

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

**Product Name: 4G SMARTPHONE**  
**Test Model: X7**

### Environmental Conditions

Temperature:	24.5 ° C
Relative Humidity:	54.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Diamond Lu
Supervised by:	Wang Chuang

### H.1 Conducted Output Power

<SIM1>

Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	23.86	22.05	PASS
		1	12	23.83	21.83	PASS
		1	24	23.43	21.99	PASS
		12	0	22.59	21.11	PASS
		12	6	22.66	21.18	PASS
		12	13	22.71	21.13	PASS
		25	0	22.69	21.11	PASS
	MCH	1	0	23.79	22.13	PASS
		1	12	23.90	22.17	PASS
		1	24	23.84	22.18	PASS
		12	0	22.85	21.21	PASS
		12	6	22.88	21.21	PASS
		12	13	22.88	21.17	PASS
		25	0	22.92	21.19	PASS
	HCH	1	0	23.10	21.45	PASS
		1	12	23.47	21.97	PASS
		1	24	23.24	21.56	PASS
		12	0	23.23	21.50	PASS
		12	6	23.36	21.61	PASS
		12	13	23.21	21.61	PASS
		25	0	23.27	21.57	PASS

Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	23.39	21.93	PASS
		1	24	23.51	22.11	PASS
		1	49	23.41	21.97	PASS
		25	0	22.83	21.14	PASS
		25	12	22.78	21.10	PASS
		25	25	22.86	21.13	PASS
		50	0	22.74	21.14	PASS
	MCH	1	0	23.66	22.27	PASS
		1	24	23.94	22.63	PASS
		1	49	23.84	22.44	PASS
		25	0	22.91	21.14	PASS
		25	12	22.87	21.12	PASS
		25	25	22.90	21.19	PASS
		50	0	22.88	21.15	PASS
	HCH	1	0	23.16	21.79	PASS
		1	24	23.33	22.03	PASS
		1	49	23.22	21.91	PASS
		25	0	22.75	21.11	PASS
		25	12	22.81	21.15	PASS
		25	25	22.85	21.14	PASS
		50	0	22.86	21.14	PASS

Conducted Output Power Test Result (Channel Bandwidth: 15 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	23.30	21.94	PASS
		1	37	23.62	22.17	PASS
		1	74	23.51	22.00	PASS
		37	0	23.37	21.64	PASS
		37	18	23.55	21.78	PASS
		37	38	23.57	21.90	PASS
		75	0	23.36	21.76	PASS
	MCH	1	0	23.75	22.27	PASS
		1	37	24.05	22.69	PASS
		1	74	23.89	22.44	PASS
		37	0	22.88	21.16	PASS
		37	18	22.93	21.24	PASS
		37	38	22.86	21.19	PASS
		75	0	22.86	21.23	PASS
	HCH	1	0	23.33	21.94	PASS
		1	37	23.44	21.97	PASS
		1	74	23.27	21.71	PASS
		37	0	23.25	21.55	PASS
		37	18	23.29	21.55	PASS
		37	38	23.33	21.59	PASS
		75	0	23.35	21.60	PASS

Conducted Output Power Test Result (Channel Bandwidth: 20 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	23.32	21.82	PASS
		1	49	23.75	22.28	PASS
		1	99	23.57	21.97	PASS
		50	0	23.36	21.75	PASS
		50	25	23.51	21.74	PASS
		50	50	23.69	21.96	PASS
		100	0	23.48	21.79	PASS
	MCH	1	0	23.72	22.23	PASS
		1	49	23.86	22.25	PASS
		1	99	23.94	22.35	PASS
		50	0	22.79	21.06	PASS
		50	25	22.91	21.16	PASS
		50	50	22.88	21.10	PASS
		100	0	22.78	21.06	PASS
	HCH	1	0	23.52	22.18	PASS
		1	49	23.47	22.12	PASS
		1	99	23.21	21.79	PASS
		50	0	23.43	21.72	PASS
		50	25	23.32	21.69	PASS
		50	50	23.27	21.62	PASS
		100	0	23.34	21.61	PASS

## &lt;SIM2&gt;

Conducted Output Power Test Result (Channel Bandwidth: 5 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	23.77	21.92	PASS
		1	12	23.79	21.76	PASS
		1	24	23.39	21.89	PASS
		12	0	22.58	21.06	PASS
		12	6	22.57	21.08	PASS
		12	13	22.66	21.00	PASS
		25	0	22.71	21.07	PASS
	MCH	1	0	23.67	22.06	PASS
		1	12	23.85	22.07	PASS
		1	24	23.72	22.09	PASS
		12	0	22.77	21.11	PASS
		12	6	22.83	21.09	PASS
		12	13	22.83	21.02	PASS
		25	0	22.86	21.11	PASS
	HCH	1	0	23.01	21.37	PASS
		1	12	23.35	21.89	PASS
		1	24	23.12	21.48	PASS
		12	0	23.14	21.44	PASS
		12	6	23.25	21.48	PASS
		12	13	23.09	21.51	PASS
		25	0	23.21	21.47	PASS

Conducted Output Power Test Result (Channel Bandwidth: 10 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	23.33	21.78	PASS
		1	24	23.39	22.02	PASS
		1	49	23.30	21.83	PASS
		25	0	22.81	21.12	PASS
		25	12	22.84	21.10	PASS
		25	25	22.75	21.06	PASS
		50	0	22.61	21.04	PASS
	MCH	1	0	23.58	22.18	PASS
		1	24	23.88	22.53	PASS
		1	49	23.78	22.30	PASS
		25	0	22.83	21.06	PASS
		25	12	22.82	21.03	PASS
		25	25	22.78	21.07	PASS
		50	0	22.75	21.04	PASS
	HCH	1	0	23.05	21.71	PASS
		1	24	23.25	21.96	PASS
		1	49	23.11	21.78	PASS
		25	0	22.65	21.04	PASS
		25	12	22.75	21.04	PASS
		25	25	22.83	21.09	PASS
		50	0	22.77	21.04	PASS

Conducted Output Power Test Result (Channel Bandwidth: 15 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	23.21	21.86	PASS
		1	37	23.54	22.04	PASS
		1	74	23.43	21.86	PASS
		37	0	23.29	21.54	PASS
		37	18	23.51	21.64	PASS
		37	38	23.53	21.76	PASS
		75	0	23.32	21.63	PASS
	MCH	1	0	23.68	22.19	PASS
		1	37	23.91	22.48	PASS
		1	74	23.85	22.37	PASS
		37	0	22.75	21.08	PASS
		37	18	22.87	21.15	PASS
		37	38	22.76	21.11	PASS
		75	0	22.82	21.11	PASS
	HCH	1	0	23.22	21.86	PASS
		1	37	23.40	21.87	PASS
		1	74	23.21	21.64	PASS
		37	0	23.14	21.45	PASS
		37	18	23.23	21.47	PASS
		37	38	23.29	21.46	PASS
		75	0	23.29	21.51	PASS

Conducted Output Power Test Result (Channel Bandwidth: 20 MHz)						
Modulation	Channel	RB Configuration		Average Power [dBm] QPSK	Average Power [dBm] 16QAM	Verdict
		Size	Offset			
QPSK / 16QAM	LCH	1	0	23.24	21.70	PASS
		1	49	23.65	22.14	PASS
		1	99	23.49	21.85	PASS
		50	0	23.25	21.60	PASS
		50	25	23.38	21.67	PASS
		50	50	23.64	21.87	PASS
		100	0	23.39	21.65	PASS
	MCH	1	0	23.64	22.14	PASS
		1	49	23.74	22.11	PASS
		1	99	23.88	22.27	PASS
		50	0	22.63	21.08	PASS
		50	25	22.68	21.06	PASS
		50	50	22.62	21.04	PASS
		100	0	22.82	21.07	PASS
	HCH	1	0	23.42	22.11	PASS
		1	49	23.43	22.01	PASS
		1	99	23.16	21.65	PASS
		50	0	23.33	21.57	PASS
		50	25	23.21	21.56	PASS
		50	50	23.22	21.54	PASS
		100	0	23.28	21.52	PASS

**H.2 Peak-to-Average Ratio**

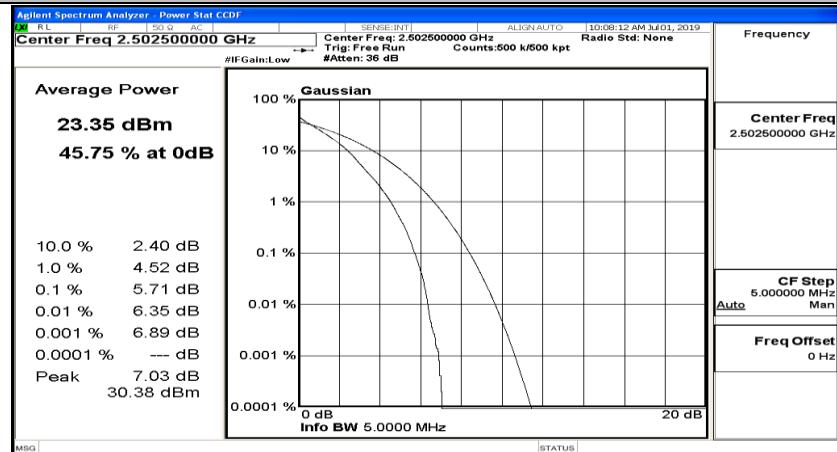
Peak-to Average Ratio Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.71	<13	PASS
	MCH	5.56	<13	PASS
	HCH	5.28	<13	PASS
16QAM	LCH	6.51	<13	PASS
	MCH	6.38	<13	PASS
	HCH	6.09	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.71	<13	PASS
	MCH	5.59	<13	PASS
	HCH	5.43	<13	PASS
16QAM	LCH	6.45	<13	PASS
	MCH	6.34	<13	PASS
	HCH	6.2	<13	PASS

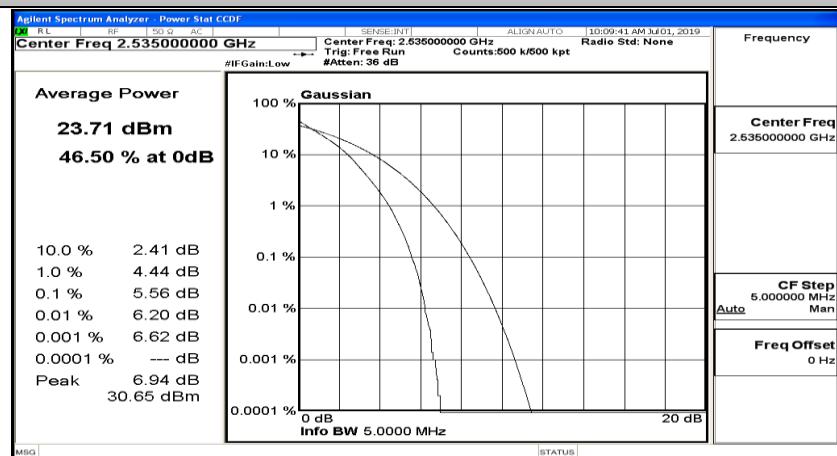
Peak-to Average Ratio Test Result (Channel Bandwidth: 15 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5	<13	PASS
	MCH	4.96	<13	PASS
	HCH	5.02	<13	PASS
16QAM	LCH	6.34	<13	PASS
	MCH	6.29	<13	PASS
	HCH	6.28	<13	PASS

Peak-to Average Ratio Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
QPSK	LCH	5.7	<13	PASS
	MCH	5.68	<13	PASS
	HCH	5.74	<13	PASS
16QAM	LCH	6.85	<13	PASS
	MCH	6.77	<13	PASS
	HCH	6.74	<13	PASS

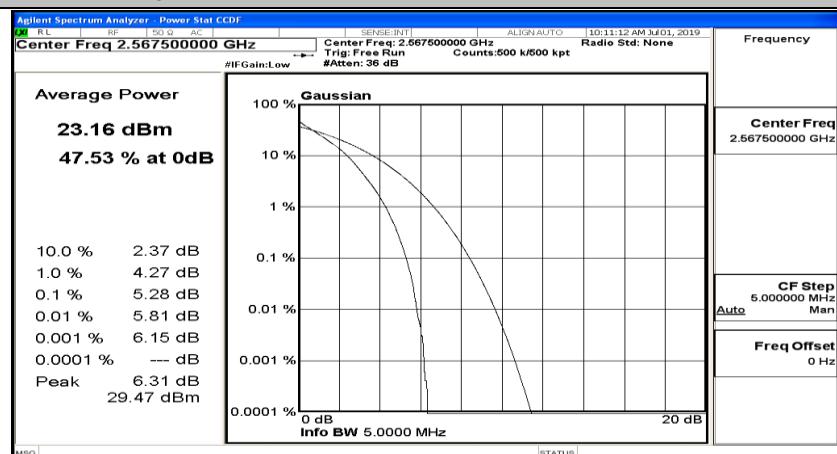
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK



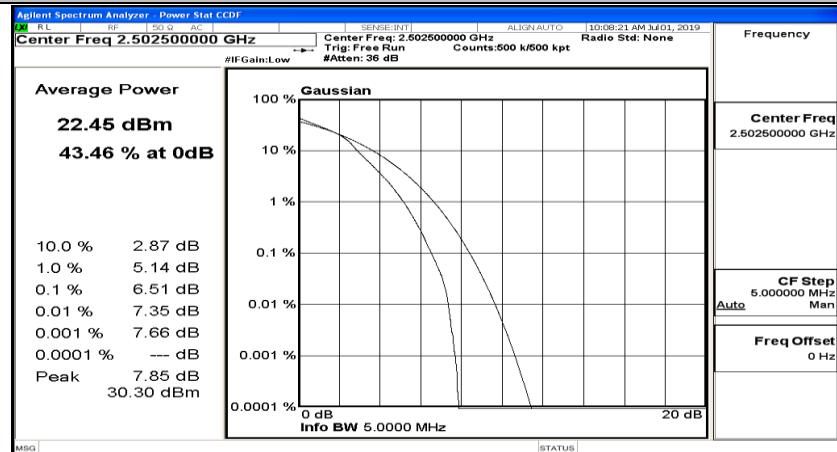
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_QPSK



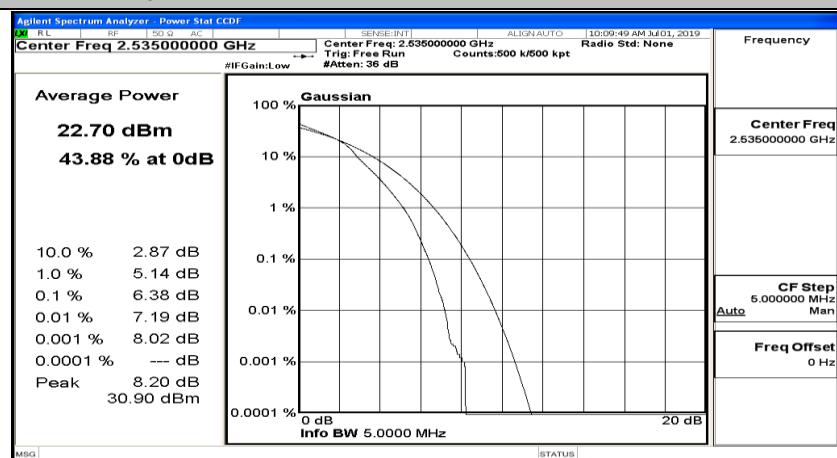
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK



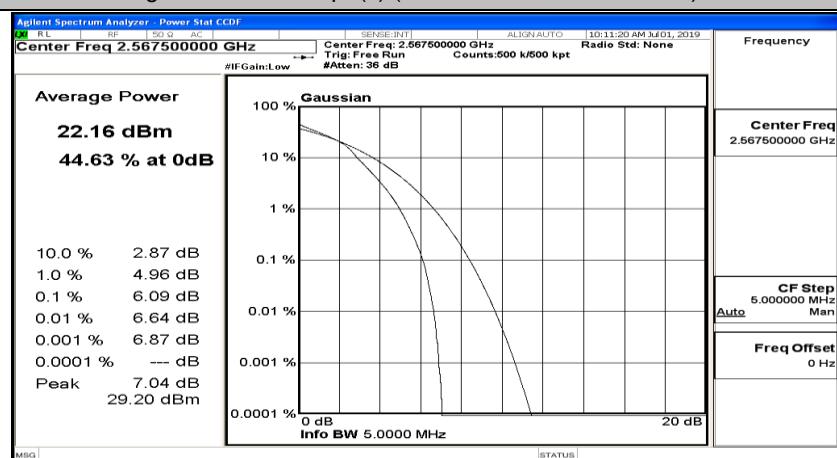
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



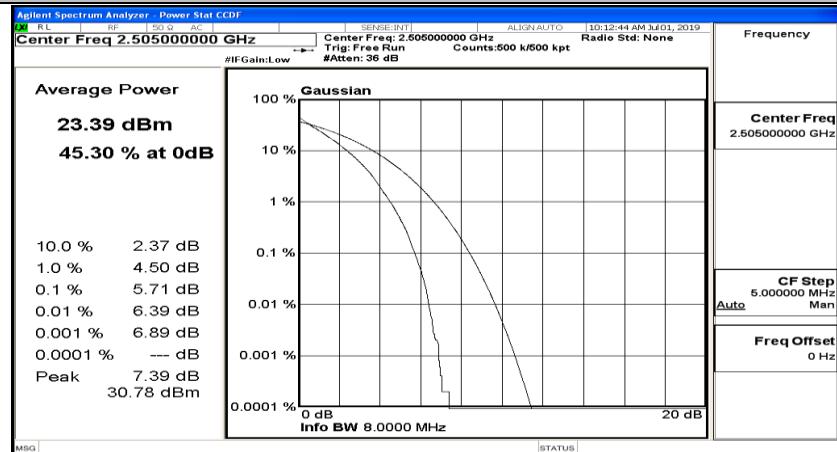
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_16QAM



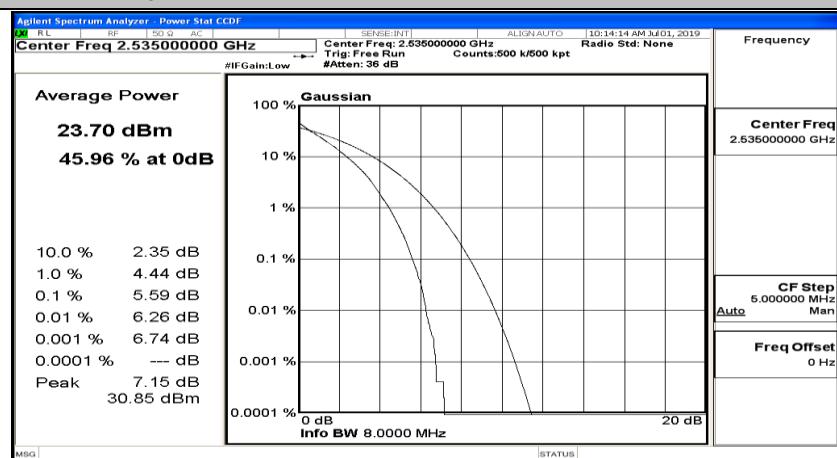
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



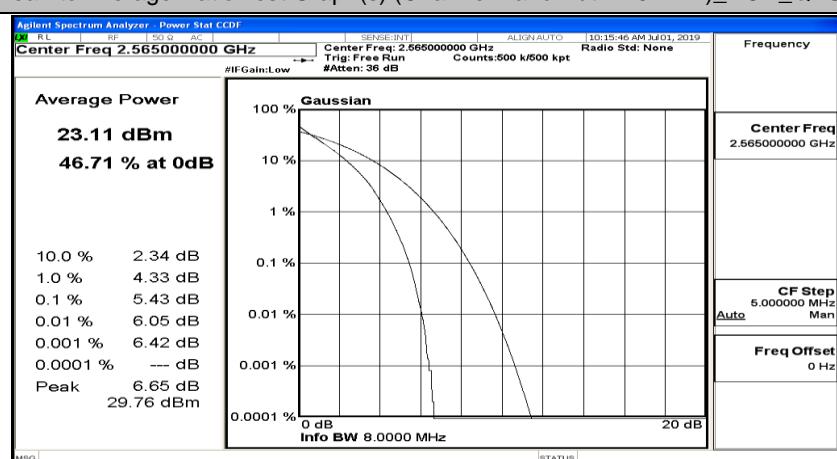
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_QPSK



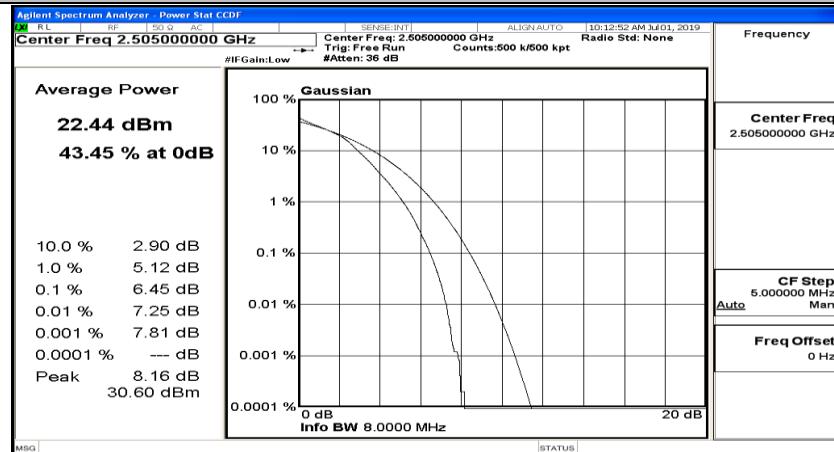
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_QPSK



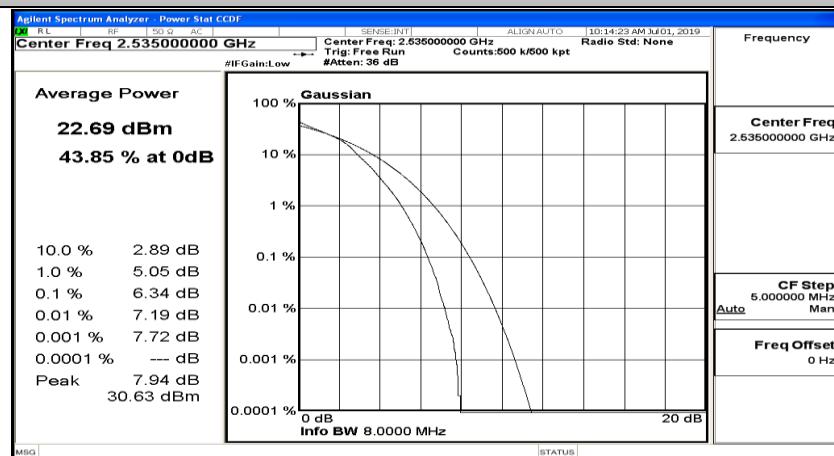
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK



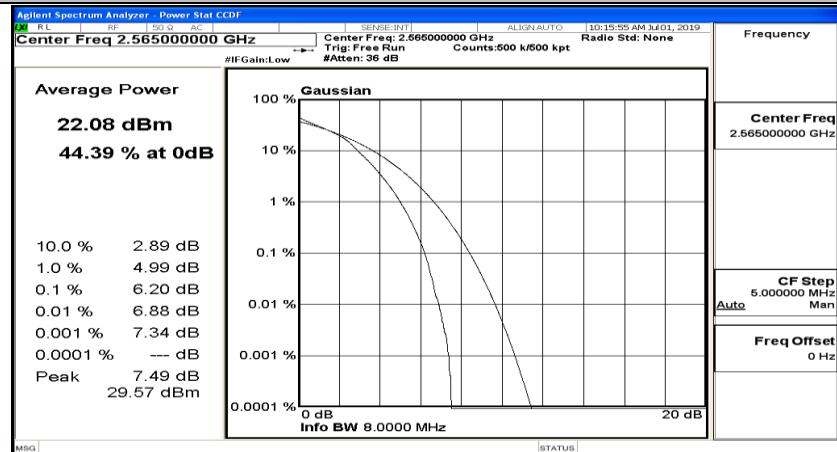
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_16QAM



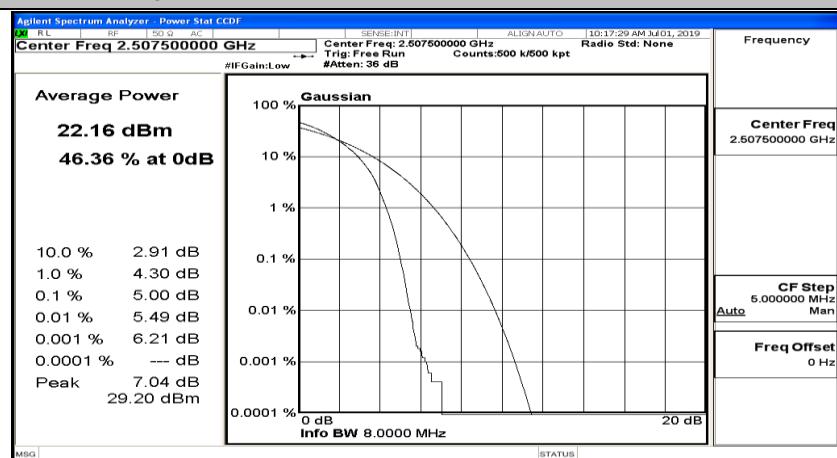
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_16QAM



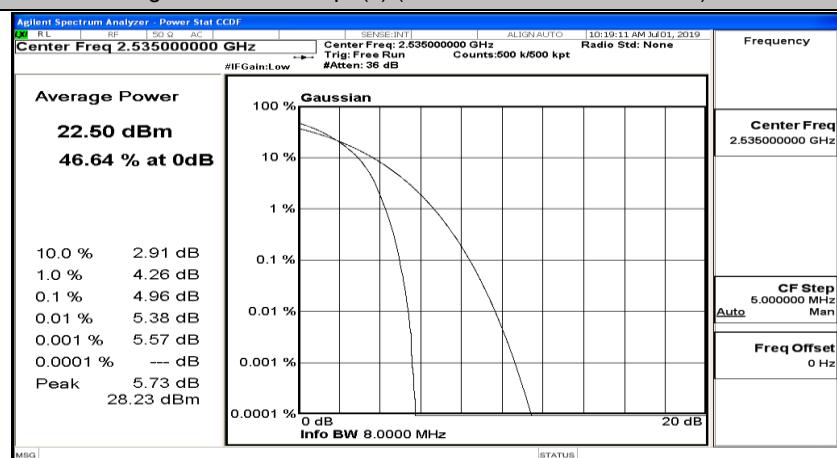
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_16QAM



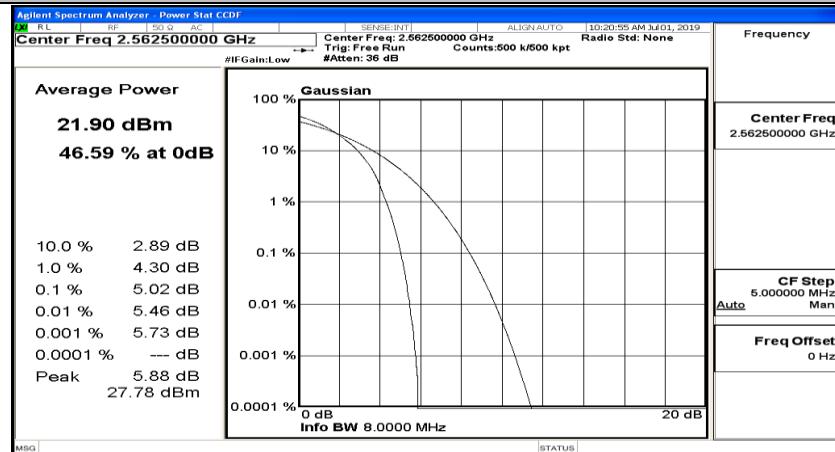
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)\_LCH\_QPSK



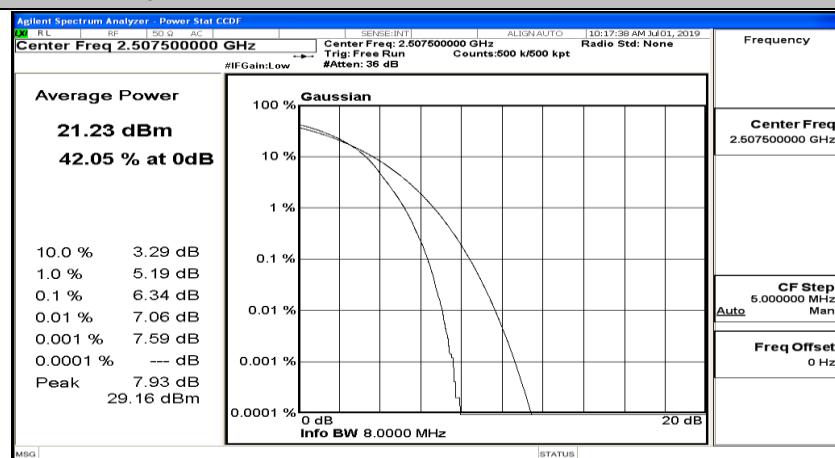
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)\_MCH\_QPSK



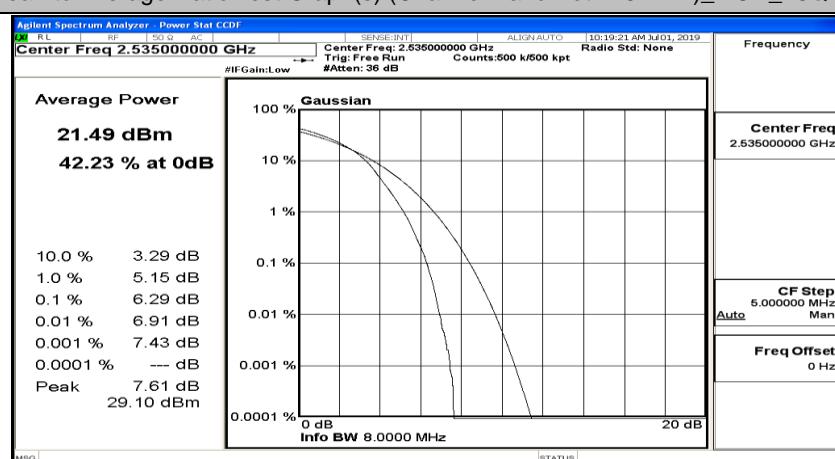
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)\_HCH\_QPSK



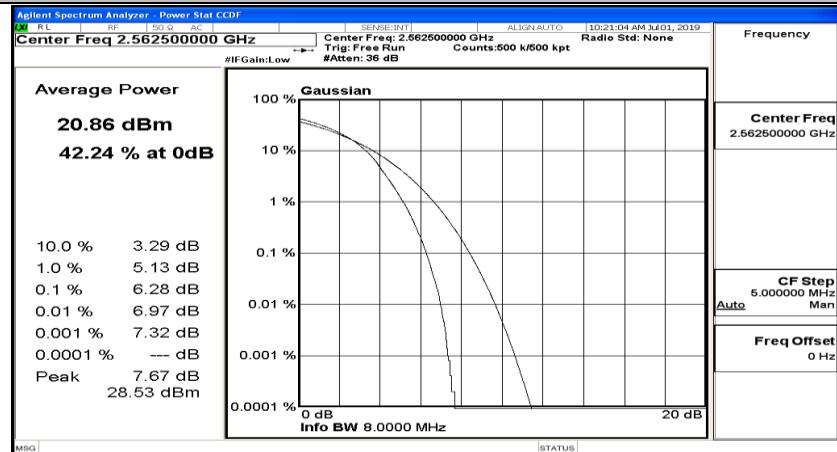
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)\_LCH\_16QAM



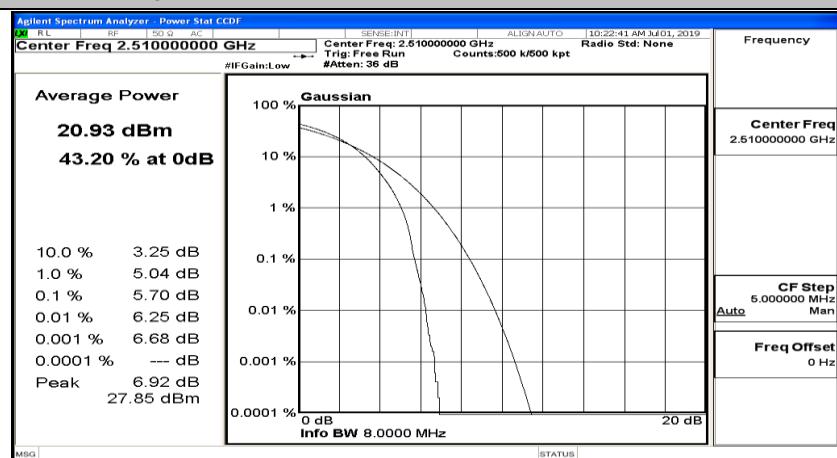
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)\_MCH\_16QAM



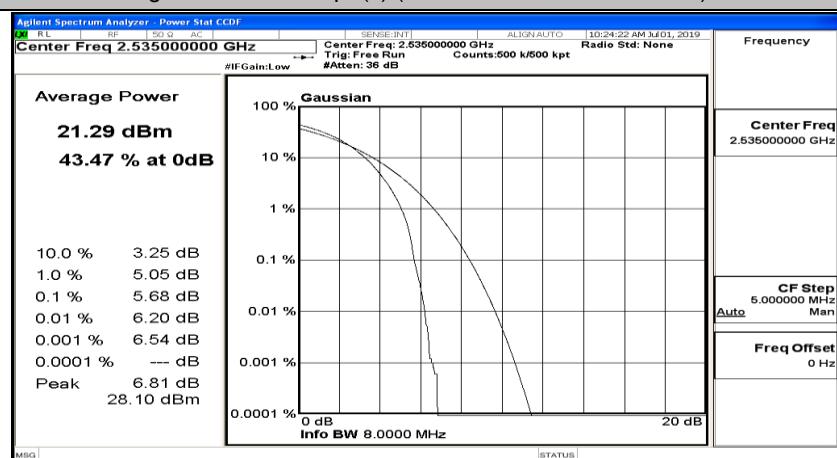
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:15 MHz)\_HCH\_16QAM



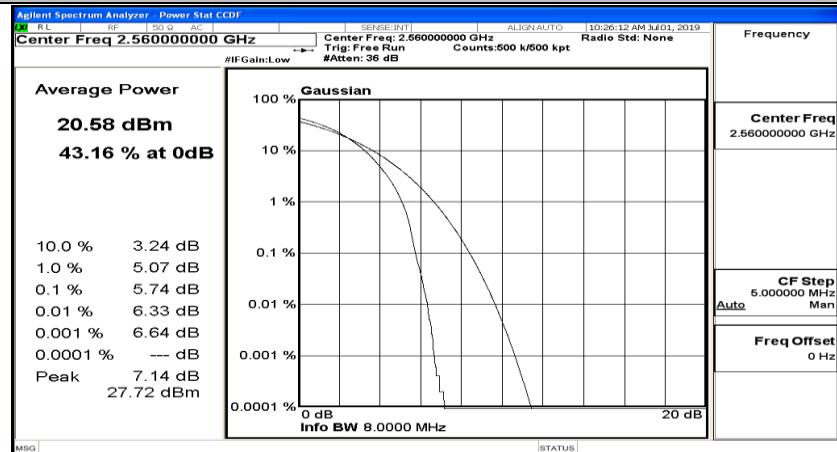
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)\_LCH\_QPSK



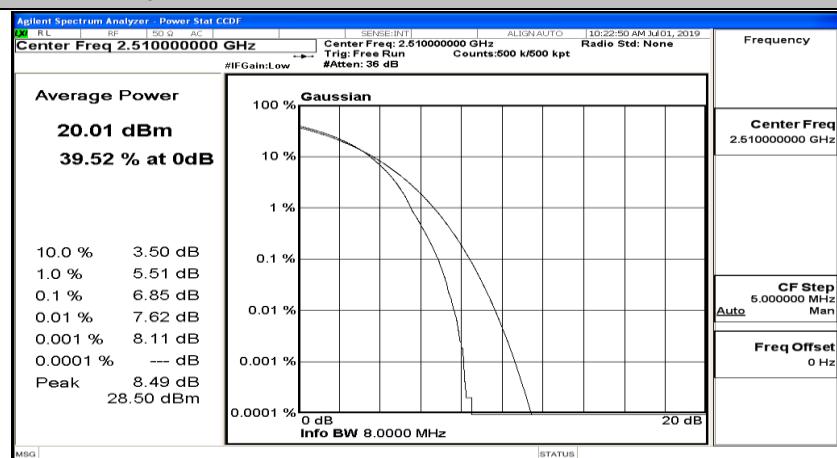
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)\_MCH\_QPSK



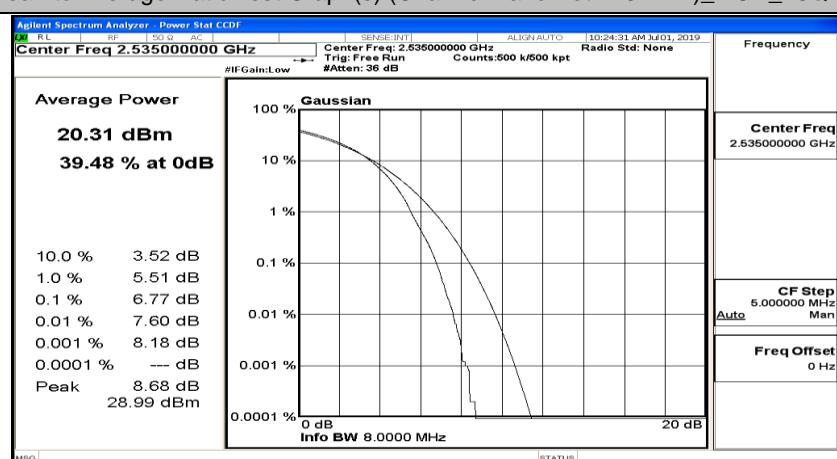
## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)\_HCH\_QPSK

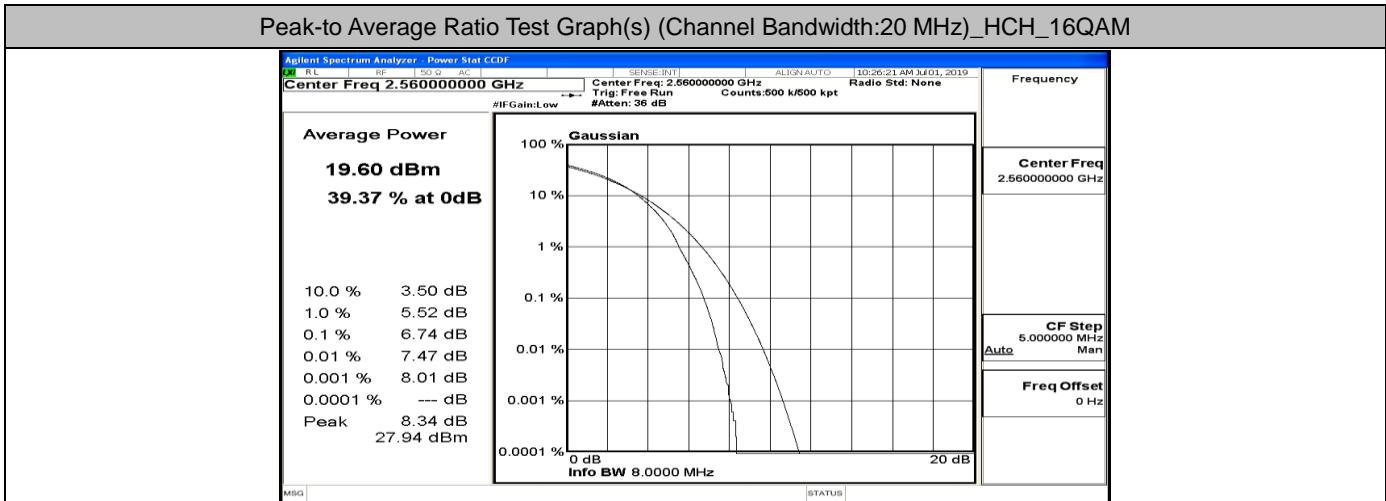


## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)\_LCH\_16QAM



## Peak-to Average Ratio Test Graph(s) (Channel Bandwidth:20 MHz)\_MCH\_16QAM





**H.3 26dB Bandwidth and Occupied Bandwidth**

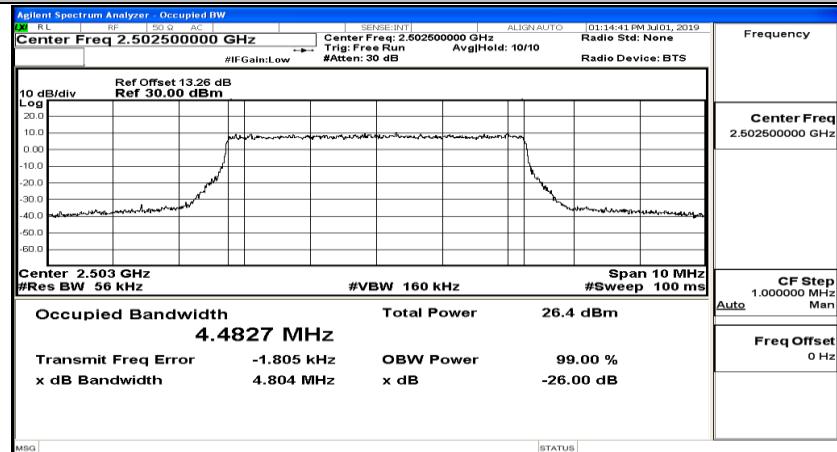
EBW & OBW Test Result (Channel Bandwidth: 5 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	4.4827	4.804	PASS
	MCH	4.4741	4.875	PASS
	HCH	4.4839	4.875	PASS
16QAM	LCH	4.4811	4.859	PASS
	MCH	4.4821	4.883	PASS
	HCH	4.4793	4.845	PASS

EBW & OBW Test Result (Channel Bandwidth: 10 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	8.9473	9.614	PASS
	MCH	8.9322	9.525	PASS
	HCH	8.9366	9.562	PASS
16QAM	LCH	8.9433	9.501	PASS
	MCH	8.9446	9.548	PASS
	HCH	8.9642	9.474	PASS

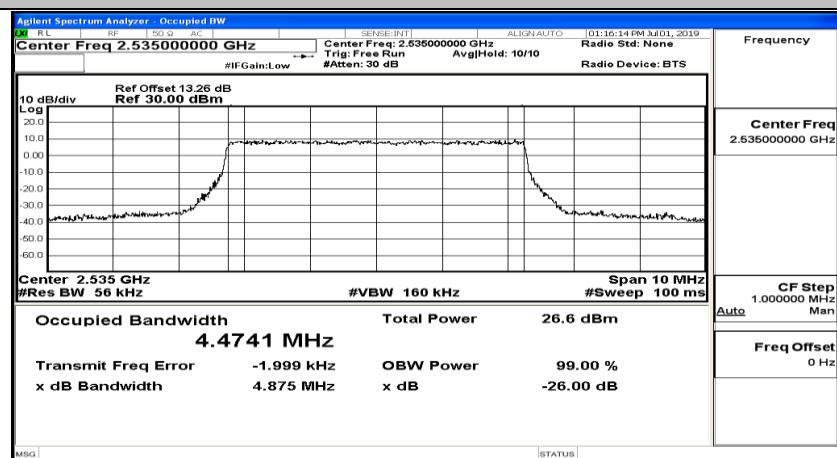
EBW & OBW Test Result (Channel Bandwidth: 15 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	13.403	14.13	PASS
	MCH	13.409	14.09	PASS
	HCH	13.419	14.08	PASS
16QAM	LCH	13.394	14.12	PASS
	MCH	13.395	14.05	PASS
	HCH	13.410	14.09	PASS

EBW & OBW Test Result (Channel Bandwidth: 20 MHz)				
Modulation	Channel	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
QPSK	LCH	17.846	18.63	PASS
	MCH	17.849	18.59	PASS
	HCH	17.865	18.68	PASS
16QAM	LCH	17.875	18.65	PASS
	MCH	17.837	18.62	PASS
	HCH	17.866	18.66	PASS

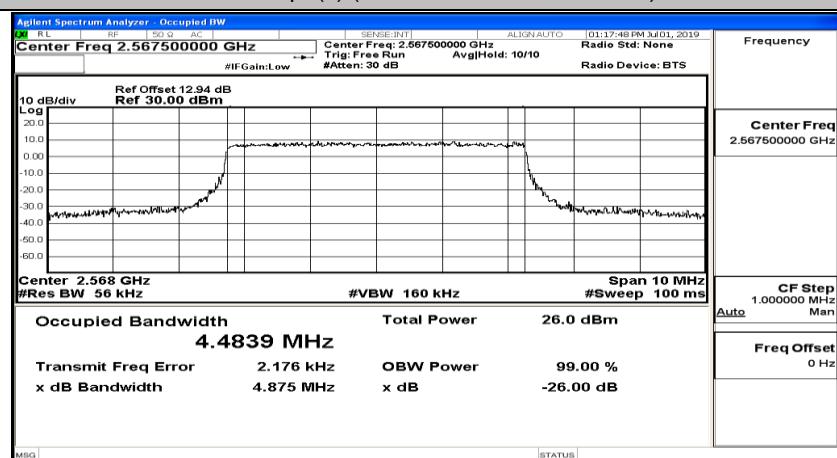
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_QPSK



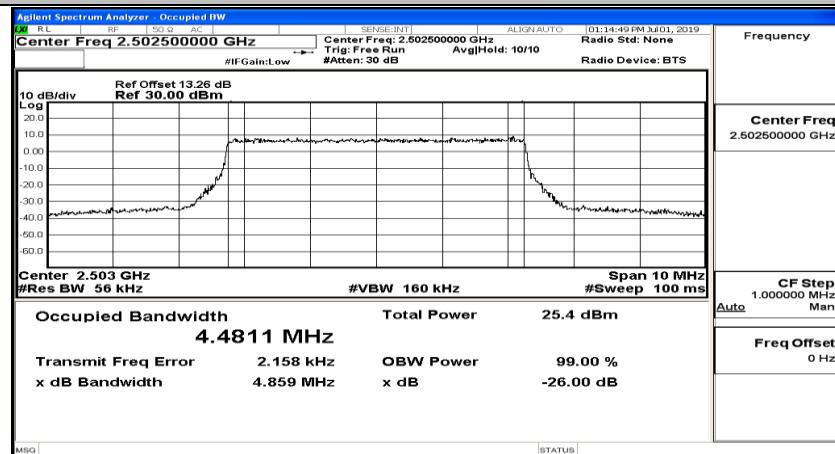
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_QPSK



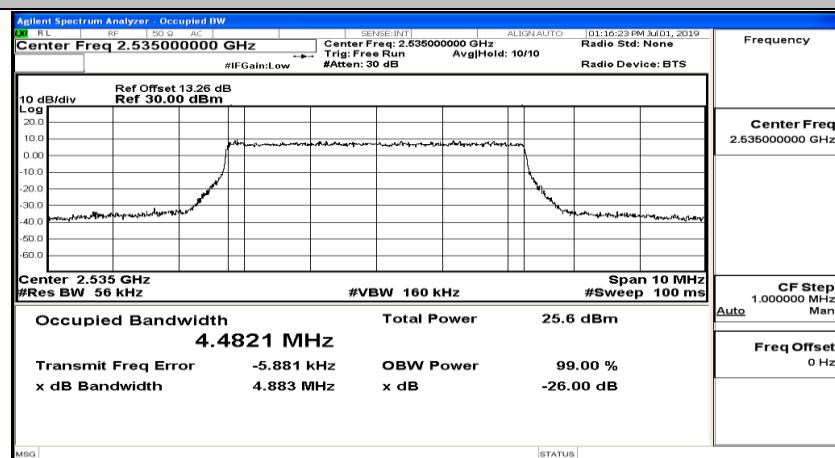
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_QPSK



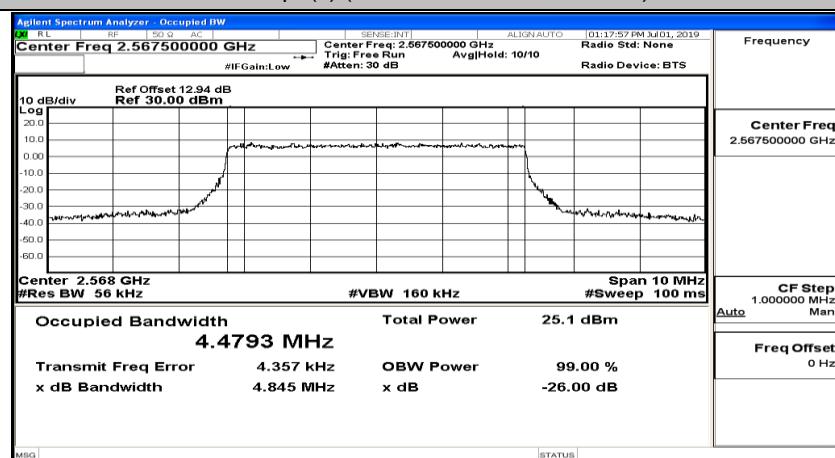
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_LCH\_16QAM



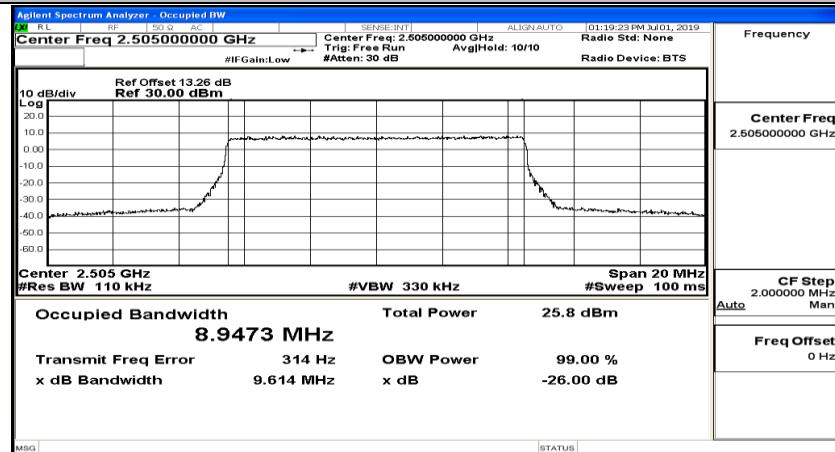
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_MCH\_16QAM



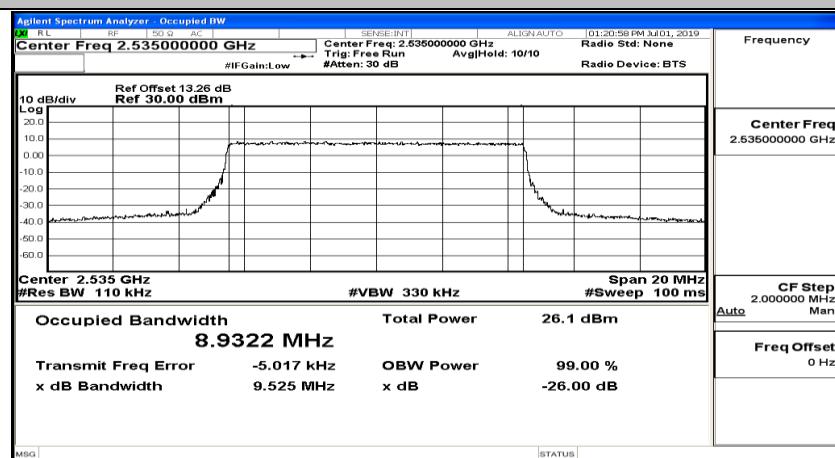
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 5 MHz)\_HCH\_16QAM



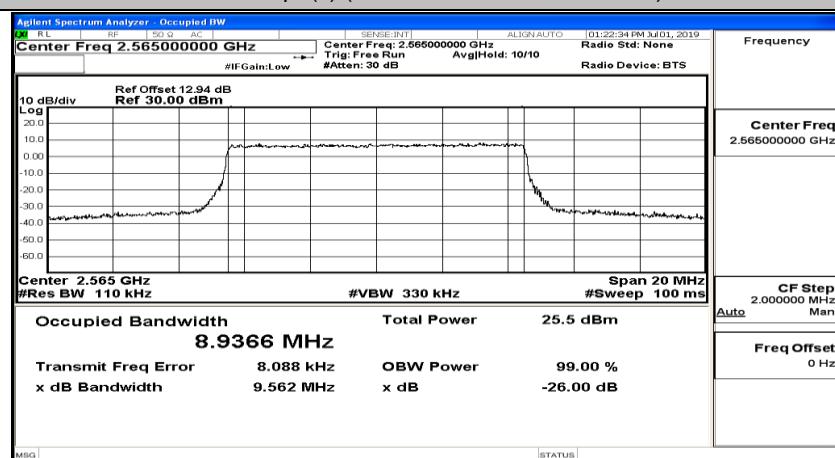
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_QPSK



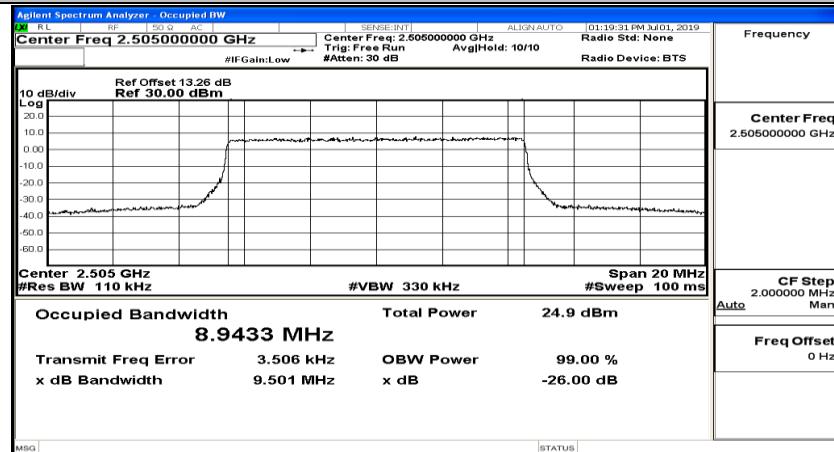
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_QPSK



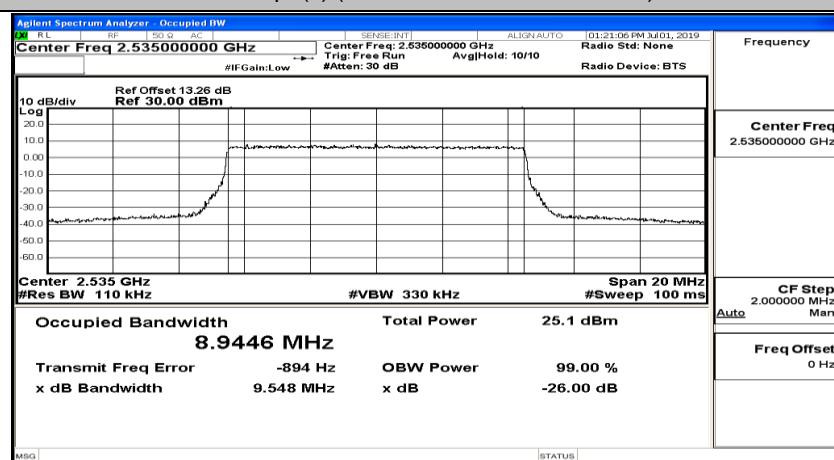
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_QPSK



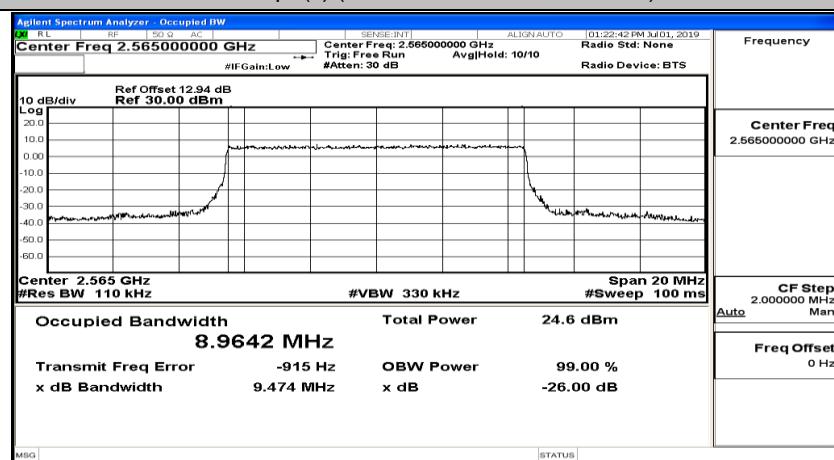
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_LCH\_16QAM



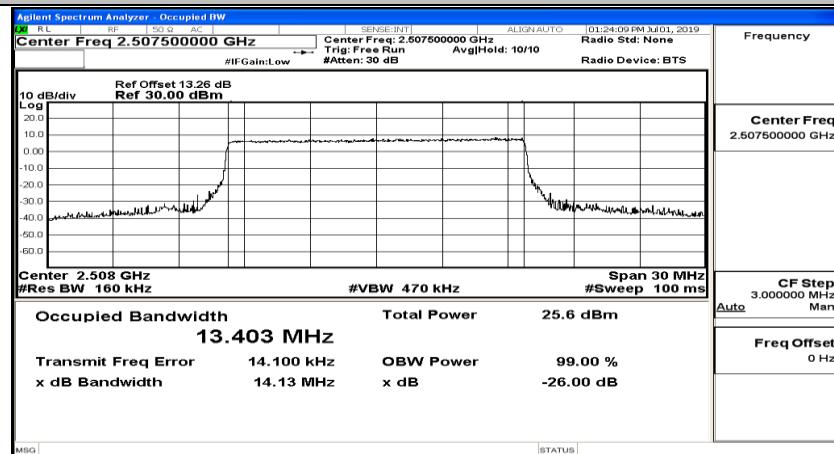
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_MCH\_16QAM



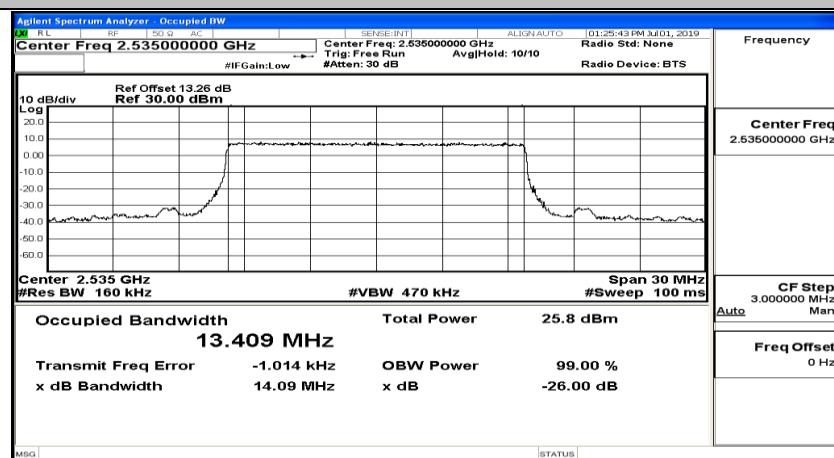
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth: 10 MHz)\_HCH\_16QAM



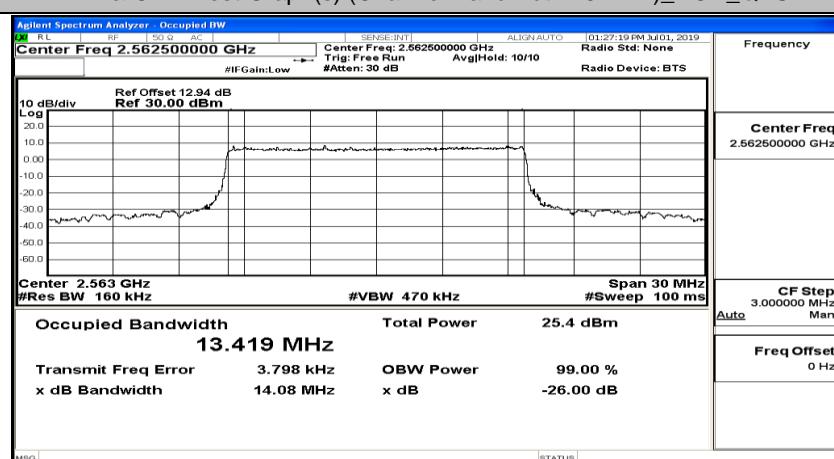
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth:15 MHz)\_LCH\_QPSK



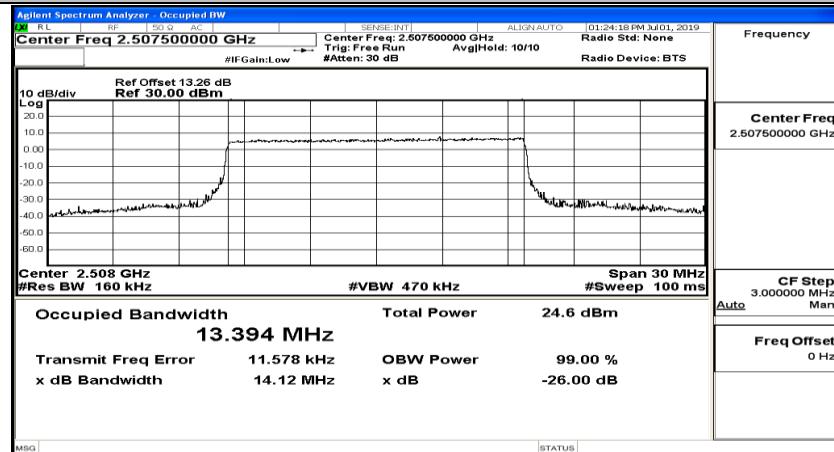
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth:15 MHz)\_MCH\_QPSK



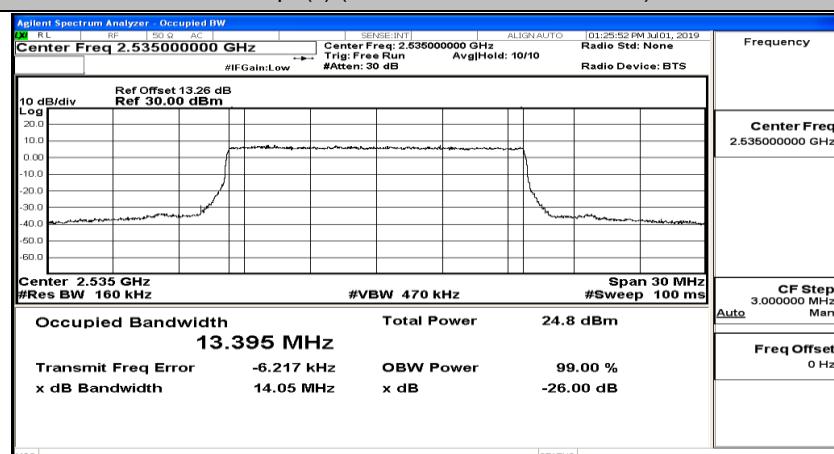
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth:15 MHz)\_HCH\_QPSK



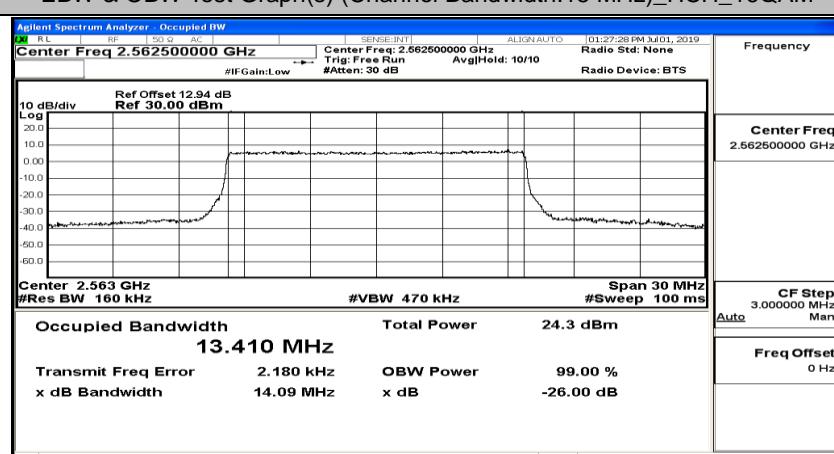
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth:15 MHz)\_LCH\_16QAM



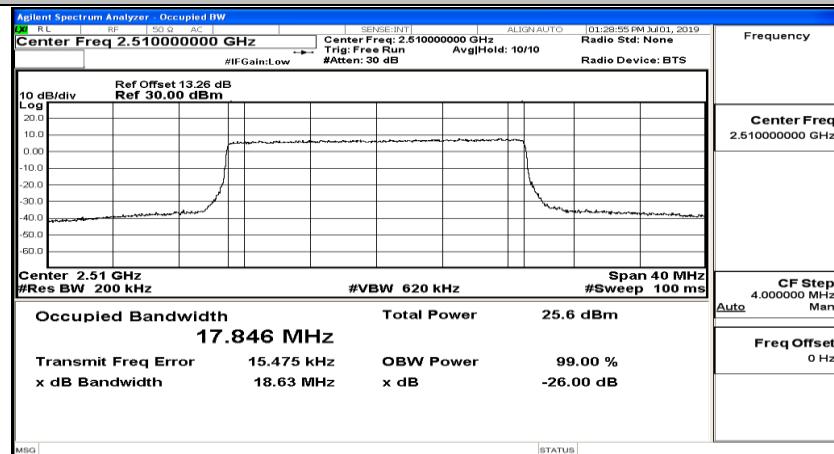
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth:15 MHz)\_MCH\_16QAM



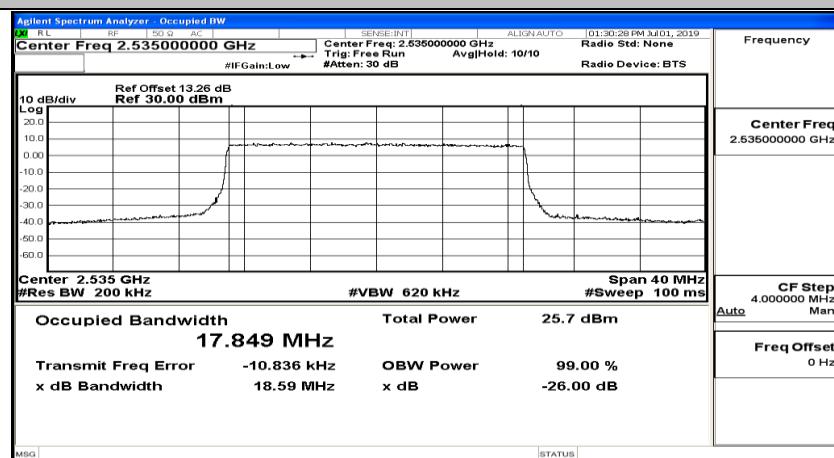
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth:15 MHz)\_HCH\_16QAM



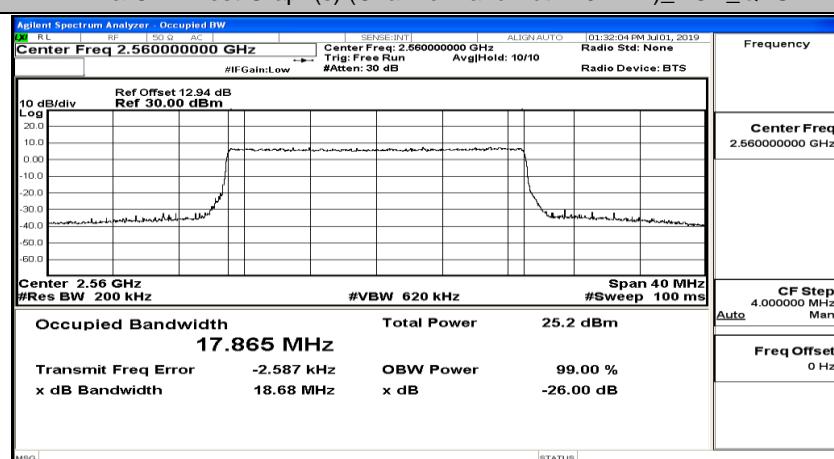
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth:20 MHz)\_LCH\_QPSK



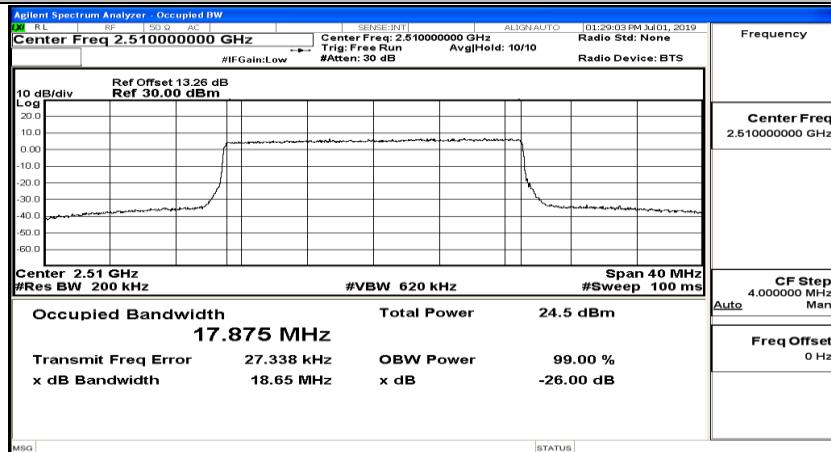
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth:20 MHz)\_MCH\_QPSK



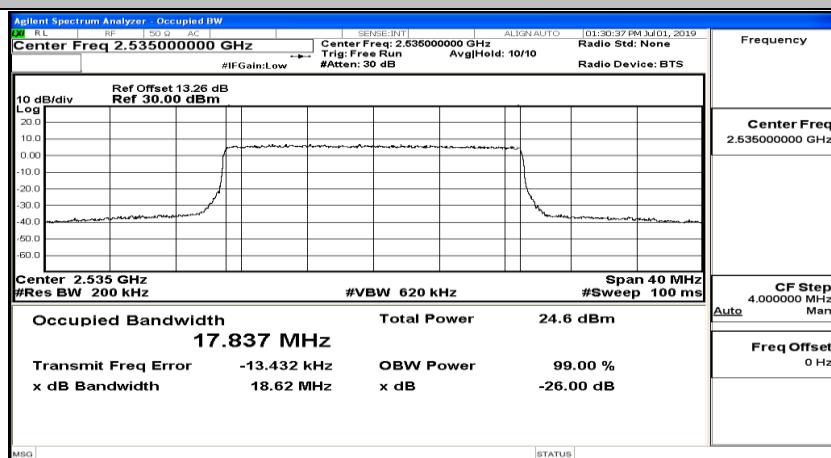
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth:20 MHz)\_HCH\_QPSK



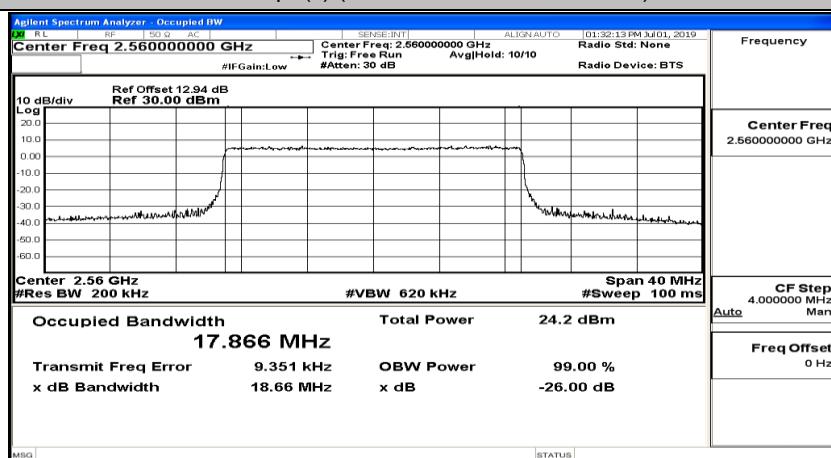
## EBW &amp; OBW Test Graph(s) (Channel Bandwidth:20 MHz)\_LCH\_16QAM



## EBW &amp; OBW Test Graph(s) (Channel Bandwidth:20 MHz)\_MCH\_16QAM

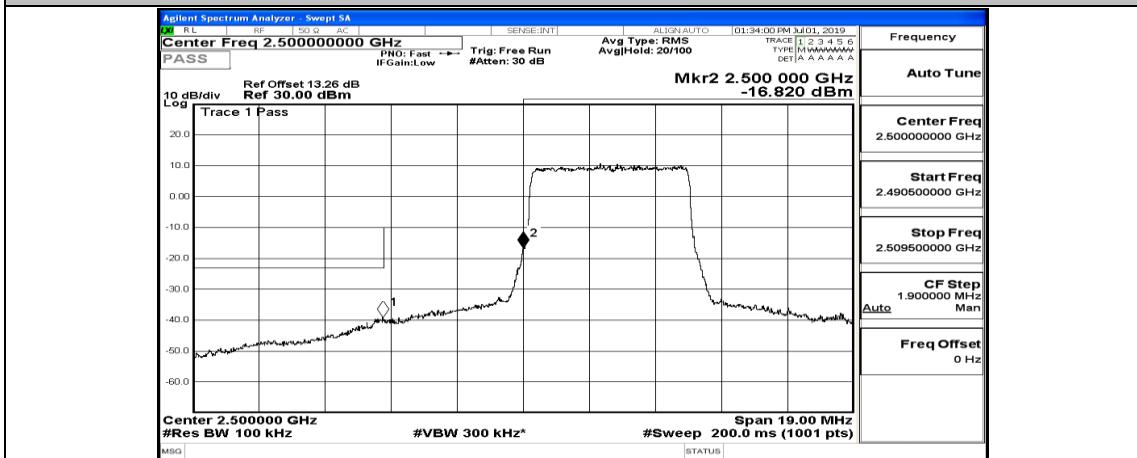


## EBW &amp; OBW Test Graph(s) (Channel Bandwidth:20 MHz)\_HCH\_16QAM

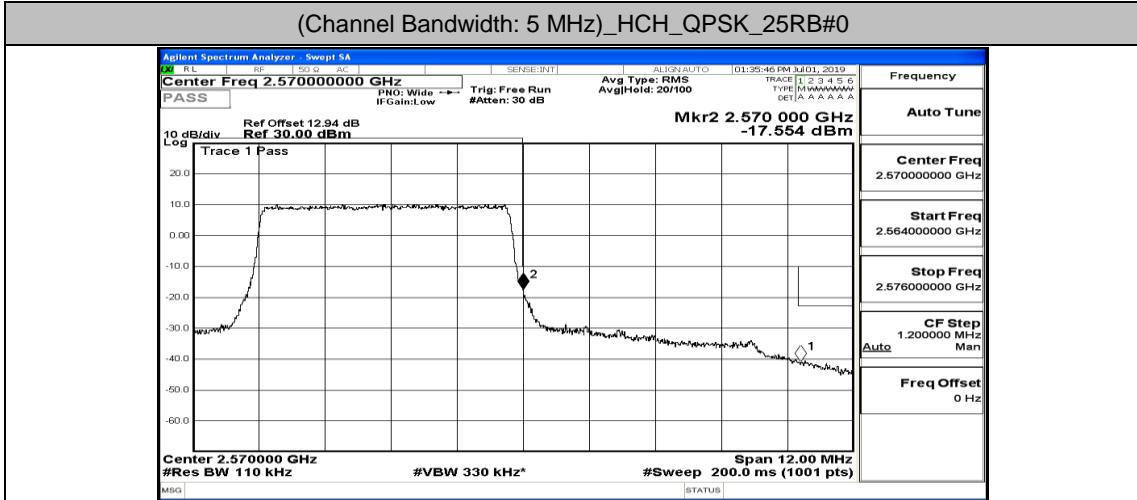


**H.4 Band Edge****Channel Bandwidth: 5 MHz**

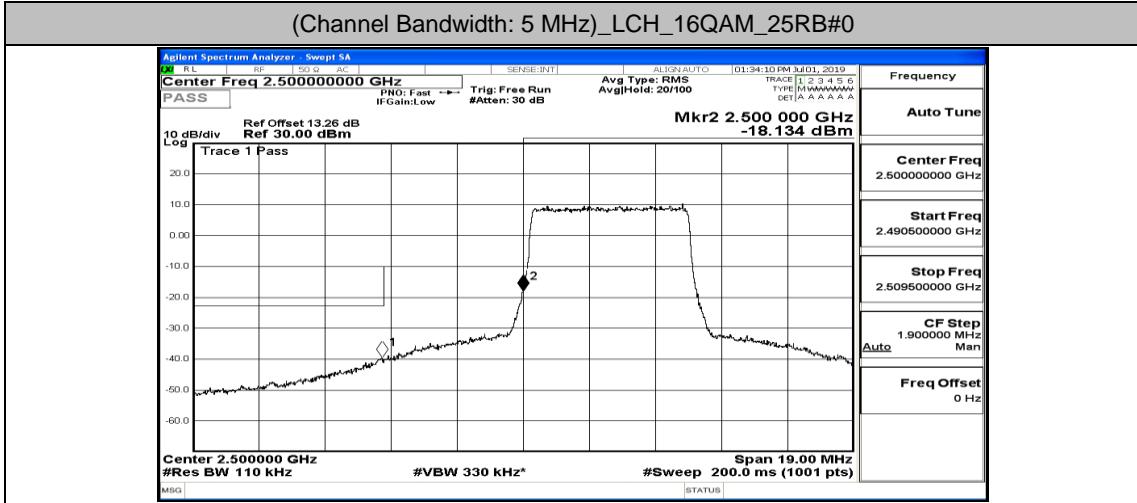
(Channel Bandwidth: 5 MHz)\_LCH\_QPSK\_25RB#0

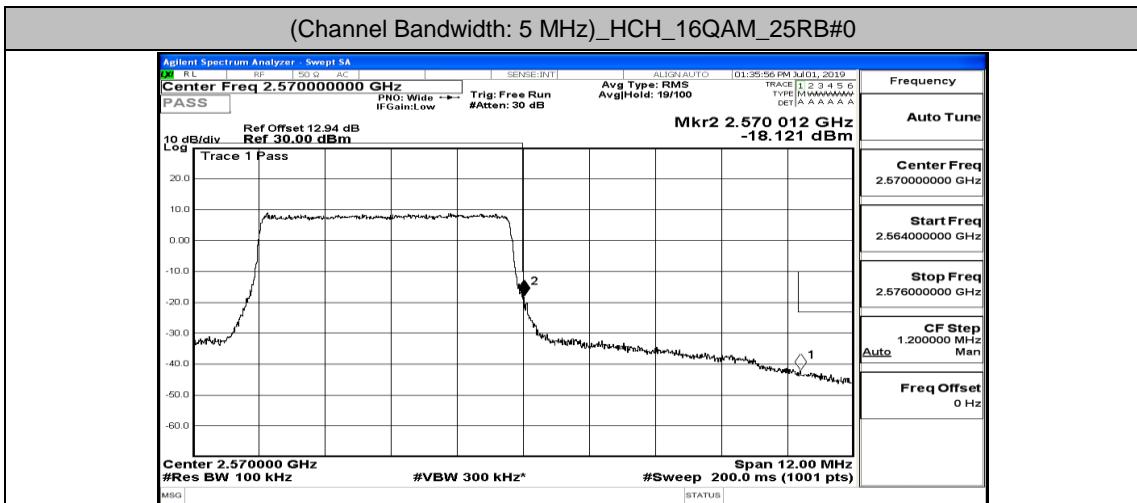


(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_25RB#0

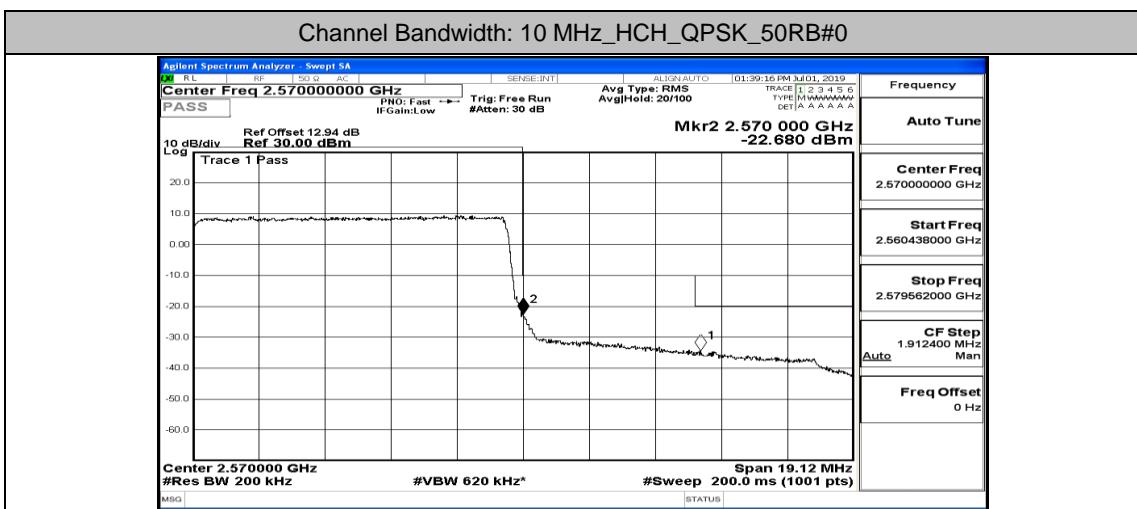
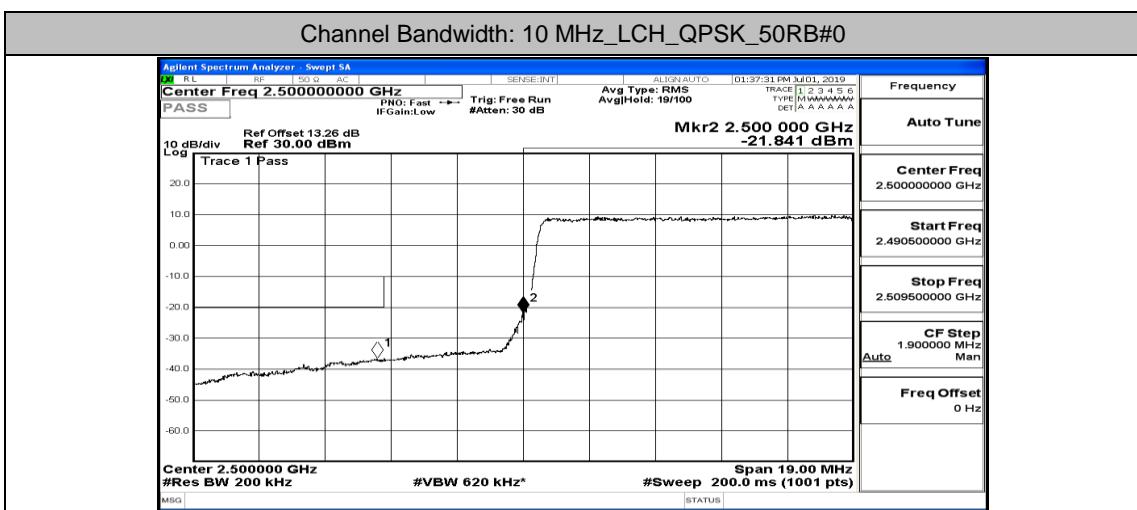


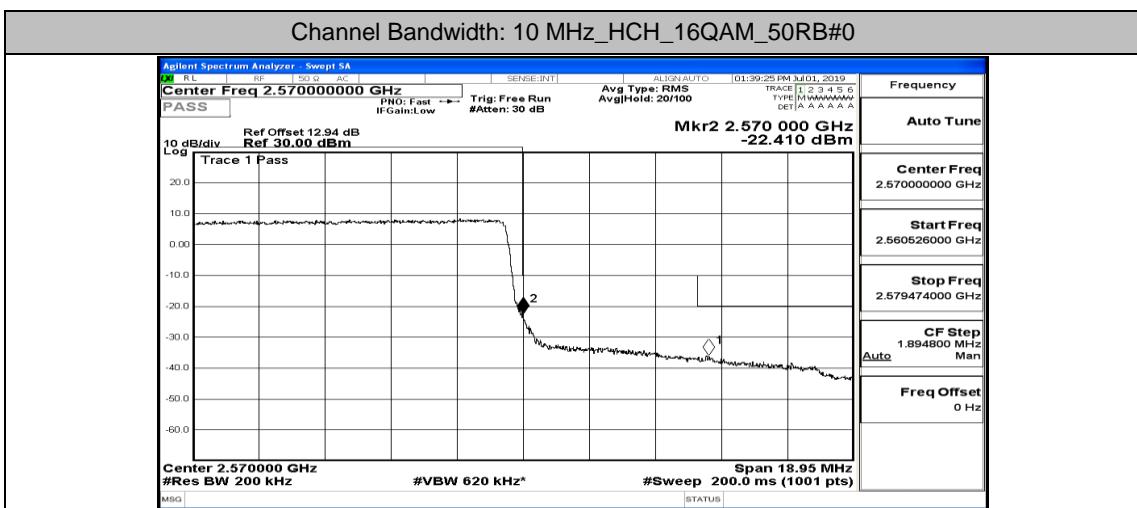
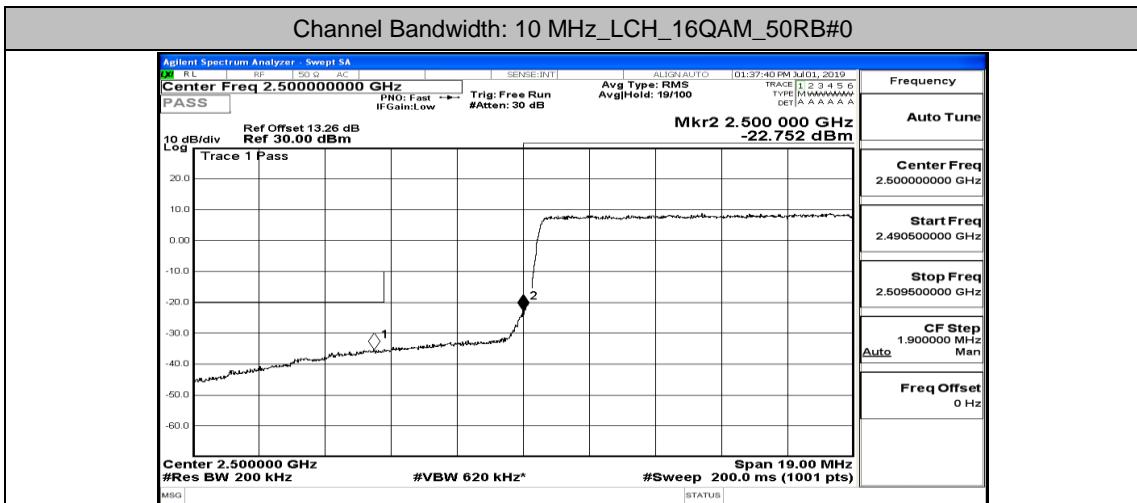
(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_25RB#0



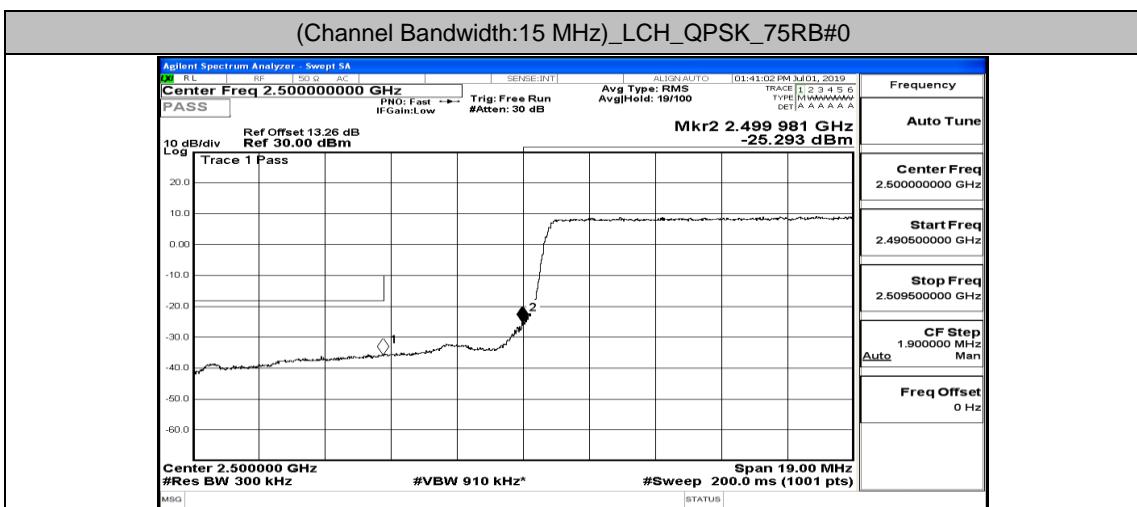


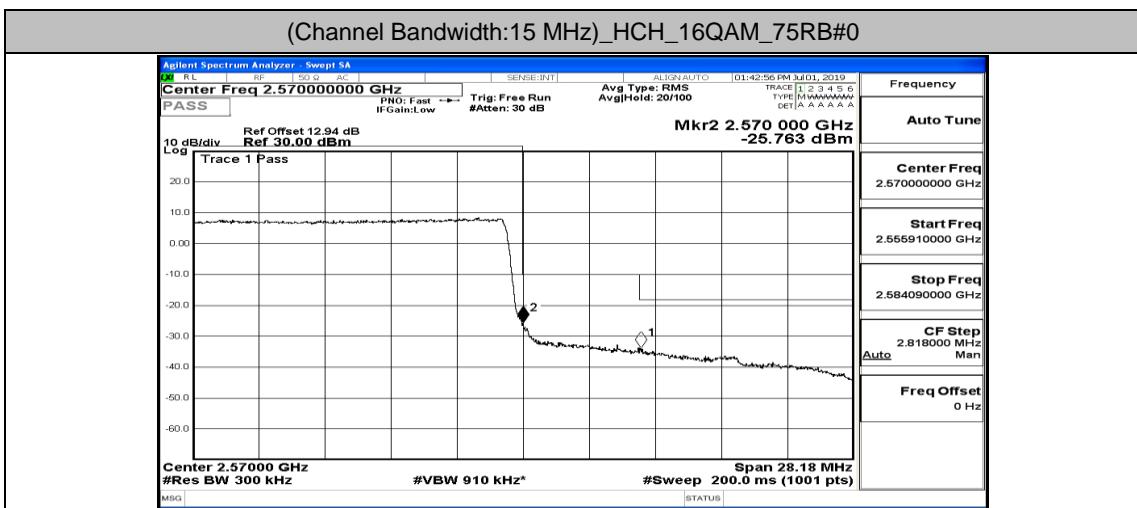
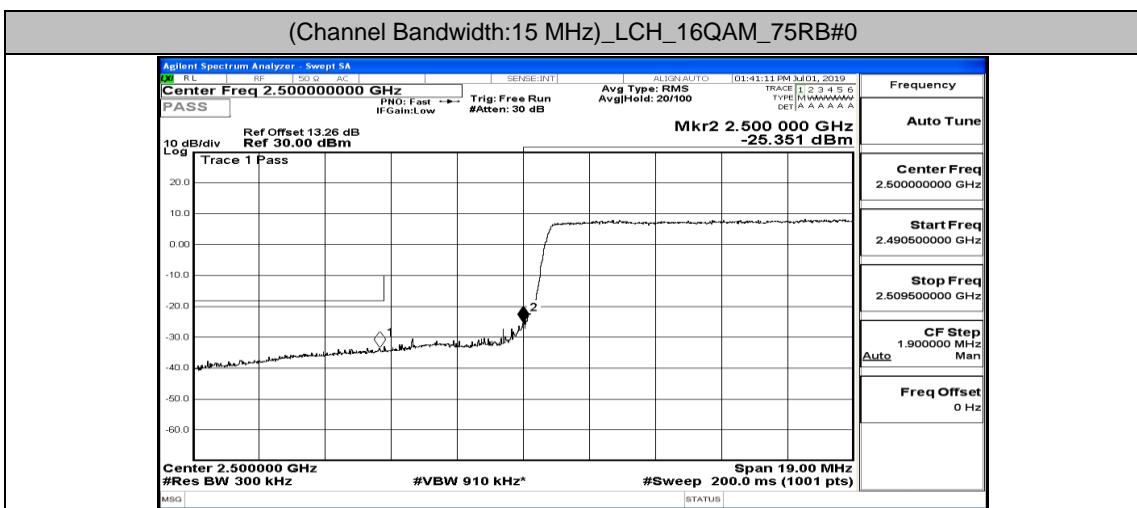
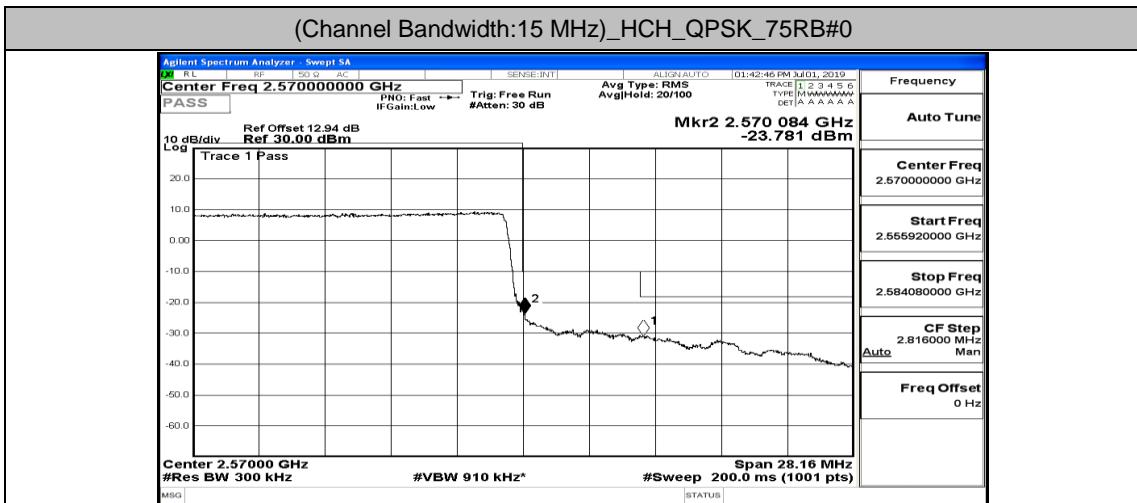
## Channel Bandwidth: 10 MHz



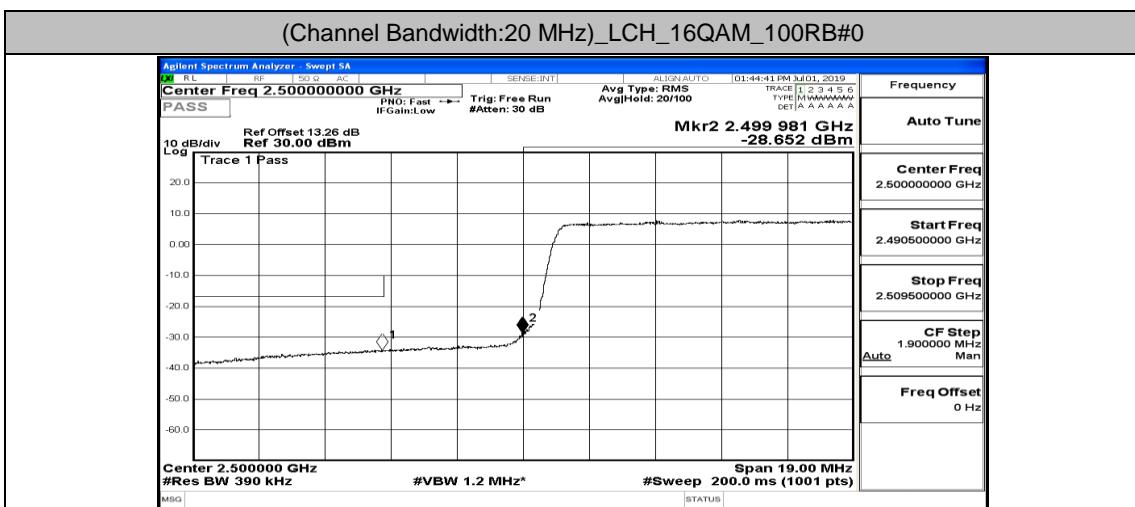
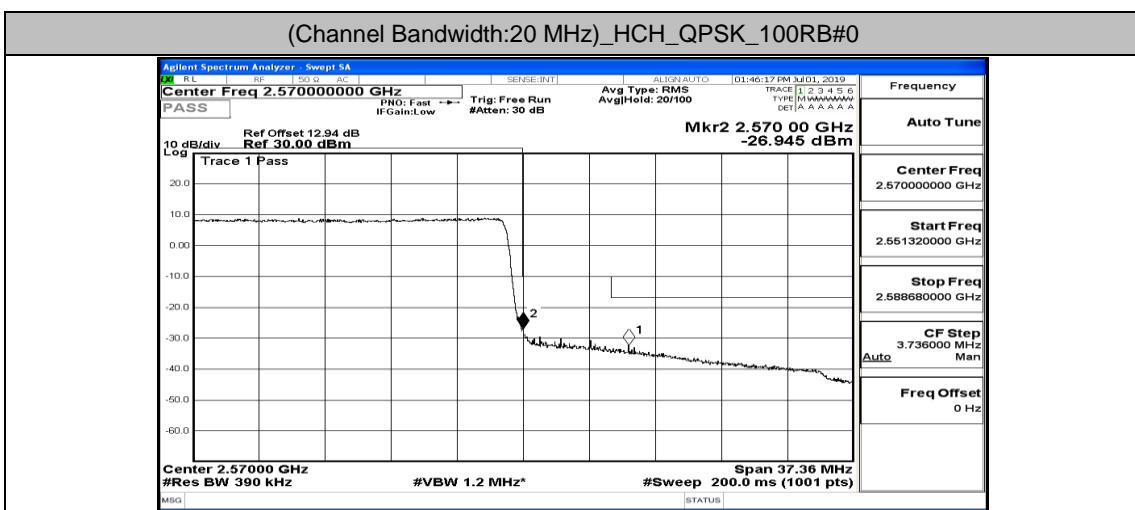
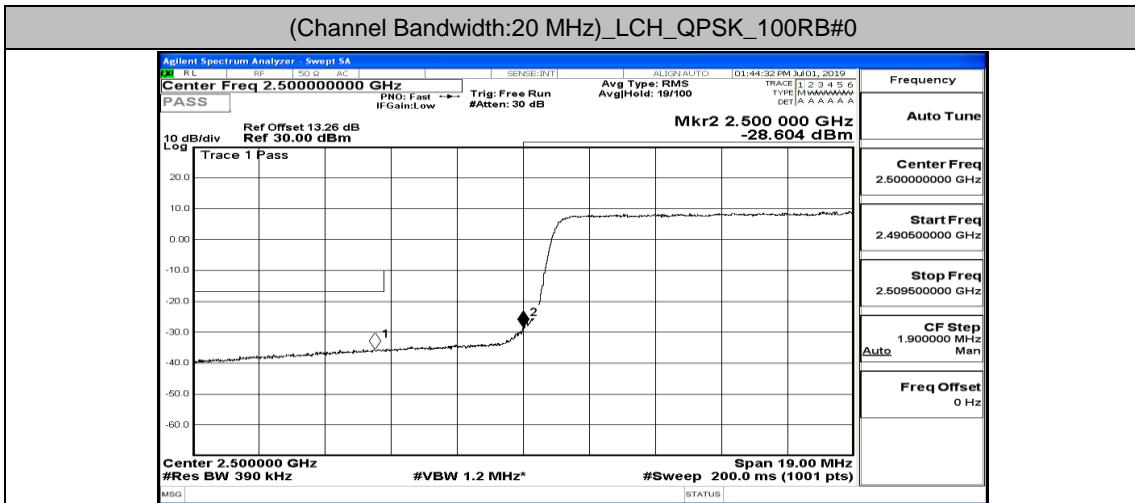


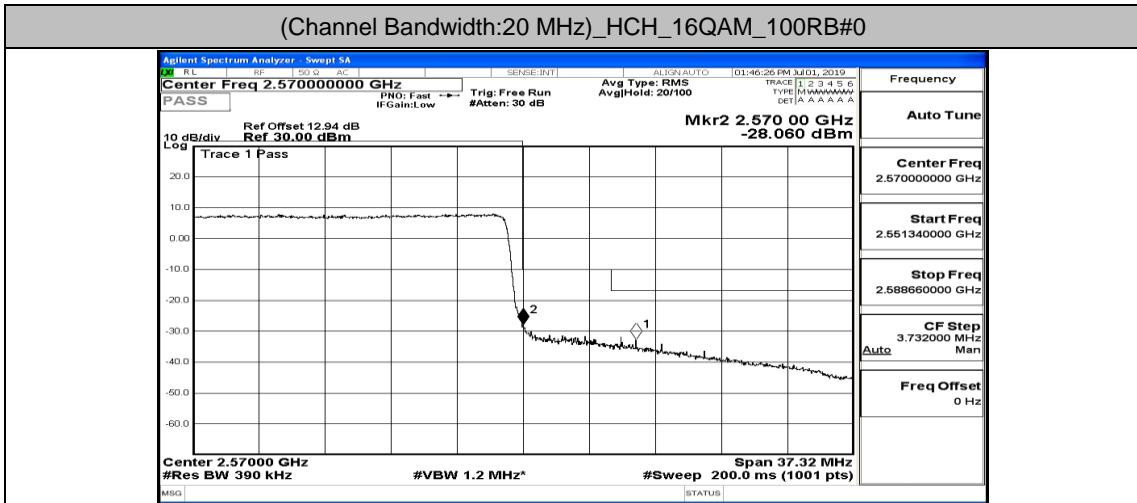
## Channel Bandwidth: 15 MHz





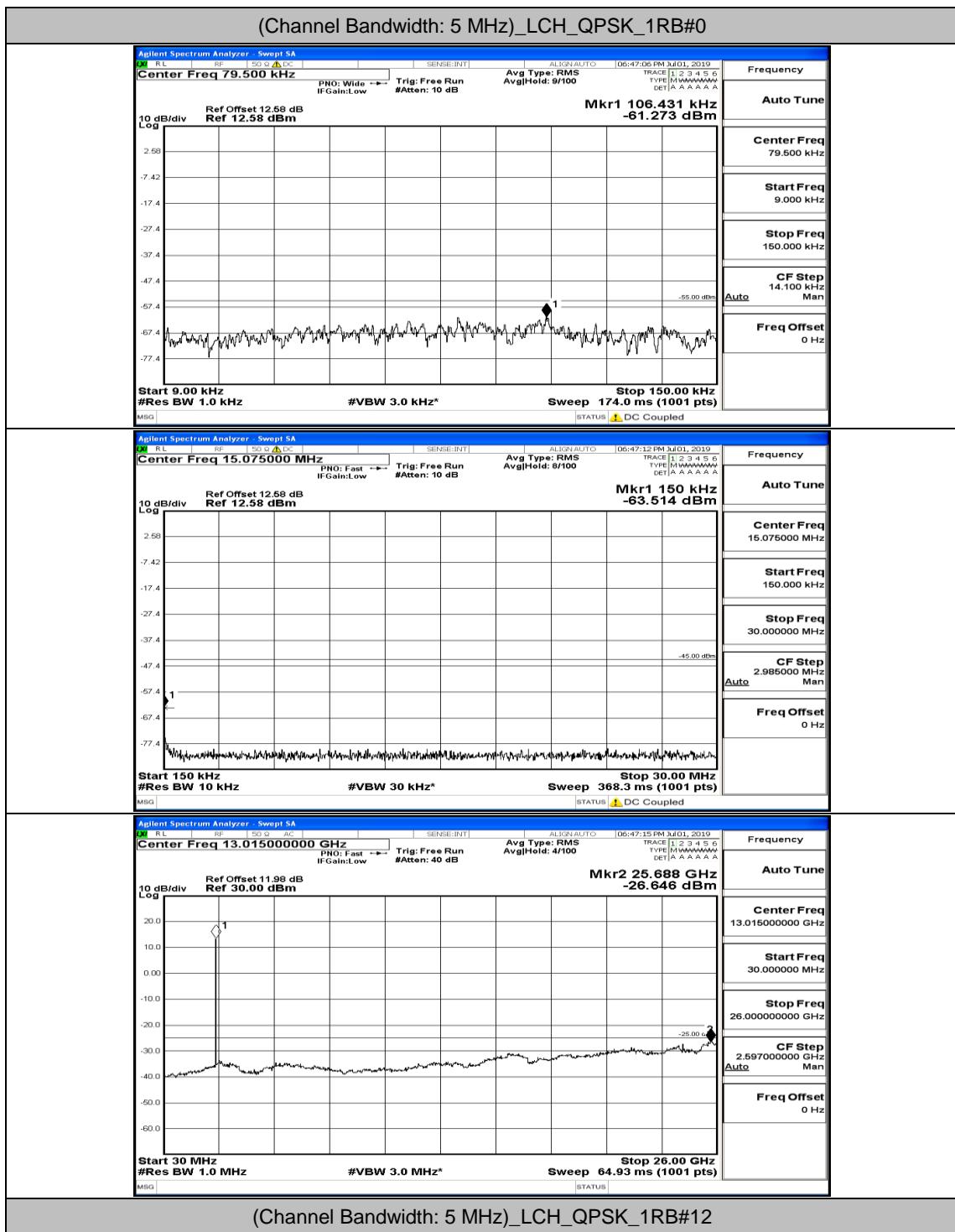
## Channel Bandwidth: 20 MHz



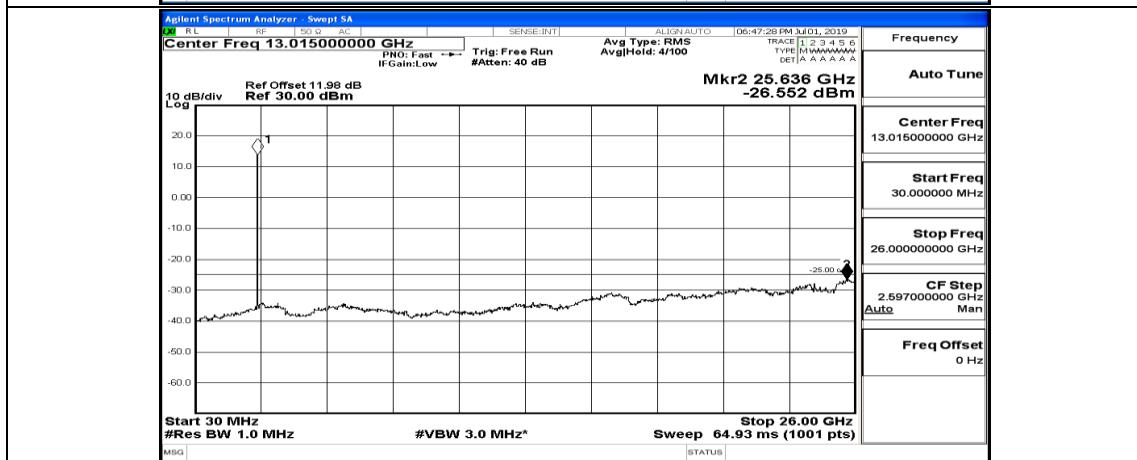
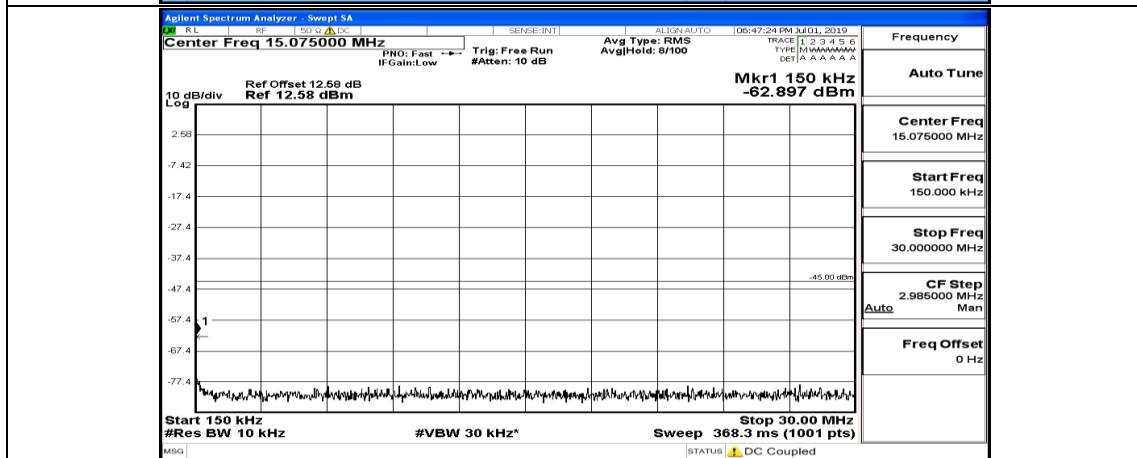
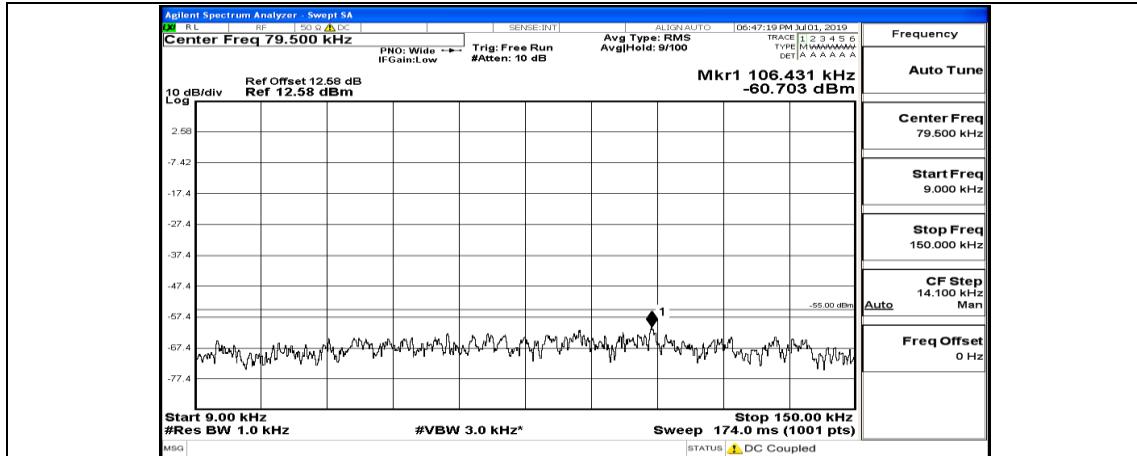


## H.5 Conducted Spurious Emission

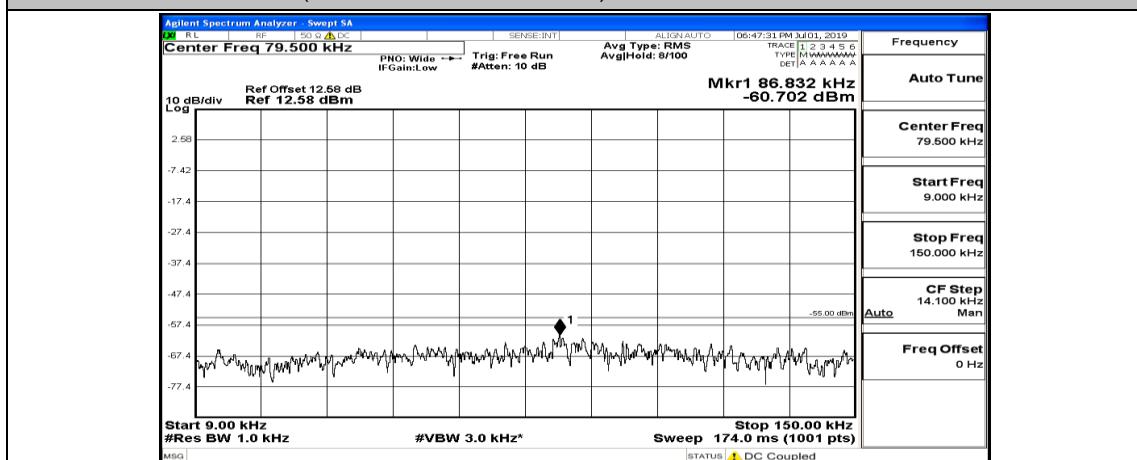
### Channel Bandwidth: 5 MHz

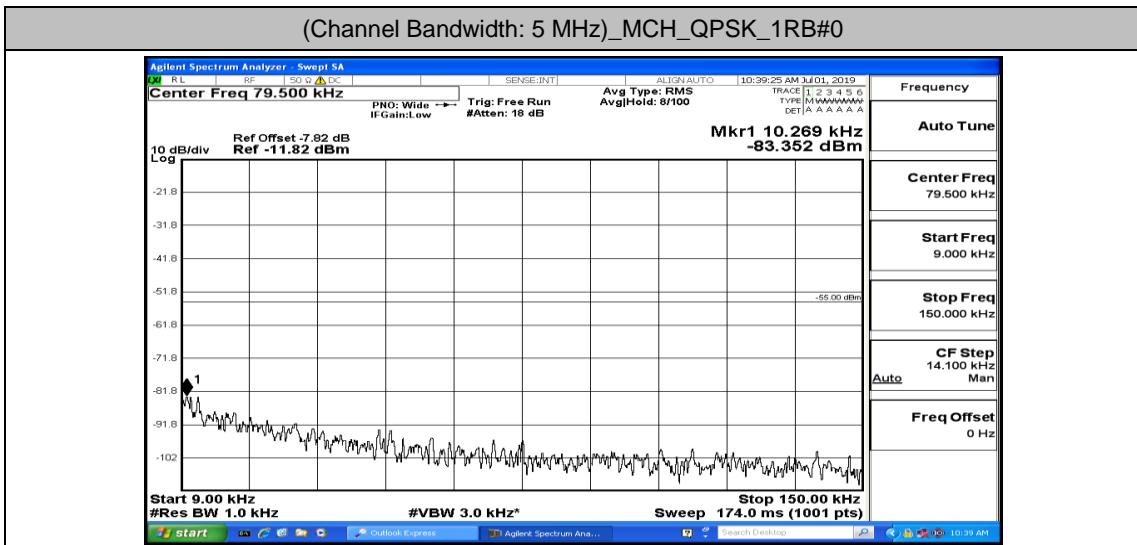
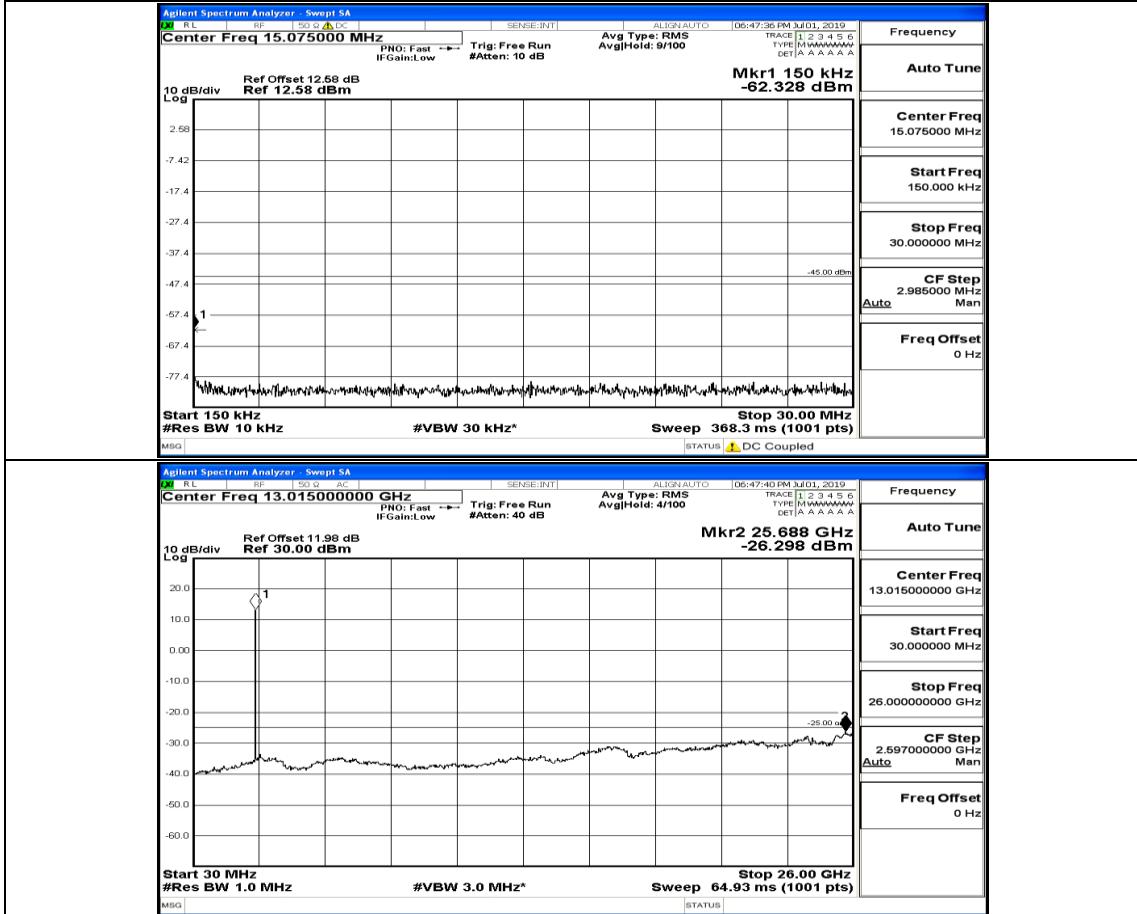


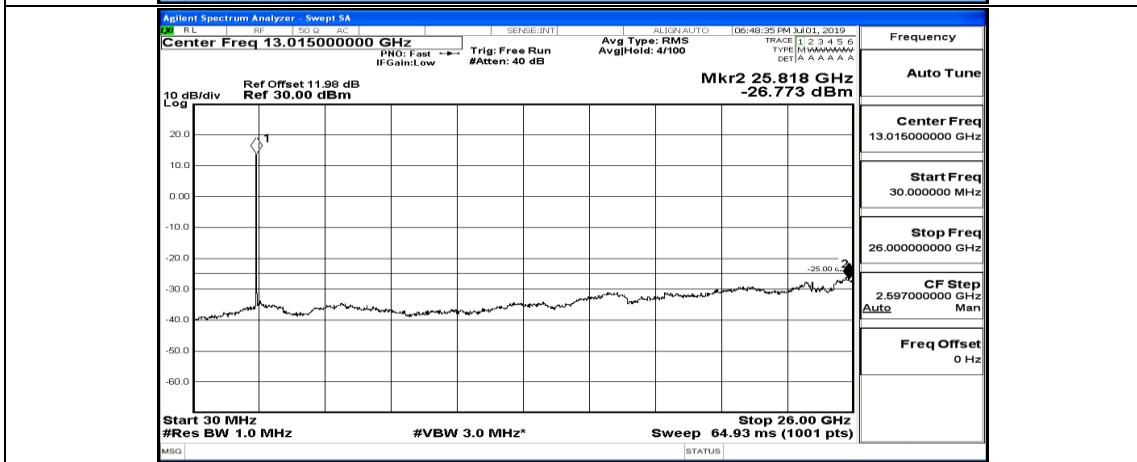
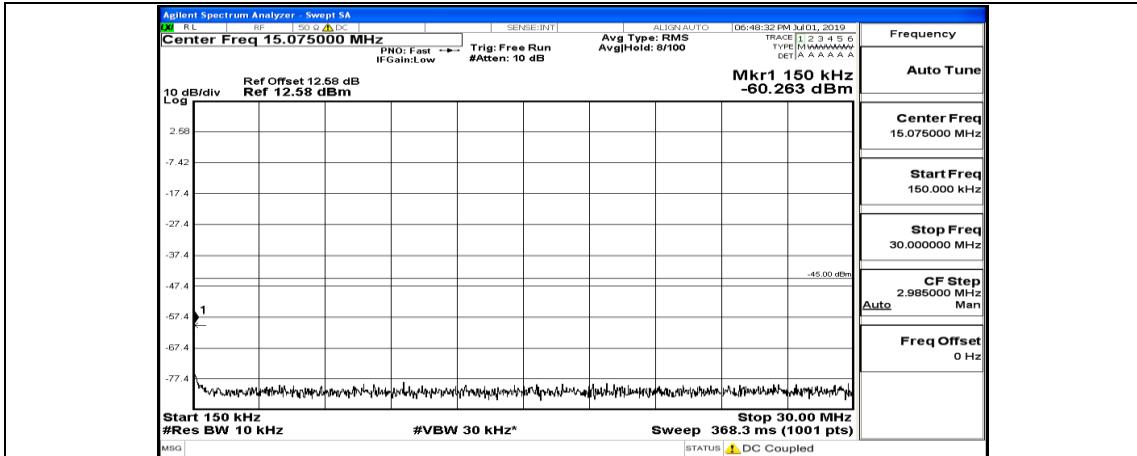
(Channel Bandwidth: 5 MHz)\_LCH\_QPSK\_1RB#12



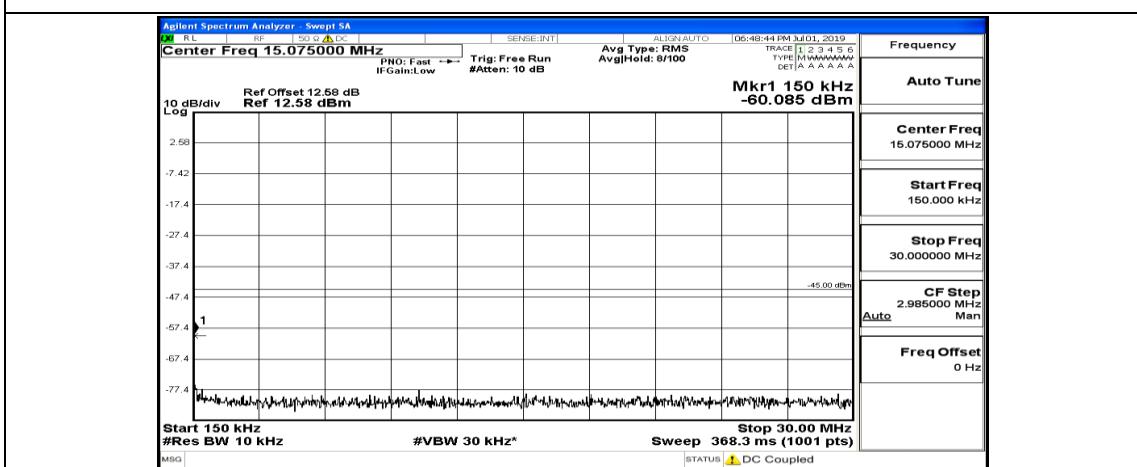
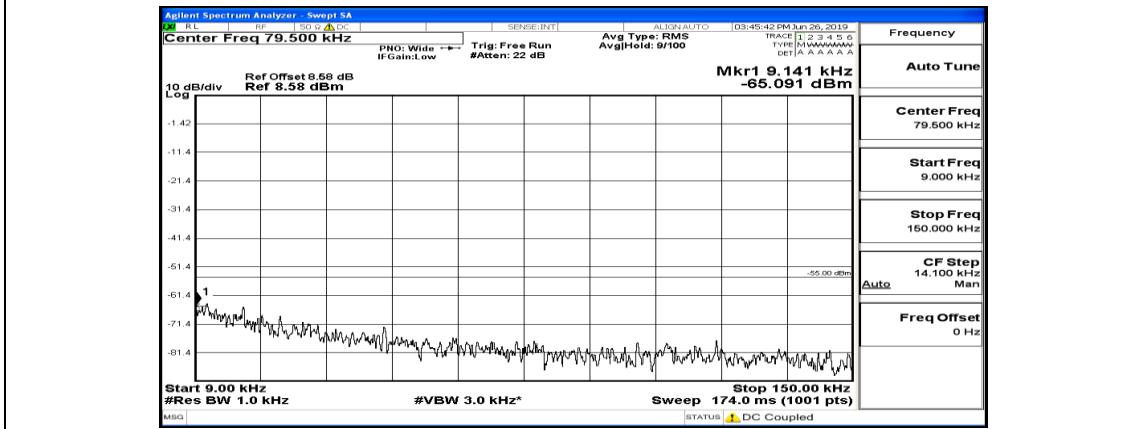
(Channel Bandwidth: 5 MHz)\_LCH\_QPSK\_1RB#24

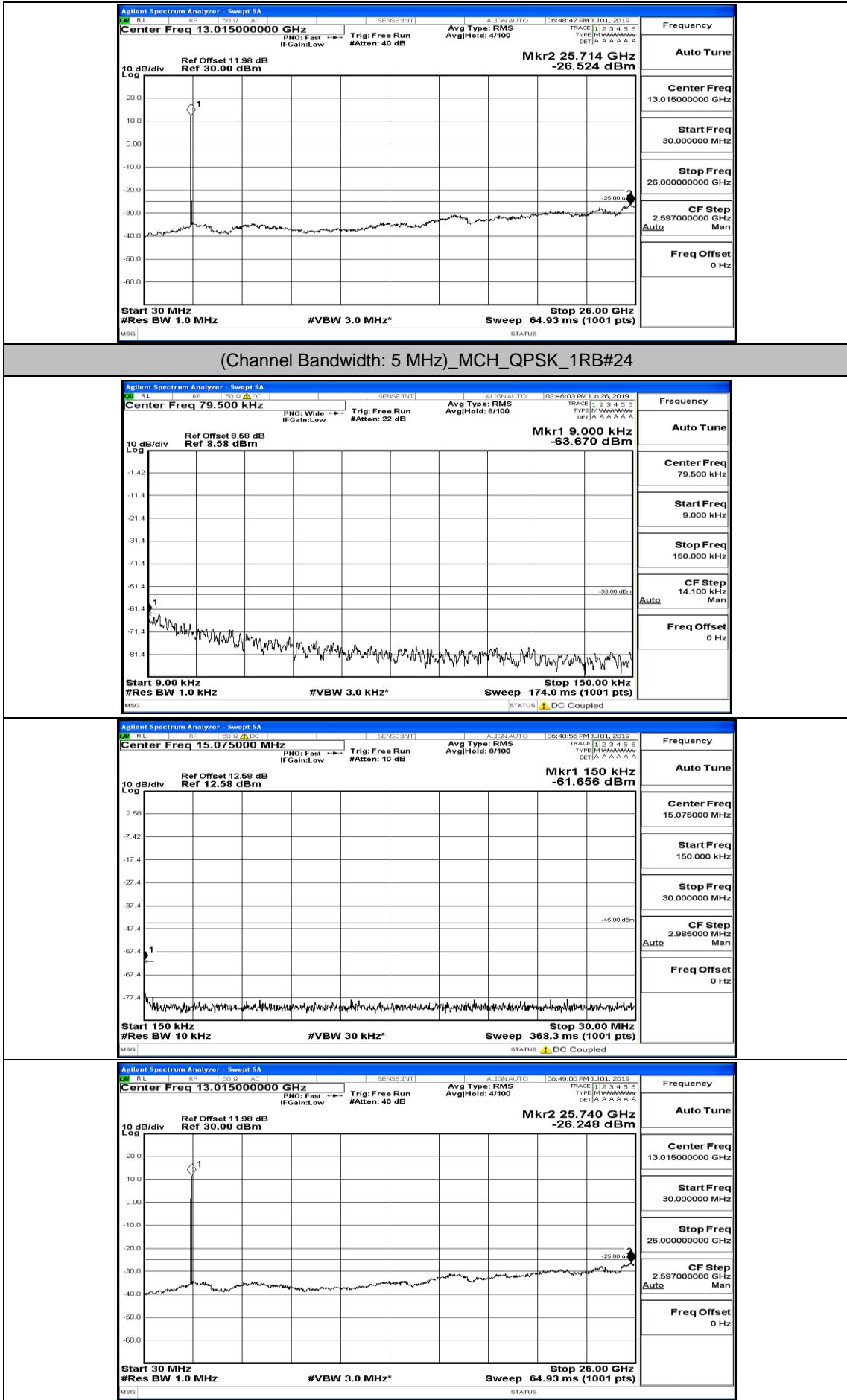




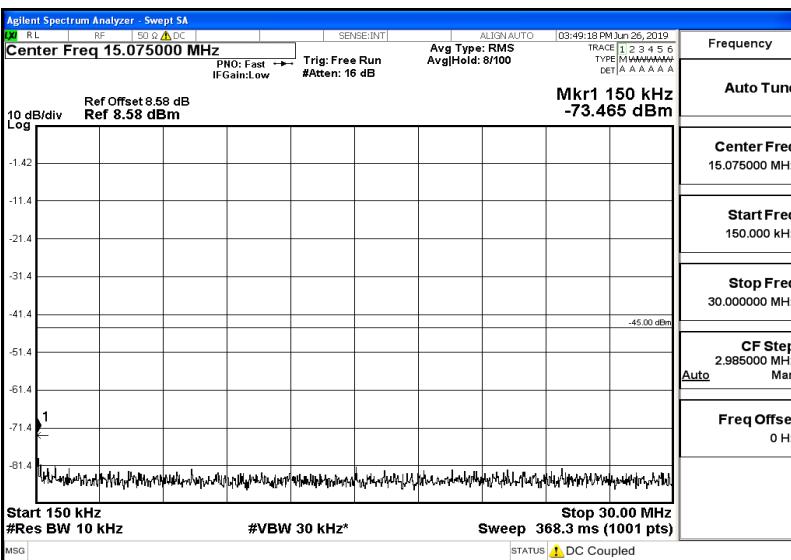
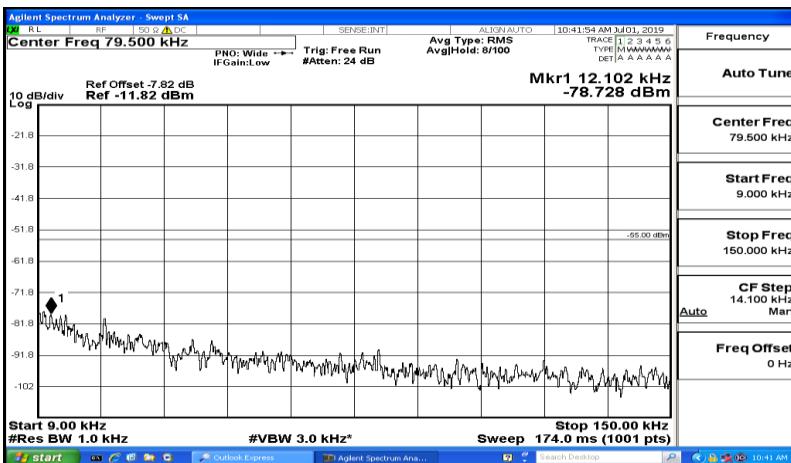


## (Channel Bandwidth: 5 MHz)\_MCH\_QPSK\_1RB#12

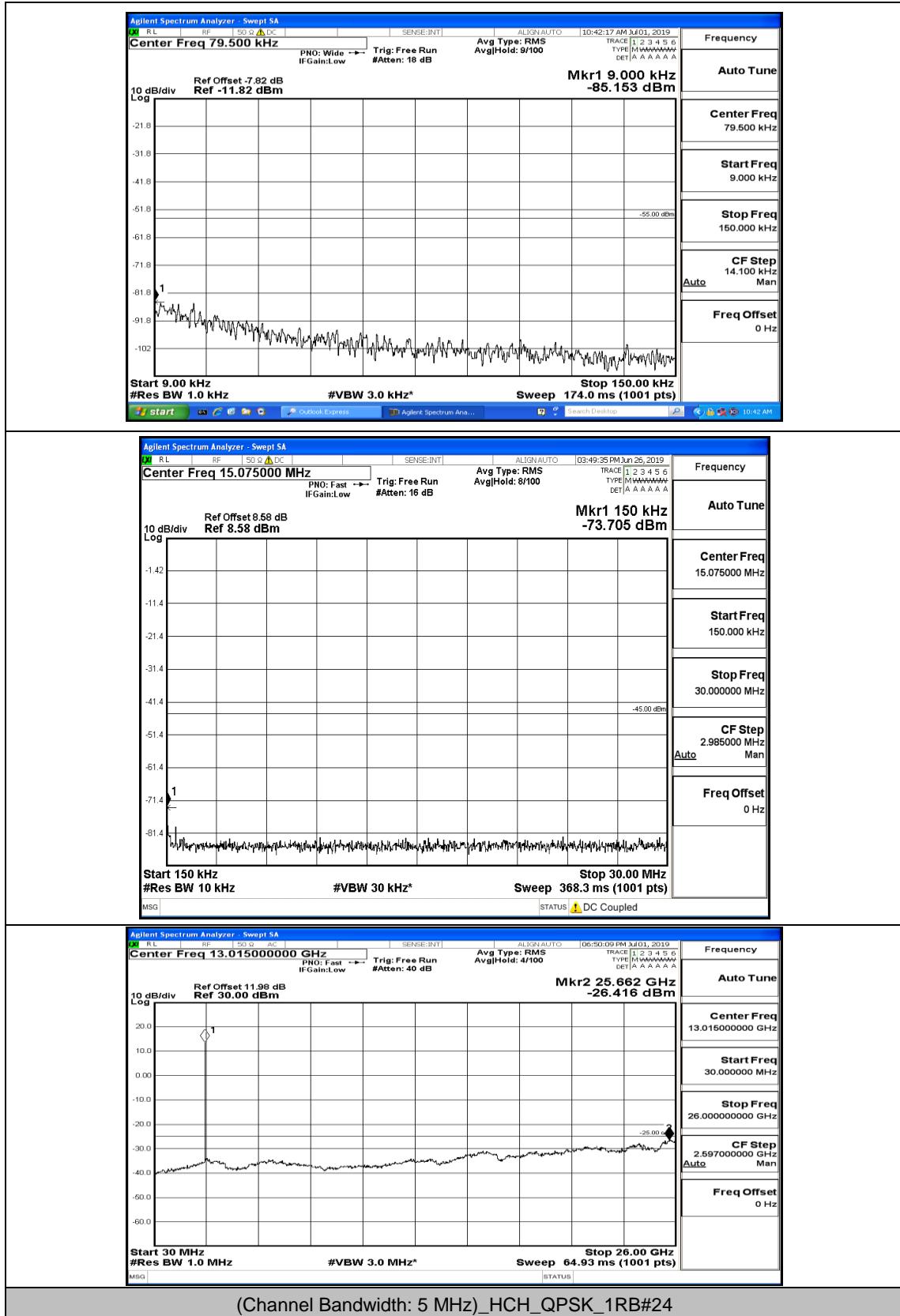


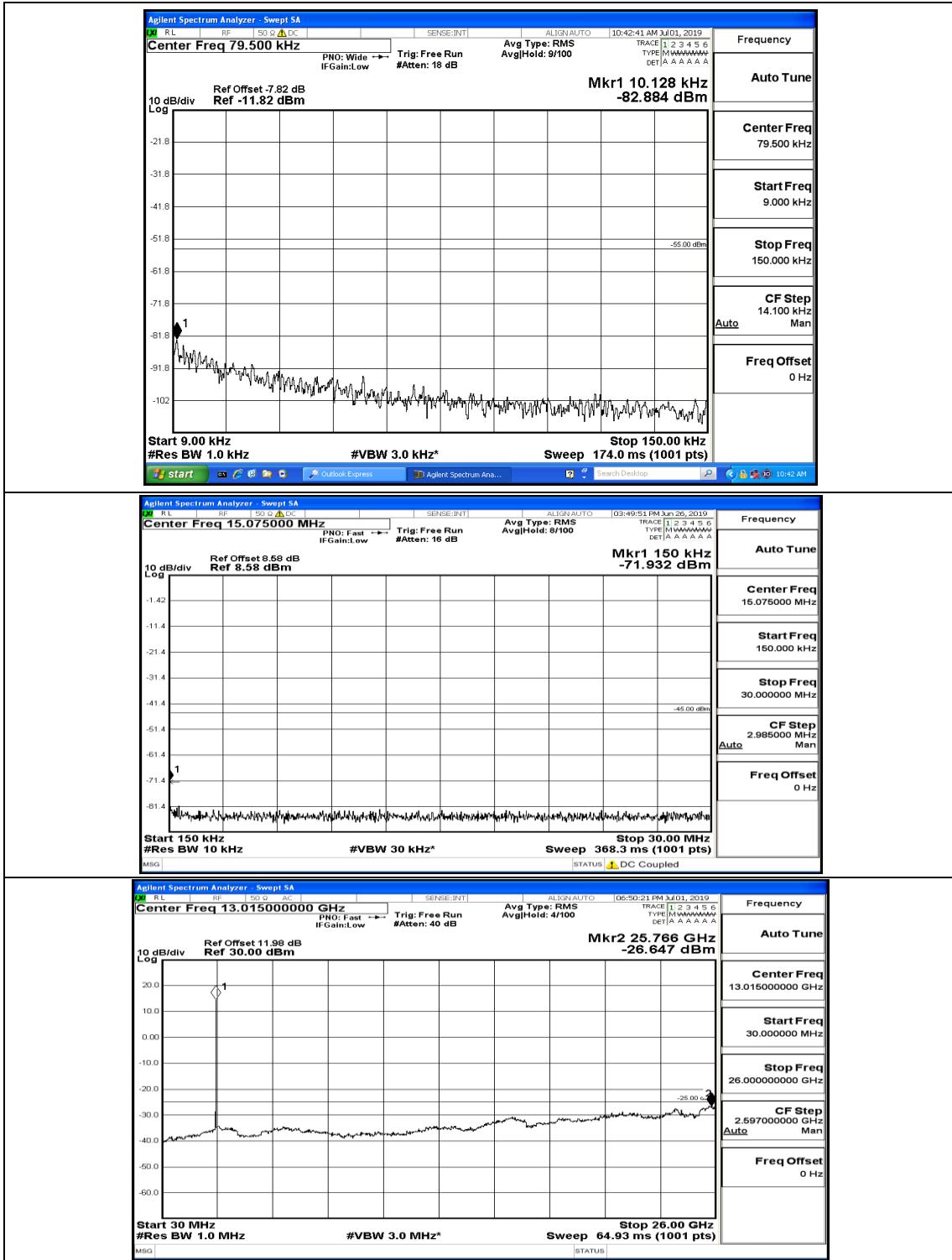


## (Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_1RB#0

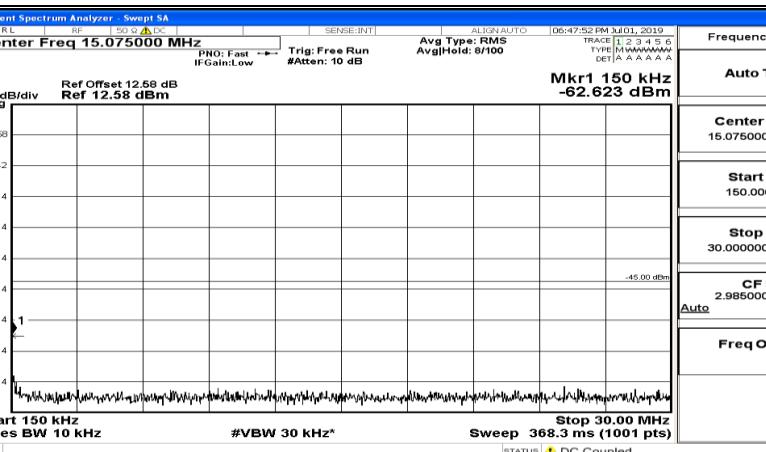
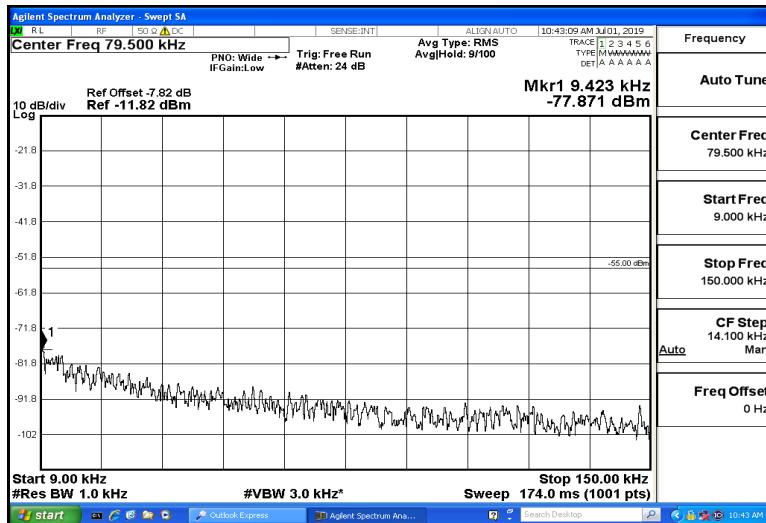


## (Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_1RB#12

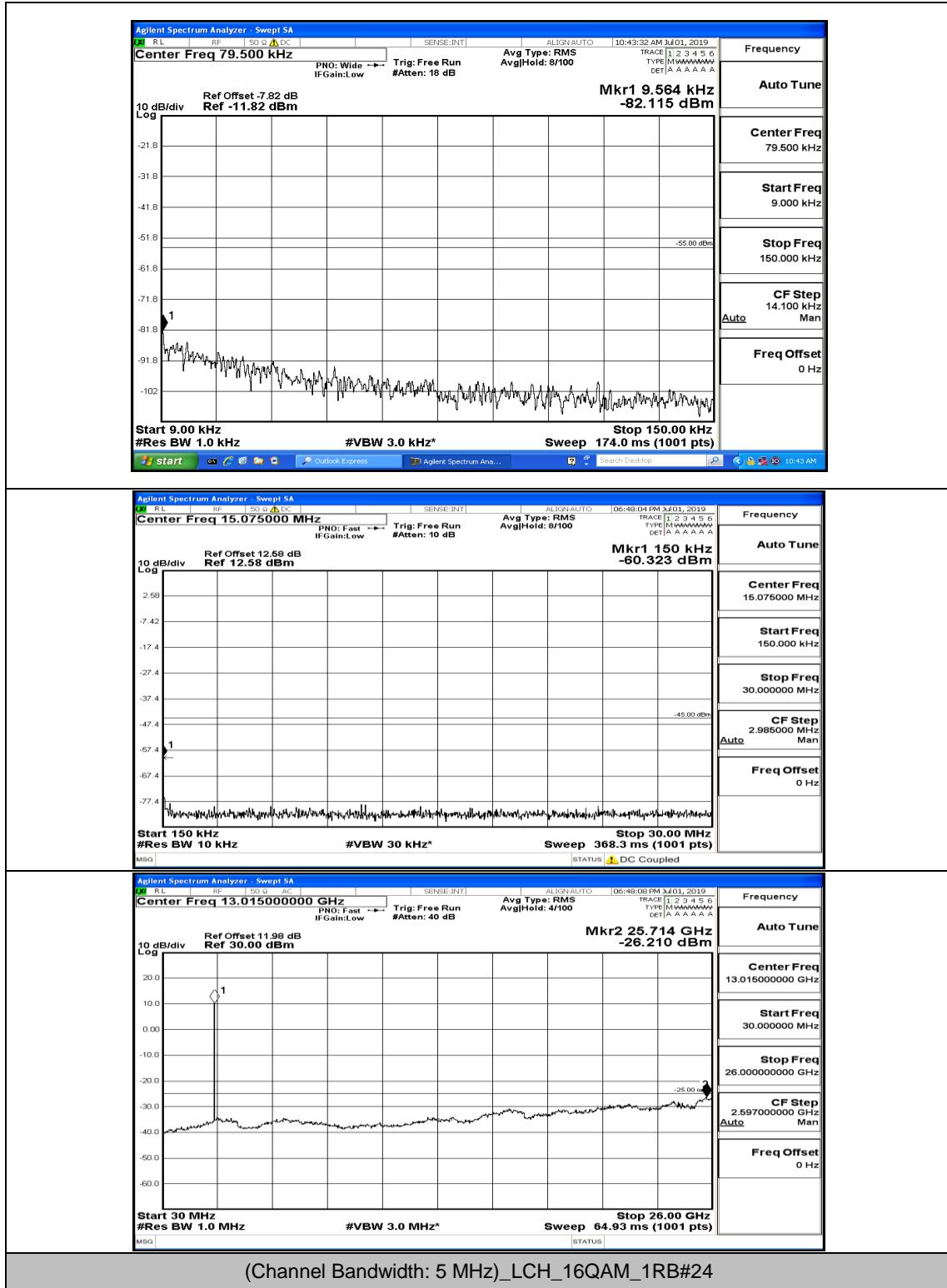


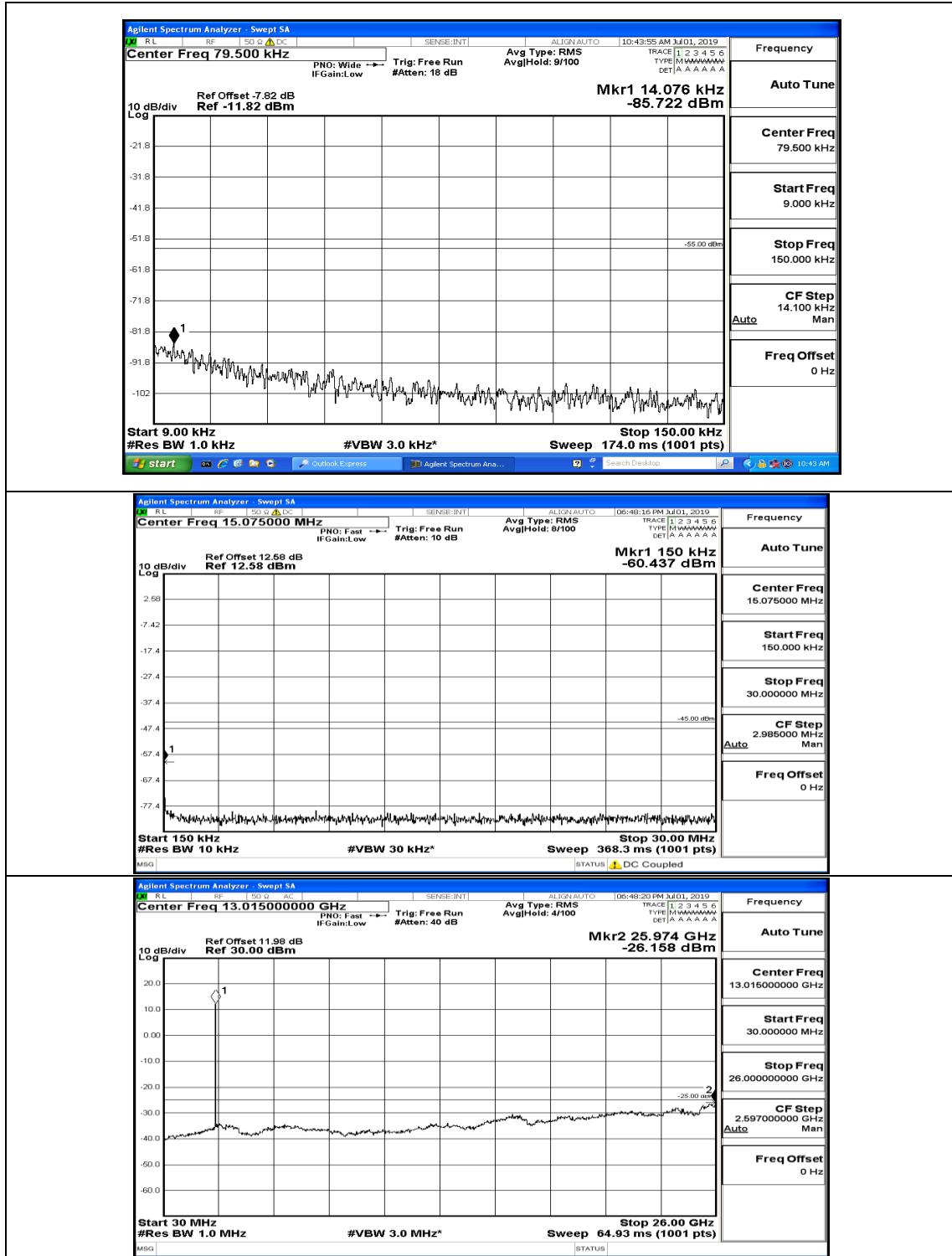


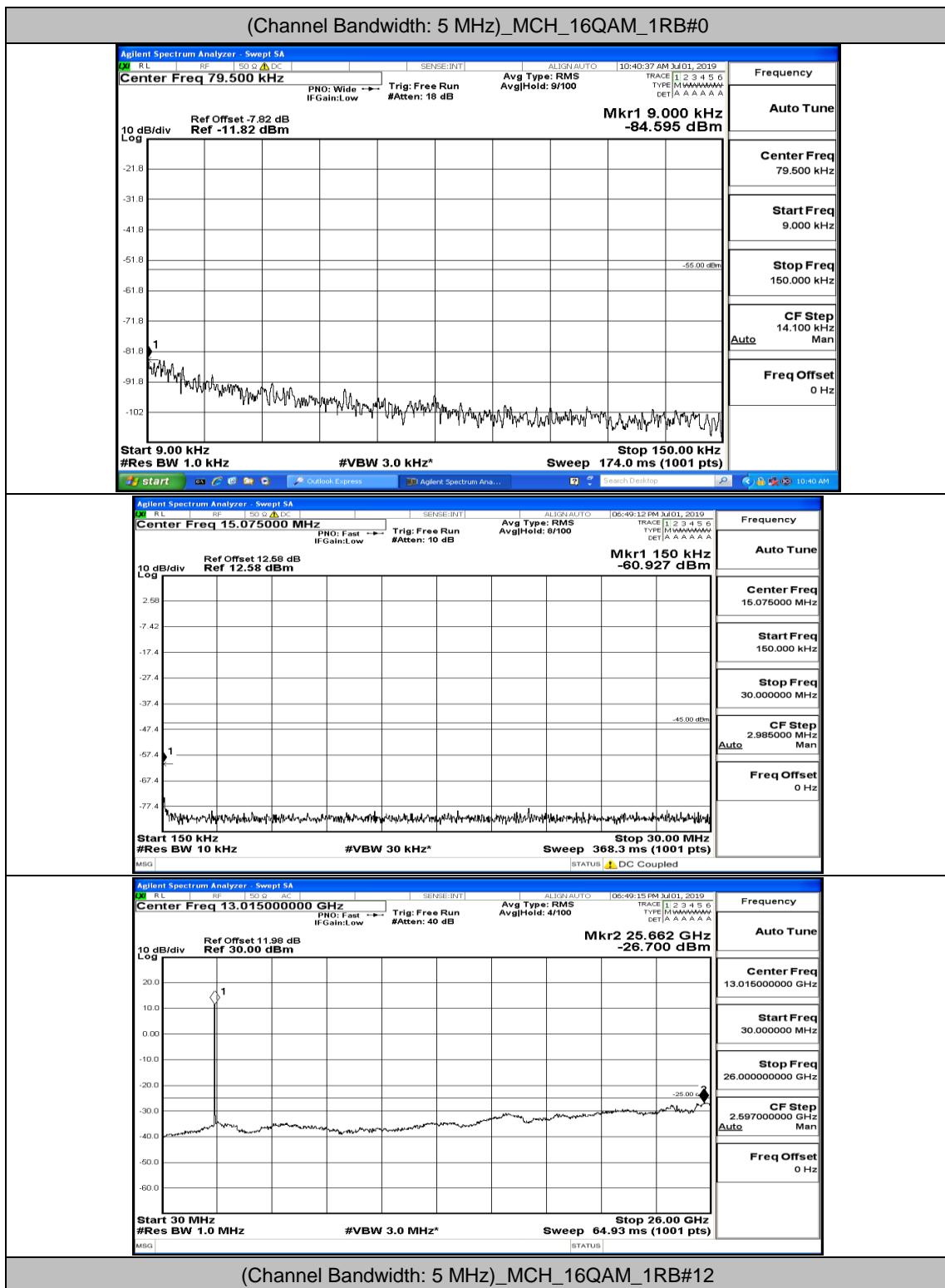
## (Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_1RB#0

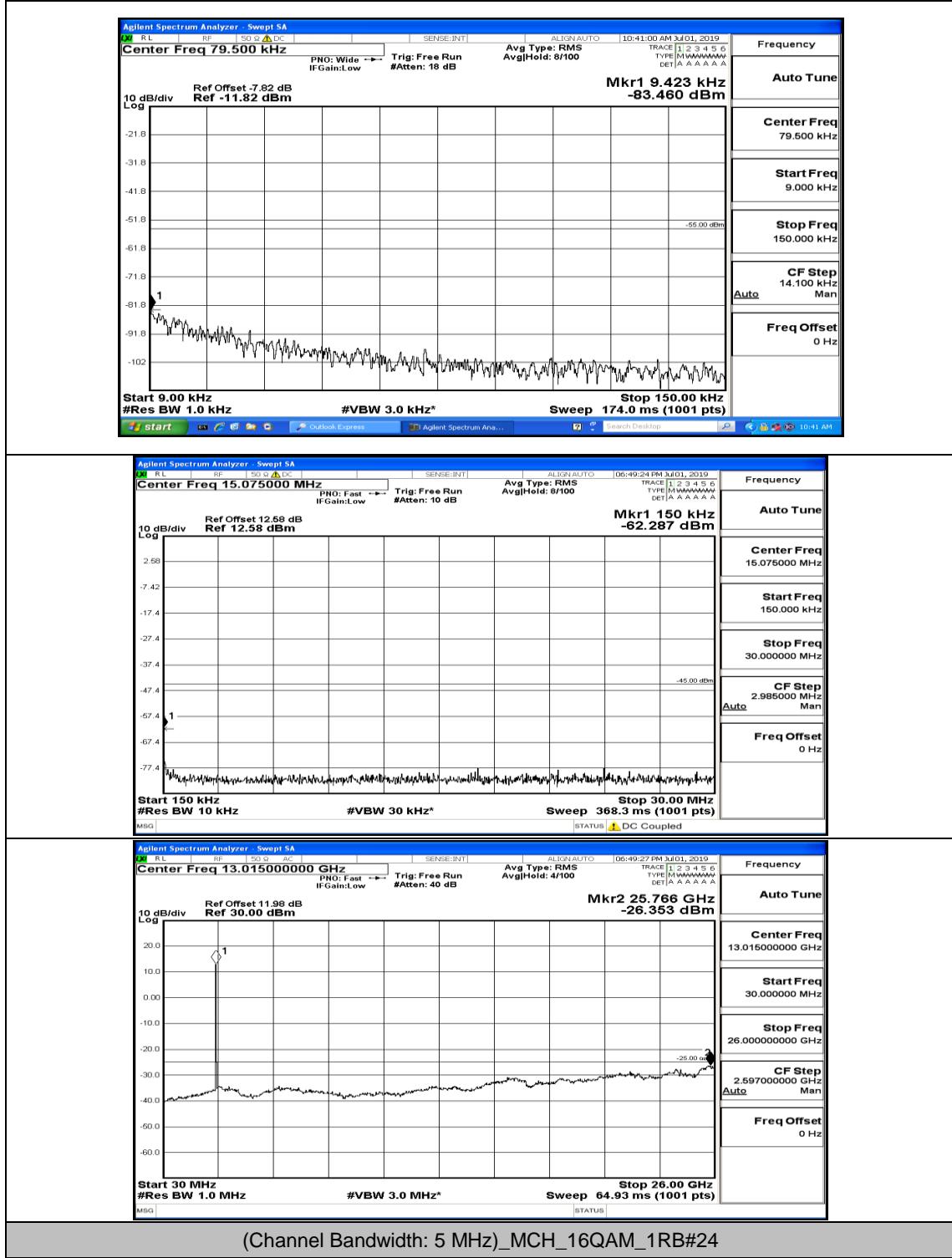


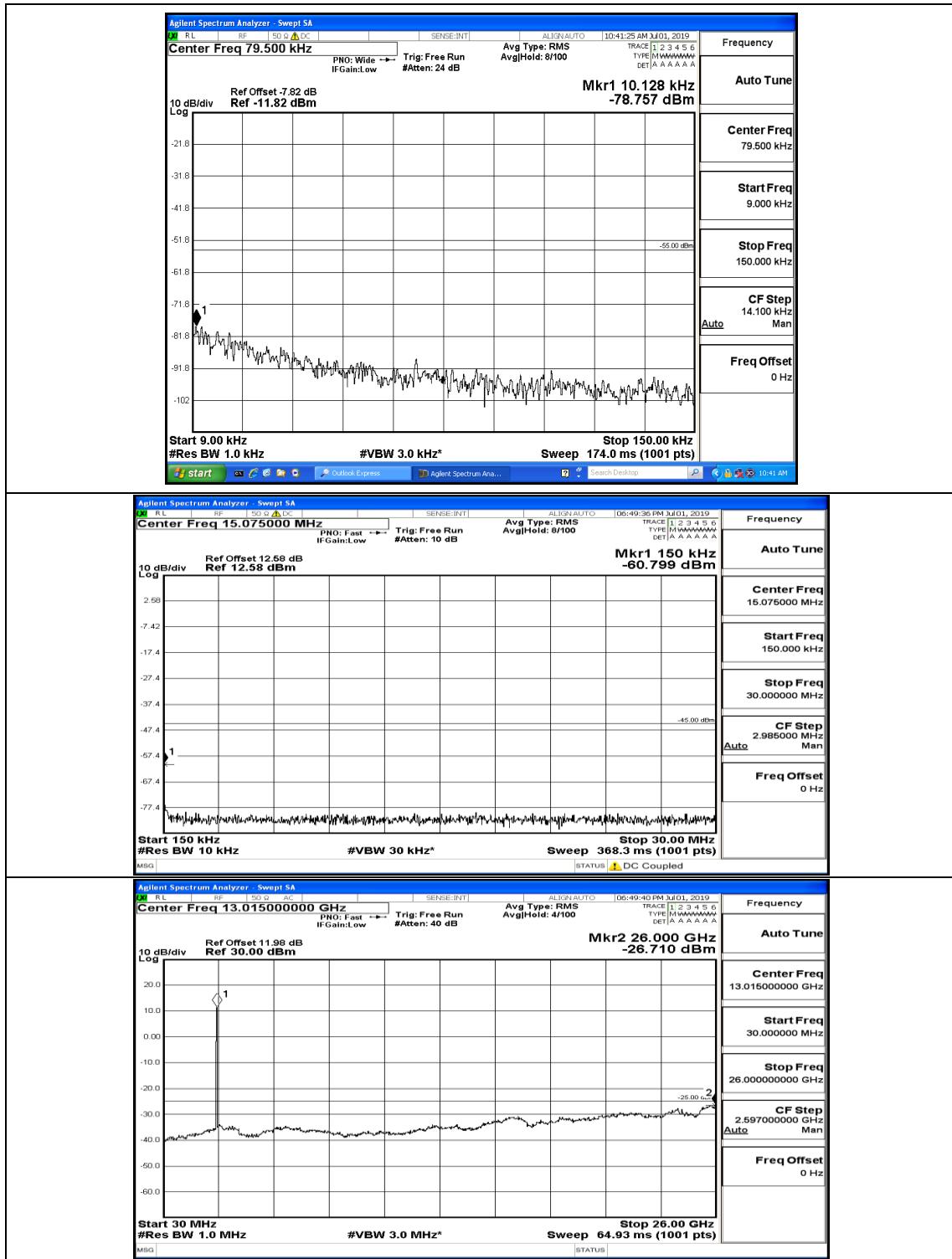
## (Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_1RB#12



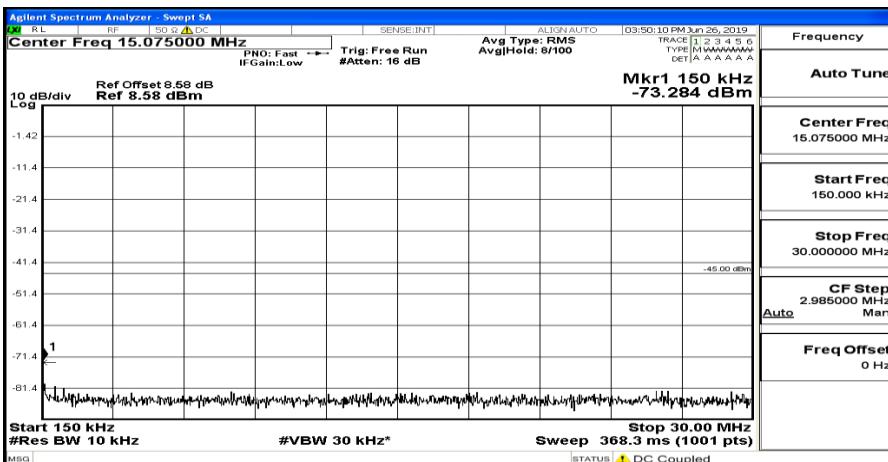
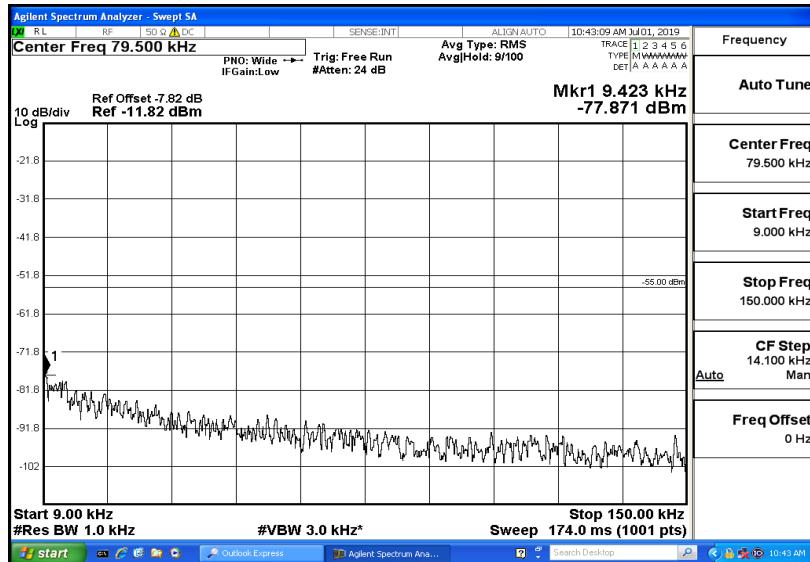








## (Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_1RB#0



## (Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_1RB#12

