Appendix G: Test Data for E-UTRA Band 12

Product Name: Biometric access system
Trade Mark: N/A
Test Model: Access One

Environmental Conditions

Temperature:	24.5°C
Relative Humidity:	54.4%
ATM Pressure:	100.0 kPa
Test Engineer:	JK ZHOU
Supervised by:	Wang.Chuang

G.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	22.29	21.50	PASS
		1	3	22.37	21.65	PASS
		1	5	22.25	21.48	PASS
		3	0	22.36	21.49	PASS
		3	2	22.38	21.48	PASS
		3	3	22.37	21.42	PASS
		6	0	21.36	20.35	PASS
	MCH	1	0	22.34	21.67	PASS
		1	3	22.46	21.86	PASS
		1	5	22.36	21.69	PASS
		3	0	22.45	21.37	PASS
		3	2	22.38	21.40	PASS
		3	3	22.44	21.43	PASS
		6	0	21.37	20.35	PASS
	HCH	1	0	22.44	21.66	PASS
		1	3	22.53	21.80	PASS
		1	5	22.41	21.66	PASS
		3	0	22.48	21.53	PASS
		3	2	22.50	21.54	PASS
		3	3	22.50	21.53	PASS
		6	0	21.48	20.60	PASS

Modulation	Channel	RB Configuration		Average Power [dBm]	Average Power [dBm]	Verdict
		Size	Offset	QPSK	16QAM	
QPSK / 16QAM	LCH	1	0	22.32	21.56	PASS
		1	7	22.55	21.79	PASS
		1	14	22.30	21.56	PASS
		8	0	21.31	20.38	PASS
		8	4	21.32	20.45	PASS
		8	7	21.32	20.38	PASS
		15	0	21.30	20.26	PASS
	MCH	1	0	22.33	21.61	PASS
		1	7	22.49	21.82	PASS
		1	14	22.34	21.62	PASS
		8	0	21.37	20.42	PASS
		8	4	21.41	20.51	PASS
		8	7	21.37	20.45	PASS
		15	0	21.37	20.35	PASS
	HCH	1	0	22.40	21.76	PASS
		1	7	22.69	21.94	PASS
		1	14	22.38	21.70	PASS
		8	0	21.41	20.44	PASS
		8	4	21.45	20.43	PASS
		8	7	21.42	20.40	PASS
		15	0	21.38	20.39	PASS

Conducted Output Power Test Result (Channel Bandwidth: 3 MHz)

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	22.21	21.57	PASS
		1	12	22.56	21.82	PASS
		1	24	22.21	21.59	PASS
		12	0	21.21	20.43	PASS
		12	6	21.31	20.50	PASS
		12	13	21.32	20.49	PASS
		25	0	21.34	20.36	PASS
	MCH	1	0	22.26	21.62	PASS
		1	12	22.57	21.97	PASS
		1	24	22.28	21.65	PASS
		12	0	21.32	20.48	PASS
		12	6	21.41	20.56	PASS
		12	13	21.35	20.55	PASS
		25	0	21.37	20.39	PASS
	HCH	1	0	22.31	21.36	PASS
		1	12	22.87	21.65	PASS
		1	24	22.33	21.28	PASS
		12	0	21.42	20.47	PASS
		12	6	21.44	20.50	PASS
		12	13	21.35	20.44	PASS
		25	0	21.41	20.44	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	22.24	21.52	PASS
		1	24	22.45	21.75	PASS
		1	49	22.31	21.55	PASS
		25	0	21.32	20.31	PASS
		25	12	21.36	20.36	PASS
		25	25	21.41	20.45	PASS
		50	0	21.36	20.32	PASS
	MCH	1	0	22.24	21.51	PASS
		1	24	22.51	21.76	PASS
		1	49	22.36	21.62	PASS
		25	0	21.39	20.40	PASS
		25	12	21.38	20.37	PASS
		25	25	21.37	20.38	PASS
		50	0	21.33	20.35	PASS
	HCH	1	0	22.29	21.67	PASS
		1	24	22.56	21.95	PASS
		1	49	22.31	21.65	PASS
		25	0	21.42	20.47	PASS
		25	12	21.40	20.44	PASS
		25	25	21.36	20.40	PASS
		50	0	21.37	20.42	PASS

G.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	5.36	<13	PASS
	MCH	5.25	<13	PASS
	HCH	5.16	<13	PASS
16QAM	LCH	6.22	<13	PASS
	MCH	6.16	<13	PASS
	HCH	6.07	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.36	<13	PASS
	MCH	5.43	<13	PASS
	HCH	5.42	<13	PASS
16QAM	LCH	6.31	<13	PASS
	MCH	6.24	<13	PASS
	HCH	6.14	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.41	<13	PASS
	MCH	5.42	<13	PASS
	HCH	5.42	<13	PASS
16QAM	LCH	6.16	<13	PASS
	MCH	6.24	<13	PASS
	HCH	6.19	<13	PASS

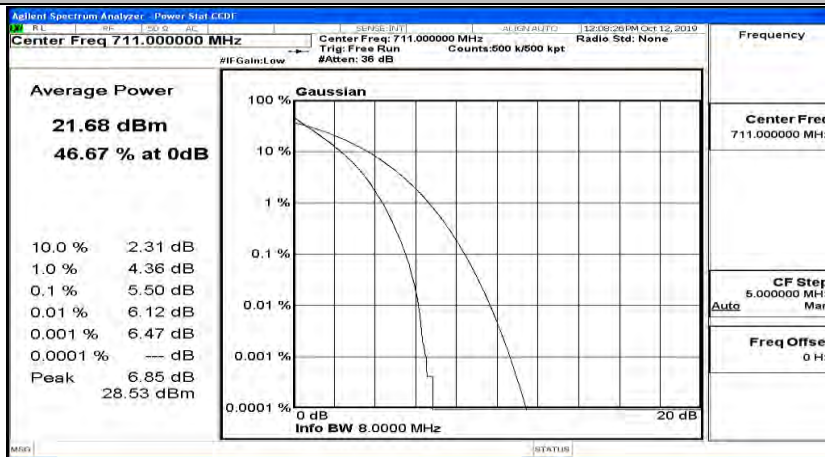| Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.46	<13	PASS
	MCH	5.47	<13	PASS
	HCH	5.5	<13	PASS
16QAM	LCH	6.2	<13	PASS
	MCH	6.16	<13	PASS
	HCH	6.2	<13	PASS
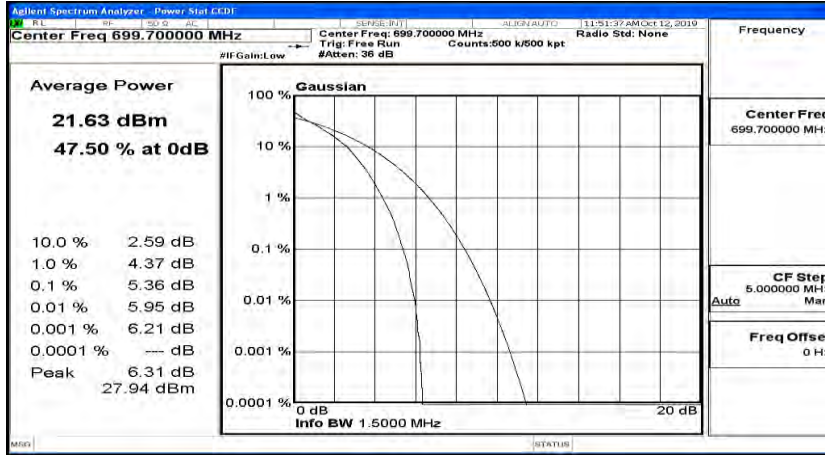
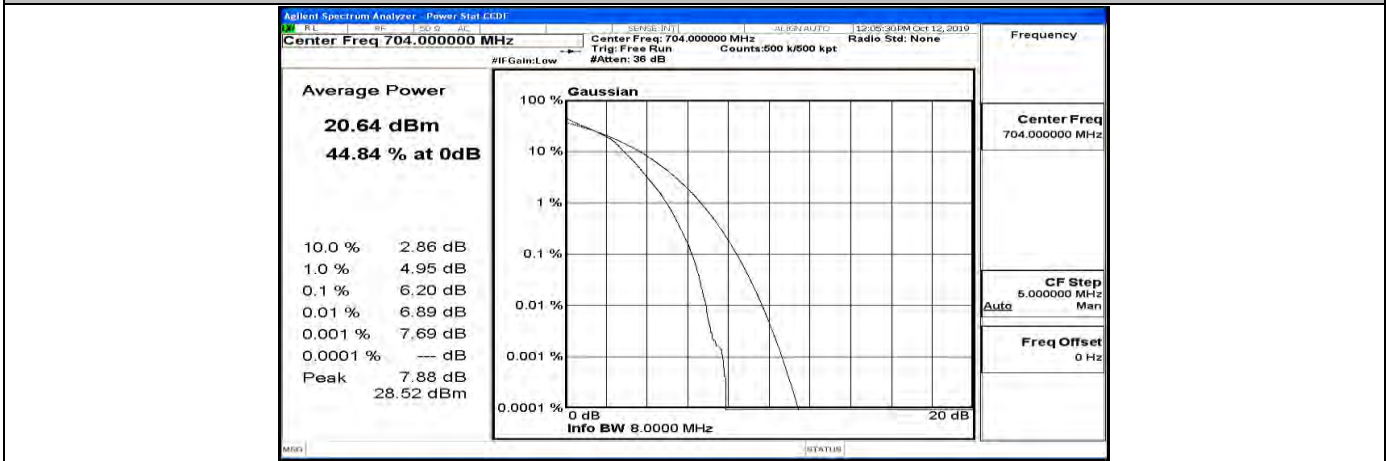| Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK |
|---|
| |

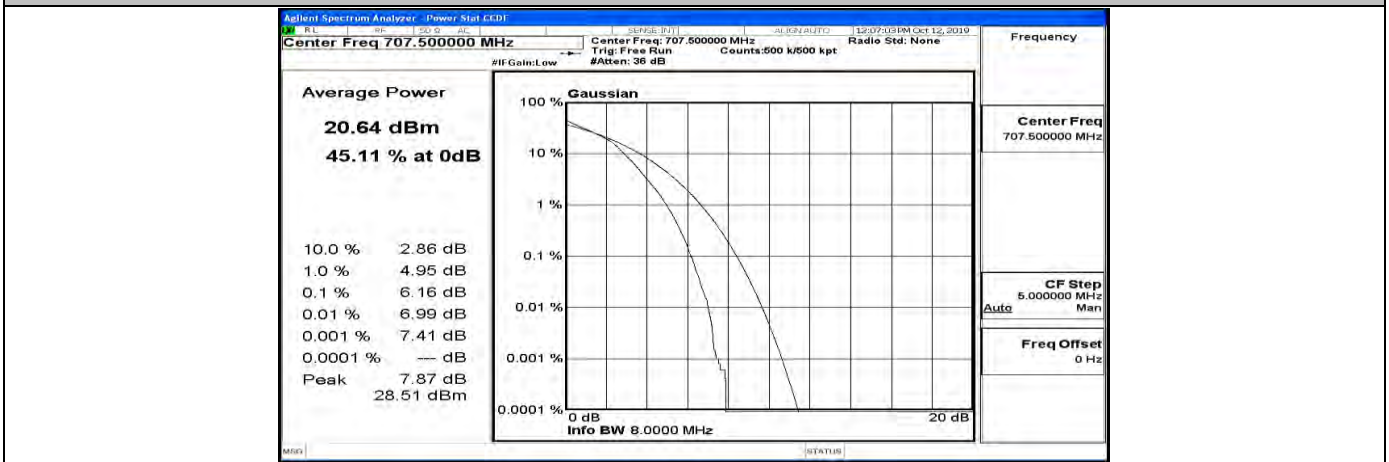| Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK |
|---|
| |

| Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK |
|---|
| |
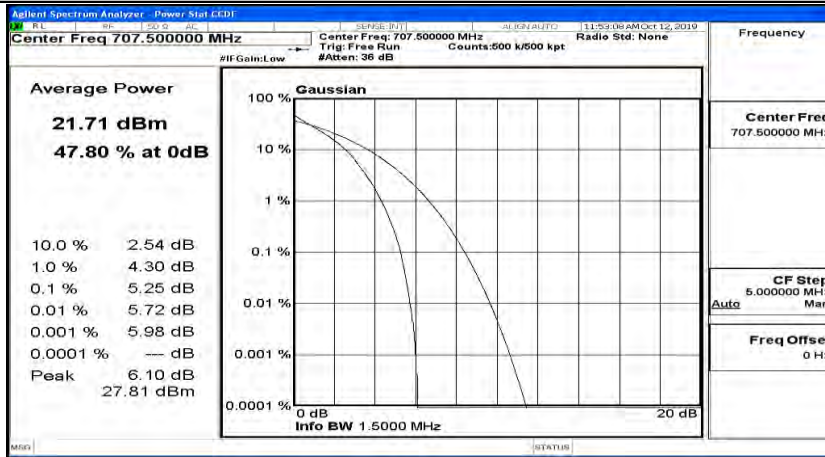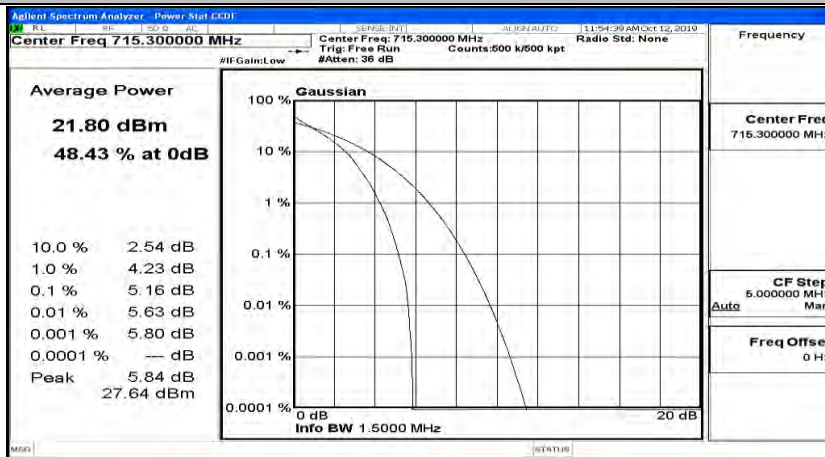
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM
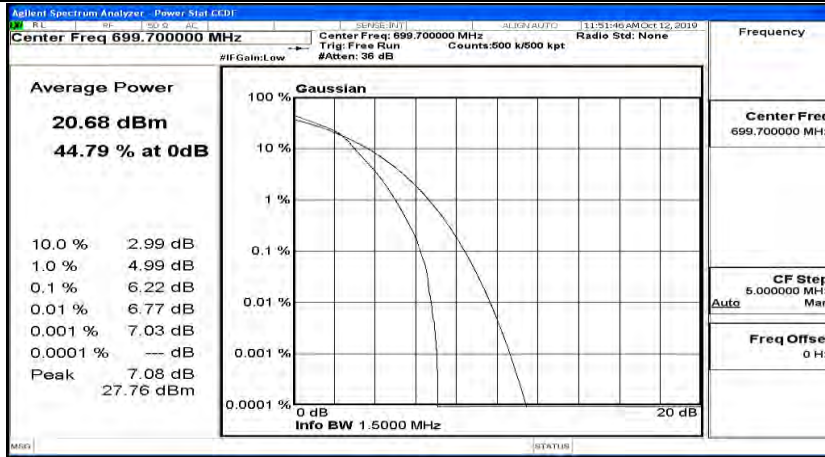
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM
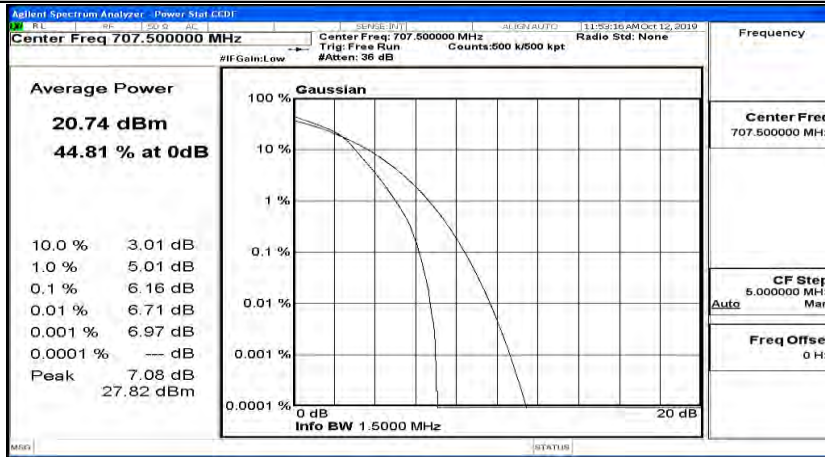
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM
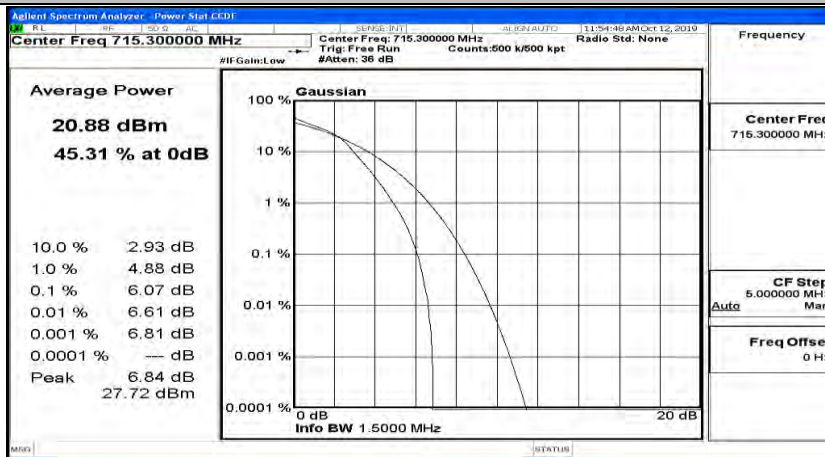
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK
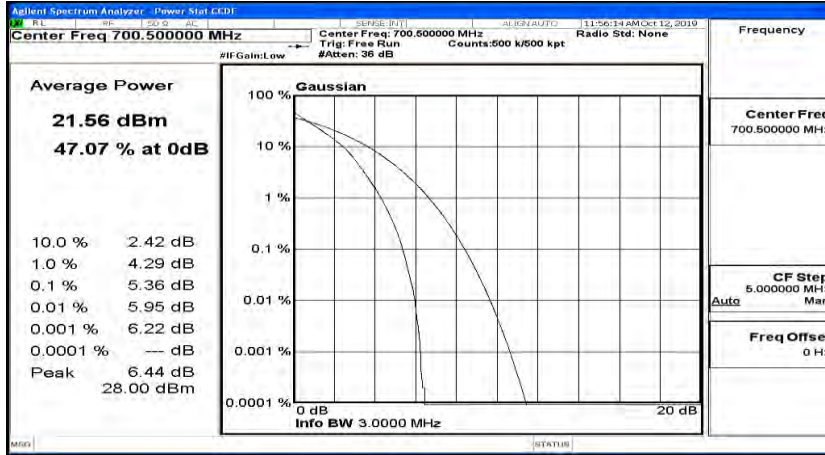
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK
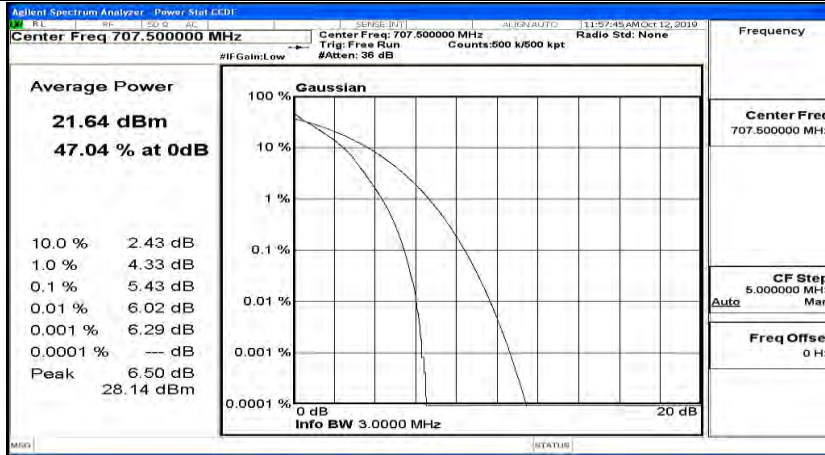
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK
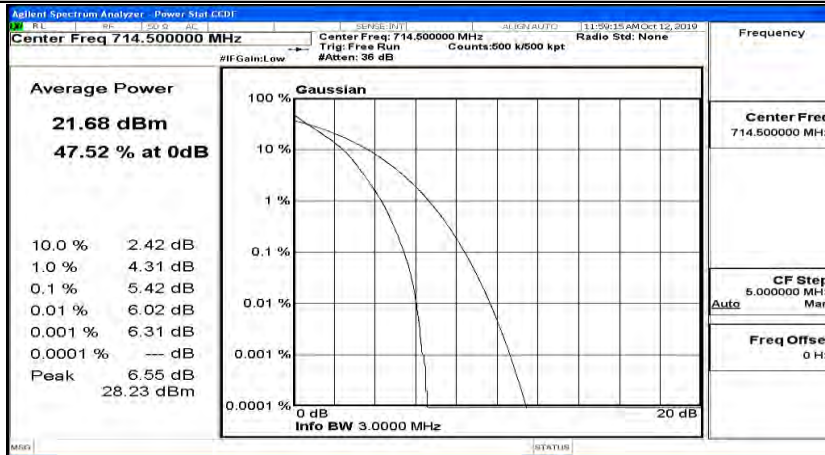
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM
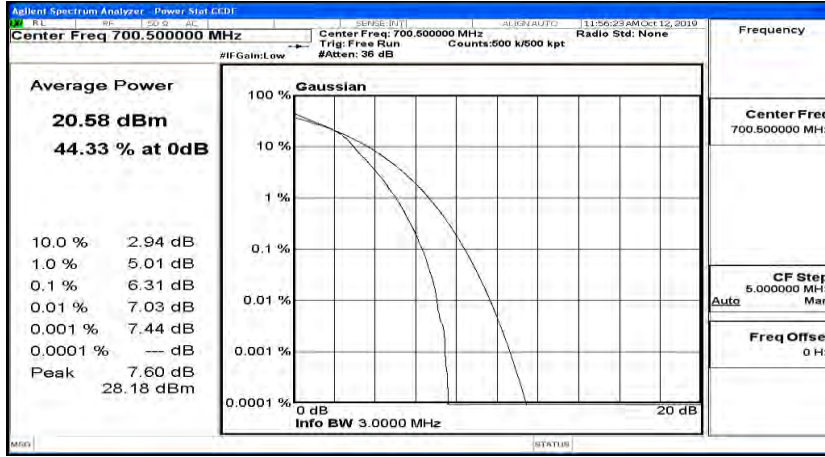
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM
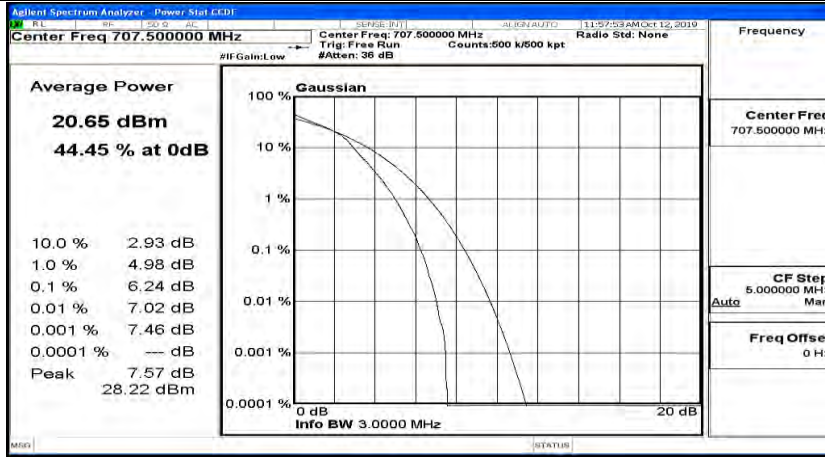
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM
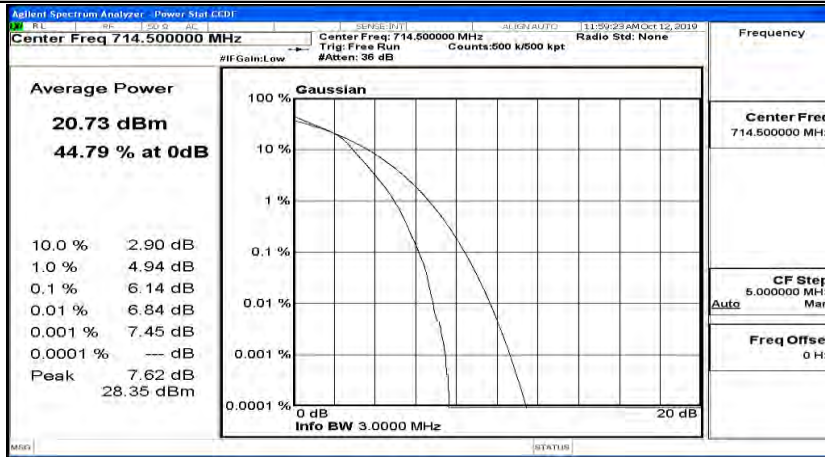
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK
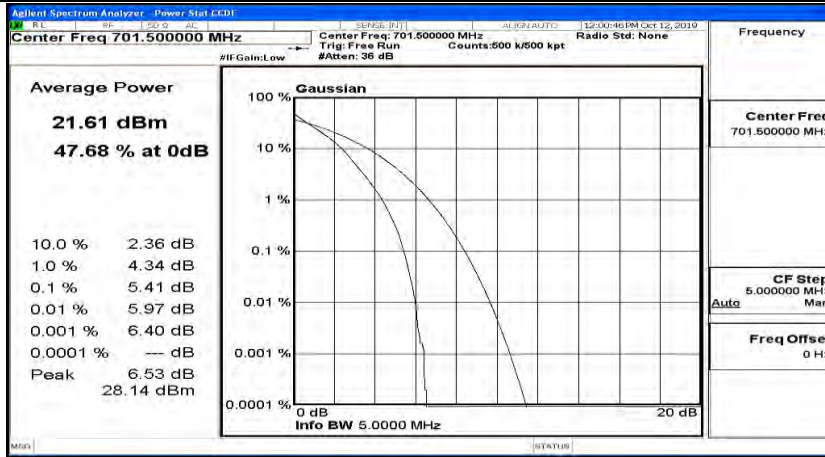
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK
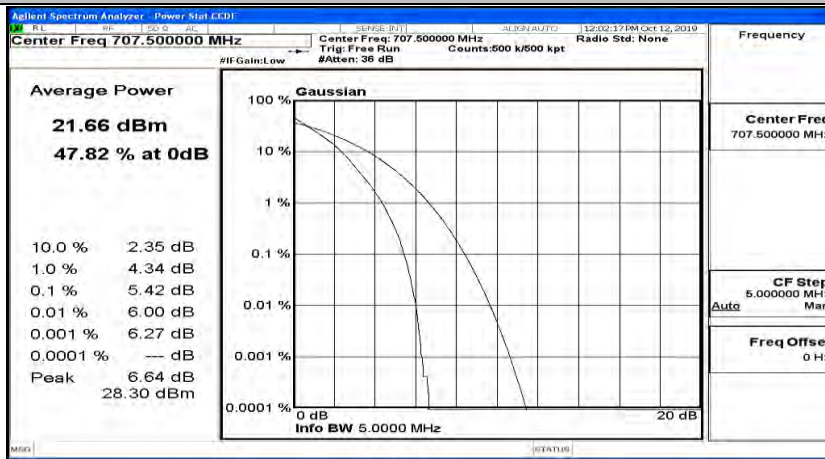
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK
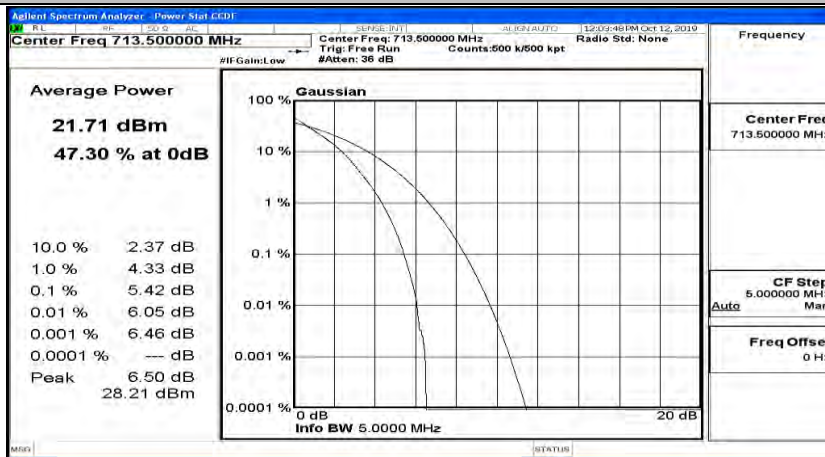
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM
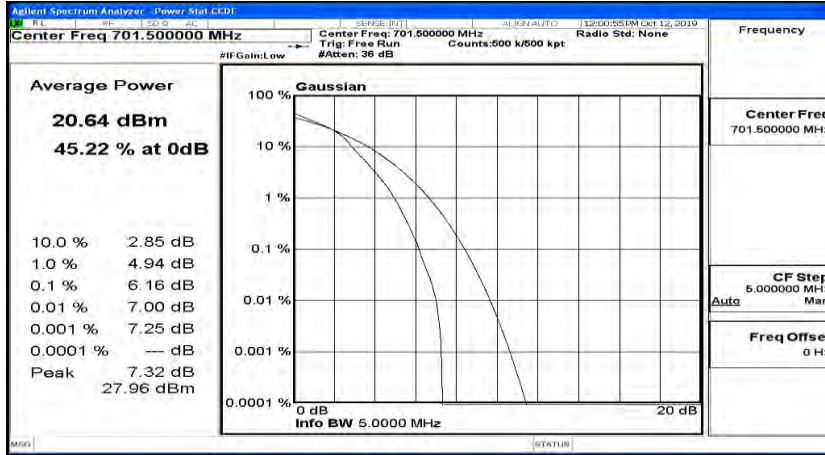
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM
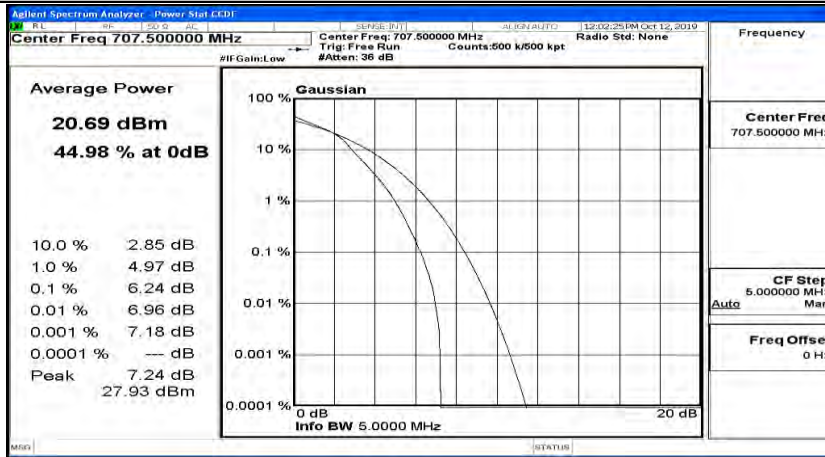
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM
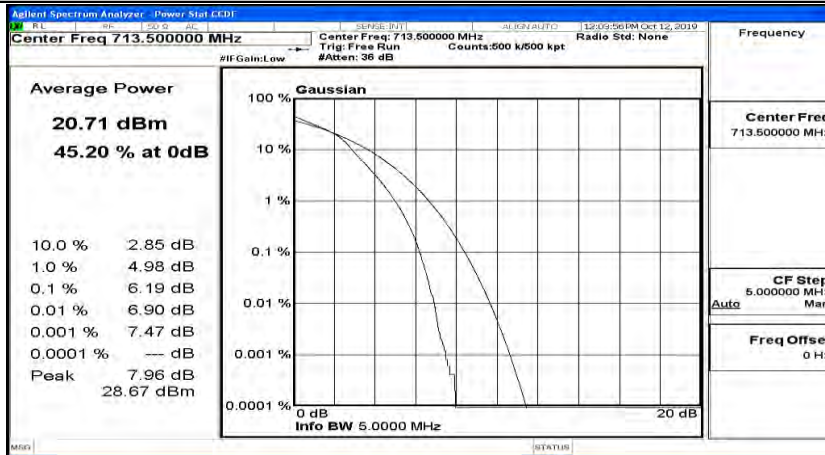
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK
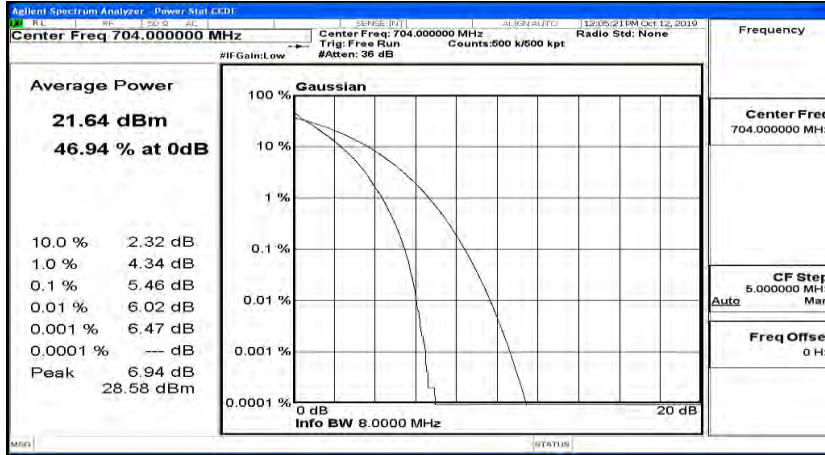
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK
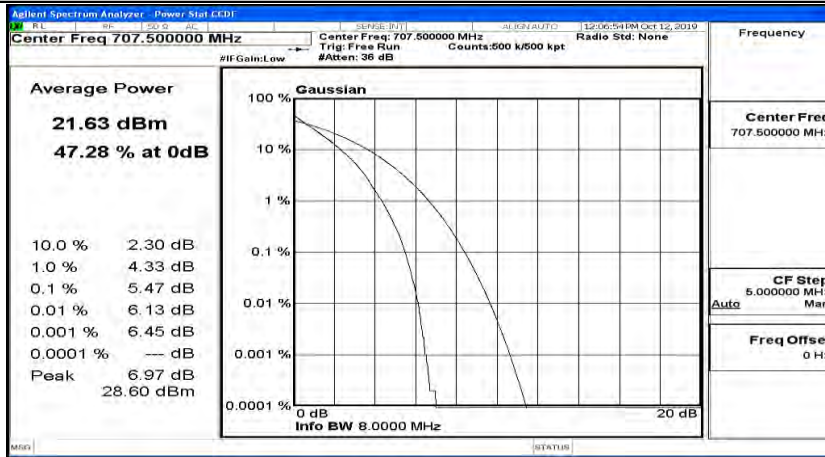
Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK

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
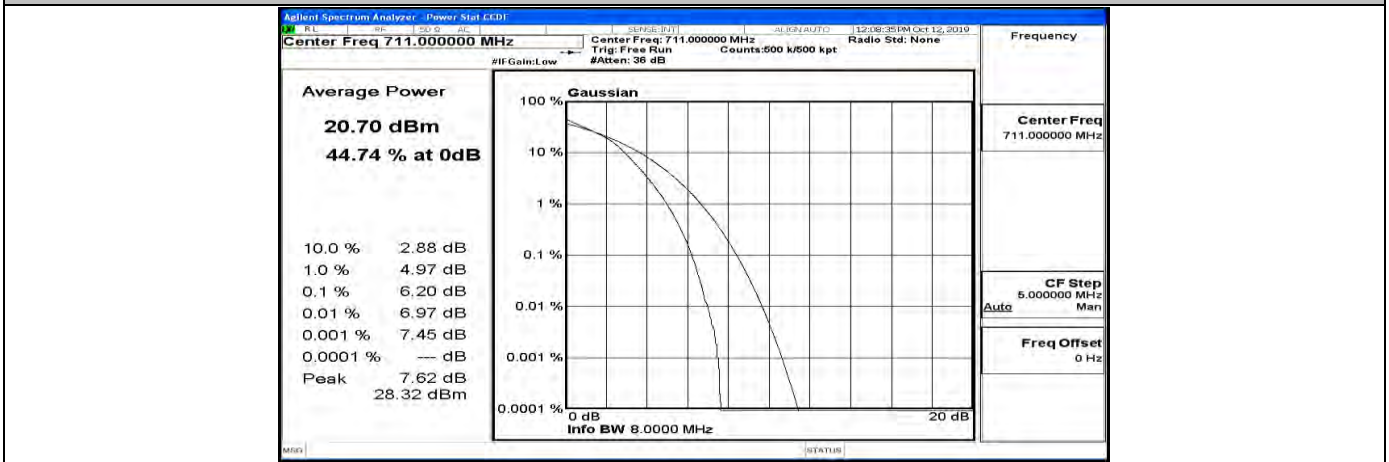
G.3 26dB Bandwidth and Occupied Bandwidth

EBW & OBW Test Result (Channel Bandwidth: 1.4 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	1.0759	1.217	PASS
	MCH	1.0736	1.206	PASS
	HCH	1.0757	1.235	PASS
16QAM	LCH	1.0802	1.241	PASS
	MCH	1.0790	1.243	PASS
	HCH	1.0755	1.225	PASS

EBW & OBW Test Result (Channel Bandwidth: 3 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	2.6787	2.825	PASS
	MCH	2.6789	2.818	PASS
	HCH	2.6785	2.860	PASS
16QAM	LCH	2.6790	2.842	PASS
	MCH	2.6784	2.819	PASS
	HCH	2.6843	2.823	PASS

EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4810	4.870	PASS
	MCH	4.4701	4.801	PASS
	HCH	4.4782	4.885	PASS
16QAM	LCH	4.4733	4.861	PASS
	MCH	4.4720	4.869	PASS
	HCH	4.4826	4.871	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9512	9.496	PASS
	MCH	8.9300	9.520	PASS
	HCH	8.9374	9.534	PASS
16QAM	LCH	8.9361	9.506	PASS
	MCH	8.9395	9.573	PASS
	HCH	8.9429	9.569	PASS

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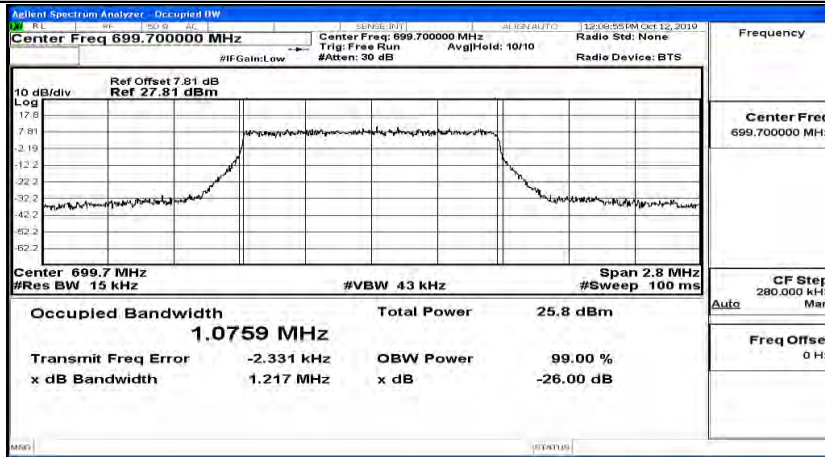
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK
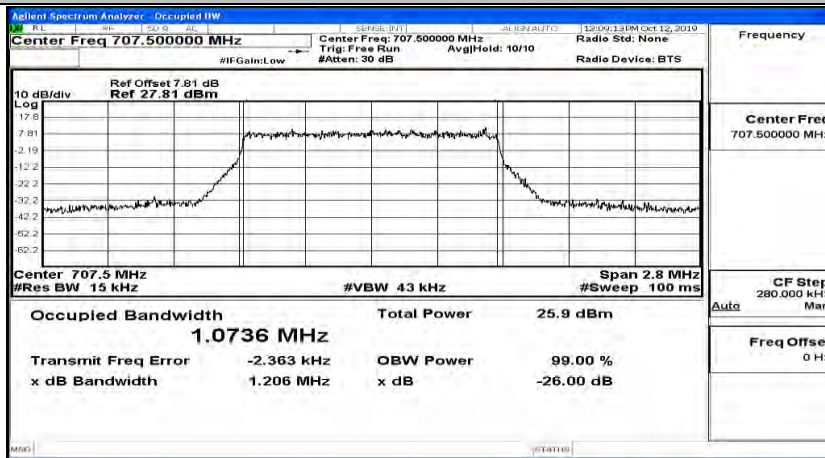
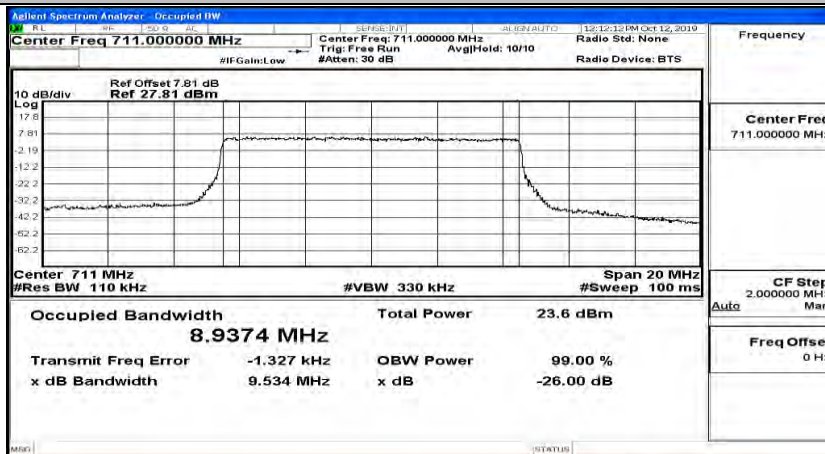| EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK |
|---|
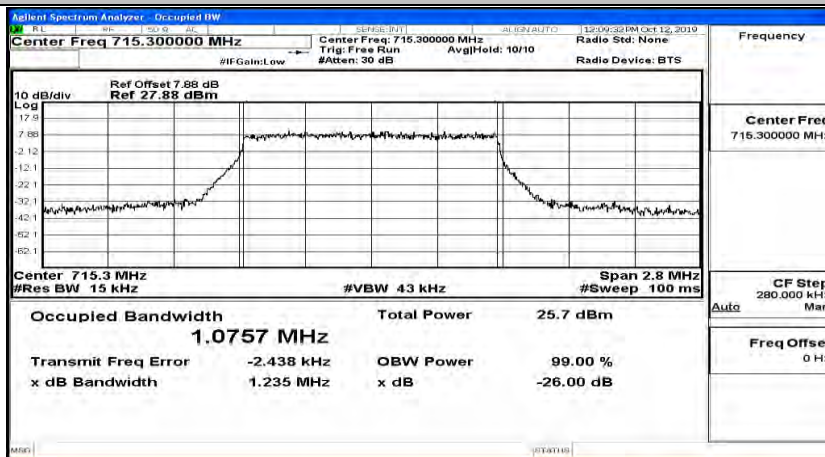
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM
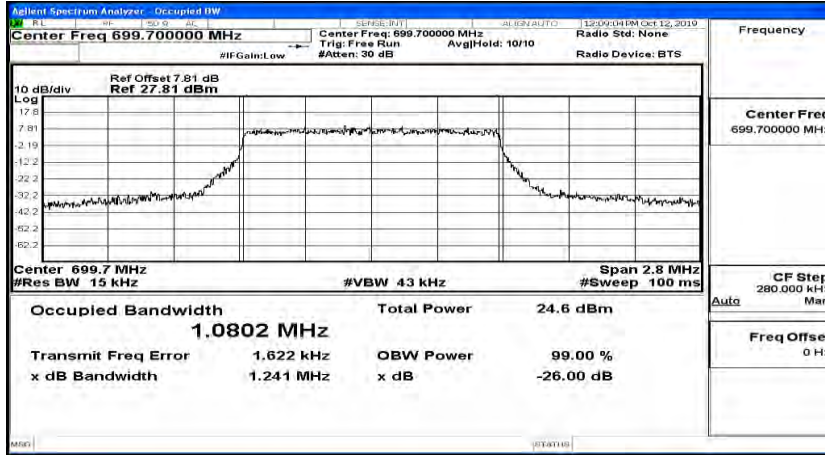
EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM
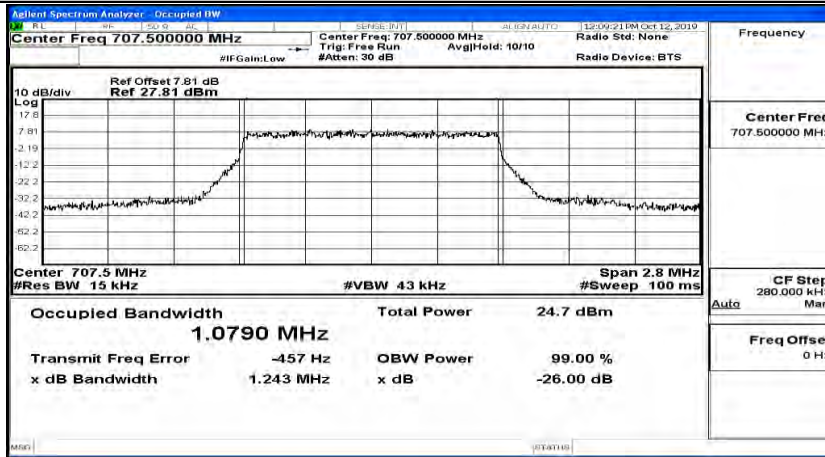
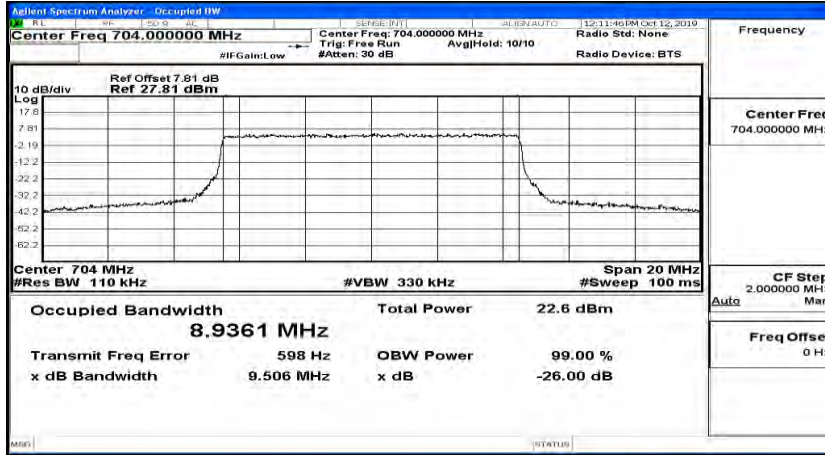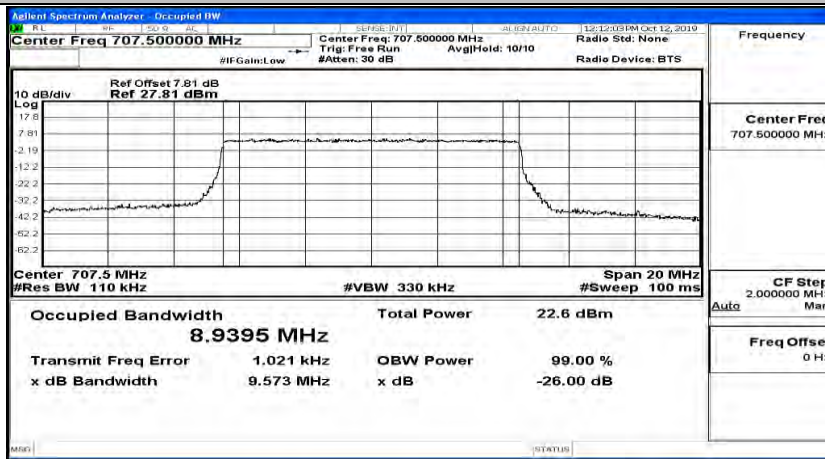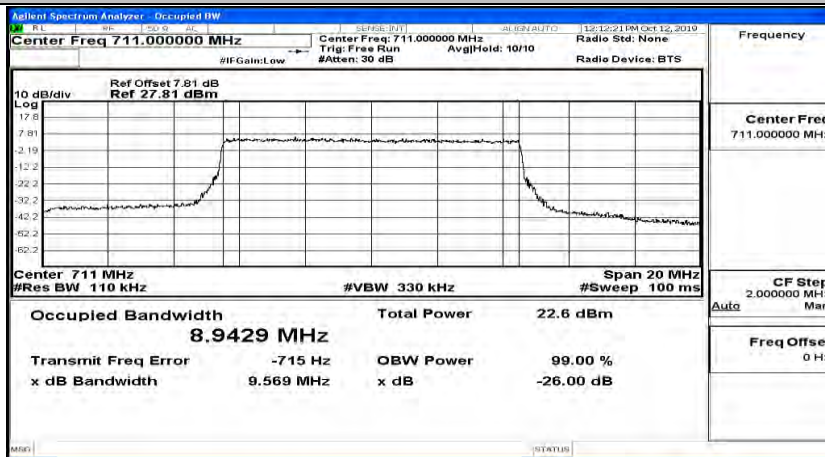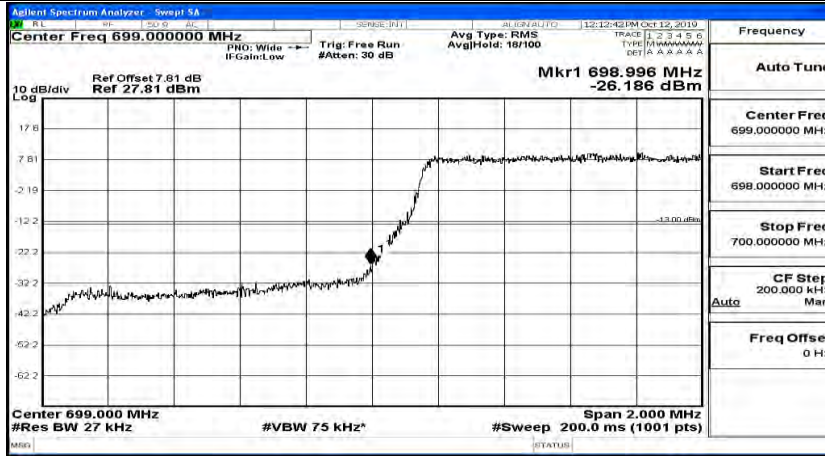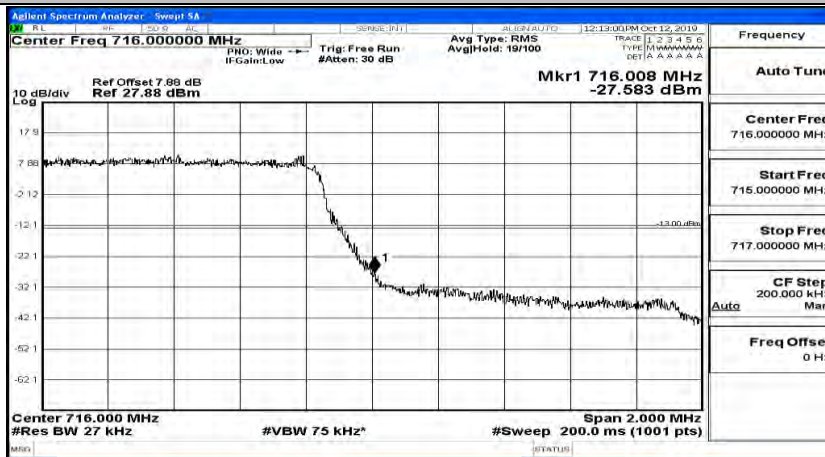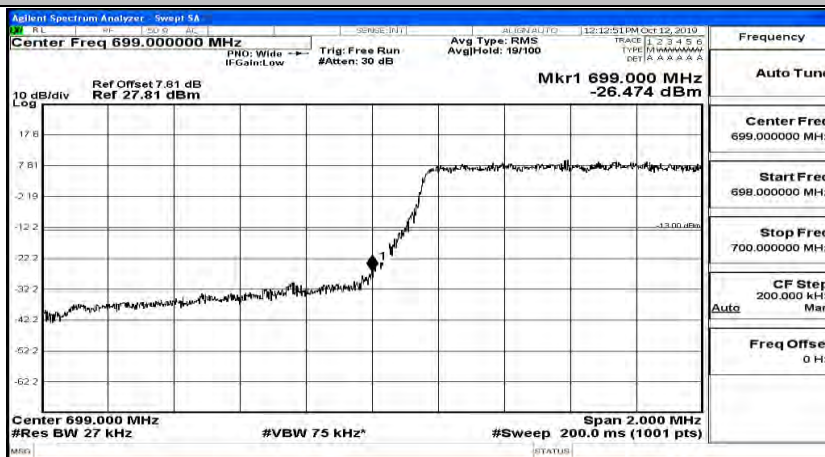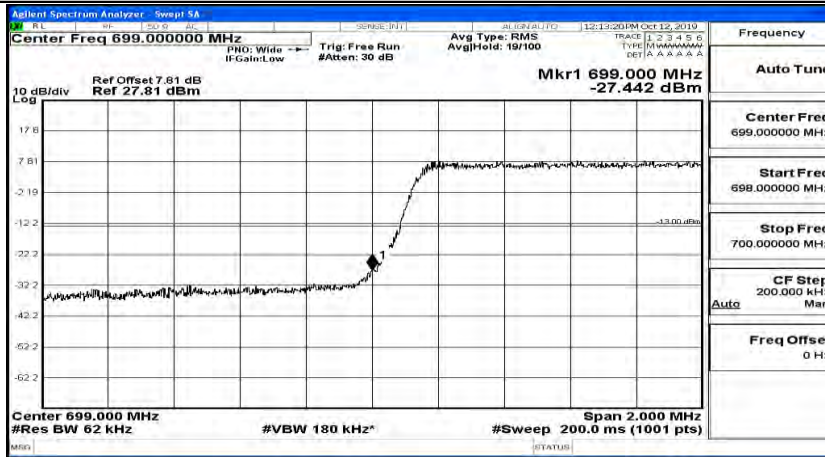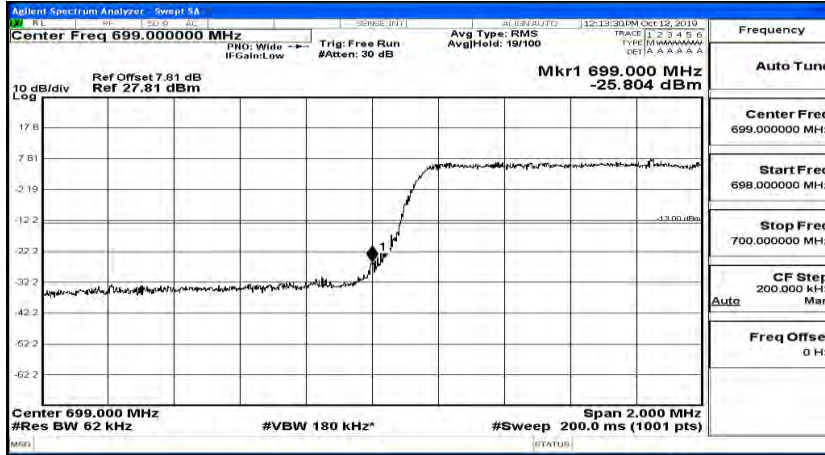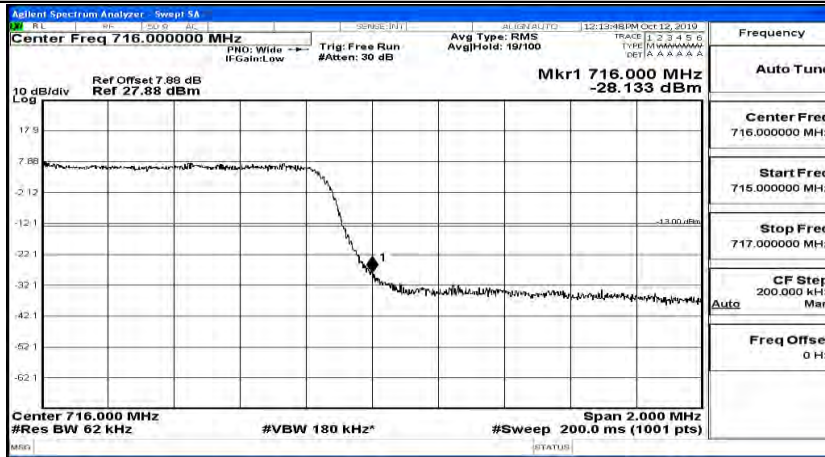EBW & OBW Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM
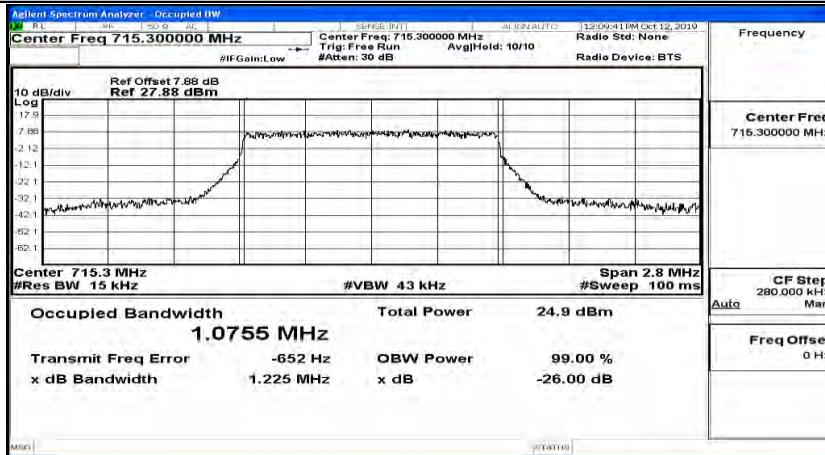
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK
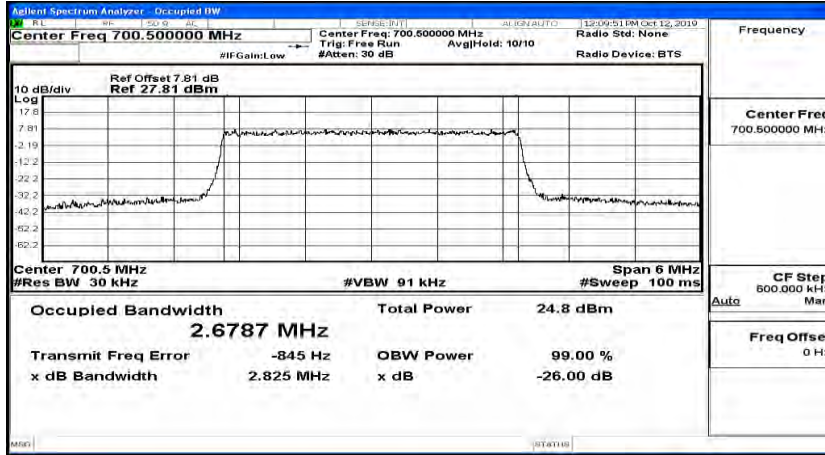
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK
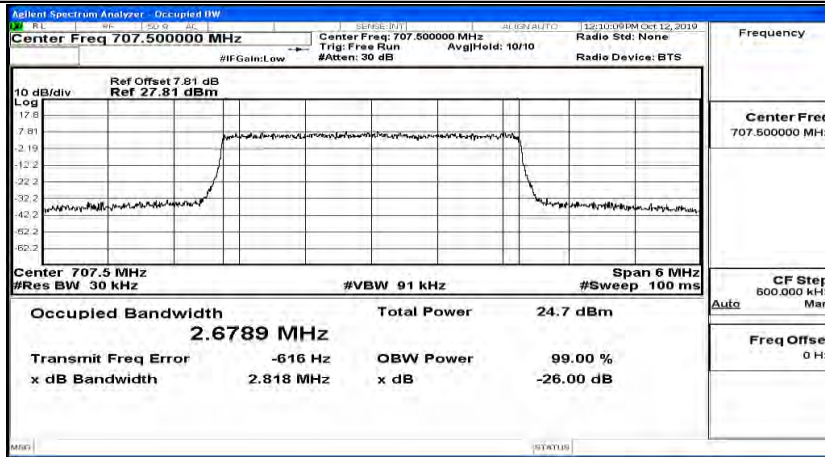
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK
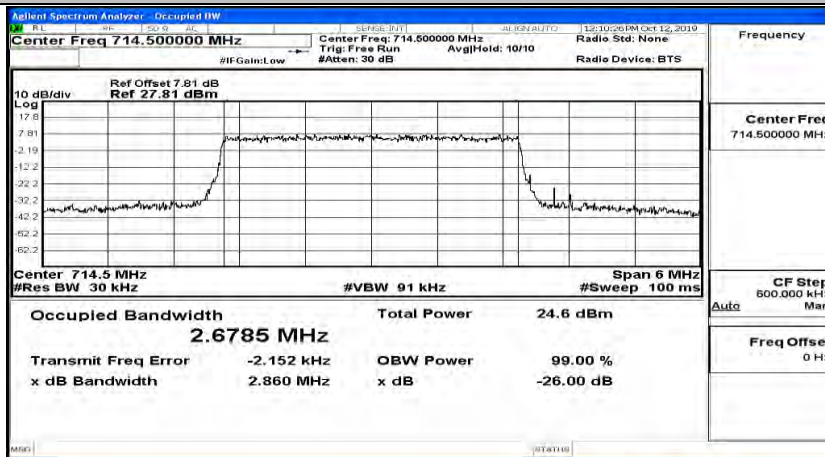
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM
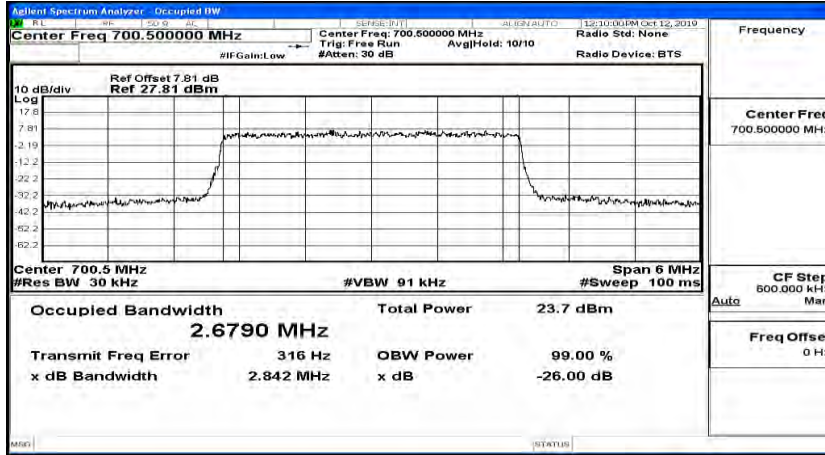
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM
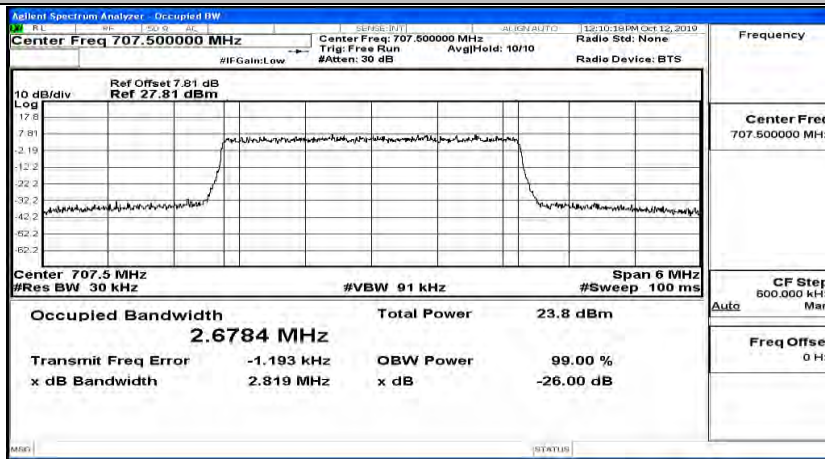
EBW & OBW Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM
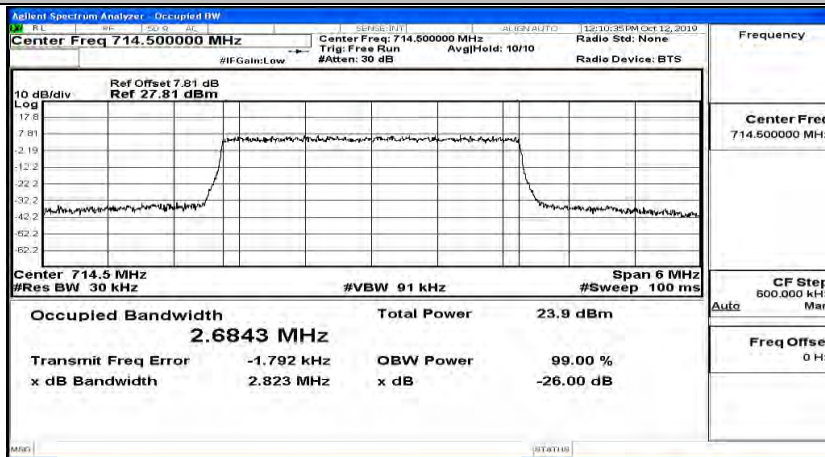
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK
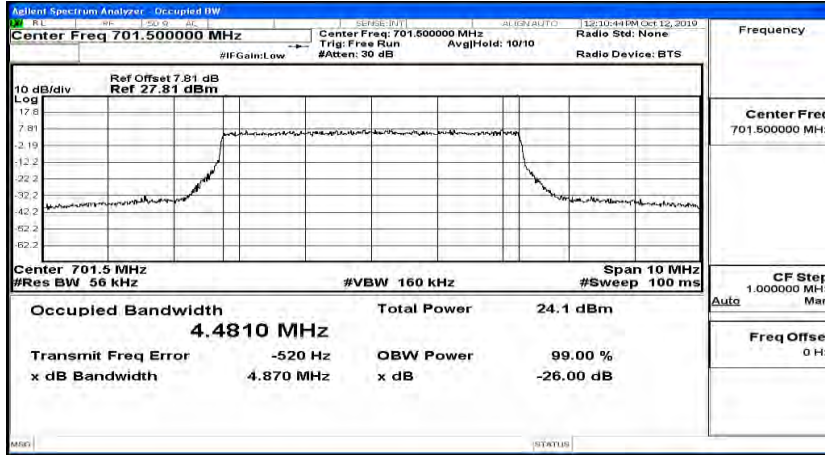
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK
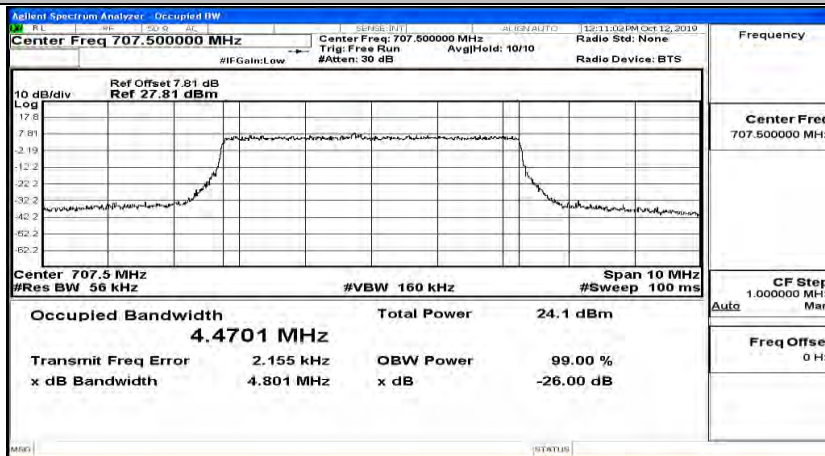
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK
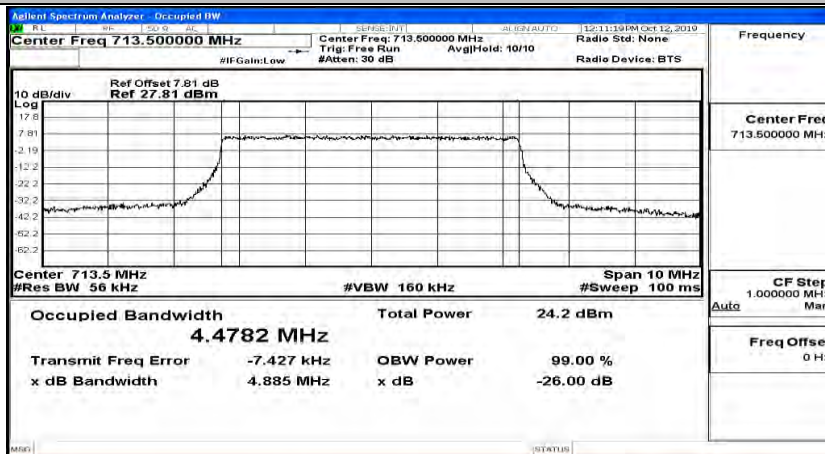
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM
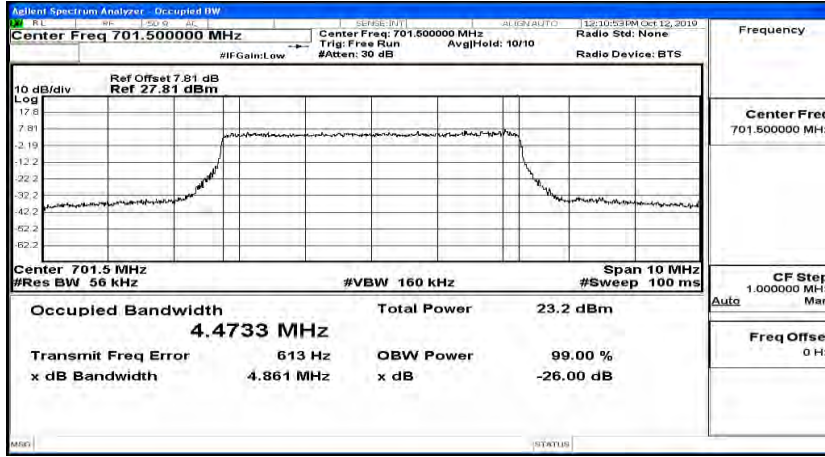
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM
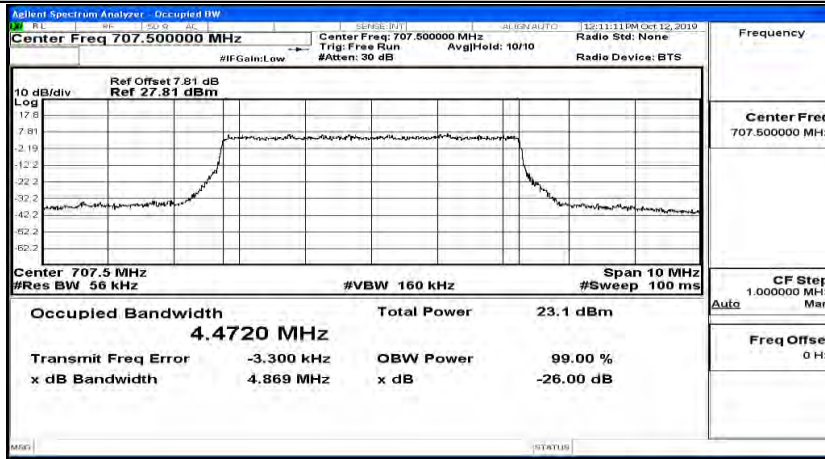
EBW & OBW Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM
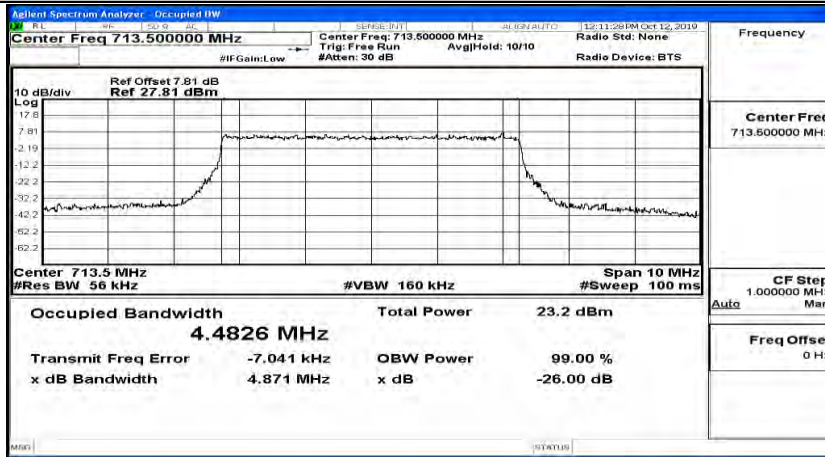
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK
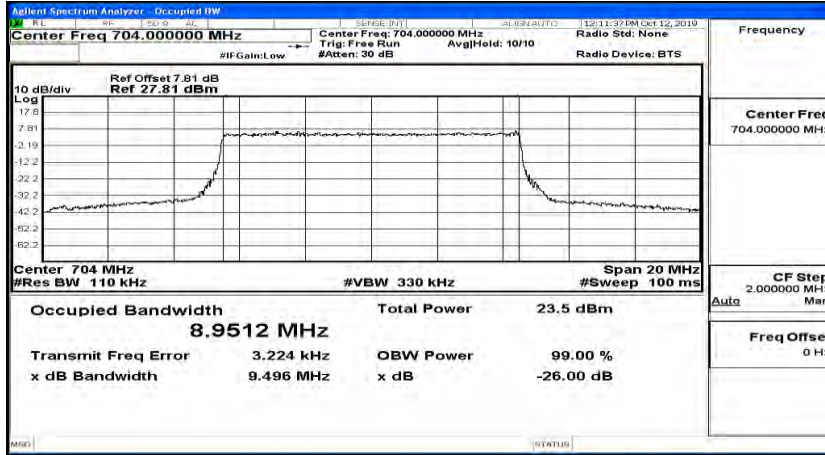
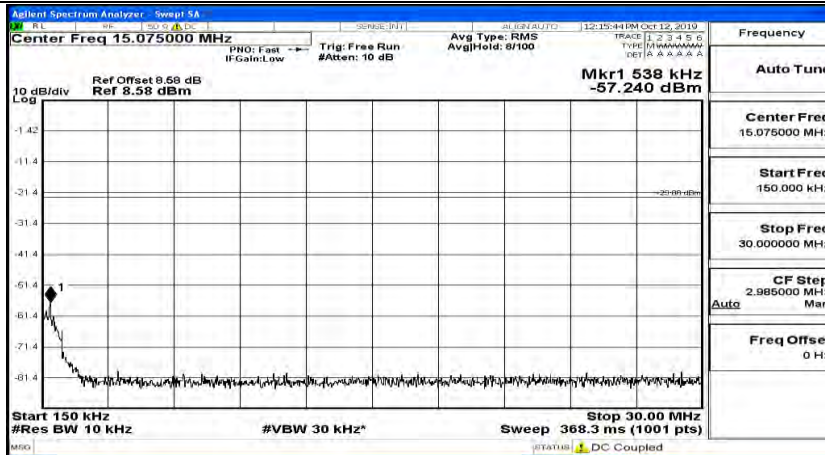| EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK |
|---|
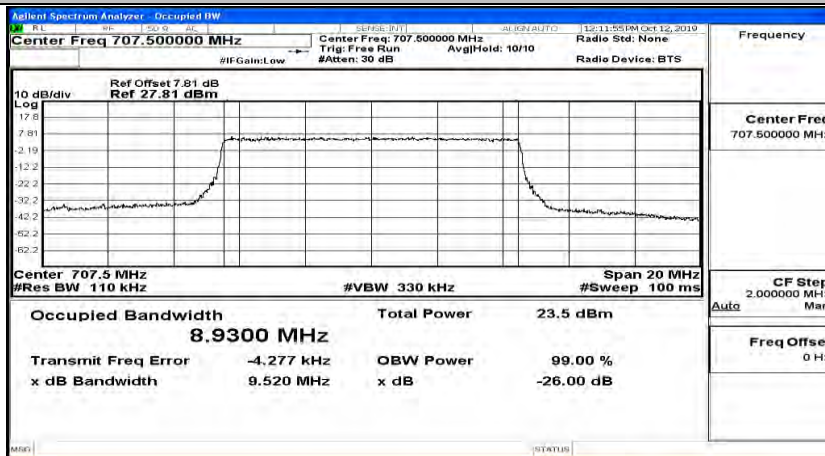
EBW & OBW Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK

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

This report shall not be reproduced except in full, without the written approval of Shenzhen LCS Compliance Testing Laboratory Ltd.

Page 22 of 52

A.4 Band Edge

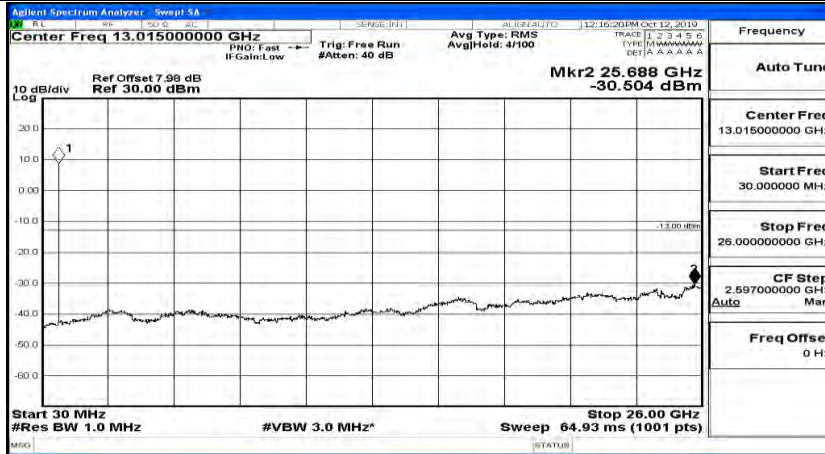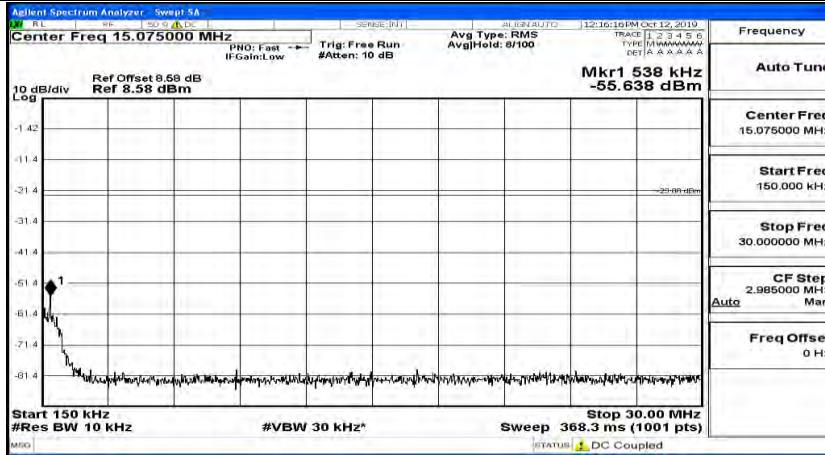| Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK |
|---|
| |

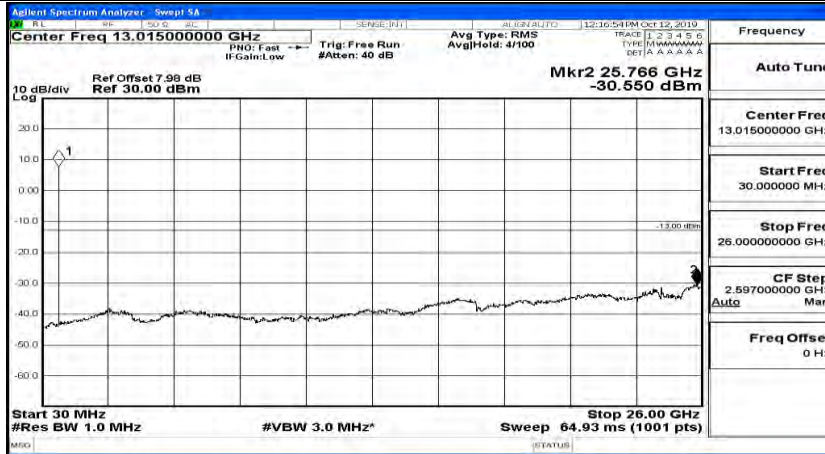| Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK |
|---|
| |

Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM

This report shall not be reproduced except in full, without the written approval of Shenzhen LCS Compliance Testing Laboratory Ltd.
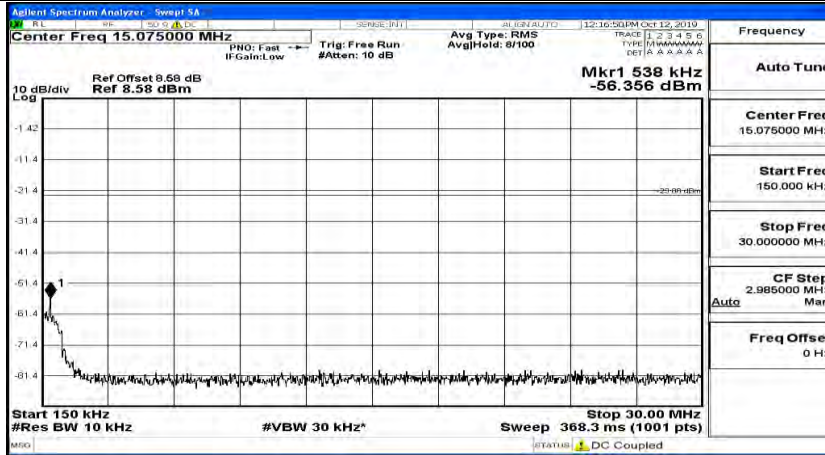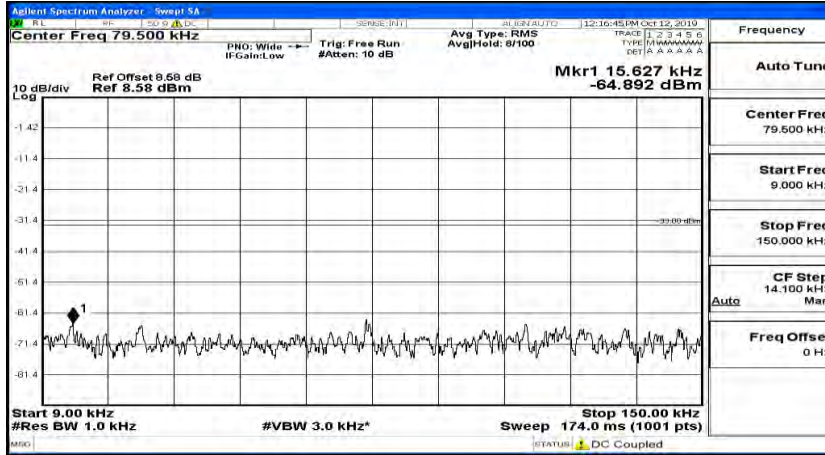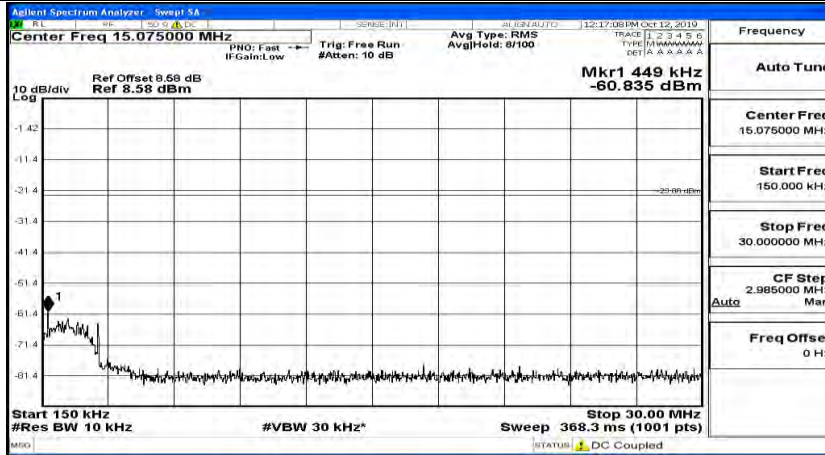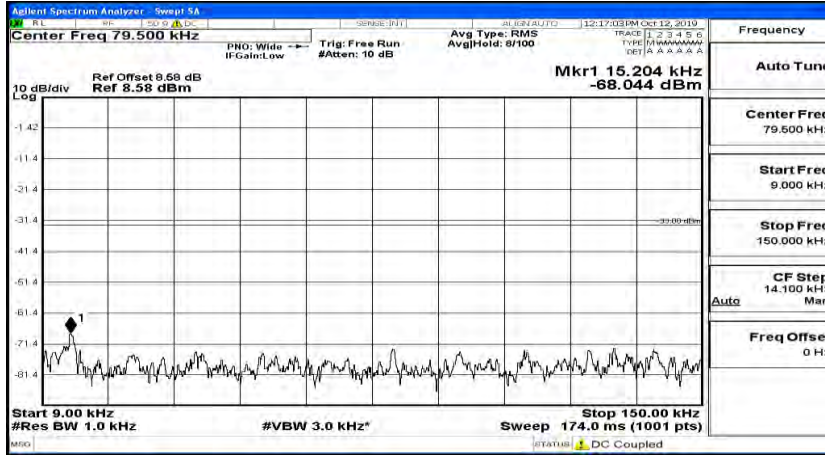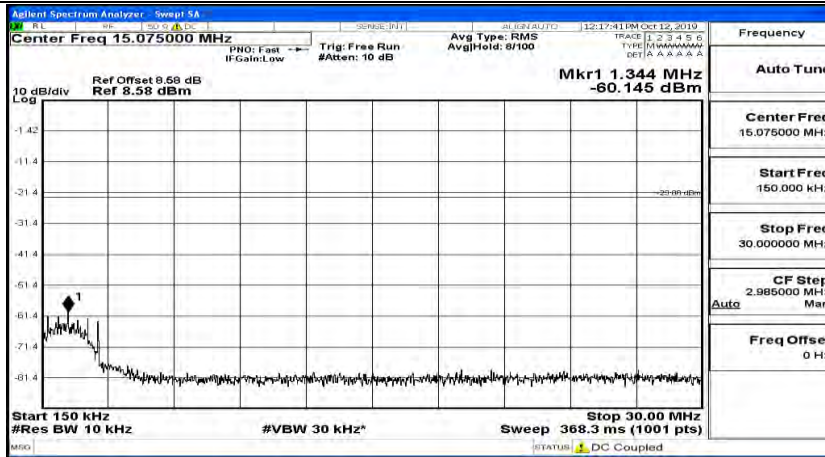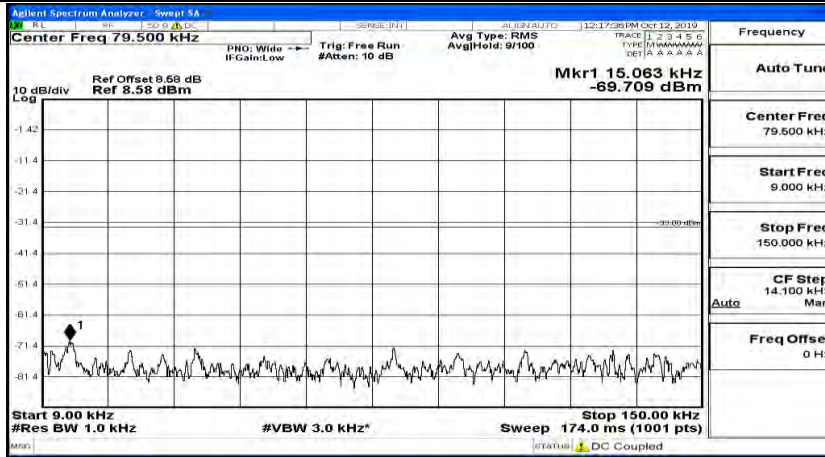
Page 23 of 52

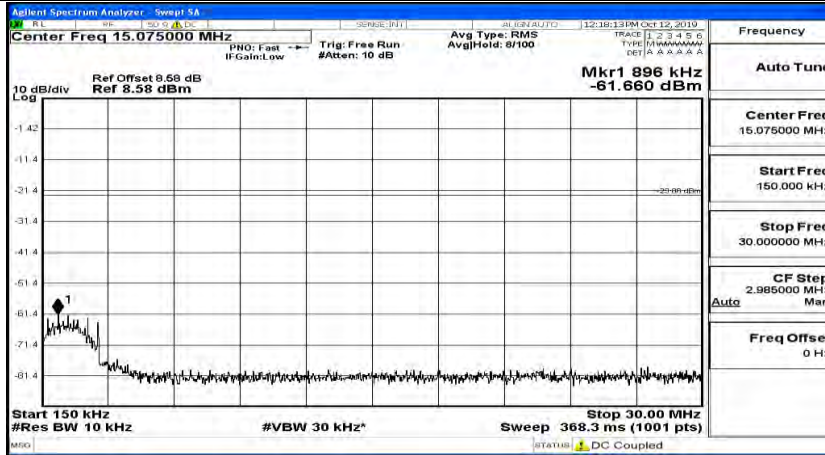Band Edge Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM
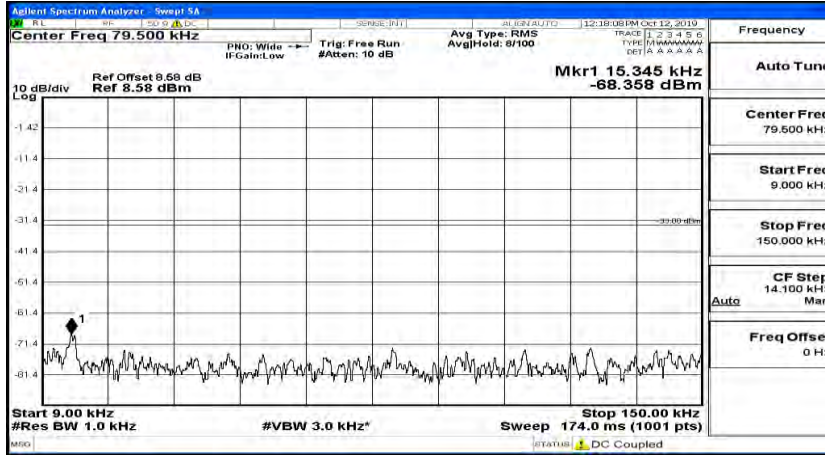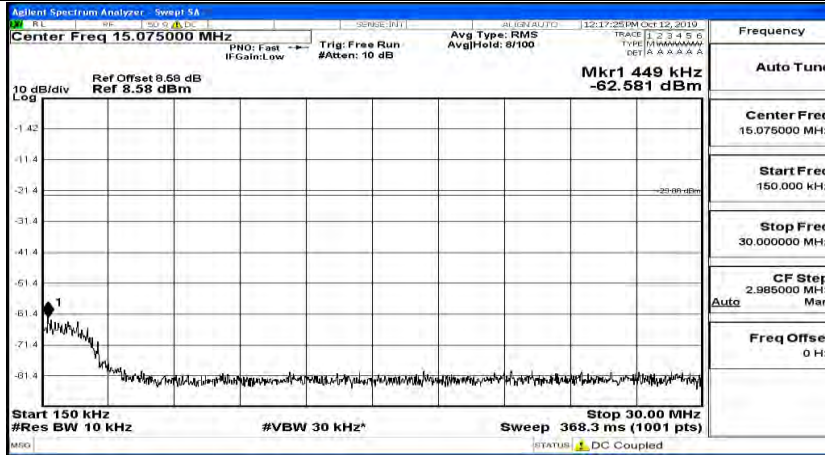

Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK

Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK
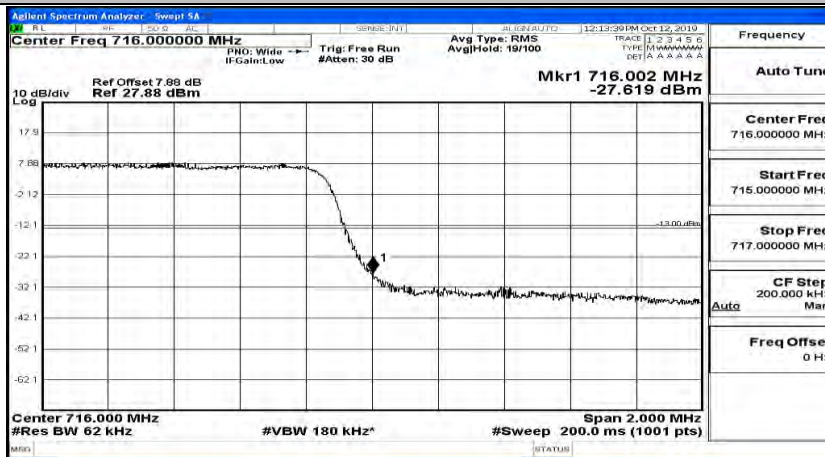
Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM

Band Edge Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM

Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK
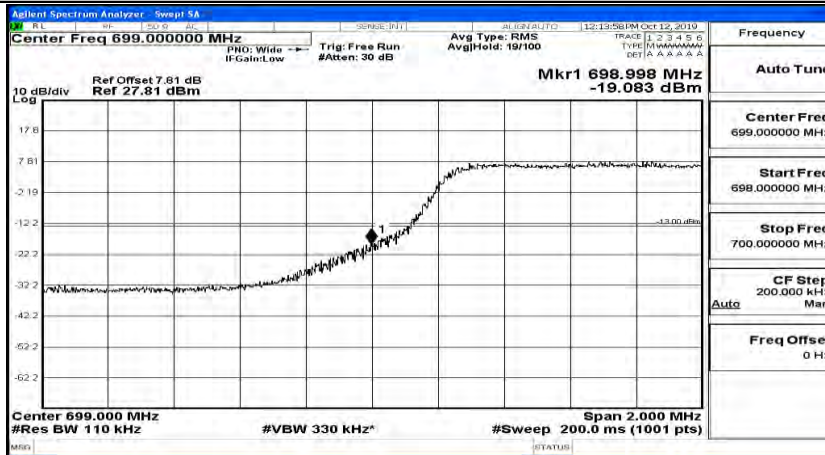
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK
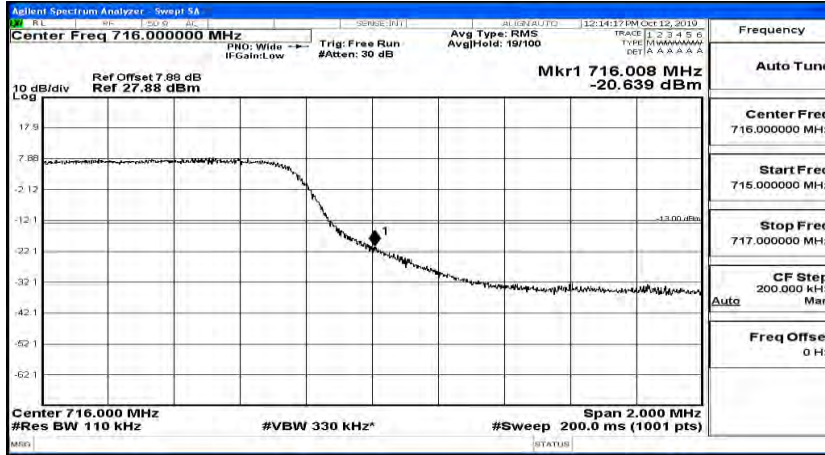
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM
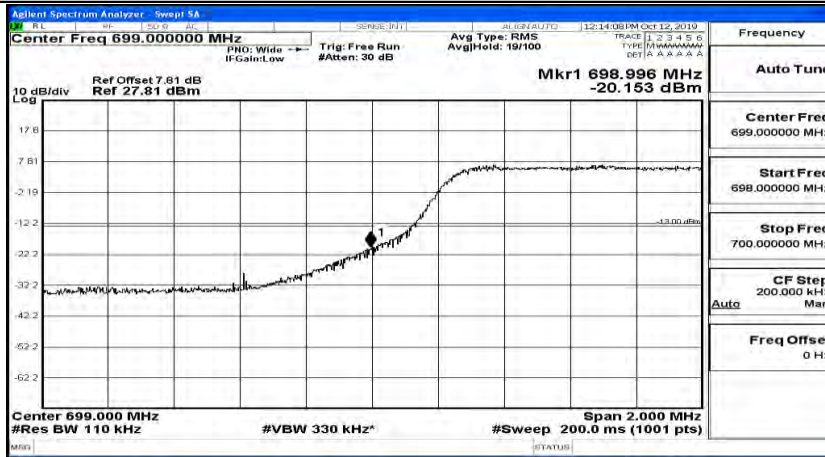
Band Edge Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM
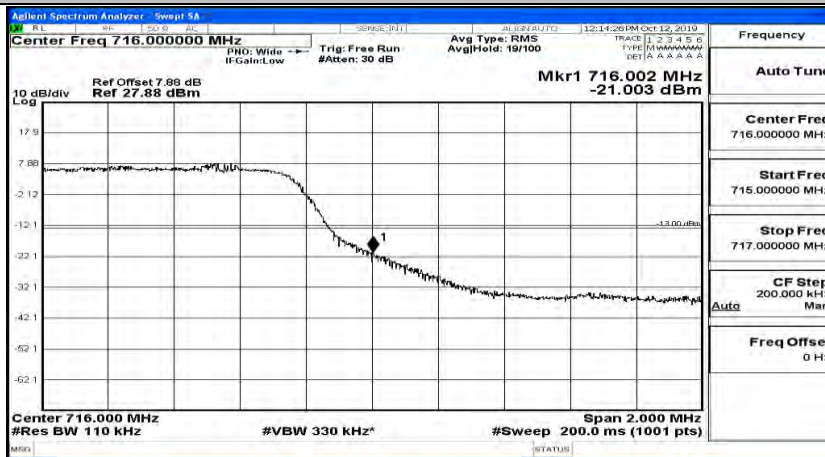
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK
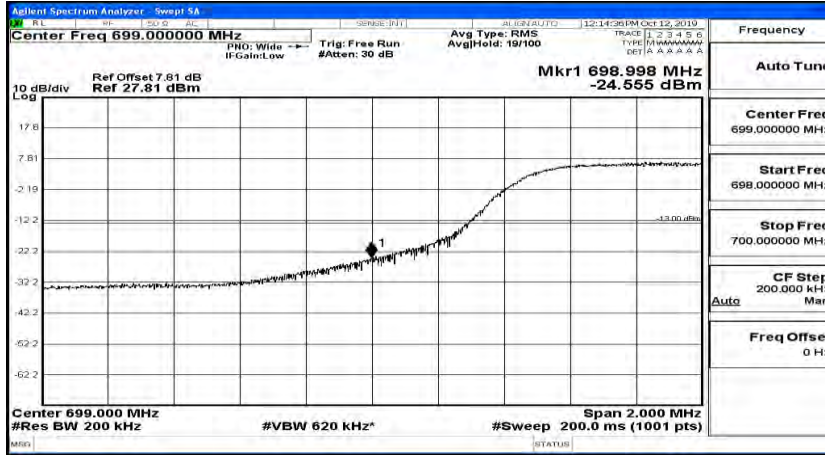
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK
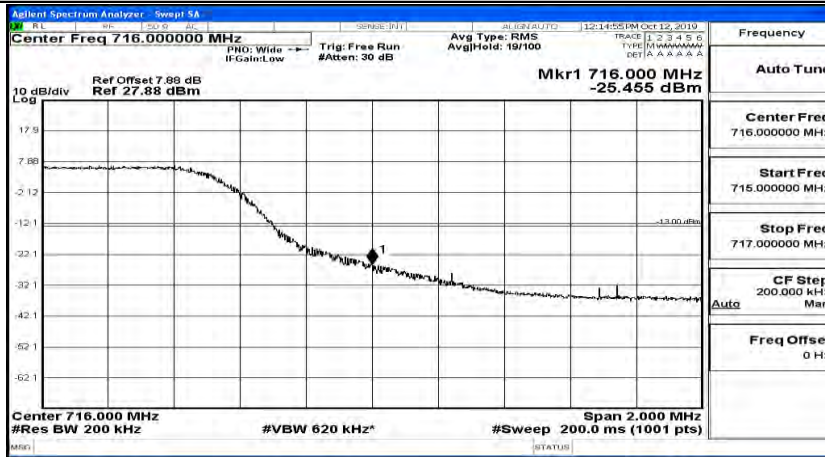
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM
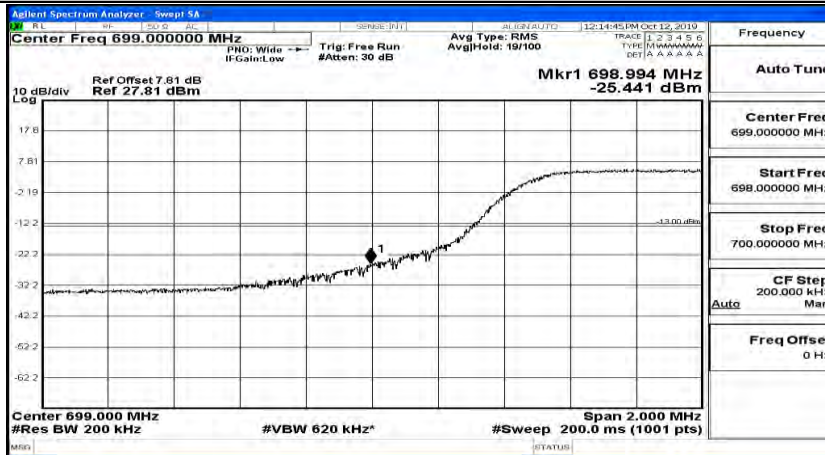
Band Edge Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM
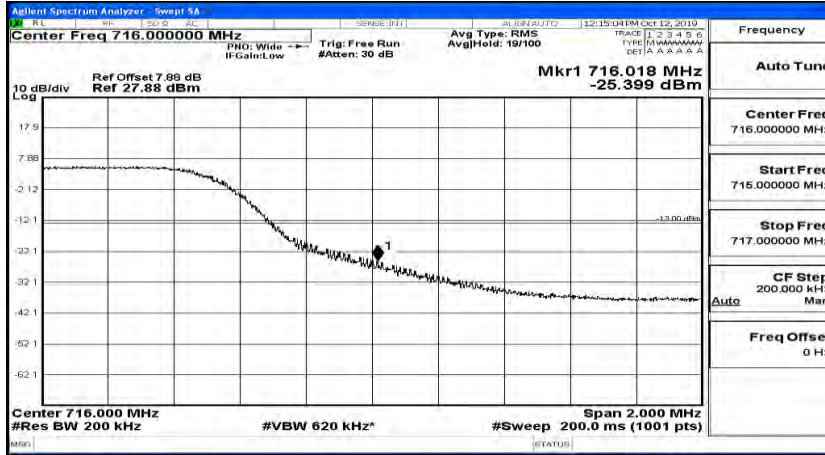
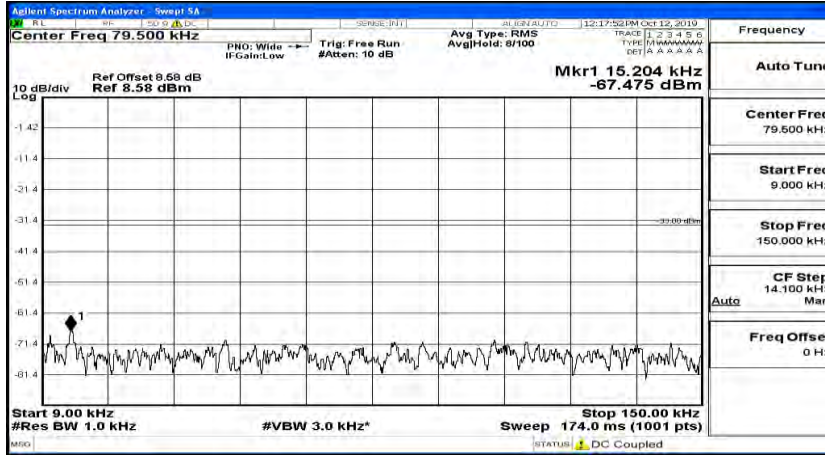## G.5 Conducted Spurious Emission

CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_QPSK
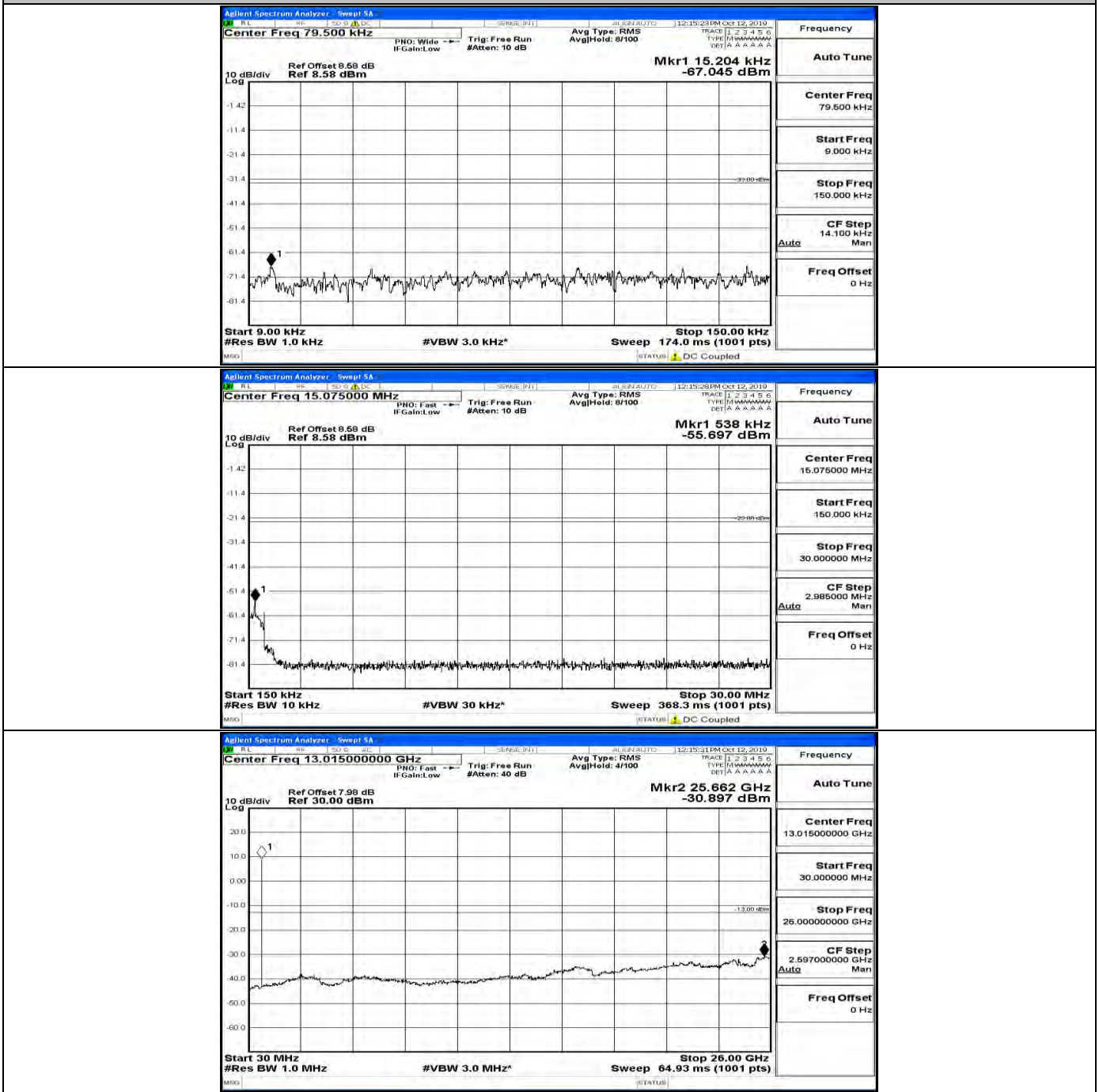
CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_QPSK
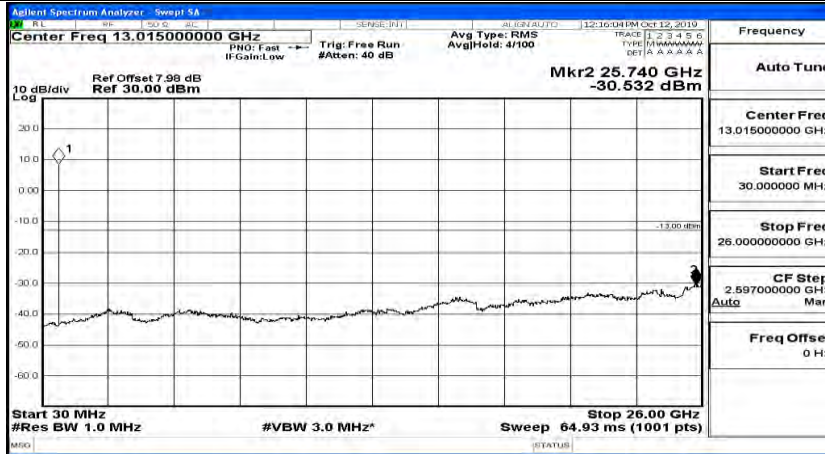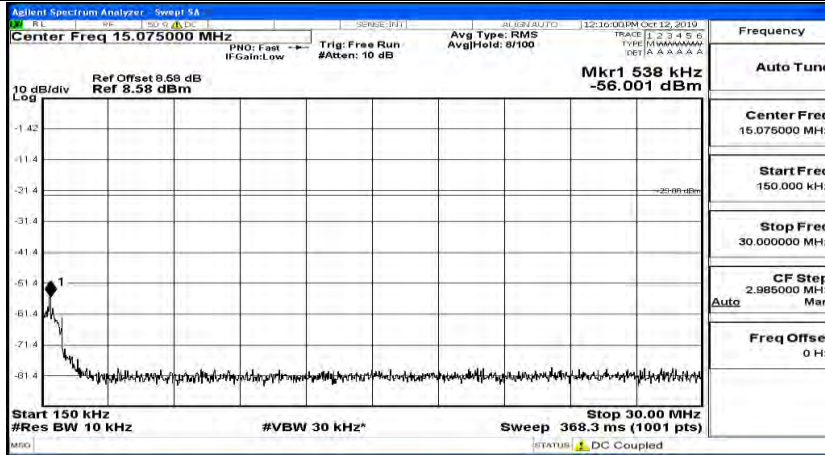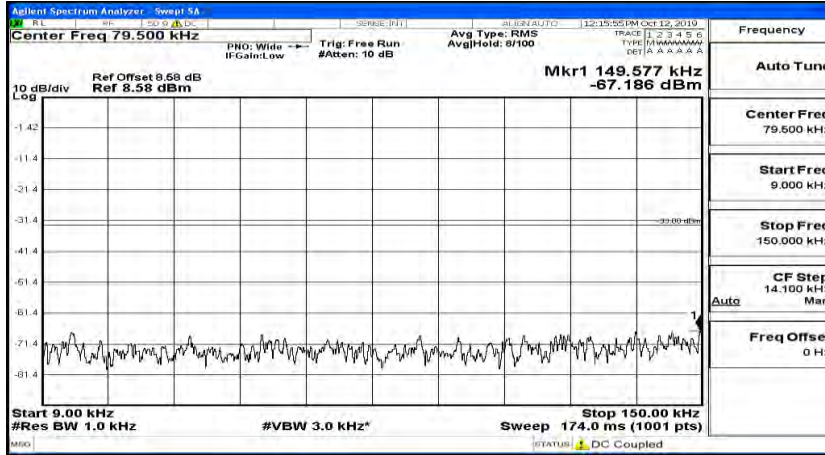
This report shall not be reproduced except in full, without the written approval of Shenzhen LCS Compliance Testing Laboratory Ltd.

Page 30 of 52

CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_QPSK

This report shall not be reproduced except in full, without the written approval of Shenzhen LCS Compliance Testing Laboratory Ltd.

Page 31 of 52
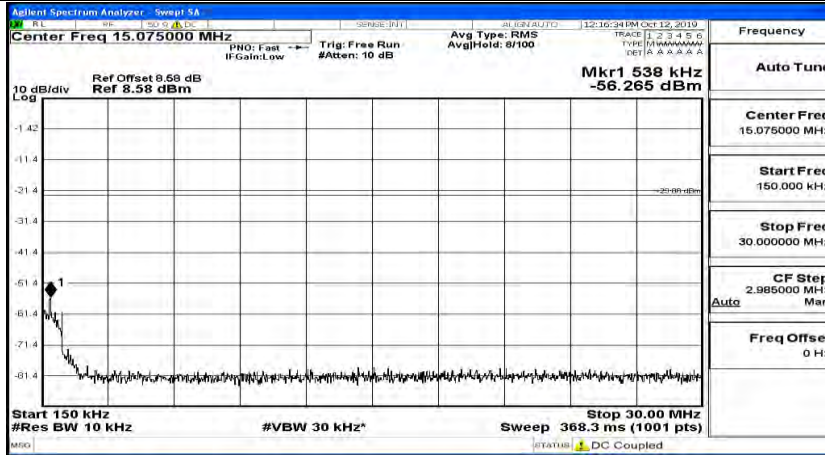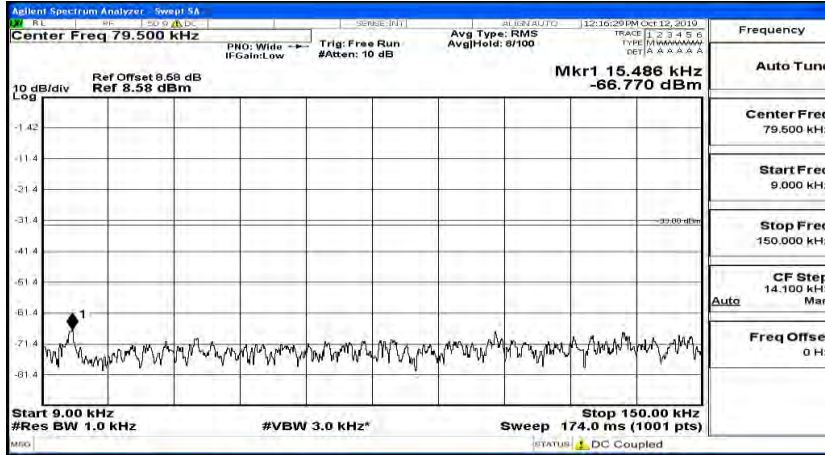
CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)_LCH_16QAM
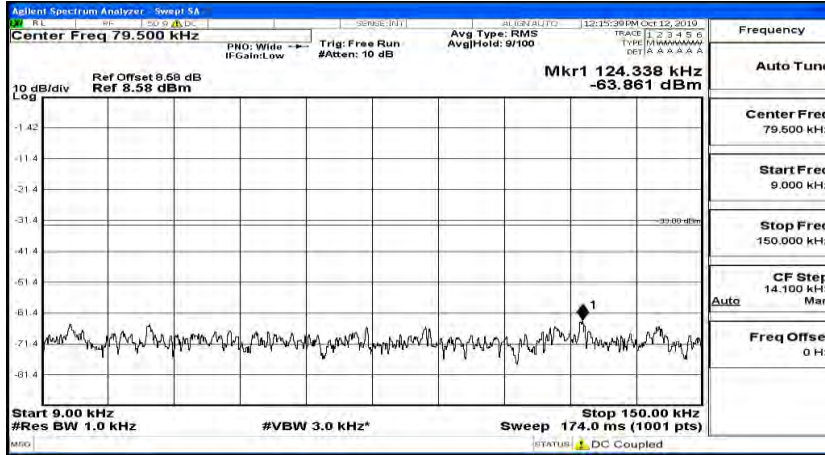
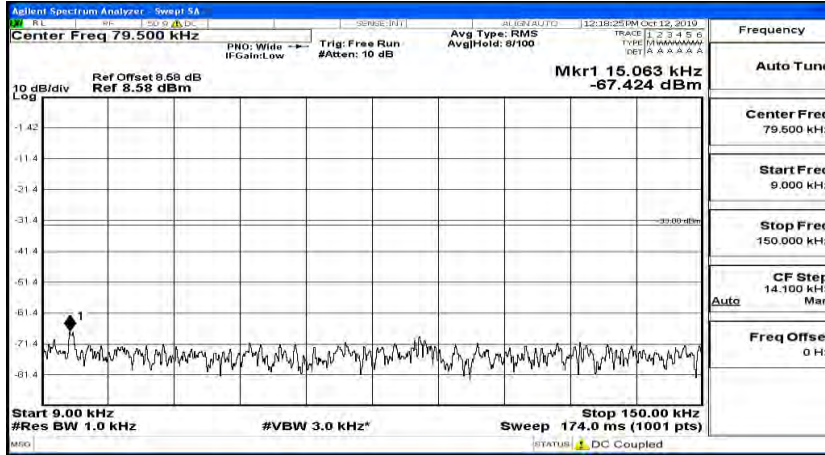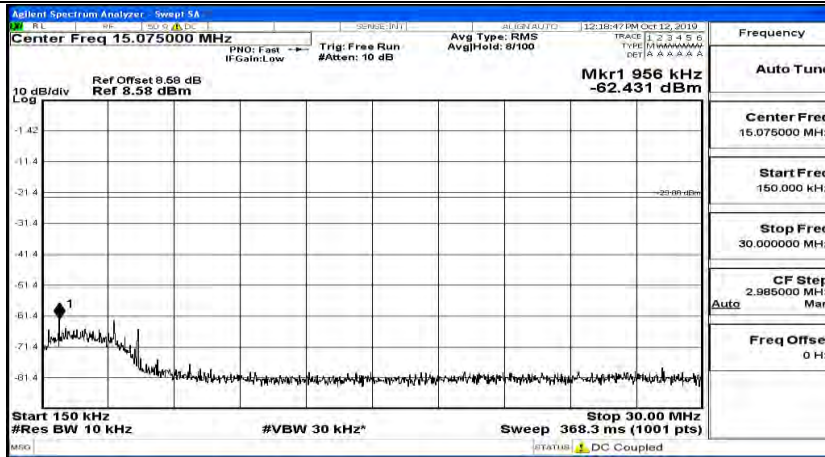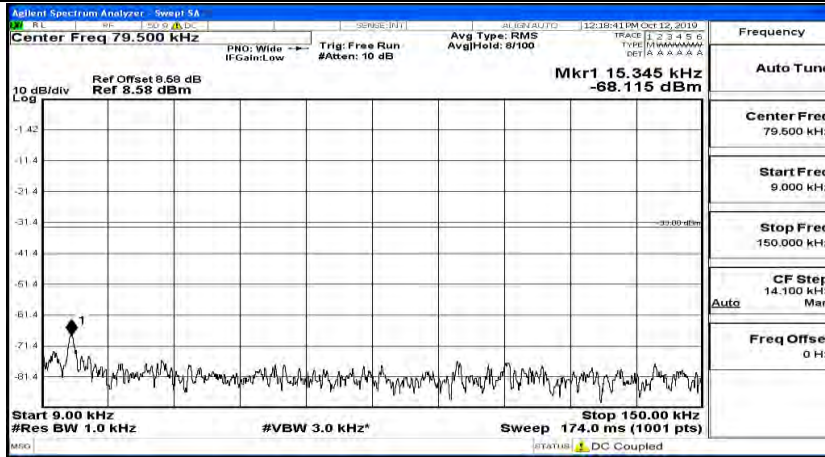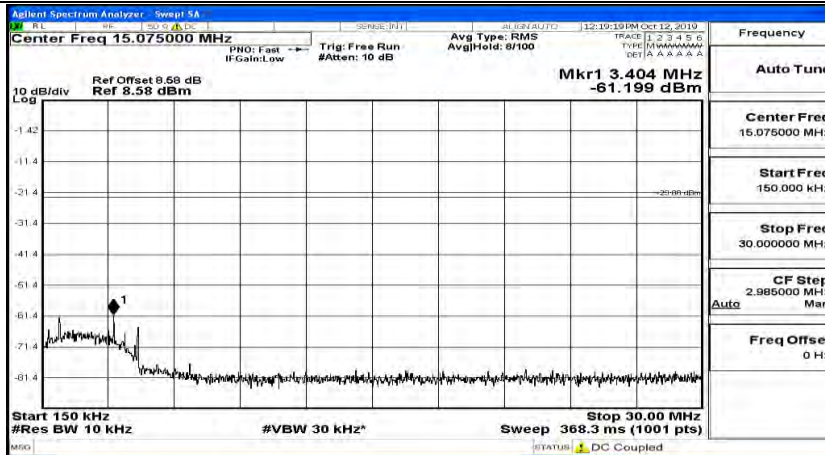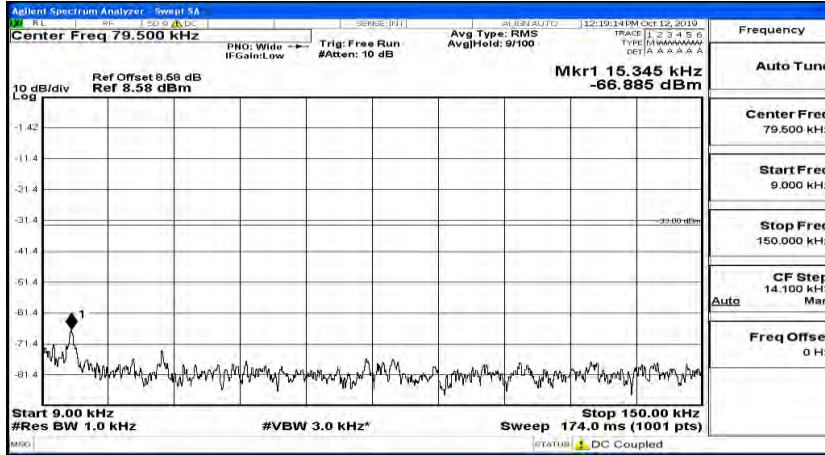## CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)_MCH_16QAM
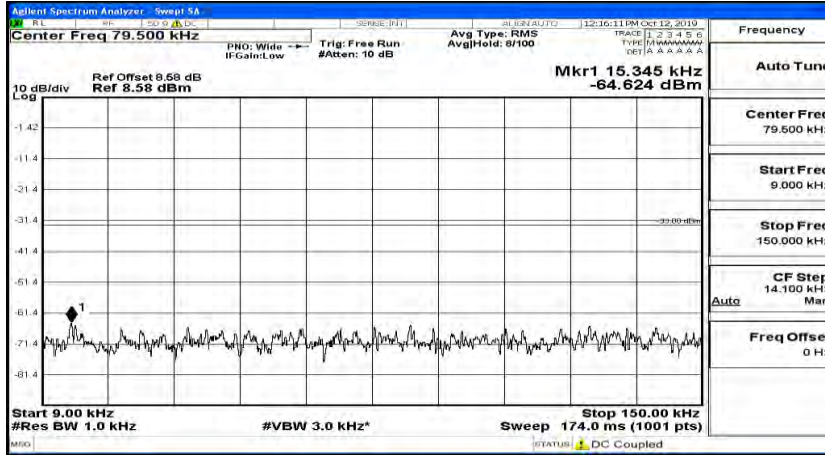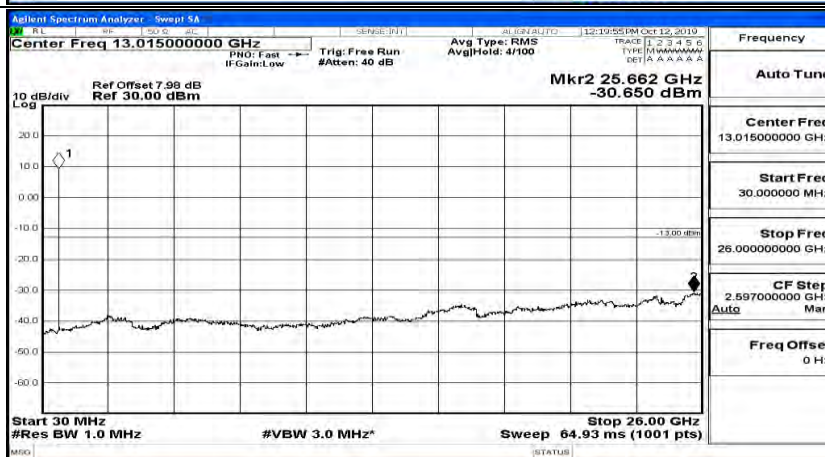
CSE Test Graph(s) (Channel Bandwidth: 1.4 MHz)_HCH_16QAM

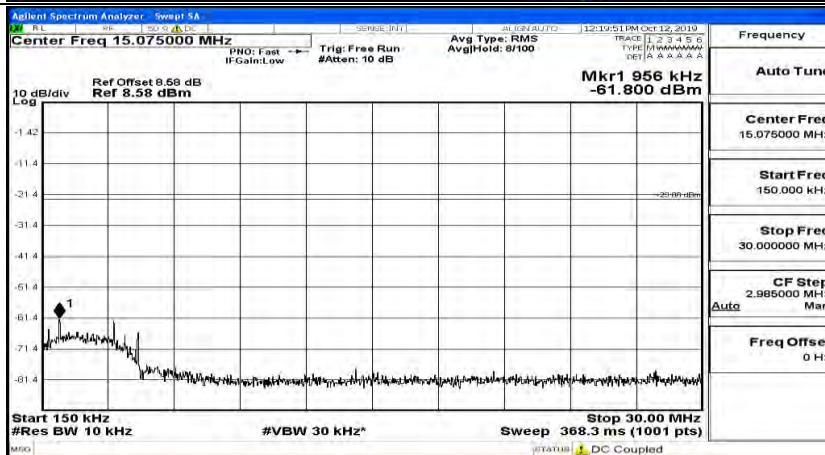| CSE Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_QPSK |
|---|

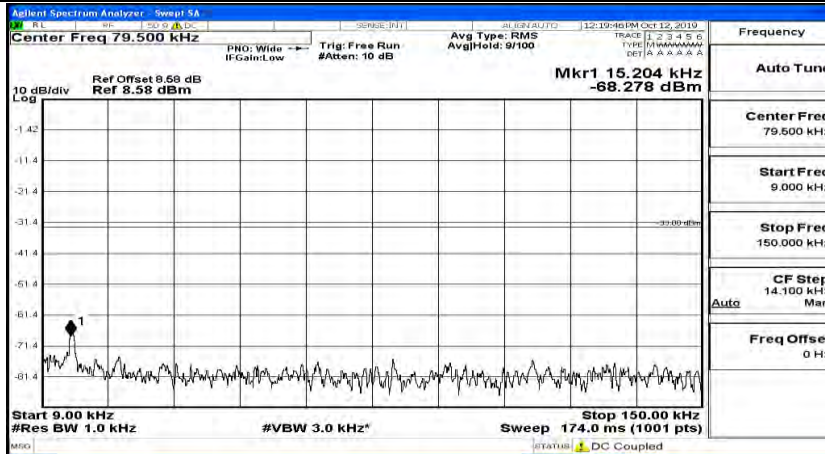| CSE Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_QPSK |
|---|

CSE Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_QPSK

CSE Test Graph(s) (Channel Bandwidth: 3 MHz)_LCH_16QAM
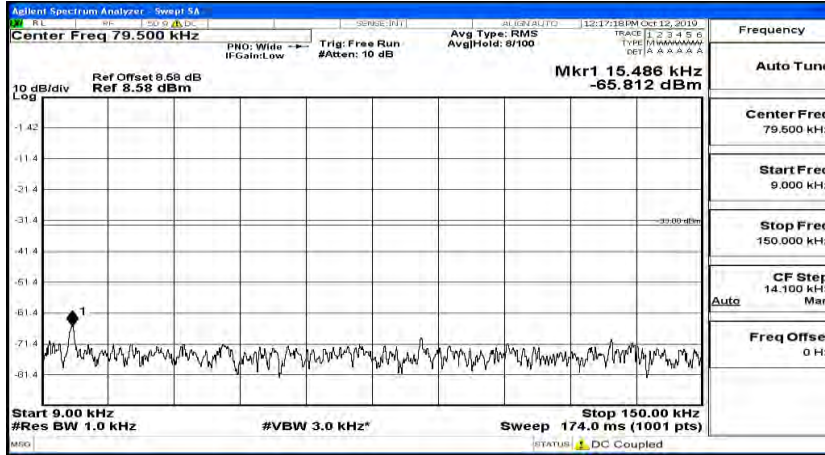
CSE Test Graph(s) (Channel Bandwidth: 3 MHz)_MCH_16QAM

This report shall not be reproduced except in full, without the written approval of Shenzhen LCS Compliance Testing Laboratory Ltd.

Page 39 of 52
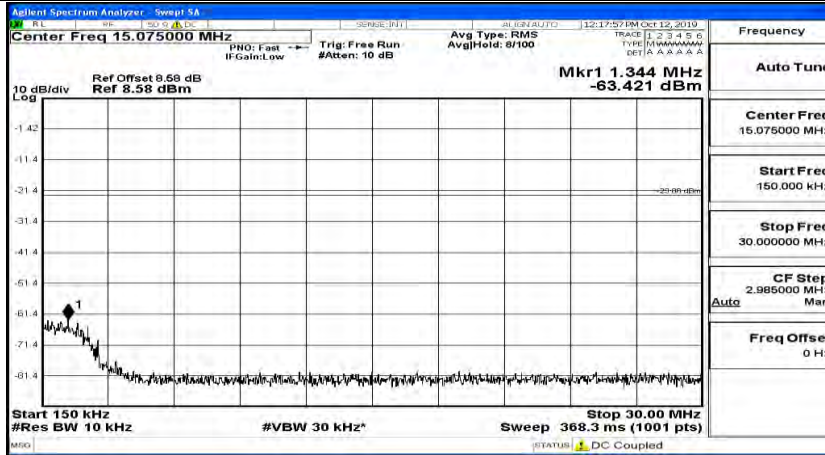
CSE Test Graph(s) (Channel Bandwidth: 3 MHz)_HCH_16QAM
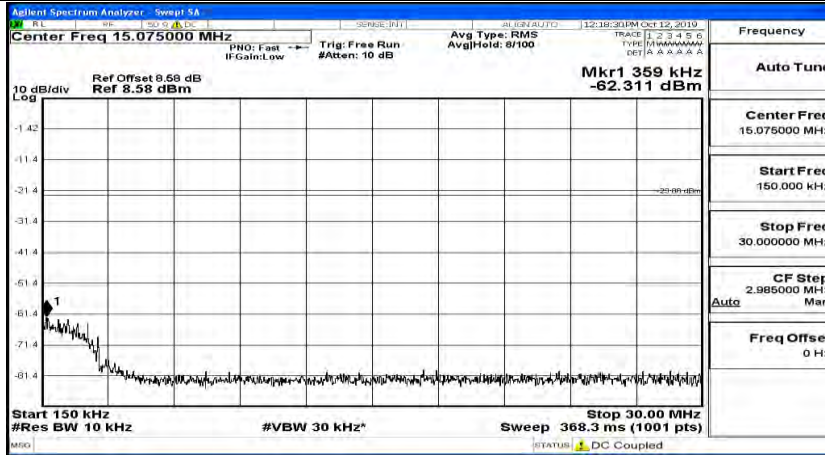
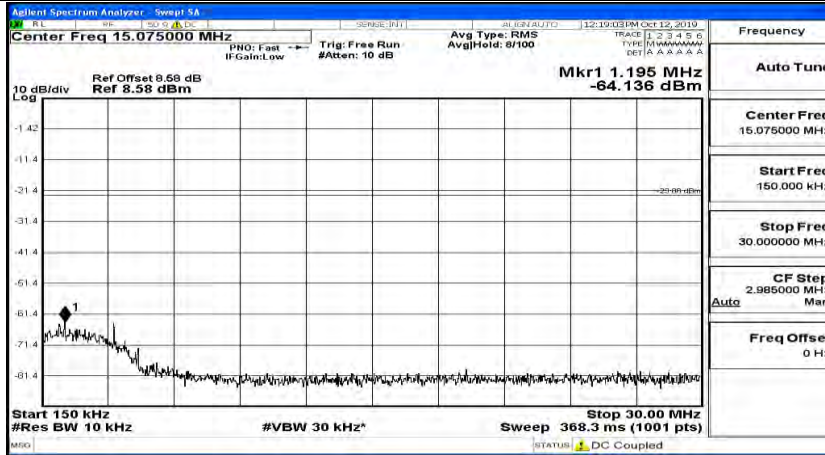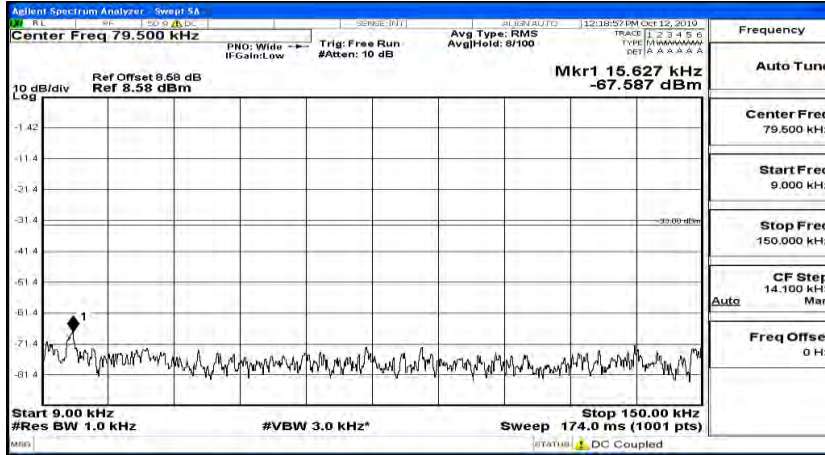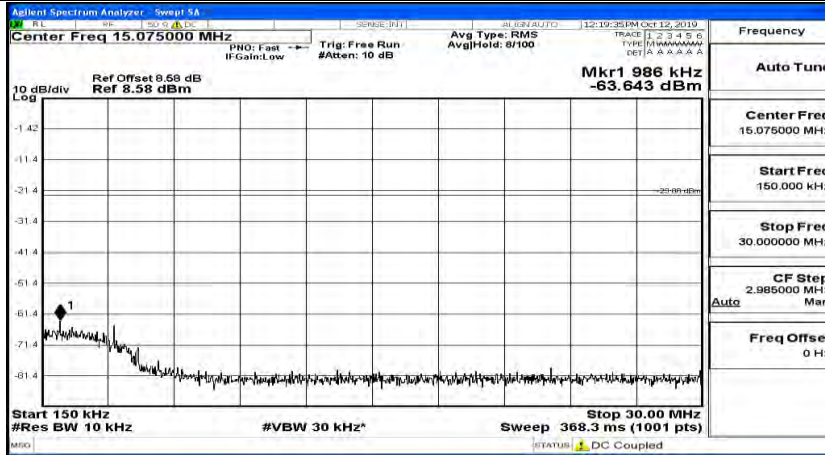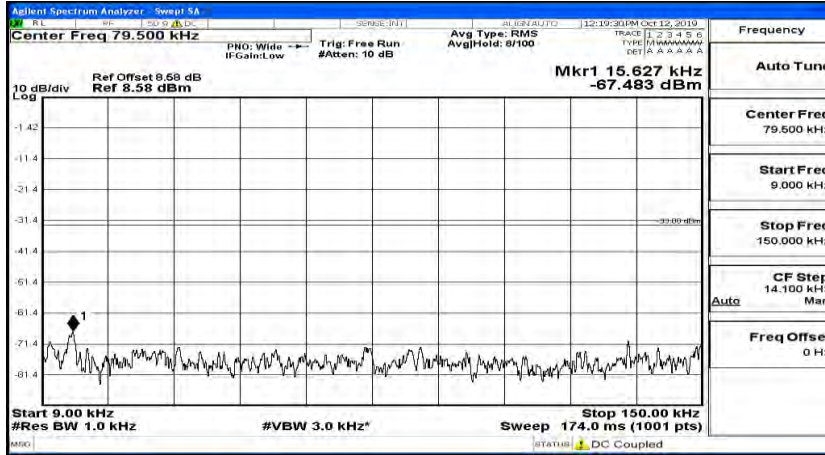| CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_QPSK |
|---|

CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_QPSK

CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_QPSK

This report shall not be reproduced except in full, without the written approval of Shenzhen LCS Compliance Testing Laboratory Ltd.
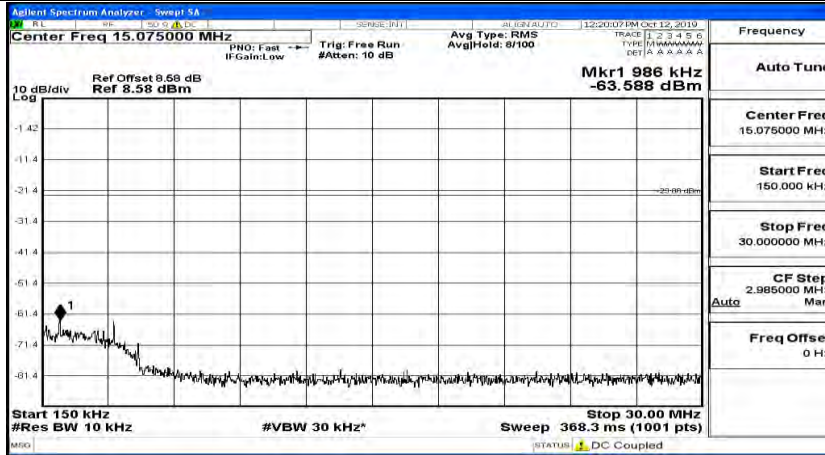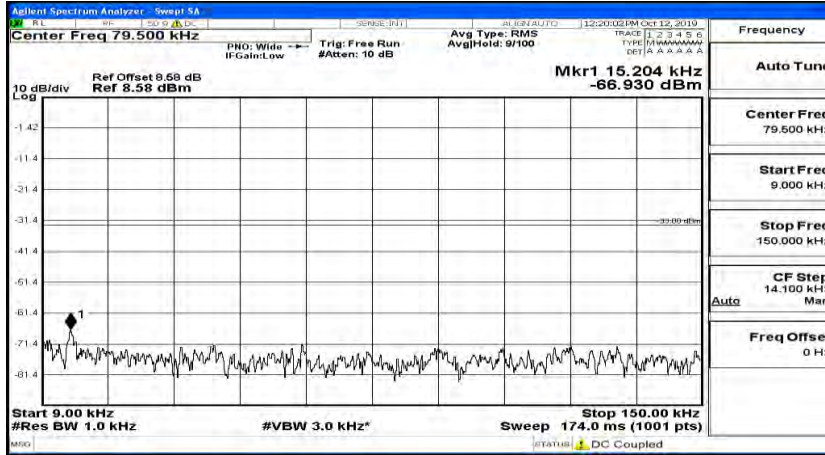
Page 43 of 52

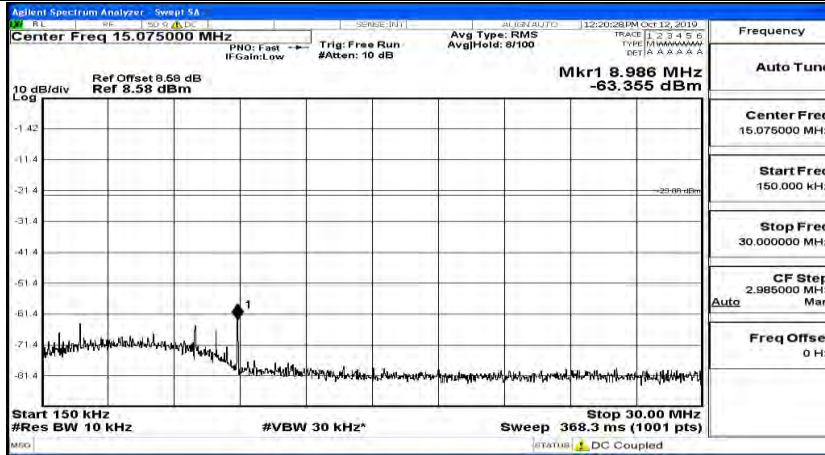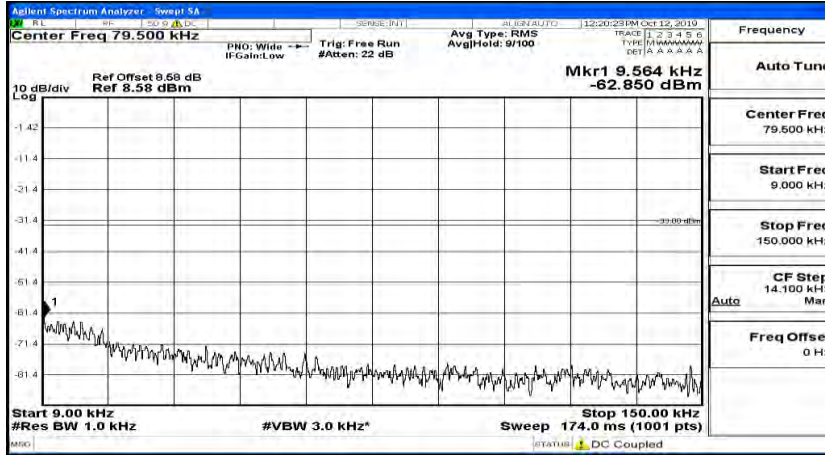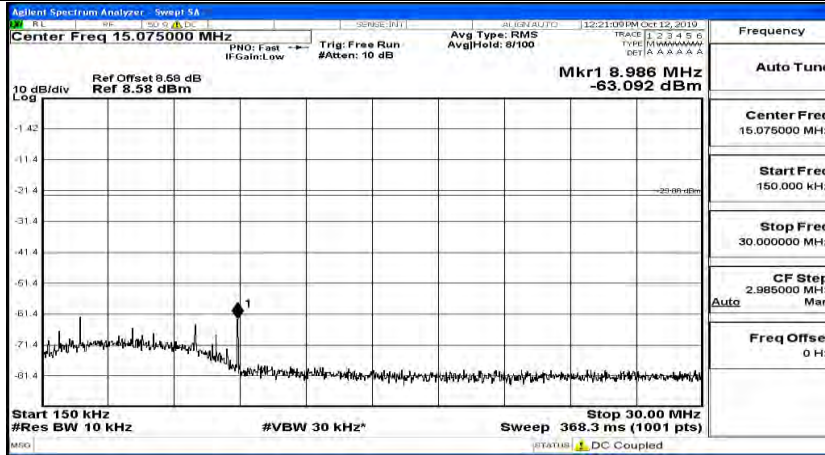## CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_LCH_16QAM

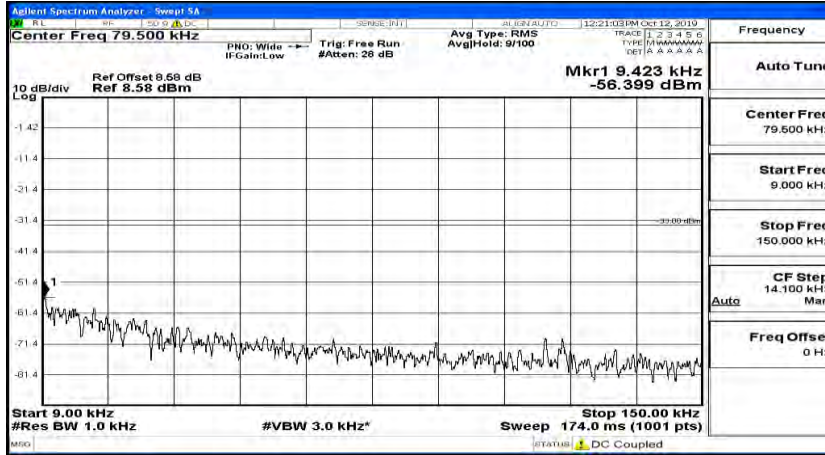## CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_MCH_16QAM

CSE Test Graph(s) (Channel Bandwidth: 5 MHz)_HCH_16QAM

CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_QPSK

CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_QPSK

This report shall not be reproduced except in full, without the written approval of Shenzhen LCS Compliance Testing Laboratory Ltd.
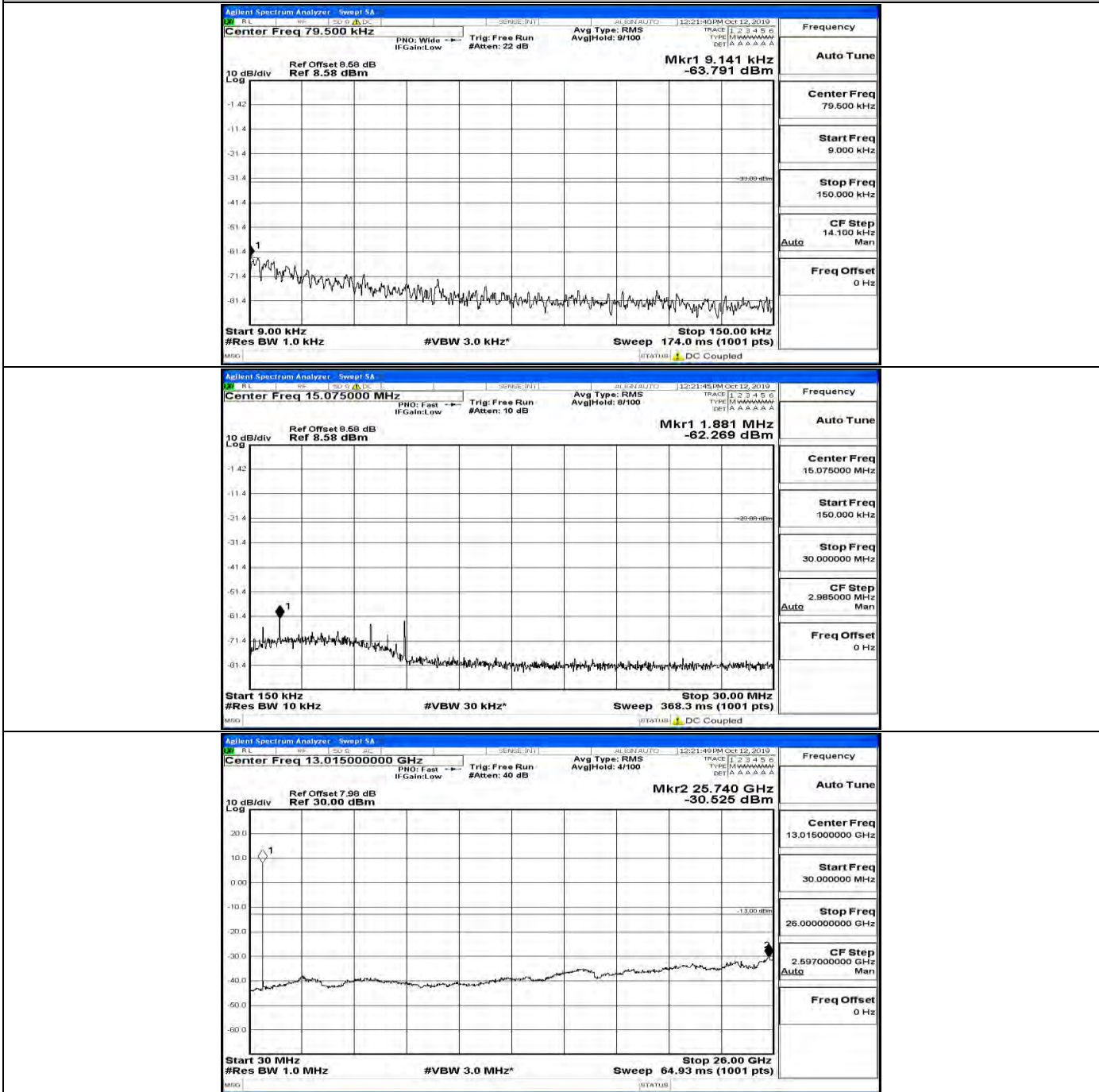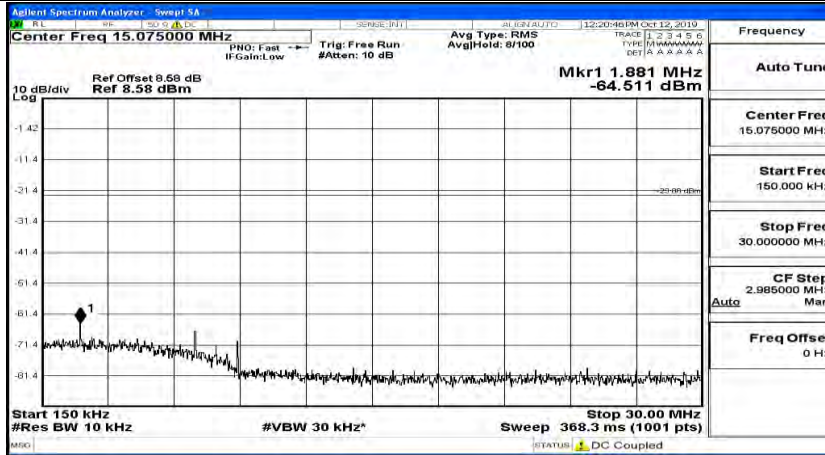
Page 48 of 52

CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_QPSK

CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_LCH_16QAM

This report shall not be reproduced except in full, without the written approval of Shenzhen LCS Compliance Testing Laboratory Ltd.

Page 50 of 52

CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_MCH_16QAM

CSE Test Graph(s) (Channel Bandwidth: 10 MHz)_HCH_16QAM

This report shall not be reproduced except in full, without the written approval of Shenzhen LCS Compliance Testing Laboratory Ltd.

Page 52 of 52