

## Appendix for Band 4

### Appendix A: Average Power Output Data

#### Test Result

##### Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.22	PASS
		1	3	23.33	PASS
		1	5	23.20	PASS
		3	0	23.25	PASS
		3	2	23.27	PASS
		3	3	23.30	PASS
		6	0	22.25	PASS
	MCH	1	0	22.81	PASS
		1	3	22.90	PASS
		1	5	22.81	PASS
		3	0	22.83	PASS
		3	2	22.84	PASS
		3	3	22.83	PASS
		6	0	21.86	PASS
16QAM	HCH	1	0	23.75	PASS
		1	3	23.85	PASS
		1	5	23.80	PASS
		3	0	23.84	PASS
		3	2	23.78	PASS
		3	3	23.83	PASS
		6	0	22.81	PASS
	LCH	1	0	22.45	PASS
		1	3	22.62	PASS
		1	5	22.45	PASS
		3	0	22.40	PASS
		3	2	22.36	PASS
		3	3	22.37	PASS
		6	0	21.23	PASS
	MCH	1	0	21.98	PASS
		1	3	22.11	PASS
		1	5	21.98	PASS
		3	0	21.95	PASS
		3	2	21.91	PASS

		3	3	21.95	PASS
		6	0	20.82	PASS
	HCH	1	0	23.07	PASS
		1	3	23.20	PASS
		1	5	23.09	PASS
		3	0	22.78	PASS
		3	2	22.77	PASS
		3	3	22.81	PASS
		6	0	21.74	PASS

**Channel Bandwidth: 3 MHz**

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.17	PASS
		1	7	23.22	PASS
		1	14	23.17	PASS
		8	0	22.30	PASS
		8	4	22.31	PASS
		8	7	22.29	PASS
		15	0	22.27	PASS
	MCH	1	0	22.76	PASS
		1	7	22.86	PASS
		1	14	22.80	PASS
		8	0	21.85	PASS
		8	4	21.89	PASS
		8	7	21.88	PASS
		15	0	21.88	PASS
	HCH	1	0	23.70	PASS
		1	7	23.86	PASS
		1	14	23.79	PASS
		8	0	22.81	PASS
		8	4	22.82	PASS
		8	7	22.85	PASS
		15	0	22.82	PASS
16QAM	LCH	1	0	22.48	PASS
		1	7	22.54	PASS
		1	14	22.42	PASS
		8	0	21.37	PASS
		8	4	21.37	PASS
		8	7	21.33	PASS
		15	0	21.27	PASS
	MCH	1	0	22.02	PASS

		1	7	22.11	PASS
		1	14	22.04	PASS
		8	0	20.91	PASS
		8	4	20.95	PASS
		8	7	20.94	PASS
		15	0	20.82	PASS
	HCH	1	0	23.03	PASS
		1	7	23.17	PASS
		1	14	23.09	PASS
		8	0	21.81	PASS
		8	4	21.77	PASS
		8	7	21.84	PASS
		15	0	21.81	PASS

### Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.34	PASS
		1	12	23.35	PASS
		1	24	23.28	PASS
		12	0	22.36	PASS
		12	6	22.36	PASS
		12	13	22.34	PASS
		25	0	22.28	PASS
	MCH	1	0	22.92	PASS
		1	12	22.97	PASS
		1	24	22.94	PASS
		12	0	21.95	PASS
		12	6	21.94	PASS
		12	13	21.96	PASS
		25	0	21.89	PASS
16QAM	HCH	1	0	23.74	PASS
		1	12	23.90	PASS
		1	24	23.98	PASS
		12	0	22.80	PASS
		12	6	22.83	PASS
		12	13	22.90	PASS
		25	0	22.81	PASS
	LCH	1	0	22.70	PASS
		1	12	22.79	PASS
		1	24	22.63	PASS
		12	0	21.52	PASS

		12	6	21.52	PASS
		12	13	21.49	PASS
		25	0	21.33	PASS
MCH		1	0	22.22	PASS
		1	12	22.27	PASS
		1	24	22.26	PASS
		12	0	21.09	PASS
		12	6	21.09	PASS
		12	13	21.10	PASS
		25	0	20.94	PASS
		1	0	22.75	PASS
HCH		1	12	22.90	PASS
		1	24	22.88	PASS
		12	0	21.84	PASS
		12	6	21.87	PASS
		12	13	21.93	PASS
		25	0	21.85	PASS

### Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.30	PASS
		1	24	23.26	PASS
		1	49	23.12	PASS
		25	0	22.30	PASS
		25	12	22.27	PASS
		25	25	22.21	PASS
		50	0	22.26	PASS
	MCH	1	0	22.91	PASS
		1	24	22.90	PASS
		1	49	23.00	PASS
		25	0	21.90	PASS
		25	12	21.91	PASS
		25	25	21.98	PASS
		50	0	21.92	PASS
	HCH	1	0	23.40	PASS
		1	24	23.67	PASS
		1	49	23.86	PASS
		25	0	22.54	PASS
		25	12	22.67	PASS
		25	25	22.81	PASS
		50	0	22.67	PASS

16QAM	LCH	1	0	22.57	PASS
		1	24	22.48	PASS
		1	49	22.35	PASS
		25	0	21.32	PASS
		25	12	21.29	PASS
		25	25	21.21	PASS
		50	0	21.28	PASS
	MCH	1	0	22.12	PASS
		1	24	22.14	PASS
		1	49	22.26	PASS
		25	0	20.92	PASS
		25	12	20.92	PASS
		25	25	20.99	PASS
		50	0	20.93	PASS
	HCH	1	0	22.77	PASS
		1	24	23.05	PASS
		1	49	23.19	PASS
		25	0	21.61	PASS
		25	12	21.73	PASS
		25	25	21.83	PASS
		50	0	21.75	PASS

### Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.30	PASS
		1	37	23.23	PASS
		1	74	22.99	PASS
		37	0	22.33	PASS
		37	18	22.26	PASS
		37	38	22.19	PASS
		75	0	22.27	PASS
	MCH	1	0	22.96	PASS
		1	37	22.94	PASS
		1	74	23.04	PASS
		37	0	22.02	PASS
		37	18	21.98	PASS
		37	38	22.06	PASS
		75	0	22.03	PASS
	HCH	1	0	23.15	PASS
		1	37	23.61	PASS
		1	74	23.88	PASS

		37	0	22.37	PASS
		37	18	22.59	PASS
		37	38	22.81	PASS
		75	0	22.61	PASS
16QAM	LCH	1	0	22.58	PASS
		1	37	22.47	PASS
		1	74	22.21	PASS
		37	0	21.32	PASS
		37	18	21.23	PASS
		37	38	21.14	PASS
		75	0	21.23	PASS
	MCH	1	0	22.19	PASS
		1	37	22.21	PASS
		1	74	22.34	PASS
		37	0	20.96	PASS
		37	18	20.96	PASS
		37	38	21.02	PASS
		75	0	21.00	PASS
	HCH	1	0	22.44	PASS
		1	37	22.91	PASS
		1	74	23.11	PASS
		37	0	21.41	PASS
		37	18	21.62	PASS
		37	38	21.82	PASS
		75	0	21.61	PASS

### Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.41	PASS
		1	49	23.21	PASS
		1	99	23.10	PASS
		50	0	22.26	PASS
		50	25	22.10	PASS
		50	50	22.03	PASS
		100	0	22.13	PASS
	MCH	1	0	23.09	PASS
		1	49	22.99	PASS
		1	99	23.29	PASS
		50	0	21.93	PASS
		50	25	21.92	PASS
		50	50	22.06	PASS

		100	0	21.99	PASS
16QAM	HCH	1	0	23.08	PASS
		1	49	23.42	PASS
		1	99	23.99	PASS
		50	0	22.18	PASS
		50	25	22.41	PASS
		50	50	22.70	PASS
		100	0	22.44	PASS
16QAM	LCH	1	0	22.59	PASS
		1	49	22.32	PASS
		1	99	22.22	PASS
		50	0	21.21	PASS
		50	25	21.08	PASS
		50	50	20.99	PASS
		100	0	21.12	PASS
	MCH	1	0	22.23	PASS
		1	49	22.13	PASS
		1	99	22.45	PASS
		50	0	20.94	PASS
		50	25	20.93	PASS
		50	50	21.05	PASS
		100	0	20.98	PASS
16QAM	HCH	1	0	22.39	PASS
		1	49	22.78	PASS
		1	99	23.27	PASS
		50	0	21.24	PASS
		50	25	21.48	PASS
		50	50	21.76	PASS
		100	0	21.45	PASS

## Appendix B: Peak-to-Average Ratio

### Test Result

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio (dB)	Limit (dB)	Verdict
		Size	Offset			
QPSK	LCH	1	0	4.49	<13	PASS
		1	3	4.35	<13	PASS
		1	5	4.43	<13	PASS
		3	0	4.74	<13	PASS
		3	2	4.71	<13	PASS
		3	3	4.71	<13	PASS
		6	0	5.5	<13	PASS
	MCH	1	0	4.17	<13	PASS
		1	3	4.1	<13	PASS
		1	5	4.22	<13	PASS
		3	0	4.46	<13	PASS
		3	2	4.45	<13	PASS
		3	3	4.5	<13	PASS
		6	0	5.18	<13	PASS
	HCH	1	0	3.82	<13	PASS
		1	3	3.72	<13	PASS
		1	5	3.68	<13	PASS
		3	0	4.17	<13	PASS
		3	2	4.12	<13	PASS
		3	3	4.11	<13	PASS
		6	0	5.05	<13	PASS
16QAM	LCH	1	0	5.46	<13	PASS
		1	3	5.3	<13	PASS
		1	5	5.47	<13	PASS
		3	0	5.76	<13	PASS
		3	2	5.7	<13	PASS
		3	3	5.66	<13	PASS
		6	0	6.35	<13	PASS
	MCH	1	0	5.23	<13	PASS
		1	3	5.16	<13	PASS
		1	5	5.29	<13	PASS
		3	0	5.47	<13	PASS

		3	2	5.39	<13	PASS
		3	3	5.4	<13	PASS
		6	0	6.02	<13	PASS
HCH	HCH	1	0	4.84	<13	PASS
		1	3	4.73	<13	PASS
		1	5	4.75	<13	PASS
		3	0	4.92	<13	PASS
		3	2	4.89	<13	PASS
		3	3	4.88	<13	PASS
		6	0	5.84	<13	PASS

**Channel Bandwidth: 3 MHz**

Channel Bandwidth: 3 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	4.41	<13	PASS
		1	7	4.32	<13	PASS
		1	14	4.32	<13	PASS
		8	0	5.46	<13	PASS
		8	4	5.37	<13	PASS
		8	7	5.36	<13	PASS
		15	0	5.55	<13	PASS
	MCH	1	0	4.25	<13	PASS
		1	7	4.24	<13	PASS
		1	14	4.28	<13	PASS
		8	0	5.17	<13	PASS
		8	4	5.1	<13	PASS
		8	7	5.18	<13	PASS
		15	0	5.38	<13	PASS
	HCH	1	0	3.91	<13	PASS
		1	7	3.75	<13	PASS
		1	14	3.72	<13	PASS
		8	0	5.08	<13	PASS
		8	4	5.02	<13	PASS
		8	7	5	<13	PASS
		15	0	5.34	<13	PASS
16QAM	LCH	1	0	5.4	<13	PASS
		1	7	5.35	<13	PASS
		1	14	5.28	<13	PASS
		8	0	6.02	<13	PASS
		8	4	6.01	<13	PASS

		8	7	6.06	<13	PASS
		15	0	6.42	<13	PASS
MCH	HCH	1	0	5.16	<13	PASS
		1	7	5.14	<13	PASS
		1	14	5.24	<13	PASS
		8	0	5.76	<13	PASS
		8	4	5.79	<13	PASS
		8	7	5.81	<13	PASS
		15	0	6.15	<13	PASS
		1	0	4.95	<13	PASS

### Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	4.25	<13	PASS
		1	12	4.16	<13	PASS
		1	24	4.05	<13	PASS
		12	0	5.37	<13	PASS
		12	6	5.25	<13	PASS
		12	13	5.27	<13	PASS
		25	0	5.56	<13	PASS
	MCH	1	0	4.01	<13	PASS
		1	12	4.09	<13	PASS
		1	24	4.11	<13	PASS
		12	0	5.07	<13	PASS
		12	6	5.01	<13	PASS
		12	13	5.14	<13	PASS
		25	0	5.37	<13	PASS
	HCH	1	0	4.07	<13	PASS
		1	12	3.91	<13	PASS
		1	24	3.67	<13	PASS
		12	0	5.22	<13	PASS
		12	6	5.08	<13	PASS
		12	13	5.03	<13	PASS

		25	0	5.39	<13	PASS
16QAM	LCH	1	0	5.28	<13	PASS
		1	12	5.14	<13	PASS
		1	24	5.06	<13	PASS
		12	0	6.16	<13	PASS
		12	6	6.05	<13	PASS
		12	13	6.04	<13	PASS
		25	0	6.26	<13	PASS
	MCH	1	0	5	<13	PASS
		1	12	5.06	<13	PASS
		1	24	5.14	<13	PASS
		12	0	5.84	<13	PASS
		12	6	5.86	<13	PASS
		12	13	5.89	<13	PASS
		25	0	6.06	<13	PASS
	HCH	1	0	4.91	<13	PASS
		1	12	4.69	<13	PASS
		1	24	4.63	<13	PASS
		12	0	6.14	<13	PASS
		12	6	5.99	<13	PASS
		12	13	5.92	<13	PASS
		25	0	6.11	<13	PASS

### Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	4.32	<13	PASS
		1	24	4.12	<13	PASS
		1	49	4.01	<13	PASS
		25	0	5.34	<13	PASS
		25	12	5.24	<13	PASS
		25	25	5.12	<13	PASS
		50	0	5.4	<13	PASS
	MCH	1	0	3.97	<13	PASS
		1	24	4.18	<13	PASS
		1	49	4.25	<13	PASS
		25	0	5.12	<13	PASS
		25	12	5.18	<13	PASS
		25	25	5.29	<13	PASS
		50	0	5.37	<13	PASS

	HCH	1	0	4.31	<13	PASS
		1	24	3.96	<13	PASS
		1	49	3.62	<13	PASS
		25	0	5.44	<13	PASS
		25	12	5.36	<13	PASS
		25	25	5.24	<13	PASS
		50	0	5.48	<13	PASS
16QAM	LCH	1	0	5.29	<13	PASS
		1	24	5.05	<13	PASS
		1	49	4.95	<13	PASS
		25	0	6.16	<13	PASS
		25	12	6.12	<13	PASS
		25	25	5.98	<13	PASS
		50	0	6.1	<13	PASS
	MCH	1	0	5	<13	PASS
		1	24	5.06	<13	PASS
		1	49	5.29	<13	PASS
		25	0	5.97	<13	PASS
		25	12	5.92	<13	PASS
		25	25	6.01	<13	PASS
		50	0	6	<13	PASS
	HCH	1	0	5.34	<13	PASS
		1	24	5.01	<13	PASS
		1	49	4.7	<13	PASS
		25	0	6.25	<13	PASS
		25	12	6.14	<13	PASS
		25	25	6.1	<13	PASS
		50	0	6.2	<13	PASS

### Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	9.59	<13	PASS
		1	37	3.94	<13	PASS
		1	74	8.94	<13	PASS
		37	0	4.66	<13	PASS
		37	18	5.23	<13	PASS
		37	38	4.64	<13	PASS
		75	0	4.92	<13	PASS
	MCH	1	0	9.83	<13	PASS

	16QAM	HCH	1	37	4.13	<13	PASS
			1	74	8.7	<13	PASS
			37	0	4.59	<13	PASS
			37	18	5.27	<13	PASS
			37	38	4.74	<13	PASS
			75	0	4.97	<13	PASS
			1	0	9.36	<13	PASS
		LCH	1	37	4.27	<13	PASS
			1	74	8.4	<13	PASS
			37	0	4.77	<13	PASS
			37	18	5.45	<13	PASS
			37	38	4.75	<13	PASS
			75	0	5.01	<13	PASS
			1	0	9.47	<13	PASS
		MCH	1	37	4.88	<13	PASS
			1	74	9.5	<13	PASS
			37	0	5.86	<13	PASS
			37	18	5.97	<13	PASS
			37	38	5.82	<13	PASS
			75	0	6.13	<13	PASS
			1	0	9.48	<13	PASS
		HCH	1	37	5.07	<13	PASS
			1	74	9.3	<13	PASS
			37	0	5.77	<13	PASS
			37	18	5.95	<13	PASS
			37	38	5.94	<13	PASS
			75	0	6.12	<13	PASS
			1	0	9.46	<13	PASS

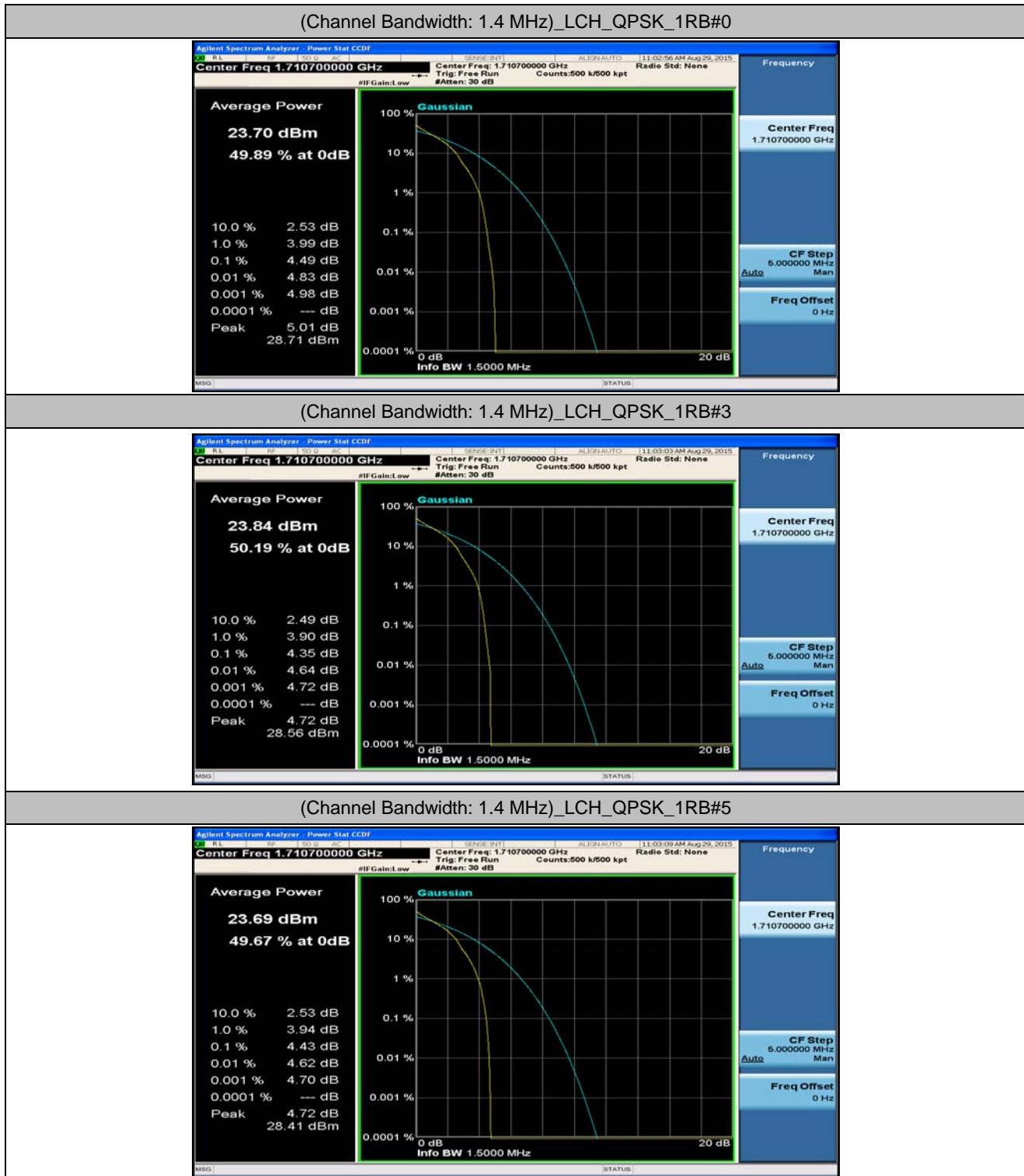
### Channel Bandwidth: 20 MHz

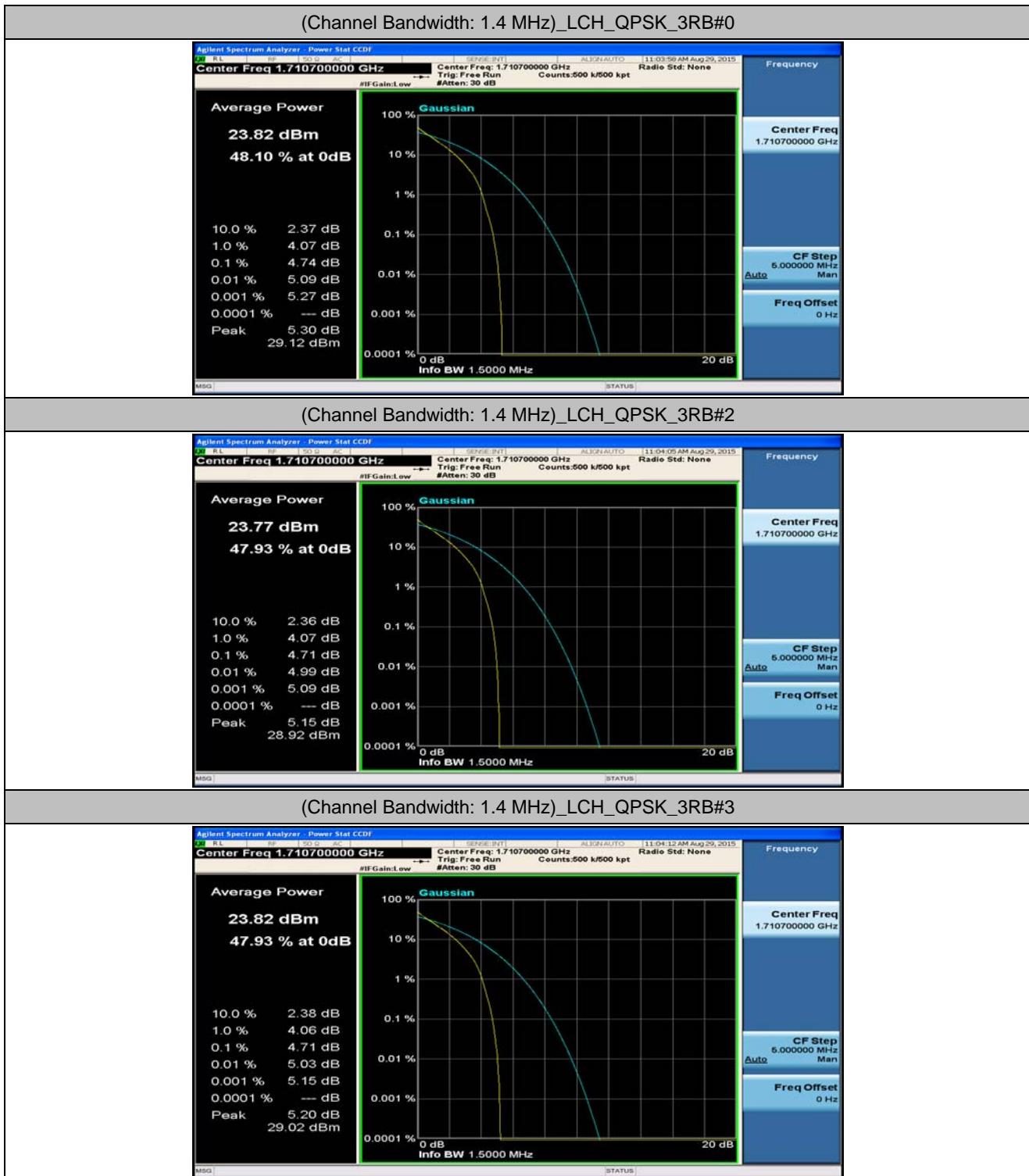
Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	9.43	<13	PASS
		1	49	3.84	<13	PASS

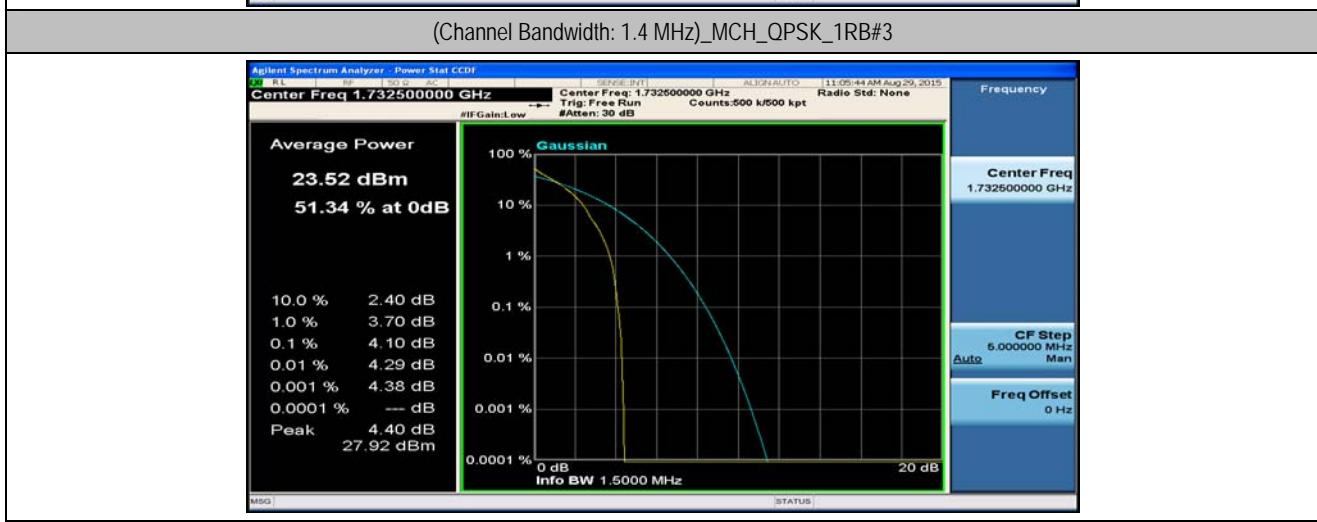
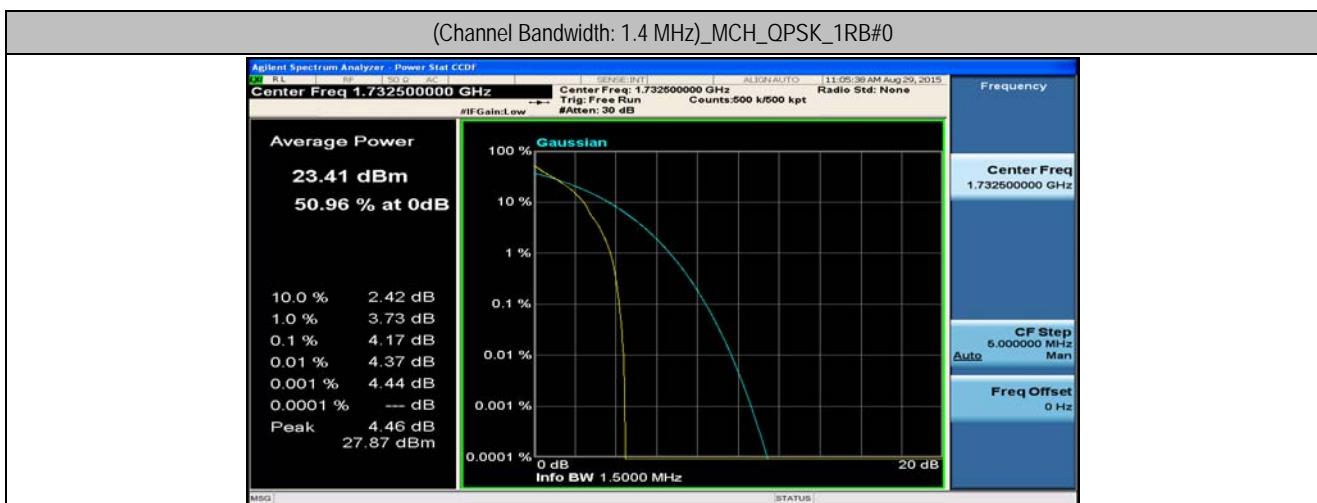
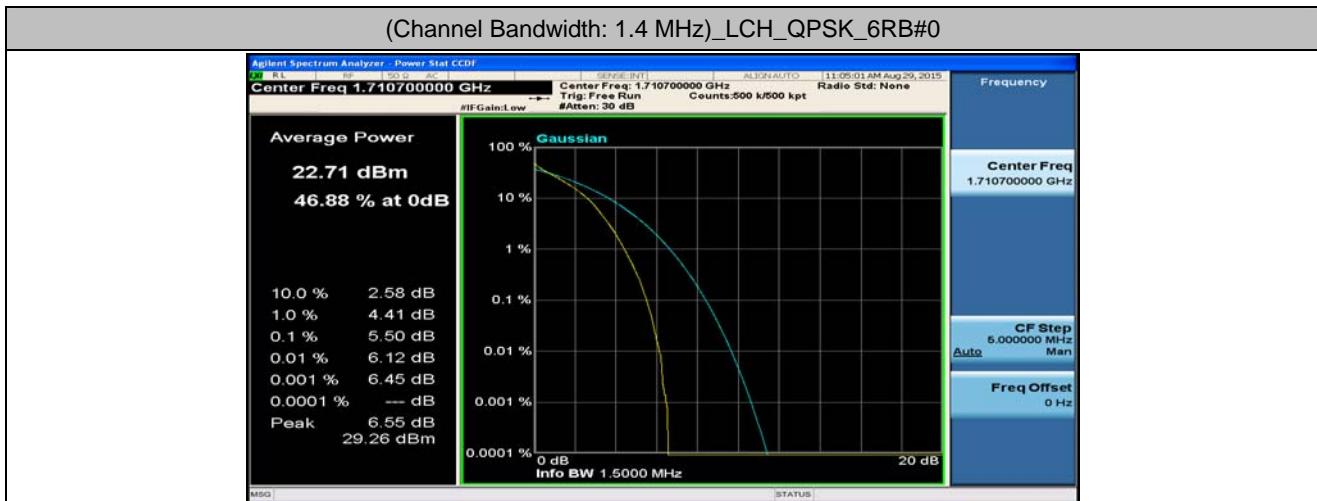
		1	99	9.39	<13	PASS
		50	0	5.45	<13	PASS
		50	25	5.3	<13	PASS
		50	50	5.68	<13	PASS
		100	0	5.67	<13	PASS
	MCH	1	0	8.82	<13	PASS
		1	49	4.1	<13	PASS
		1	99	10.89	<13	PASS
		50	0	5.49	<13	PASS
		50	25	5.39	<13	PASS
		50	50	5.73	<13	PASS
		100	0	5.72	<13	PASS
		1	0	9.47	<13	PASS
	HCH	1	49	4.53	<13	PASS
		1	99	9.94	<13	PASS
		50	0	5.58	<13	PASS
		50	25	5.59	<13	PASS
		50	50	5.82	<13	PASS
		100	0	5.76	<13	PASS
		1	0	8.55	<13	PASS
16QAM	LCH	1	49	4.73	<13	PASS
		1	99	8.69	<13	PASS
		50	0	6.45	<13	PASS
		50	25	6.04	<13	PASS
		50	50	6.51	<13	PASS
		100	0	6.68	<13	PASS
		1	0	9.29	<13	PASS
	MCH	1	49	5.01	<13	PASS
		1	99	10.26	<13	PASS
		50	0	6.48	<13	PASS
		50	25	6.1	<13	PASS
		50	50	6.46	<13	PASS
		100	0	6.71	<13	PASS
		1	0	8.72	<13	PASS
	HCH	1	49	5.16	<13	PASS
		1	99	9.63	<13	PASS
		50	0	6.62	<13	PASS
		50	25	6.3	<13	PASS
		50	50	6.65	<13	PASS
		100	0	6.73	<13	PASS

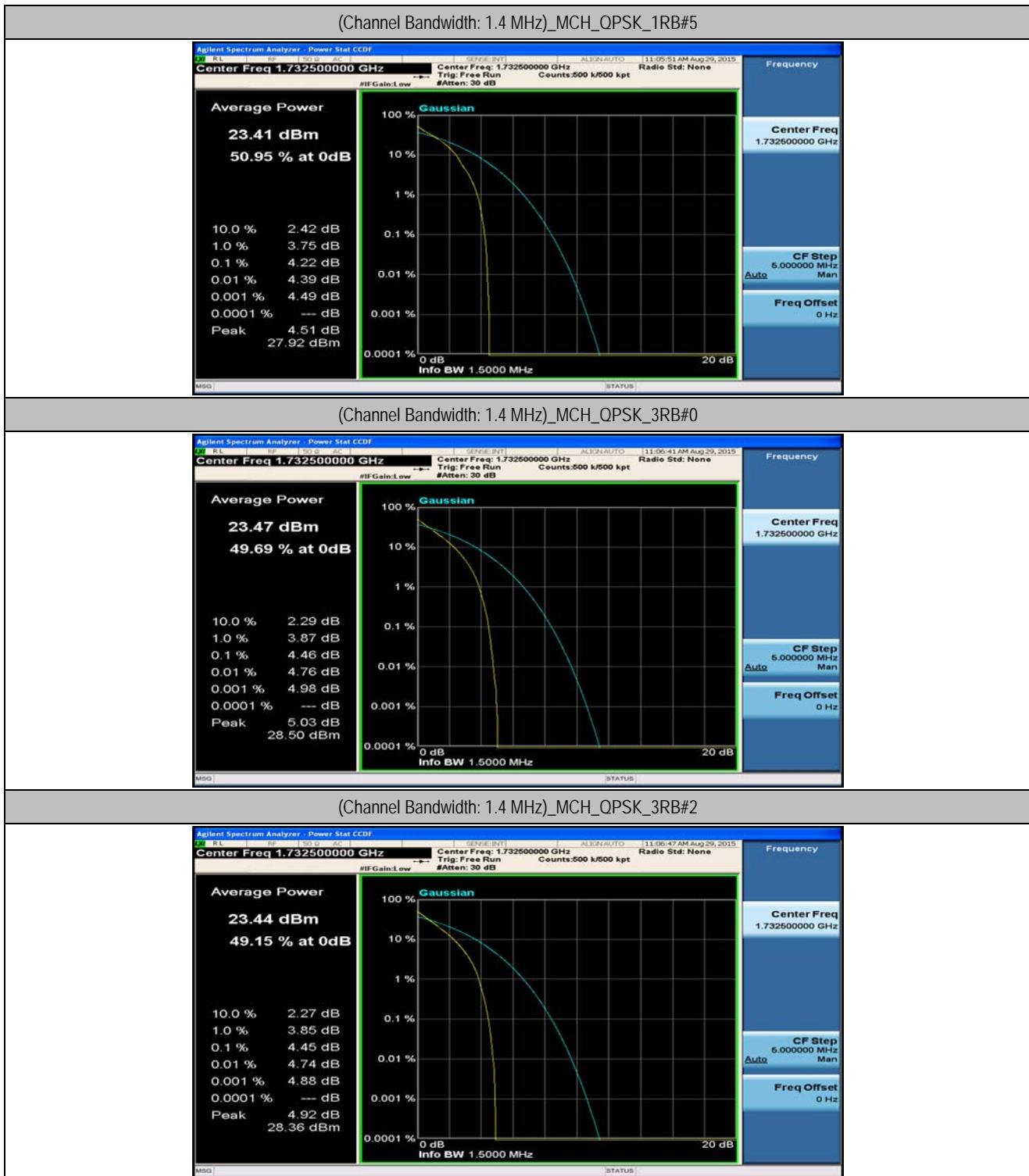
## Test Graphs

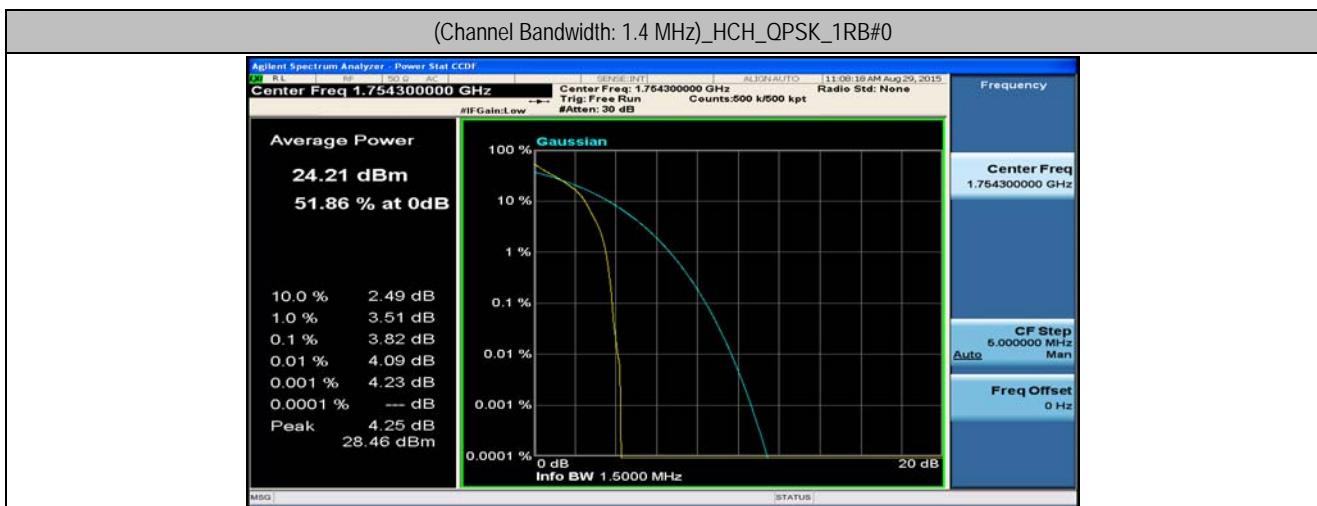
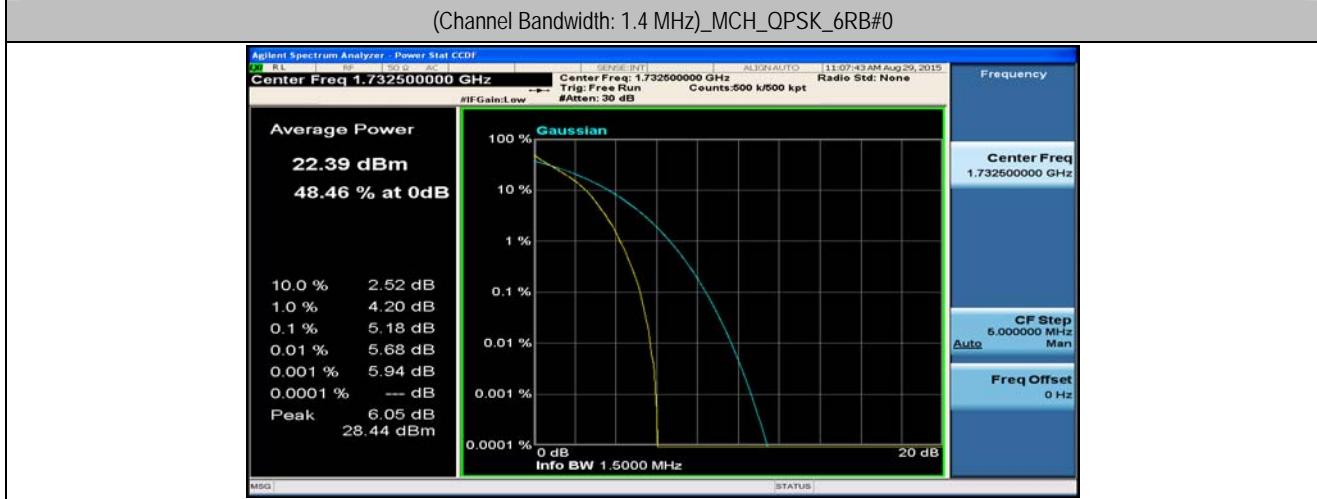
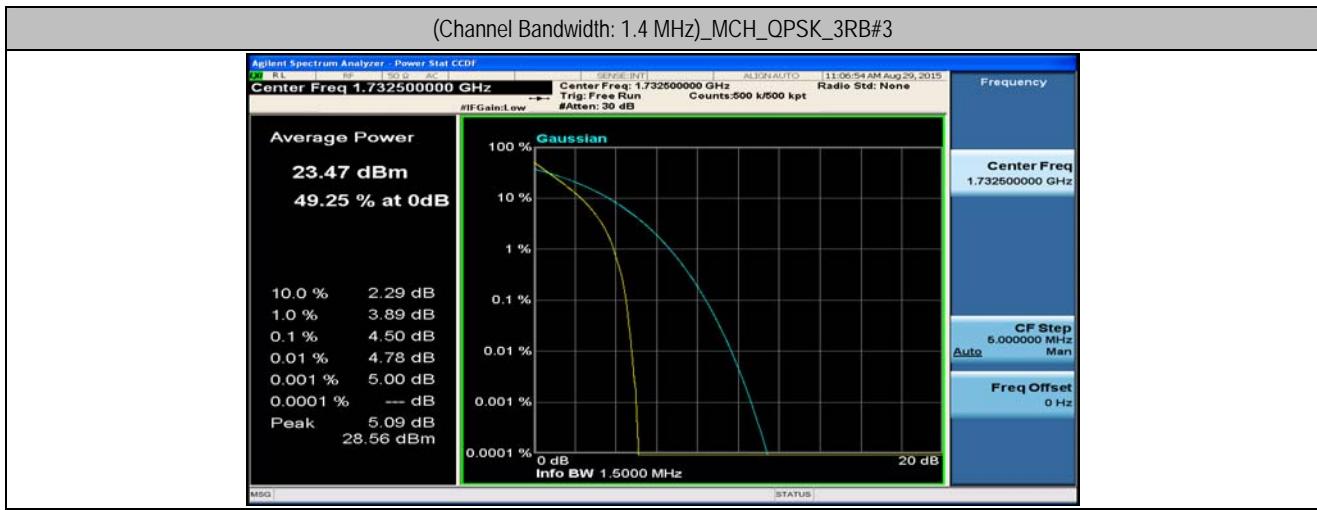
### Channel Bandwidth: 1.4 MHz

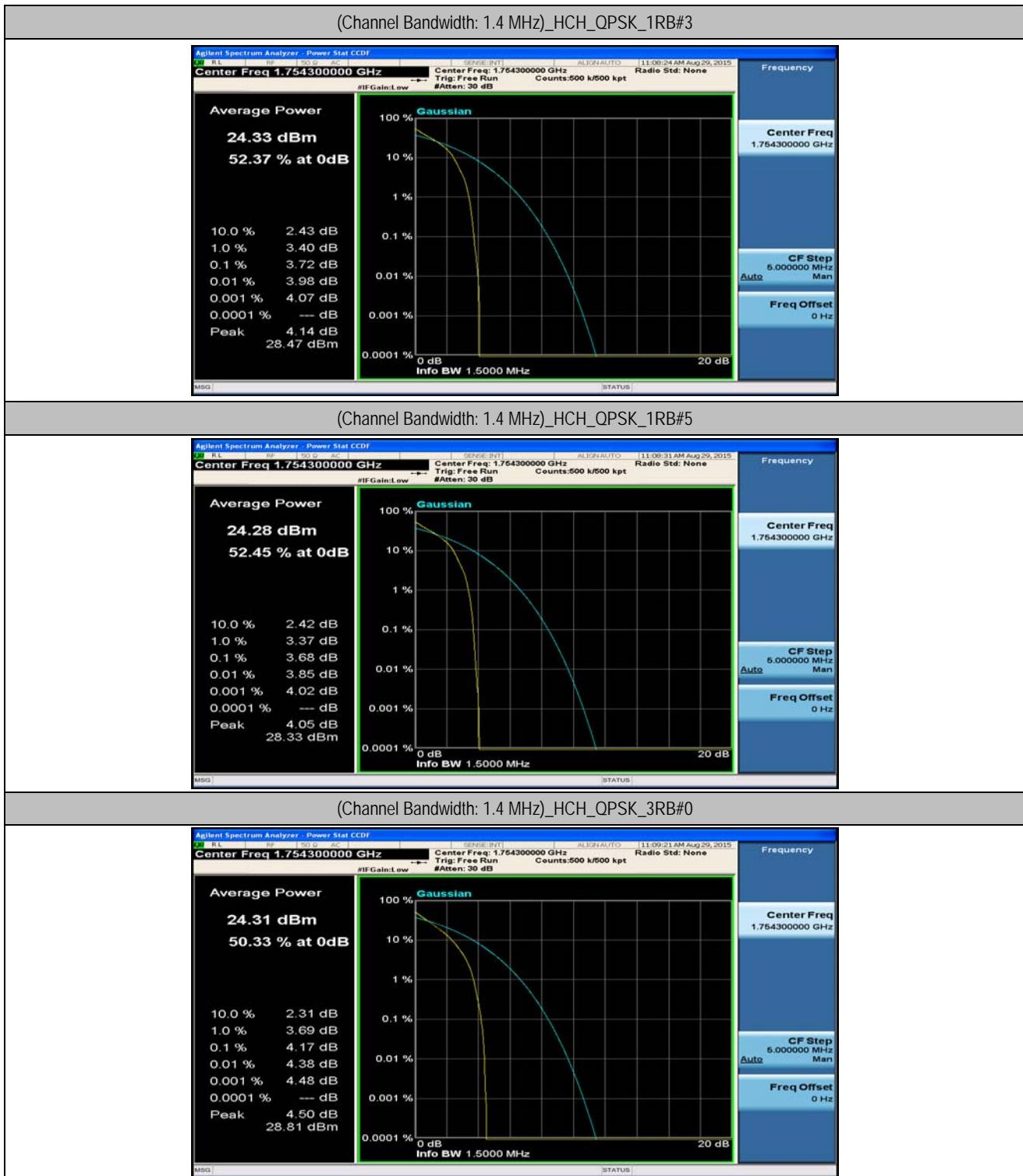


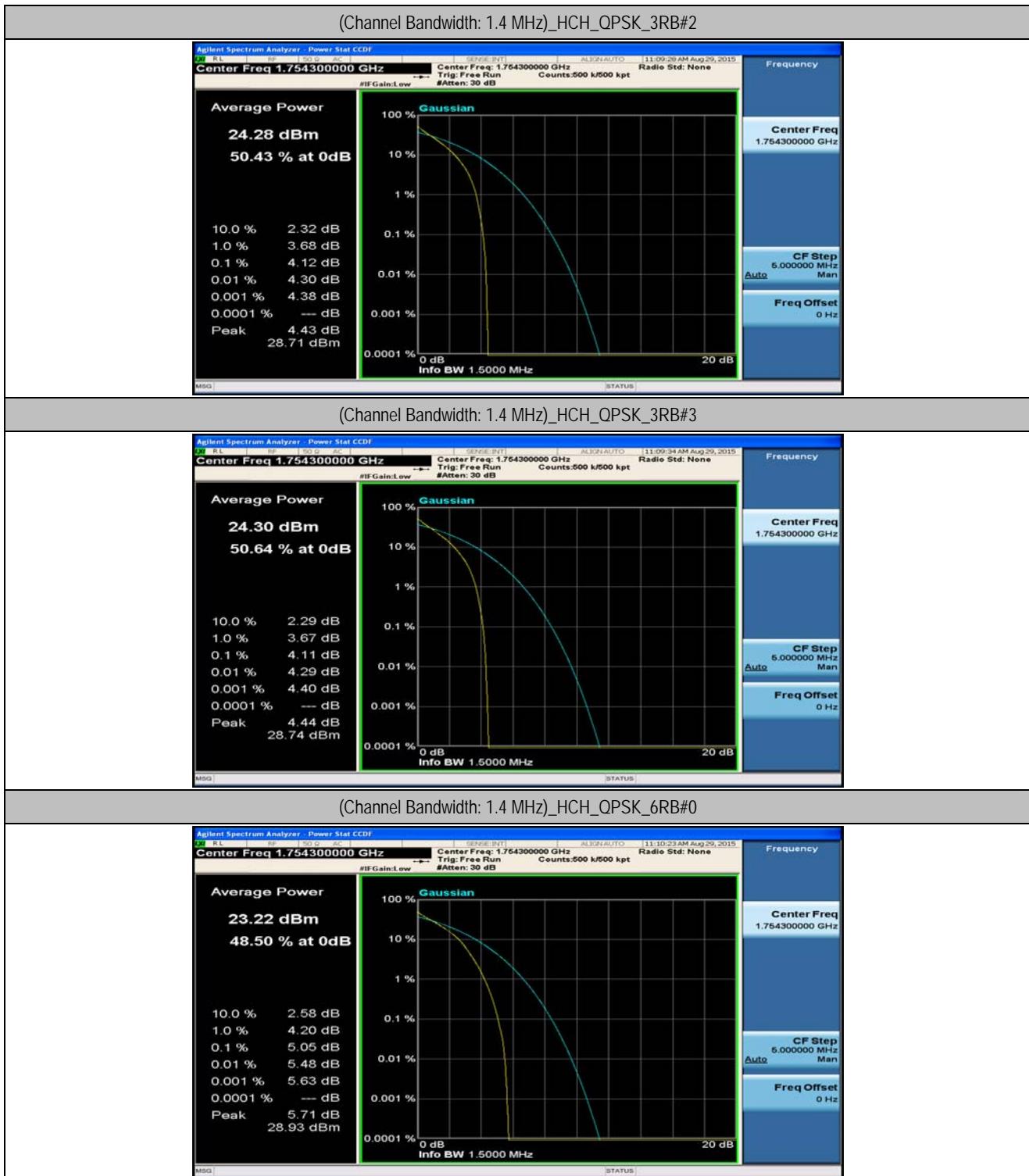


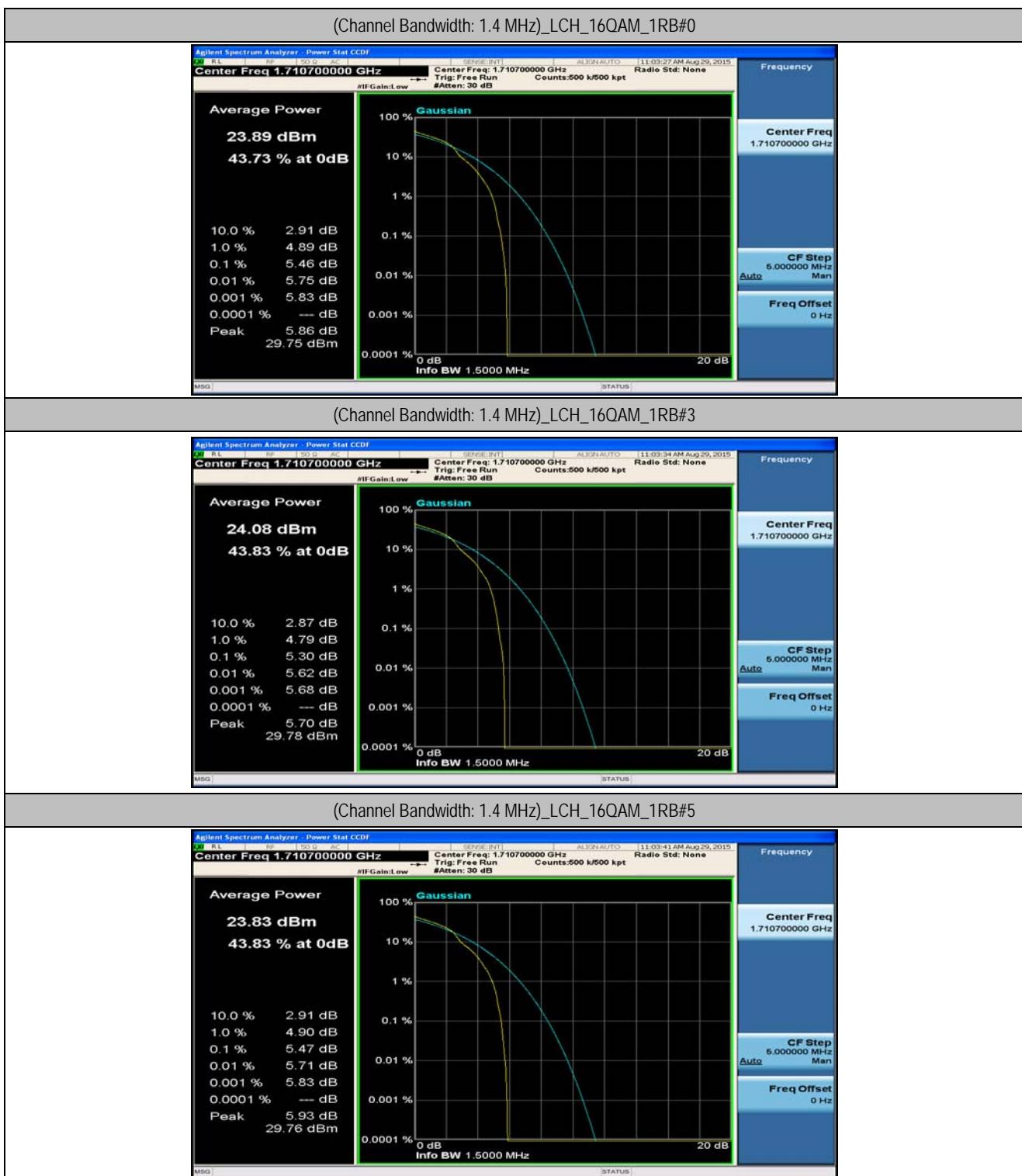


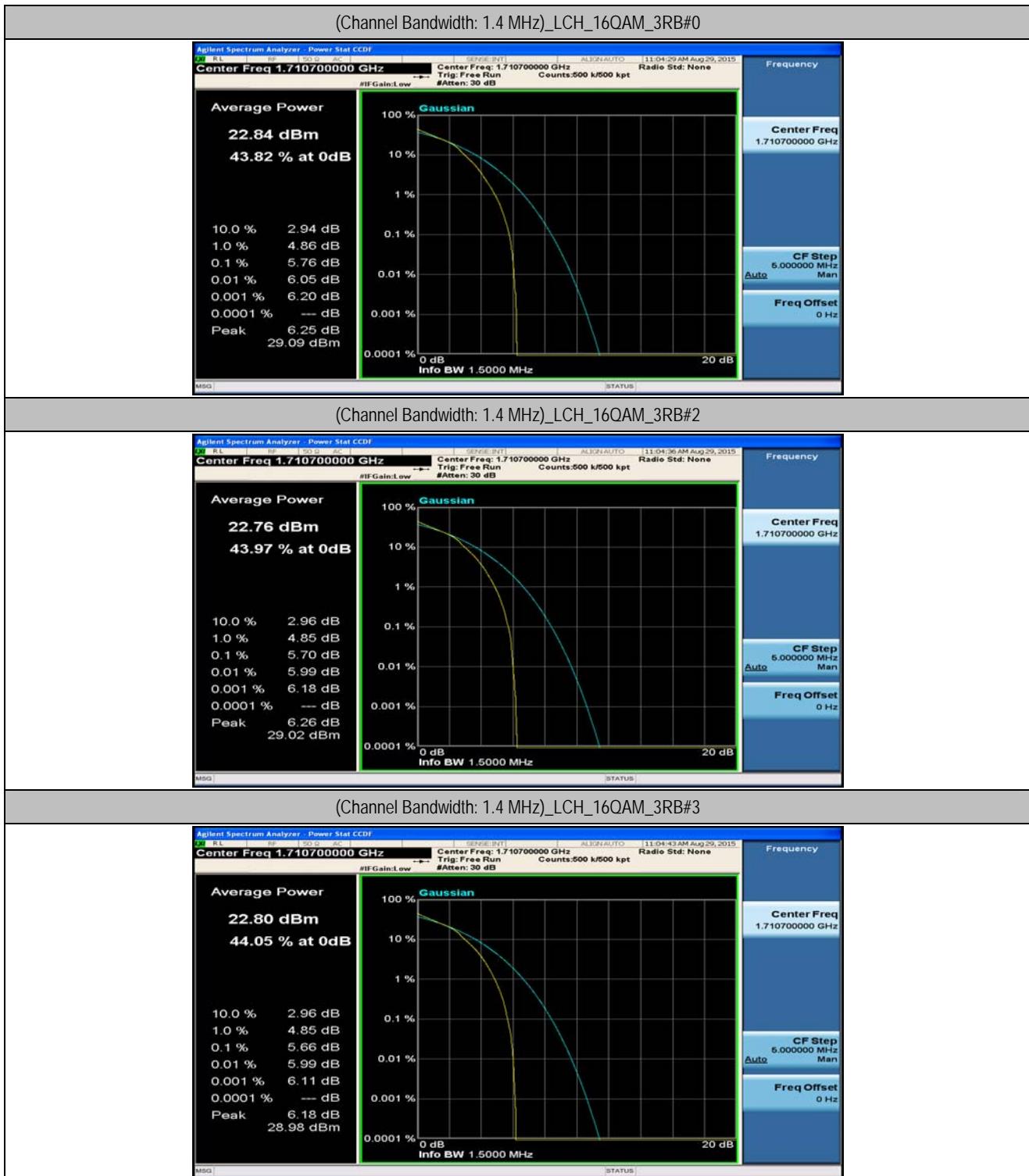


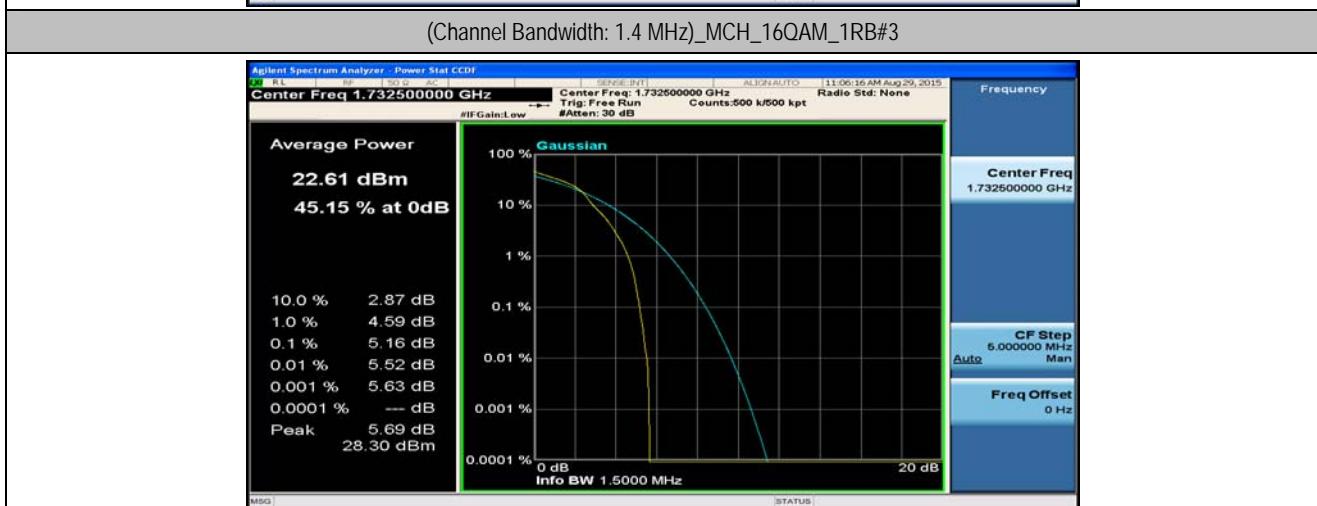
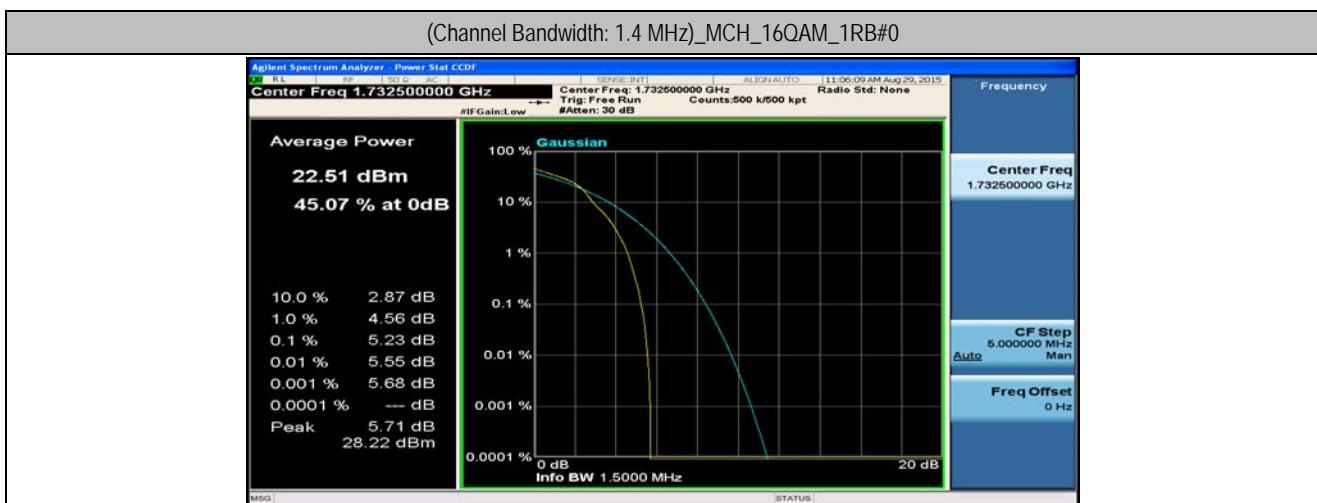
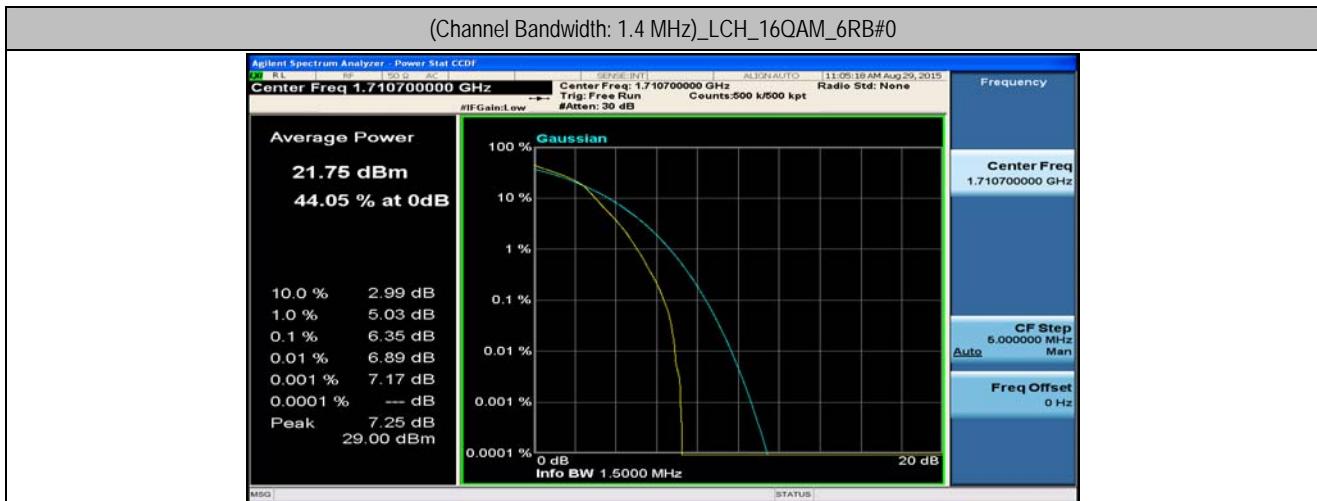


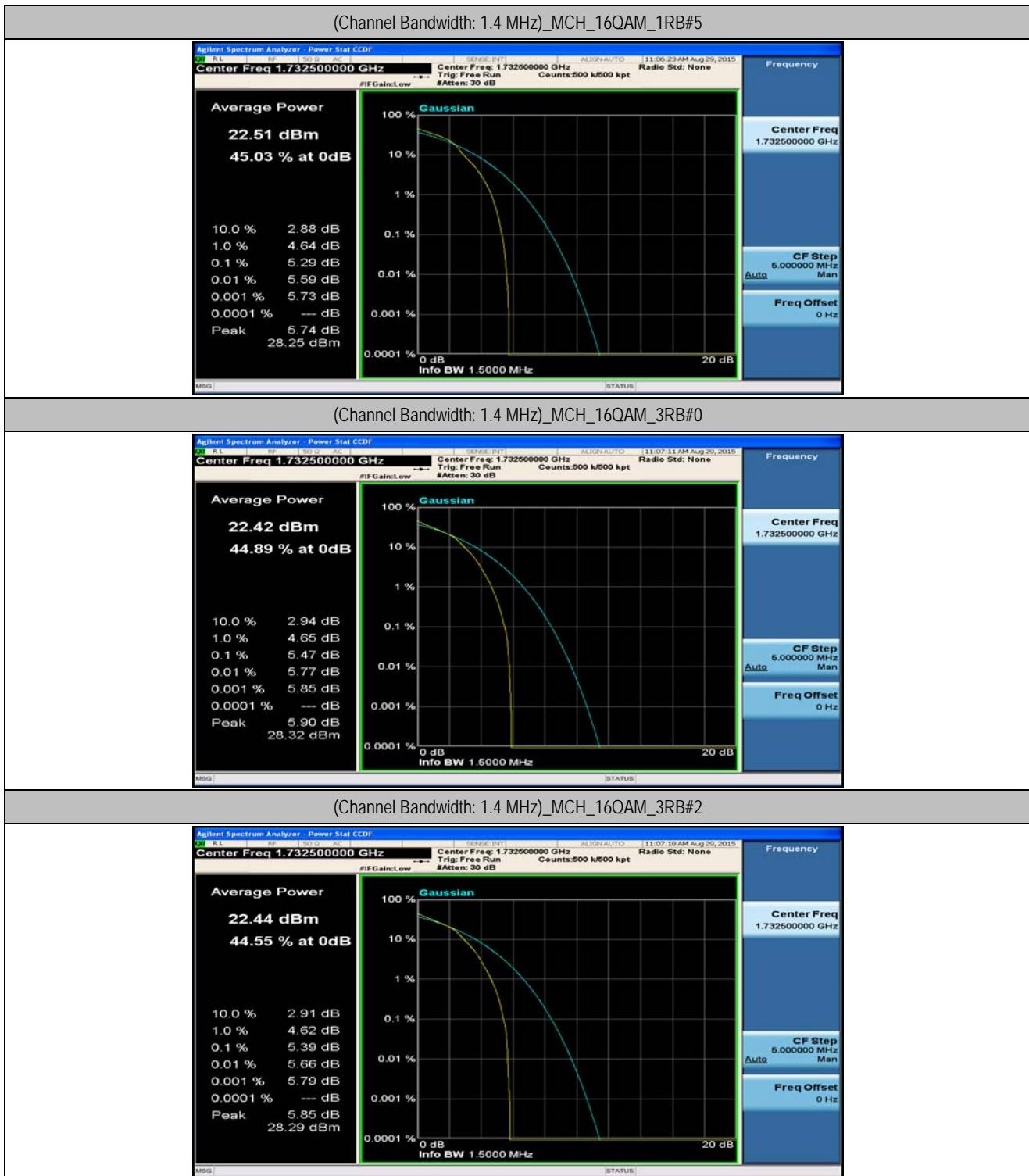


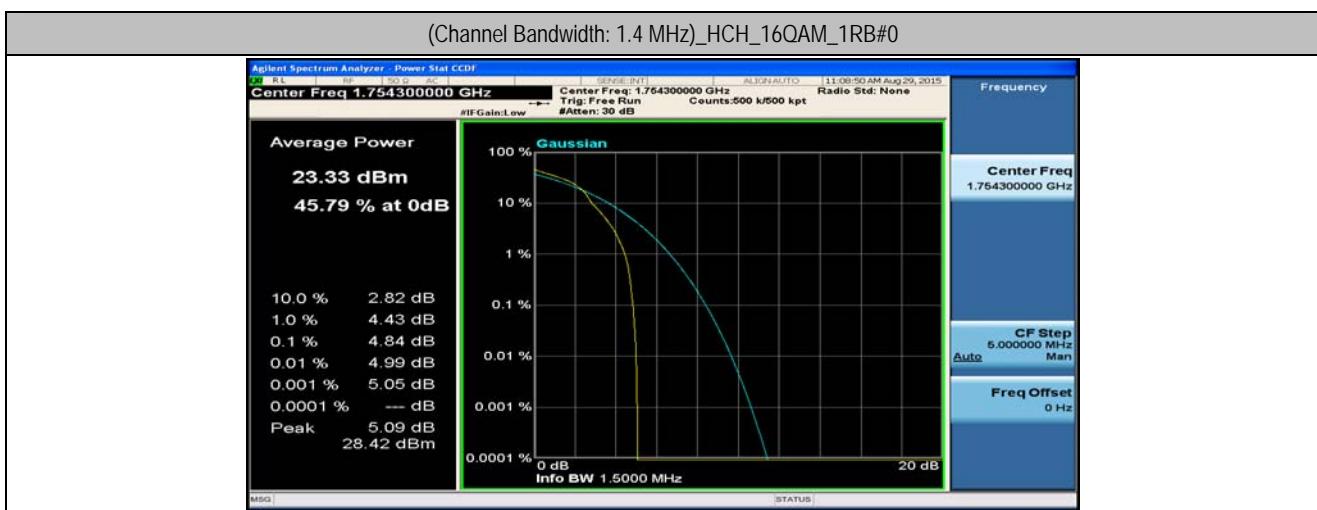
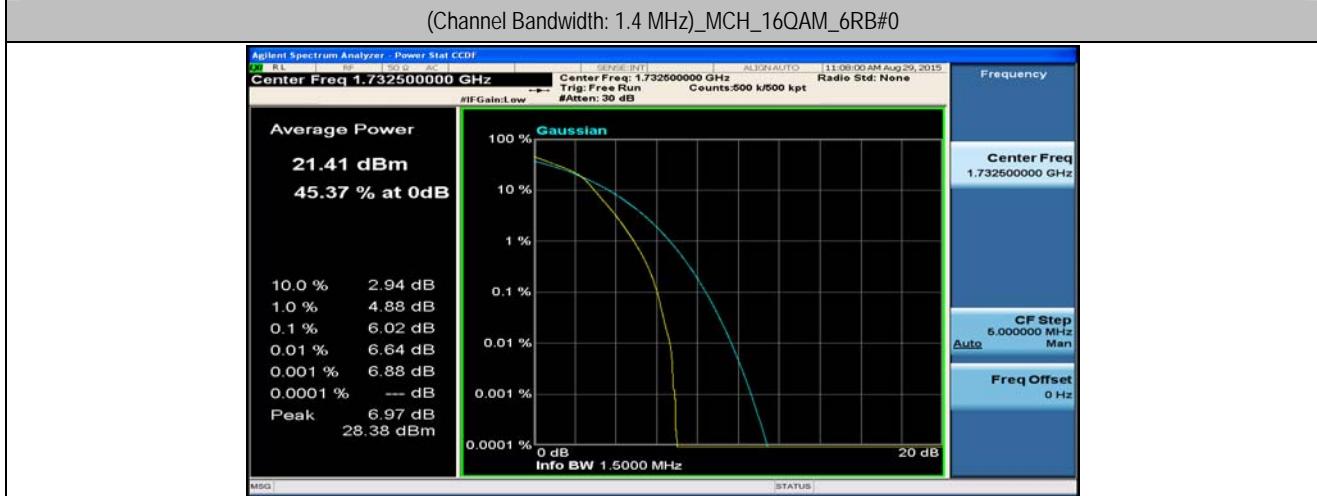
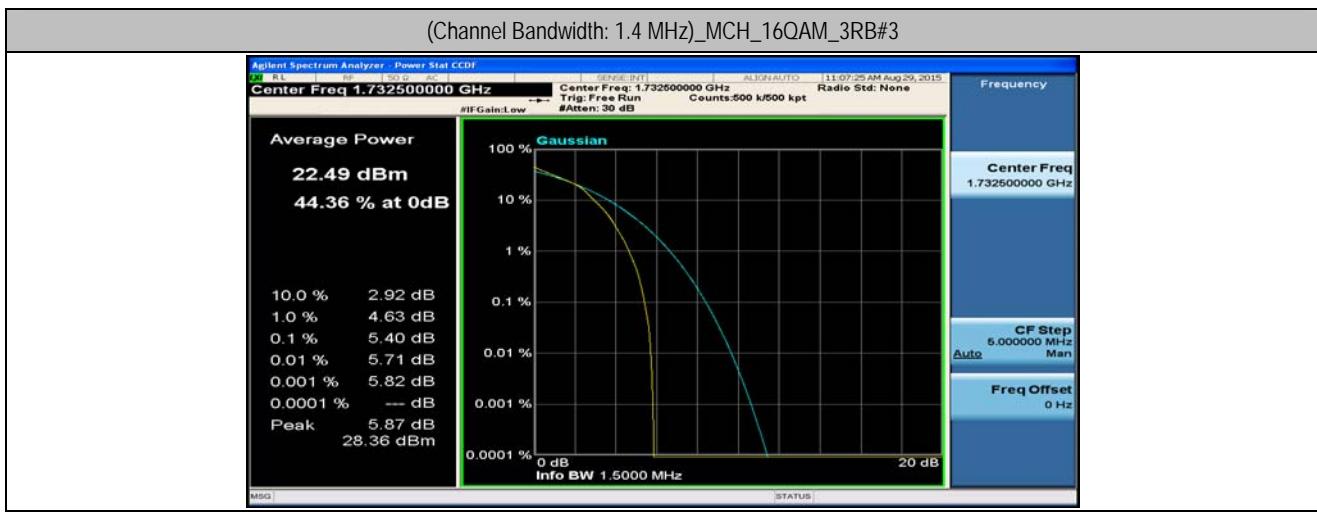


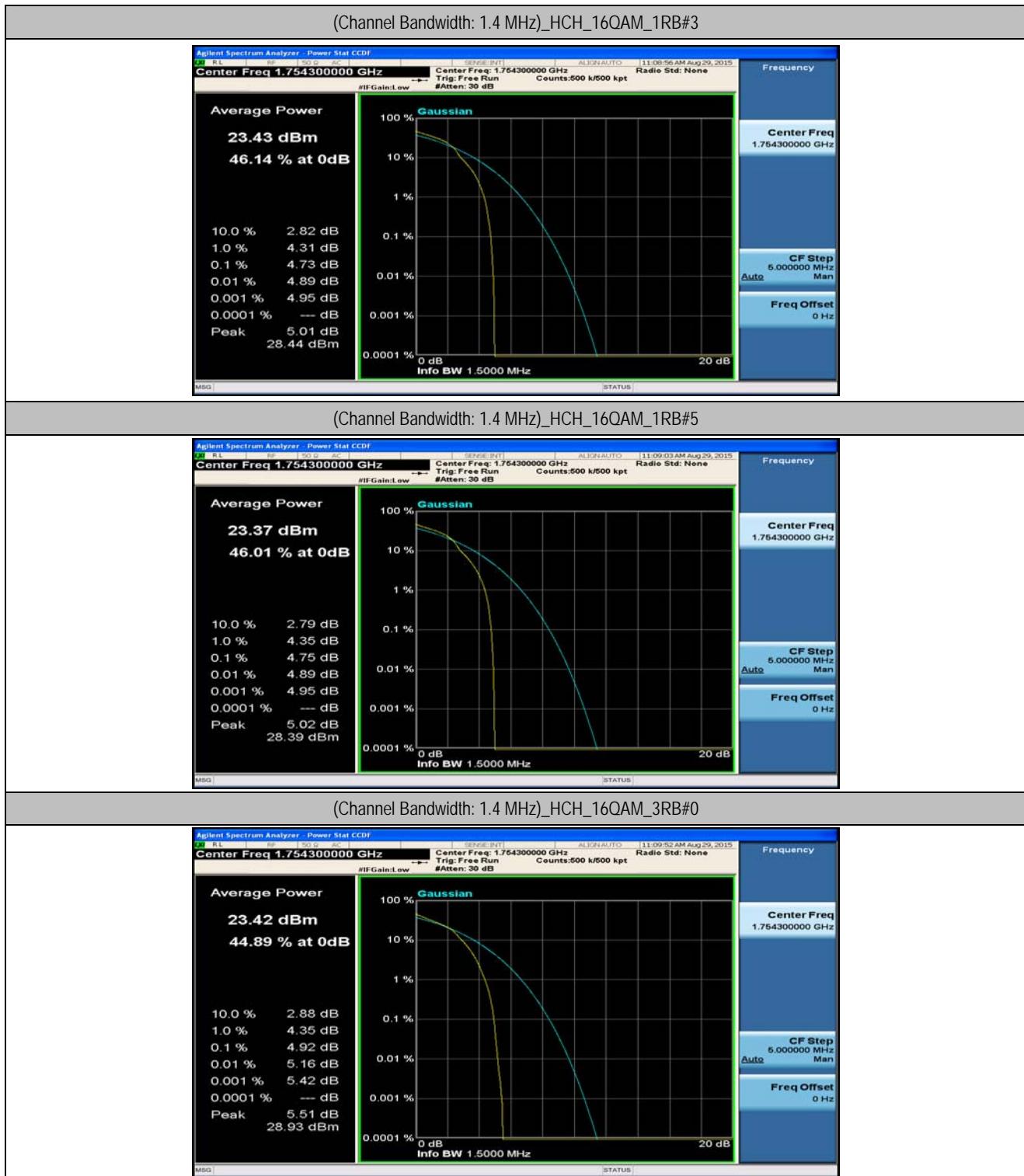


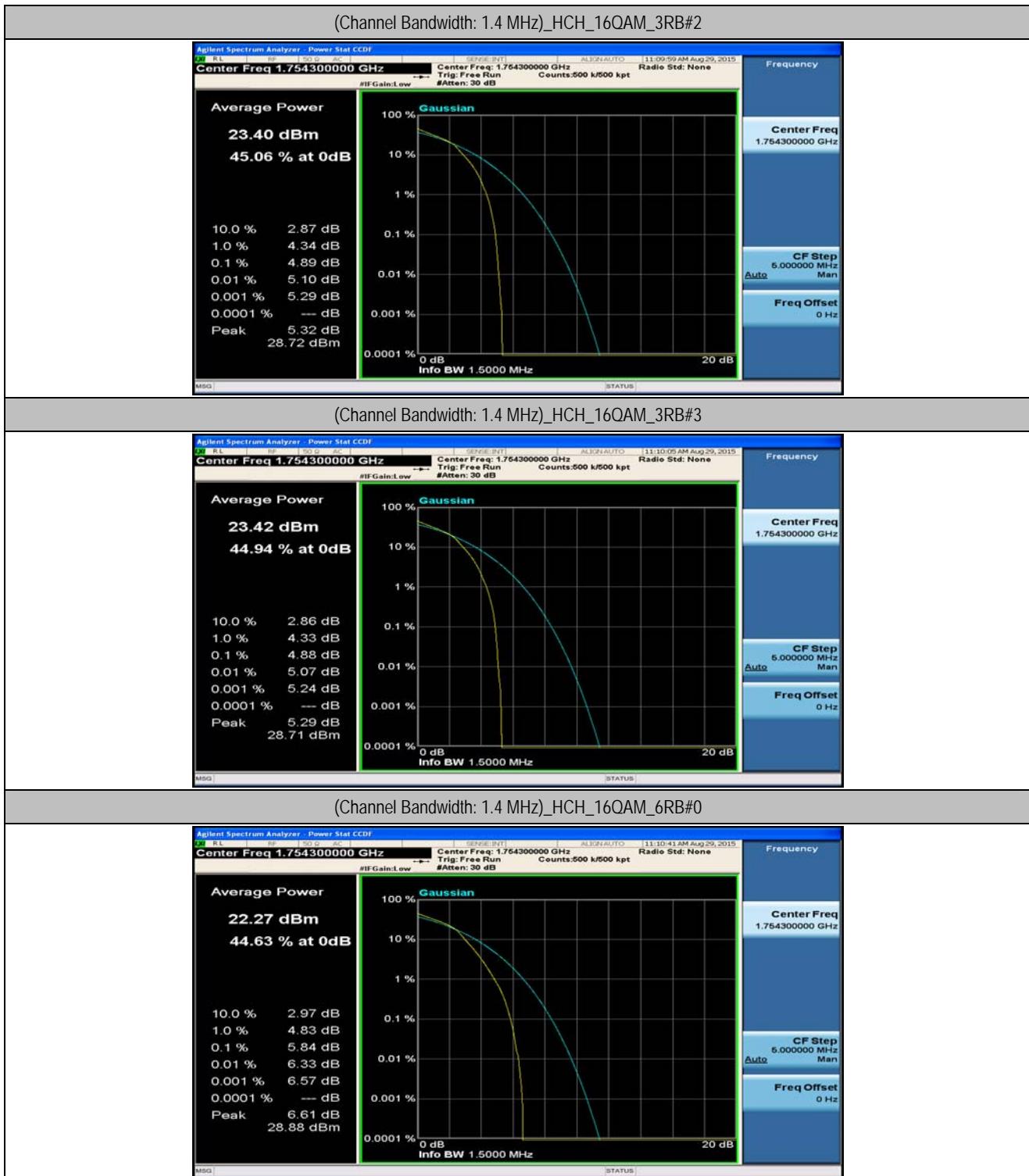




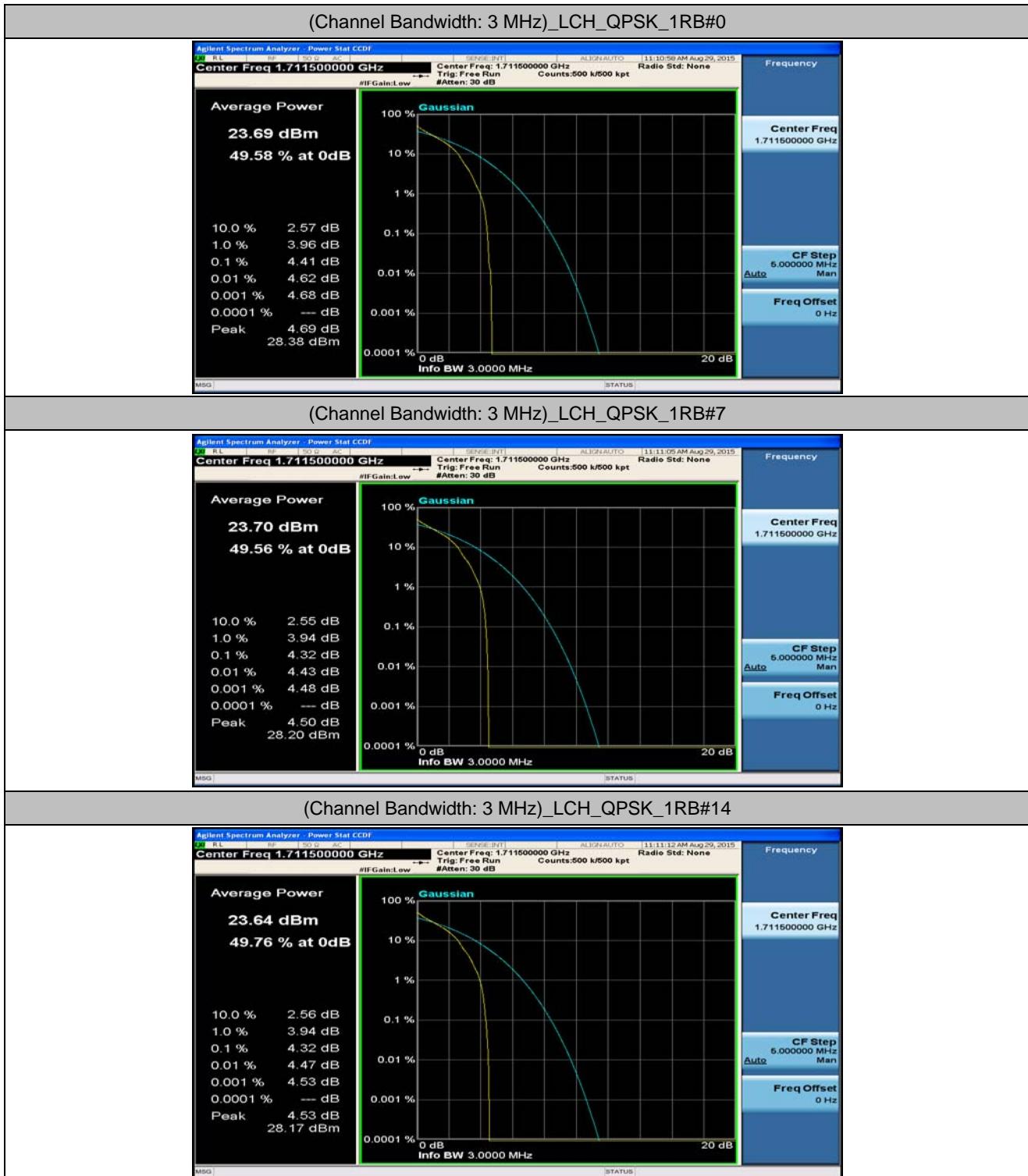


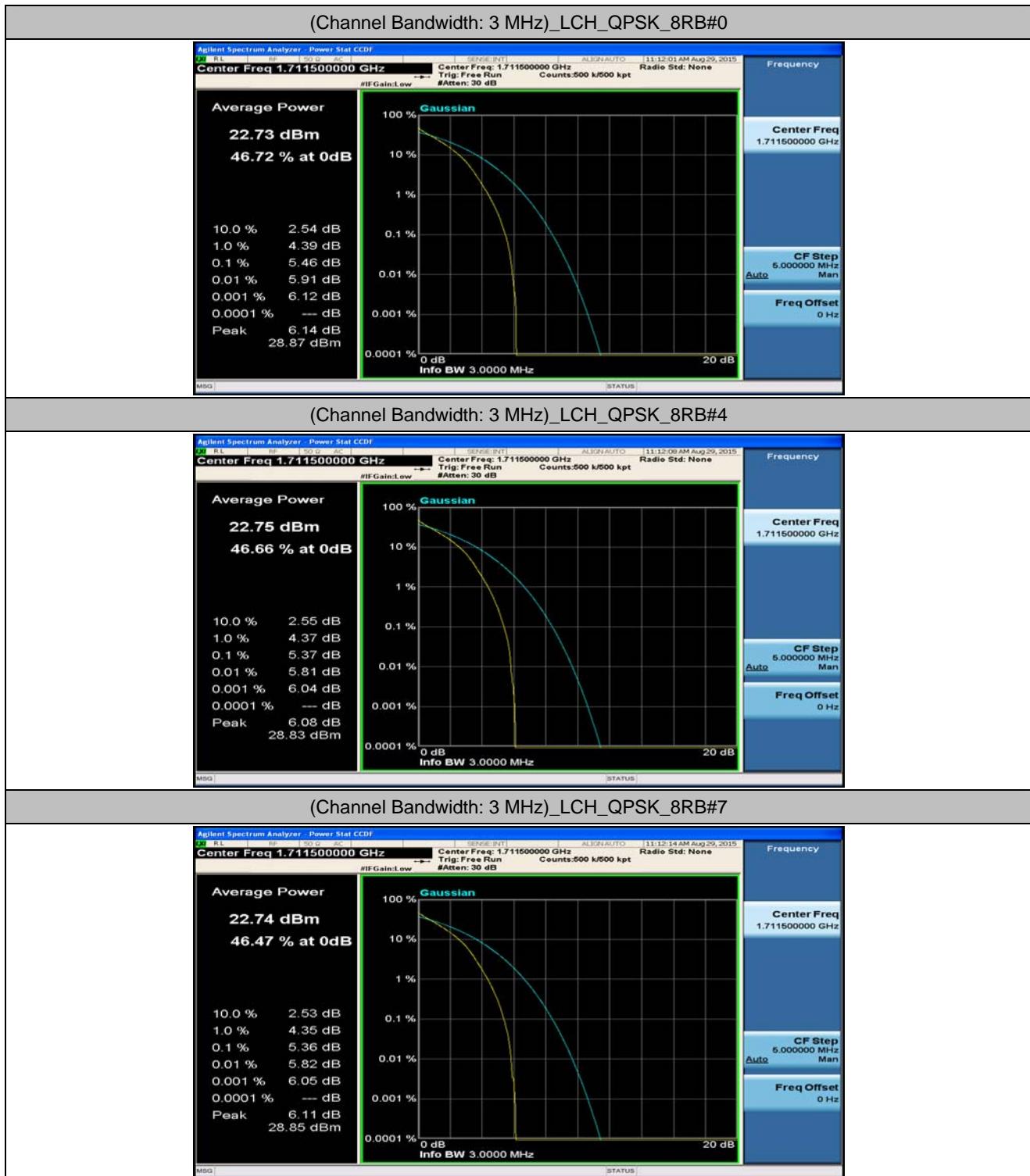


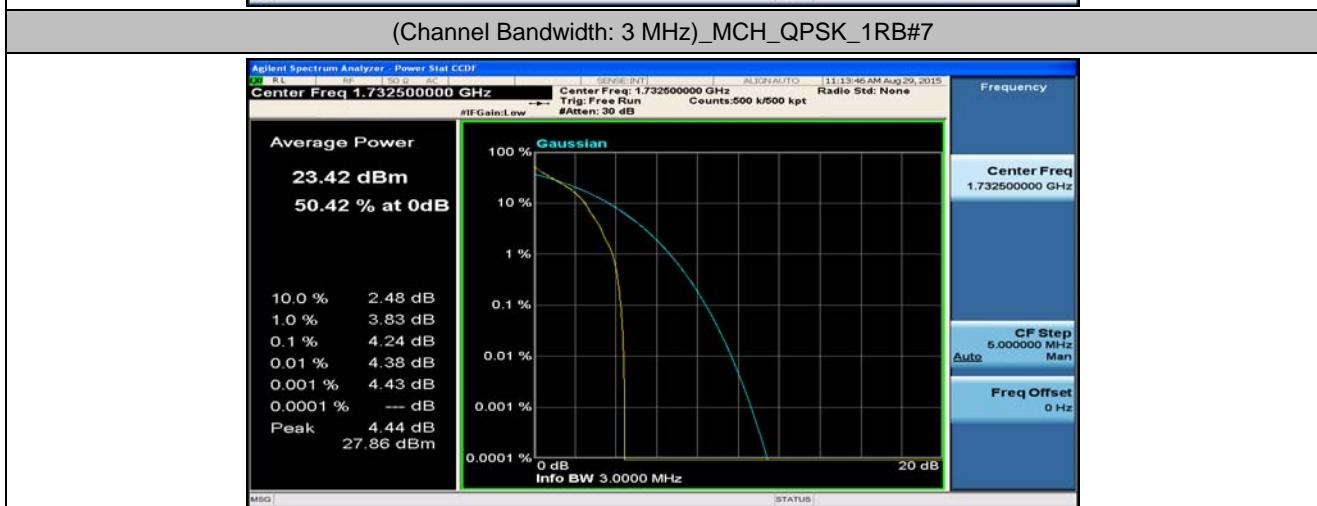
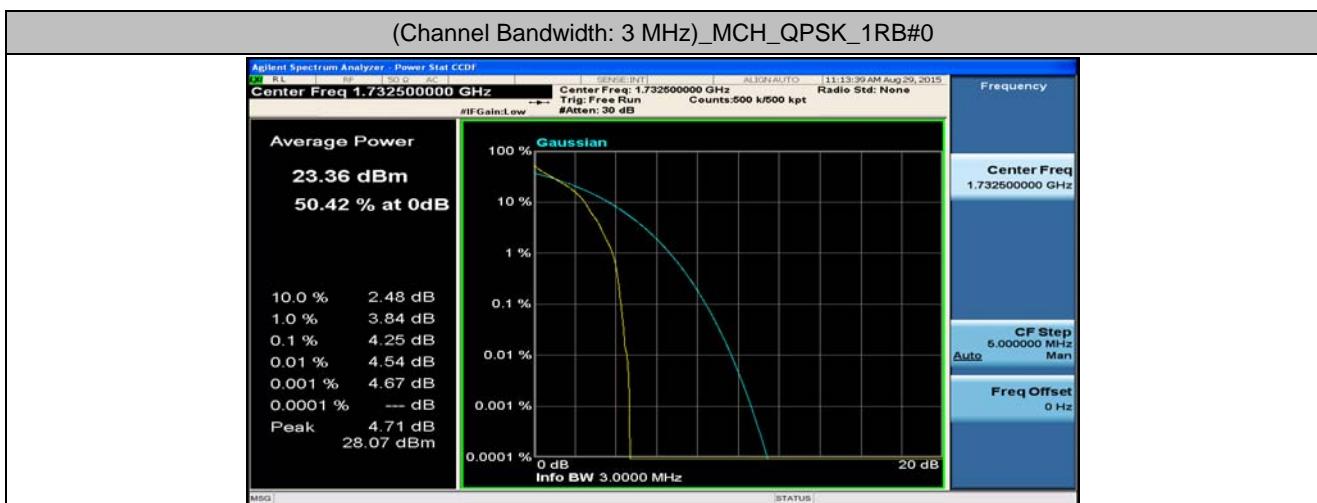
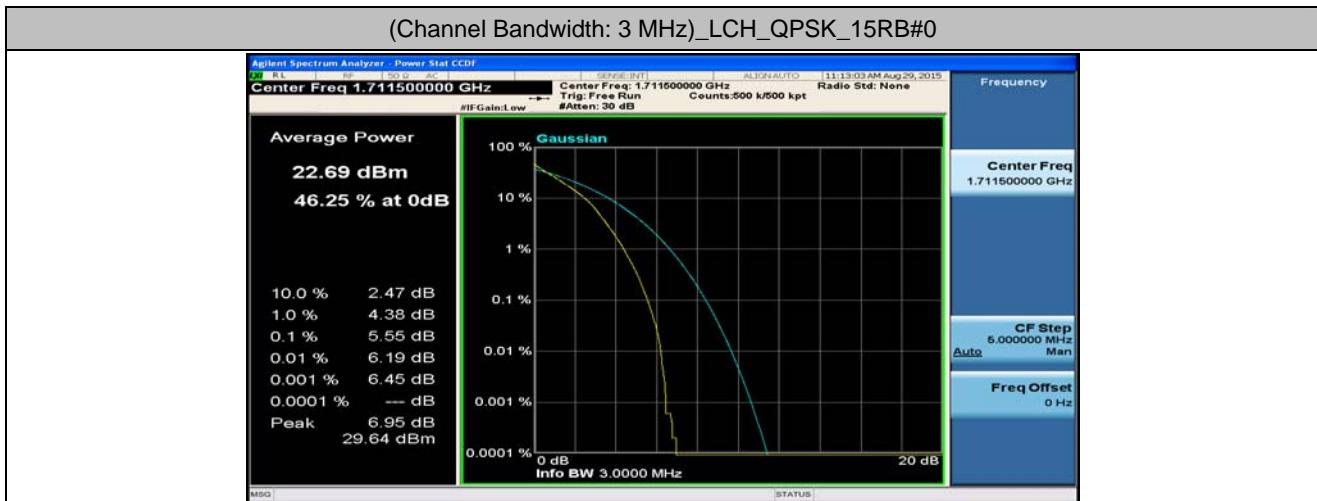


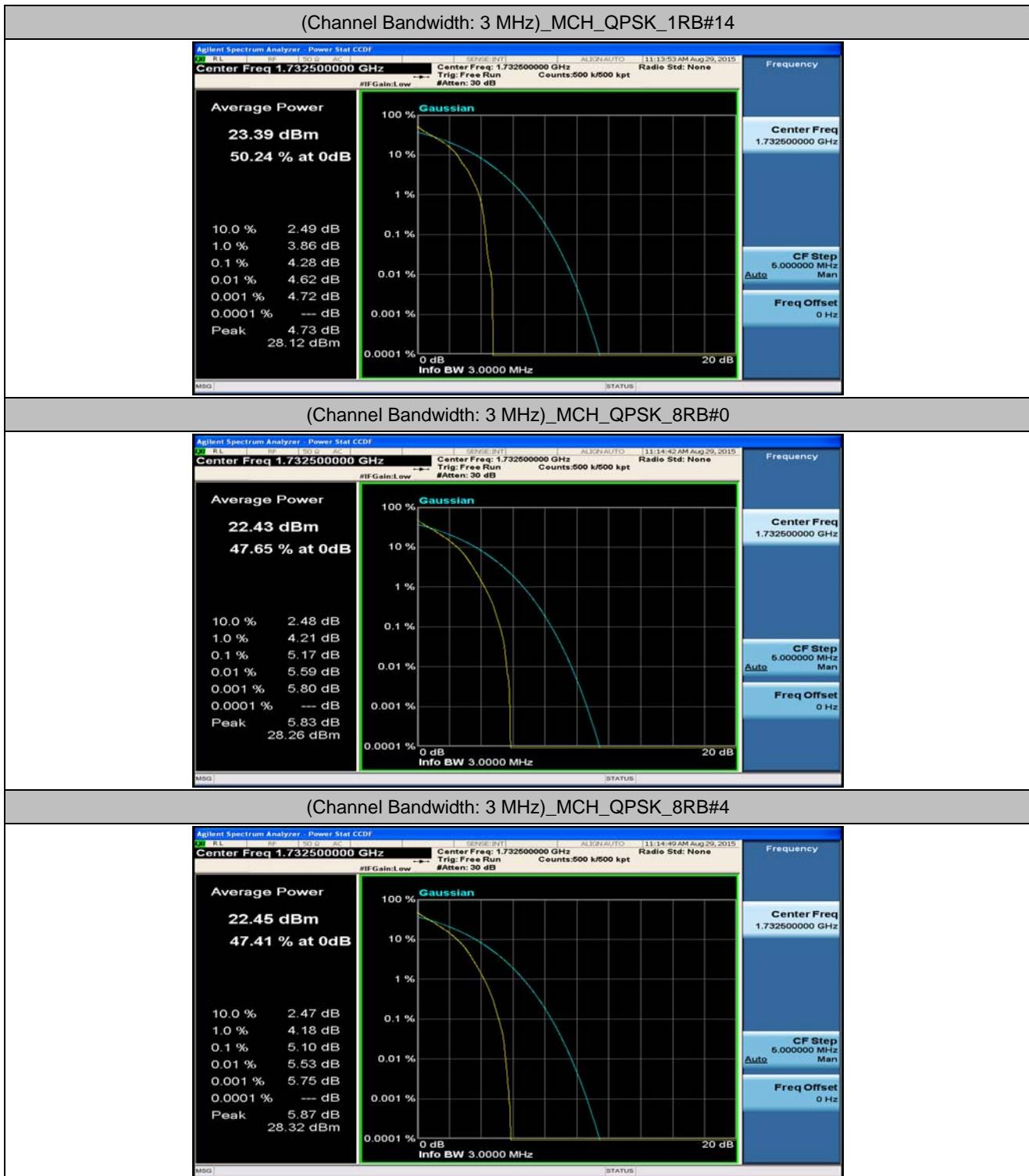


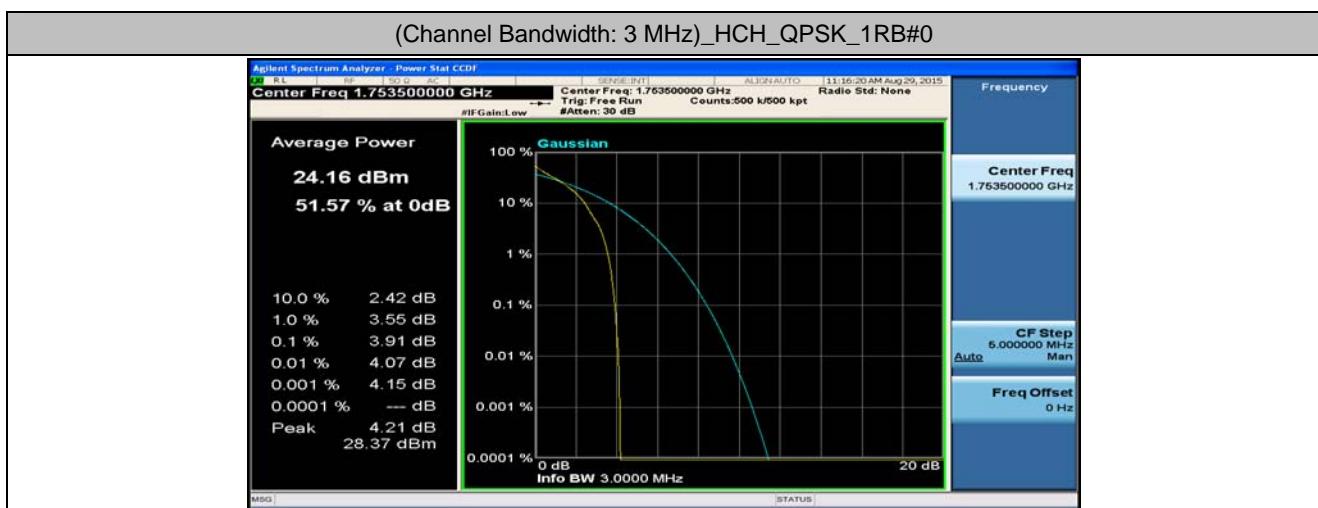
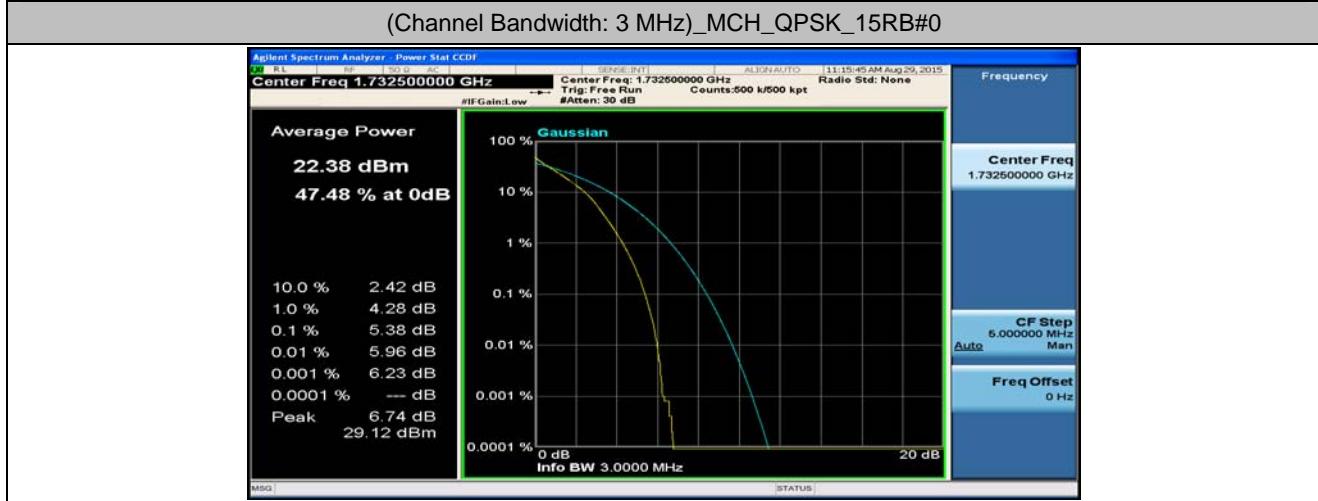
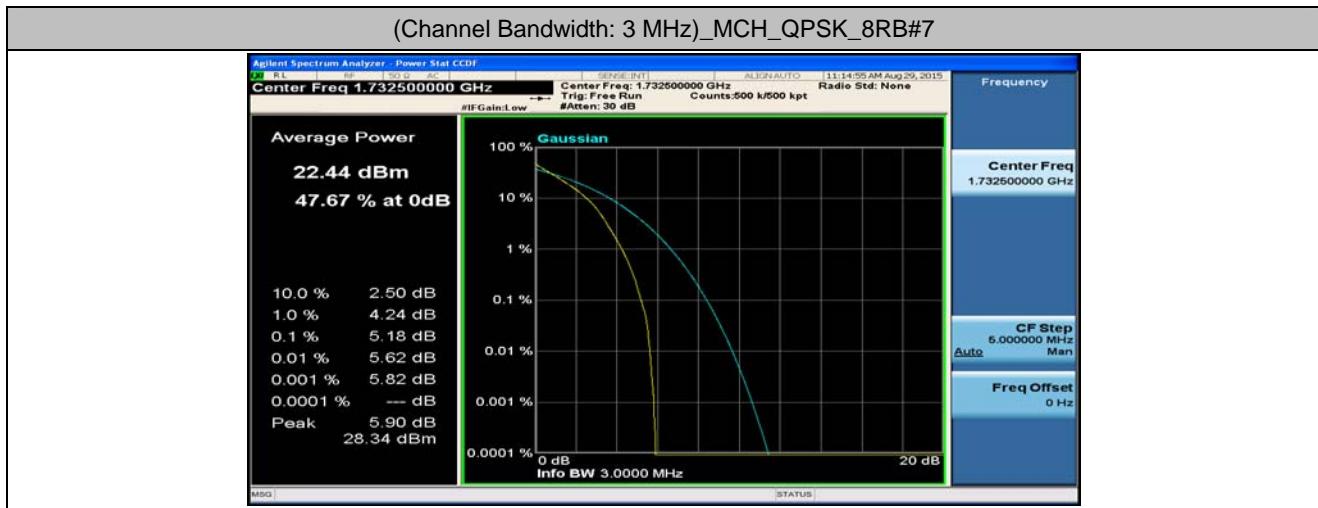
## Channel Bandwidth: 3 MHz

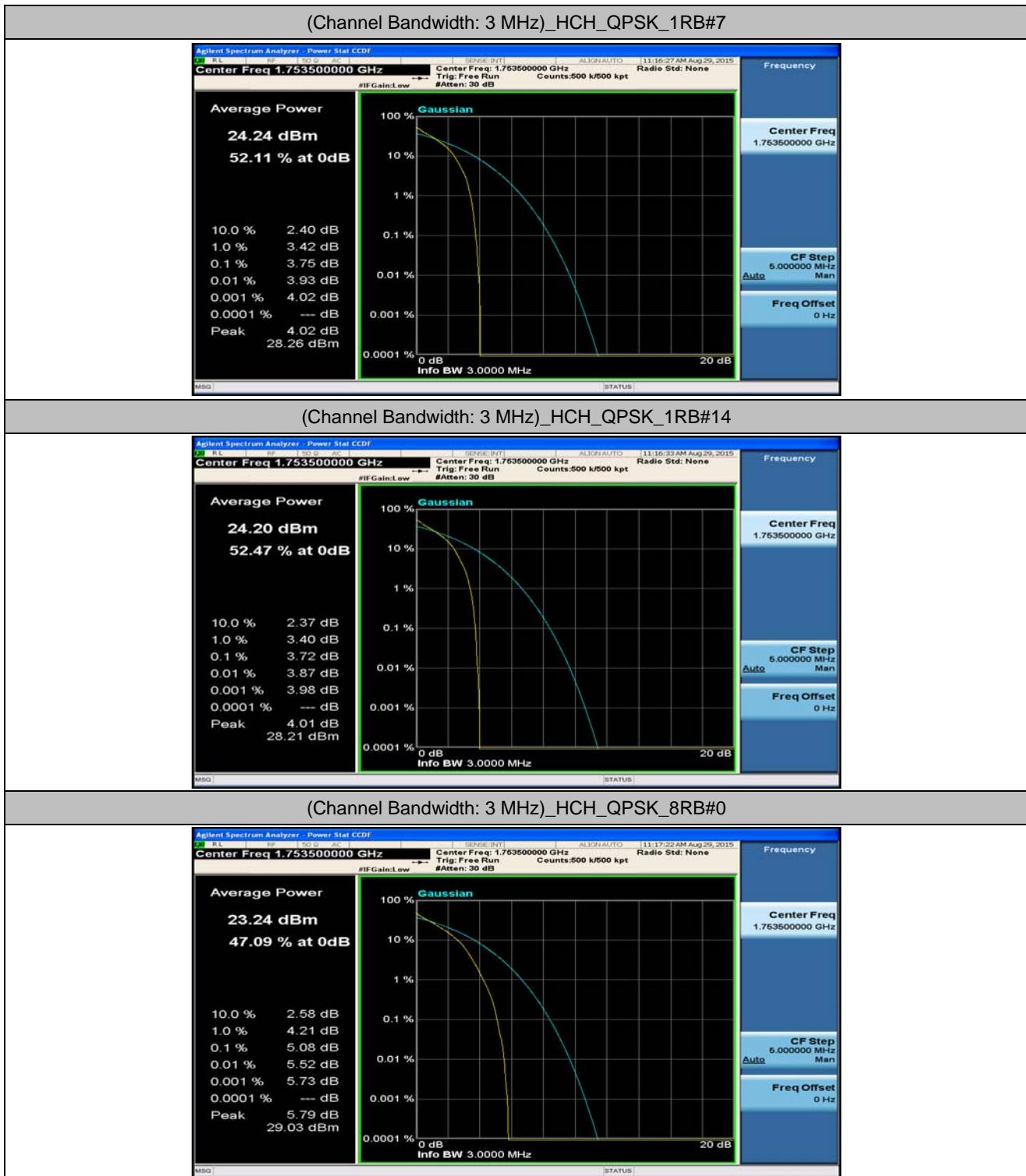


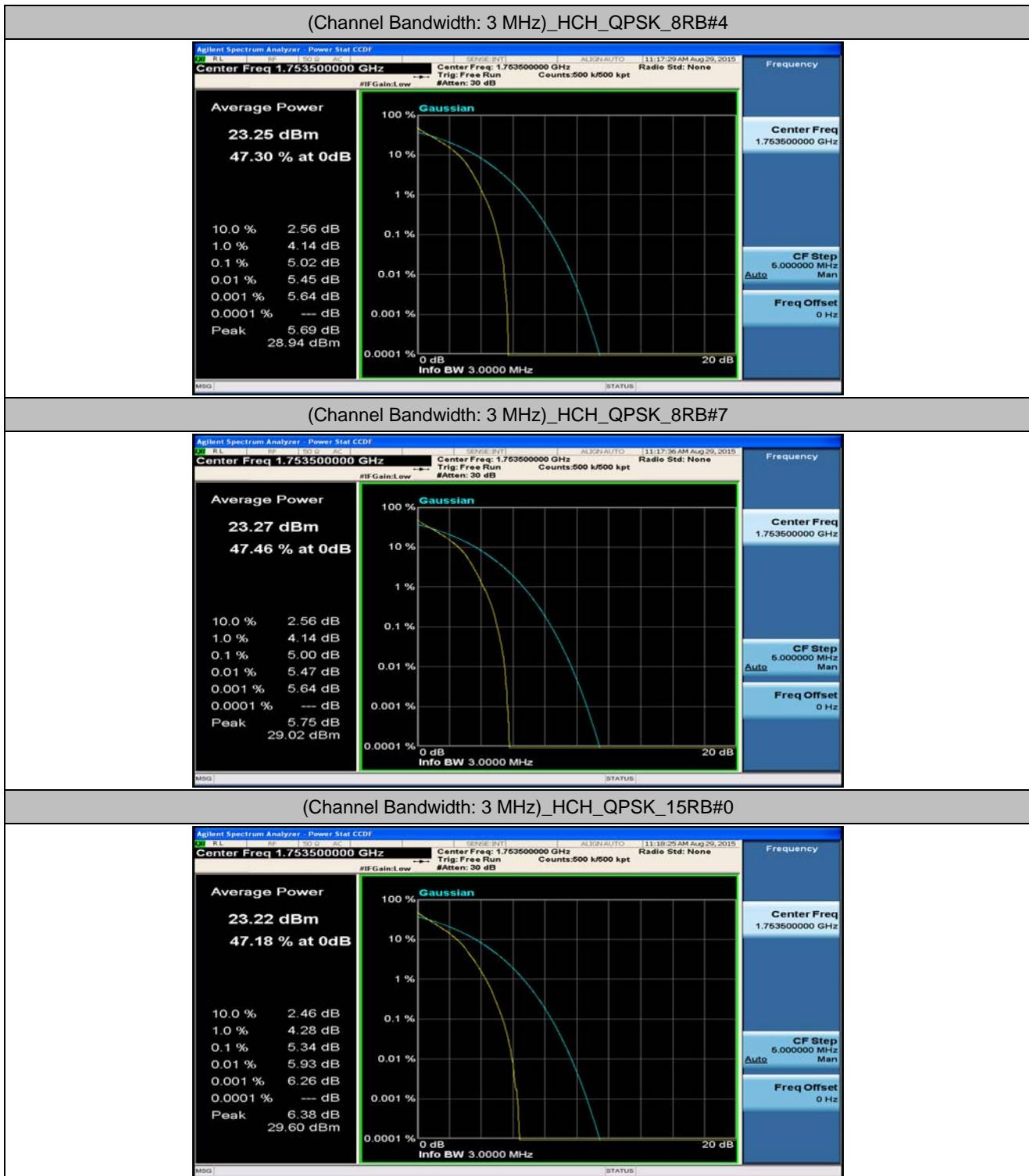




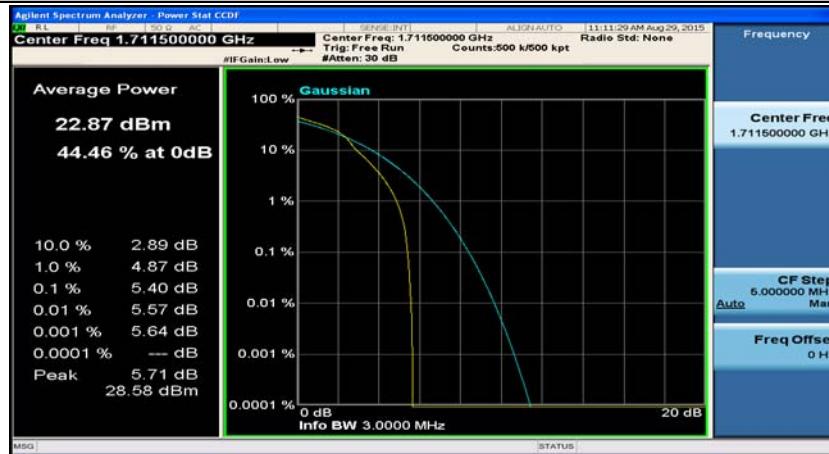








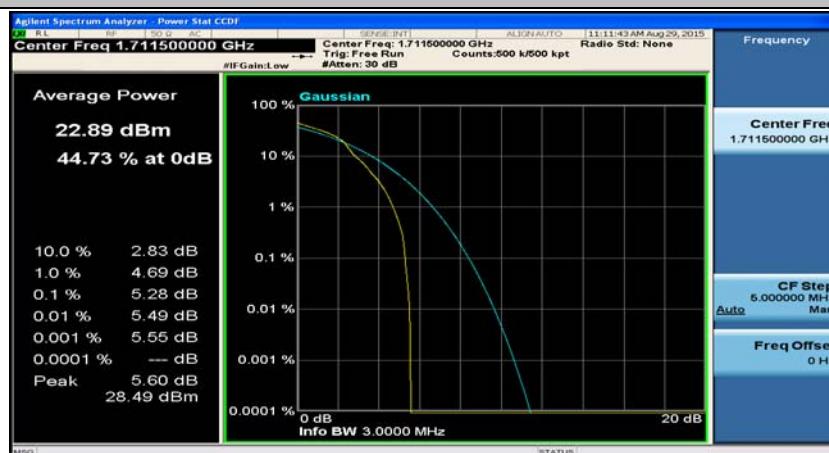
## (Channel Bandwidth: 3 MHz)\_LCH\_16QAM\_1RB#0

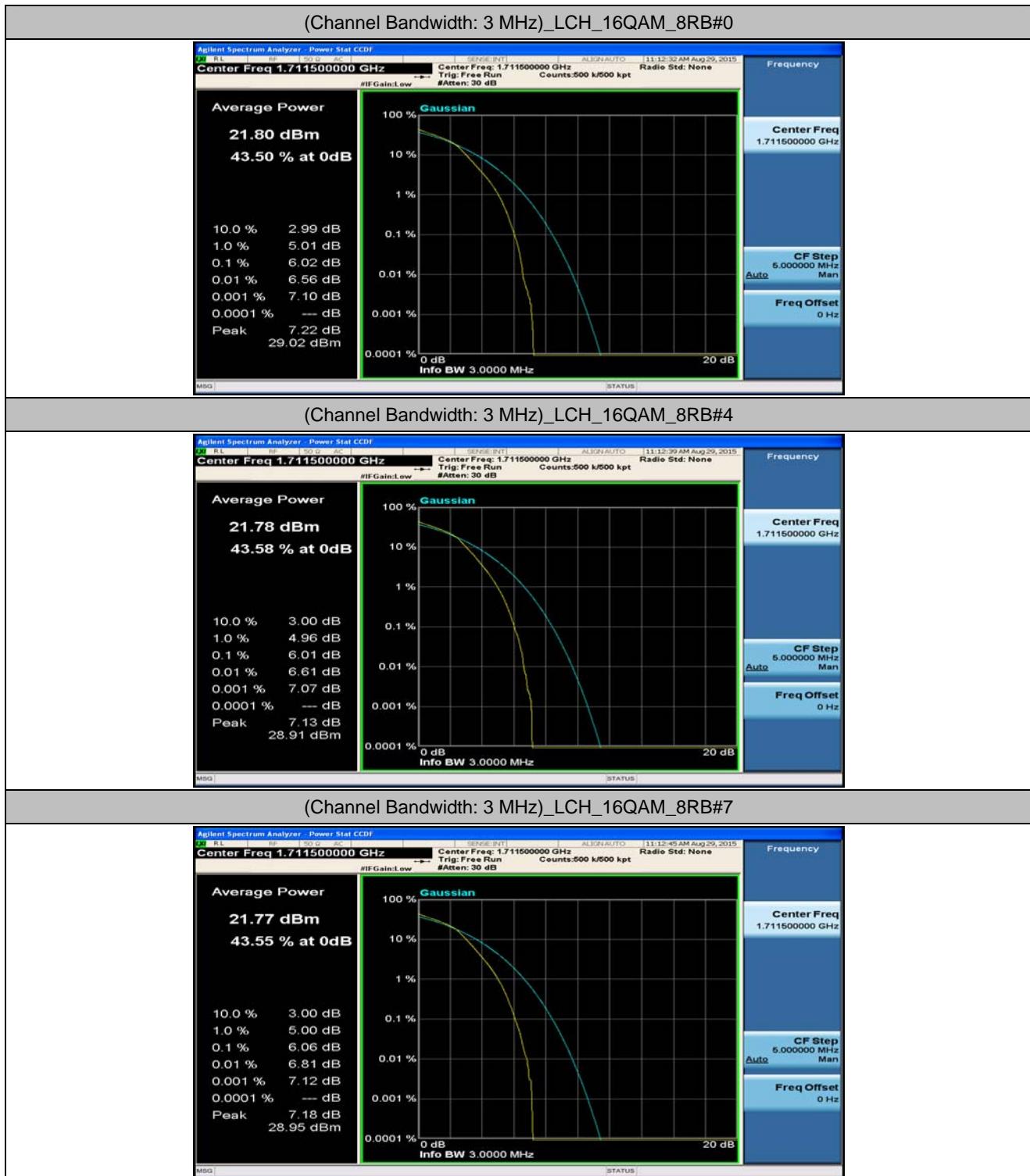


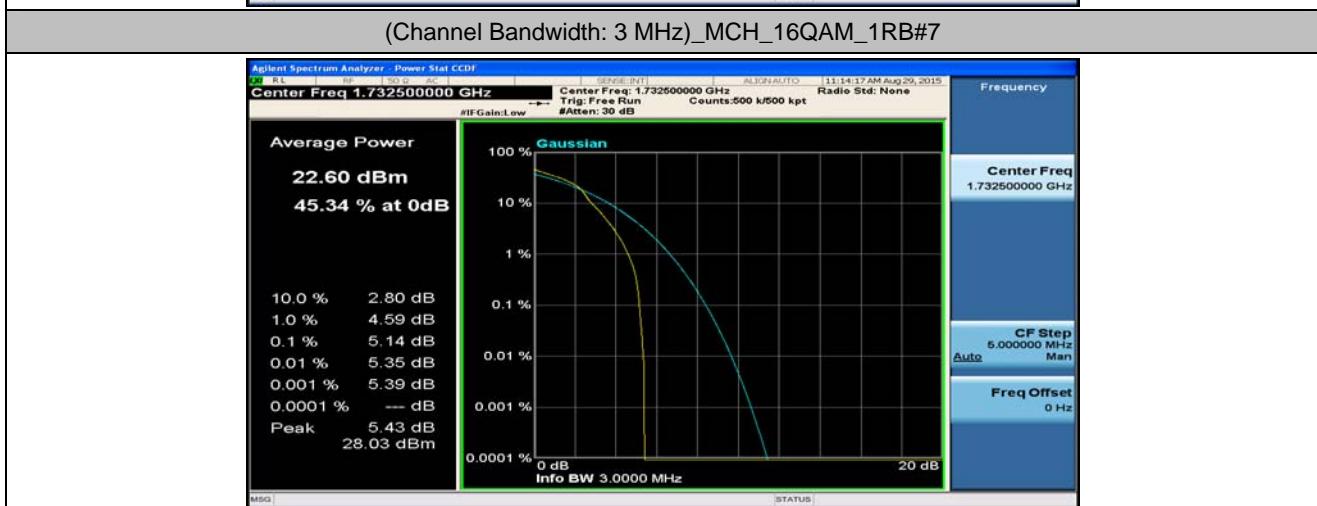
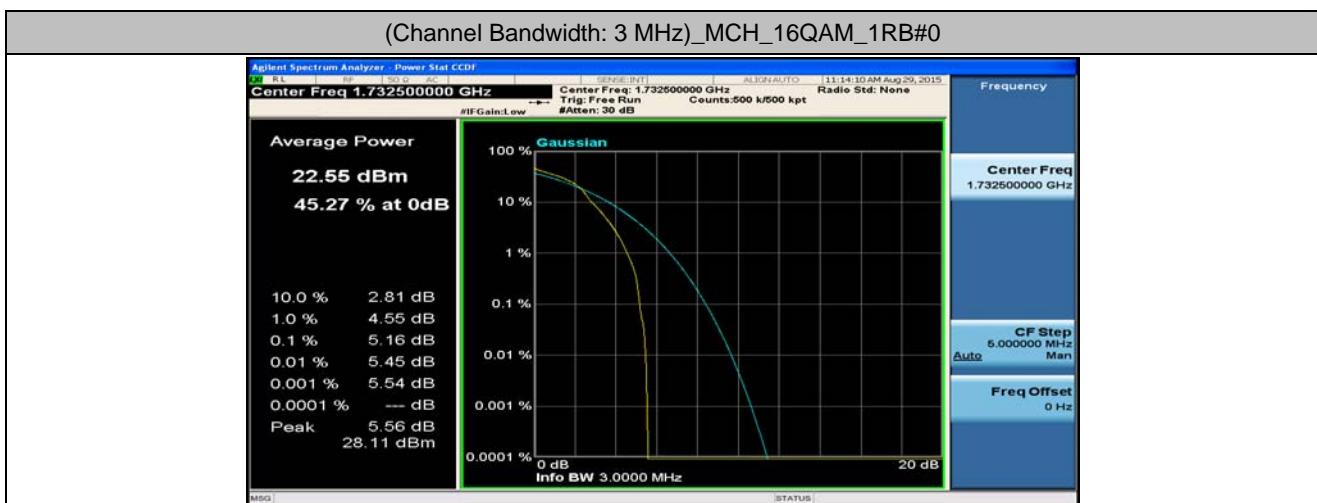
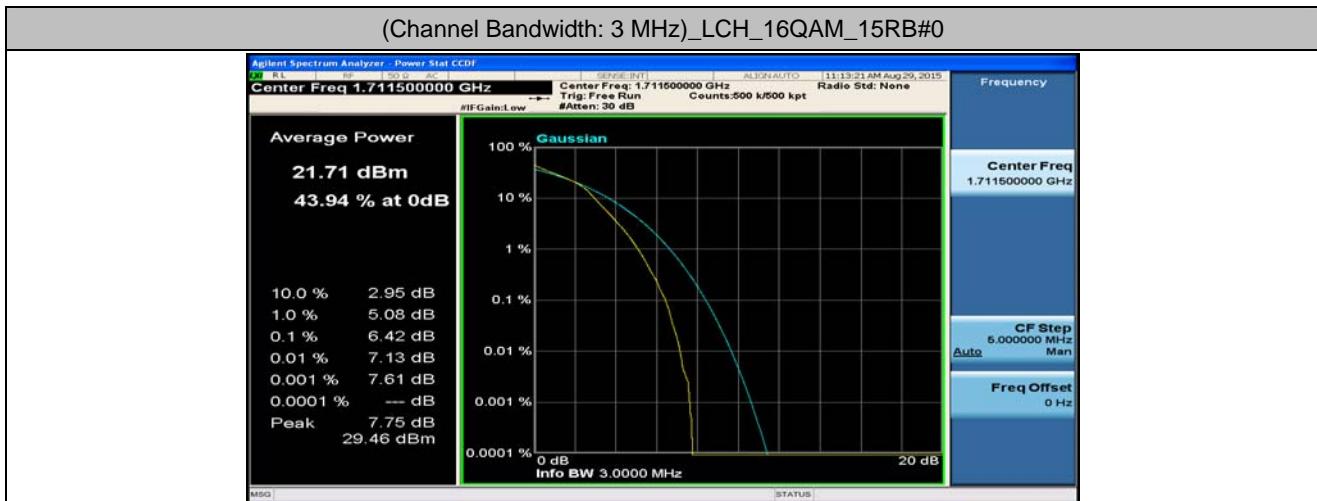
## (Channel Bandwidth: 3 MHz)\_LCH\_16QAM\_1RB#7

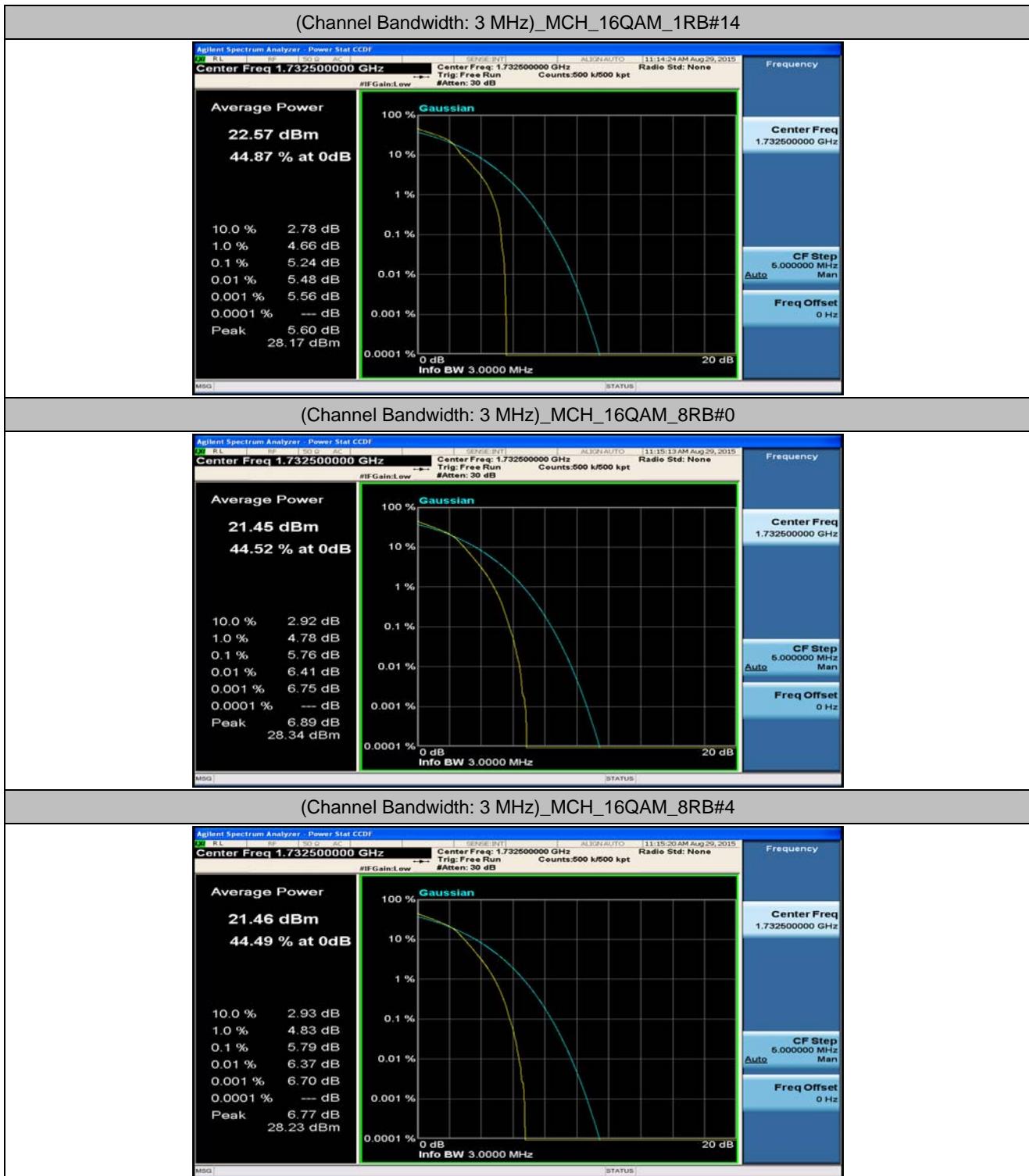


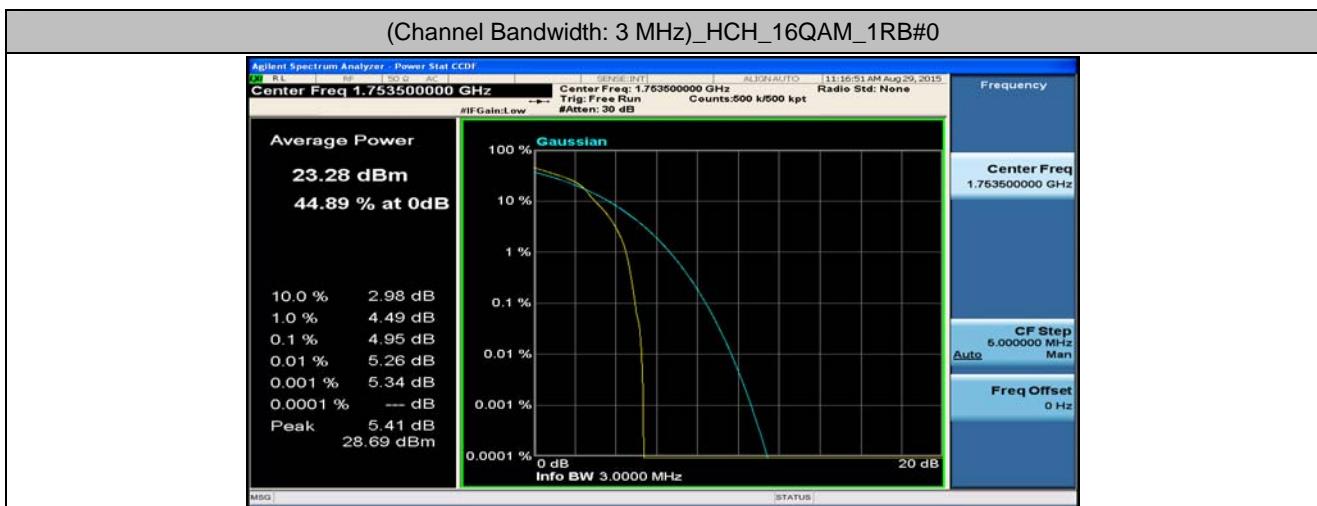
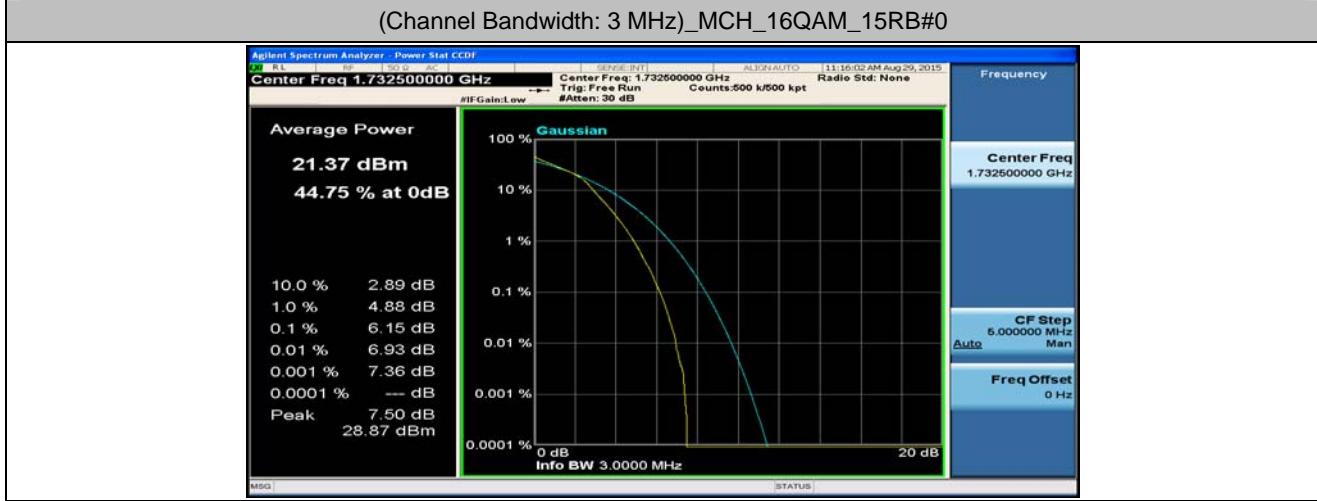
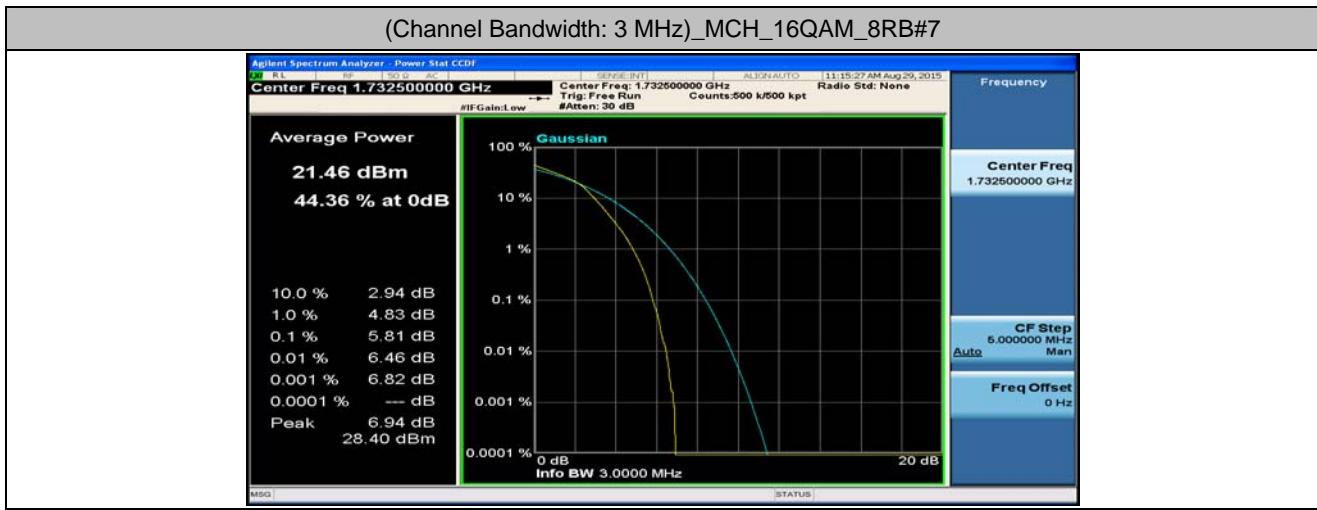
## (Channel Bandwidth: 3 MHz)\_LCH\_16QAM\_1RB#14



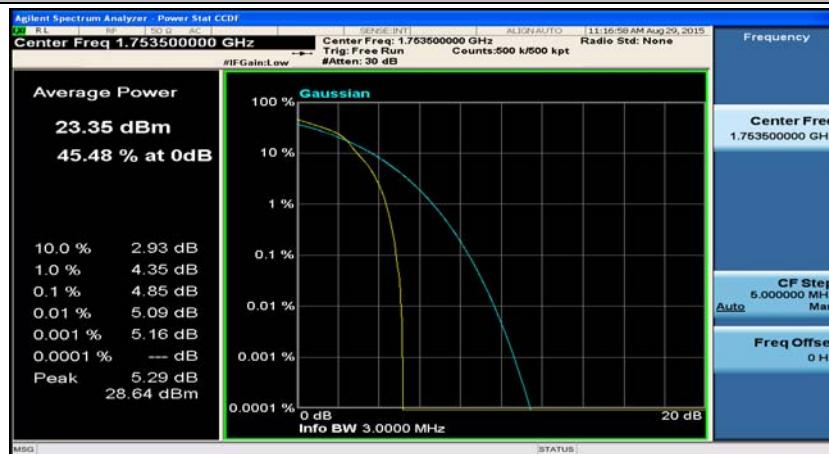




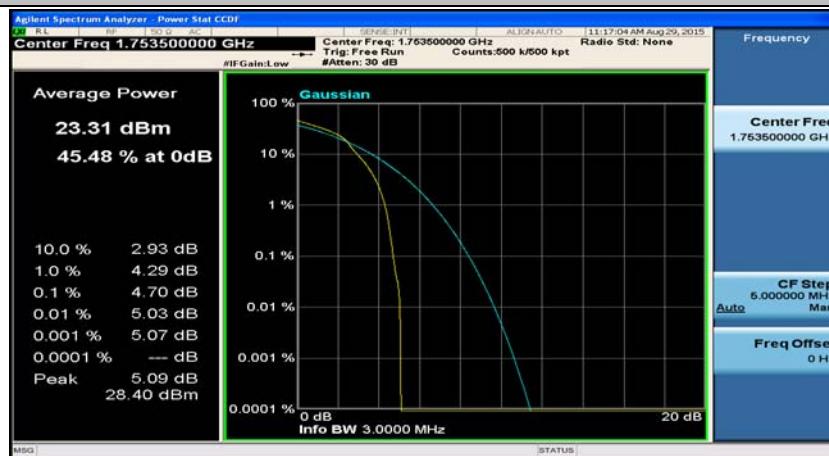




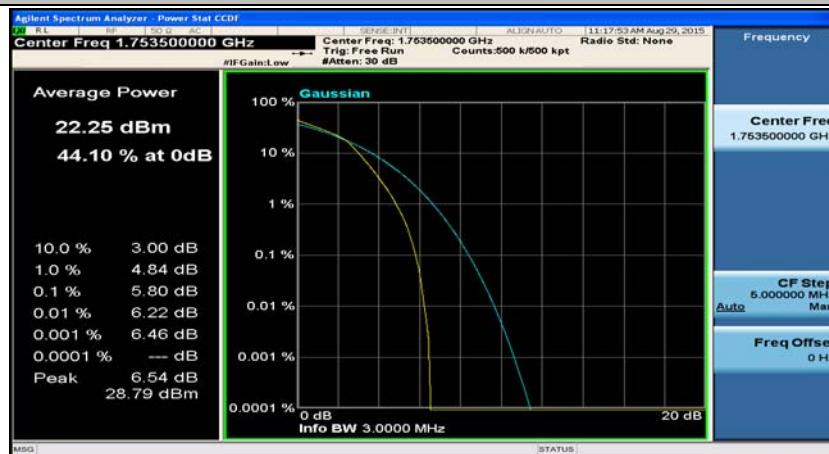
## (Channel Bandwidth: 3 MHz)\_HCH\_16QAM\_1RB#7

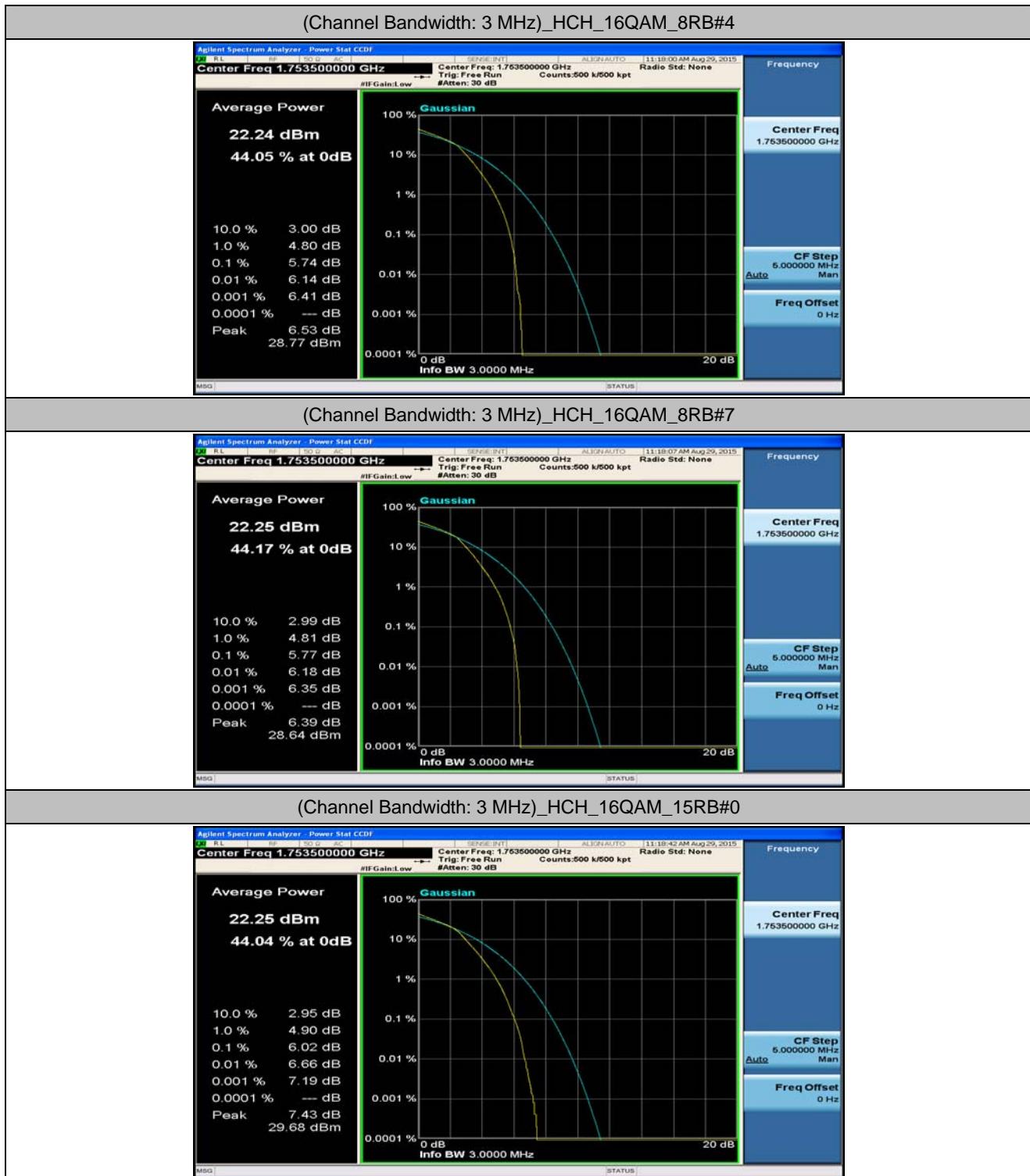


## (Channel Bandwidth: 3 MHz)\_HCH\_16QAM\_1RB#14

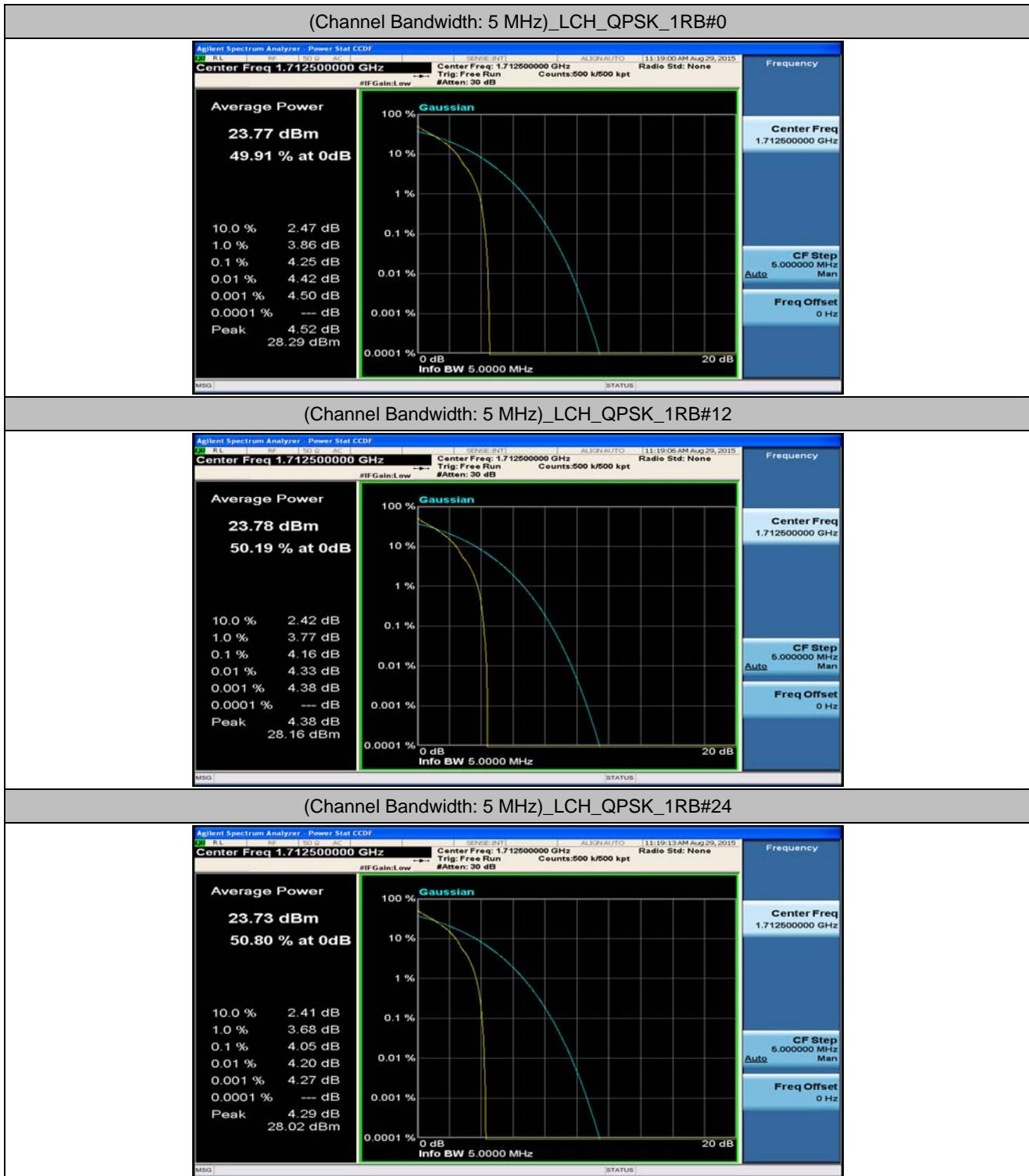


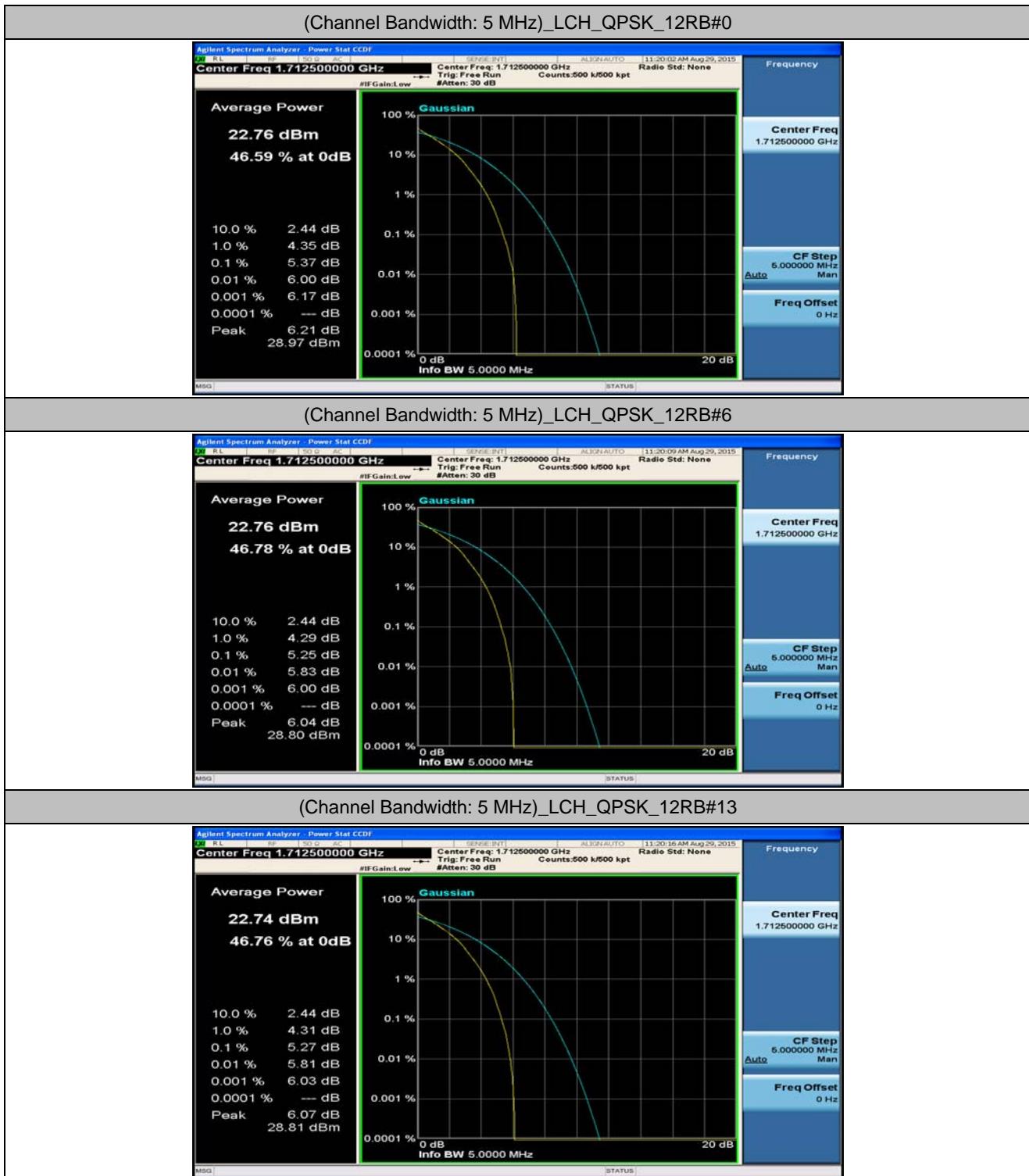
## (Channel Bandwidth: 3 MHz)\_HCH\_16QAM\_8RB#0

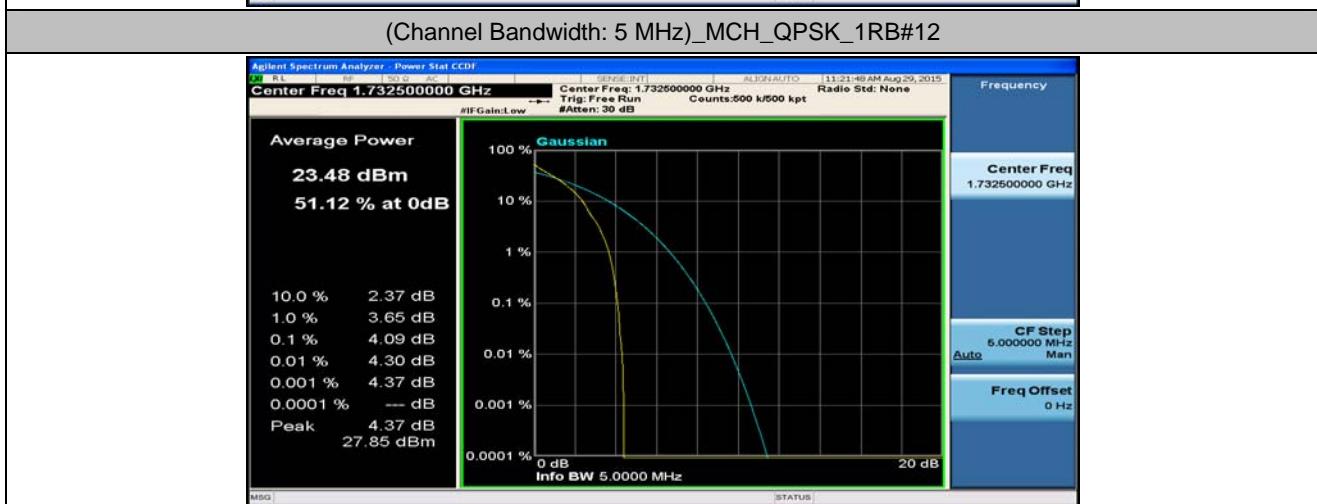
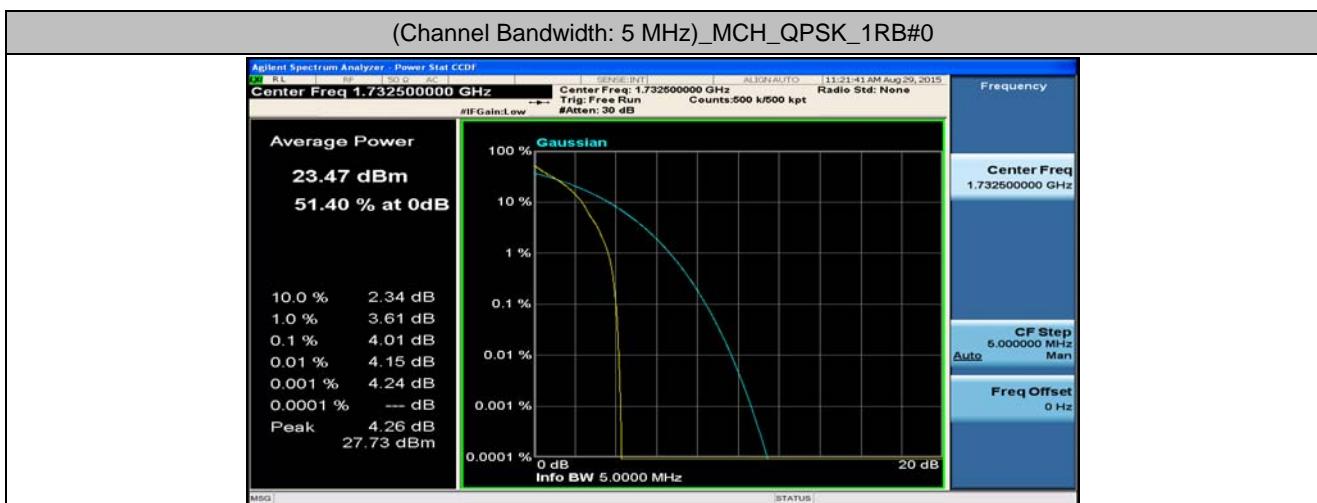
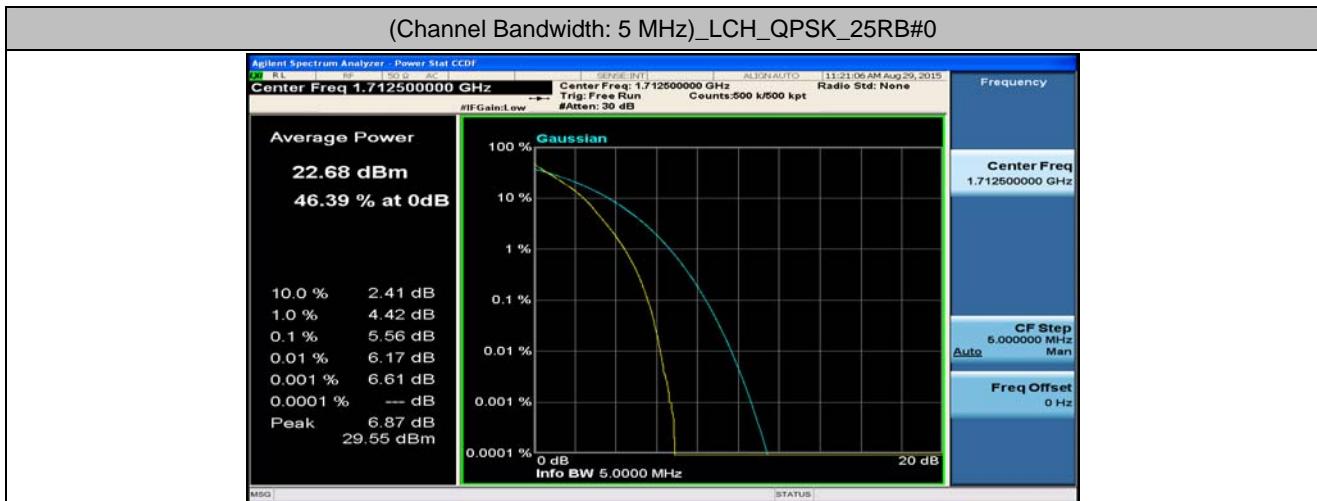


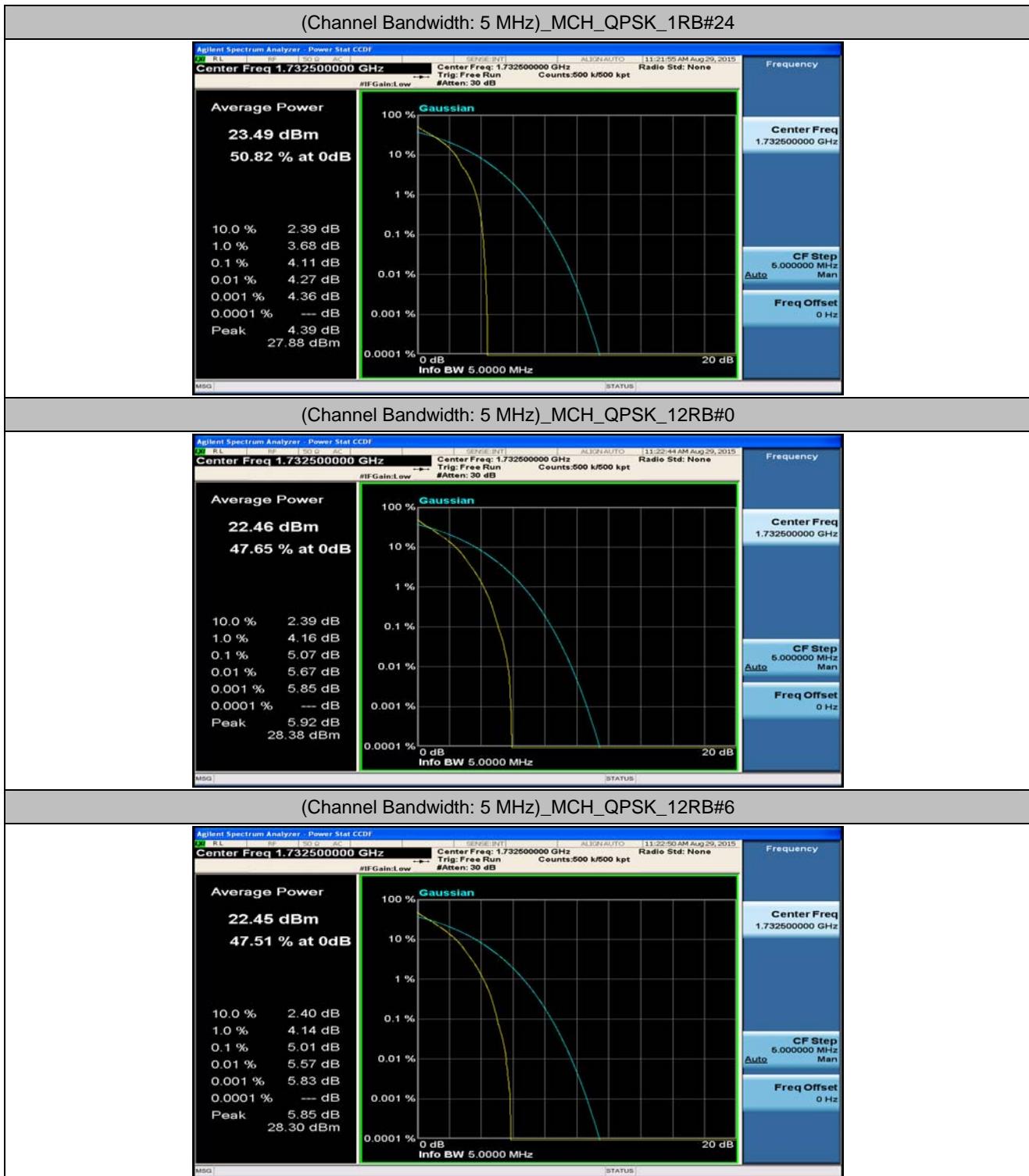


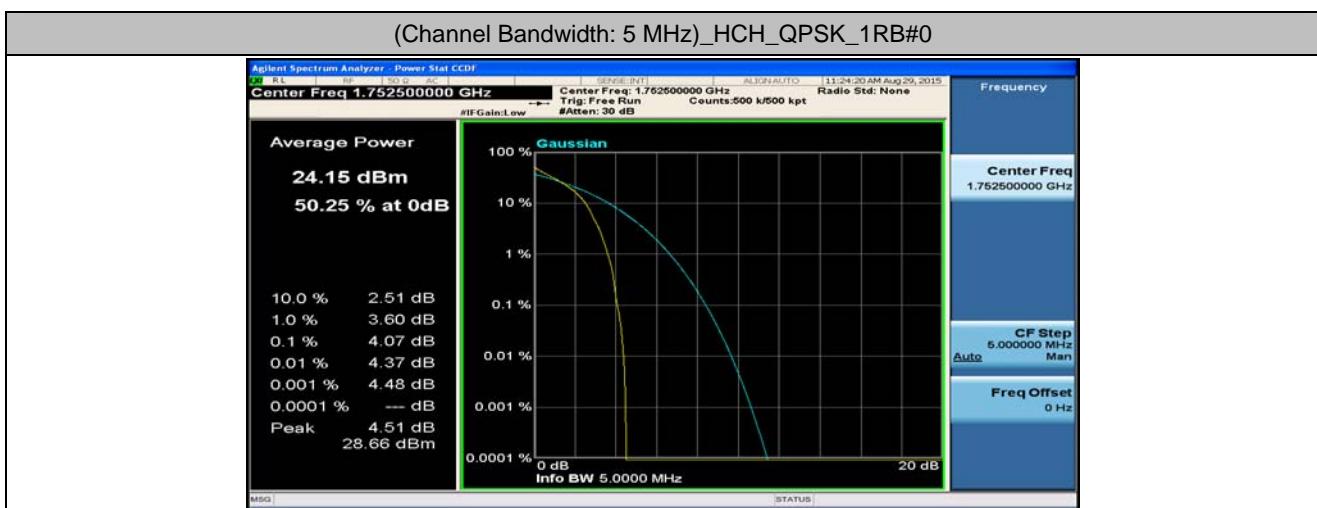
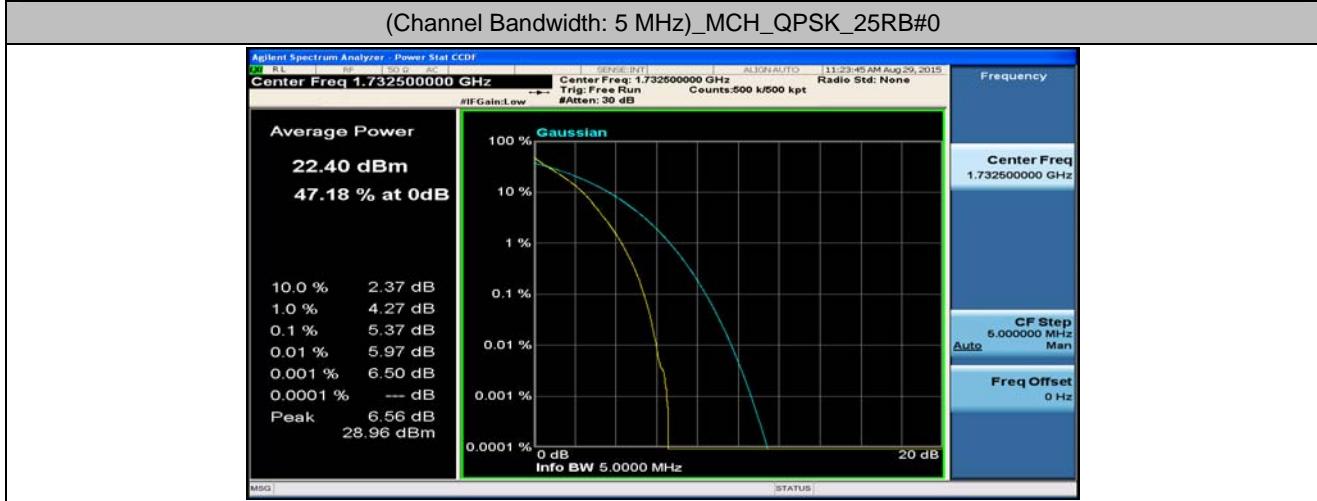
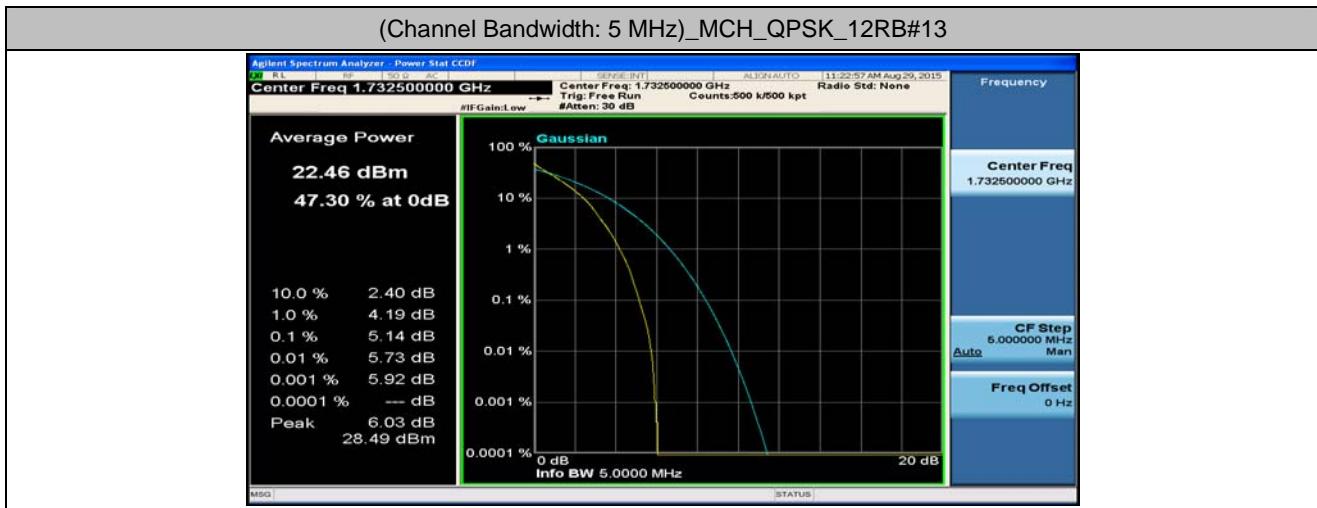
## Channel Bandwidth: 5 MHz

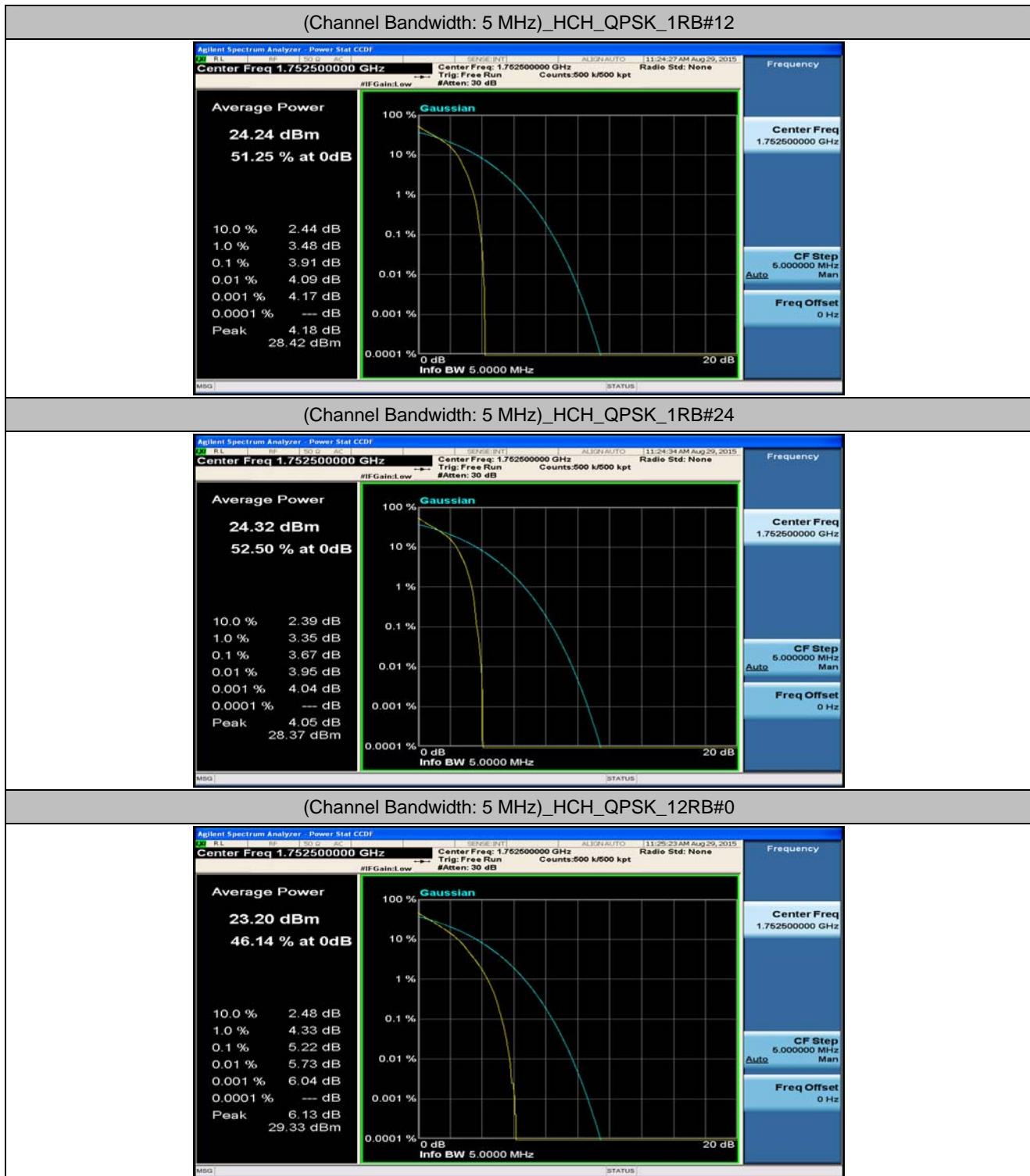


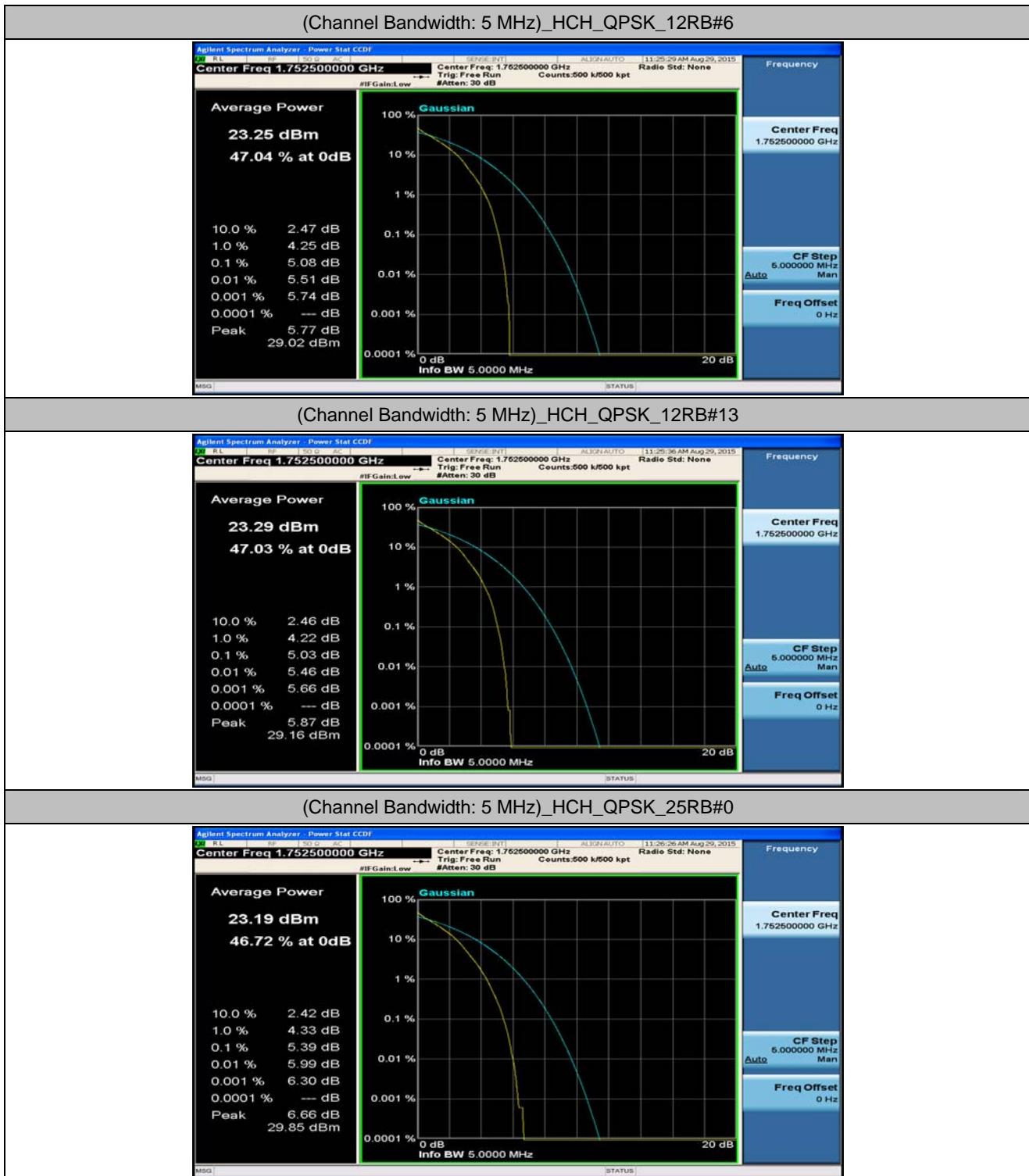




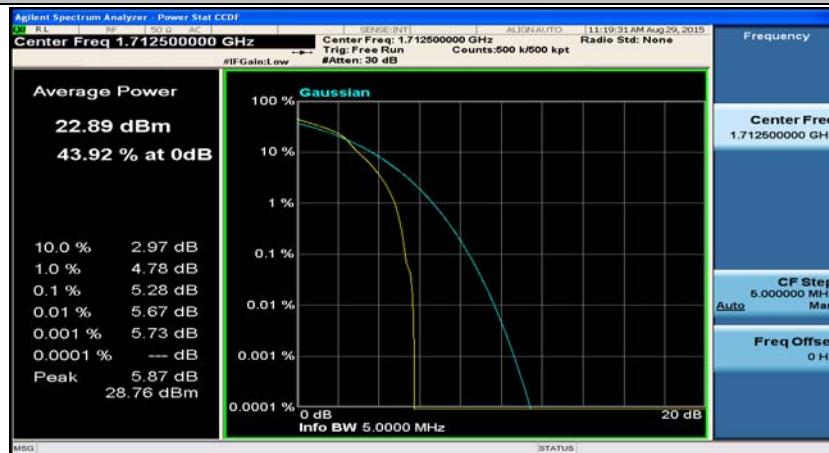




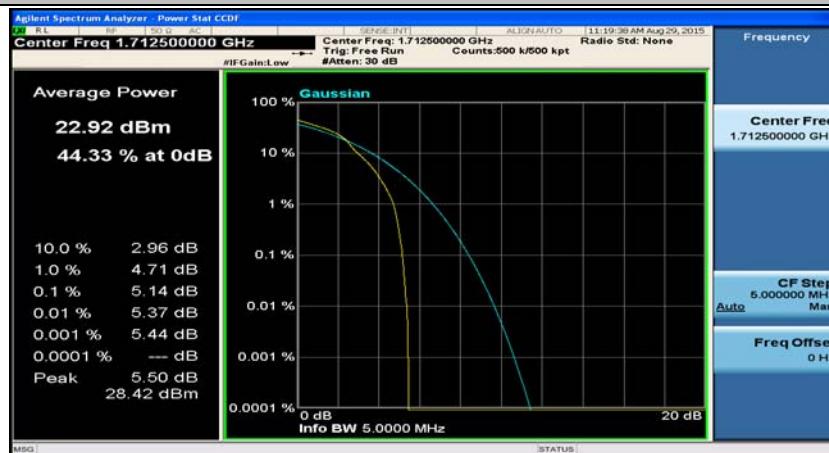




## (Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_1RB#0



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



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



