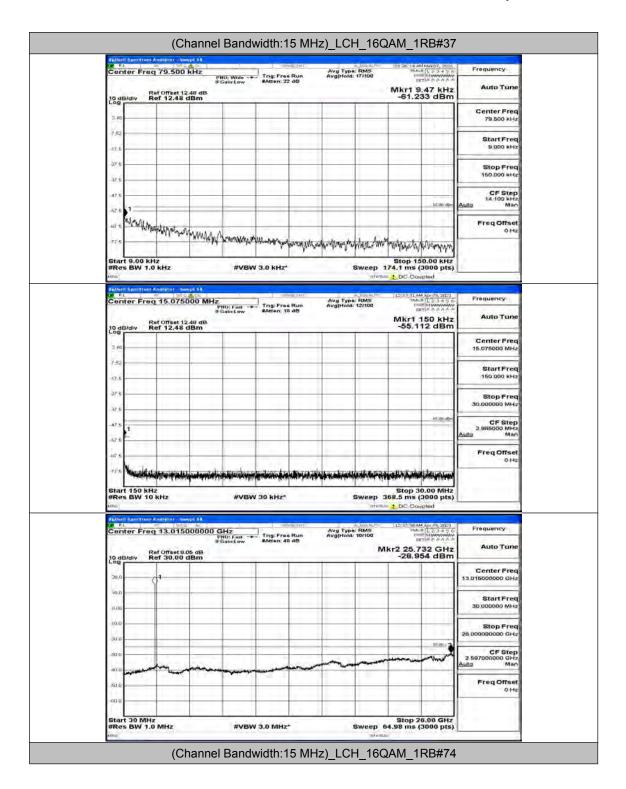


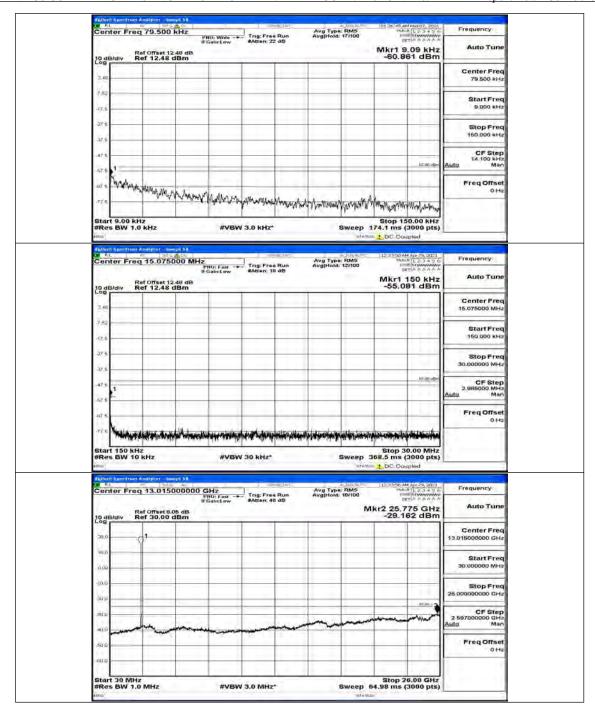


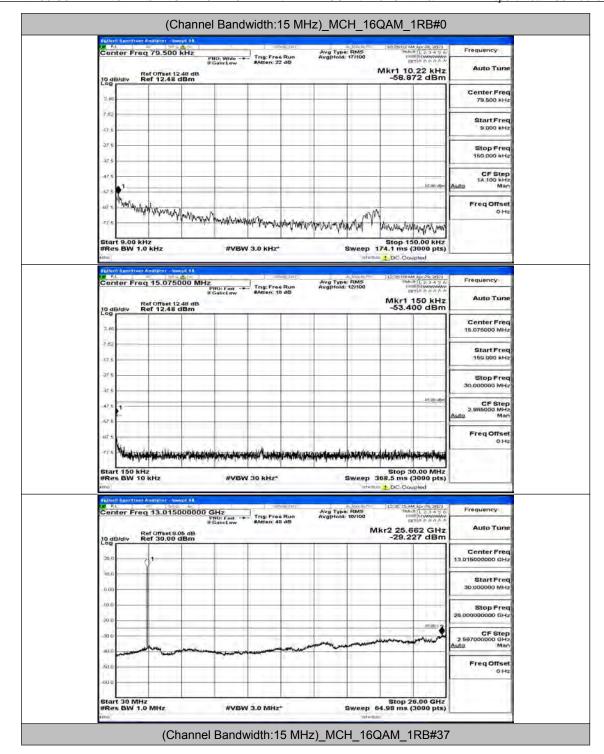


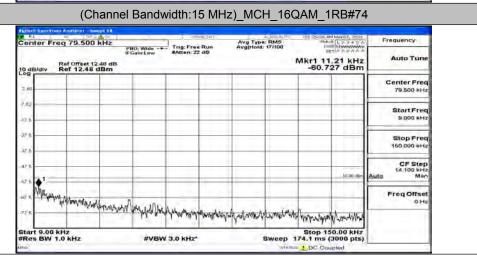
(Channel Bandwidth:15 MHz)\_LCH\_16QAM\_1RB#0

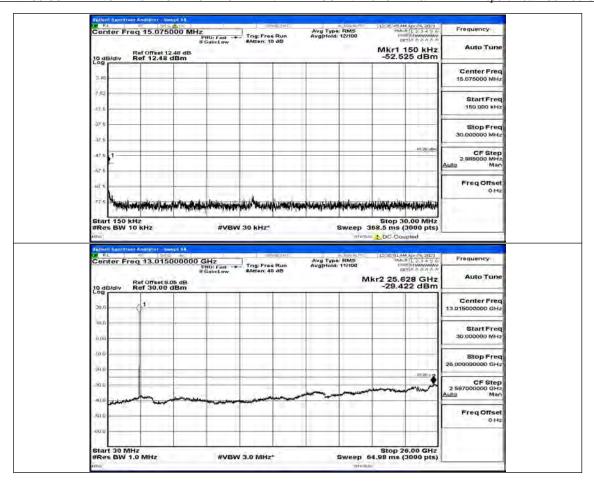


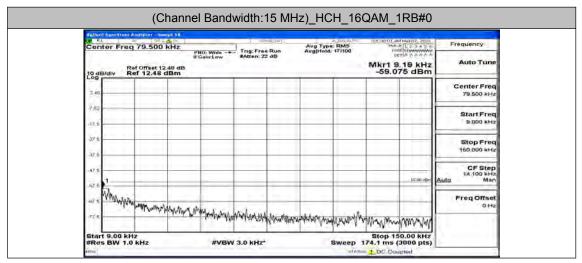


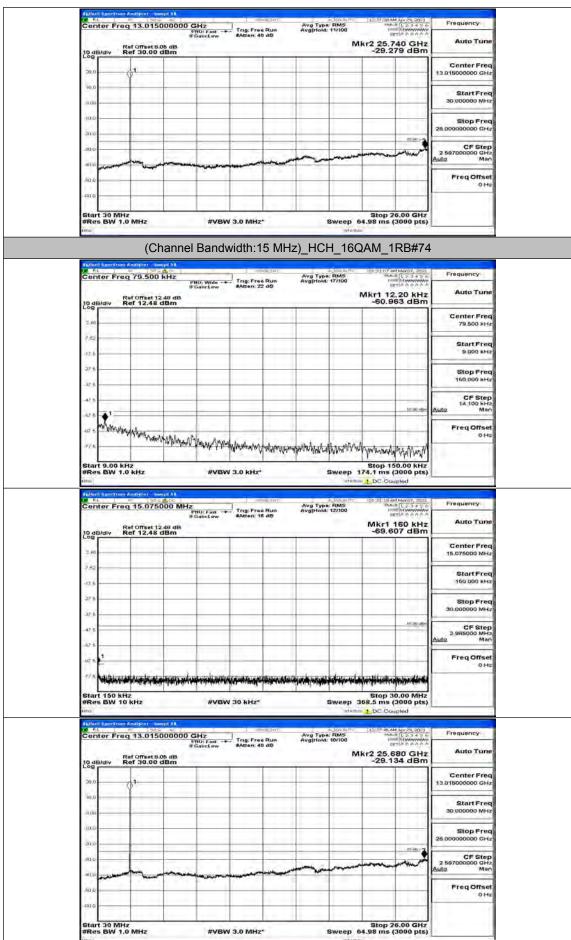




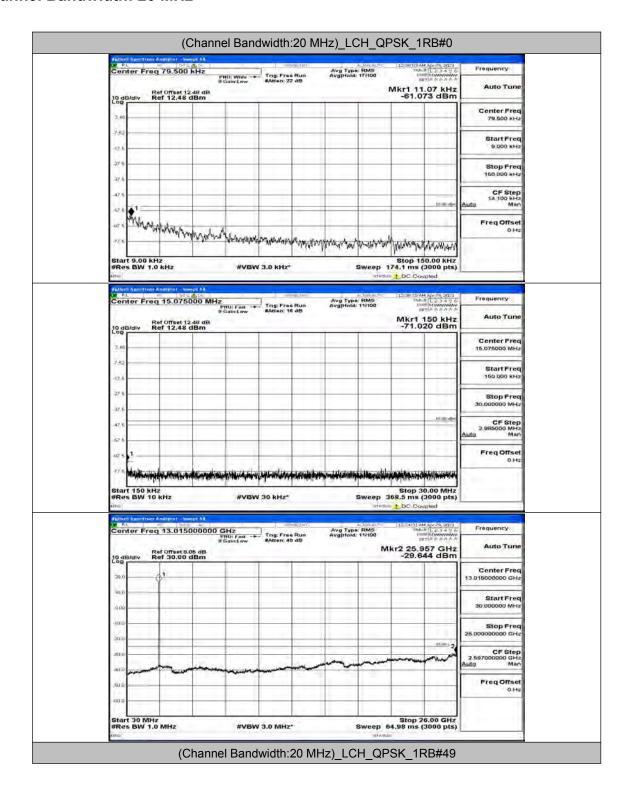


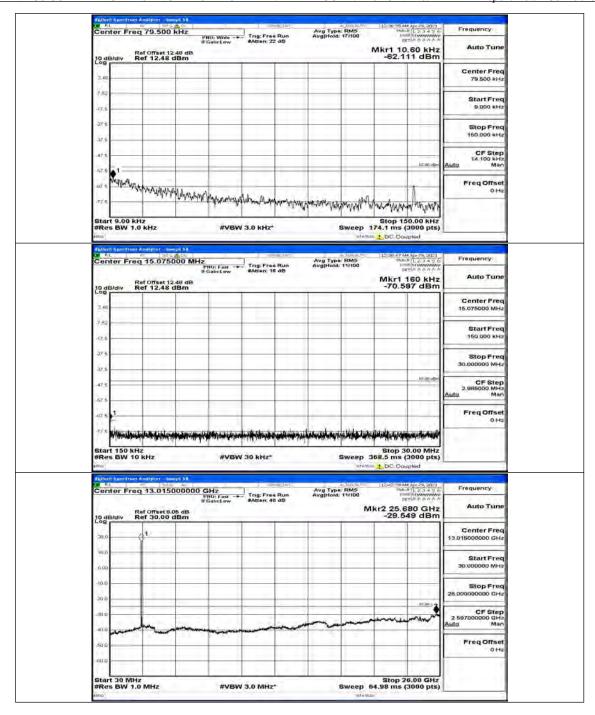


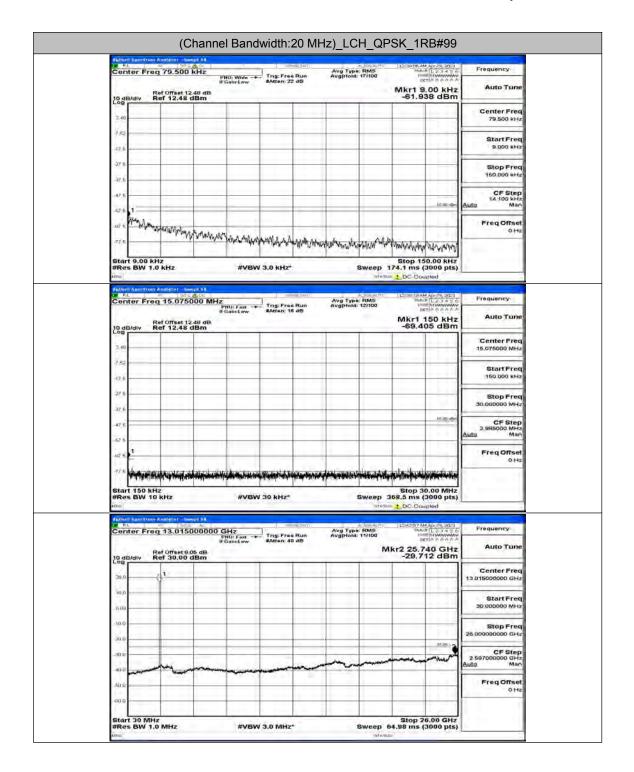


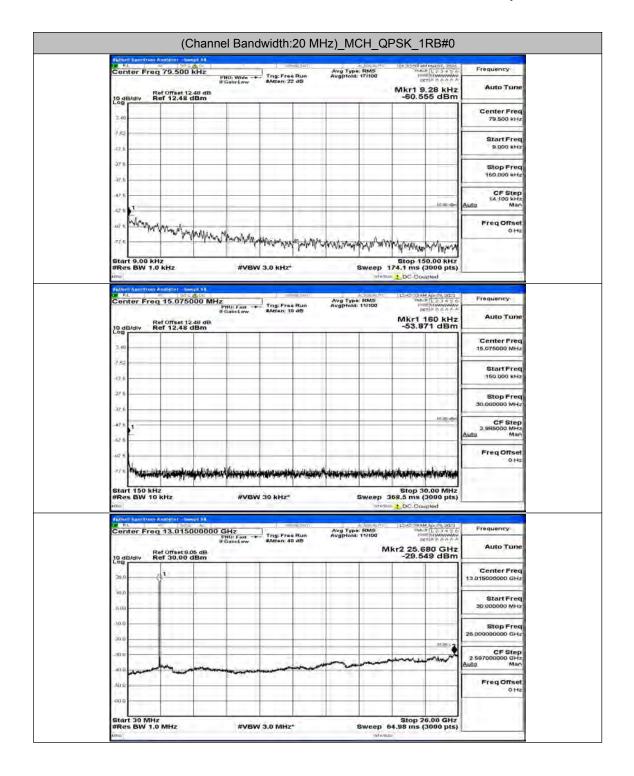


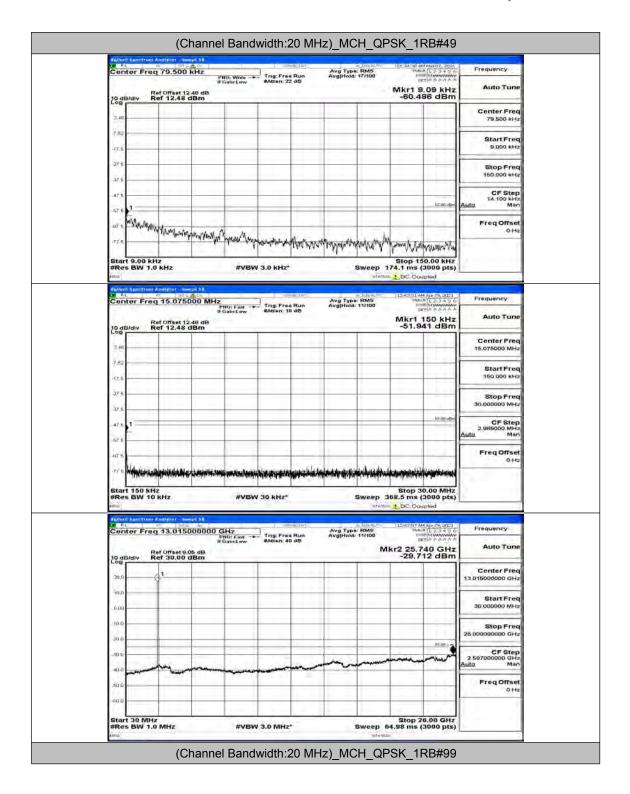
## **Channel Bandwidth: 20 MHz**

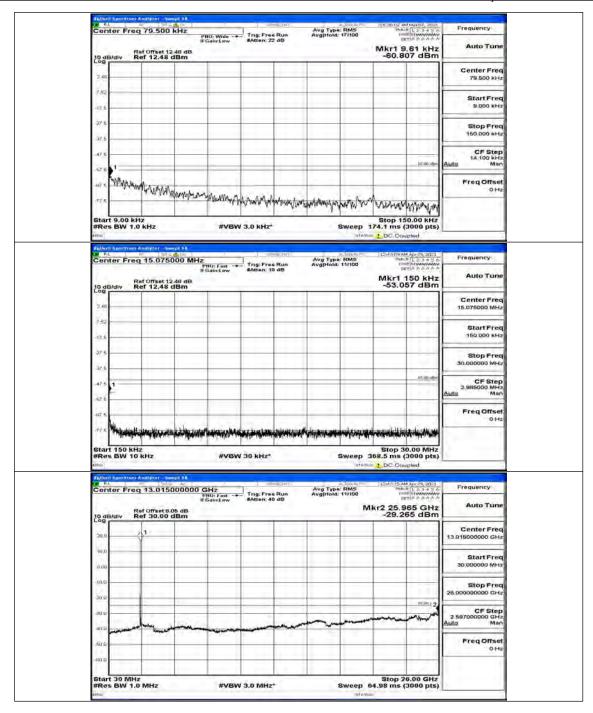


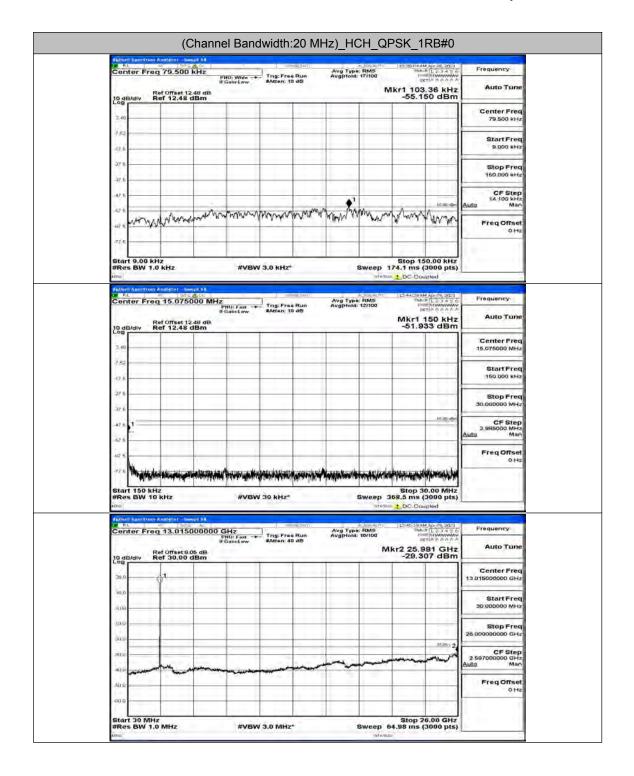


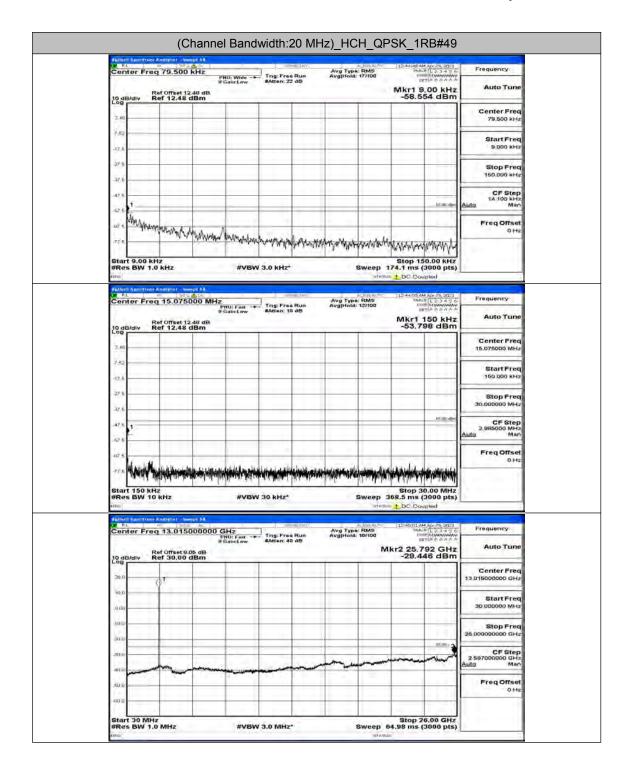


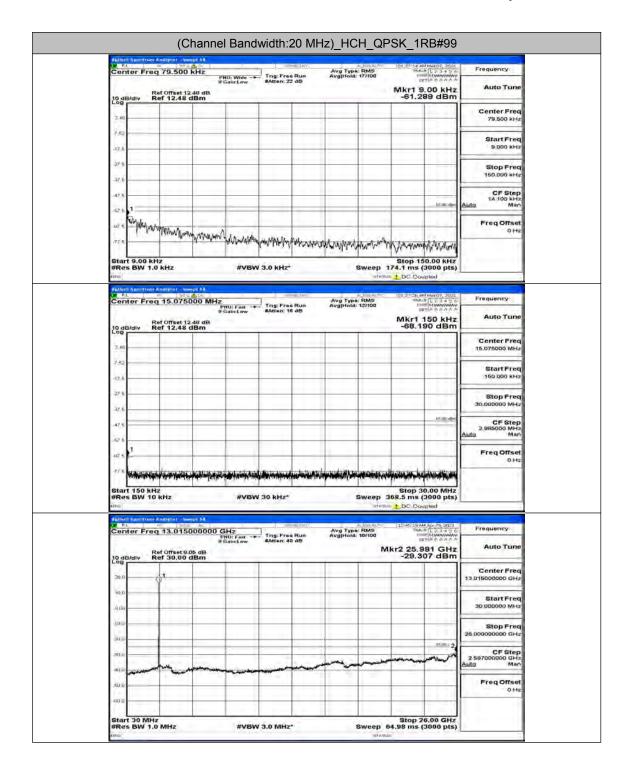


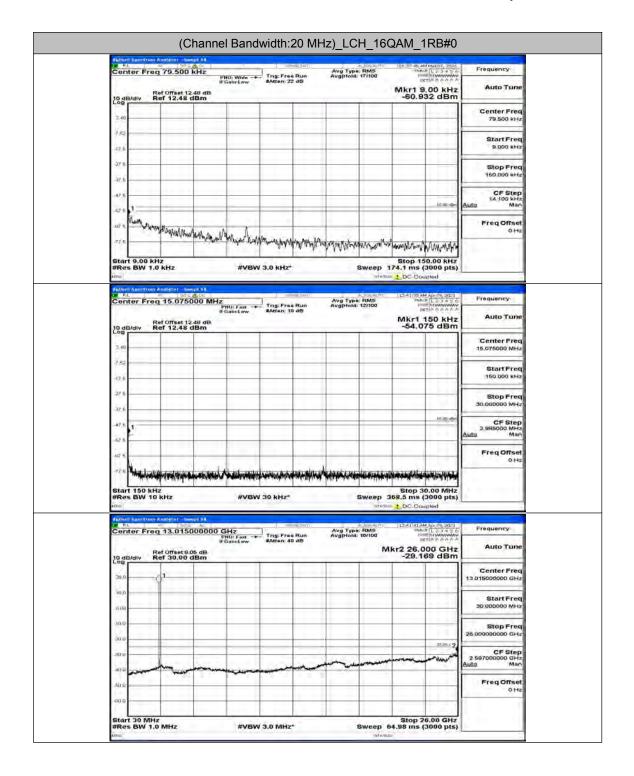


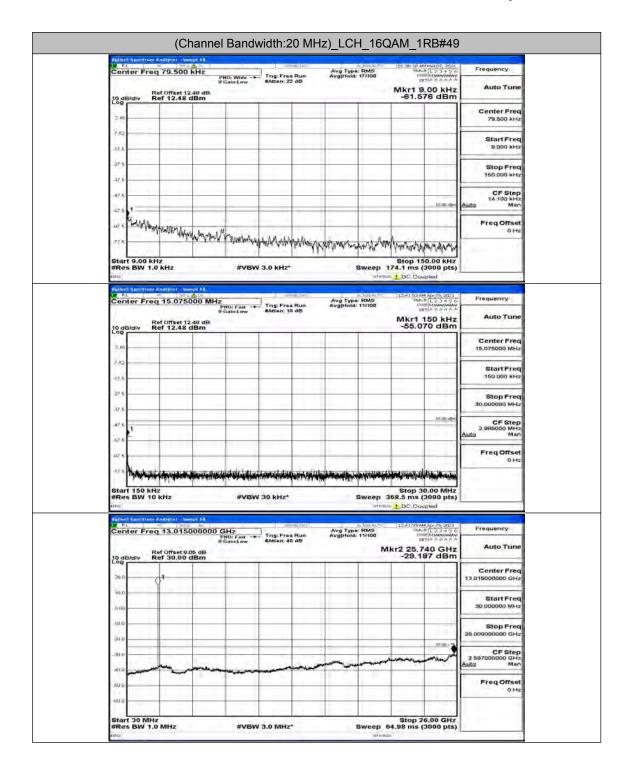


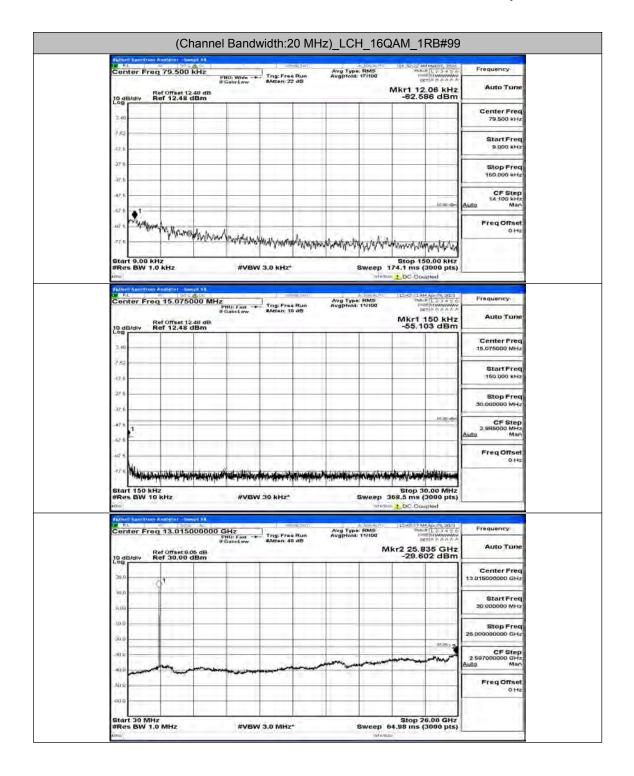


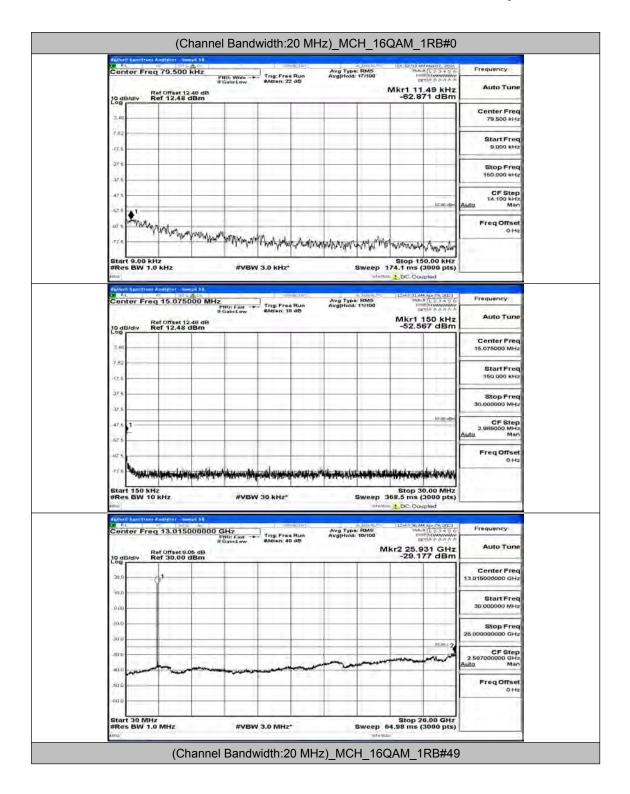












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#VBW 3.0 kHz\*

Start 9.00 kHz Res BW 1.0 kHz CF Step

Freq Offset

Stop 150,00 kHz Sweep 174.1 ms (3000 pts)

