

## Appendix for Band 4

### Appendix A: Average Power Output Data

#### Test Result

##### Channel Bandwidth: 1.4 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	24.44	PASS
		1	3	24.4	PASS
		1	5	24.44	PASS
		3	0	23.33	PASS
		3	2	23.32	PASS
		3	3	23.31	PASS
		6	0	22.5	PASS
	MCH	1	0	24.05	PASS
		1	3	23.97	PASS
		1	5	24.03	PASS
		3	0	23.47	PASS
		3	2	23.69	PASS
		3	3	23.52	PASS
		6	0	23.07	PASS
16QAM	HCH	1	0	23.55	PASS
		1	3	23.51	PASS
		1	5	23.54	PASS
		3	0	23.5	PASS
		3	2	23.46	PASS
		3	3	23.44	PASS
		6	0	22.66	PASS
	LCH	1	0	23.47	PASS
		1	3	23.52	PASS
		1	5	23.49	PASS
		3	0	23.36	PASS
		3	2	23.33	PASS
		3	3	23.33	PASS
		6	0	22.36	PASS
	MCH	1	0	23.22	PASS
		1	3	23.21	PASS
		1	5	23.17	PASS
		3	0	22.82	PASS

		3	2	22.8	PASS
		3	3	22.82	PASS
		6	0	21.92	PASS
HCH	HCH	1	0	22.63	PASS
		1	3	22.68	PASS
		1	5	22.64	PASS
		3	0	22.45	PASS
		3	2	22.39	PASS
		3	3	22.43	PASS
		6	0	21.65	PASS

### Channel Bandwidth: 3 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	24.29	PASS
		1	7	24.33	PASS
		1	14	24.25	PASS
		8	0	23.46	PASS
		8	4	23.45	PASS
		8	7	23.43	PASS
		15	0	23.41	PASS
	MCH	1	0	24.02	PASS
		1	7	24.02	PASS
		1	14	23.96	PASS
		8	0	23.07	PASS
		8	4	23.07	PASS
		8	7	23.07	PASS
		15	0	22.98	PASS
16QAM	HCH	1	0	23.55	PASS
		1	7	23.53	PASS
		1	14	23.49	PASS
		8	0	22.64	PASS
		8	4	22.62	PASS
		8	7	22.62	PASS
		15	0	22.56	PASS
	LCH	1	0	23.46	PASS
		1	7	23.53	PASS
		1	14	23.43	PASS
		8	0	22.44	PASS
		8	4	22.44	PASS
		8	7	22.4	PASS
		15	0	22.28	PASS

	MCH	1	0	23.21	PASS
		1	7	23.21	PASS
		1	14	23.16	PASS
		8	0	22	PASS
		8	4	21.96	PASS
		8	7	21.97	PASS
		15	0	21.9	PASS
	HCH	1	0	22.67	PASS
		1	7	22.64	PASS
		1	14	22.59	PASS
		8	0	21.49	PASS
		8	4	21.48	PASS
		8	7	21.46	PASS
		15	0	21.51	PASS

### Channel Bandwidth: 5 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	24.41	PASS
		1	12	24.43	PASS
		1	24	24.36	PASS
		12	0	23.46	PASS
		12	6	23.44	PASS
		12	13	23.42	PASS
		25	0	23.41	PASS
	MCH	1	0	24.13	PASS
		1	12	24.07	PASS
		1	24	23.98	PASS
		12	0	23.09	PASS
		12	6	23.06	PASS
		12	13	23.02	PASS
		25	0	23	PASS
	HCH	1	0	23.75	PASS
		1	12	23.68	PASS
		1	24	23.63	PASS
		12	0	22.69	PASS
		12	6	22.63	PASS
		12	13	22.62	PASS
		25	0	22.59	PASS
16QAM	LCH	1	0	23.11	PASS
		1	12	23.25	PASS
		1	24	23.14	PASS

		12	0	22.44	PASS
		12	6	22.42	PASS
		12	13	22.4	PASS
		25	0	22.36	PASS
MCH		1	0	23.22	PASS
		1	12	23.16	PASS
		1	24	23.08	PASS
		12	0	22.11	PASS
		12	6	22.08	PASS
		12	13	22.06	PASS
		25	0	21.93	PASS
HCH		1	0	22.8	PASS
		1	12	22.73	PASS
		1	24	22.67	PASS
		12	0	21.61	PASS
		12	6	21.55	PASS
		12	13	21.53	PASS
		25	0	21.67	PASS

## Channel Bandwidth: 10 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	24.16	PASS
		1	24	24.11	PASS
		1	49	23.59	PASS
		25	0	23.2	PASS
		25	12	23.17	PASS
		25	25	23.13	PASS
		50	0	23.17	PASS
	MCH	1	0	23.94	PASS
		1	24	24.2	PASS
		1	49	24.19	PASS
		25	0	23.18	PASS
		25	12	23.15	PASS
		25	25	23.16	PASS
		50	0	23.15	PASS
	HCH	1	0	24.01	PASS
		1	24	23.83	PASS
		1	49	23.57	PASS
		25	0	22.9	PASS
		25	12	22.81	PASS
		25	25	22.69	PASS

		50	0	22.81	PASS
16QAM	LCH	1	0	23.37	PASS
		1	24	23.33	PASS
		1	49	22.96	PASS
		25	0	22.14	PASS
		25	12	22.13	PASS
		25	25	22.11	PASS
		50	0	22.15	PASS
	MCH	1	0	23.36	PASS
		1	24	23.43	PASS
		1	49	23.4	PASS
		25	0	22.14	PASS
		25	12	22.12	PASS
		25	25	22.11	PASS
		50	0	22.15	PASS
	HCH	1	0	23.19	PASS
		1	24	22.97	PASS
		1	49	22.71	PASS
		25	0	21.87	PASS
		25	12	21.77	PASS
		25	25	21.65	PASS
		50	0	21.79	PASS

### Channel Bandwidth: 15 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	24.18	PASS
		1	37	23.92	PASS
		1	74	23.7	PASS
		37	0	23.33	PASS
		37	18	23.2	PASS
		37	38	22.97	PASS
		75	0	23.2	PASS
	MCH	1	0	23.95	PASS
		1	37	24.18	PASS
		1	74	24.23	PASS
		37	0	23.22	PASS
		37	18	23.35	PASS
		37	38	23.34	PASS
		75	0	23.35	PASS
	HCH	1	0	24.21	PASS
		1	37	23.95	PASS

		1	74	23.64	PASS
		37	0	23.24	PASS
		37	18	23.08	PASS
		37	38	22.93	PASS
		75	0	23.09	PASS
16QAM	LCH	1	0	23.38	PASS
		1	37	23.25	PASS
		1	74	23.05	PASS
		37	0	22.22	PASS
		37	18	22.19	PASS
		37	38	22.1	PASS
		75	0	22.23	PASS
	MCH	1	0	23.25	PASS
		1	37	23.37	PASS
		1	74	23.33	PASS
		37	0	22.27	PASS
		37	18	22.28	PASS
		37	38	22.27	PASS
		75	0	22.26	PASS
	HCH	1	0	23.34	PASS
		1	37	23.12	PASS
		1	74	22.75	PASS
		37	0	22.12	PASS
		37	18	21.99	PASS
		37	38	21.84	PASS
		75	0	22.03	PASS

### Channel Bandwidth: 20 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	24.33	PASS
		1	49	23.86	PASS
		1	99	23.9	PASS
		50	0	23.21	PASS
		50	25	23.01	PASS
		50	50	22.91	PASS
		100	0	23.11	PASS
	MCH	1	0	24.51	PASS
		1	49	24.28	PASS
		1	99	24.28	PASS
		50	0	23.76	PASS
		50	25	23.18	PASS

	HCH	50	50	23.16	PASS
		100	0	23.19	PASS
		1	0	24.2	PASS
		1	49	23.96	PASS
		1	99	23.61	PASS
		50	0	23.15	PASS
		50	25	23.04	PASS
		50	50	22.88	PASS
16QAM	LCH	100	0	23	PASS
		1	0	23.41	PASS
		1	49	23.09	PASS
		1	99	23.14	PASS
		50	0	22.16	PASS
		50	25	22.13	PASS
		50	50	22.05	PASS
	MCH	100	0	22.14	PASS
		1	0	23.42	PASS
		1	49	23.49	PASS
		1	99	23.48	PASS
		50	0	22.22	PASS
		50	25	22.19	PASS
		50	50	22.15	PASS
	HCH	100	0	22.12	PASS
		1	0	23.34	PASS
		1	49	23.16	PASS
		1	99	22.78	PASS
		50	0	22.13	PASS
		50	25	22.01	PASS
		50	50	21.84	PASS
		100	0	21.96	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	3.09	<13	PASS
		1	3	3.03	<13	PASS
		1	5	3.08	<13	PASS
		3	0	3.4	<13	PASS
		3	2	3.36	<13	PASS
		3	3	3.38	<13	PASS
		6	0	4.19	<13	PASS
	MCH	1	0	3.03	<13	PASS
		1	3	3.01	<13	PASS
		1	5	3.07	<13	PASS
		3	0	3.45	<13	PASS
		3	2	3.39	<13	PASS
		3	3	3.47	<13	PASS
		6	0	4.18	<13	PASS
16QAM	LCH	1	0	3.03	<13	PASS
		1	3	2.97	<13	PASS
		1	5	2.95	<13	PASS
		3	0	3.42	<13	PASS
		3	2	3.38	<13	PASS
		3	3	3.38	<13	PASS
		6	0	4.14	<13	PASS
	MCH	1	0	4.3	<13	PASS
		1	3	4.16	<13	PASS
		1	5	4.33	<13	PASS
		3	0	4.3	<13	PASS
		3	2	4.28	<13	PASS
		3	3	4.25	<13	PASS
		6	0	5.08	<13	PASS

		3	3	4.42	<13	PASS
		6	0	5.13	<13	PASS
HCH	1	0	4.16	<13	PASS	
	1	3	4.25	<13	PASS	
	1	5	4.3	<13	PASS	
	3	0	4.28	<13	PASS	
	3	2	4.24	<13	PASS	
	3	3	4.16	<13	PASS	
	6	0	4.99	<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	2.88	<13	PASS
		1	7	2.9	<13	PASS
		1	14	3	<13	PASS
		8	0	4.22	<13	PASS
		8	4	4.25	<13	PASS
		8	7	4.32	<13	PASS
		15	0	4.46	<13	PASS
	MCH	1	0	3	<13	PASS
		1	7	3.01	<13	PASS
		1	14	3.02	<13	PASS
		8	0	4.24	<13	PASS
		8	4	4.21	<13	PASS
		8	7	4.21	<13	PASS
		15	0	4.44	<13	PASS
16QAM	HCH	1	0	3.02	<13	PASS
		1	7	3.03	<13	PASS
		1	14	2.98	<13	PASS
		8	0	4.27	<13	PASS
		8	4	4.27	<13	PASS
		8	7	4.22	<13	PASS
		15	0	4.42	<13	PASS
	LCH	1	0	4.13	<13	PASS
		1	7	4.12	<13	PASS
		1	14	4.21	<13	PASS
		8	0	5.04	<13	PASS
		8	4	5.08	<13	PASS
		8	7	5.05	<13	PASS

		15	0	5.28	<13	PASS
MCH	1	0		4.24	<13	PASS
	1	7		4.33	<13	PASS
	1	14		4.28	<13	PASS
	8	0		5.03	<13	PASS
	8	4		5.03	<13	PASS
	8	7		5.11	<13	PASS
	15	0		5.27	<13	PASS
HCH	1	0		4.27	<13	PASS
	1	7		4.12	<13	PASS
	1	14		4.14	<13	PASS
	8	0		5.21	<13	PASS
	8	4		5.25	<13	PASS
	8	7		5.23	<13	PASS
	15	0		5.21	<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	2.86	<13	PASS
		1	12	2.99	<13	PASS
		1	24	3.16	<13	PASS
		12	0	4.35	<13	PASS
		12	6	4.48	<13	PASS
		12	13	4.59	<13	PASS
		25	0	4.61	<13	PASS
QPSK	MCH	1	0	2.98	<13	PASS
		1	12	3.04	<13	PASS
		1	24	3.08	<13	PASS
		12	0	4.26	<13	PASS
		12	6	4.31	<13	PASS
		12	13	4.29	<13	PASS
		25	0	4.49	<13	PASS
QPSK	HCH	1	0	3.03	<13	PASS
		1	12	3.03	<13	PASS
		1	24	2.95	<13	PASS
		12	0	4.49	<13	PASS
		12	6	4.4	<13	PASS
		12	13	4.36	<13	PASS
		25	0	4.6	<13	PASS

16QAM	LCH	1	0	4.15	<13	PASS
		1	12	4.19	<13	PASS
		1	24	4.29	<13	PASS
		12	0	5.18	<13	PASS
		12	6	5.28	<13	PASS
		12	13	5.4	<13	PASS
		25	0	5.35	<13	PASS
	MCH	1	0	4.15	<13	PASS
		1	12	4.22	<13	PASS
		1	24	4.41	<13	PASS
		12	0	5.12	<13	PASS
		12	6	5.12	<13	PASS
		12	13	5.11	<13	PASS
		25	0	5.28	<13	PASS
	HCH	1	0	4.09	<13	PASS
		1	12	3.97	<13	PASS
		1	24	3.9	<13	PASS
		12	0	5.29	<13	PASS
		12	6	5.18	<13	PASS
		12	13	5.17	<13	PASS
		25	0	5.31	<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	2.83	<13	PASS
		1	24	3.11	<13	PASS
		1	49	3.46	<13	PASS
		25	0	4.57	<13	PASS
		25	12	4.75	<13	PASS
		25	25	4.81	<13	PASS
		50	0	4.75	<13	PASS
	MCH	1	0	2.89	<13	PASS
		1	24	2.87	<13	PASS
		1	49	2.92	<13	PASS
		25	0	4.49	<13	PASS
		25	12	4.47	<13	PASS
		25	25	4.42	<13	PASS
		50	0	4.54	<13	PASS
	HCH	1	0	3.11	<13	PASS

		1	24	3.03	<13	PASS
		1	49	2.86	<13	PASS
		25	0	4.63	<13	PASS
		25	12	4.6	<13	PASS
		25	25	4.47	<13	PASS
		50	0	4.65	<13	PASS
16QAM	LCH	1	0	4.06	<13	PASS
		1	24	4.22	<13	PASS
		1	49	4.48	<13	PASS
		25	0	5.43	<13	PASS
		25	12	5.61	<13	PASS
		25	25	5.63	<13	PASS
		50	0	5.55	<13	PASS
	MCH	1	0	4.29	<13	PASS
		1	24	4.11	<13	PASS
		1	49	4.23	<13	PASS
		25	0	5.29	<13	PASS
		25	12	5.27	<13	PASS
		25	25	5.27	<13	PASS
		50	0	5.34	<13	PASS
	HCH	1	0	4.39	<13	PASS
		1	24	4.23	<13	PASS
		1	49	4.23	<13	PASS
		25	0	5.49	<13	PASS
		25	12	5.48	<13	PASS
		25	25	5.34	<13	PASS
		50	0	5.52	<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	2.78	<13	PASS
		1	37	3.32	<13	PASS
		1	74	3.2	<13	PASS
		37	0	4.63	<13	PASS
		37	18	4.83	<13	PASS
		37	38	4.91	<13	PASS
		75	0	5.05	<13	PASS
	MCH	1	0	2.94	<13	PASS
		1	37	2.97	<13	PASS

		1	74	3.02	<13	PASS
		37	0	4.44	<13	PASS
		37	18	4.38	<13	PASS
		37	38	4.42	<13	PASS
		75	0	4.78	<13	PASS
	HCH	1	0	3.08	<13	PASS
		1	37	3.1	<13	PASS
		1	74	2.87	<13	PASS
		37	0	4.71	<13	PASS
		37	18	4.61	<13	PASS
		37	38	4.52	<13	PASS
		75	0	4.93	<13	PASS
16QAM	LCH	1	0	4.07	<13	PASS
		1	37	4.36	<13	PASS
		1	74	4.19	<13	PASS
		37	0	5.45	<13	PASS
		37	18	5.6	<13	PASS
		37	38	5.58	<13	PASS
		75	0	5.72	<13	PASS
	MCH	1	0	4.2	<13	PASS
		1	37	4.17	<13	PASS
		1	74	4.25	<13	PASS
		37	0	5.27	<13	PASS
		37	18	5.26	<13	PASS
		37	38	5.35	<13	PASS
		75	0	5.49	<13	PASS
	HCH	1	0	4.28	<13	PASS
		1	37	4.33	<13	PASS
		1	74	4.06	<13	PASS
		37	0	5.5	<13	PASS
		37	18	5.47	<13	PASS
		37	38	5.31	<13	PASS
		75	0	5.58	<13	PASS

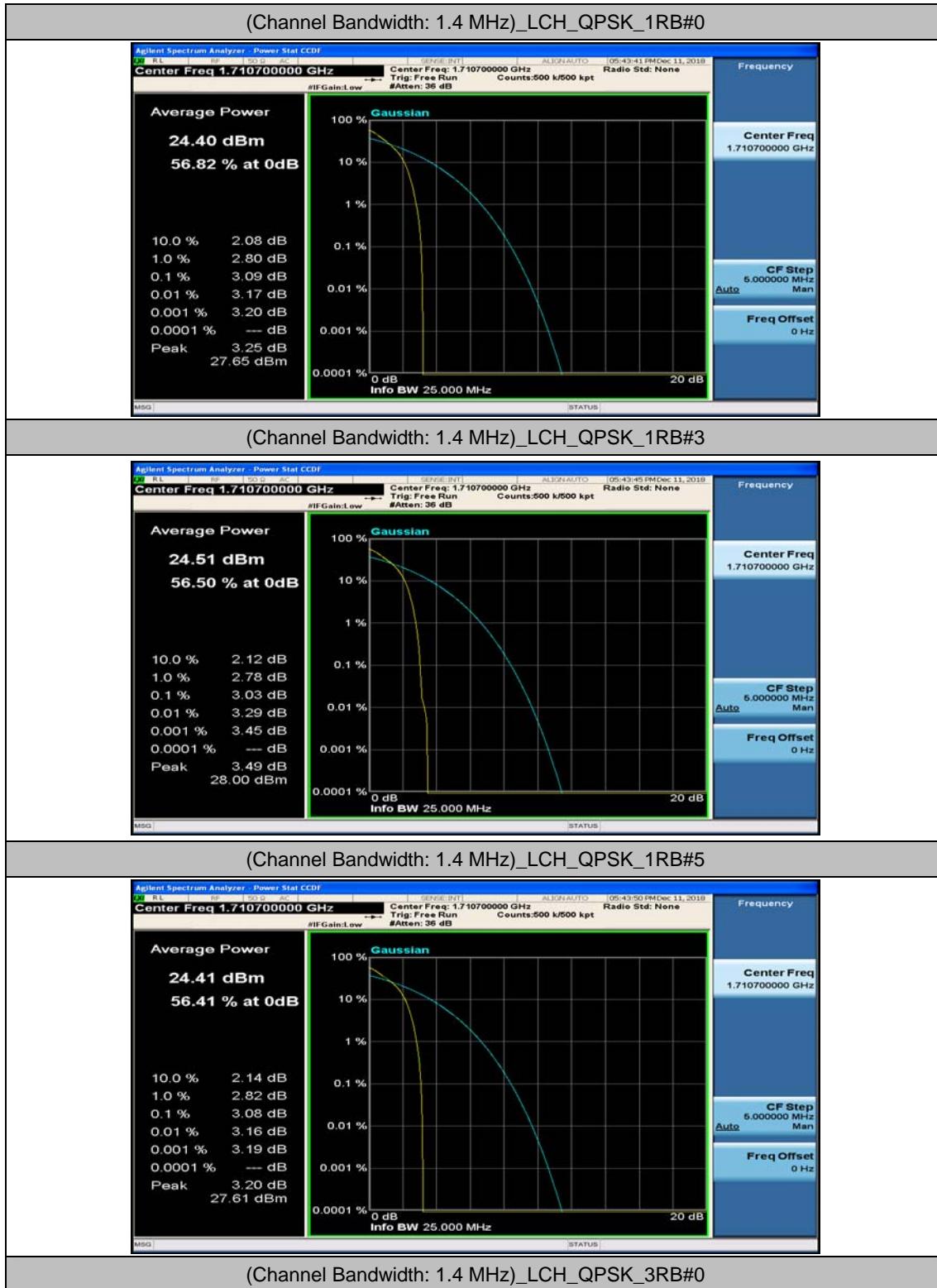
### Channel Bandwidth: 20 MHz

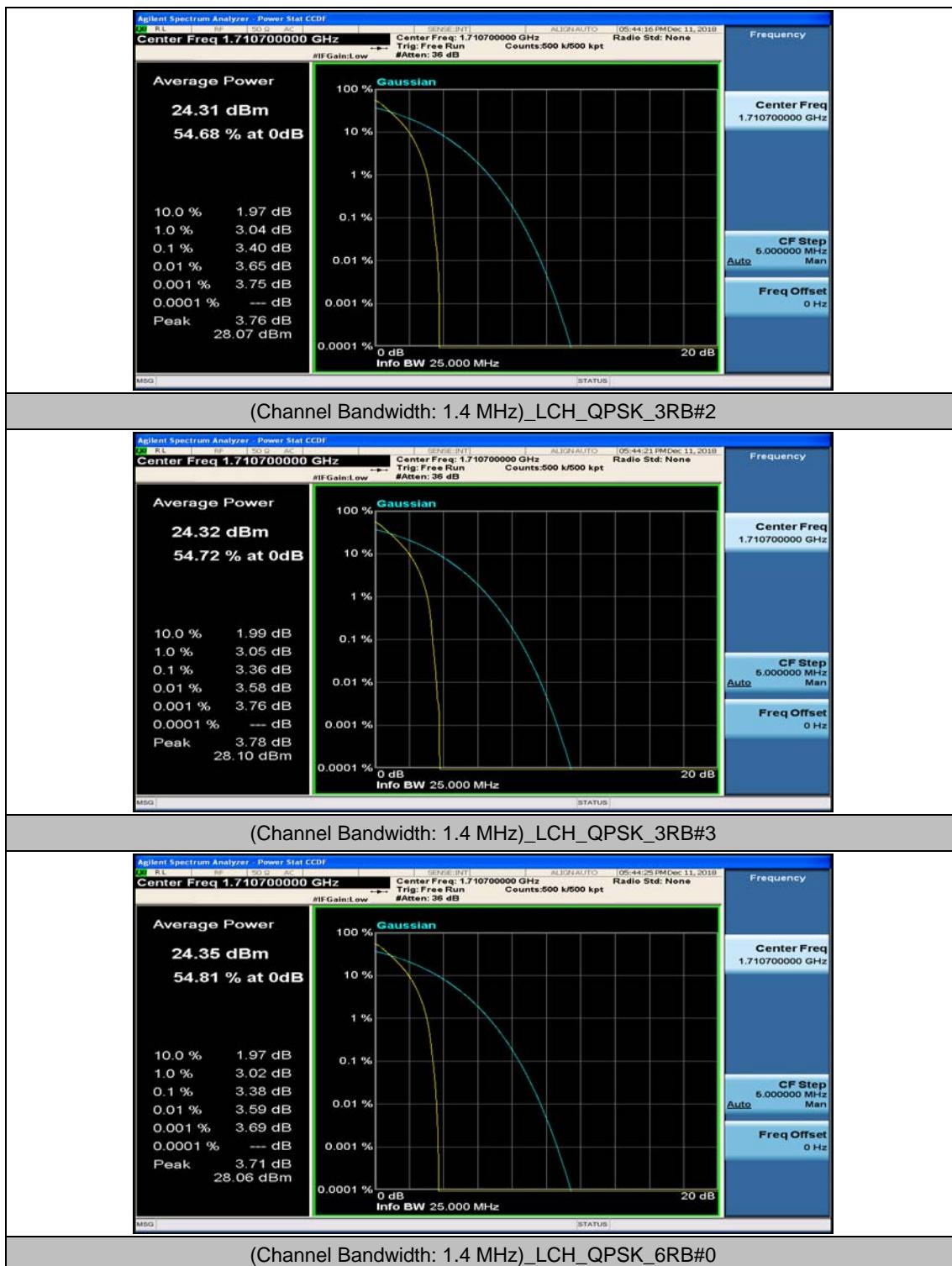
Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	2.77	<13	PASS
		1	49	3.52	<13	PASS
		1	99	2.92	<13	PASS

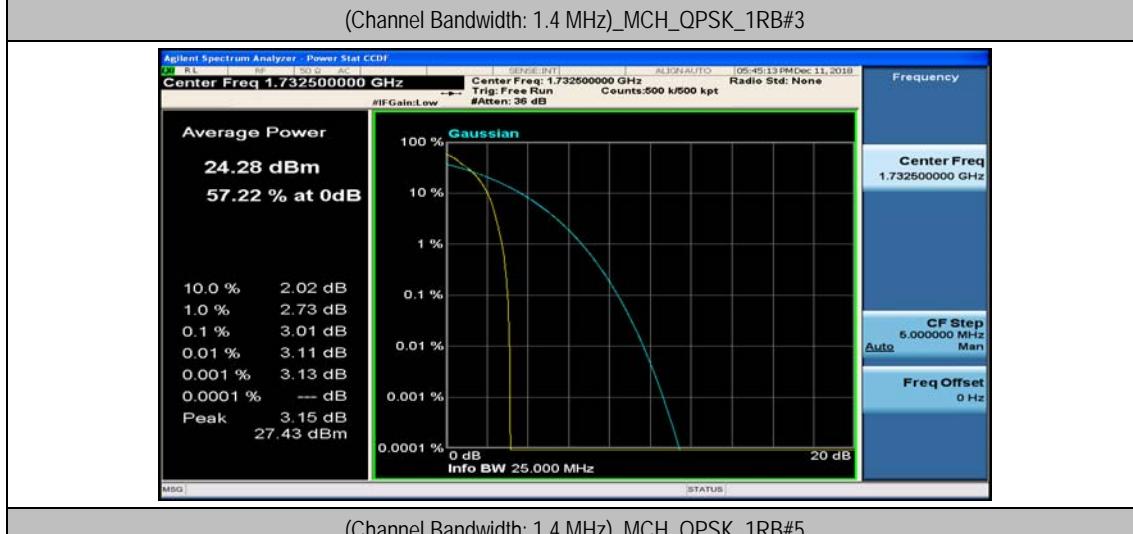
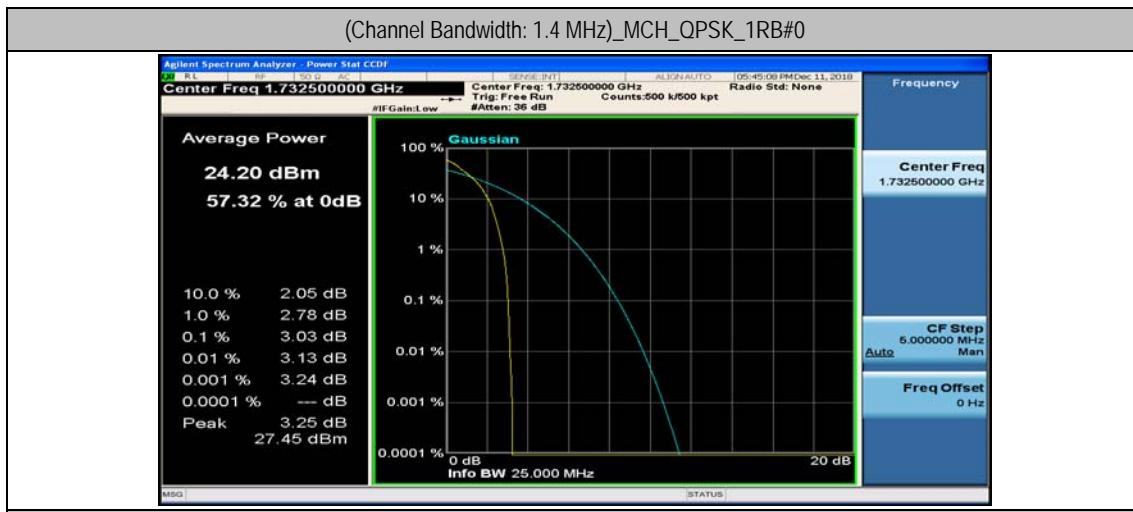
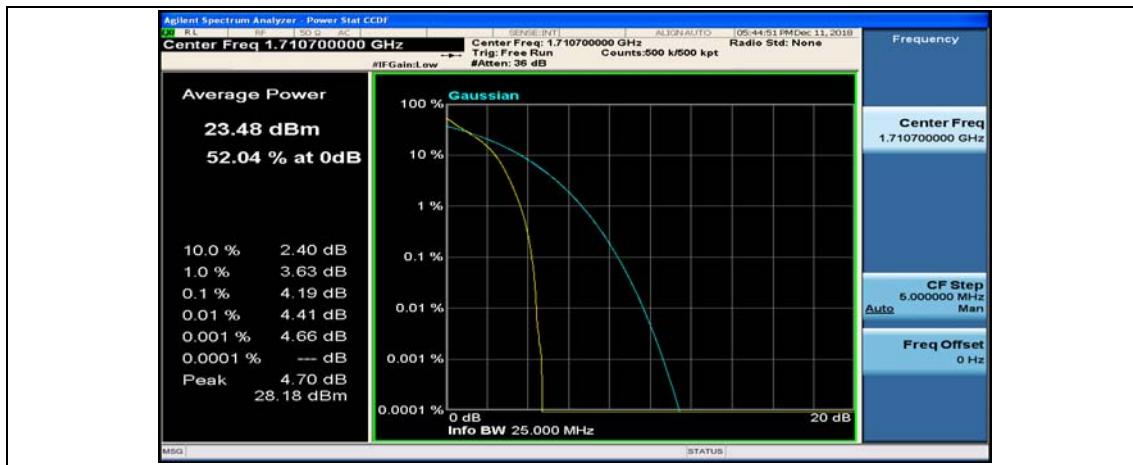
		50	0	4.75	<13	PASS
		50	25	4.9	<13	PASS
		50	50	4.81	<13	PASS
		100	0	5	<13	PASS
MCH	MCH	1	0	3.07	<13	PASS
		1	49	2.88	<13	PASS
		1	99	3.07	<13	PASS
		50	0	4.62	<13	PASS
		50	25	4.5	<13	PASS
		50	50	4.69	<13	PASS
		100	0	4.91	<13	PASS
HCH	HCH	1	0	3.04	<13	PASS
		1	49	3.17	<13	PASS
		1	99	2.96	<13	PASS
		50	0	4.67	<13	PASS
		50	25	4.75	<13	PASS
		50	50	4.74	<13	PASS
		100	0	4.93	<13	PASS
LCH	LCH	1	0	3.81	<13	PASS
		1	49	4.26	<13	PASS
		1	99	3.86	<13	PASS
		50	0	5.52	<13	PASS
		50	25	5.58	<13	PASS
		50	50	5.56	<13	PASS
		100	0	5.77	<13	PASS
16QAM	MCH	1	0	4	<13	PASS
		1	49	4.04	<13	PASS
		1	99	4.19	<13	PASS
		50	0	5.42	<13	PASS
		50	25	5.32	<13	PASS
		50	50	5.43	<13	PASS
		100	0	5.62	<13	PASS
HCH	HCH	1	0	4.03	<13	PASS
		1	49	4.22	<13	PASS
		1	99	3.96	<13	PASS
		50	0	5.49	<13	PASS
		50	25	5.56	<13	PASS
		50	50	5.55	<13	PASS
		100	0	5.69	<13	PASS

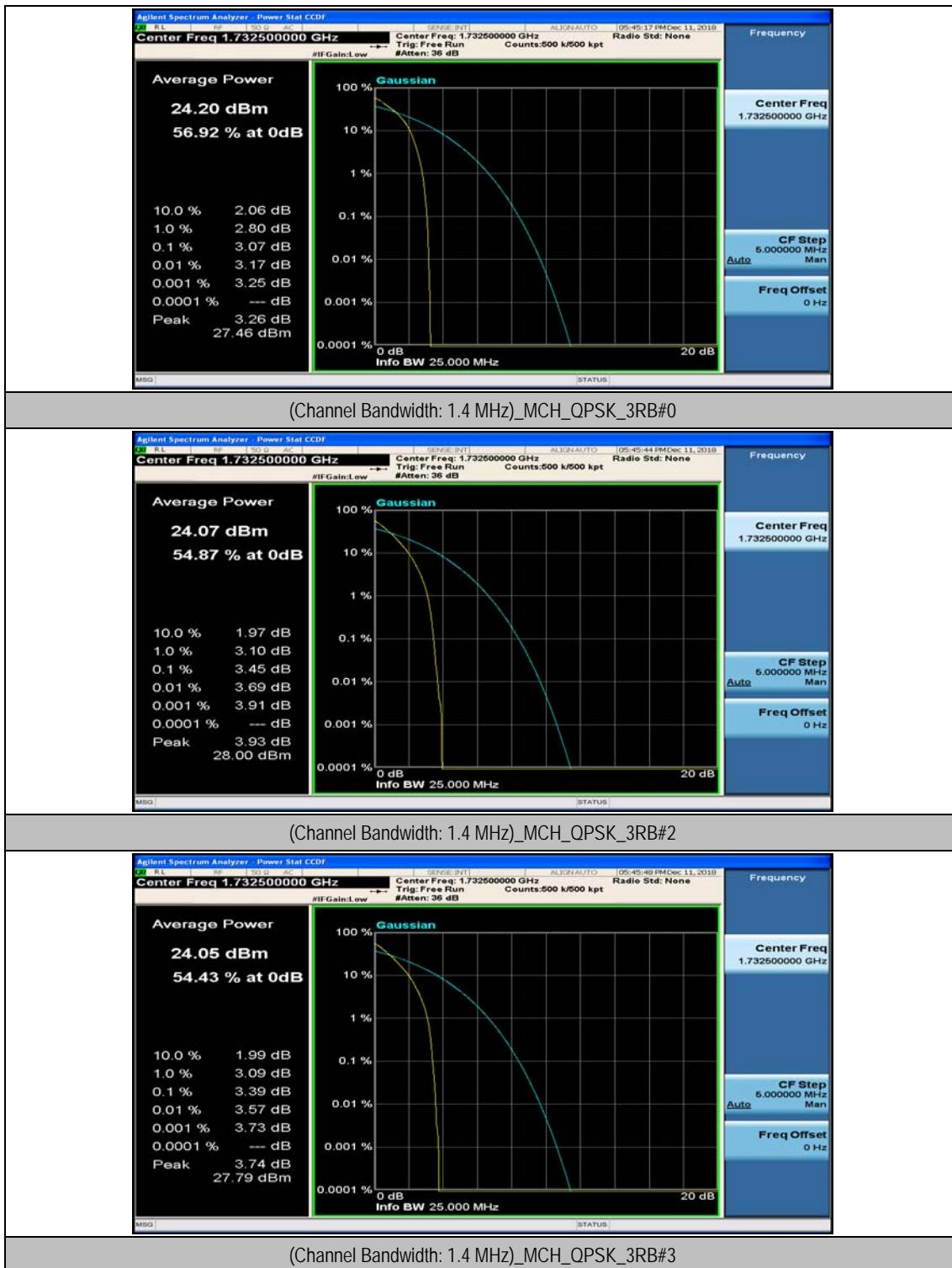
## Test Graphs

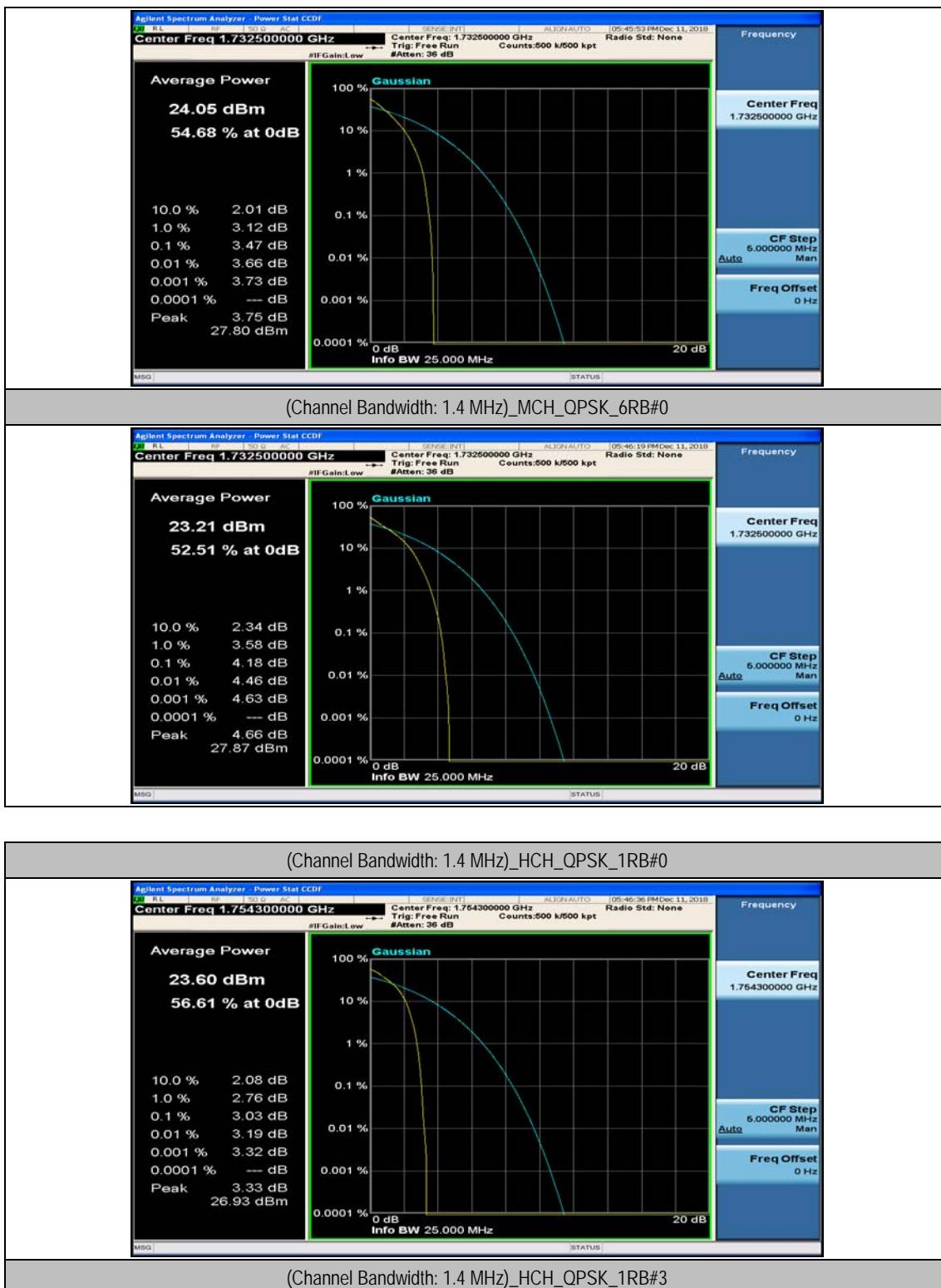
### Channel Bandwidth: 1.4 MHz

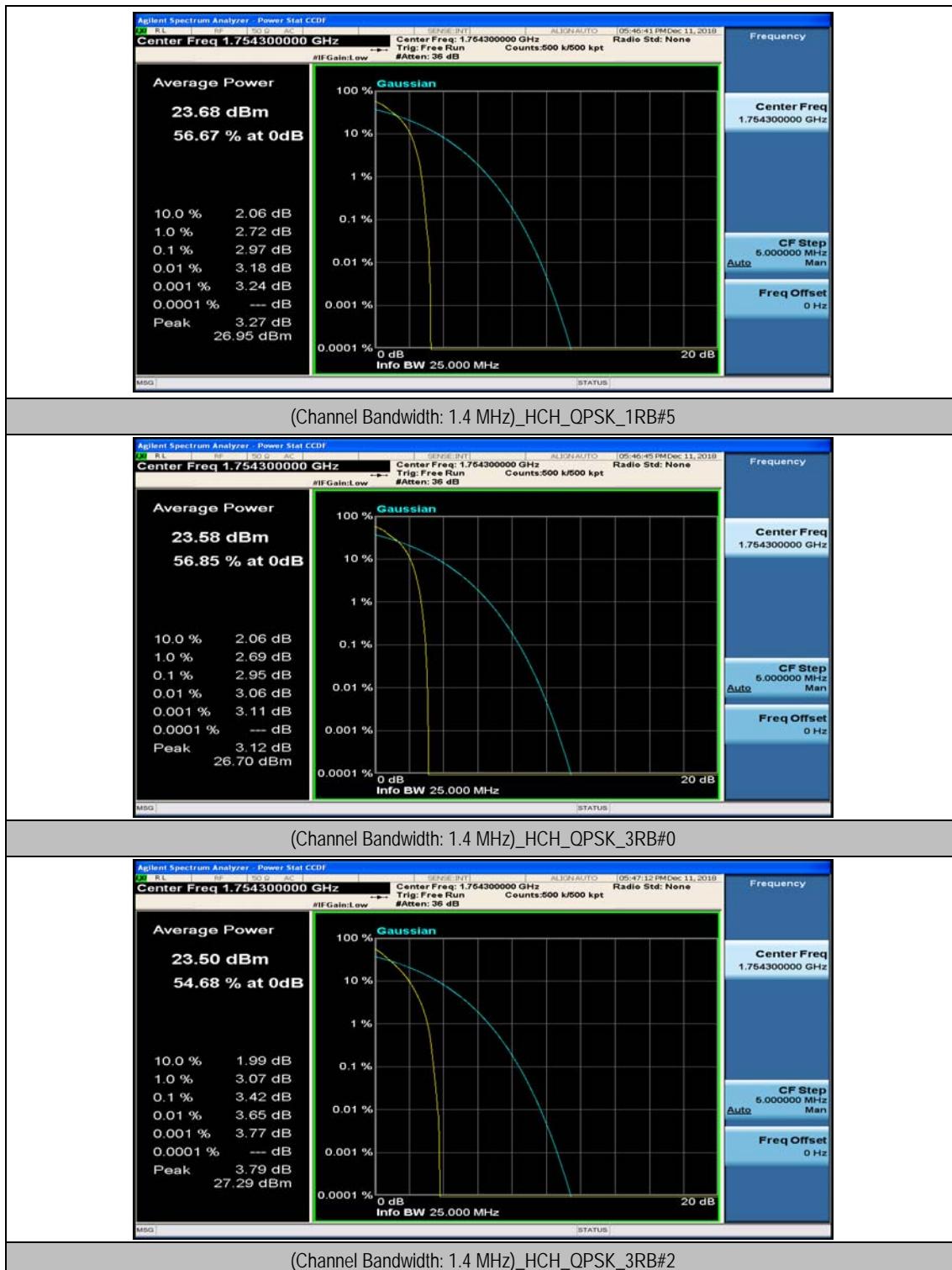


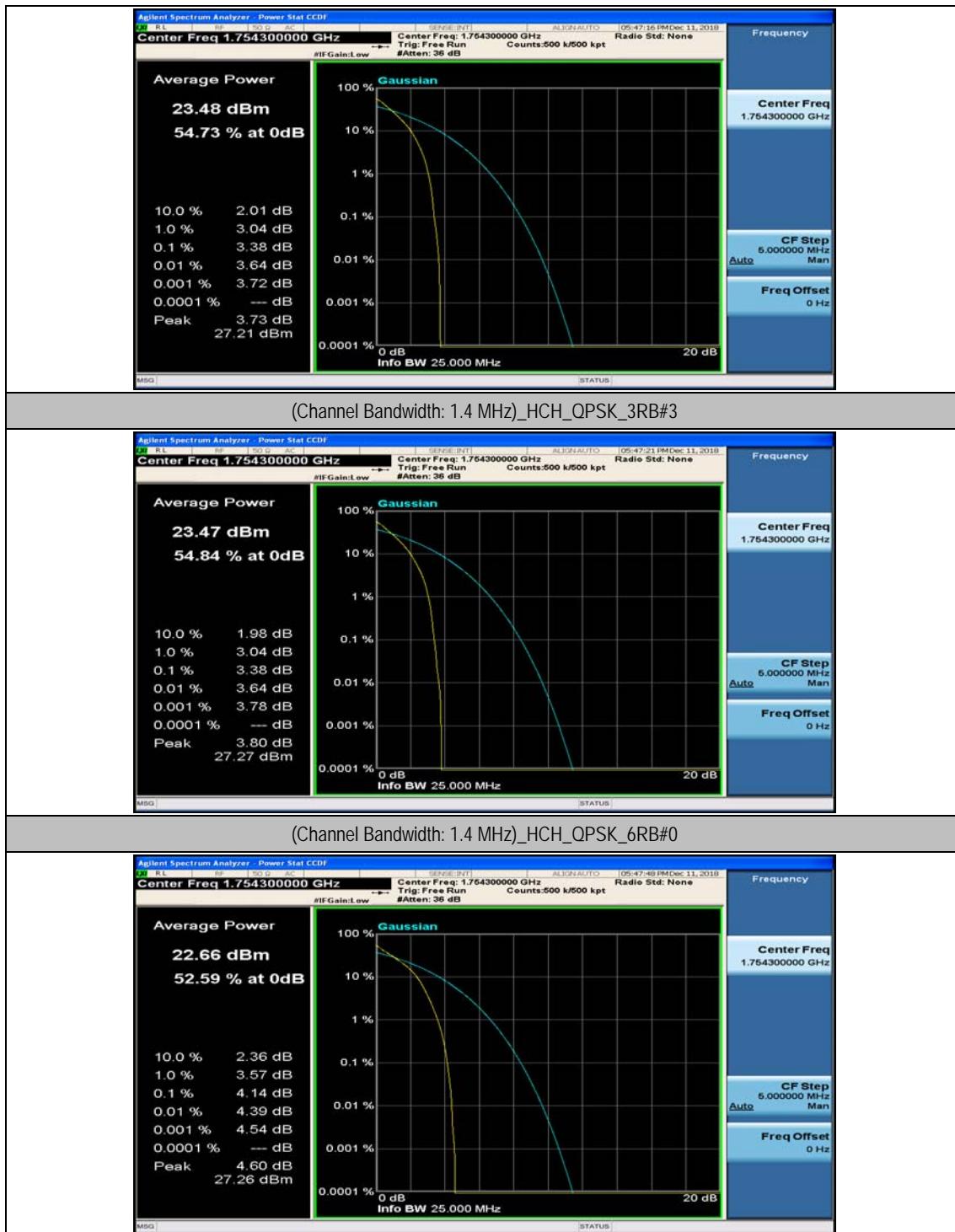


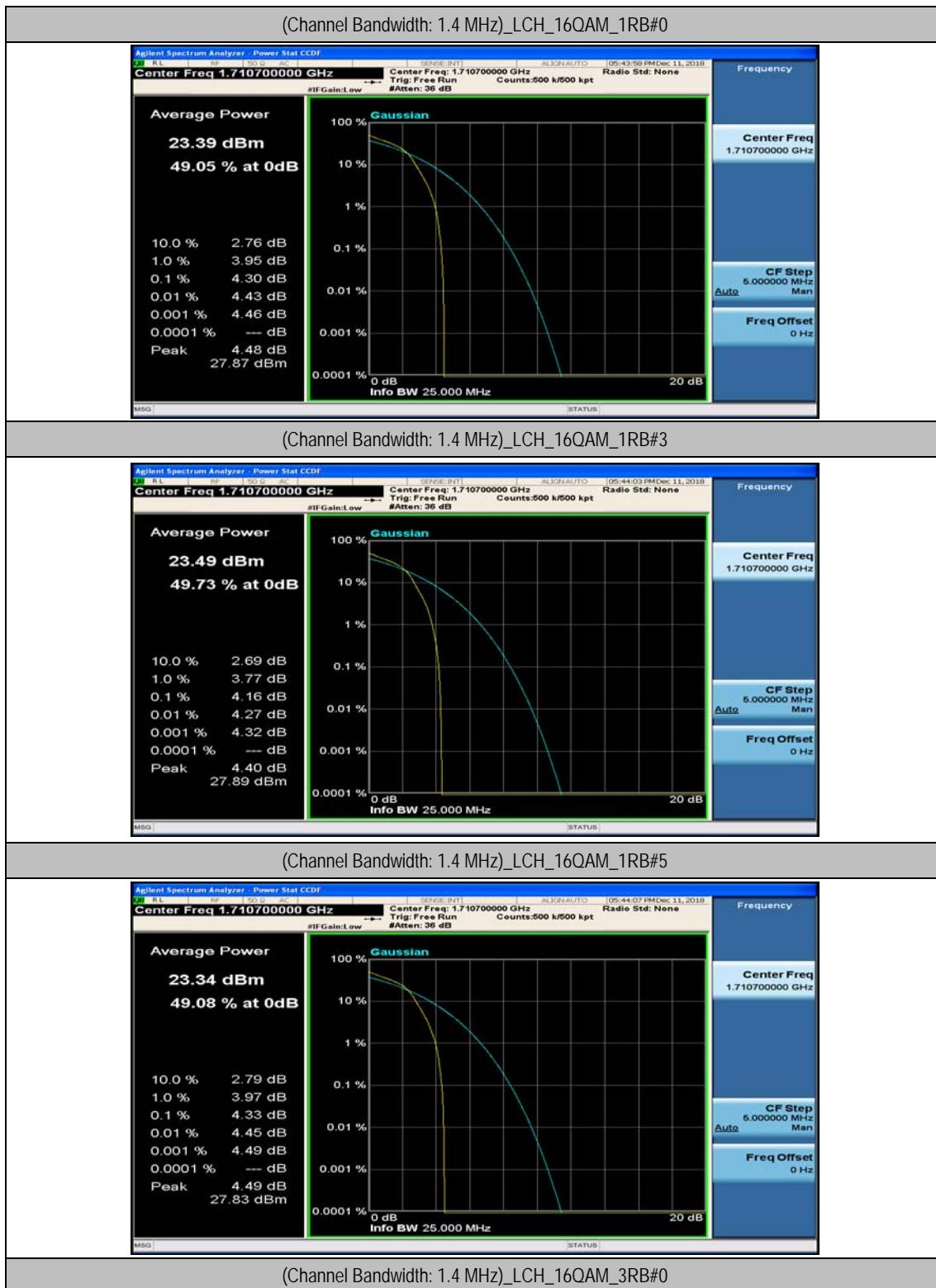


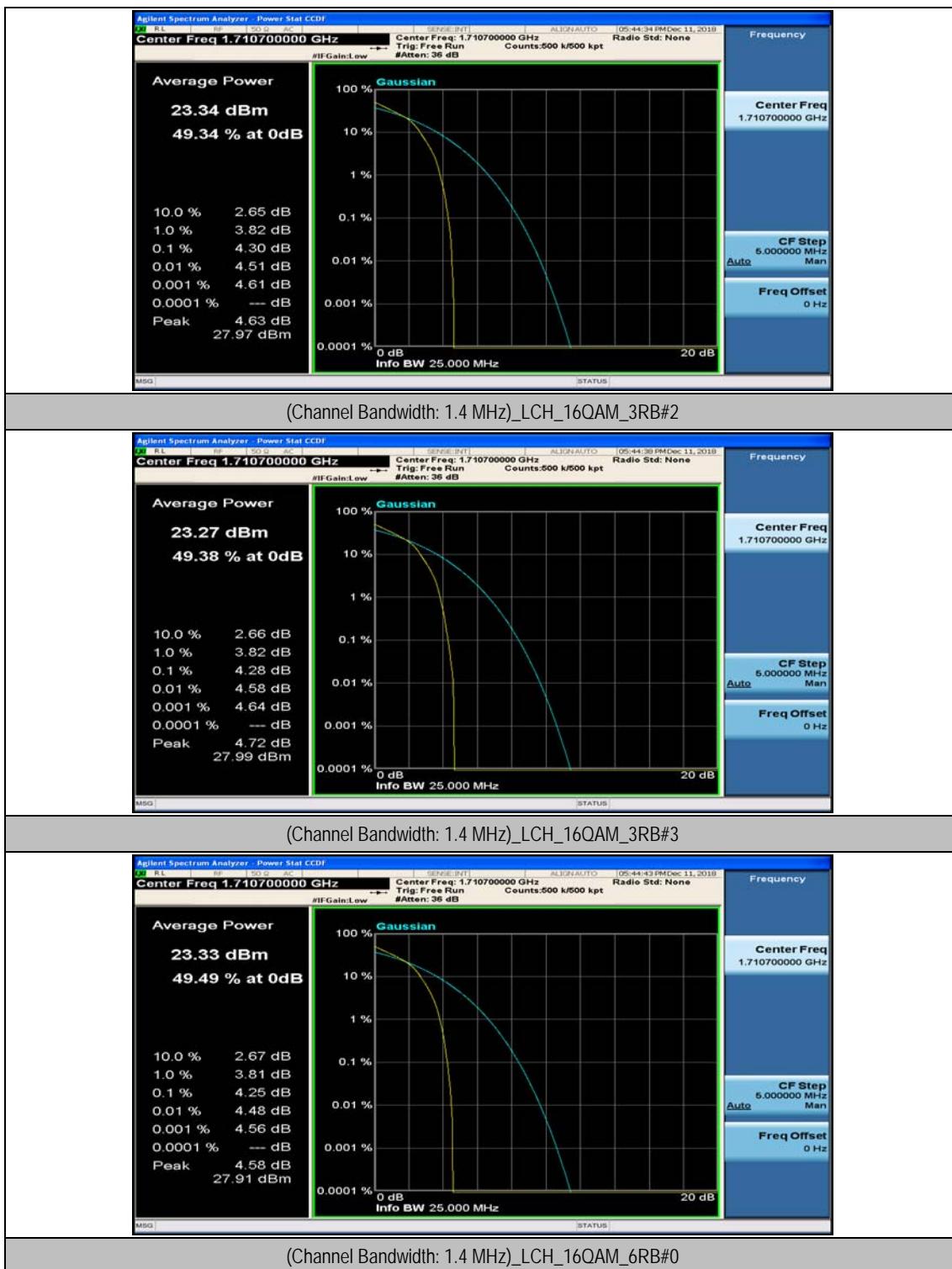


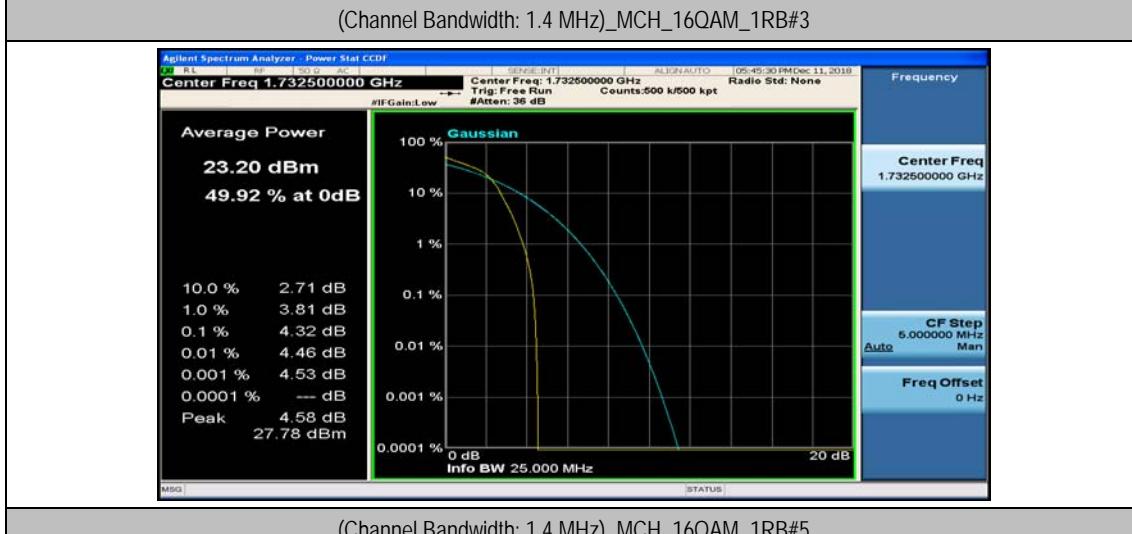


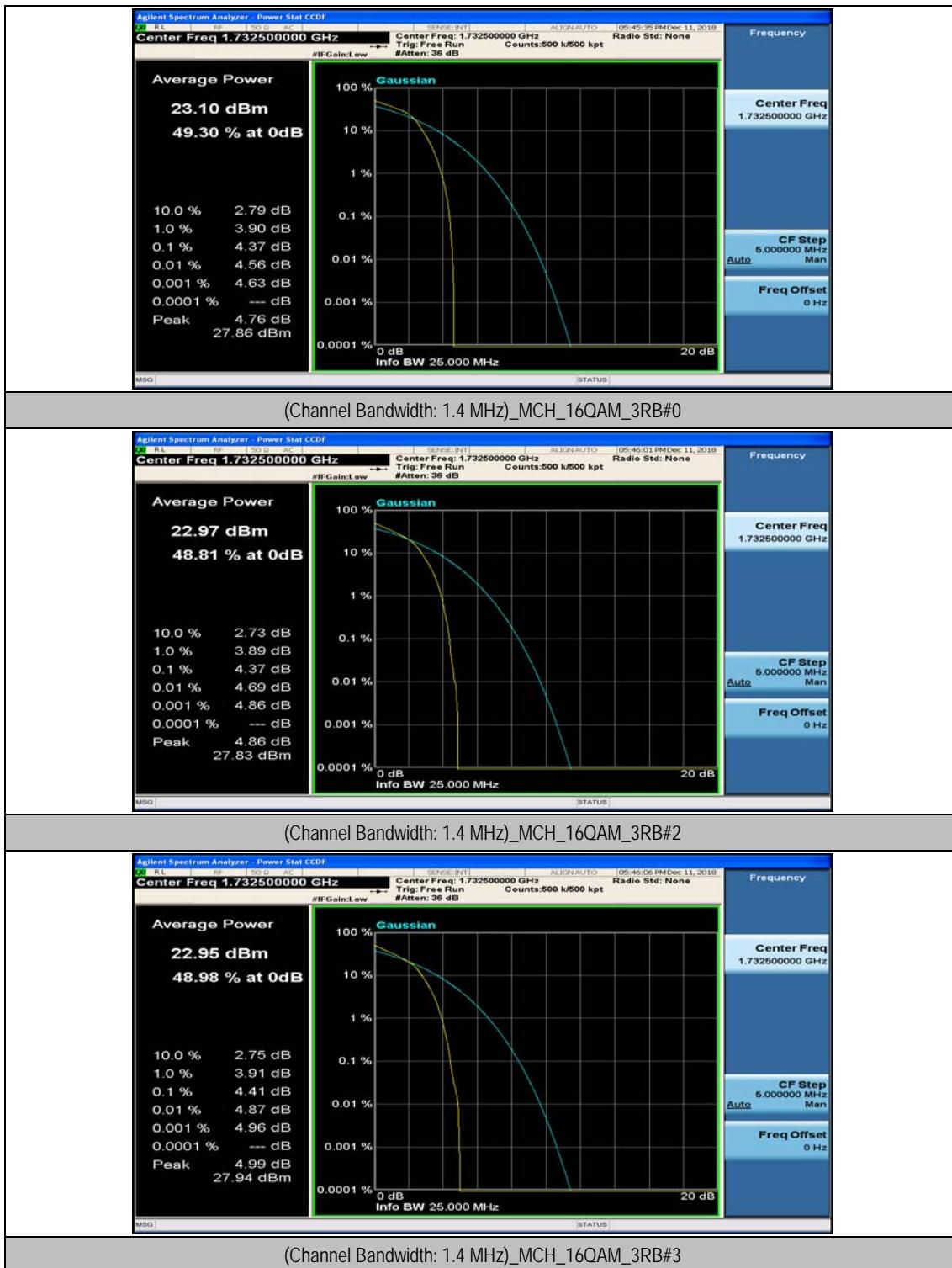


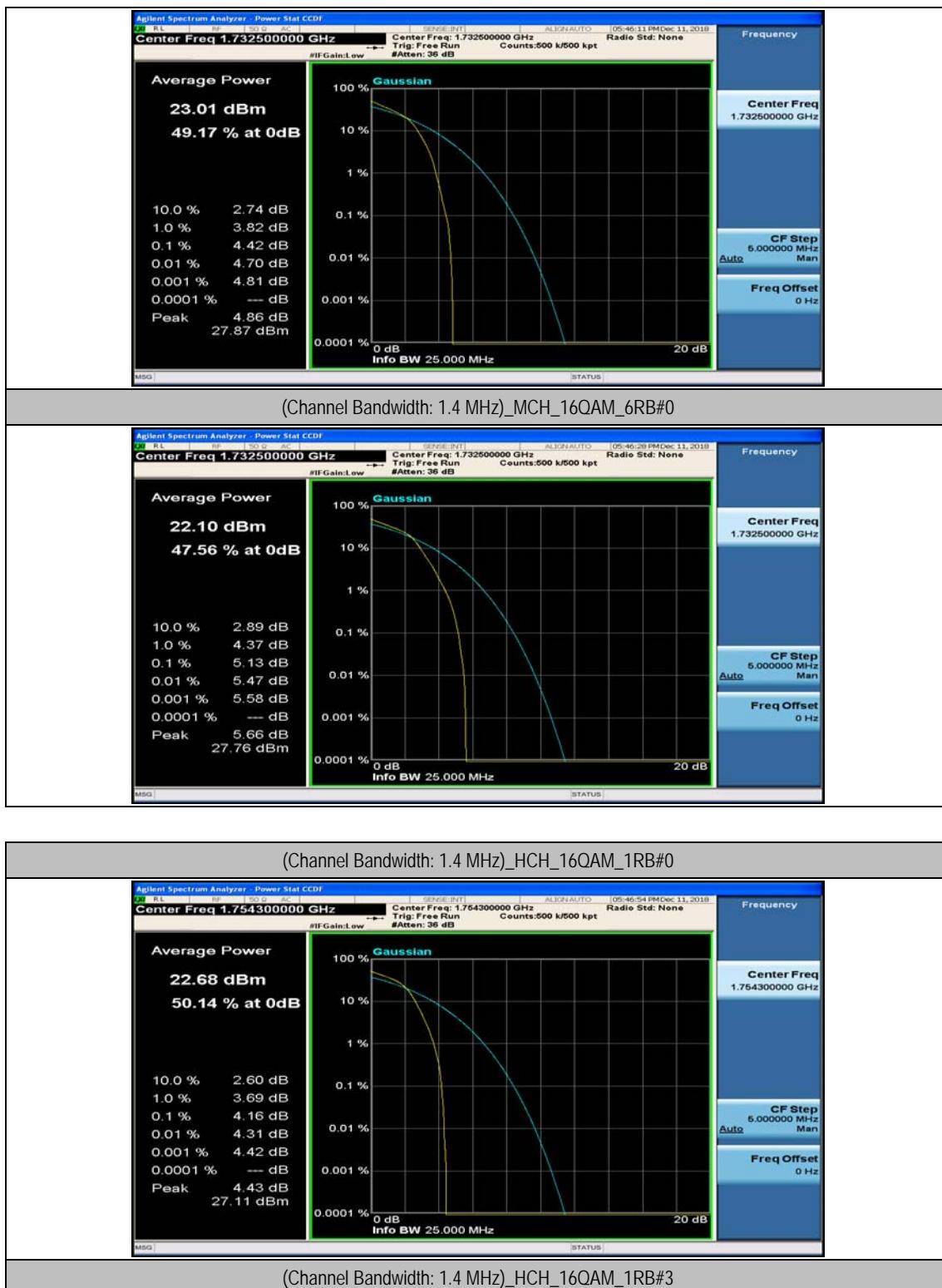


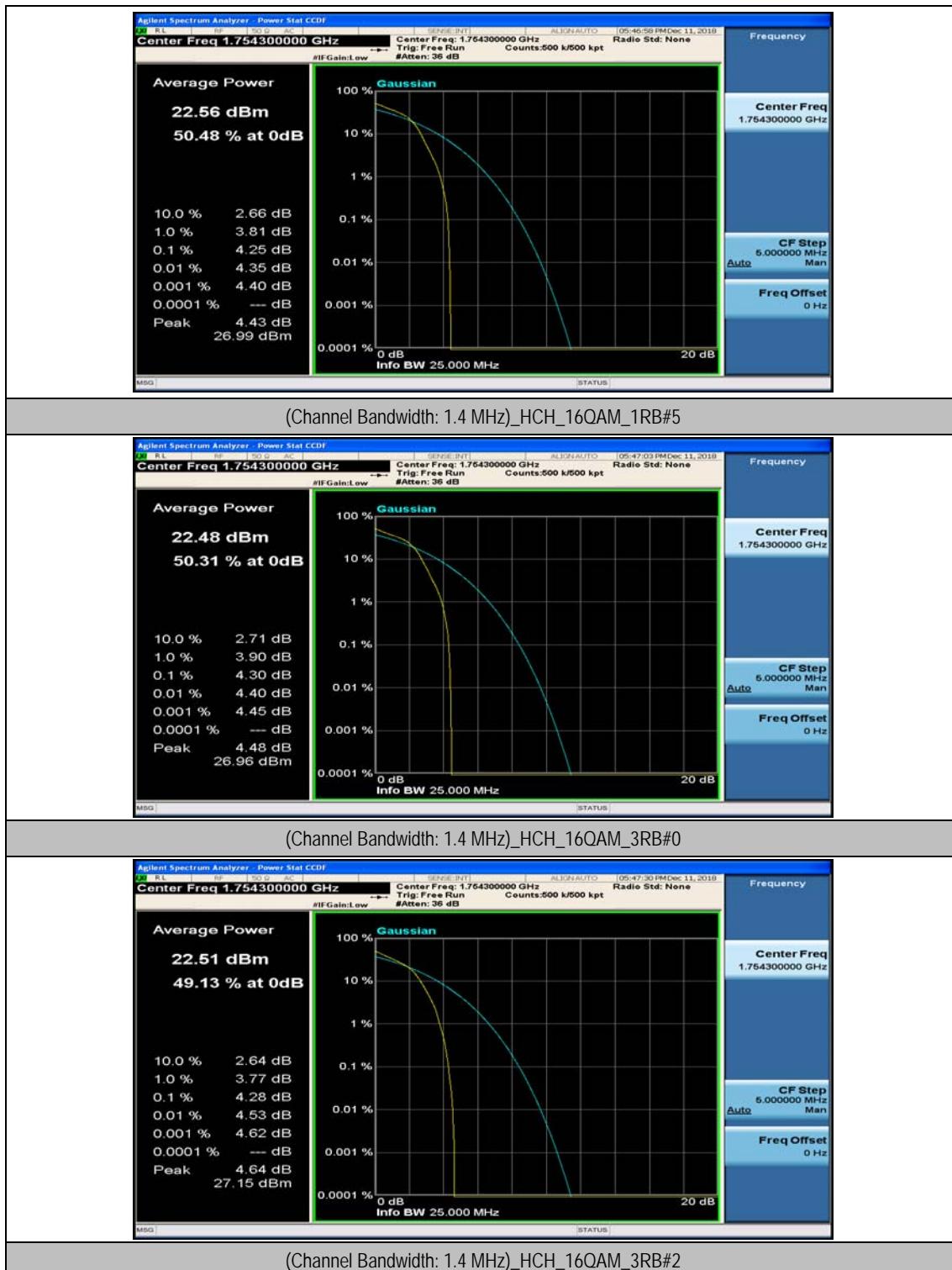


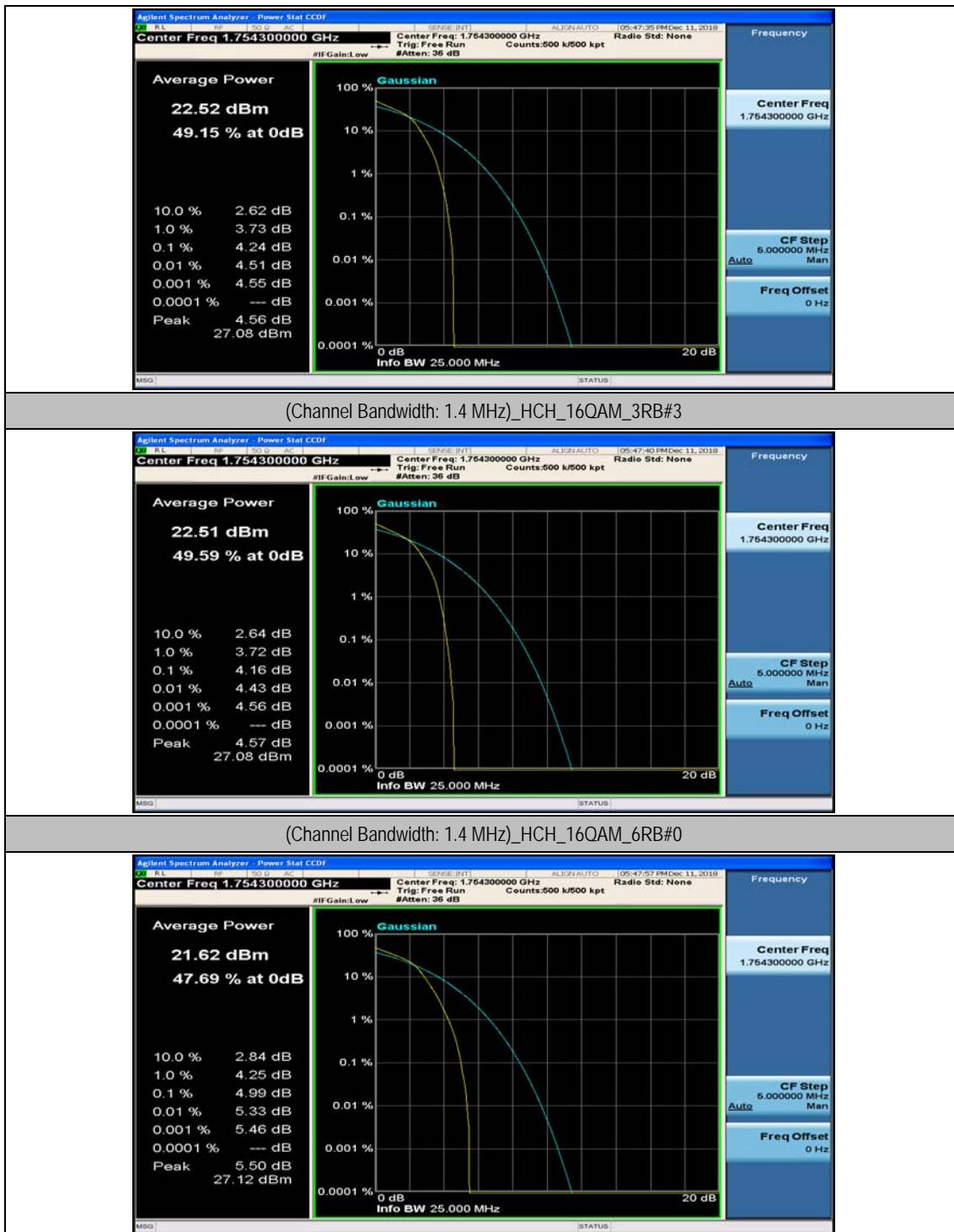




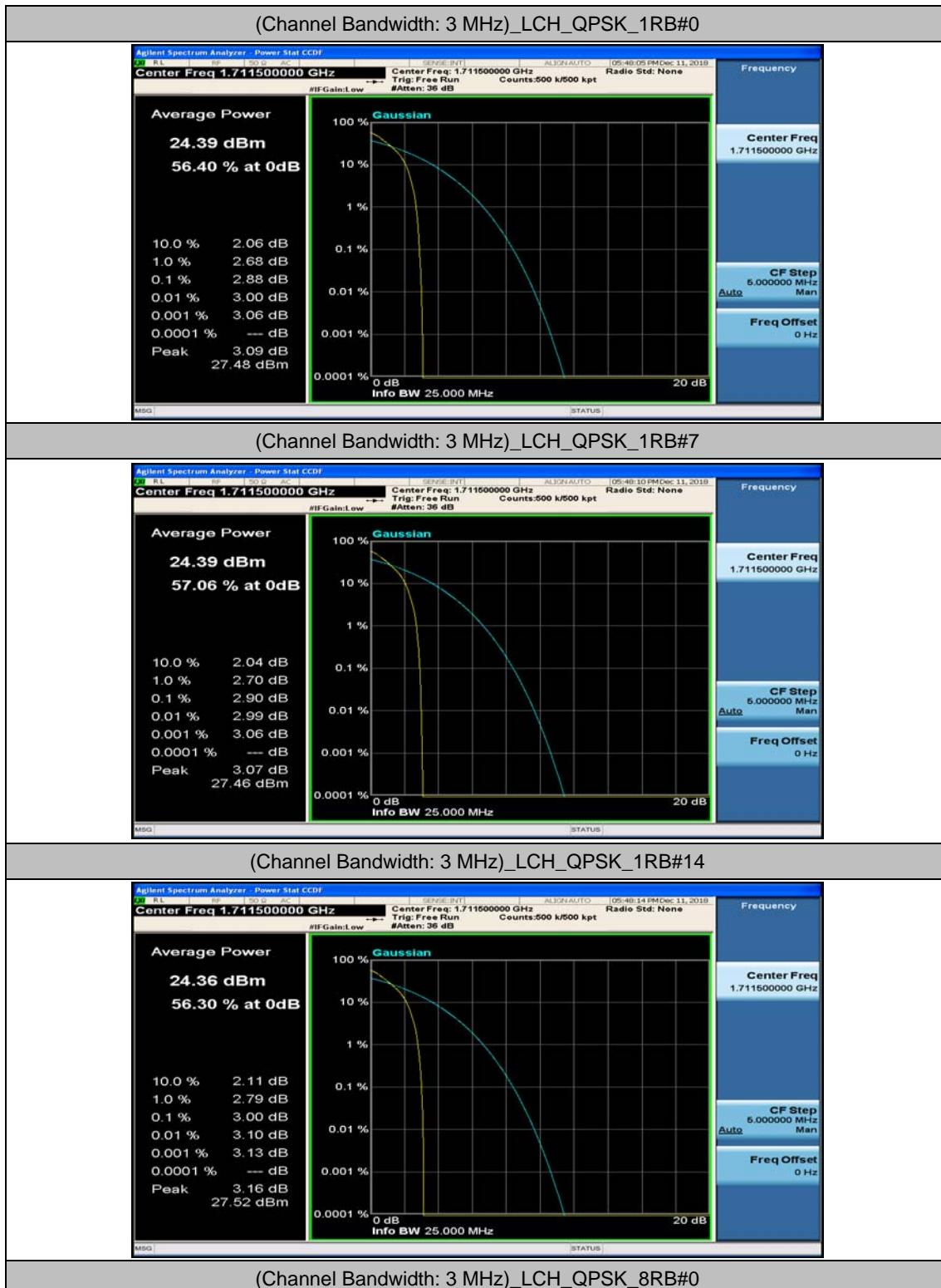


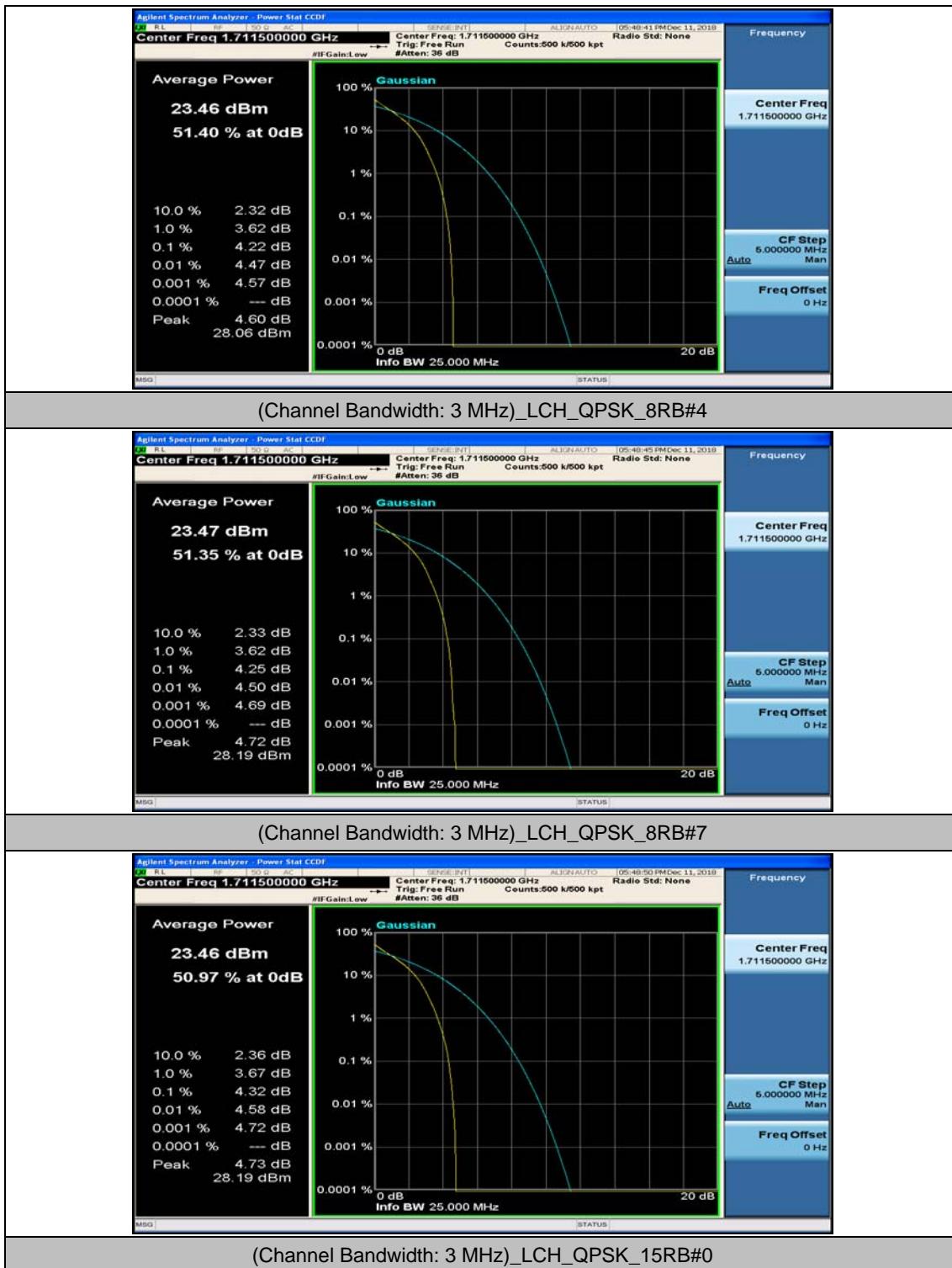


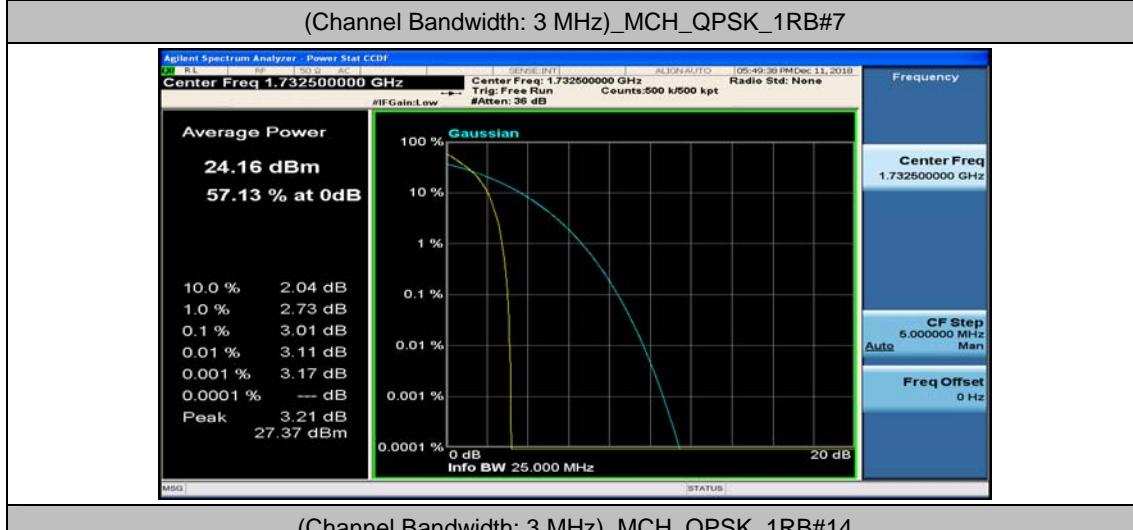
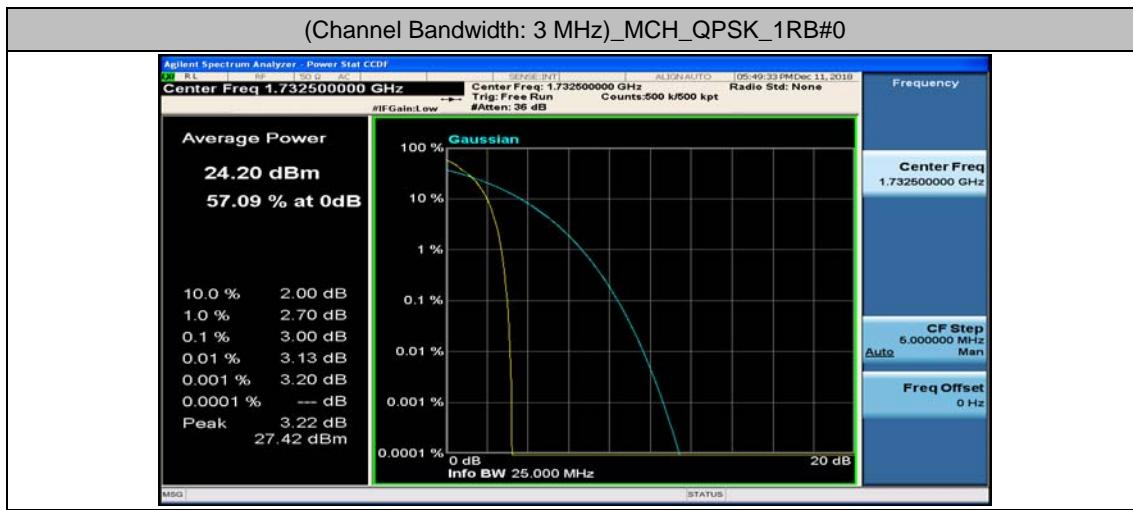
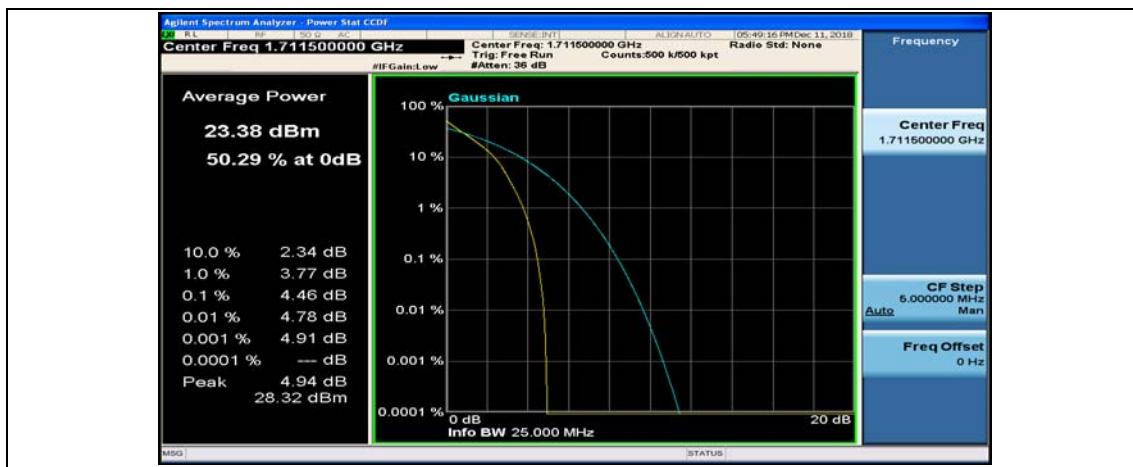


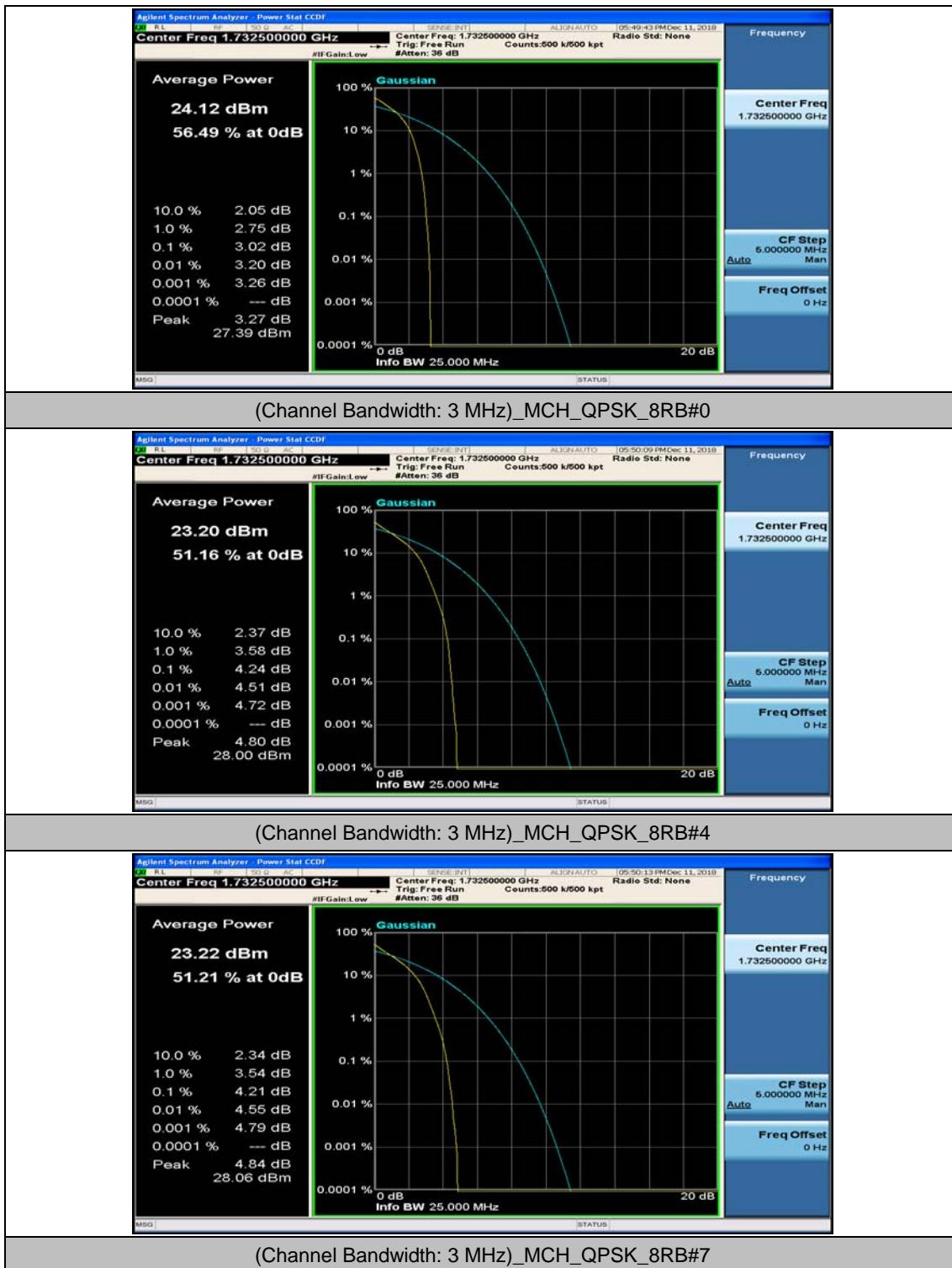


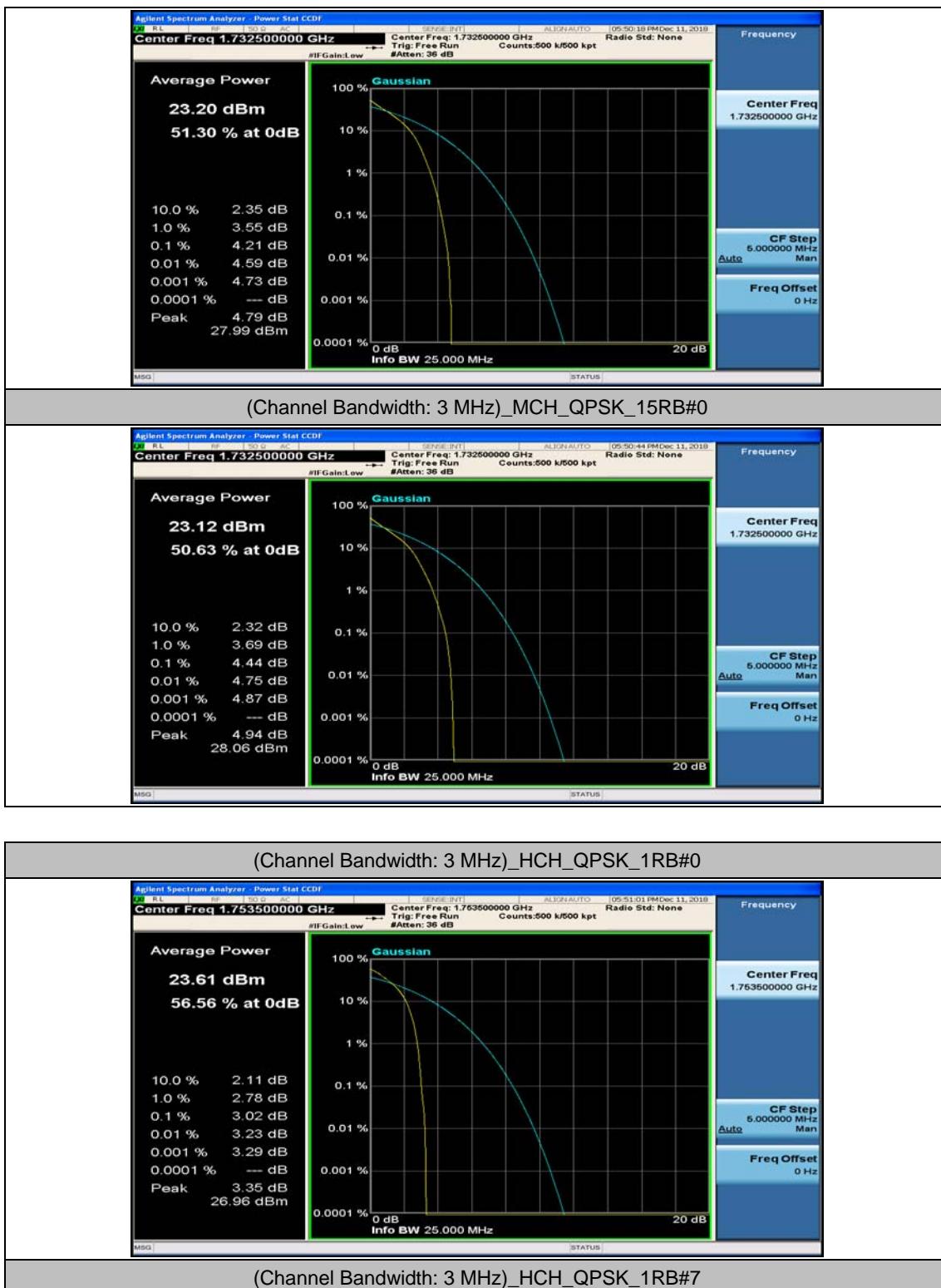
## Channel Bandwidth: 3 MHz

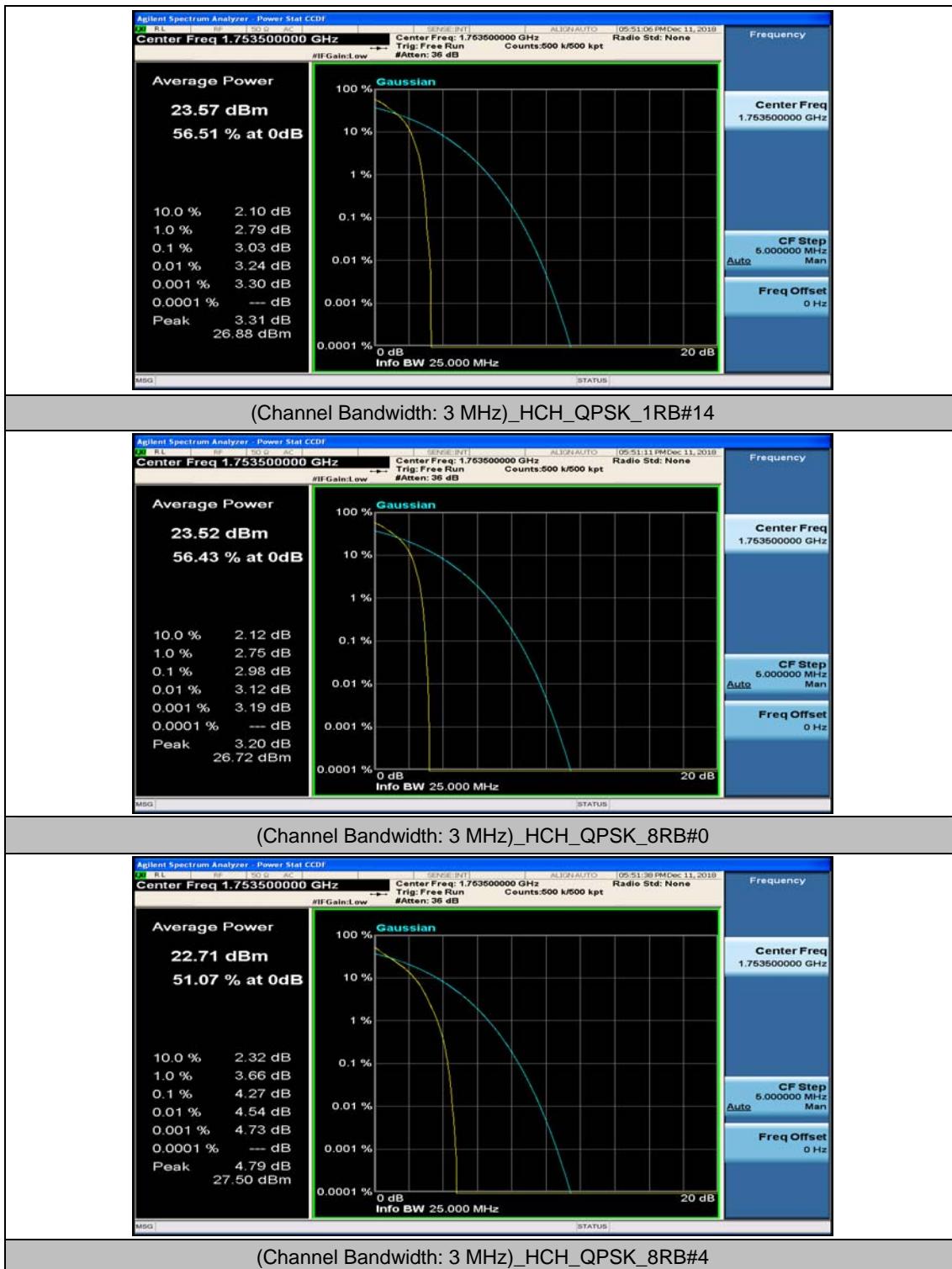


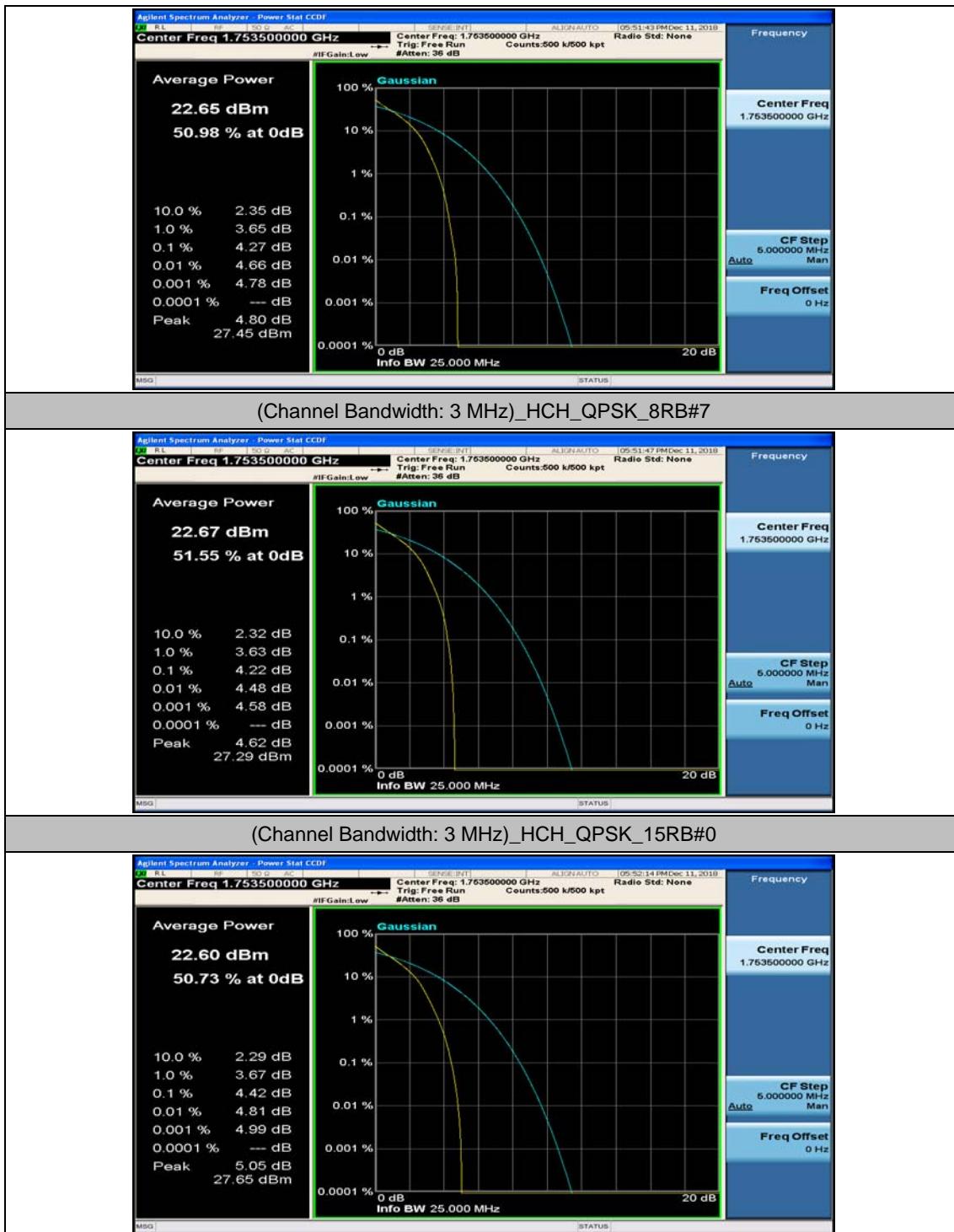


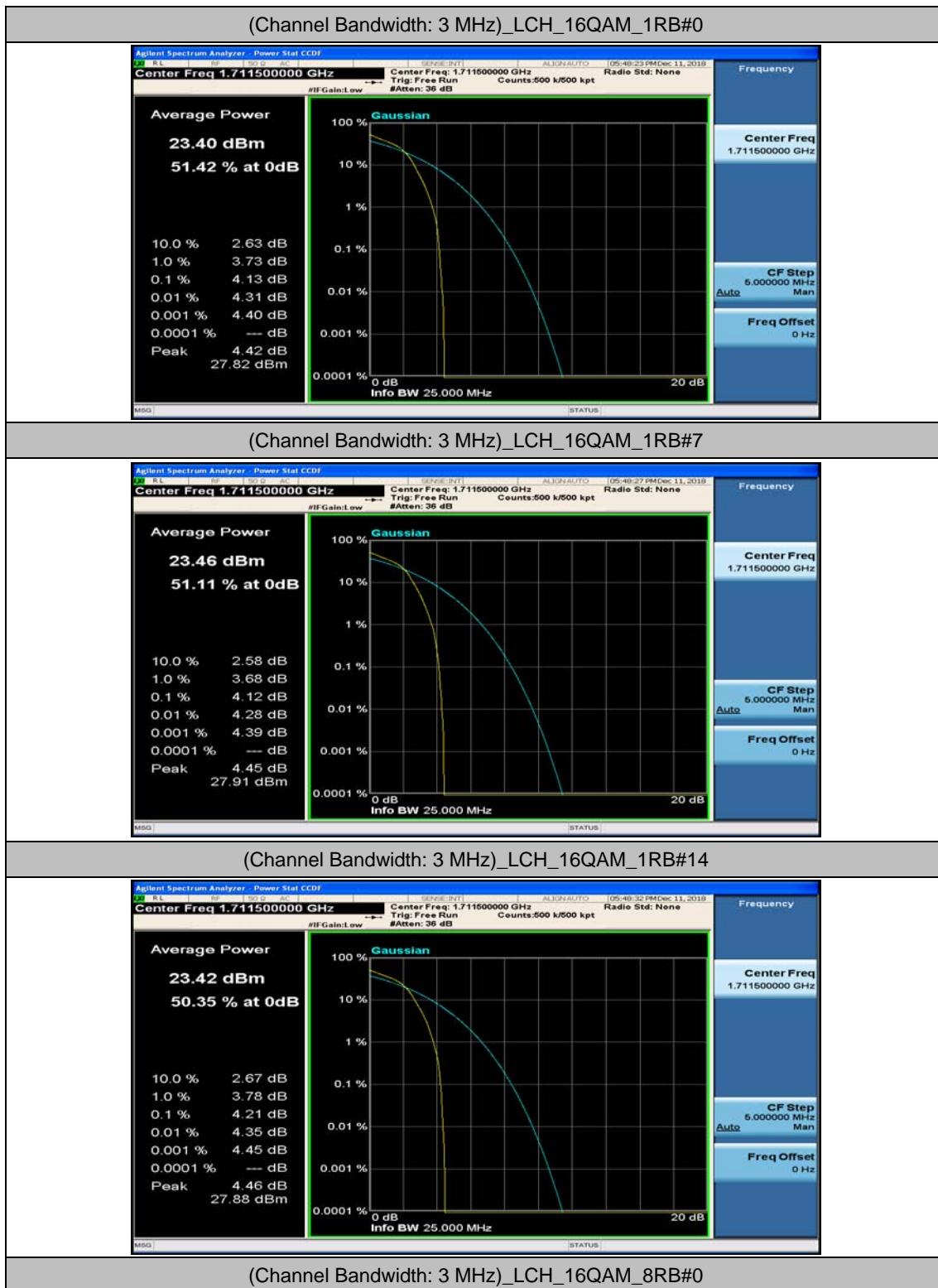


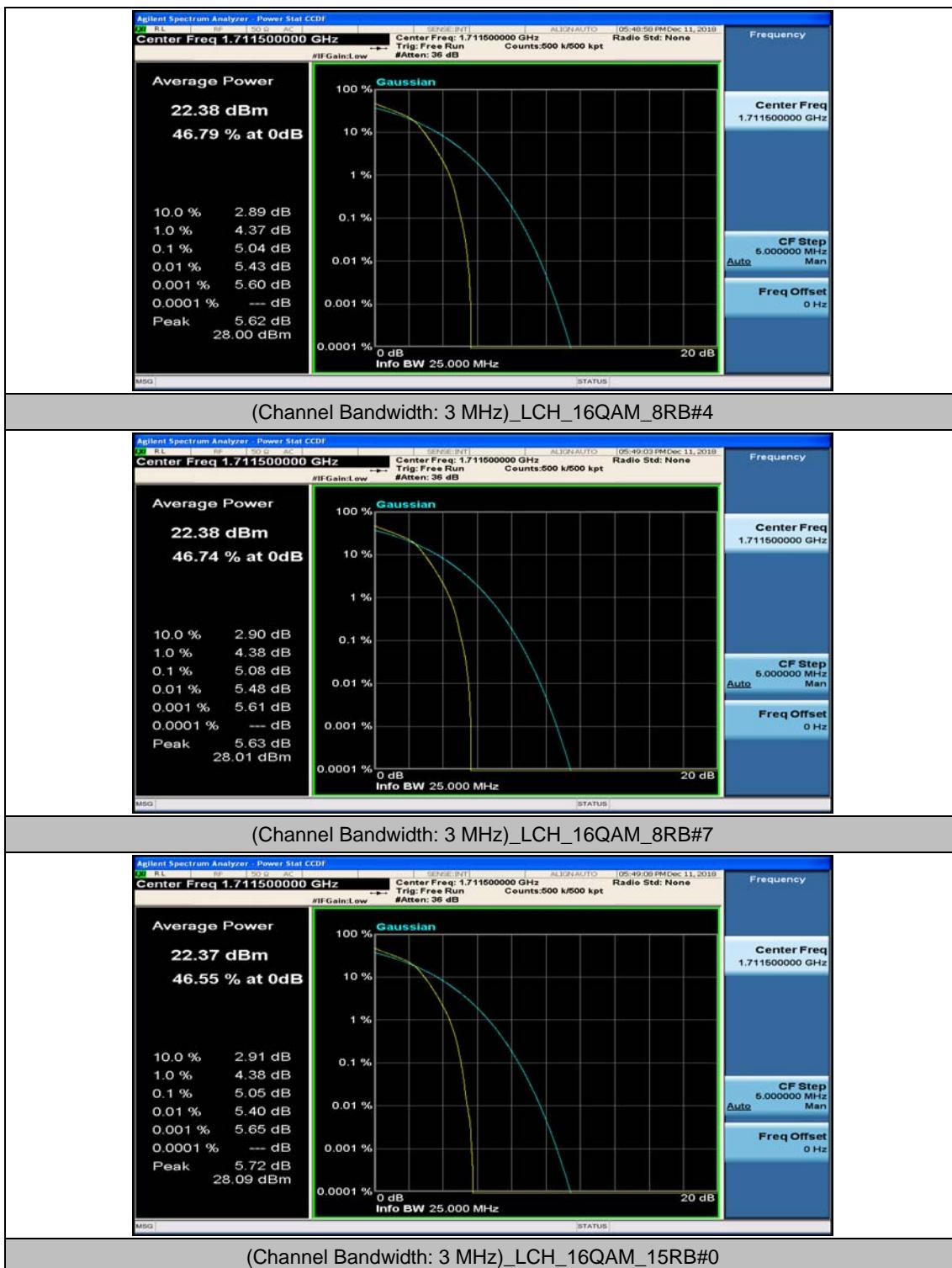


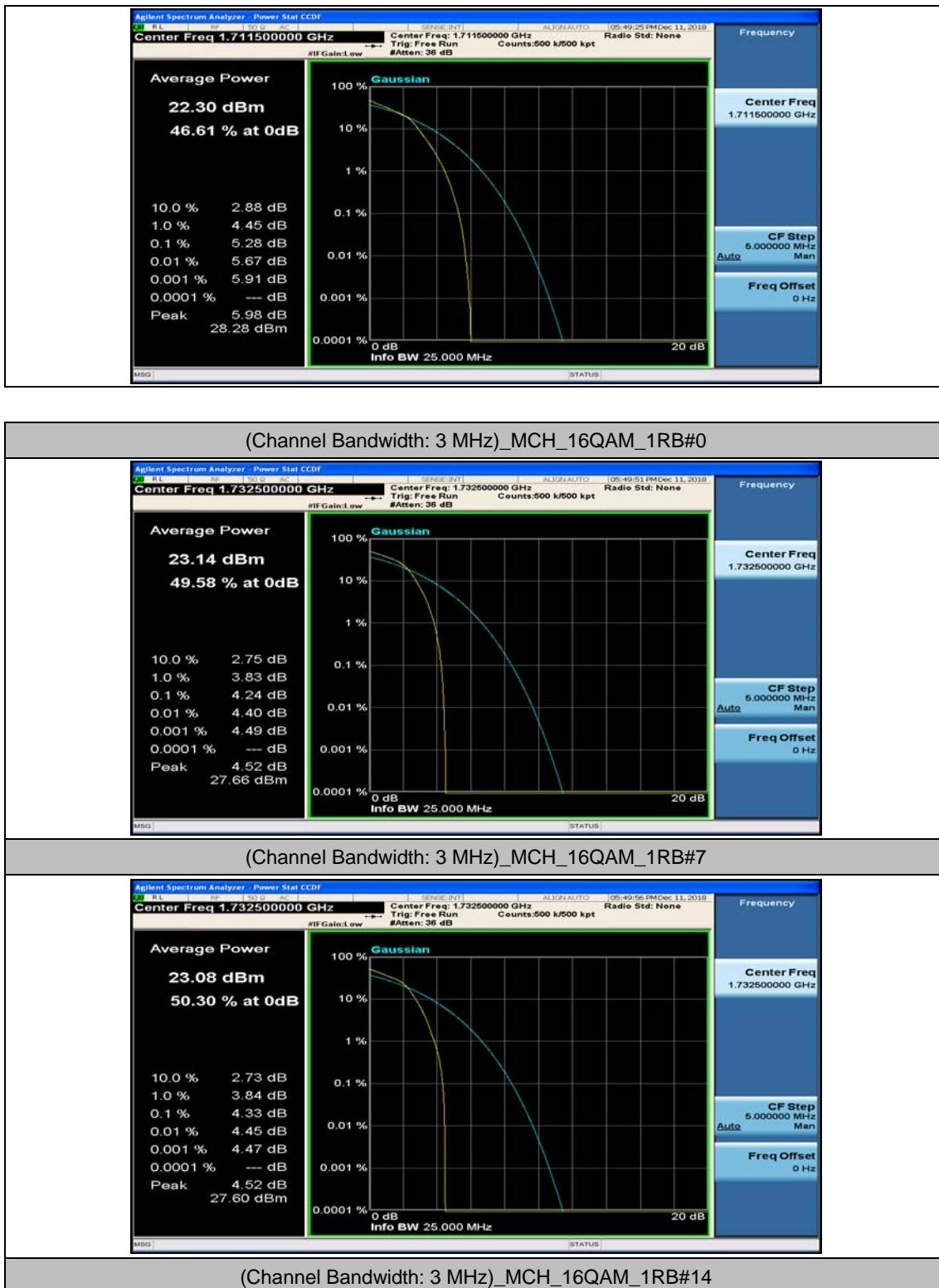


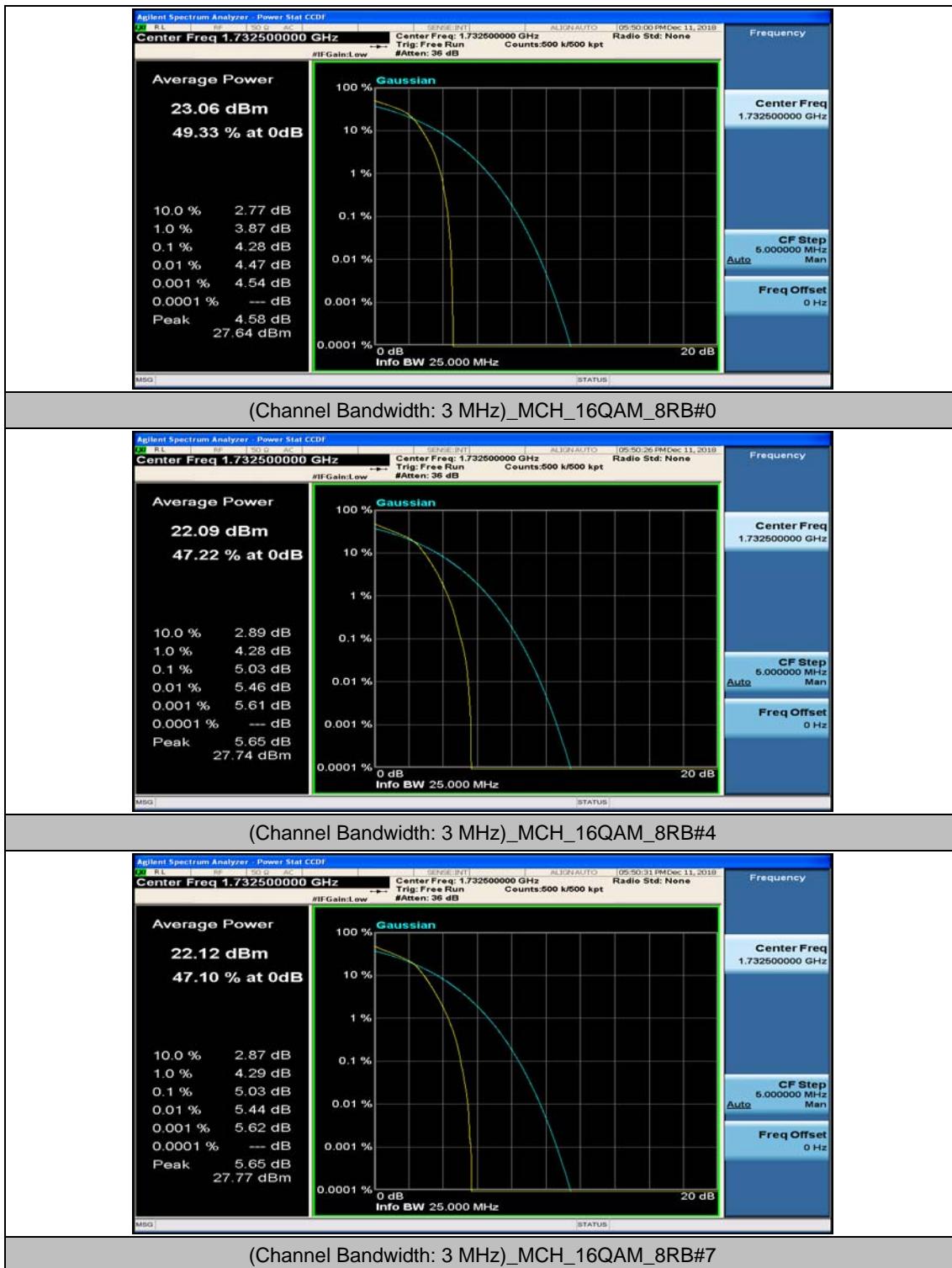


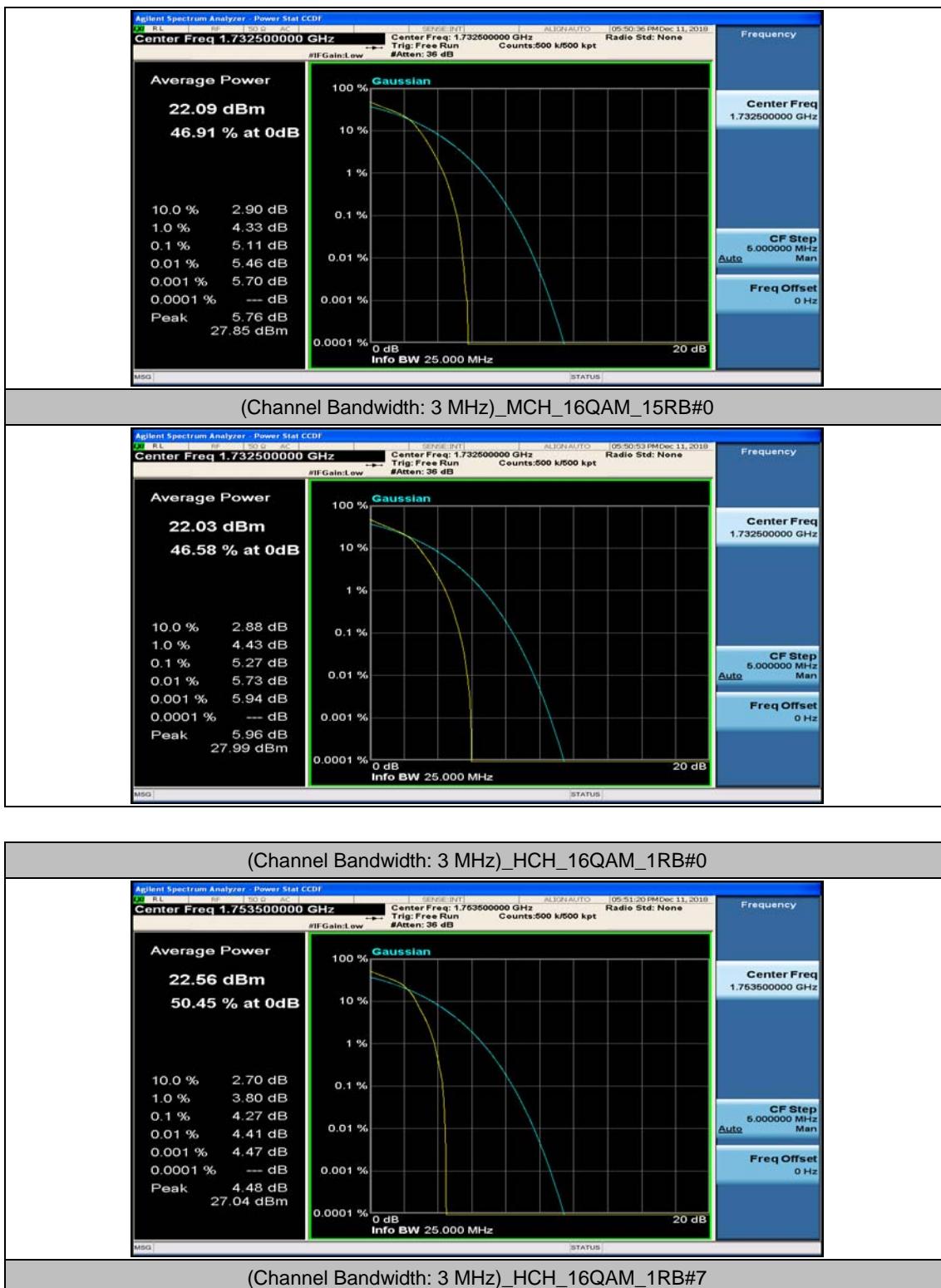


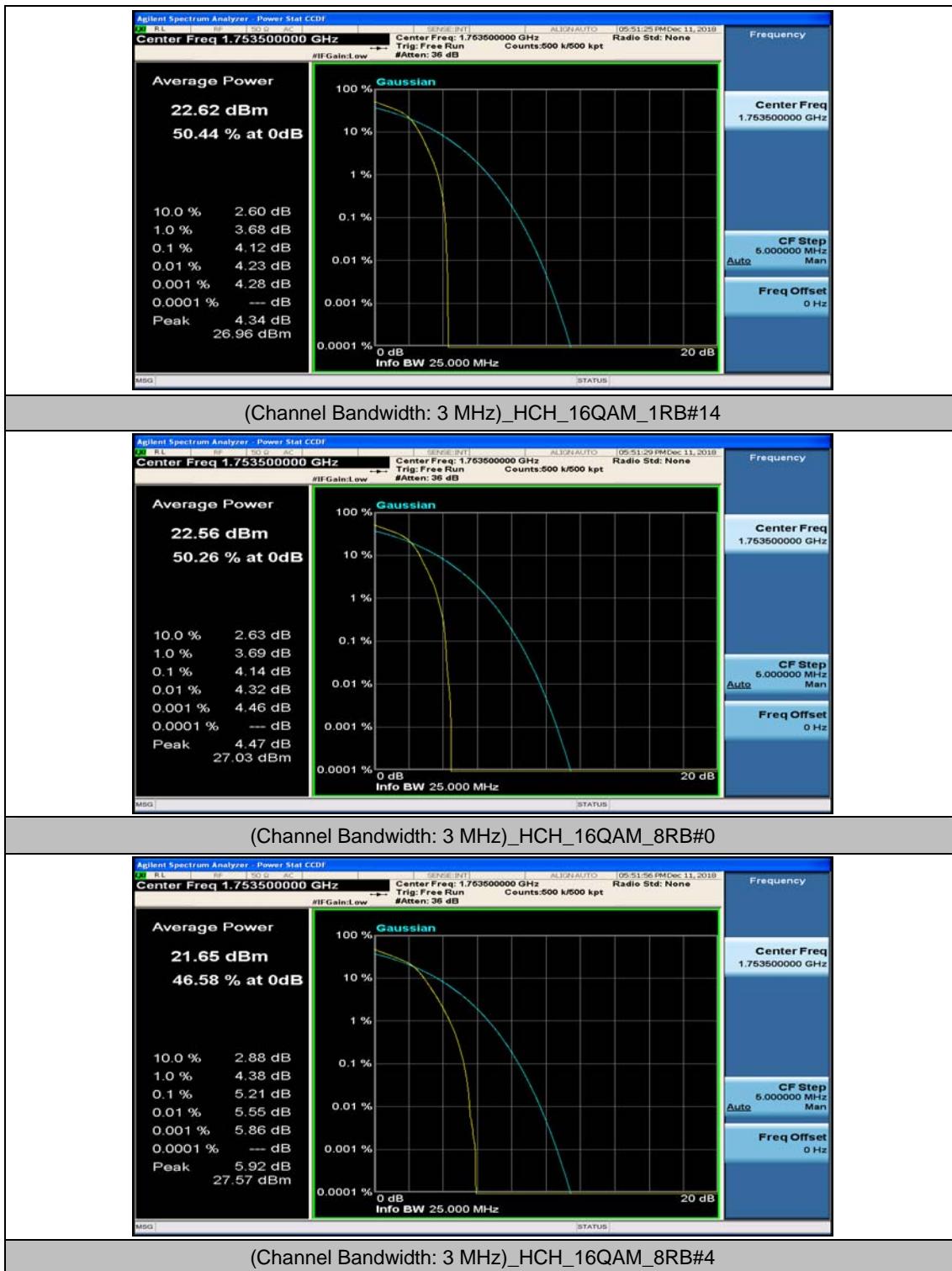


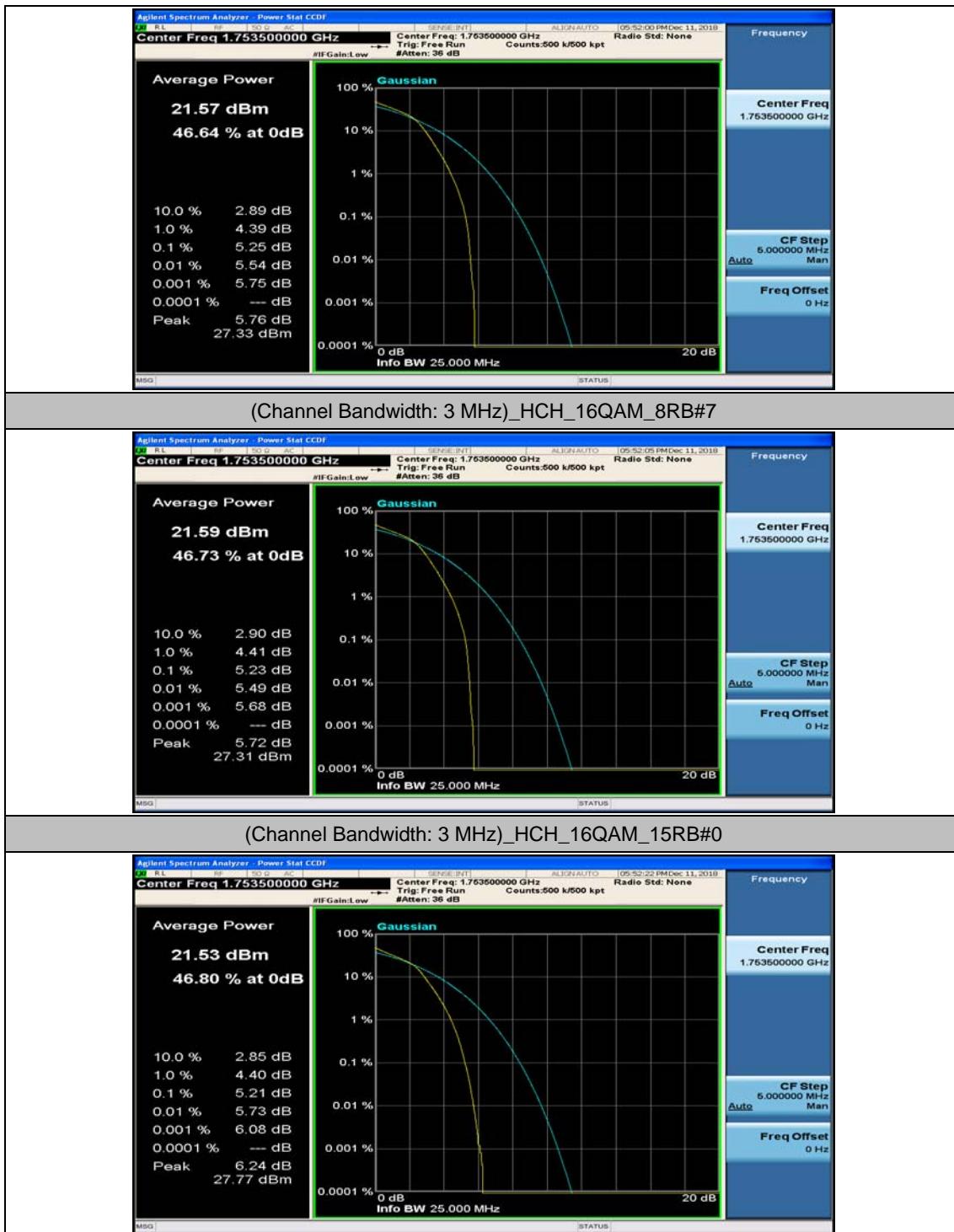












## Channel Bandwidth: 5 MHz

