Appendix H: Test Data for E-UTRA Band 12

Product Name: Tablet PC

Trade Mark: HYUNDAI

Test Model: 10LC1

Environmental Conditions

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

H.1 Conducted Output Power

Conducted Output Power Test Result (Channel Bandwidth: 1.4 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	19.88	19.31	PASS
		1	3	19.78	19.52	PASS
		1	5	19.95	19.36	PASS
		3	0	20.08	19.17	PASS
		3	2	20.03	19.10	PASS
		3	3	19.99	19.06	PASS
		6	0	19.05	18.21	PASS
	MCH	1	0	21.71	21.04	PASS
		1	3	22.09	21.09	PASS
		1	5	22.18	21.15	PASS
		3	0	21.64	21.15	PASS
		3	2	21.93	21.46	PASS
		3	3	22.06	20.93	PASS
		6	0	20.93	19.81	PASS
	HCH	1	0	22.92	21.98	PASS
		1	3	23.13	21.97	PASS
		1	5	23.23	21.82	PASS
		3	0	23.07	22.02	PASS
		3	2	23.26	22.25	PASS

		3	3	23.17	22.06	PASS
		6	0	22.15	21.42	PASS

Conducted Output Power Test Result (Channel Bandwidth: 3 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	20.39	19.47	PASS
		1	7	20.72	19.69	PASS
		1	14	20.72	20.39	PASS
		8	0	19.39	18.60	PASS
		8	4	19.47	18.60	PASS
		8	7	19.52	18.75	PASS
		15	0	19.54	18.56	PASS
	MCH	1	0	21.58	21.03	PASS
		1	7	22.24	21.68	PASS
		1	14	22.22	21.71	PASS
		8	0	21.02	19.88	PASS
		8	4	21.28	20.35	PASS
		8	7	21.39	20.38	PASS
		15	0	21.21	20.28	PASS
	HCH	1	0	23.33	21.91	PASS
		1	7	24.12	22.81	PASS
		1	14	23.48	22.16	PASS
		8	0	22.54	21.50	PASS
		8	4	22.49	21.54	PASS
		8	7	22.52	21.44	PASS
		15	0	22.41	21.47	PASS

Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	20.15	19.13	PASS
		1	12	21.17	19.62	PASS
		1	24	21.06	19.66	PASS
		12	0	19.55	18.56	PASS
		12	6	19.73	18.71	PASS
		12	13	19.94	18.90	PASS
		25	0	19.61	18.81	PASS
	MCH	1	0	21.64	20.56	PASS
		1	12	22.83	21.33	PASS
		1	24	22.61	21.33	PASS
		12	0	20.81	19.96	PASS
		12	6	21.22	20.26	PASS
		12	13	21.50	20.57	PASS
		25	0	21.29	20.36	PASS
	HCH	1	0	23.04	21.82	PASS
		1	12	23.86	22.67	PASS
		1	24	23.39	22.01	PASS
		12	0	22.36	21.34	PASS
		12	6	22.58	21.39	PASS
		12	13	22.47	21.35	PASS
		25	0	22.34	21.54	PASS

Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	20.14	19.57	PASS
		1	24	21.27	21.02	PASS
		1	49	22.17	21.71	PASS
		25	0	19.61	18.73	PASS
		25	12	20.36	19.40	PASS
		25	25	20.98	19.95	PASS
		50	0	20.37	19.48	PASS
	MCH	1	0	20.65	20.11	PASS
		1	24	22.23	21.84	PASS
		1	49	23.05	22.25	PASS
		25	0	20.56	19.48	PASS
		25	12	21.32	20.34	PASS
		25	25	21.67	20.64	PASS
		50	0	21.22	20.28	PASS
	HCH	1	0	21.66	20.61	PASS
		1	24	22.88	21.63	PASS
		1	49	23.45	22.14	PASS
		25	0	21.67	20.86	PASS
		25	12	22.11	21.01	PASS
		25	25	22.45	21.52	PASS
		50	0	21.91	20.90	PASS

H.2 Peak-to-Average Ratio

Peak-to Average Ratio Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	3.19	<13	PASS
	MCH	4.22	<13	PASS
	HCH	4.23	<13	PASS
16QAM	LCH	4.1	<13	PASS
	MCH	5.13	<13	PASS
	HCH	5.15	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	3.9	<13	PASS
	MCH	4.22	<13	PASS
	HCH	4.3	<13	PASS
16QAM	LCH	4.64	<13	PASS
	MCH	5.17	<13	PASS
	HCH	5.05	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.2	<13	PASS
	MCH	4.11	<13	PASS
	HCH	4.14	<13	PASS
16QAM	LCH	4.91	<13	PASS
	MCH	4.91	<13	PASS
	HCH	4.87	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	4.64	<13	PASS
	MCH	4.21	<13	PASS
	HCH	4.38	<13	PASS
16QAM	LCH	5.45	<13	PASS
	MCH	5.02	<13	PASS
	HCH	5.03	<13	PASS

Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK
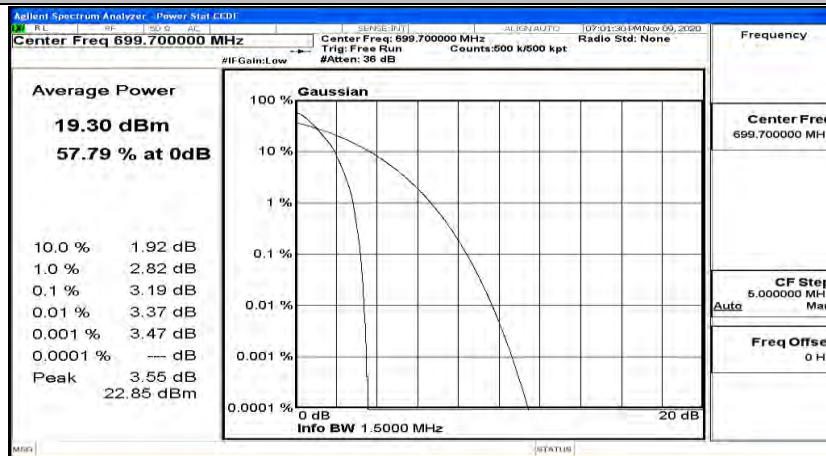
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK
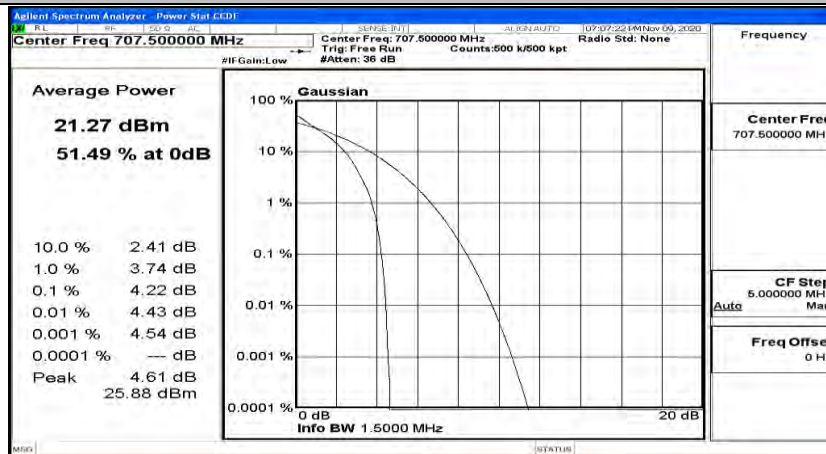
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK
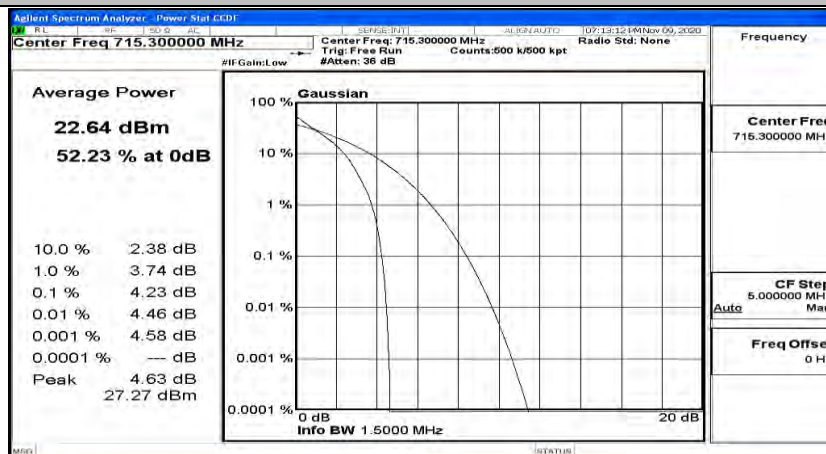
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM
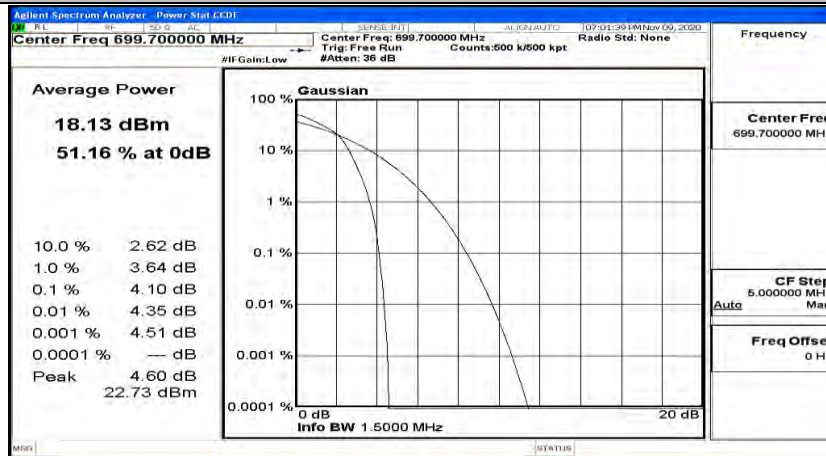
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM
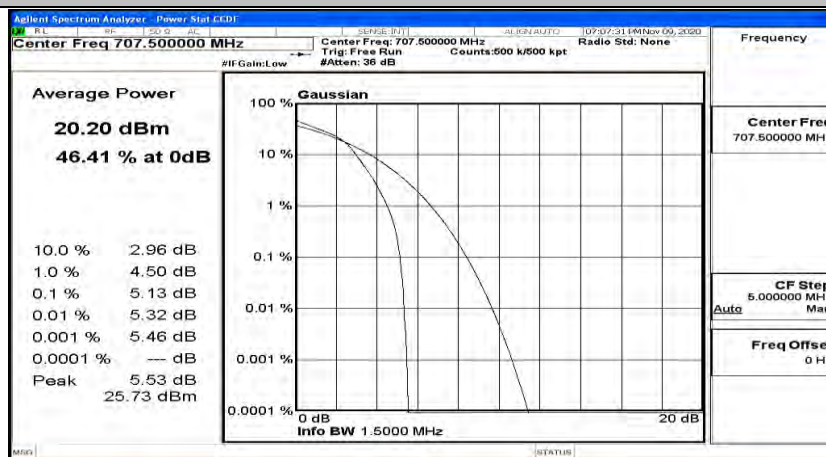
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM
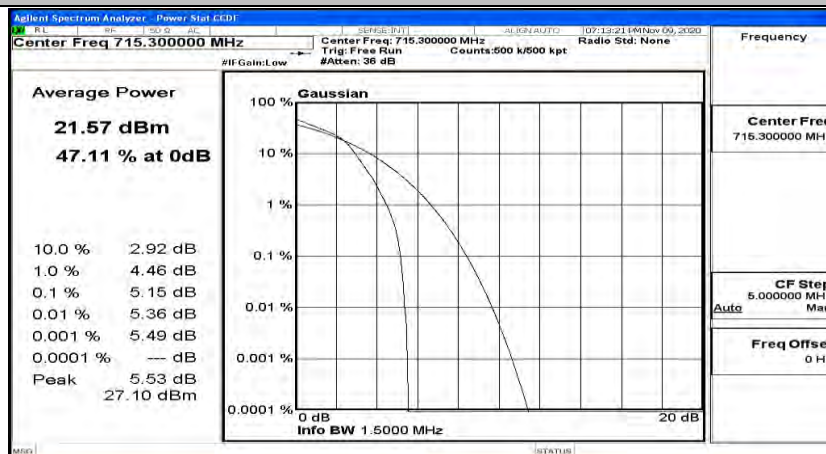
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK
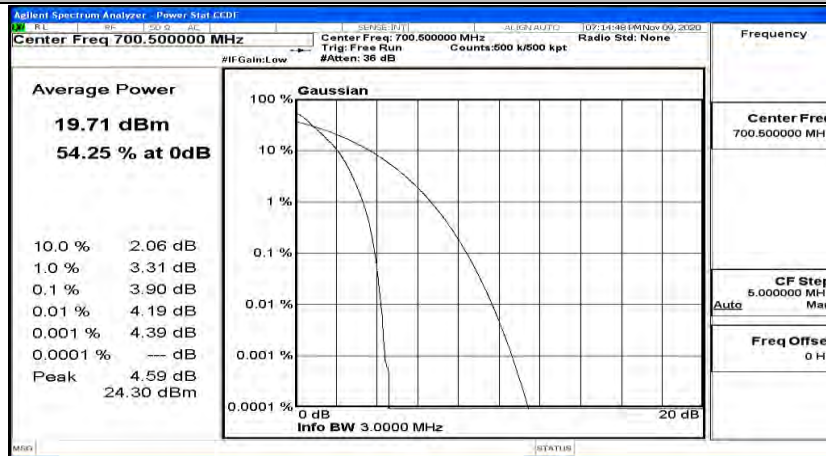
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK
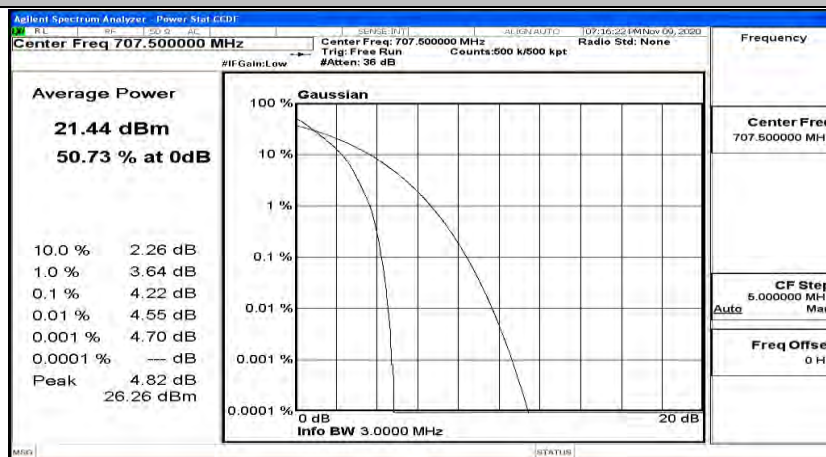
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK
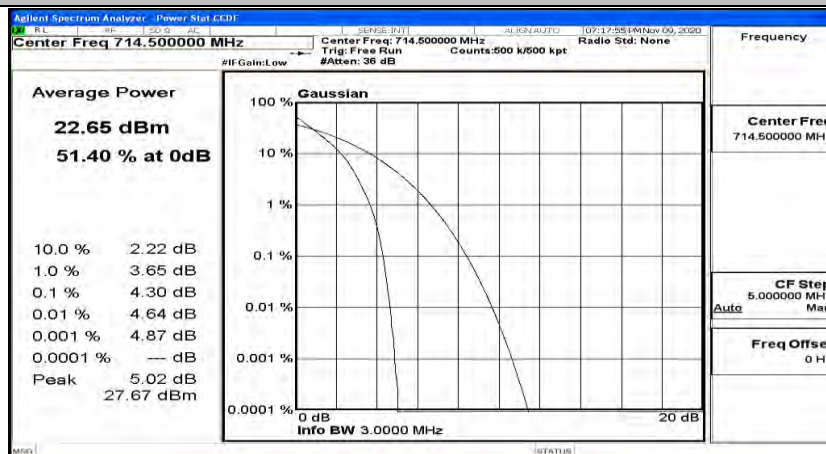
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM
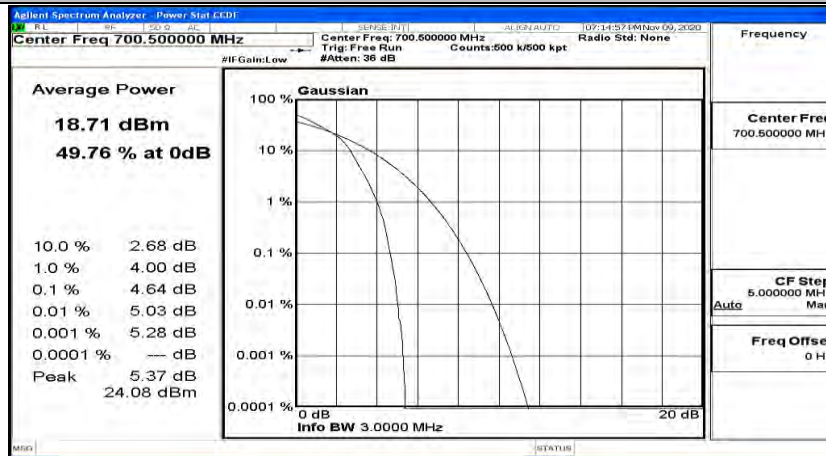
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM
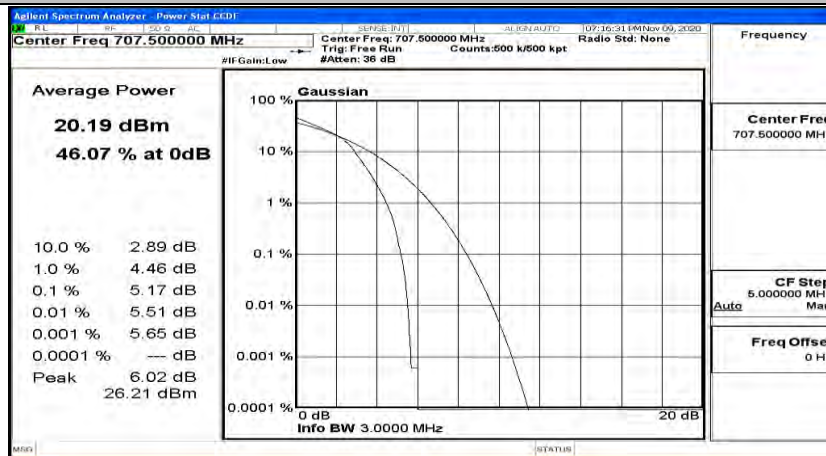
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM
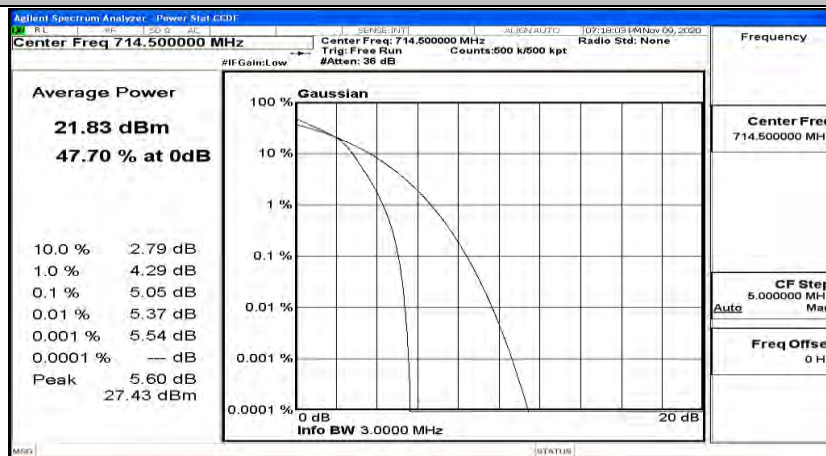
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK
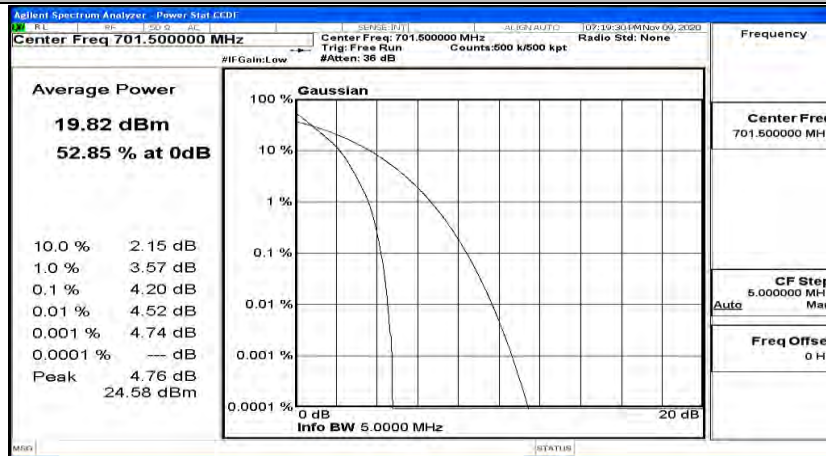
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK
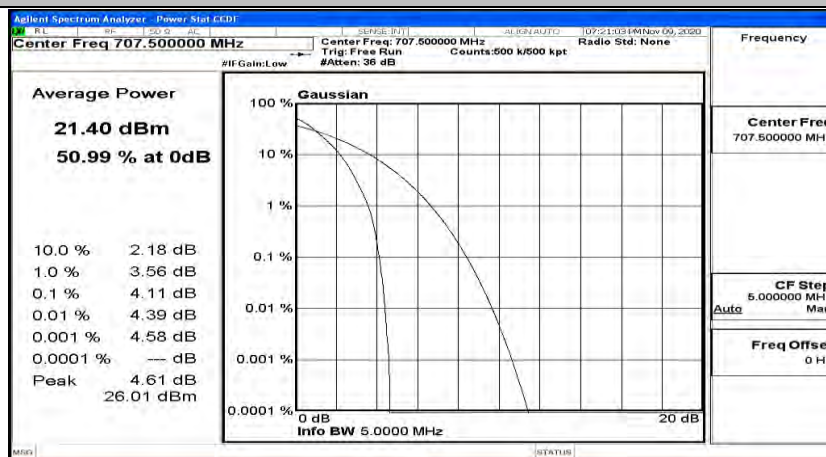
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK
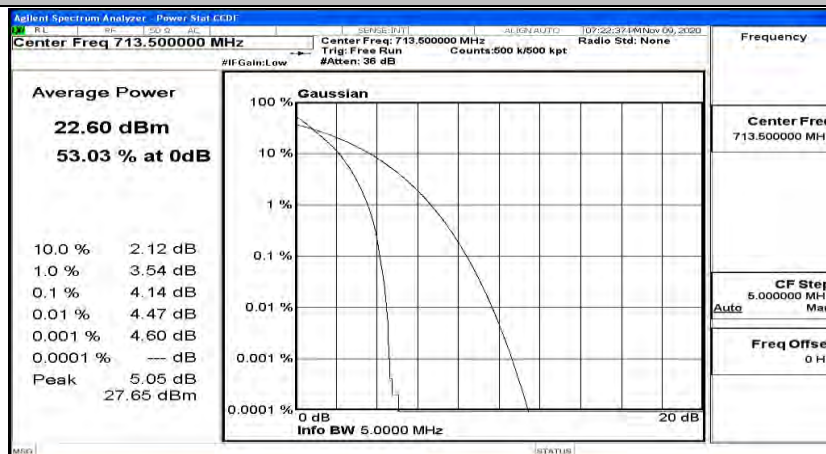
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM
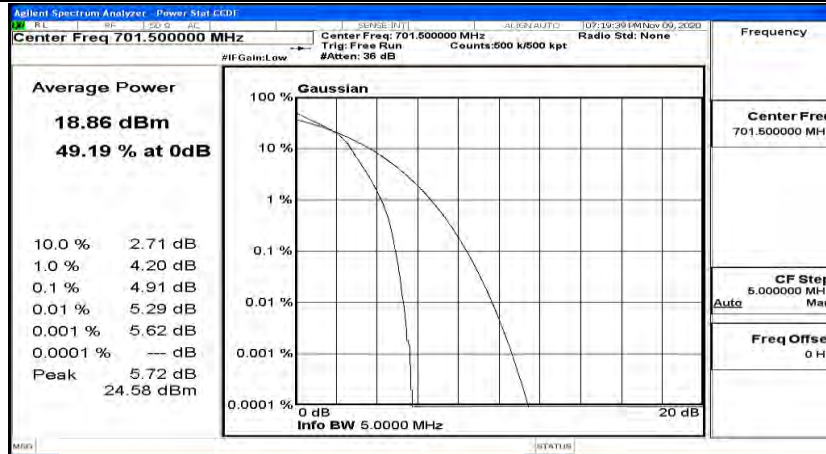
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM
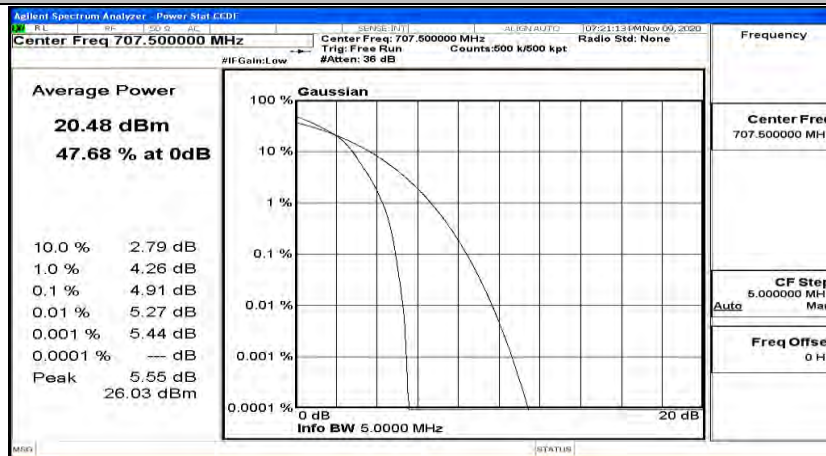
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM
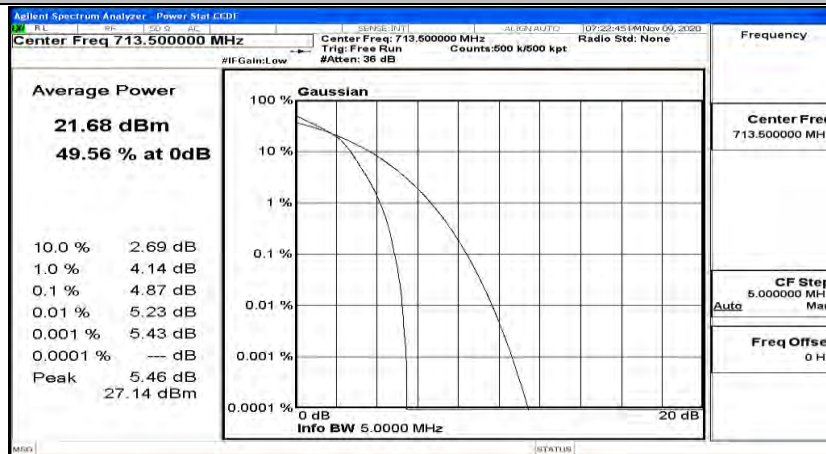
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK
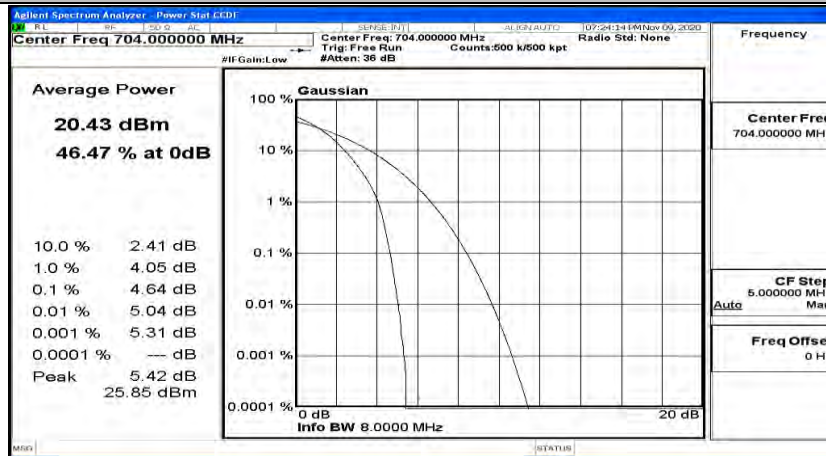
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK
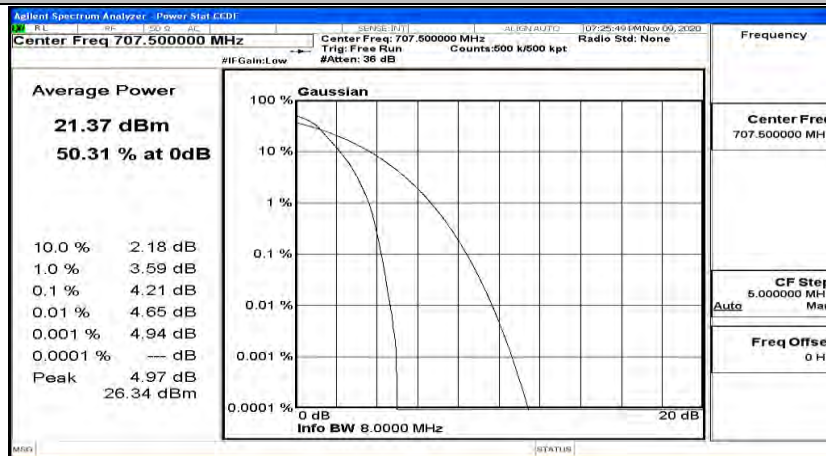
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK
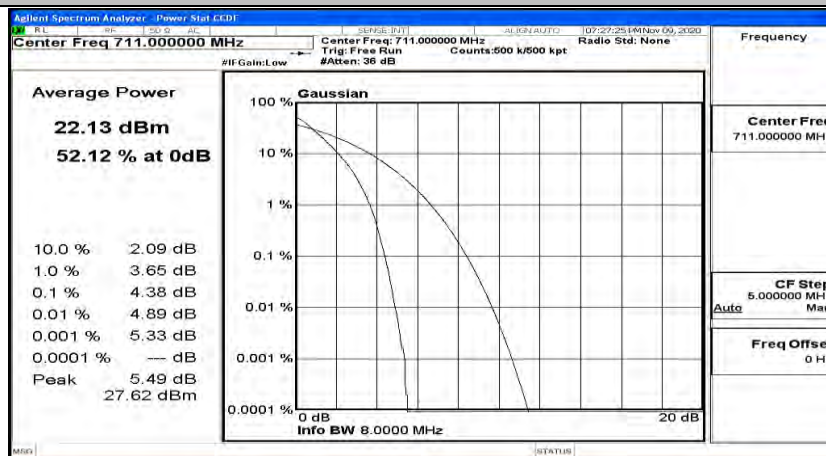
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM
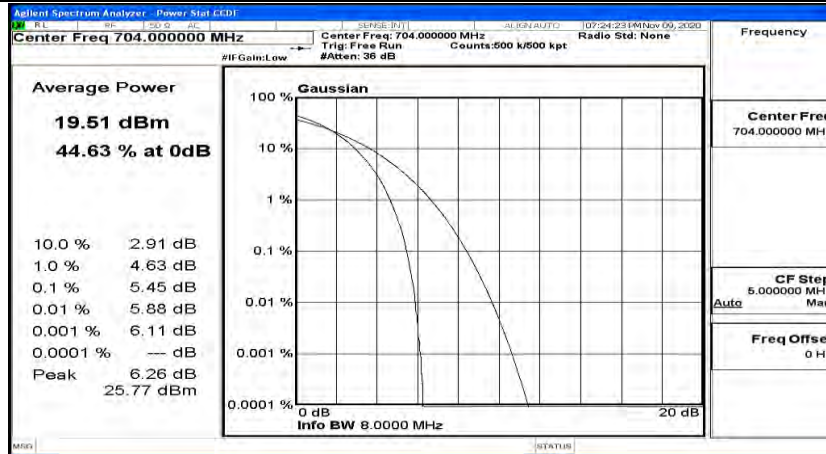
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM
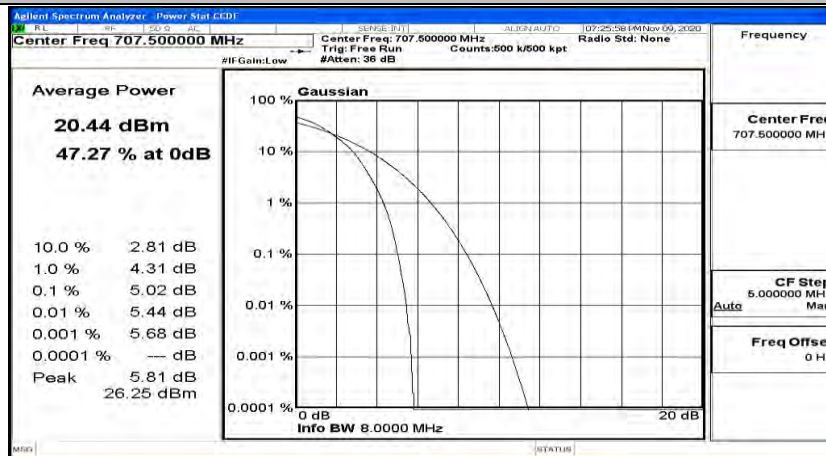
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM
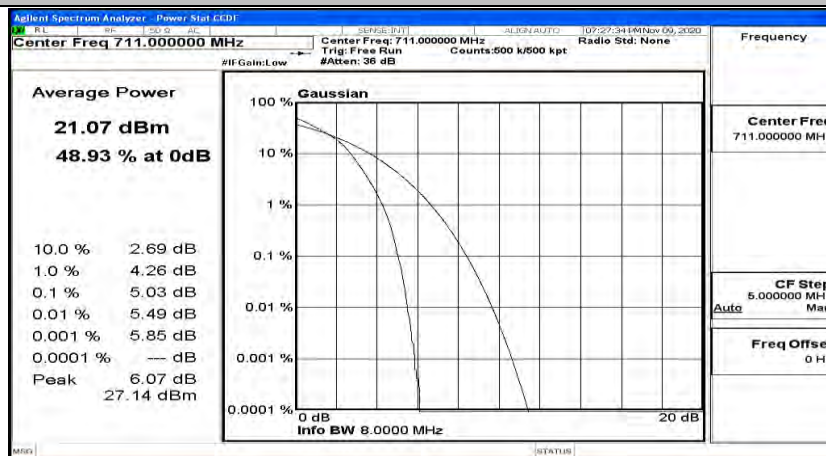
H.3 26dB Bandwidth and Occupied Bandwidth

EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	1.0873	1.953	PASS
	MCH	1.0762	1.241	PASS
	HCH	1.0792	1.243	PASS
16QAM	LCH	1.0825	1.653	PASS
	MCH	1.0794	1.270	PASS
	HCH	1.0786	1.225	PASS

EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	2.6933	3.699	PASS
	MCH	2.6850	2.906	PASS
	HCH	2.6828	2.926	PASS
16QAM	LCH	2.6919	3.140	PASS
	MCH	2.6861	2.866	PASS
	HCH	2.6884	2.921	PASS

EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4932	4.954	PASS
	MCH	4.4750	4.829	PASS
	HCH	4.4849	4.986	PASS
16QAM	LCH	4.4959	4.911	PASS
	MCH	4.4680	4.768	PASS
	HCH	4.4832	4.884	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9520	9.499	PASS
	MCH	8.8663	9.410	PASS
	HCH	8.9129	9.831	PASS
16QAM	LCH	8.9590	9.508	PASS
	MCH	8.8980	9.325	PASS
	HCH	8.8966	9.421	PASS

EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK

Agilent Spectrum Analyzer - Occupied BW

Center Freq 699.700000 MHz
#IFGain:Low

Center Freq: 699.700000 MHz
Trig: Free Run
#Atten: 30 dB

Radio Std: None
AvglHold: 10/10
Radio Device: BTS

07:32:12 PM Nov 09, 2020

Frequency

Center Freq
699.700000 MHz

Ref Offset 7.87 dB
Ref 27.87 dBm
10 dB/div
Log
17.9
7.87
-2.13
-12.1
-22.1
-32.1
-42.1
-52.1
-62.1

Center 699.7 MHz
#Res BW 15 kHz

#VBW 43 kHz

Span 2.8 MHz
#Sweep 100 ms

CF Step
280.000 kHz
Auto   Man

Freq Offset
0 Hz

| Occupied Bandwidth		Total Power	23.6 dBm
1.0873 MHz			
Transmit Freq Error	-2.427 kHz	OBW Power	99.00 %
x dB Bandwidth	1.953 MHz	x dB	-26.00 dB

EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK

Agilent Spectrum Analyzer - Occupied BW

Center Freq 707.500000 MHz
#IFGain:Low

Center Freq: 707.500000 MHz
Trig: Free Run
#Atten: 30 dB

Radio Std: None
AvglHold: 10/10
Radio Device: BTS

07:32:31 PM Nov 09, 2020

Frequency

Center Freq
707.500000 MHz

Ref Offset 7.87 dB
Ref 27.87 dBm
10 dB/div
Log
17.9
7.87
-2.13
-12.1
-22.1
-32.1
-42.1
-52.1
-62.1

Center 707.5 MHz
#Res BW 15 kHz

#VBW 43 kHz

Span 2.8 MHz
#Sweep 100 ms

CF Step
280.000 kHz
Auto   Man

Freq Offset
0 Hz

Occupied Bandwidth		Total Power	25.3 dBm
1.0762 MHz			
Transmit Freq Error	494 Hz	OBW Power	99.00 %
x dB Bandwidth	1.241 MHz	x dB	-26.00 dB

EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK

Agilent Spectrum Analyzer - Occupied BW

Center Freq 715.300000 MHz
#IFGain:Low

Center Freq: 715.300000 MHz
Trig: Free Run
#Atten: 30 dB

Radio Std: None
AvglHold: 10/10
Radio Device: BTS

07:32:49 PM Nov 09, 2020

Frequency

Center Freq
715.300000 MHz

Ref Offset 7.87 dB
Ref 27.87 dBm
10 dB/div
Log
17.9
7.87
-2.13
-12.1
-22.1
-32.1
-42.1
-52.1
-62.1

Center 715.3 MHz
#Res BW 15 kHz

#VBW 43 kHz

Span 2.8 MHz
#Sweep 100 ms

CF Step
280.000 kHz
Auto   Man

Freq Offset
0 Hz

Occupied Bandwidth		Total Power	26.6 dBm
1.0792 MHz			
Transmit Freq Error	-2.713 kHz	OBW Power	99.00 %
x dB Bandwidth	1.243 MHz	x dB	-26.00 dB

| EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM |
|---|

EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM

EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM
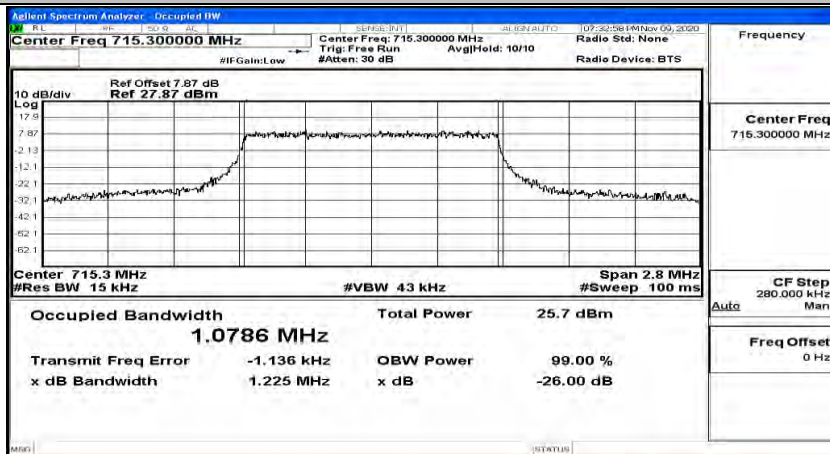
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK
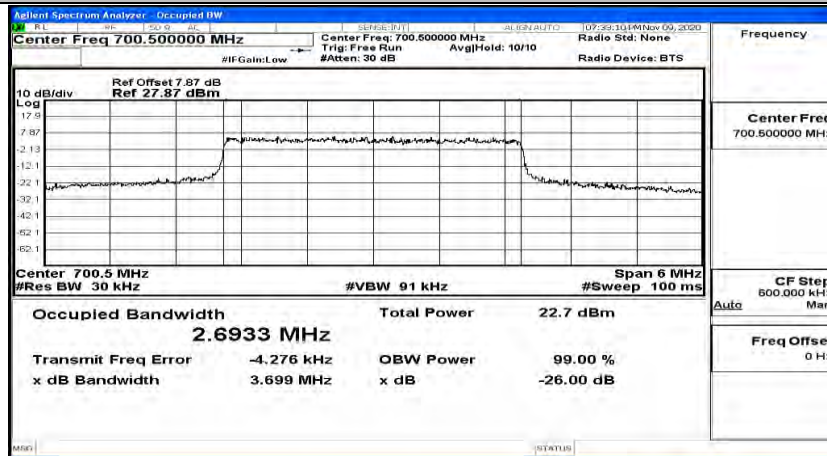
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK
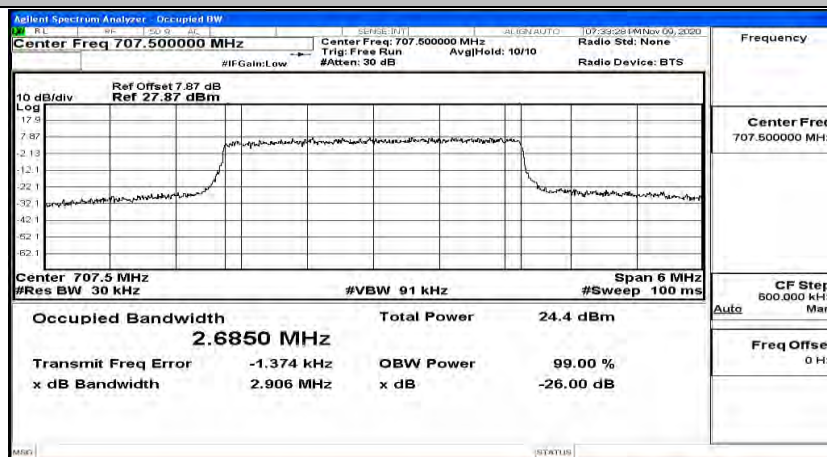
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK
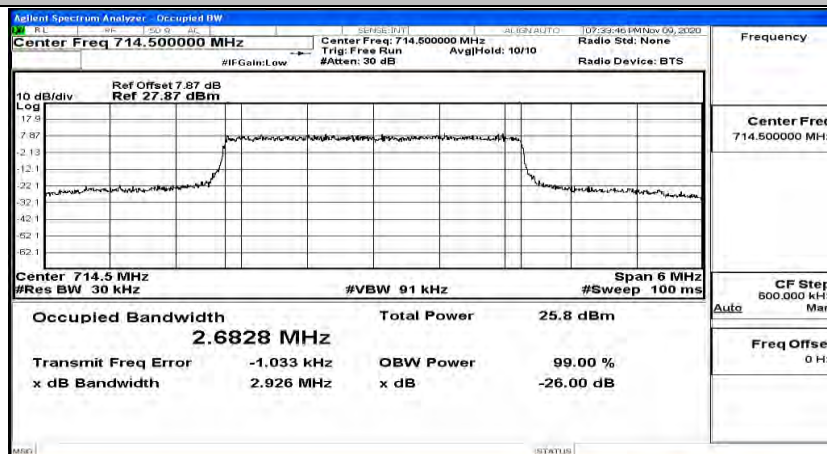
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM
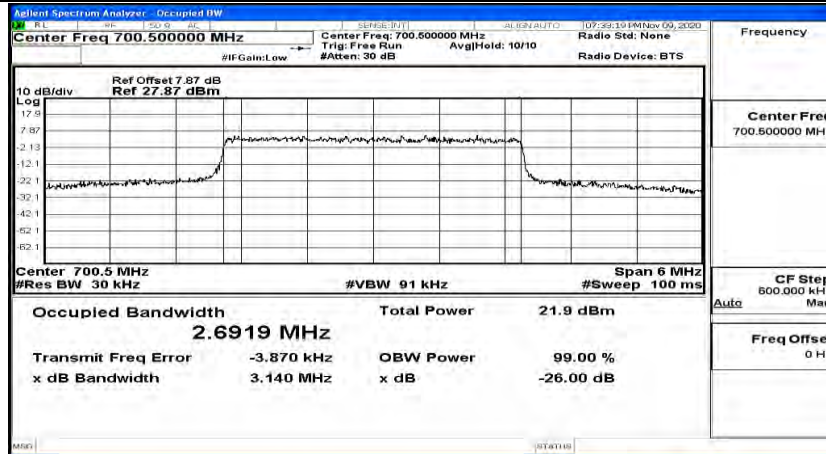
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM
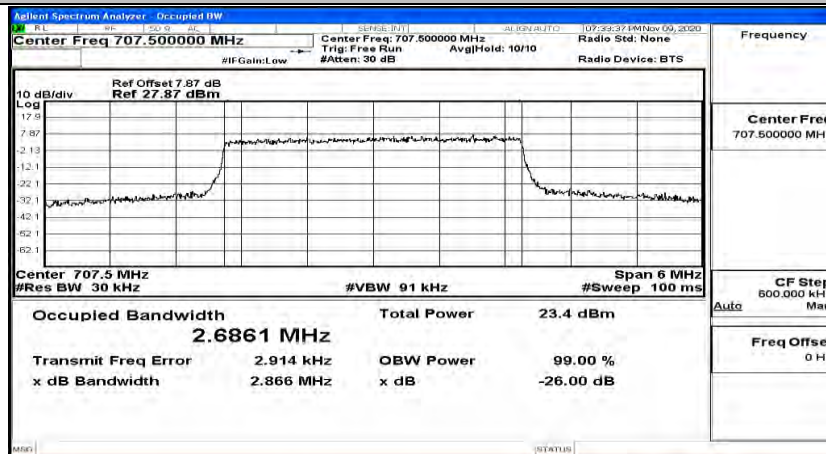
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM
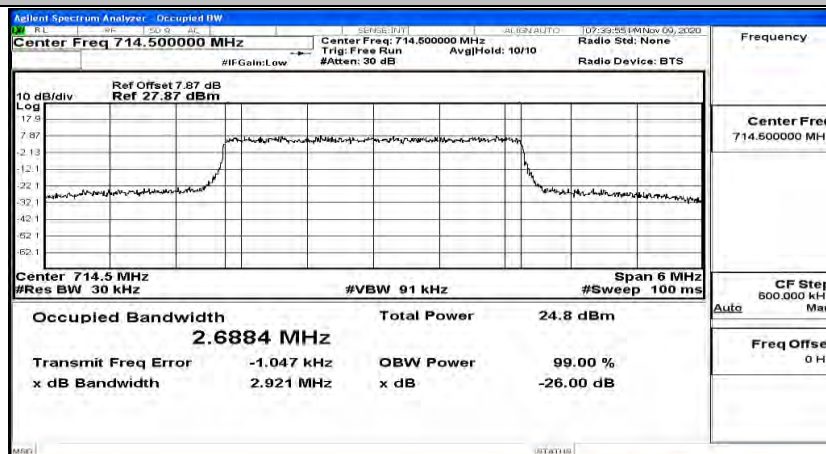
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK
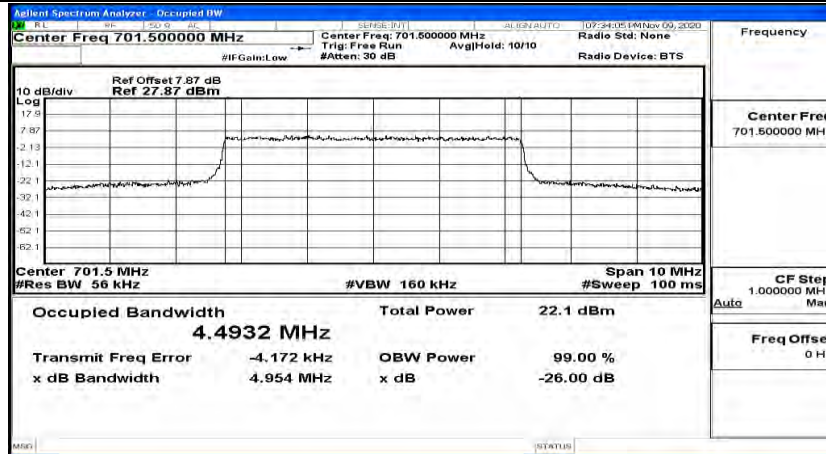
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK
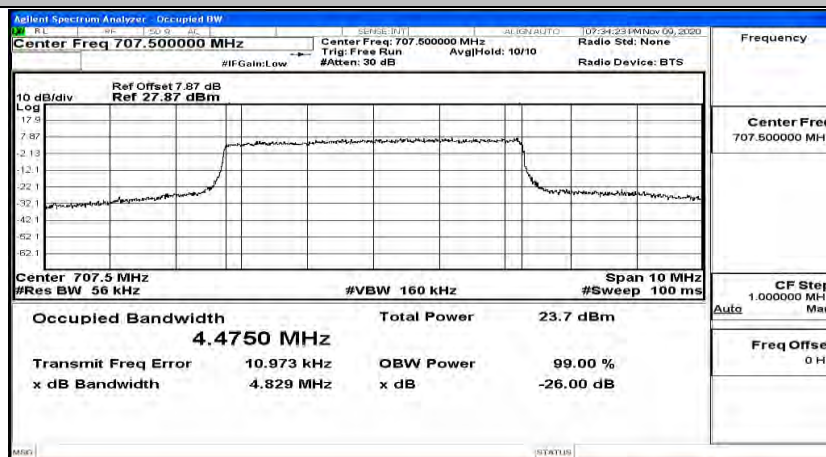
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK
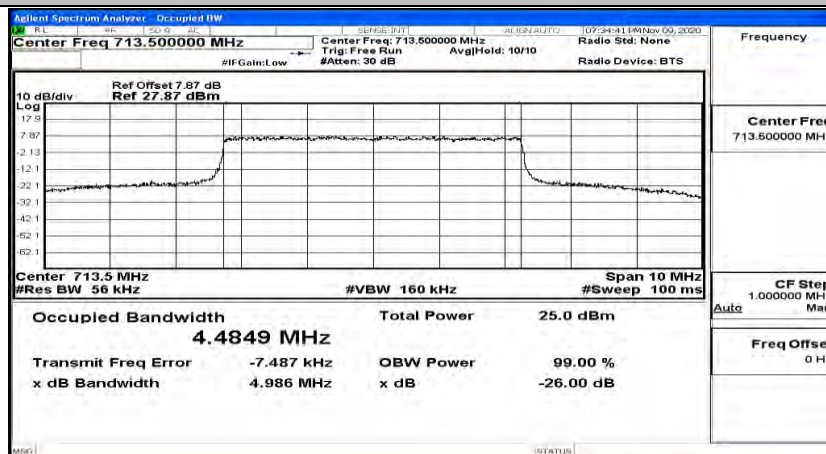
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM
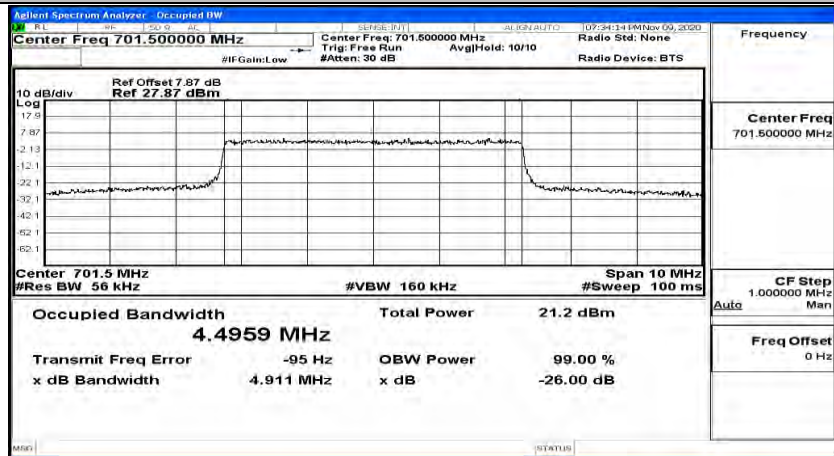
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM
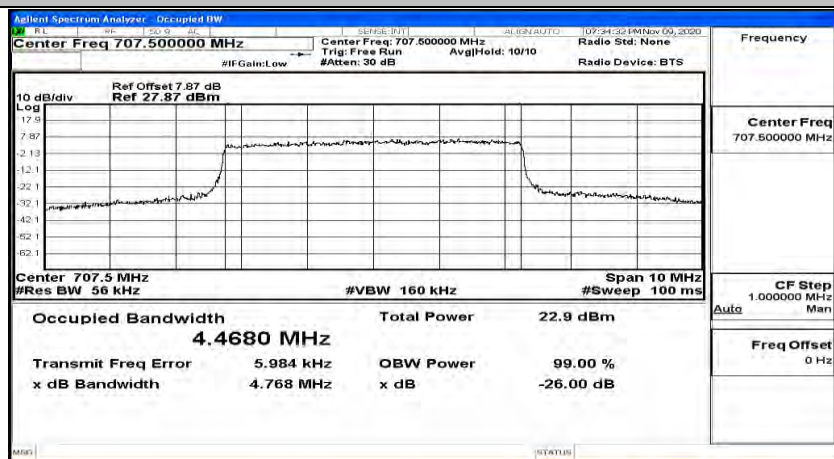
| EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM |
|---|
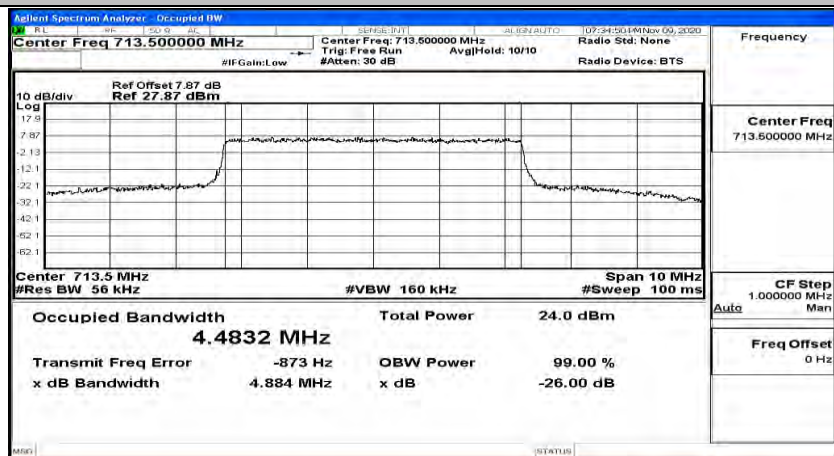
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK
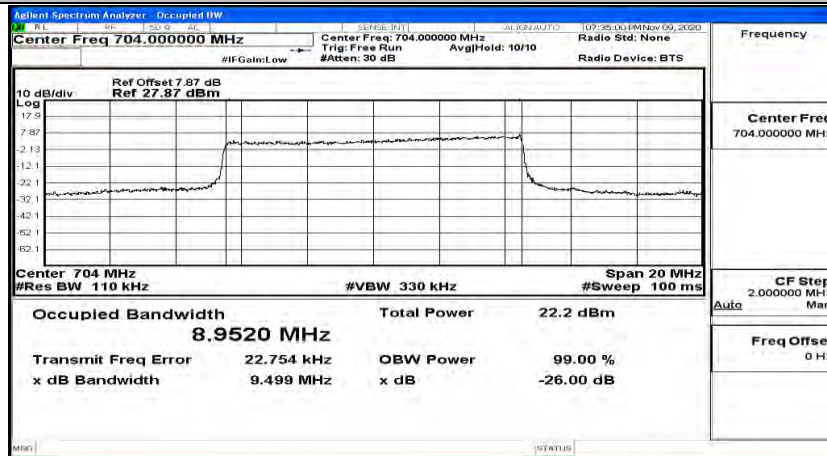
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK
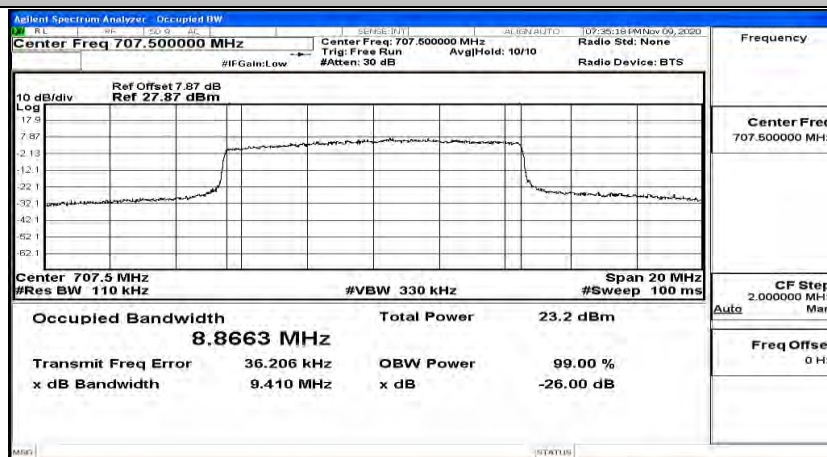
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK
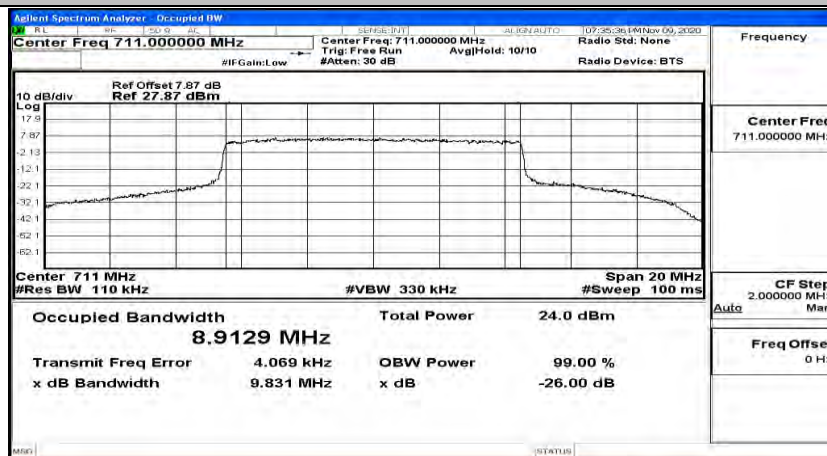
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM
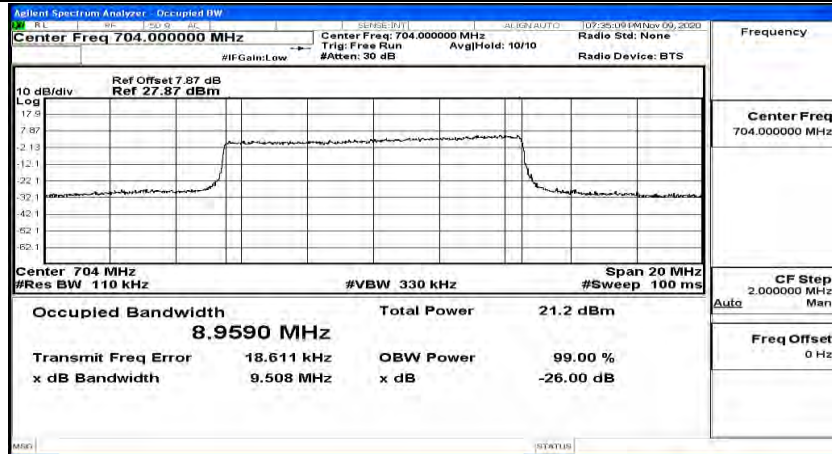
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM
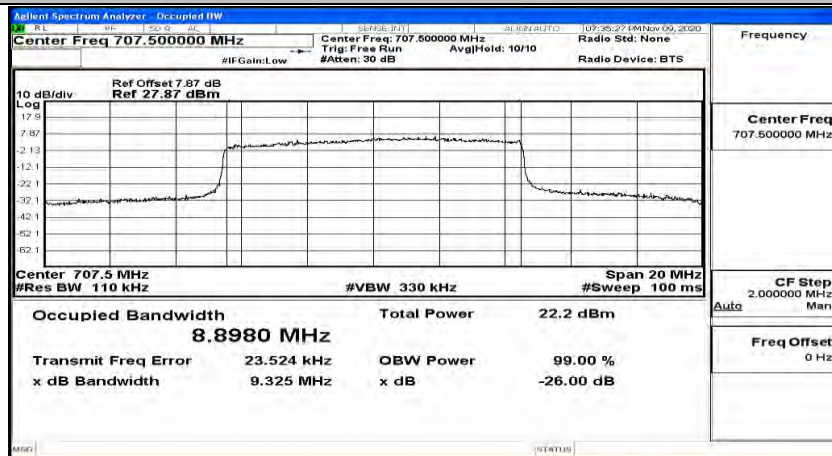
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM

H.4 Band Edge

Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK

Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK

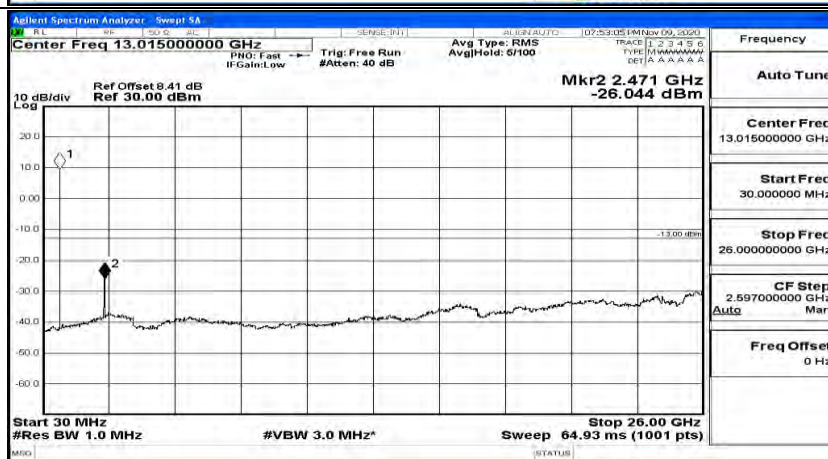| Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM |
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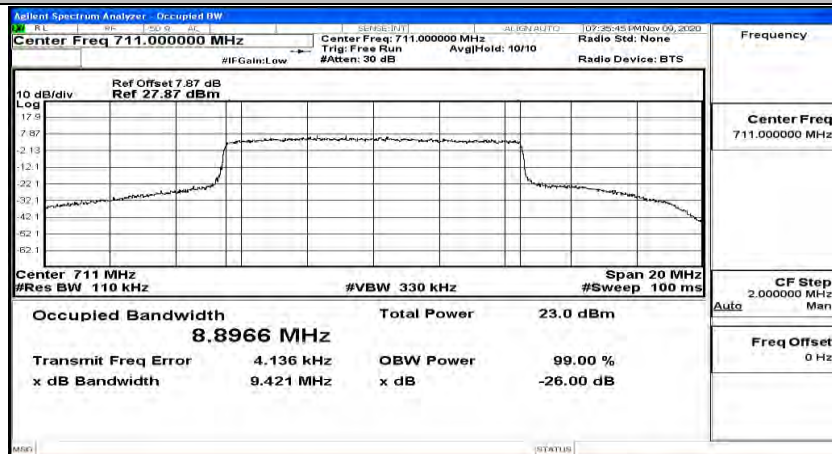
Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM
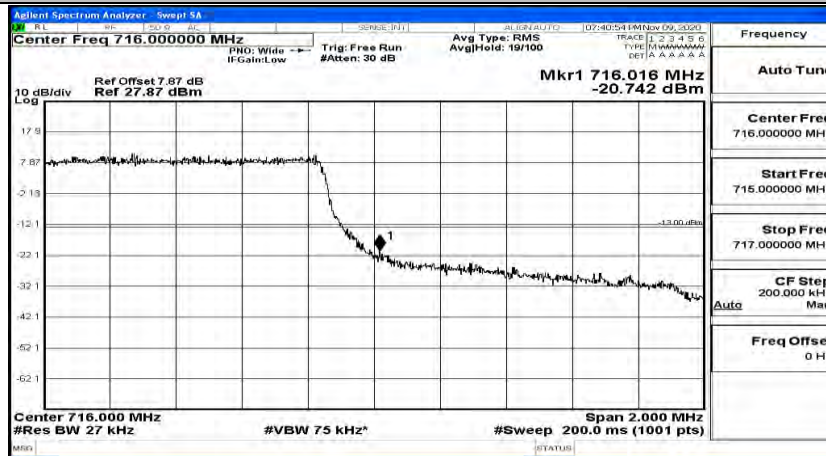
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK
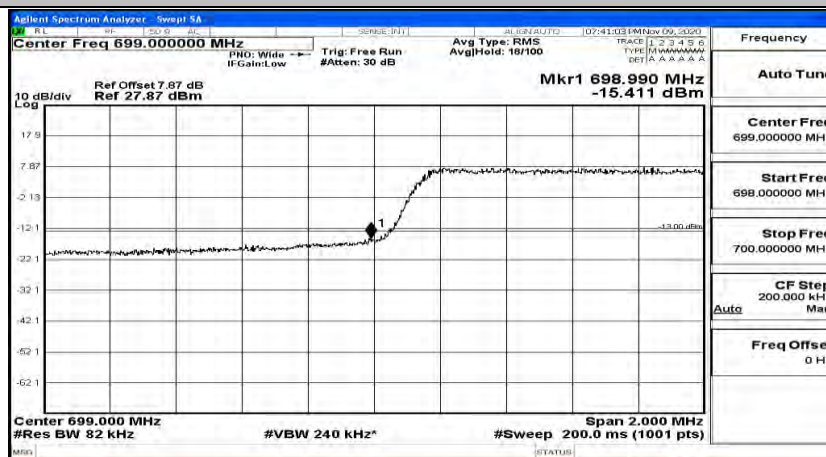
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK
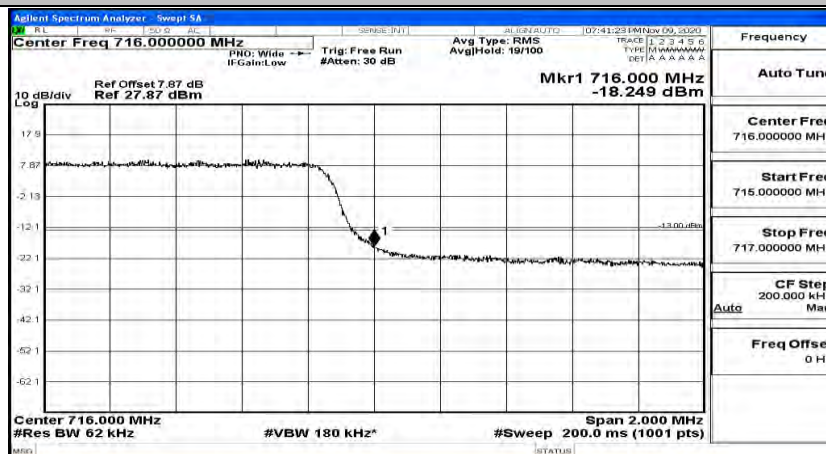
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM
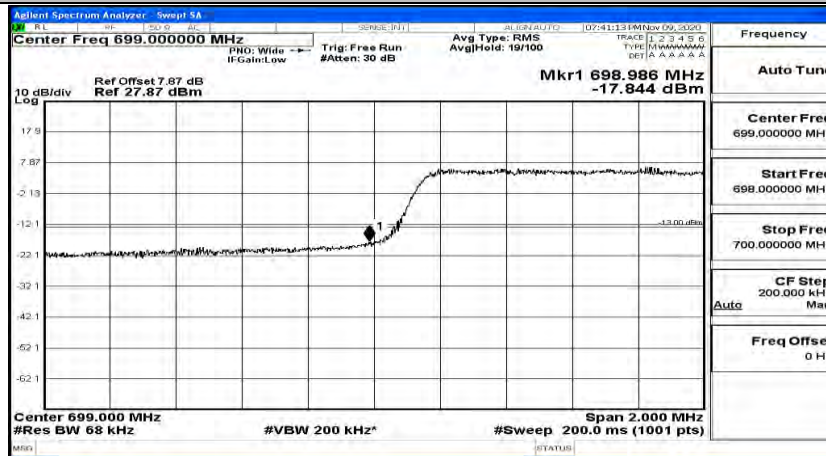
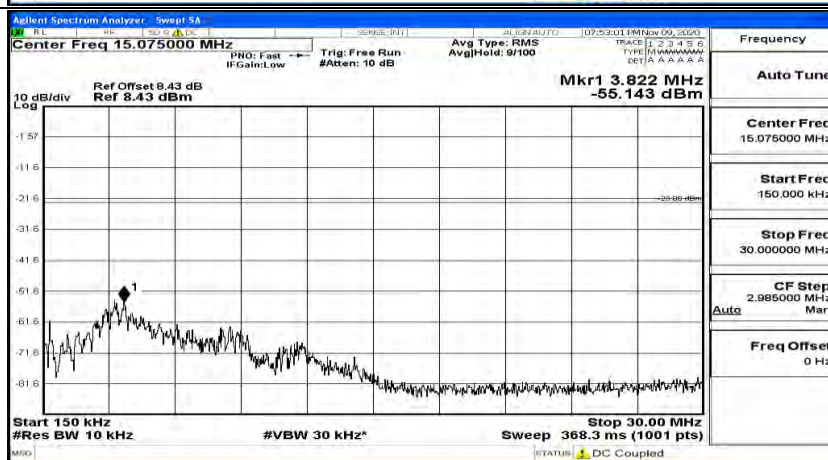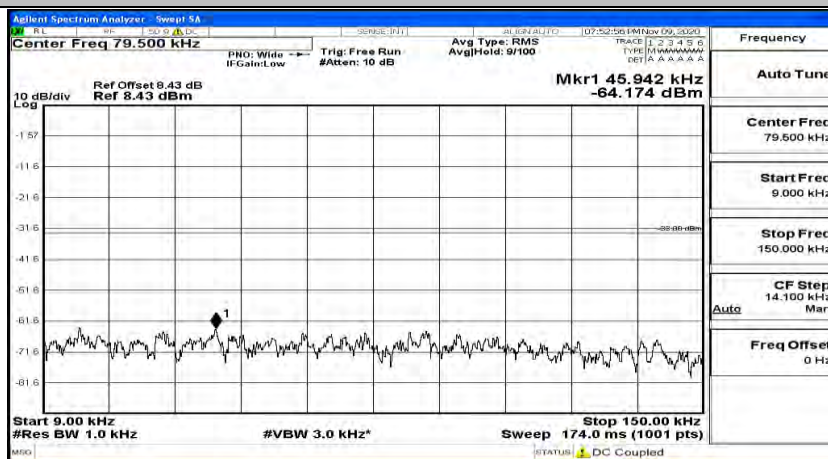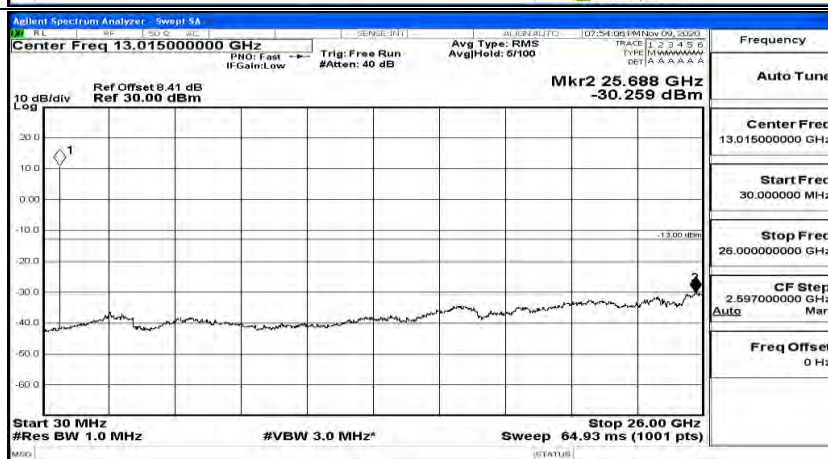| Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM |
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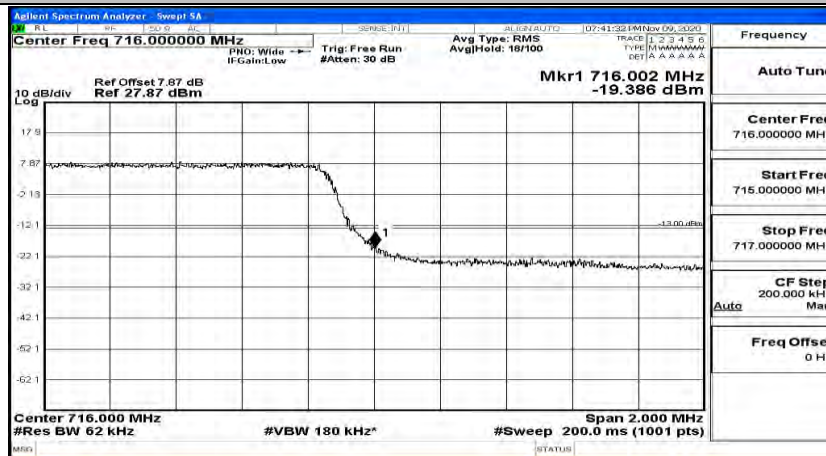
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK
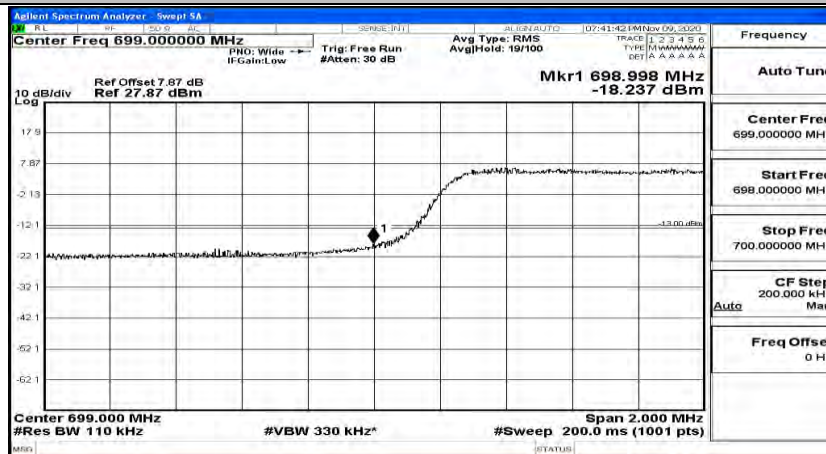
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK
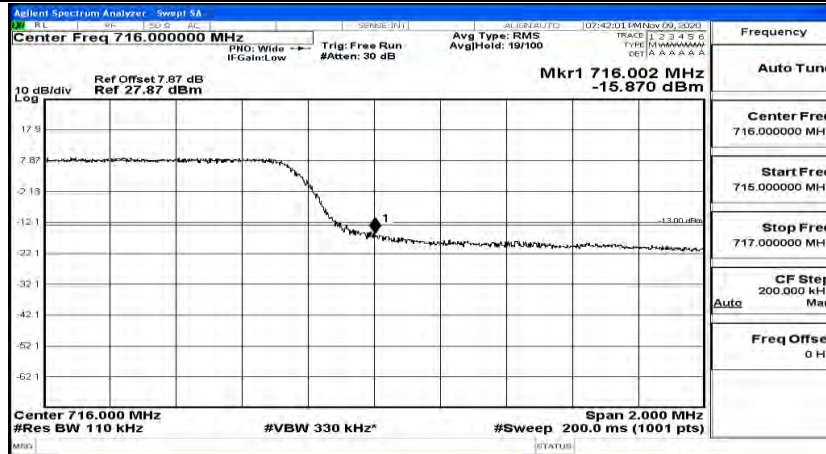
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM
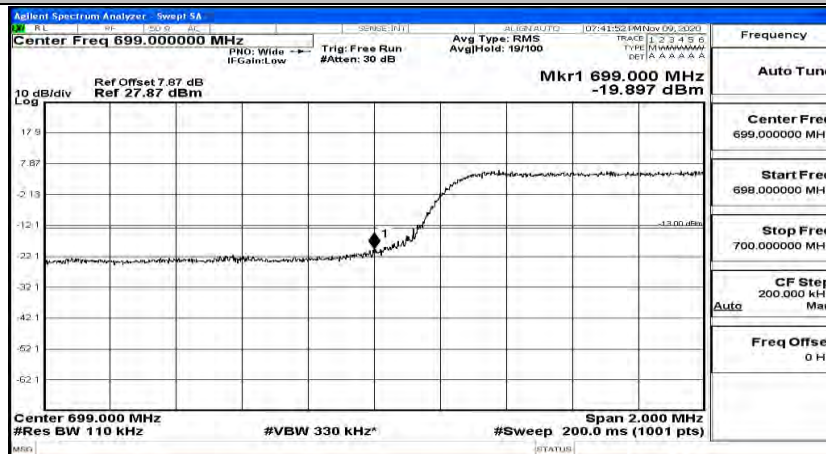
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM
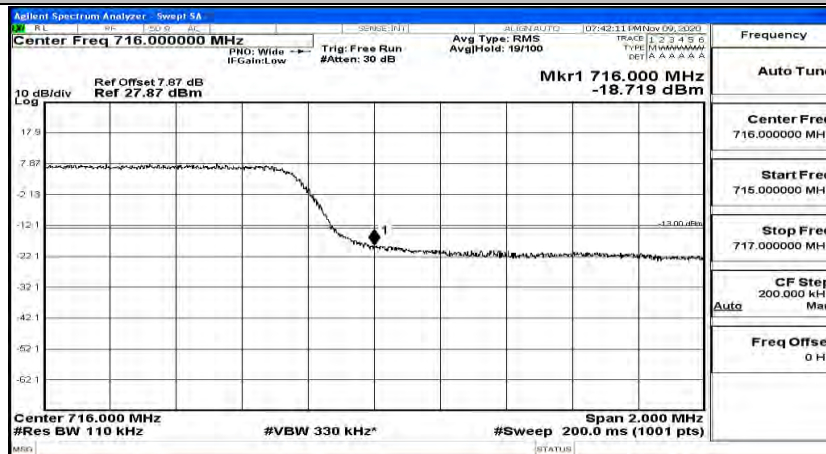
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK
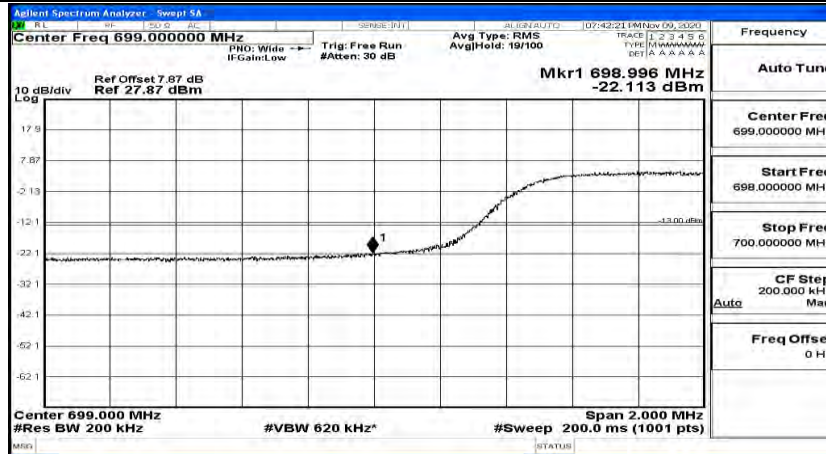
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK
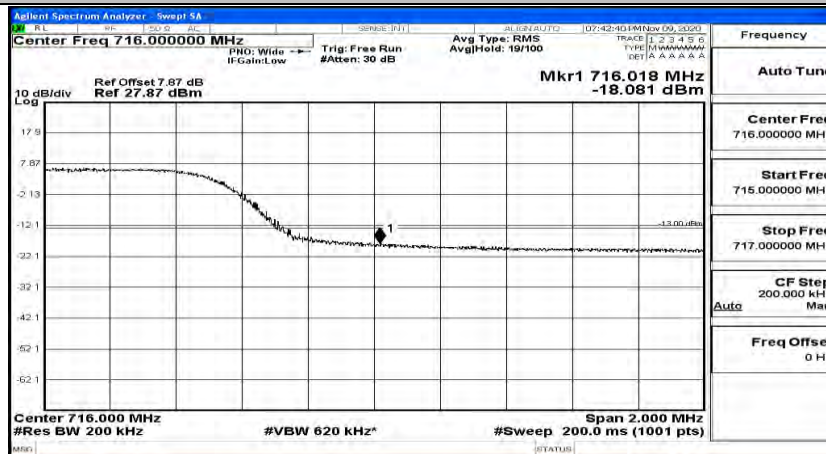
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM
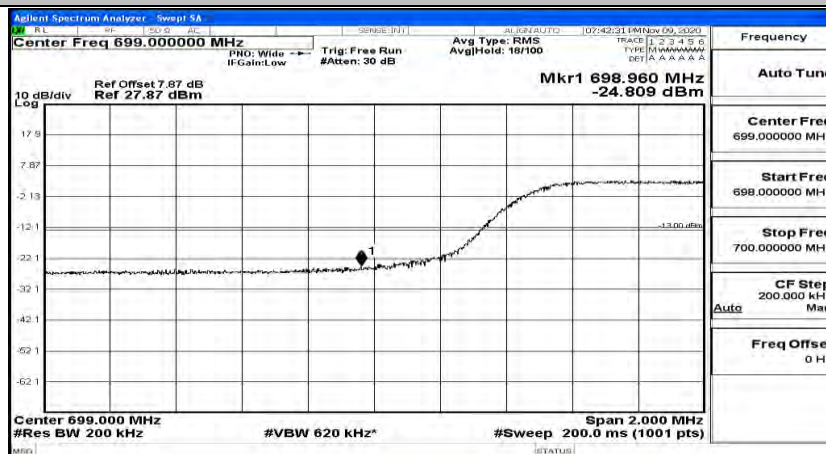
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM
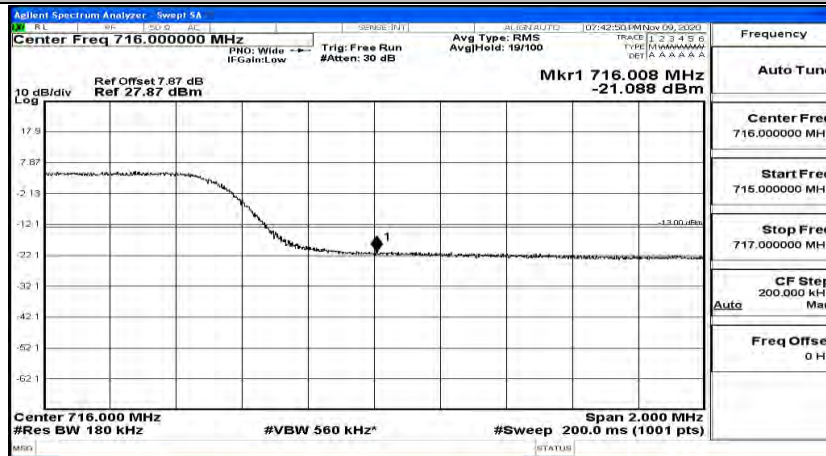
H.5 Conducted Spurious Emission

(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#0
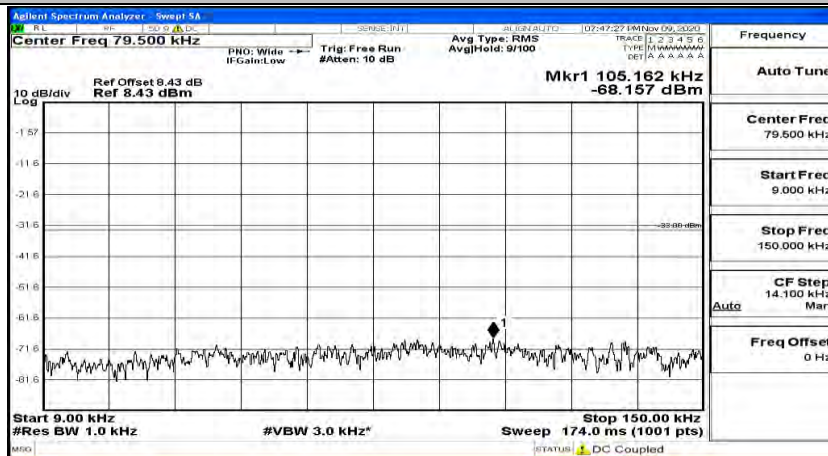
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#3
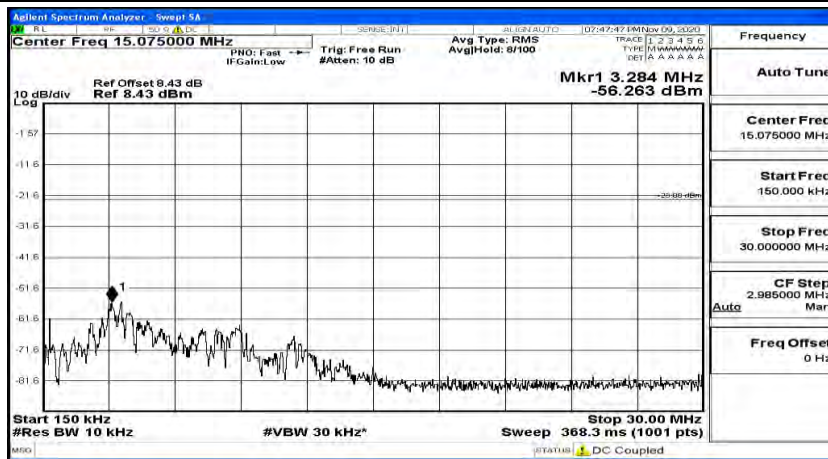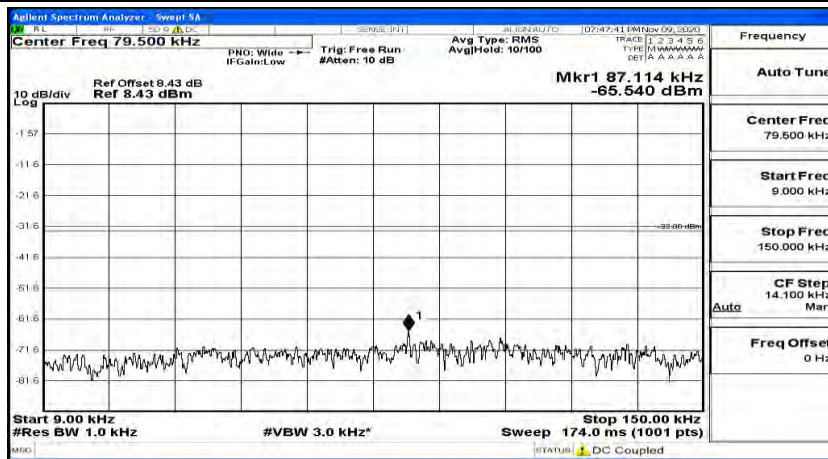
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#5
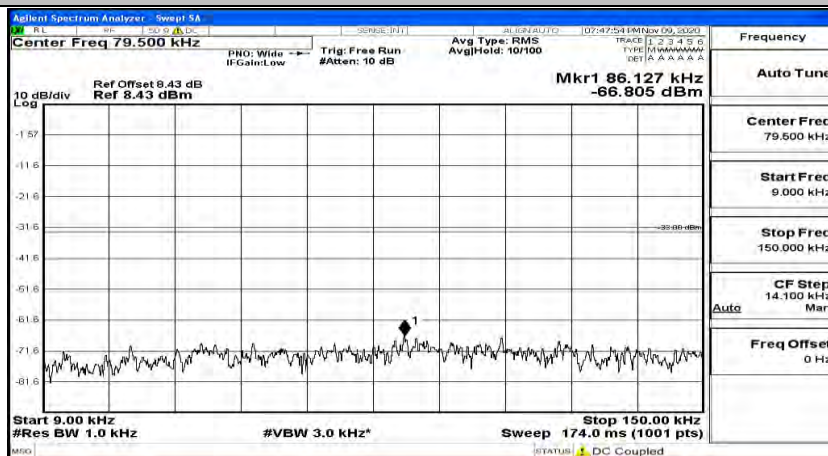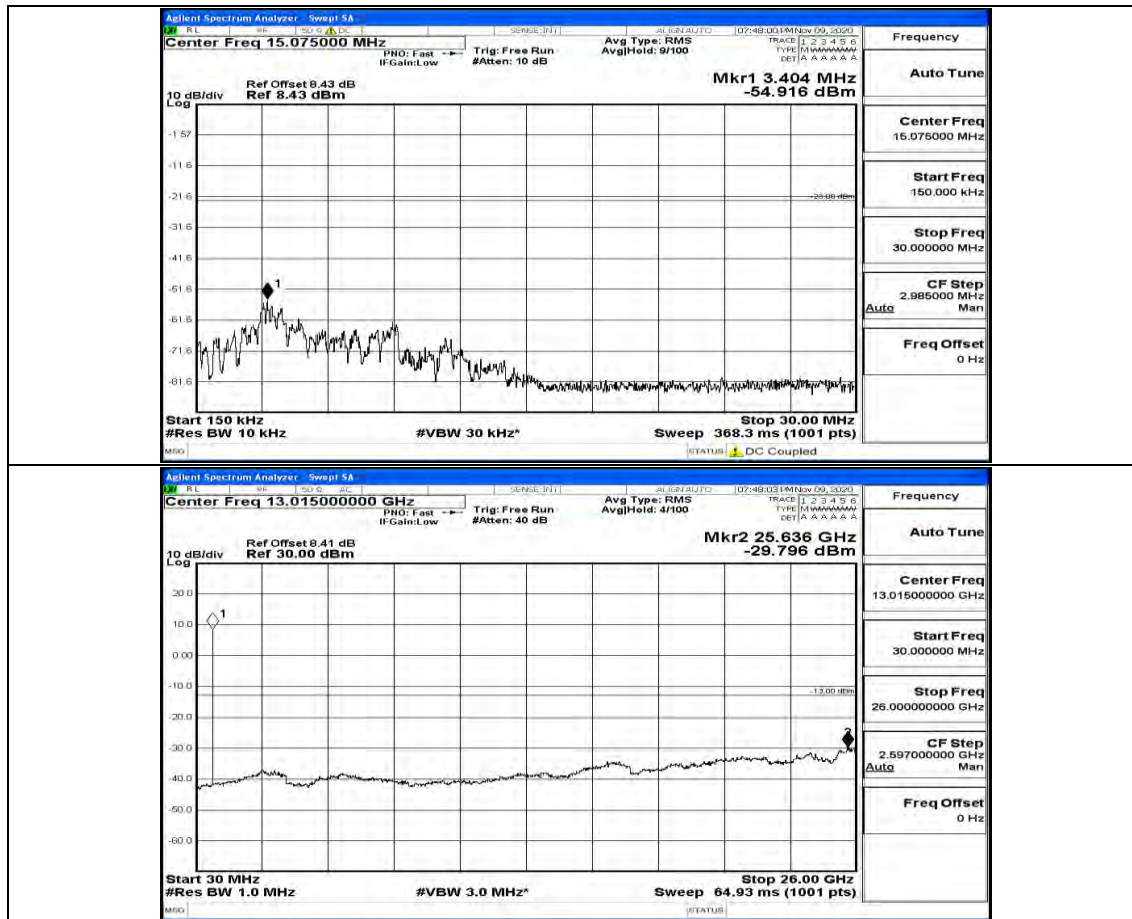
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#0
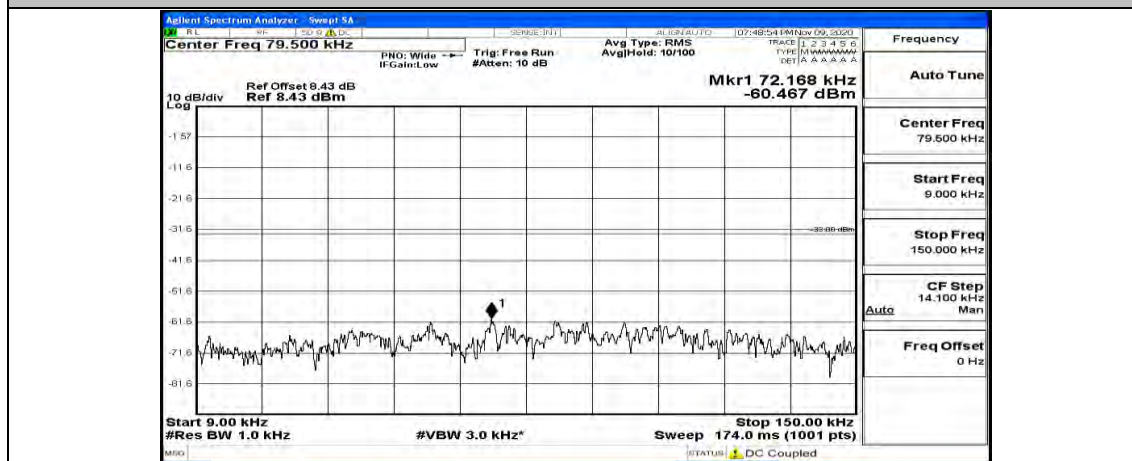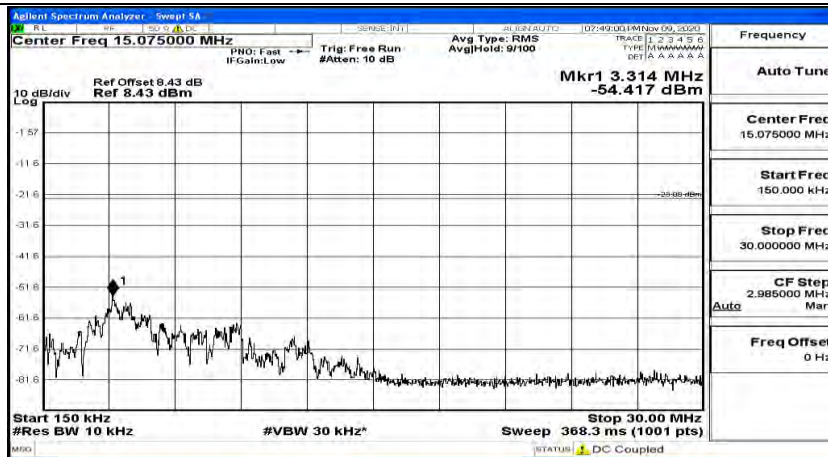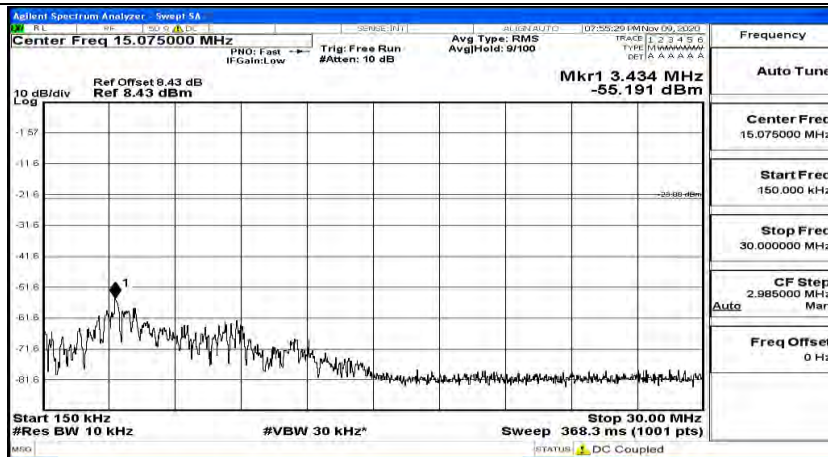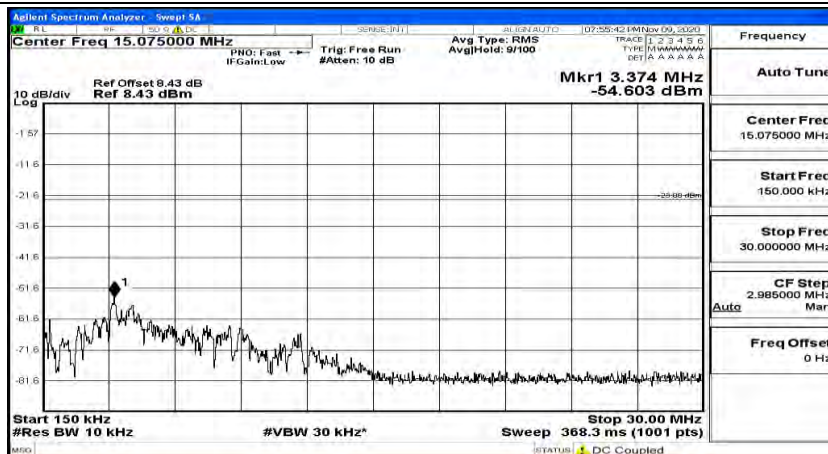
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#3
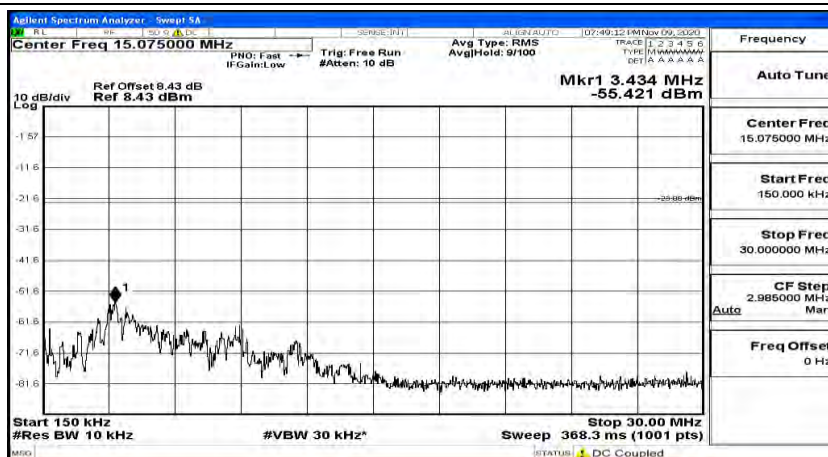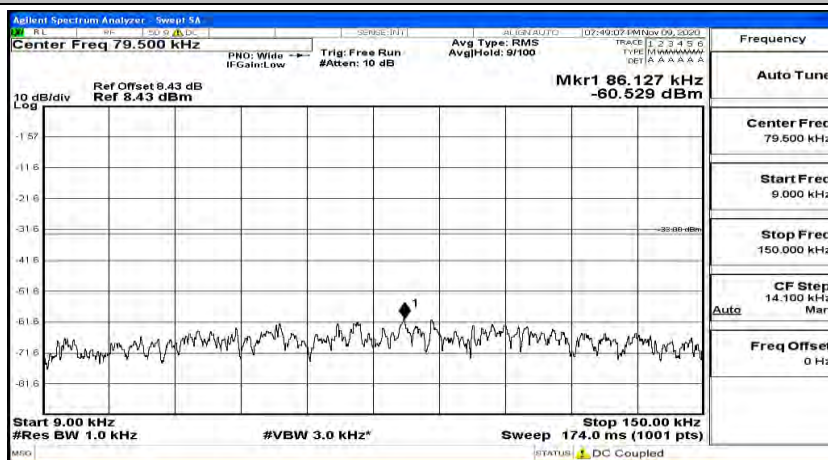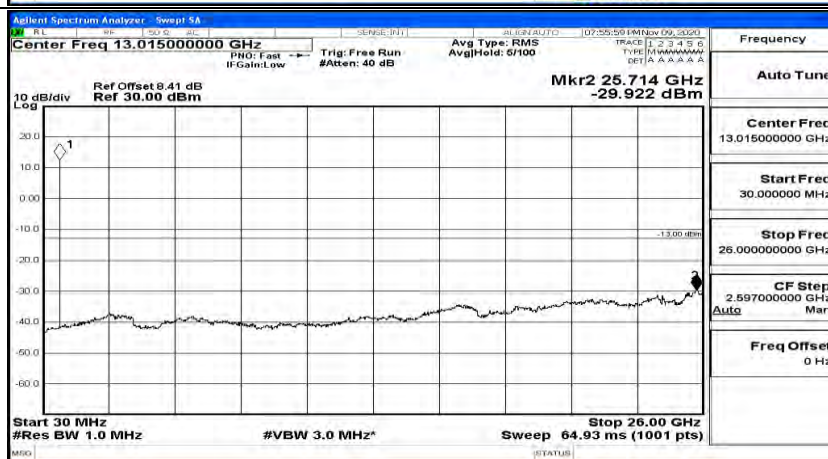
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#5
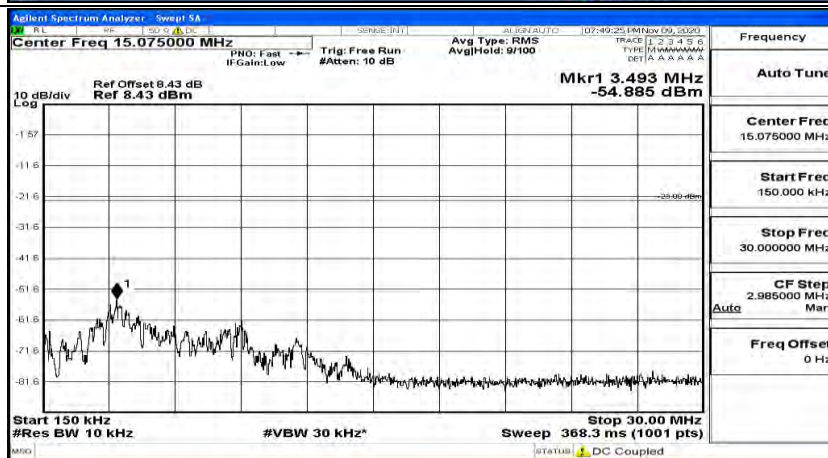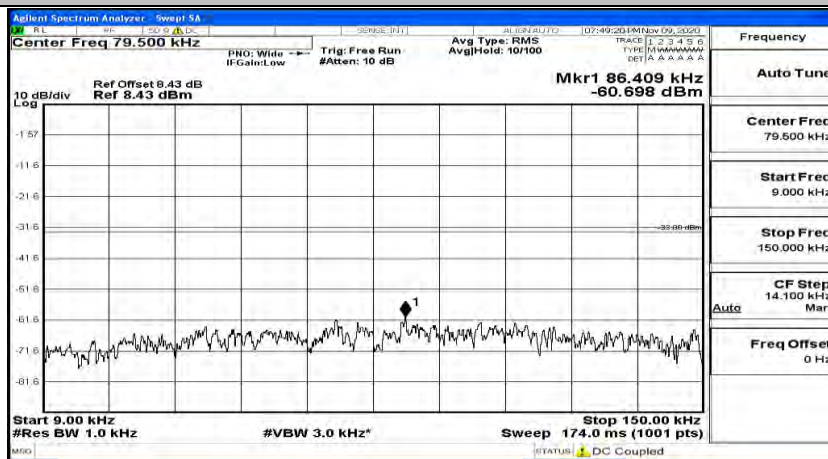
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#0
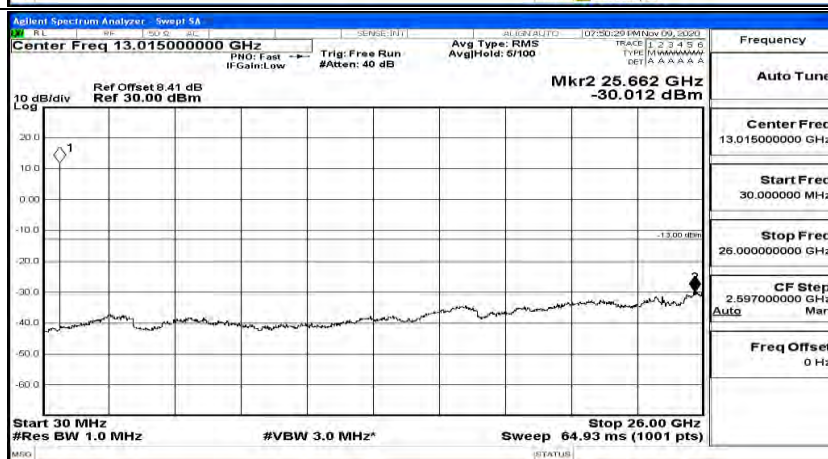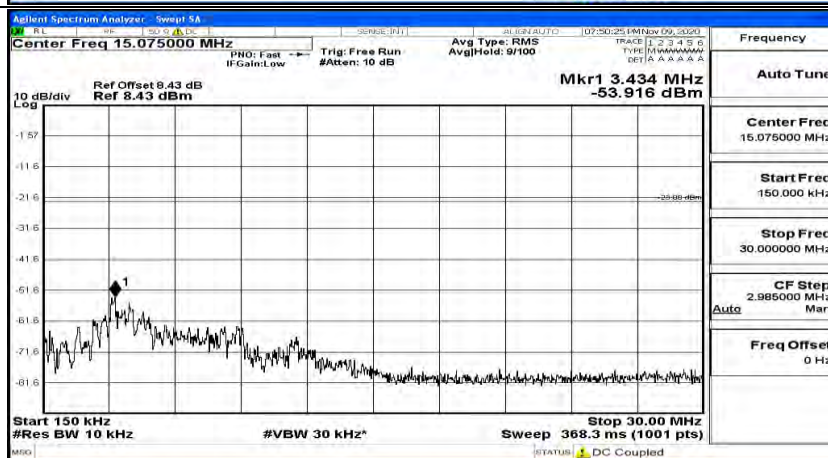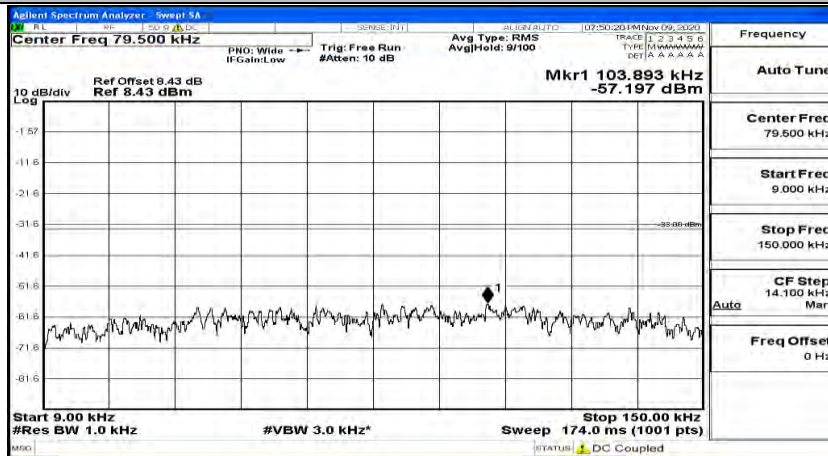
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#3
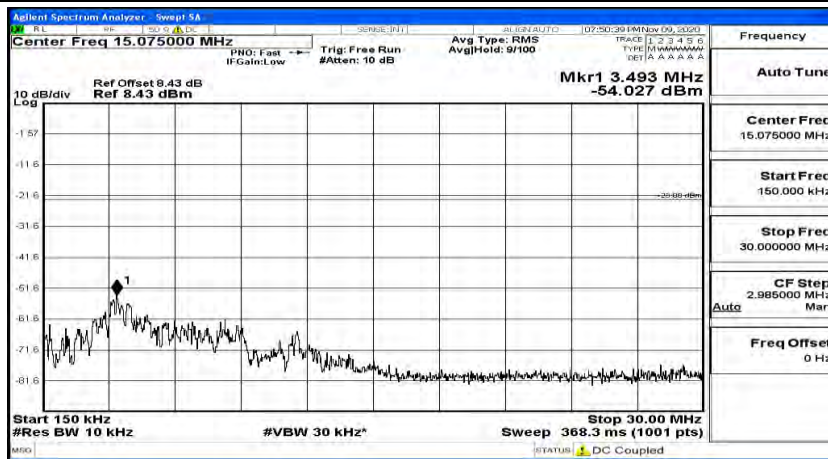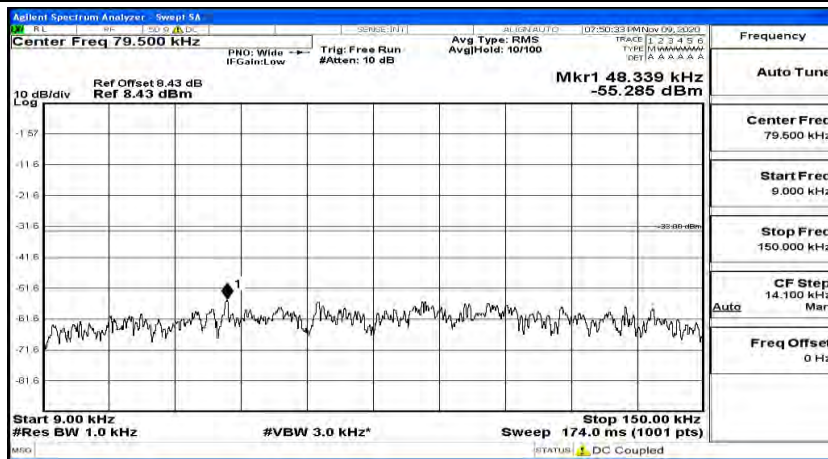
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#5
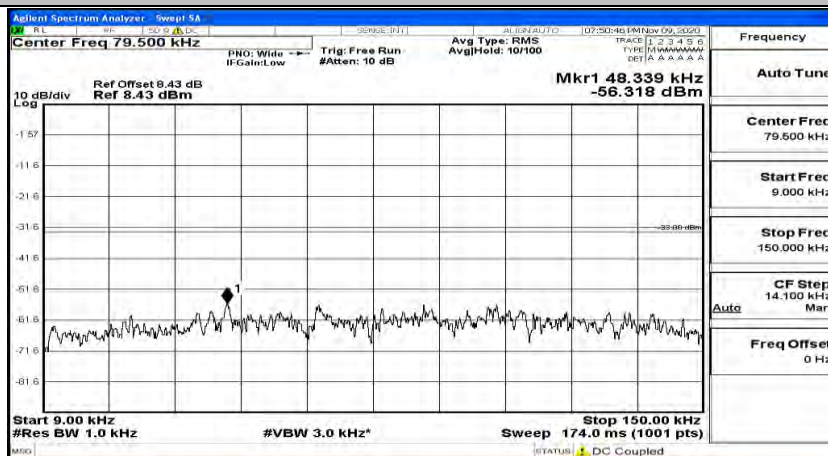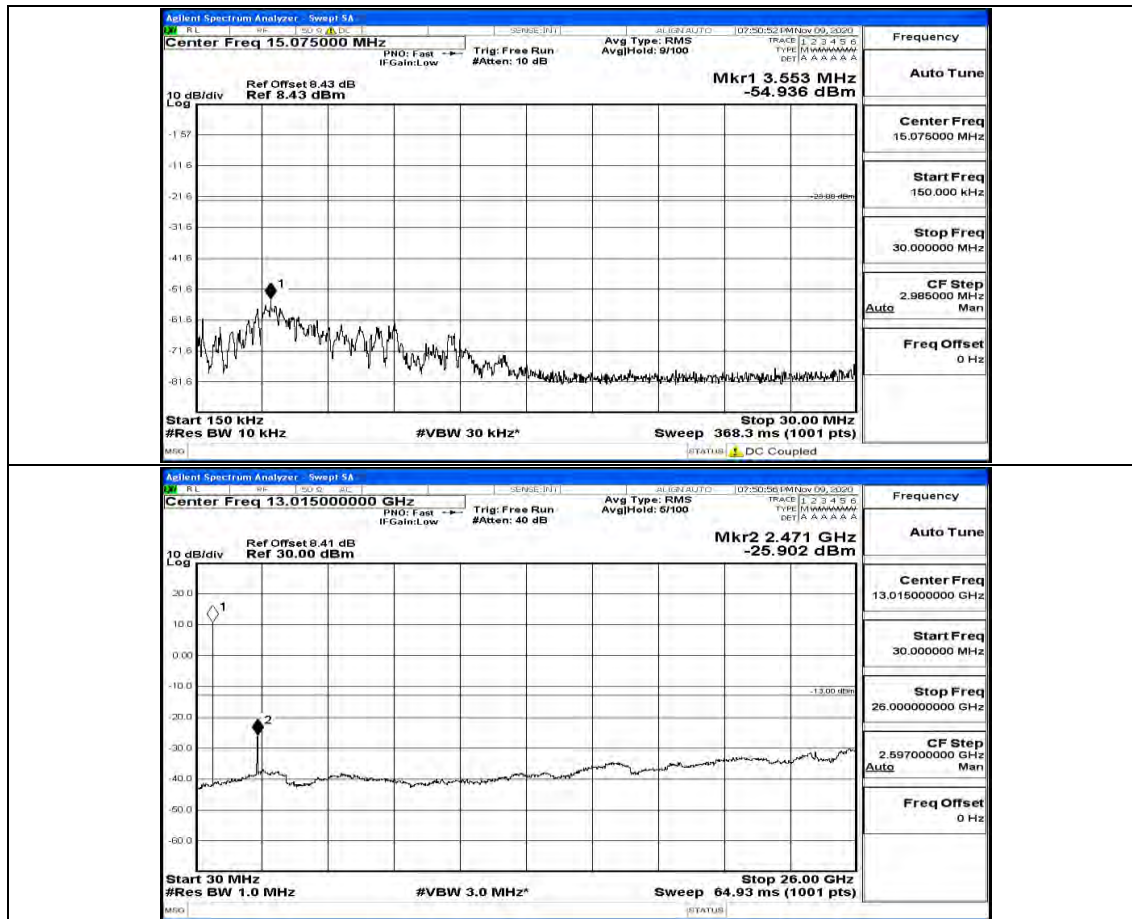
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#0
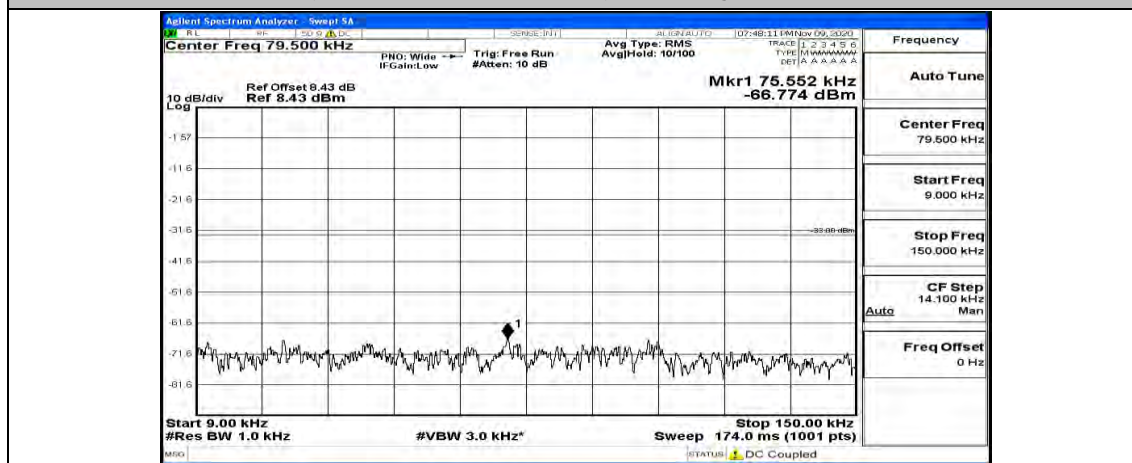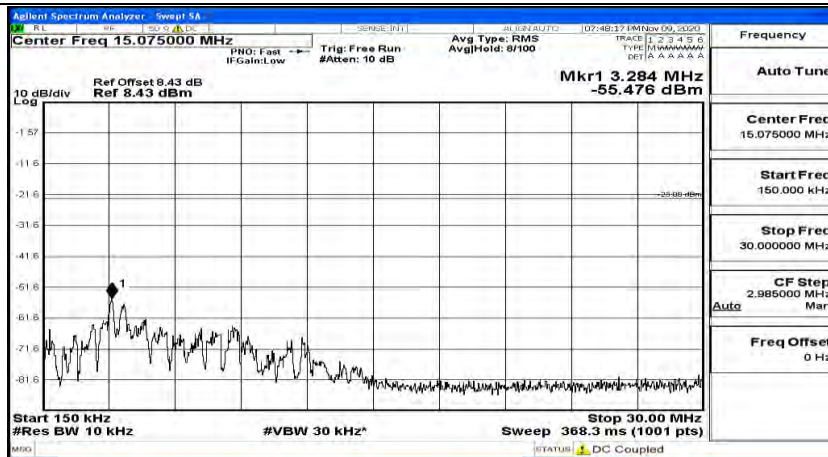
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#3
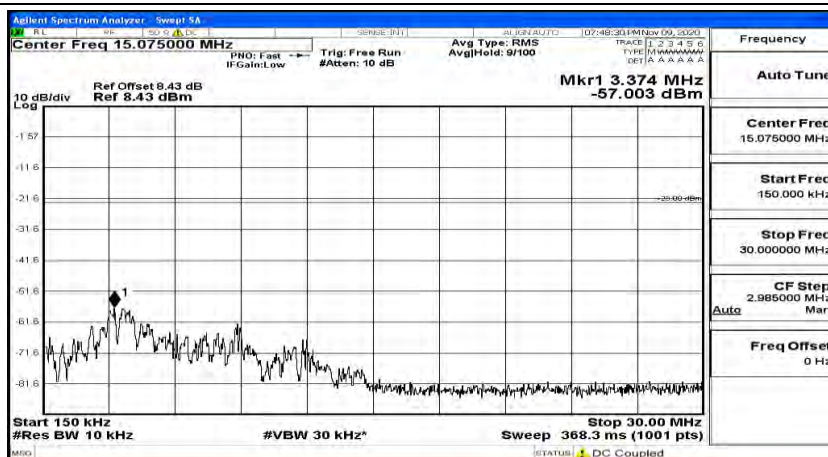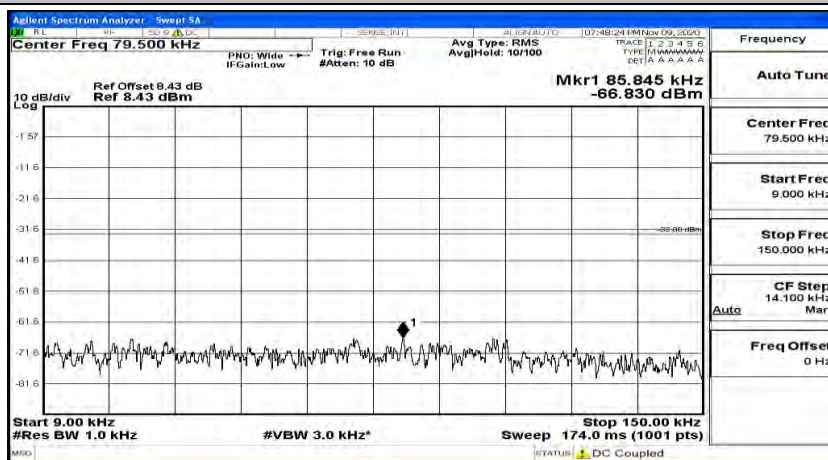
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#5
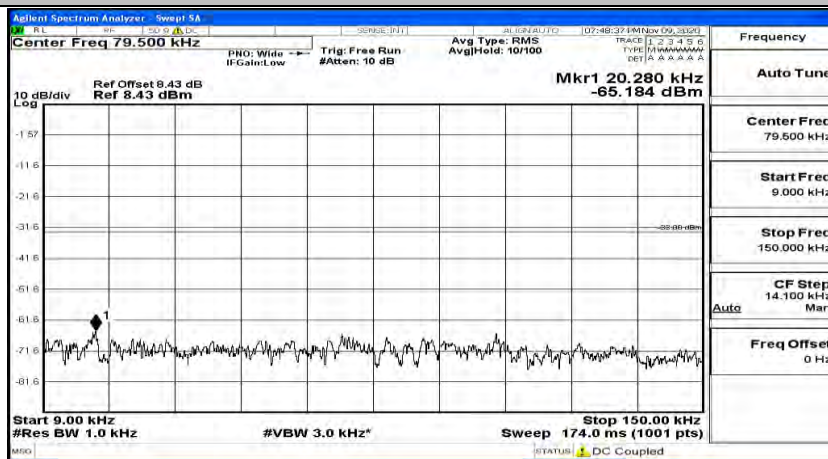
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#0
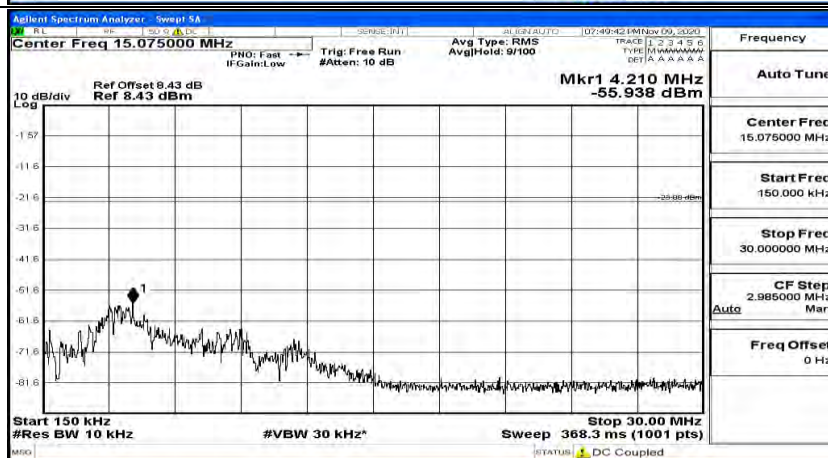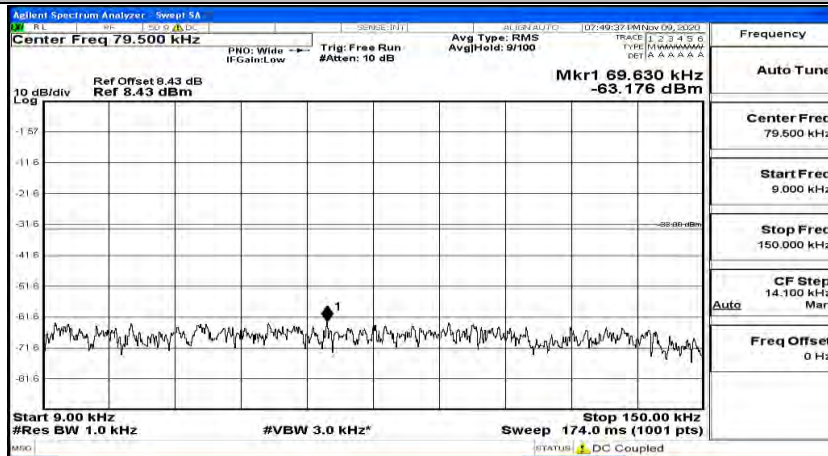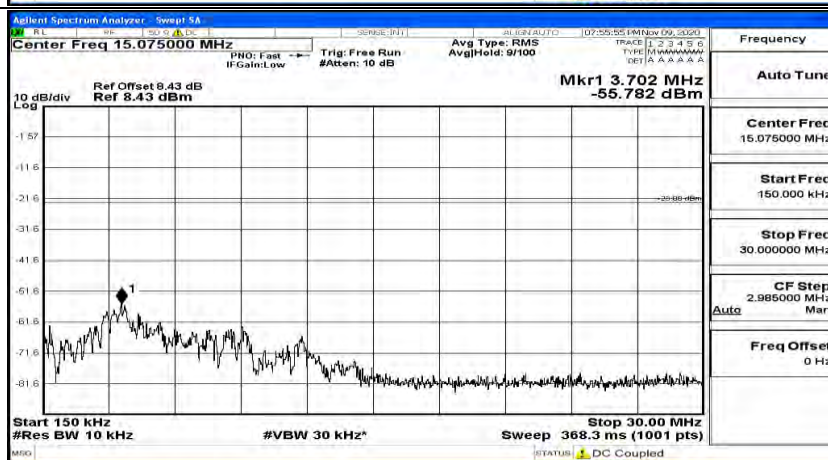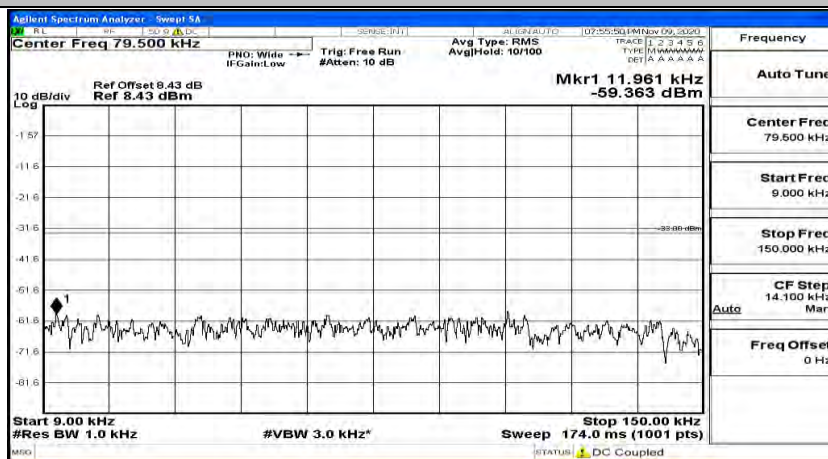

(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#3
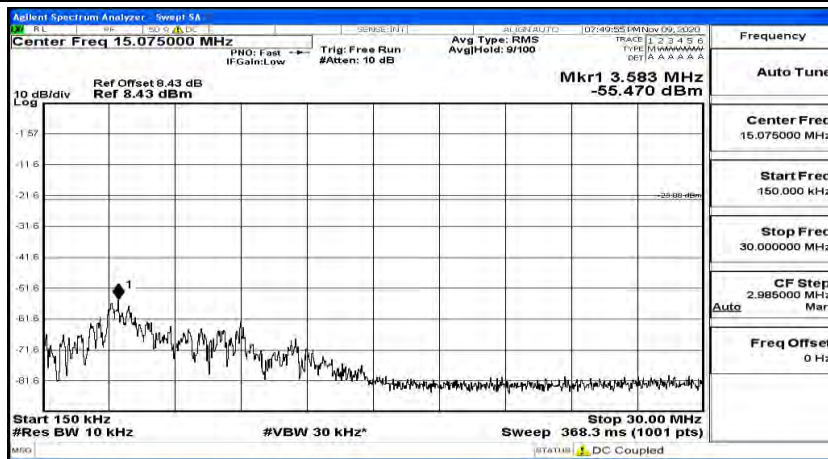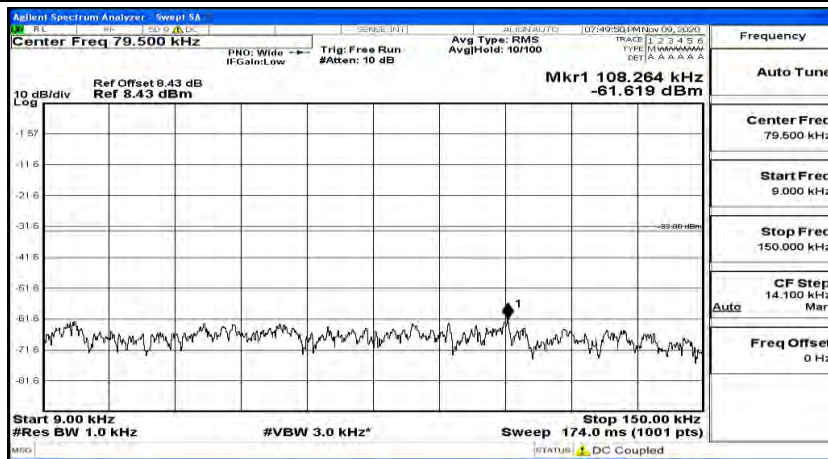
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#5
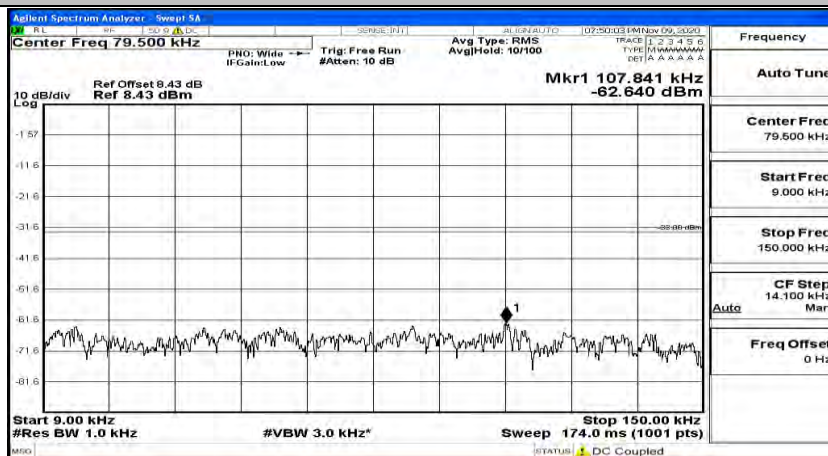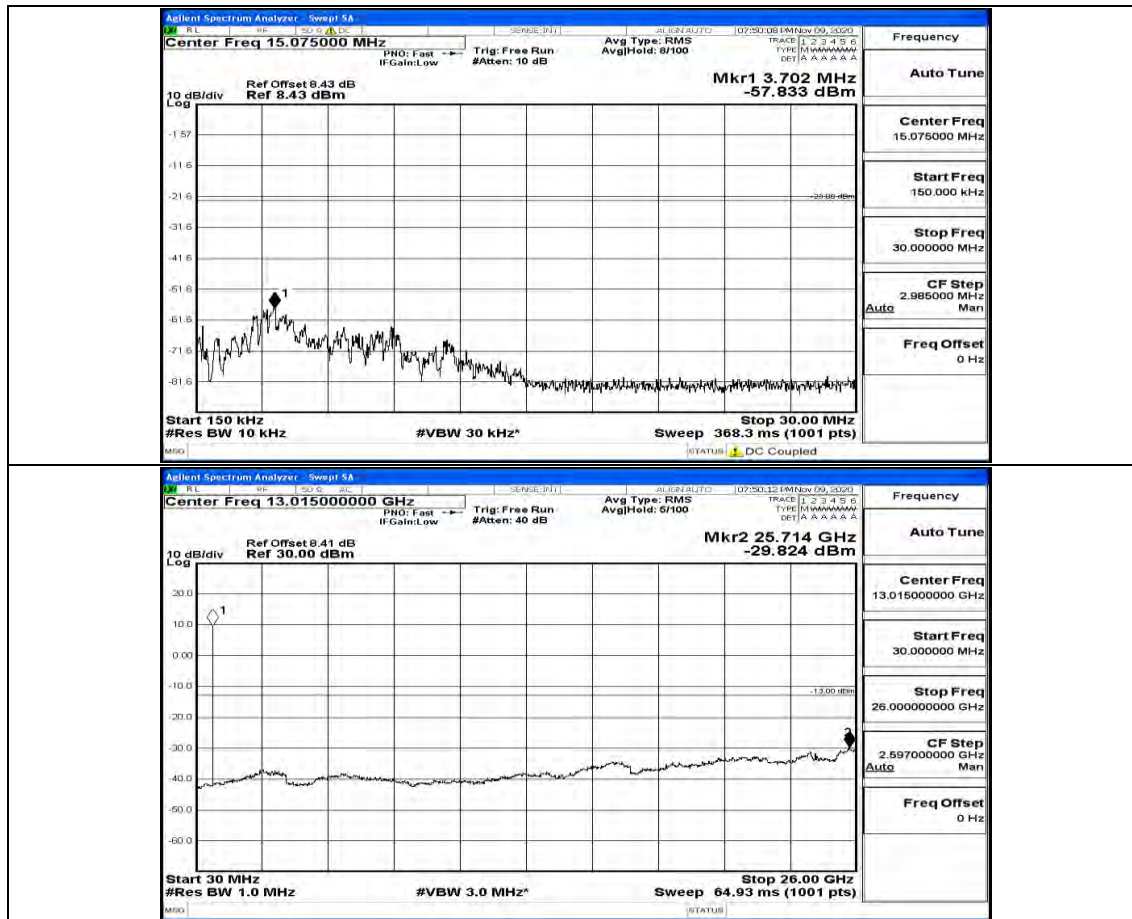
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#0
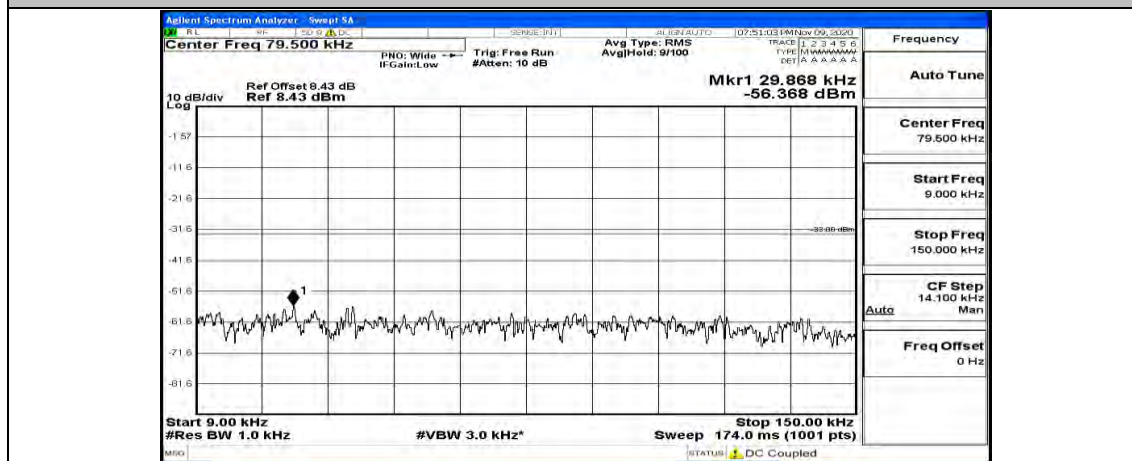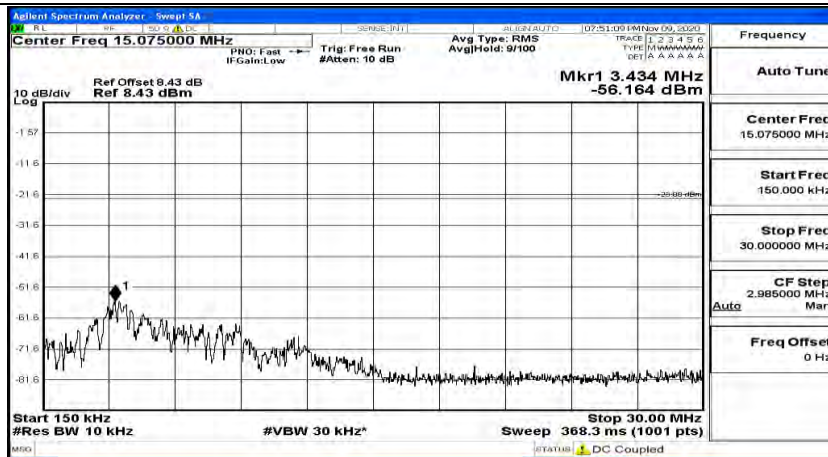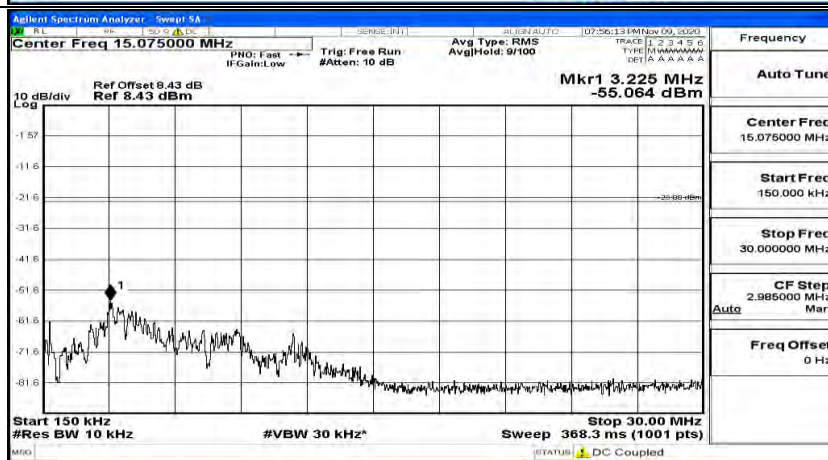
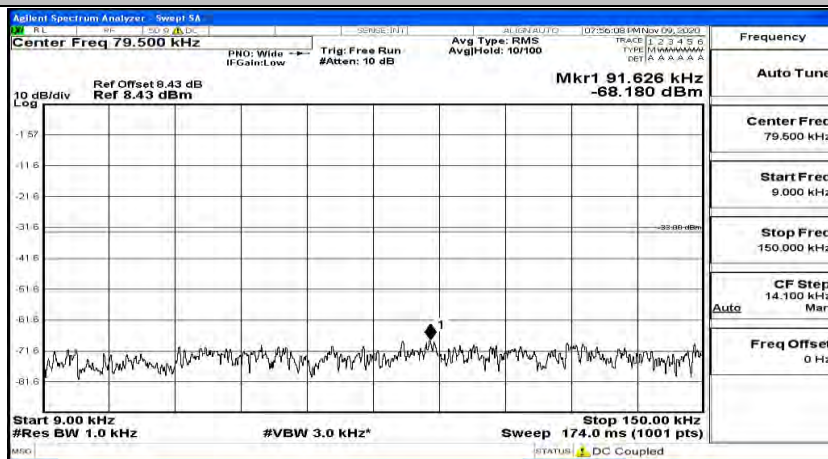(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#3
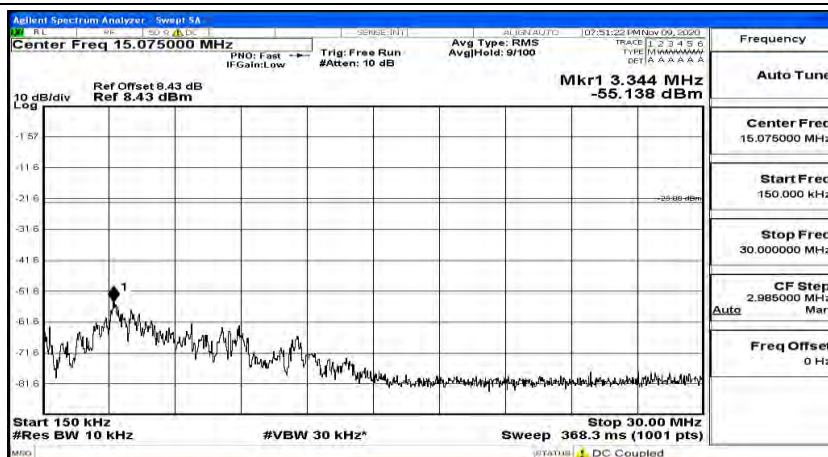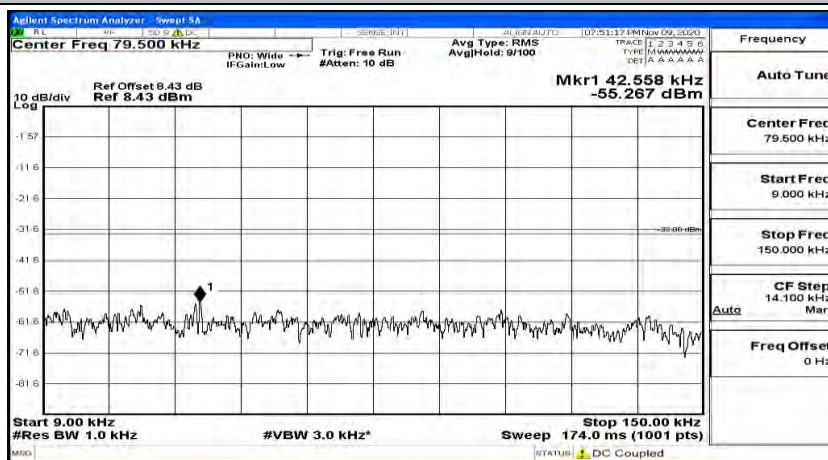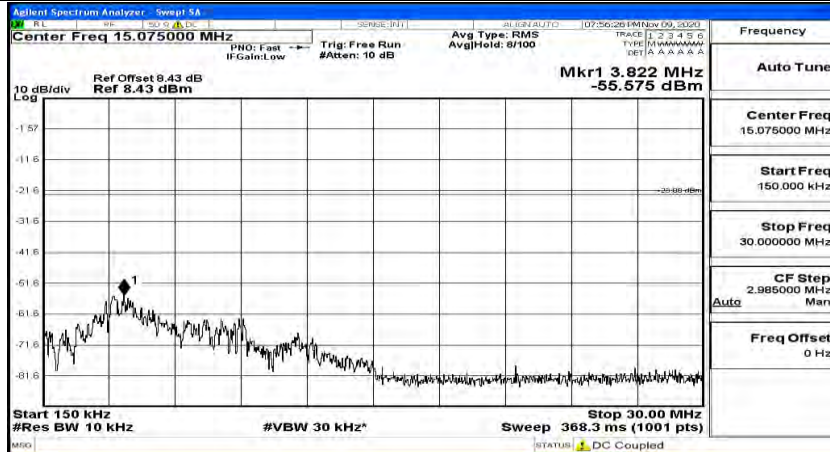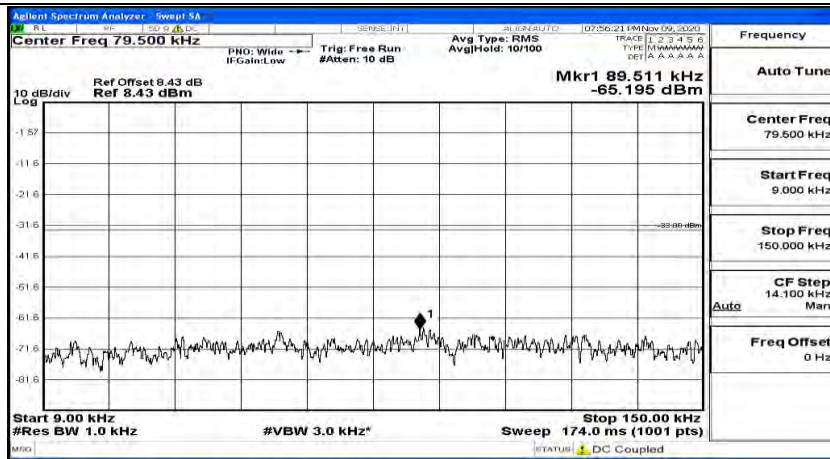
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#5
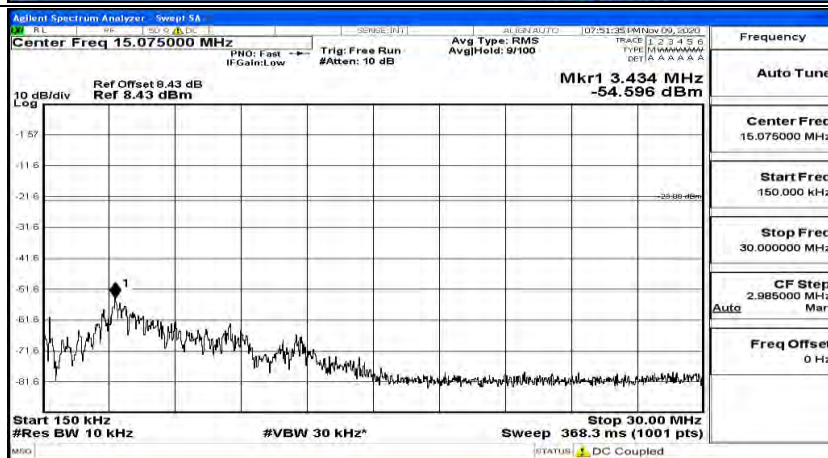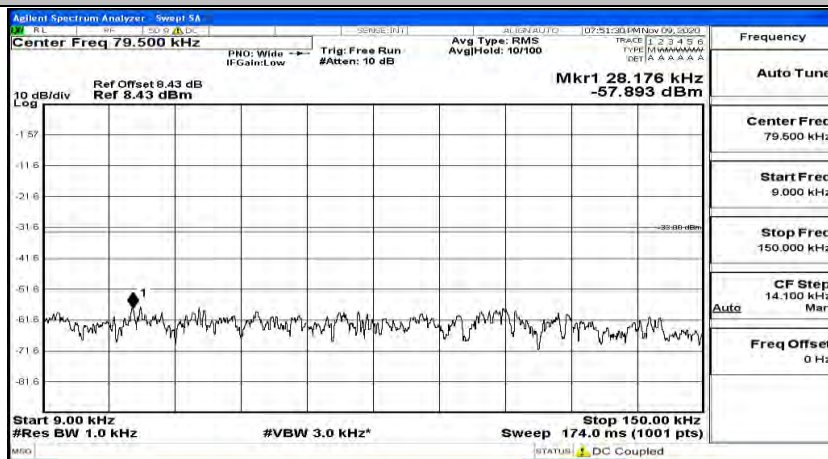
Channel Bandwidth: 3 MHz

(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#0
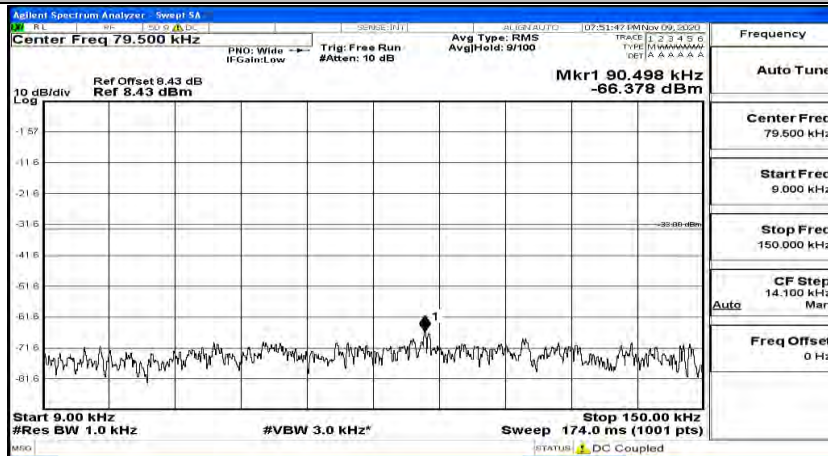
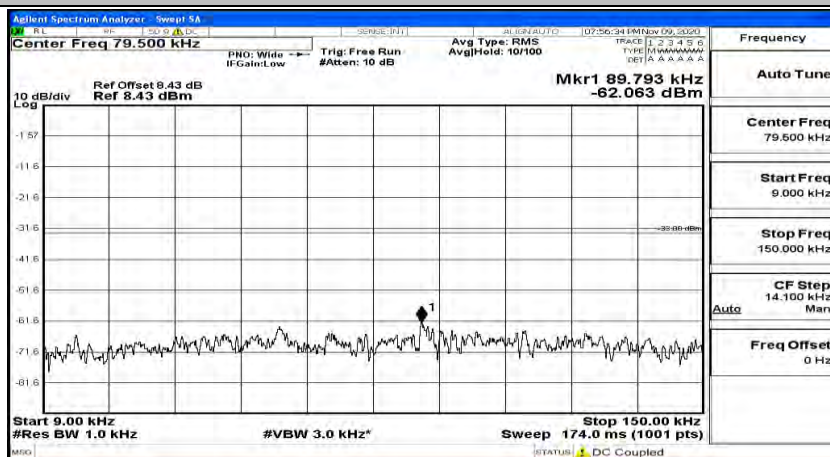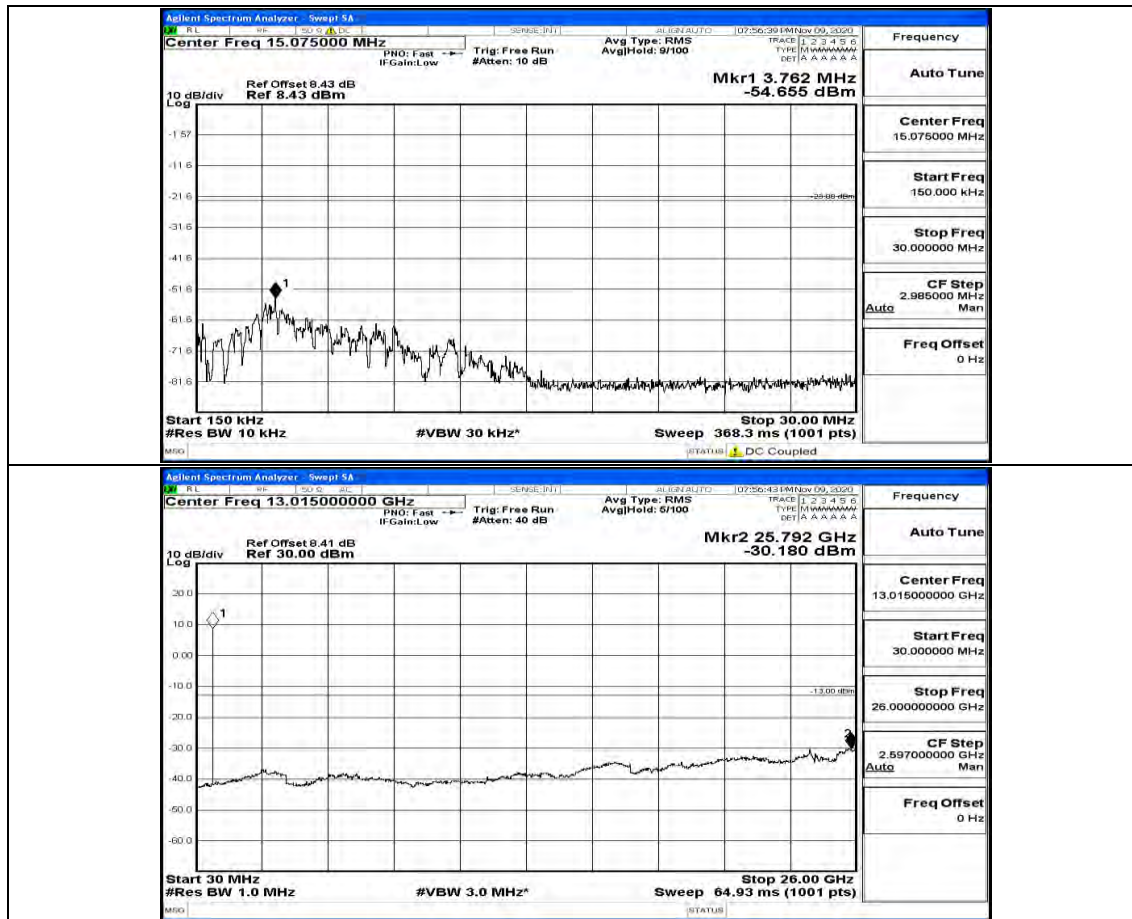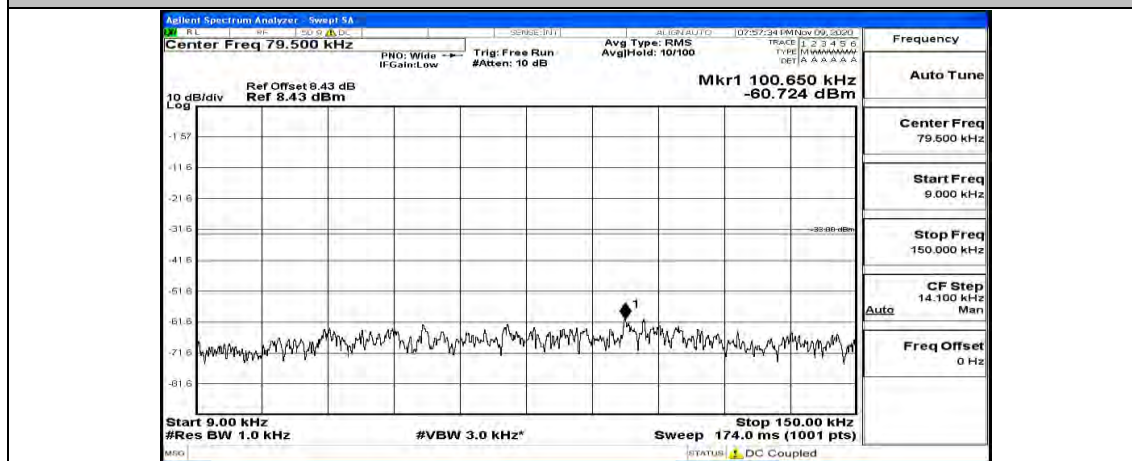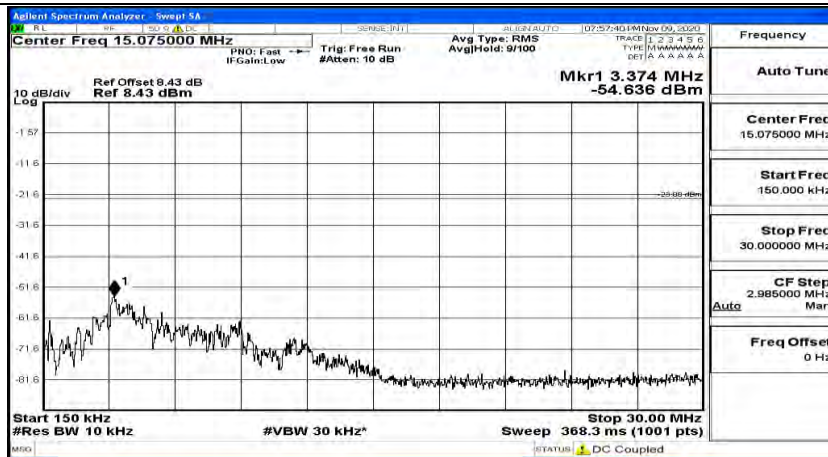| (Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#7 |
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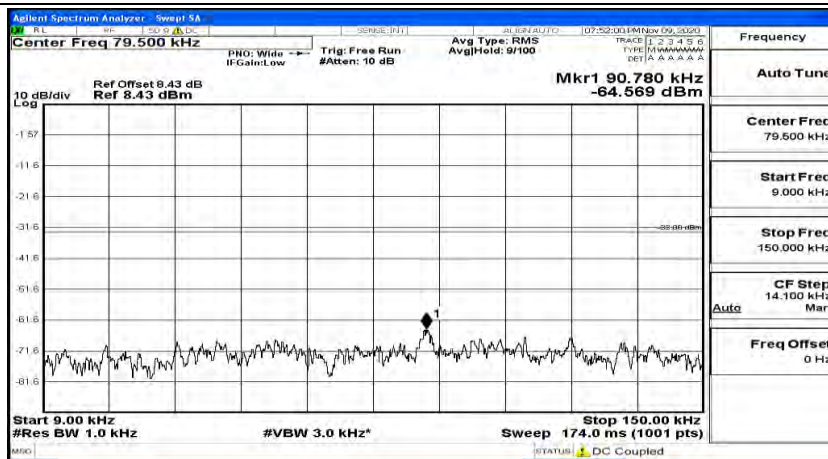
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#14
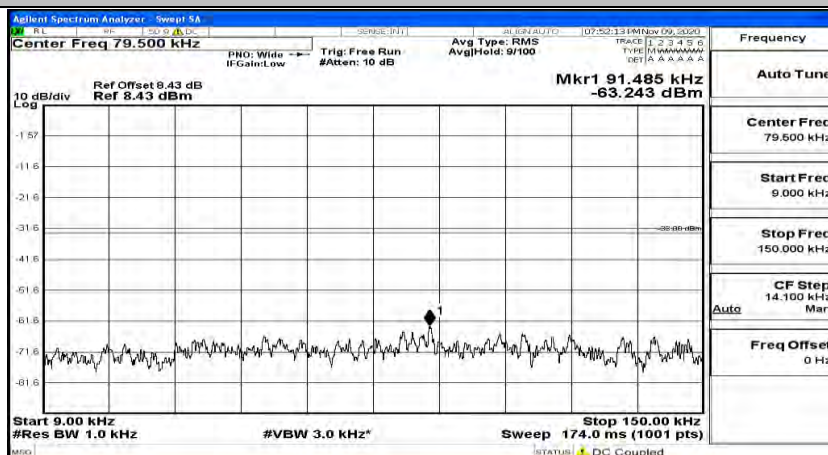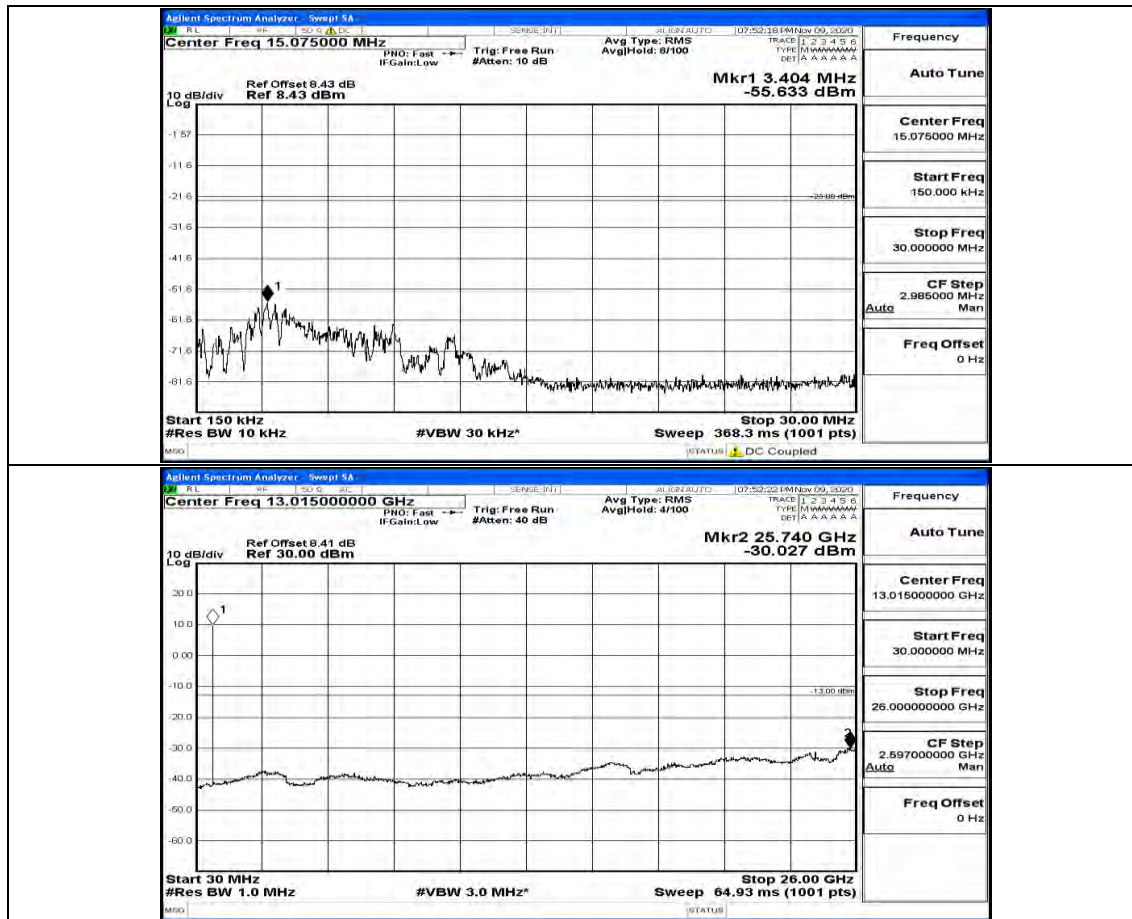
(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#0
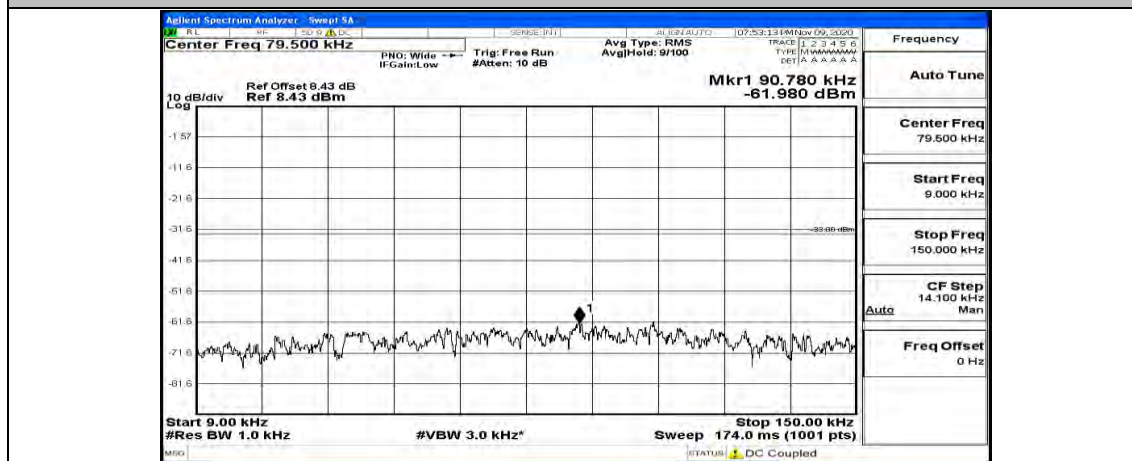
(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#7
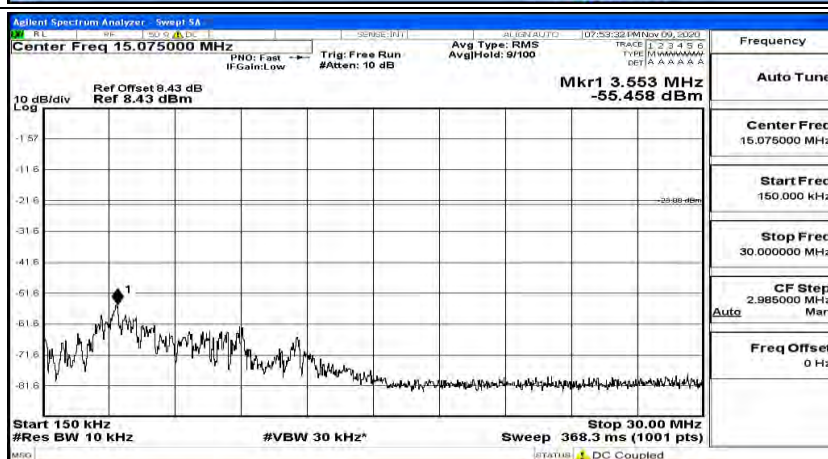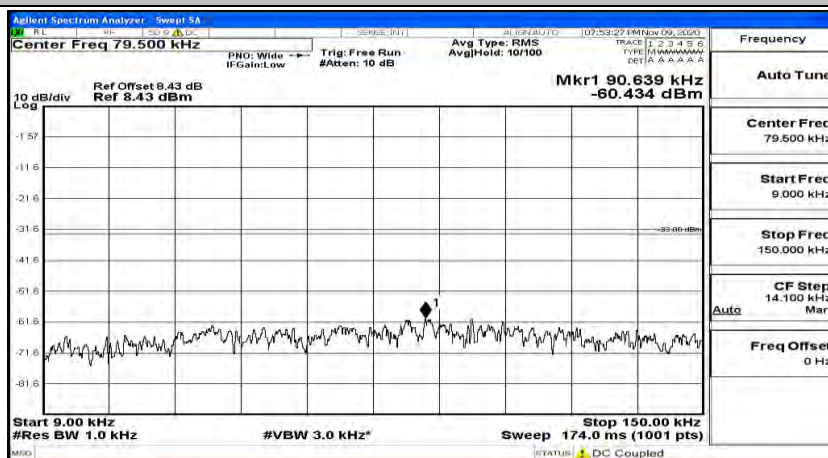
(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#14
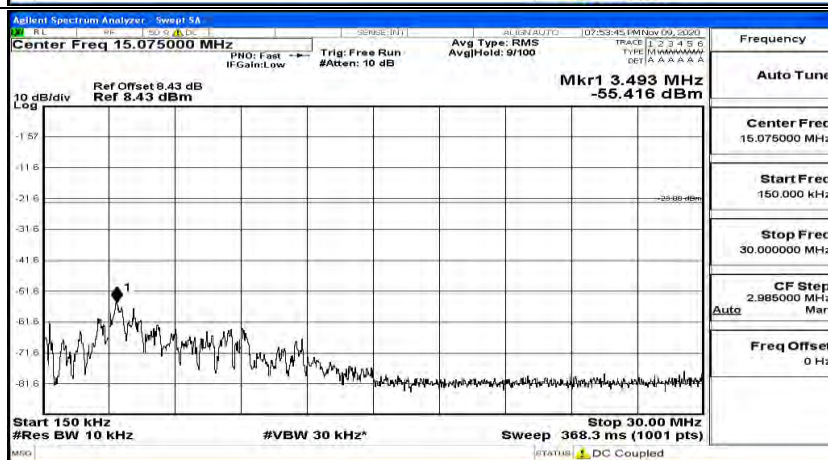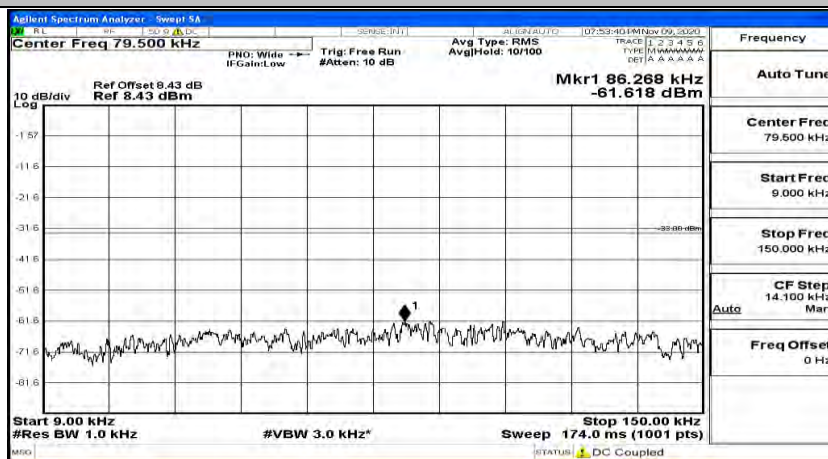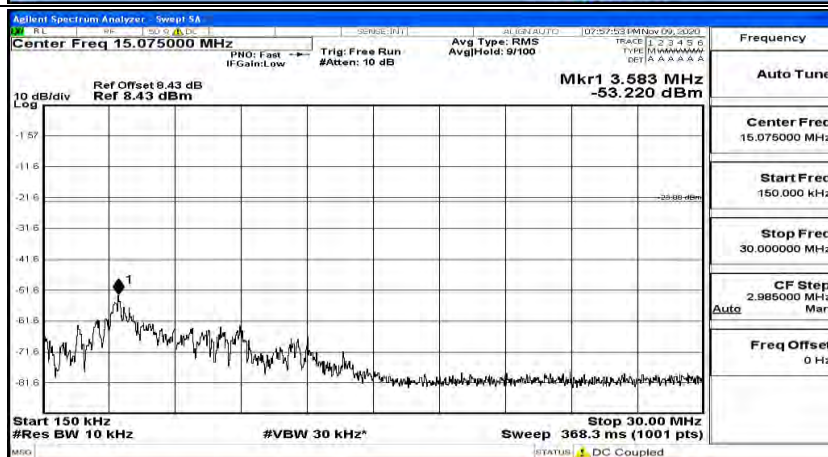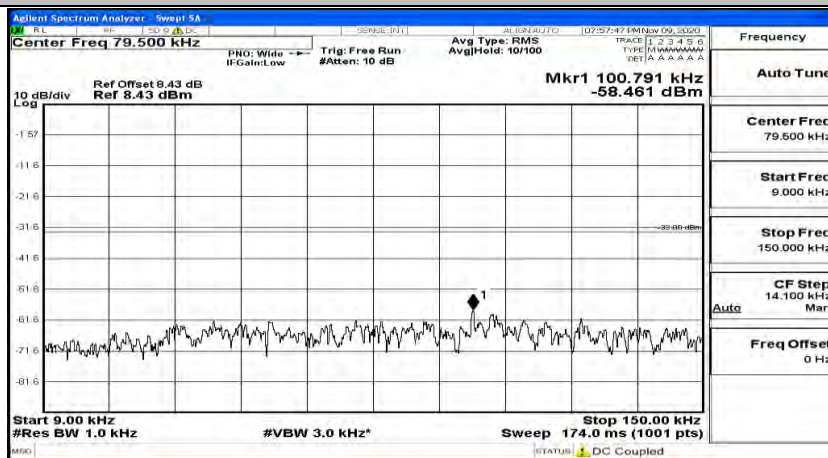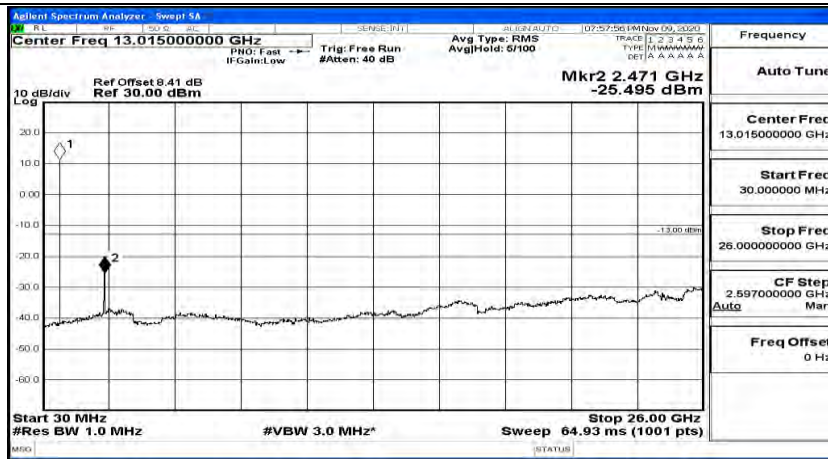
(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#0
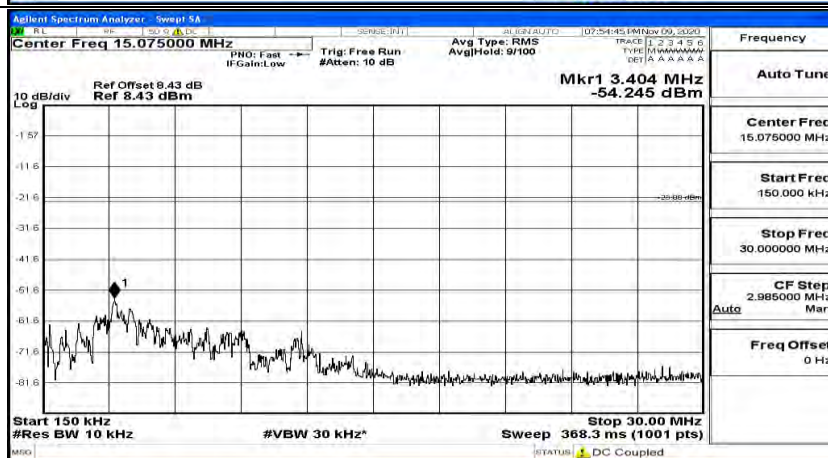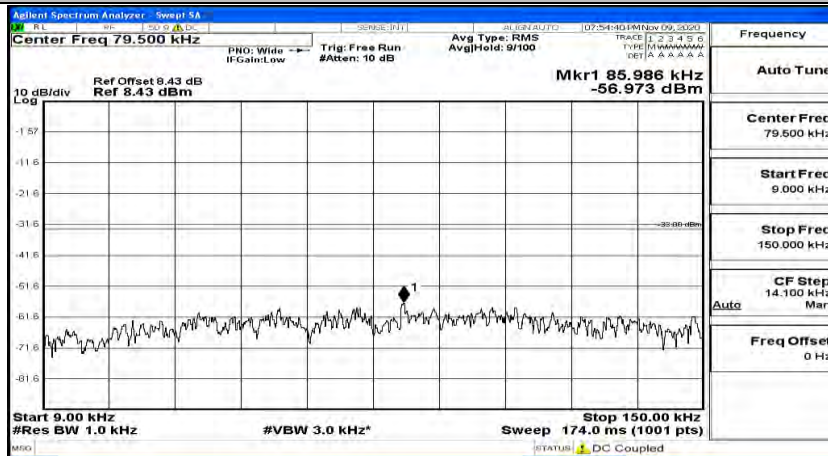
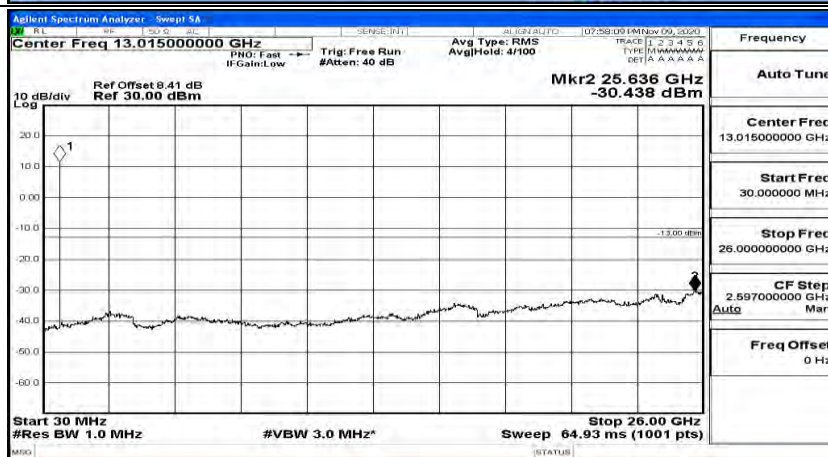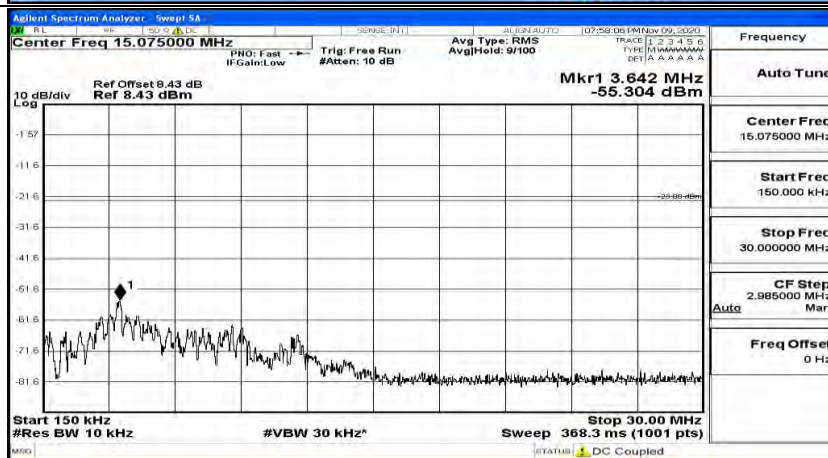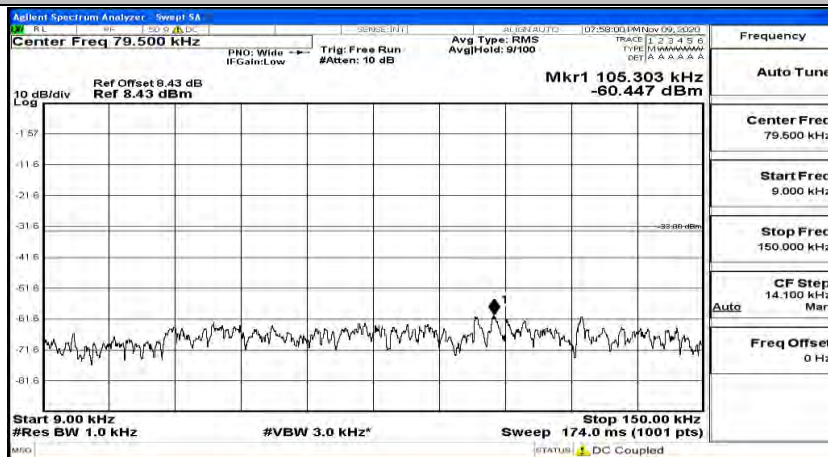| (Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#7 |
|---|
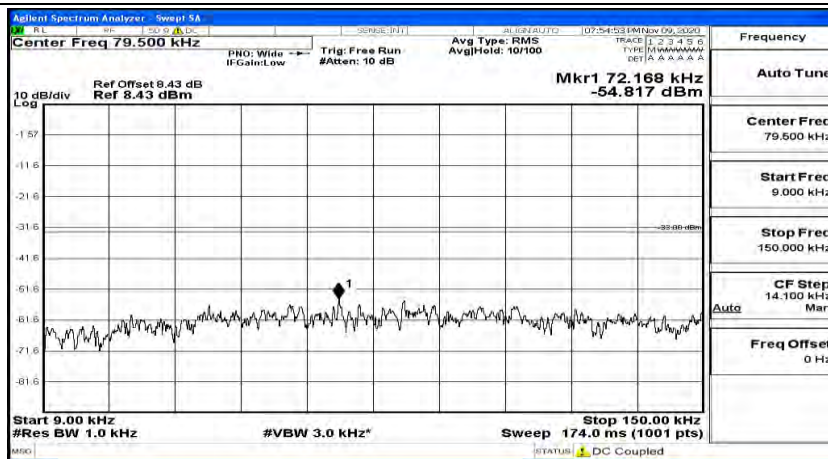
(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#14

(Channel Bandwidth: 3 MHz)_LCH_16QAM_1RB#0

(Channel Bandwidth: 3 MHz)_LCH_16QAM_1RB#7

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Page 52 of 88
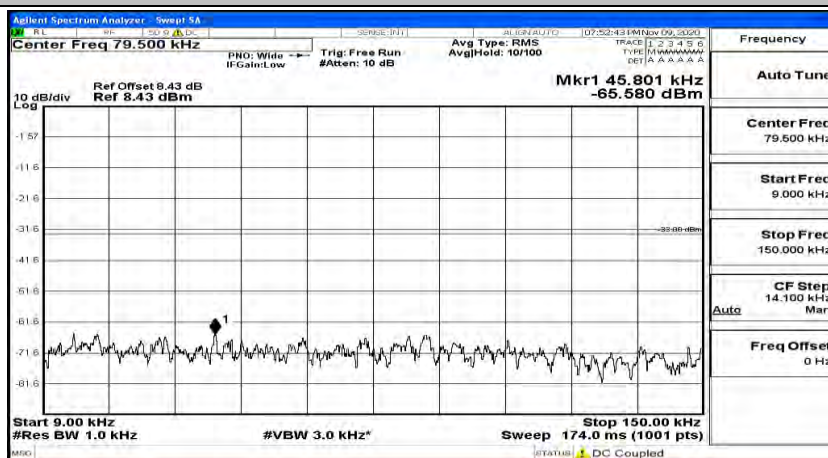
(Channel Bandwidth: 3 MHz)_LCH_16QAM_1RB#14

(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#0

(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#7

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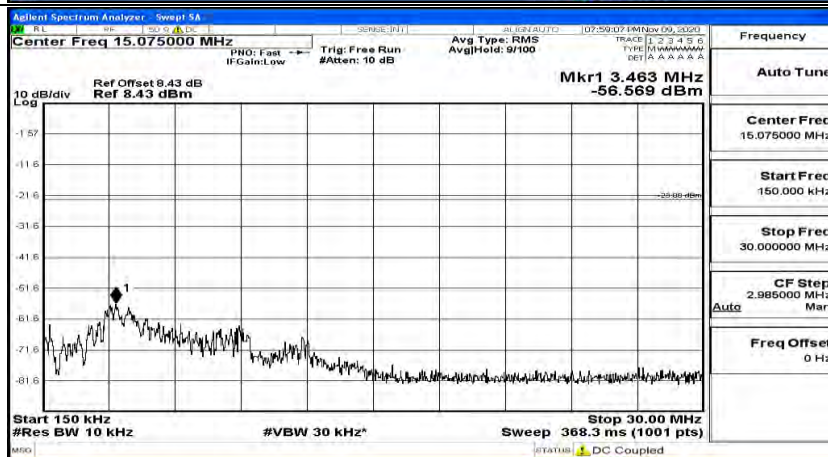
Page 54 of 88

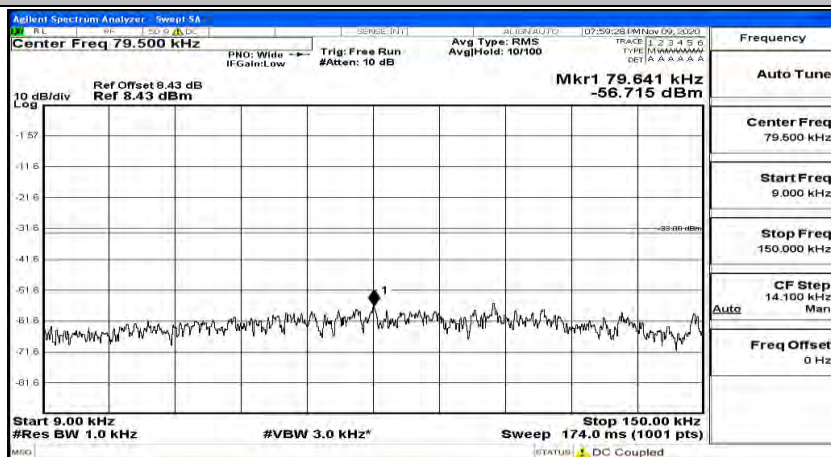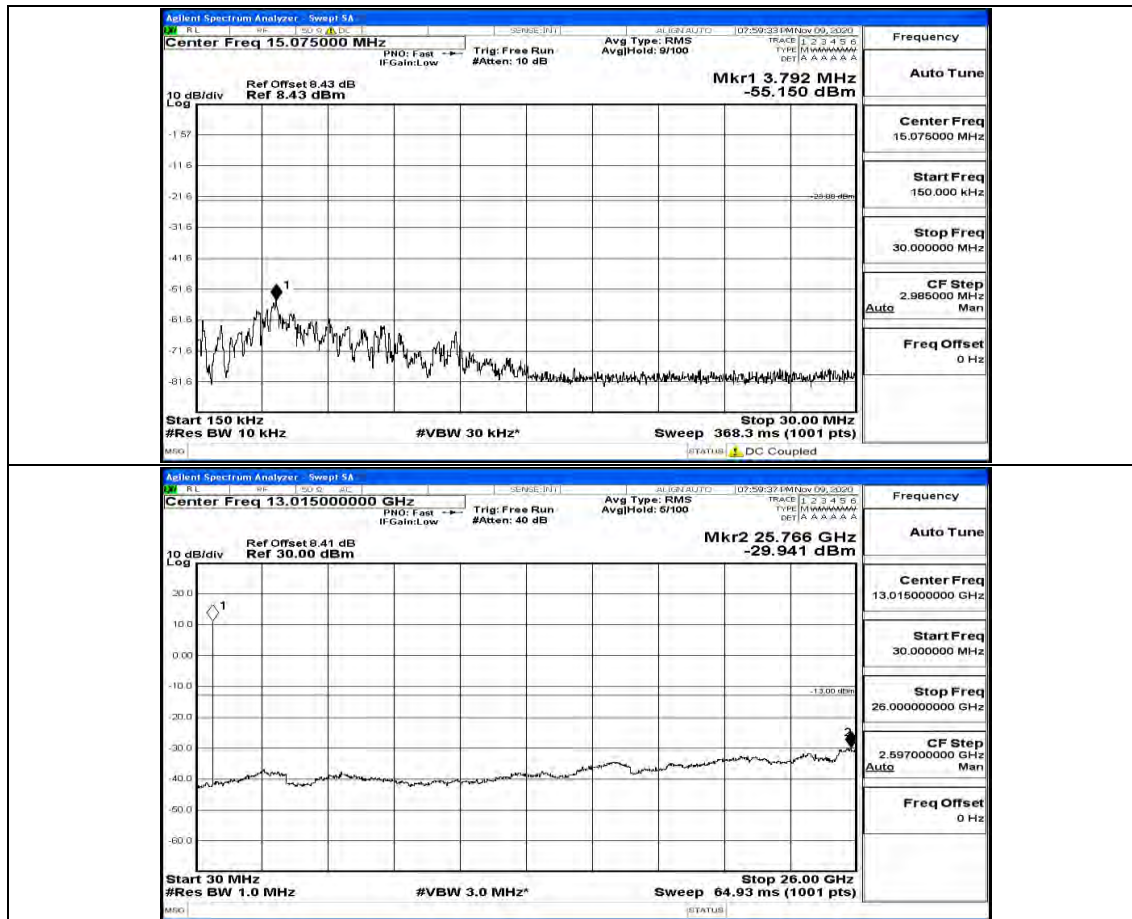(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#14

(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#0
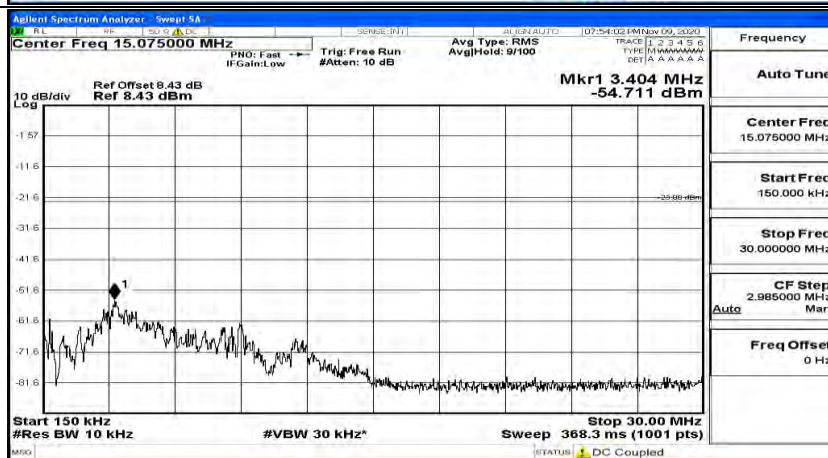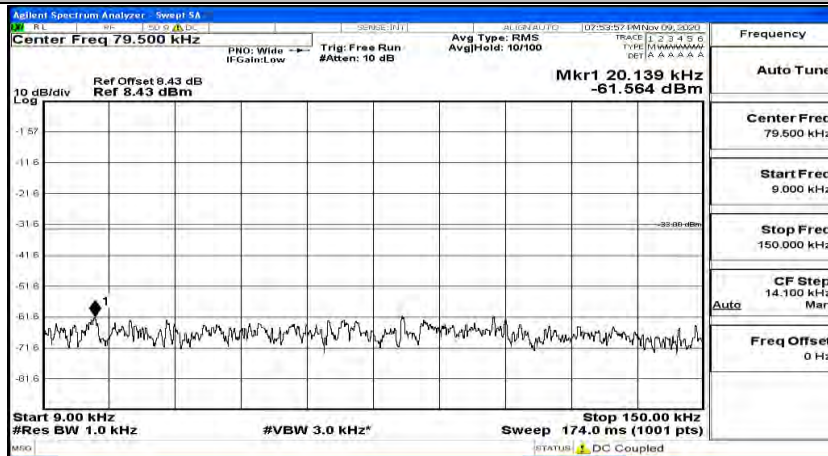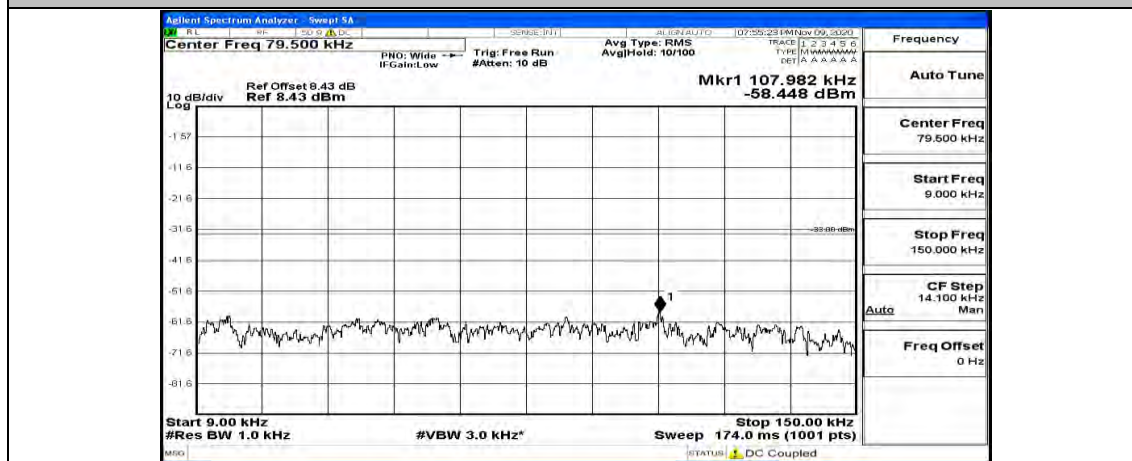
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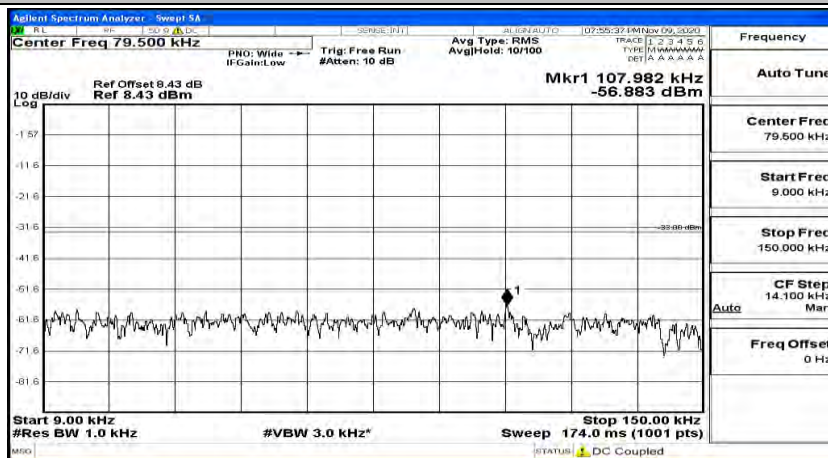
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#14

Channel Bandwidth: 5 MHz

(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0

(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12

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Page 59 of 88

(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#24

(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0
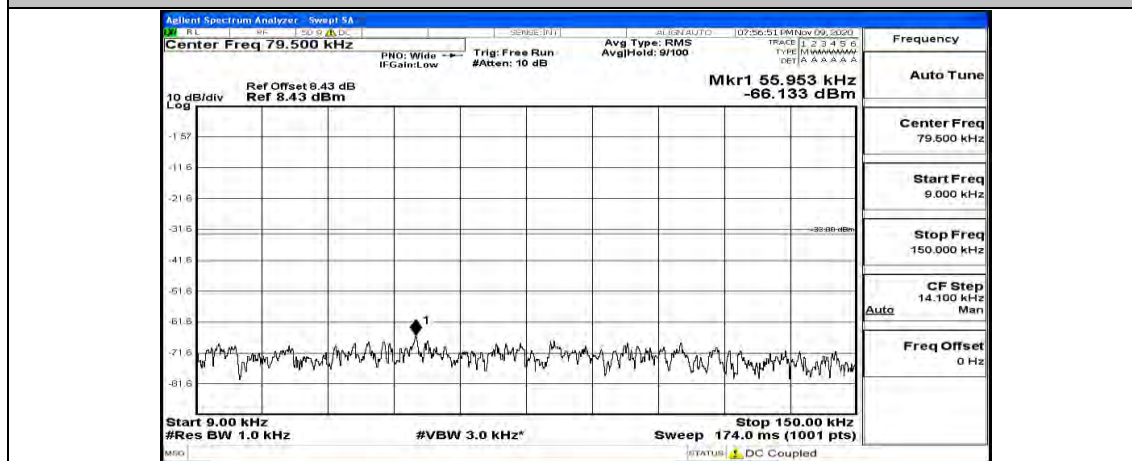
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12

(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24

(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0
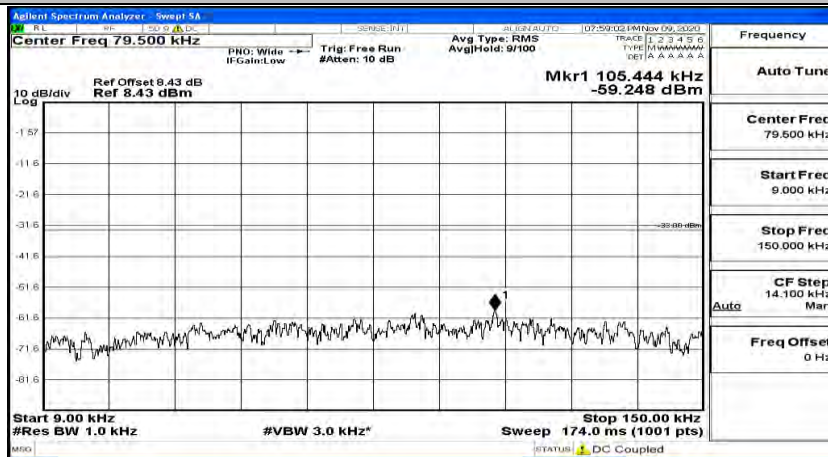
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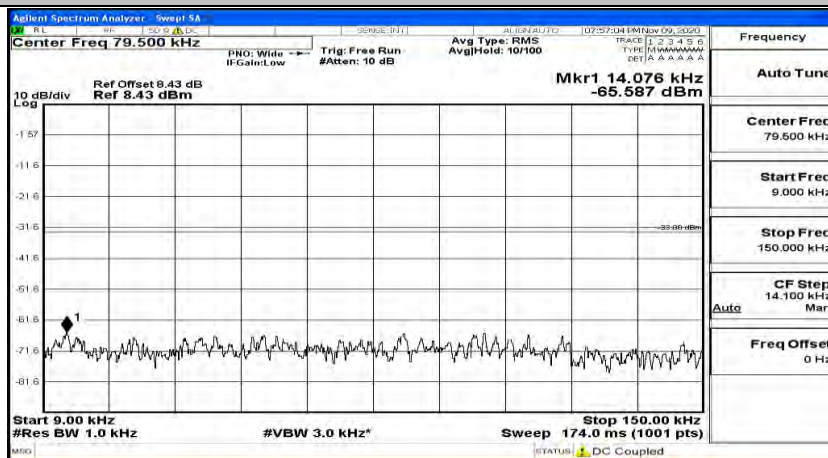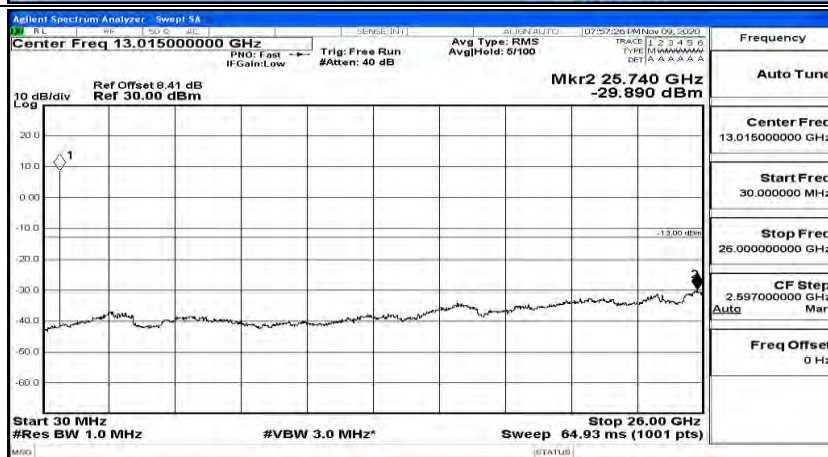
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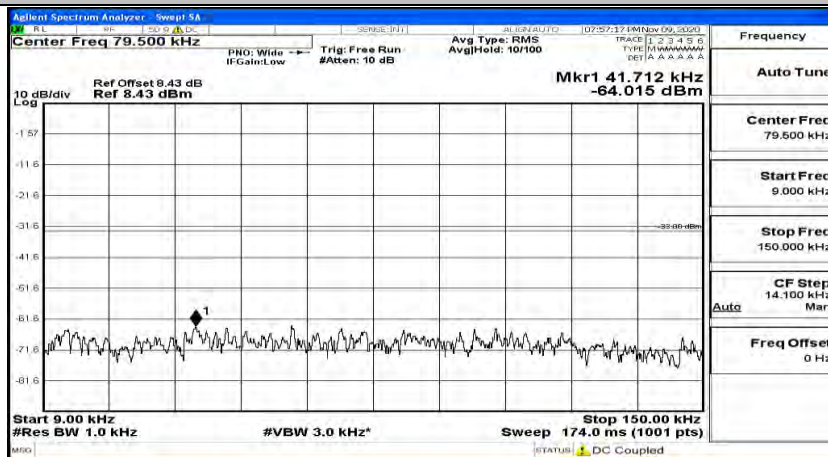
(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0
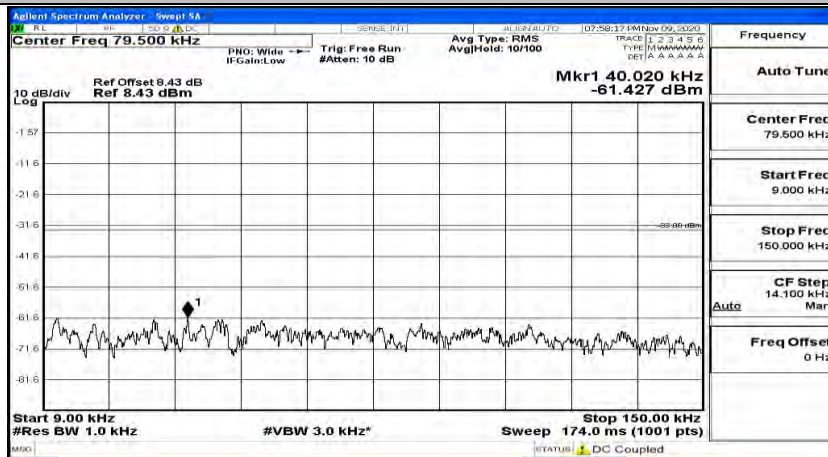
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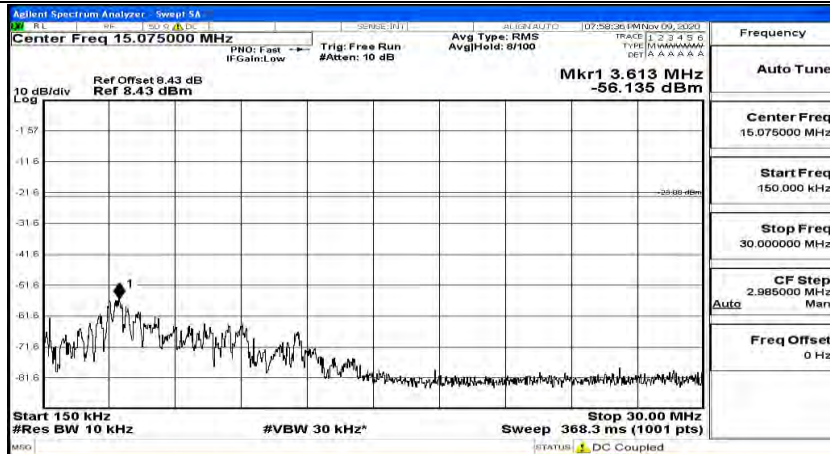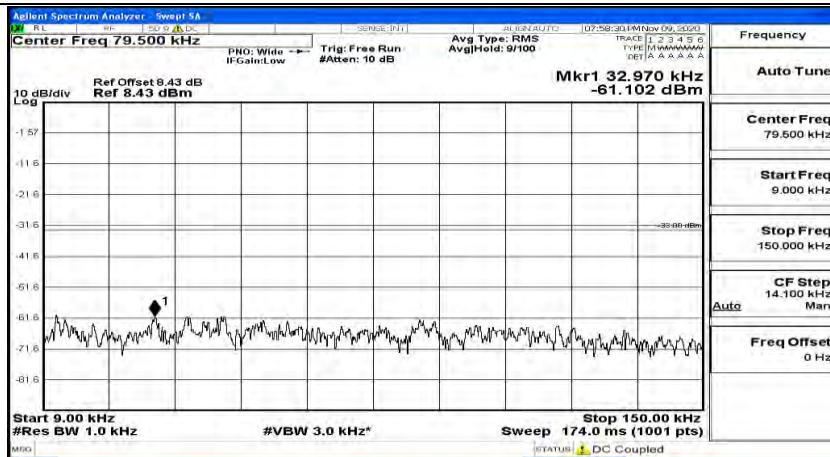
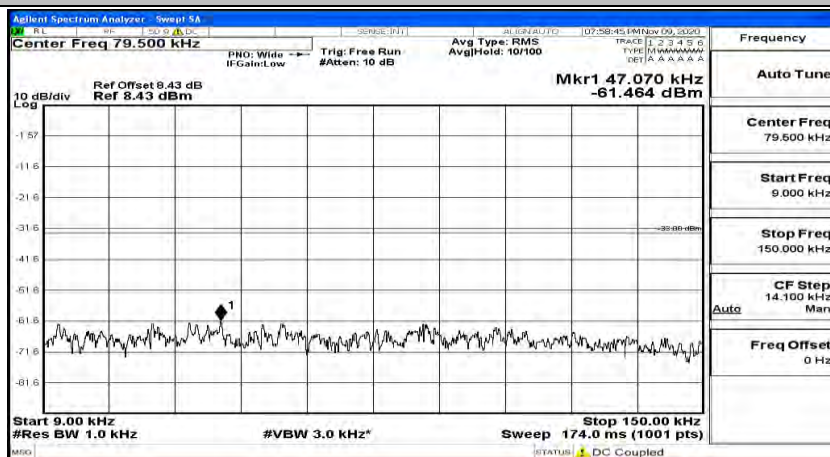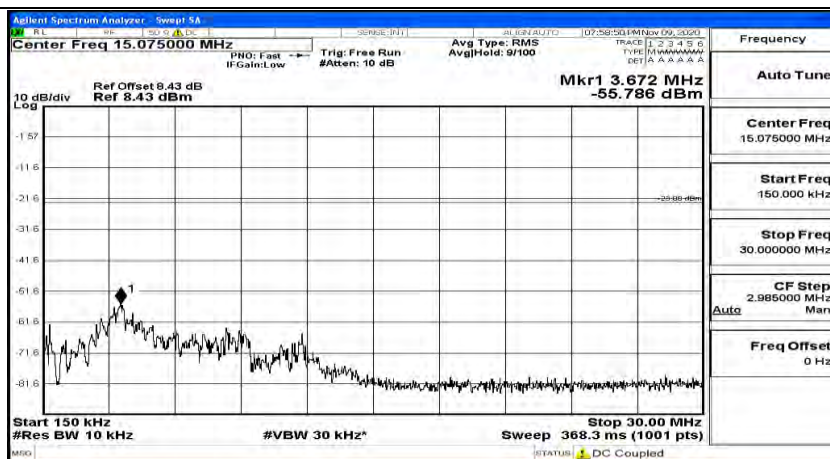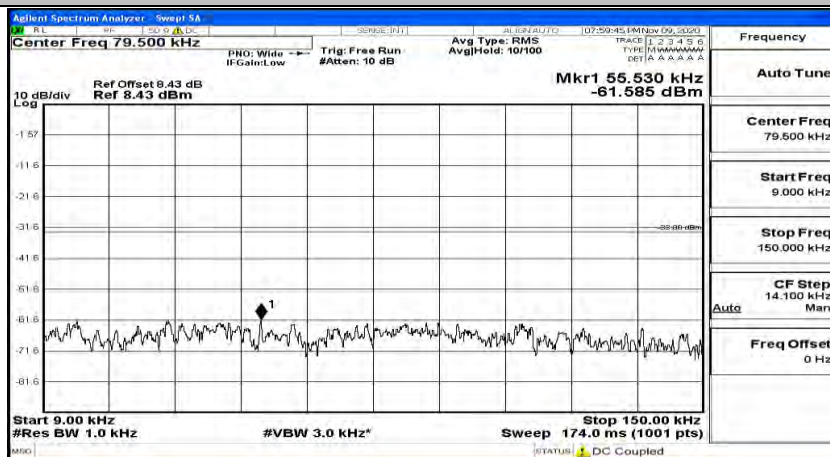(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24

(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0

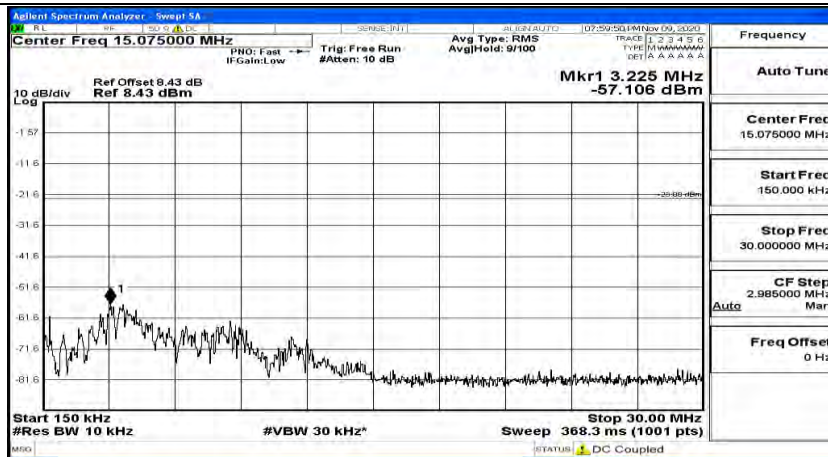(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12

(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24

(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0

(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12