

## 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	23.29	PASS
		1	3	23.25	PASS
		1	5	23.29	PASS
		3	0	22.25	PASS
		3	2	22.19	PASS
		3	3	22.21	PASS
		6	0	22.33	PASS
	MCH	1	0	23.47	PASS
		1	3	23.45	PASS
		1	5	23.46	PASS
		3	0	22.50	PASS
		3	2	22.45	PASS
		3	3	22.43	PASS
		6	0	22.49	PASS
16QAM	HCH	1	0	23.30	PASS
		1	3	23.22	PASS
		1	5	23.25	PASS
		3	0	22.21	PASS
		3	2	22.18	PASS
		3	3	22.17	PASS
		6	0	22.31	PASS
	LCH	1	0	22.50	PASS
		1	3	22.49	PASS
		1	5	22.51	PASS
		3	0	22.15	PASS
		3	2	22.14	PASS
		3	3	22.16	PASS
		6	0	21.19	PASS
	MCH	1	0	22.68	PASS
		1	3	22.72	PASS
		1	5	22.68	PASS
		3	0	22.52	PASS

		3	2	22.47	PASS
		3	3	22.49	PASS
		6	0	21.57	PASS
HCH		1	0	22.37	PASS
		1	3	22.40	PASS
		1	5	22.35	PASS
		3	0	22.32	PASS
		3	2	22.24	PASS
		3	3	22.24	PASS
		6	0	21.20	PASS

### Channel Bandwidth: 3 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.17	PASS
		1	7	23.21	PASS
		1	14	23.21	PASS
		8	0	22.32	PASS
		8	4	22.31	PASS
		8	7	22.33	PASS
		15	0	22.28	PASS
	MCH	1	0	23.42	PASS
		1	7	23.48	PASS
		1	14	23.41	PASS
		8	0	22.49	PASS
		8	4	22.48	PASS
		8	7	22.50	PASS
		15	0	22.44	PASS
16QAM	HCH	1	0	23.30	PASS
		1	7	23.27	PASS
		1	14	23.20	PASS
		8	0	22.32	PASS
		8	4	22.31	PASS
		8	7	22.30	PASS
		15	0	22.26	PASS
	LCH	1	0	22.35	PASS
		1	7	22.39	PASS
		1	14	22.40	PASS
		8	0	21.29	PASS
		8	4	21.31	PASS
		8	7	21.29	PASS
		15	0	21.18	PASS

		1	0	22.72	PASS
		1	7	22.78	PASS
		1	14	22.73	PASS
	MCH	8	0	21.44	PASS
		8	4	21.42	PASS
		8	7	21.46	PASS
		15	0	21.40	PASS
		1	0	22.48	PASS
	HCH	1	7	22.45	PASS
		1	14	22.34	PASS
		8	0	21.24	PASS
		8	4	21.21	PASS
		8	7	21.18	PASS
		15	0	21.23	PASS

### Channel Bandwidth: 5 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.34	PASS
		1	12	23.37	PASS
		1	24	23.34	PASS
		12	0	22.33	PASS
		12	6	22.34	PASS
		12	13	22.35	PASS
		25	0	22.29	PASS
	MCH	1	0	23.54	PASS
		1	12	23.51	PASS
		1	24	23.49	PASS
		12	0	22.52	PASS
		12	6	22.48	PASS
		12	13	22.53	PASS
		25	0	22.47	PASS
	HCH	1	0	23.45	PASS
		1	12	23.42	PASS
		1	24	23.31	PASS
		12	0	22.43	PASS
		12	6	22.40	PASS
		12	13	22.32	PASS
		25	0	22.32	PASS
16QAM	LCH	1	0	22.47	PASS
		1	12	22.50	PASS
		1	24	22.51	PASS

		12	0	21.31	PASS
		12	6	21.31	PASS
		12	13	21.33	PASS
		25	0	21.24	PASS
MCH	MCH	1	0	22.75	PASS
		1	12	22.72	PASS
		1	24	22.70	PASS
		12	0	21.60	PASS
		12	6	21.60	PASS
		12	13	21.57	PASS
		25	0	21.46	PASS
HCH	HCH	1	0	22.60	PASS
		1	12	22.51	PASS
		1	24	22.41	PASS
		12	0	21.38	PASS
		12	6	21.35	PASS
		12	13	21.30	PASS
		25	0	21.30	PASS

### Channel Bandwidth: 10 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.27	PASS
		1	24	23.35	PASS
		1	49	23.19	PASS
		25	0	22.29	PASS
		25	12	22.33	PASS
		25	25	22.36	PASS
		50	0	22.34	PASS
	MCH	1	0	23.44	PASS
		1	24	23.51	PASS
		1	49	23.43	PASS
		25	0	22.47	PASS
		25	12	22.47	PASS
		25	25	22.48	PASS
		50	0	22.47	PASS
	HCH	1	0	23.47	PASS
		1	24	23.39	PASS
		1	49	23.20	PASS
		25	0	22.41	PASS
		25	12	22.37	PASS
		25	25	22.31	PASS

		50	0	22.36	PASS
16QAM	LCH	1	0	22.44	PASS
		1	24	22.55	PASS
		1	49	22.56	PASS
		25	0	21.26	PASS
		25	12	21.30	PASS
		25	25	21.34	PASS
		50	0	21.31	PASS
	MCH	1	0	22.79	PASS
		1	24	22.85	PASS
		1	49	22.79	PASS
		25	0	21.47	PASS
		25	12	21.46	PASS
		25	25	21.49	PASS
		50	0	21.49	PASS
	HCH	1	0	22.69	PASS
		1	24	22.60	PASS
		1	49	22.41	PASS
		25	0	21.38	PASS
		25	12	21.35	PASS
		25	25	21.27	PASS
		50	0	21.36	PASS

### Channel Bandwidth: 15 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.29	PASS
		1	37	23.36	PASS
		1	74	23.37	PASS
		37	0	22.45	PASS
		37	18	22.50	PASS
		37	38	22.50	PASS
		75	0	22.49	PASS
	MCH	1	0	23.49	PASS
		1	37	23.49	PASS
		1	74	23.48	PASS
		37	0	22.55	PASS
		37	18	22.56	PASS
		37	38	22.57	PASS
		75	0	22.57	PASS
	HCH	1	0	23.57	PASS
		1	37	23.47	PASS

		1	74	23.28	PASS
		37	0	22.58	PASS
		37	18	22.56	PASS
		37	38	22.47	PASS
		75	0	22.54	PASS
16QAM	LCH	1	0	22.46	PASS
		1	37	22.64	PASS
		1	74	22.64	PASS
		37	0	21.35	PASS
		37	18	21.40	PASS
		37	38	21.42	PASS
		75	0	21.43	PASS
	MCH	1	0	22.72	PASS
		1	37	22.79	PASS
		1	74	22.70	PASS
		37	0	21.52	PASS
		37	18	21.53	PASS
		37	38	21.54	PASS
		75	0	21.51	PASS
	HCH	1	0	22.78	PASS
		1	37	22.67	PASS
		1	74	22.45	PASS
		37	0	21.50	PASS
		37	18	21.48	PASS
		37	38	21.39	PASS
		75	0	21.48	PASS

### Channel Bandwidth: 20 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.44	PASS
		1	49	23.52	PASS
		1	99	23.55	PASS
		50	0	22.37	PASS
		50	25	22.41	PASS
		50	50	22.43	PASS
		100	0	22.42	PASS
	MCH	1	0	23.56	PASS
		1	49	23.58	PASS
		1	99	23.55	PASS
		50	0	22.49	PASS
		50	25	22.62	PASS

	HCH	50	50	22.48	PASS
		100	0	22.49	PASS
		1	0	23.49	PASS
		1	49	23.42	PASS
		1	99	23.25	PASS
		50	0	22.53	PASS
		50	25	22.47	PASS
		50	50	22.40	PASS
16QAM	LCH	100	0	22.45	PASS
		1	0	22.50	PASS
		1	49	22.66	PASS
		1	99	22.70	PASS
		50	0	21.32	PASS
		50	25	21.37	PASS
		50	50	21.38	PASS
	MCH	100	0	21.37	PASS
		1	0	22.83	PASS
		1	49	22.88	PASS
		1	99	22.82	PASS
		50	0	21.50	PASS
		50	25	21.52	PASS
		50	50	21.49	PASS
	HCH	100	0	21.47	PASS
		1	0	22.74	PASS
		1	49	22.68	PASS
		1	99	22.42	PASS
		50	0	21.54	PASS
		50	25	21.47	PASS
		50	50	21.38	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	3.36	<13	PASS
		1	3	3.46	<13	PASS
		1	5	3.43	<13	PASS
		3	0	3.75	<13	PASS
		3	2	3.81	<13	PASS
		3	3	3.76	<13	PASS
		6	0	4.38	<13	PASS
	MCH	1	0	4.37	<13	PASS
		1	3	4.26	<13	PASS
		1	5	4.38	<13	PASS
		3	0	4.8	<13	PASS
		3	2	4.71	<13	PASS
		3	3	4.77	<13	PASS
		6	0	5.15	<13	PASS
16QAM	LCH	1	0	3.53	<13	PASS
		1	3	3.55	<13	PASS
		1	5	3.59	<13	PASS
		3	0	4	<13	PASS
		3	2	4.04	<13	PASS
		3	3	4.05	<13	PASS
		6	0	4.54	<13	PASS
	MCH	1	0	4.49	<13	PASS
		1	3	4.6	<13	PASS
		1	5	4.47	<13	PASS
		3	0	4.67	<13	PASS
		3	2	4.69	<13	PASS
		3	3	4.72	<13	PASS
		6	0	5.33	<13	PASS

		3	2	5.54	<13	PASS
		3	3	5.75	<13	PASS
		6	0	6.01	<13	PASS
HCH		1	0	4.67	<13	PASS
		1	3	4.67	<13	PASS
		1	5	4.88	<13	PASS
		3	0	5.02	<13	PASS
		3	2	4.99	<13	PASS
		3	3	4.95	<13	PASS
		6	0	5.49	<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	3.54	<13	PASS
		1	7	3.62	<13	PASS
		1	14	3.61	<13	PASS
		8	0	4.47	<13	PASS
		8	4	4.48	<13	PASS
		8	7	4.44	<13	PASS
		15	0	4.48	<13	PASS
	MCH	1	0	4.05	<13	PASS
		1	7	4.19	<13	PASS
		1	14	4.17	<13	PASS
		8	0	5.12	<13	PASS
		8	4	5.22	<13	PASS
		8	7	5.24	<13	PASS
		15	0	5.25	<13	PASS
	HCH	1	0	3.74	<13	PASS
		1	7	3.56	<13	PASS
		1	14	3.7	<13	PASS
		8	0	4.62	<13	PASS
		8	4	4.66	<13	PASS
		8	7	4.55	<13	PASS
		15	0	4.63	<13	PASS
16QAM	LCH	1	0	4.59	<13	PASS
		1	7	4.45	<13	PASS
		1	14	4.61	<13	PASS
		8	0	5.12	<13	PASS
		8	4	5.25	<13	PASS

		8	7	5.22	<13	PASS
		15	0	5.4	<13	PASS
MCH	1	0		5.26	<13	PASS
	1	7		5.24	<13	PASS
	1	14		5.27	<13	PASS
	8	0		5.92	<13	PASS
	8	4		5.81	<13	PASS
	8	7		5.85	<13	PASS
	15	0		6.03	<13	PASS
HCH	1	0		4.58	<13	PASS
	1	7		4.58	<13	PASS
	1	14		4.78	<13	PASS
	8	0		5.53	<13	PASS
	8	4		5.51	<13	PASS
	8	7		5.53	<13	PASS
	15	0		5.44	<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	3.59	<13	PASS
		1	12	3.65	<13	PASS
		1	24	3.75	<13	PASS
		12	0	4.5	<13	PASS
		12	6	4.46	<13	PASS
		12	13	4.56	<13	PASS
		25	0	4.55	<13	PASS
	MCH	1	0	4.32	<13	PASS
		1	12	4.35	<13	PASS
		1	24	4.22	<13	PASS
		12	0	5.11	<13	PASS
		12	6	5.1	<13	PASS
		12	13	5.09	<13	PASS
		25	0	5.21	<13	PASS
	HCH	1	0	3.82	<13	PASS
		1	12	3.75	<13	PASS
		1	24	3.66	<13	PASS
		12	0	4.7	<13	PASS
		12	6	4.67	<13	PASS
		12	13	4.57	<13	PASS

		25	0	4.74	<13	PASS
16QAM	LCH	1	0	4.34	<13	PASS
		1	12	4.49	<13	PASS
		1	24	4.59	<13	PASS
		12	0	5.31	<13	PASS
		12	6	5.41	<13	PASS
		12	13	5.42	<13	PASS
		25	0	5.33	<13	PASS
		1	0	5.31	<13	PASS
16QAM	MCH	1	12	5.33	<13	PASS
		1	24	5.18	<13	PASS
		12	0	6.02	<13	PASS
		12	6	5.89	<13	PASS
		12	13	5.81	<13	PASS
		25	0	6.07	<13	PASS
		1	0	4.51	<13	PASS
		1	12	4.63	<13	PASS
16QAM	HCH	1	24	4.69	<13	PASS
		12	0	5.43	<13	PASS
		12	6	5.4	<13	PASS
		12	13	5.38	<13	PASS
		25	0	5.46	<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	3.49	<13	PASS
		1	24	3.68	<13	PASS
		1	49	4.12	<13	PASS
		25	0	4.53	<13	PASS
		25	12	4.59	<13	PASS
		25	25	4.82	<13	PASS
		50	0	4.69	<13	PASS
		1	0	4.2	<13	PASS
QPSK	MCH	1	24	4.12	<13	PASS
		1	49	3.94	<13	PASS
		25	0	5.2	<13	PASS
		25	12	5.22	<13	PASS
		25	25	5.16	<13	PASS
		50	0	5.19	<13	PASS

		1	0	3.74	<13	PASS
		1	24	3.68	<13	PASS
		1	49	3.69	<13	PASS
	HCH	25	0	4.78	<13	PASS
		25	12	4.7	<13	PASS
		25	25	4.62	<13	PASS
		50	0	4.76	<13	PASS
16QAM	LCH	1	0	4.47	<13	PASS
		1	24	4.78	<13	PASS
		1	49	4.96	<13	PASS
		25	0	5.35	<13	PASS
		25	12	5.5	<13	PASS
		25	25	5.61	<13	PASS
		50	0	5.46	<13	PASS
	MCH	1	0	5.31	<13	PASS
		1	24	5.08	<13	PASS
		1	49	5.2	<13	PASS
		25	0	6.05	<13	PASS
		25	12	6.08	<13	PASS
		25	25	5.94	<13	PASS
		50	0	5.98	<13	PASS
	HCH	1	0	4.77	<13	PASS
		1	24	4.72	<13	PASS
		1	49	4.61	<13	PASS
		25	0	5.74	<13	PASS
		25	12	5.62	<13	PASS
		25	25	5.51	<13	PASS
		50	0	5.6	<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	3.4	<13	PASS
		1	37	4.1	<13	PASS
		1	74	4.3	<13	PASS
		37	0	4.55	<13	PASS
		37	18	4.79	<13	PASS
		37	38	4.99	<13	PASS
		75	0	5.26	<13	PASS
	MCH	1	0	4.47	<13	PASS

	16QAM	HCH	1	37	4.06	<13	PASS
			1	74	4.01	<13	PASS
			37	0	5.2	<13	PASS
			37	18	5.14	<13	PASS
			37	38	5.07	<13	PASS
			75	0	5.56	<13	PASS
		LCH	1	0	4.11	<13	PASS
			1	37	3.7	<13	PASS
			1	74	3.64	<13	PASS
			37	0	4.93	<13	PASS
			37	18	4.81	<13	PASS
			37	38	4.66	<13	PASS
			75	0	5.23	<13	PASS
		MCH	1	0	4.43	<13	PASS
			1	37	4.78	<13	PASS
			1	74	5.28	<13	PASS
			37	0	5.37	<13	PASS
			37	18	5.59	<13	PASS
			37	38	5.81	<13	PASS
			75	0	5.87	<13	PASS
		HCH	1	0	5.23	<13	PASS
			1	37	5.14	<13	PASS
			1	74	5.04	<13	PASS
			37	0	6.03	<13	PASS
			37	18	5.99	<13	PASS
			37	38	5.92	<13	PASS
			75	0	6.08	<13	PASS

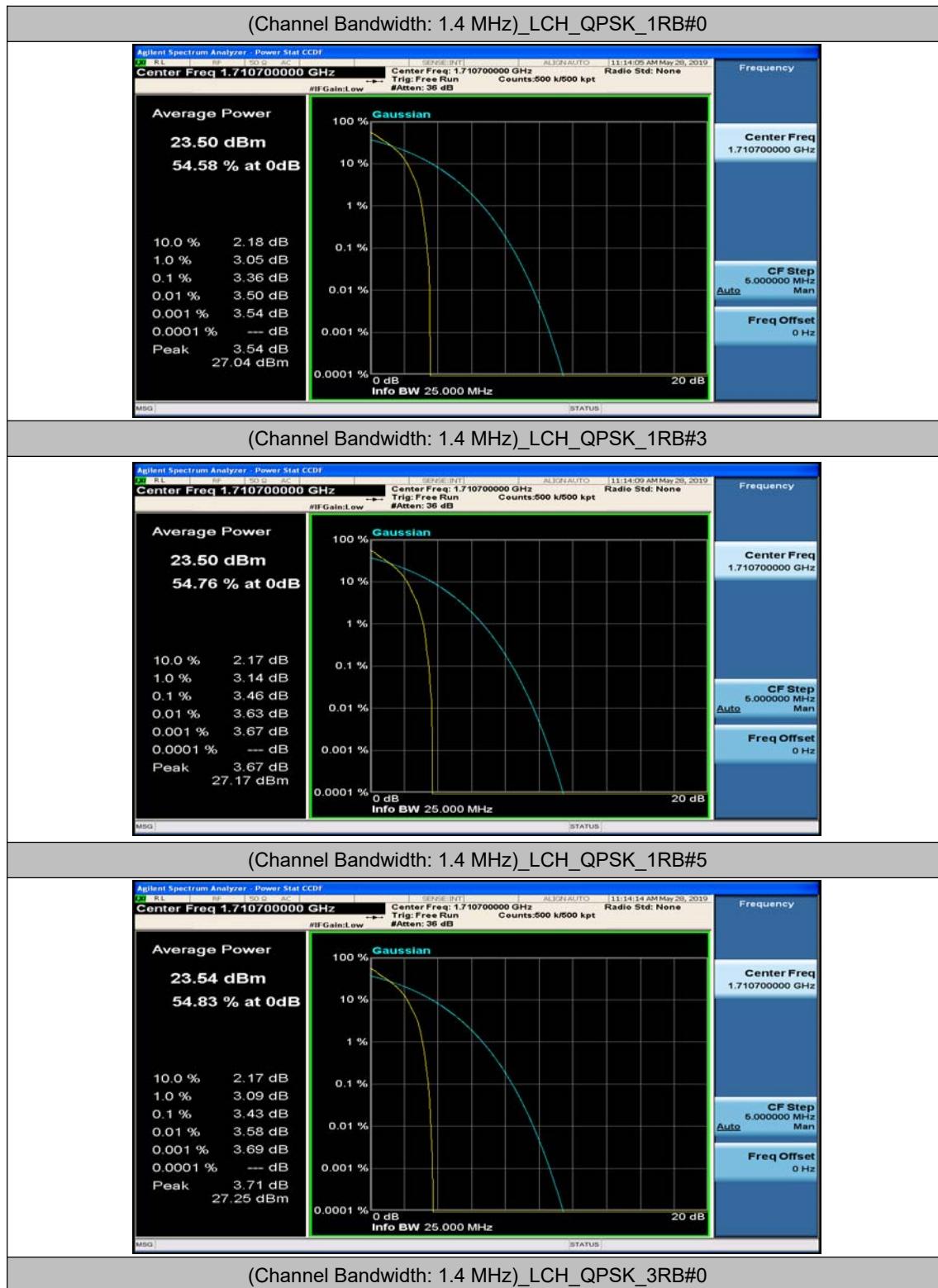
## Channel Bandwidth: 20 MHz

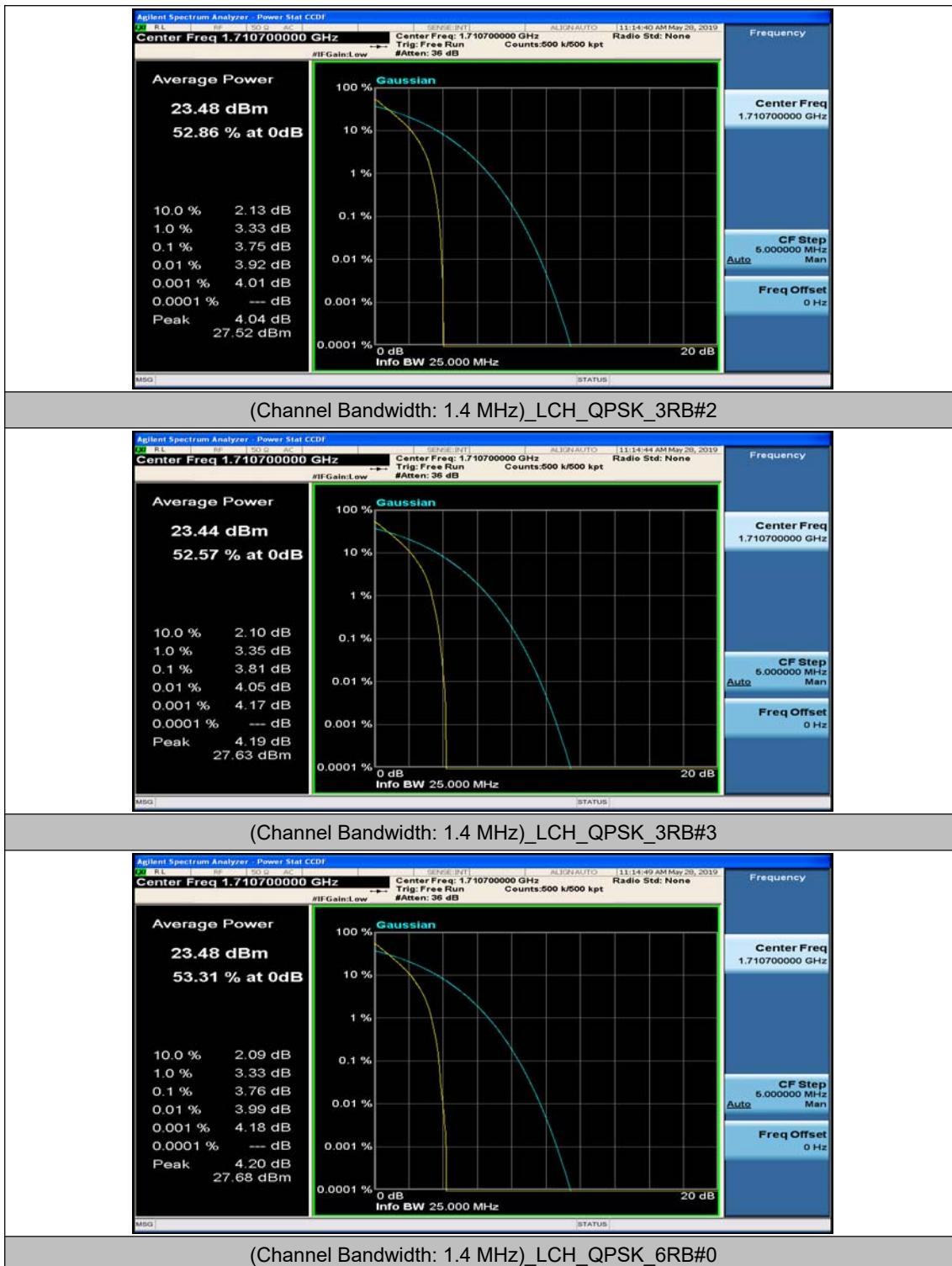
Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	3.49	<13	PASS
		1	49	4.19	<13	PASS
		1	99	4.4	<13	PASS
		50	0	4.82	<13	PASS
		50	25	5.01	<13	PASS
		50	50	5.2	<13	PASS
		100	0	5.27	<13	PASS
	MCH	1	0	4.43	<13	PASS
		1	49	4.37	<13	PASS
		1	99	4.13	<13	PASS
		50	0	5.26	<13	PASS
		50	25	5.2	<13	PASS
		50	50	5.14	<13	PASS
		100	0	5.45	<13	PASS
16QAM	LCH	1	0	4.2	<13	PASS
		1	49	3.79	<13	PASS
		1	99	3.61	<13	PASS
		50	0	5.18	<13	PASS
		50	25	4.94	<13	PASS
		50	50	4.83	<13	PASS
		100	0	5.25	<13	PASS
	MCH	1	0	4.51	<13	PASS
		1	49	4.98	<13	PASS
		1	99	5.09	<13	PASS
		50	0	5.62	<13	PASS
		50	25	5.82	<13	PASS
		50	50	5.99	<13	PASS
		100	0	6	<13	PASS
	HCH	1	0	5.13	<13	PASS
		1	49	5.03	<13	PASS
		1	99	4.65	<13	PASS
		50	0	6.03	<13	PASS
		50	25	5.94	<13	PASS
		50	50	5.93	<13	PASS
		100	0	6.09	<13	PASS
	HCH	1	0	5.2	<13	PASS

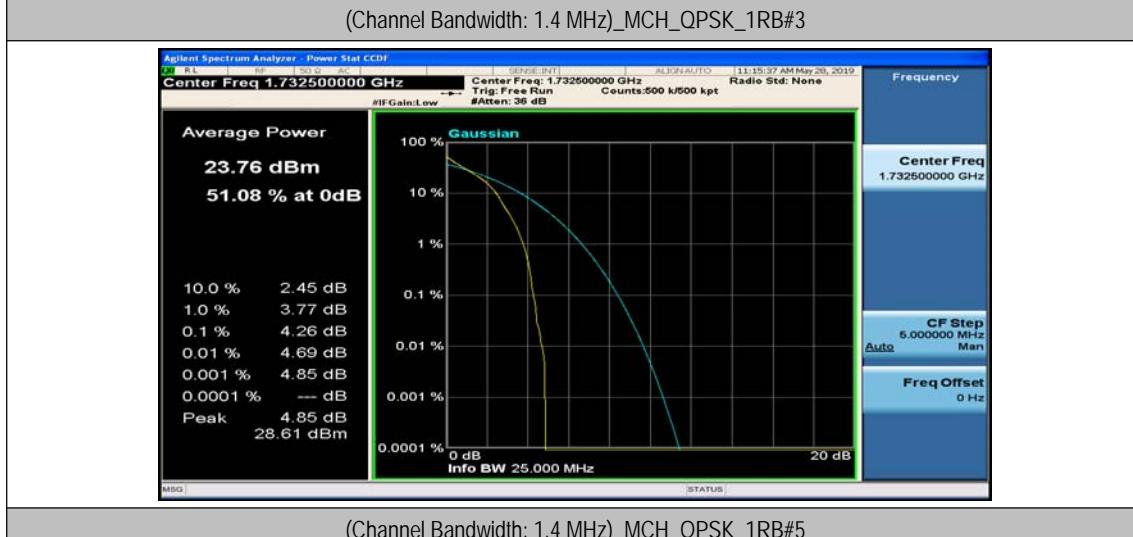
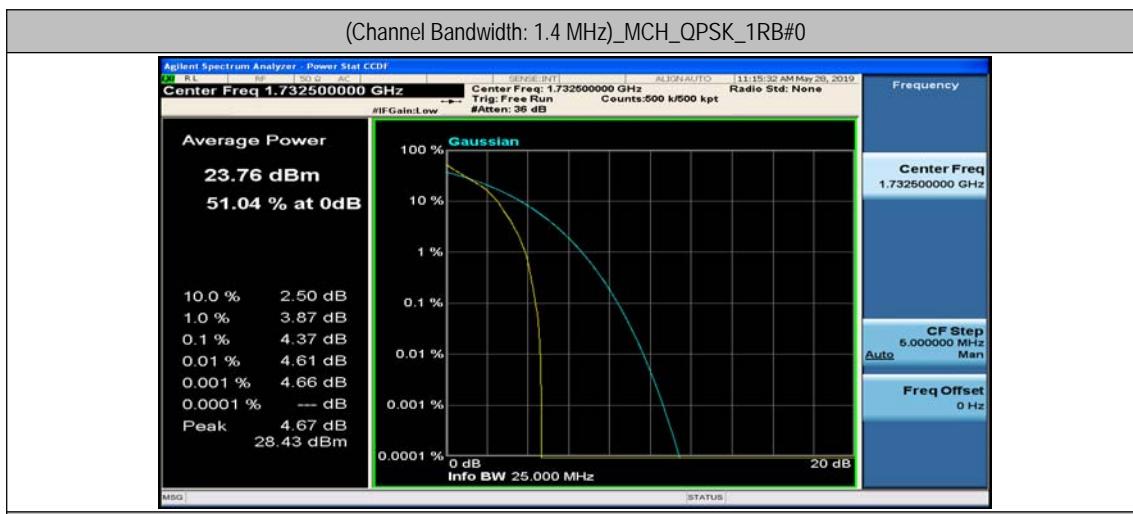
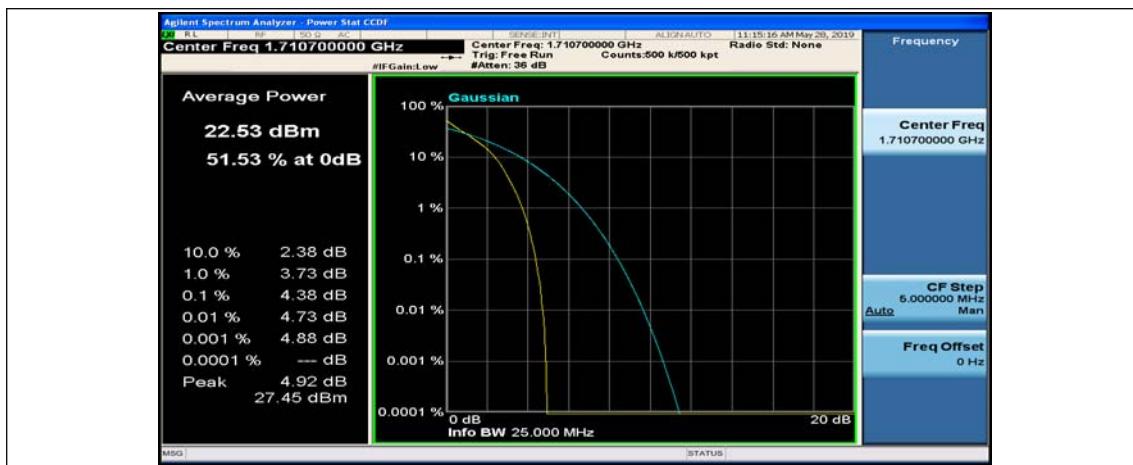
		1	49	4.76	<13	PASS
		1	99	4.62	<13	PASS
		50	0	5.97	<13	PASS
		50	25	5.78	<13	PASS
		50	50	5.64	<13	PASS
		100	0	6.02	<13	PASS

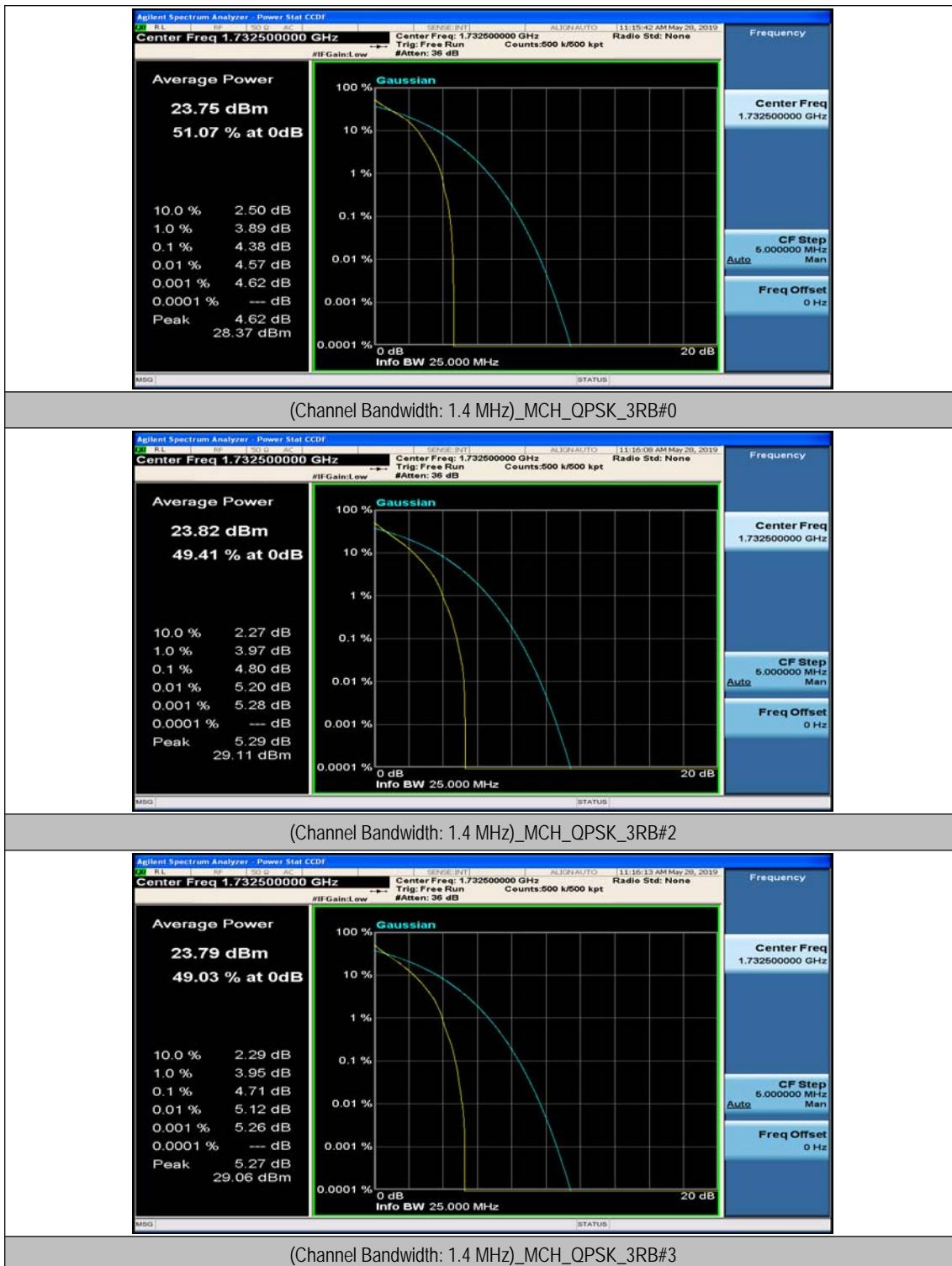
## Test Graphs

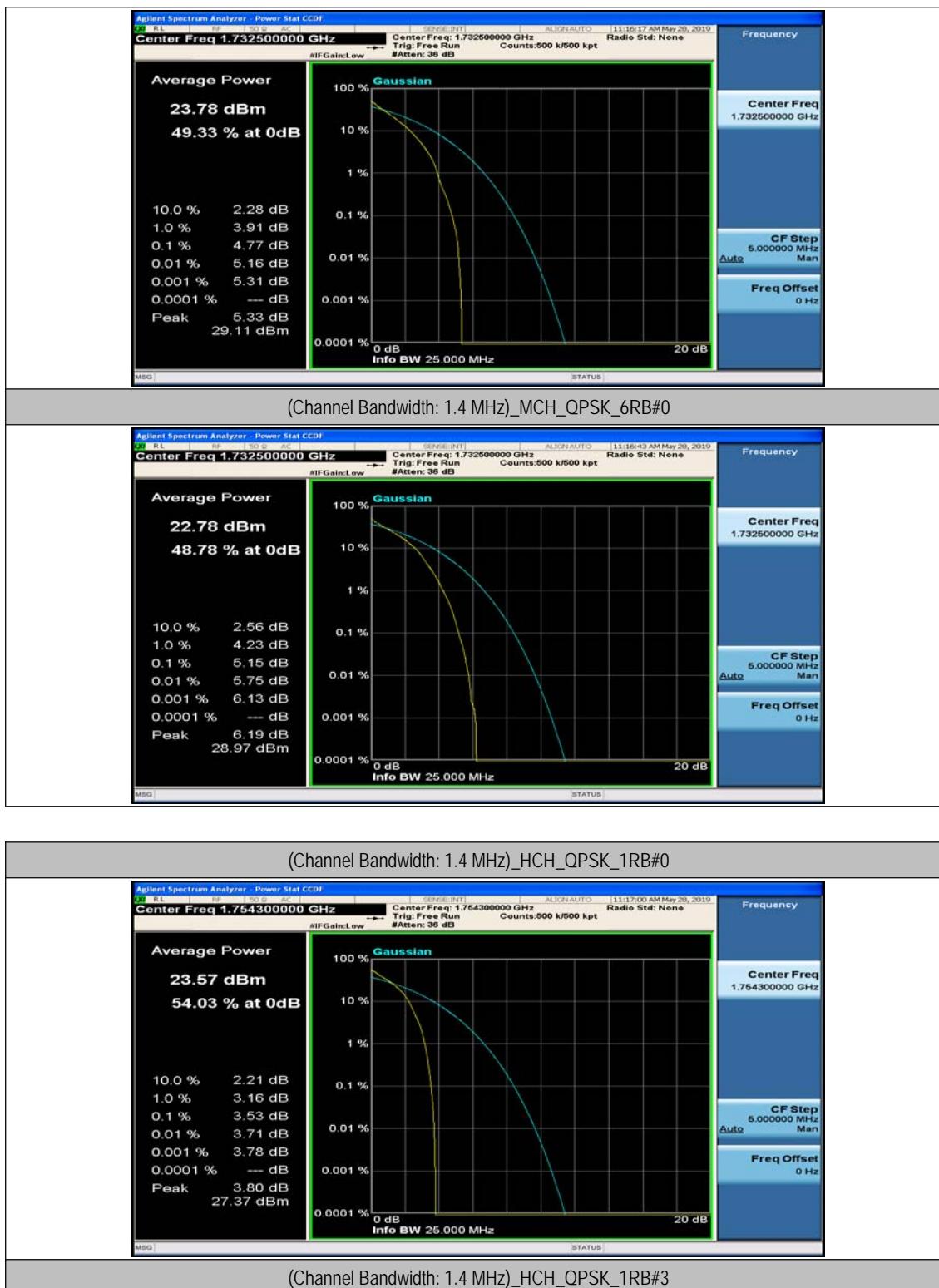
### Channel Bandwidth: 1.4 MHz

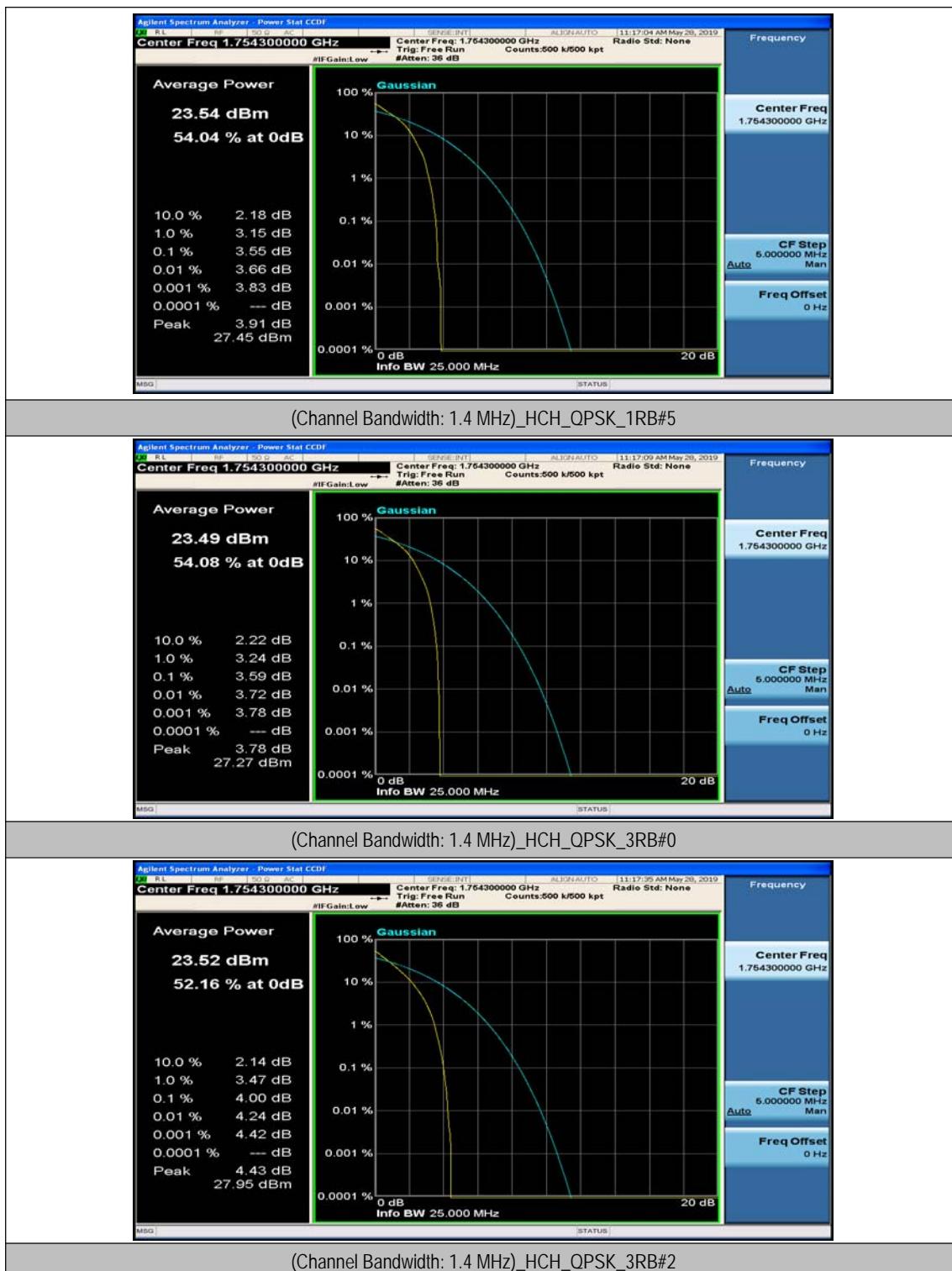


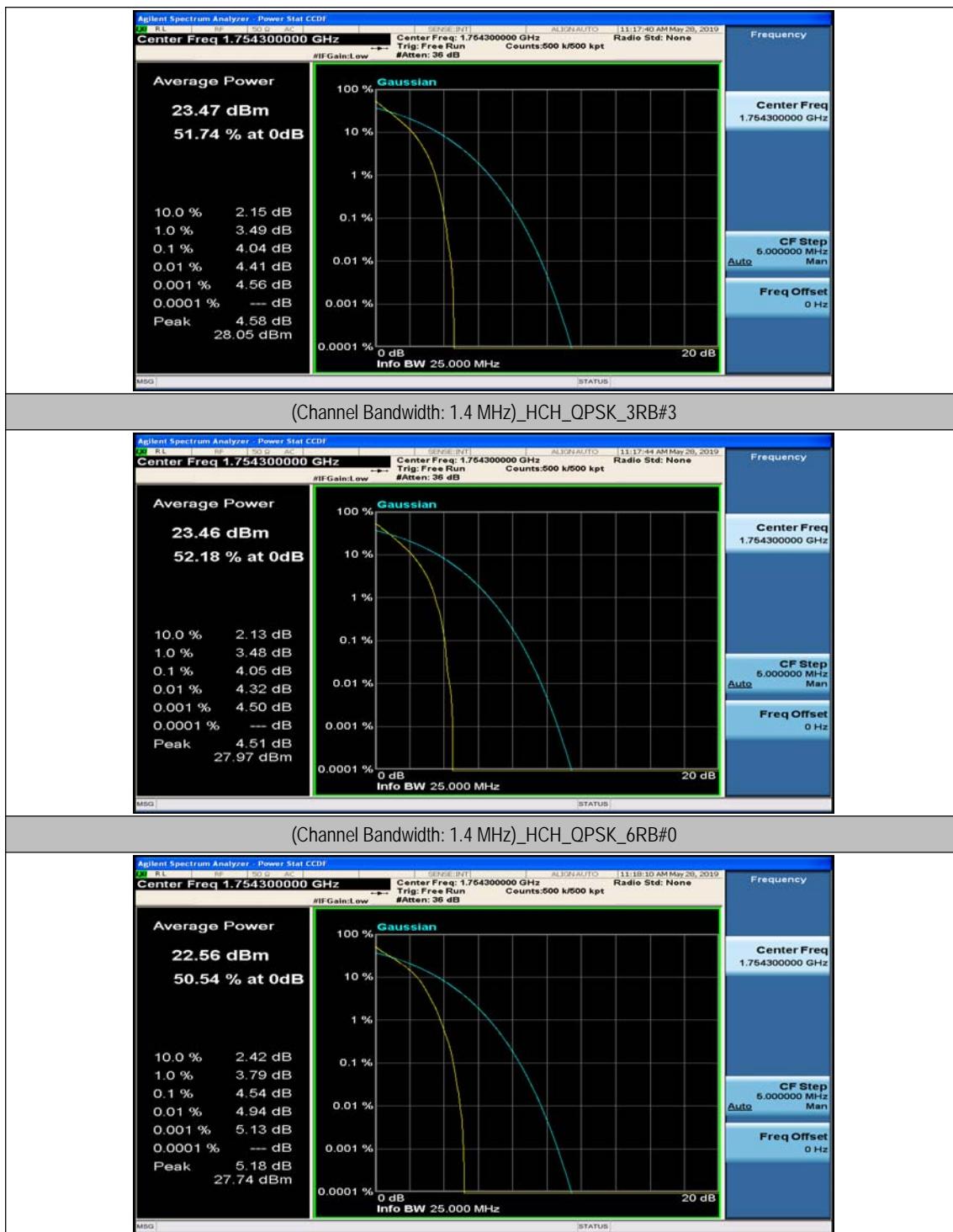


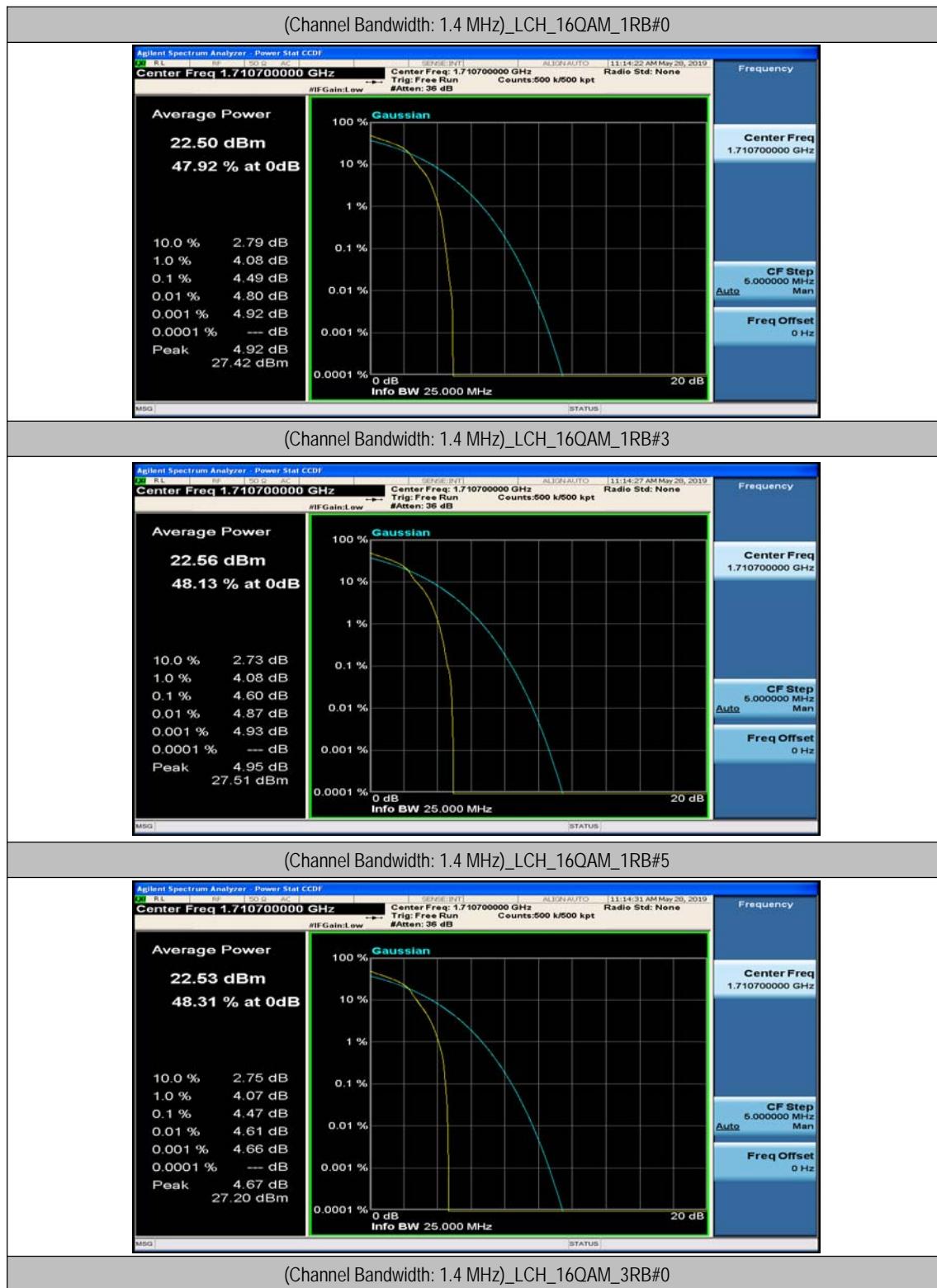


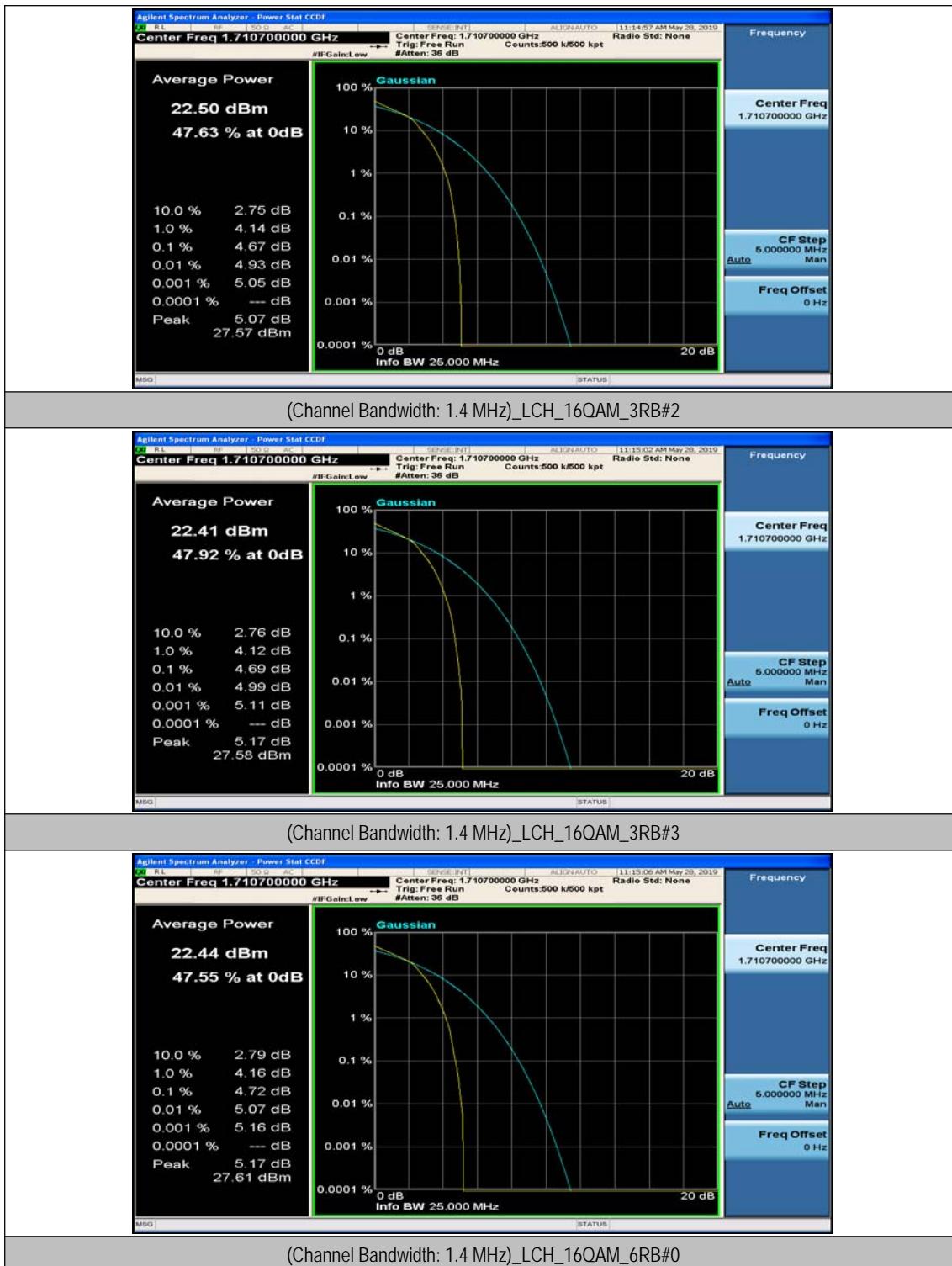


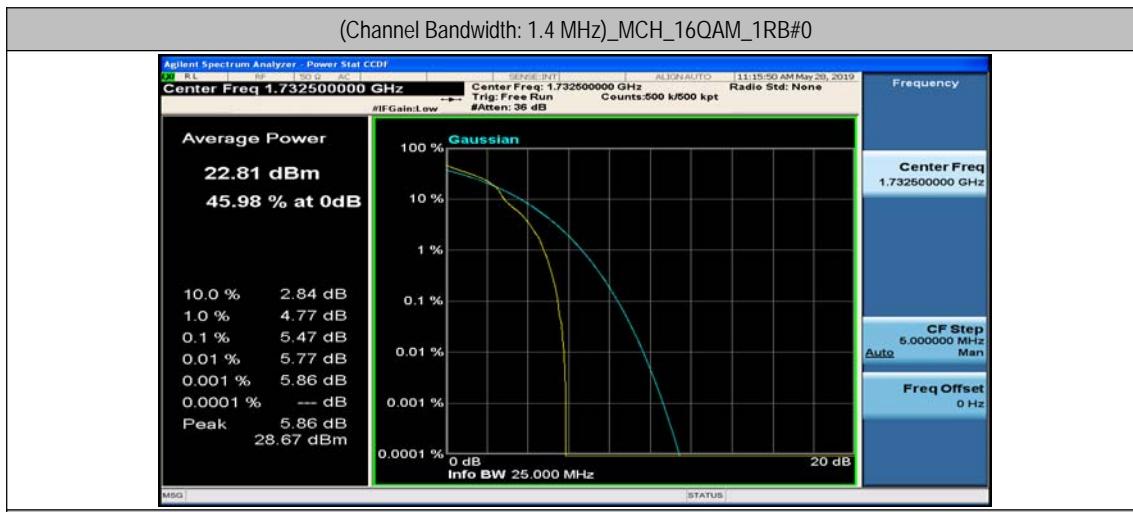
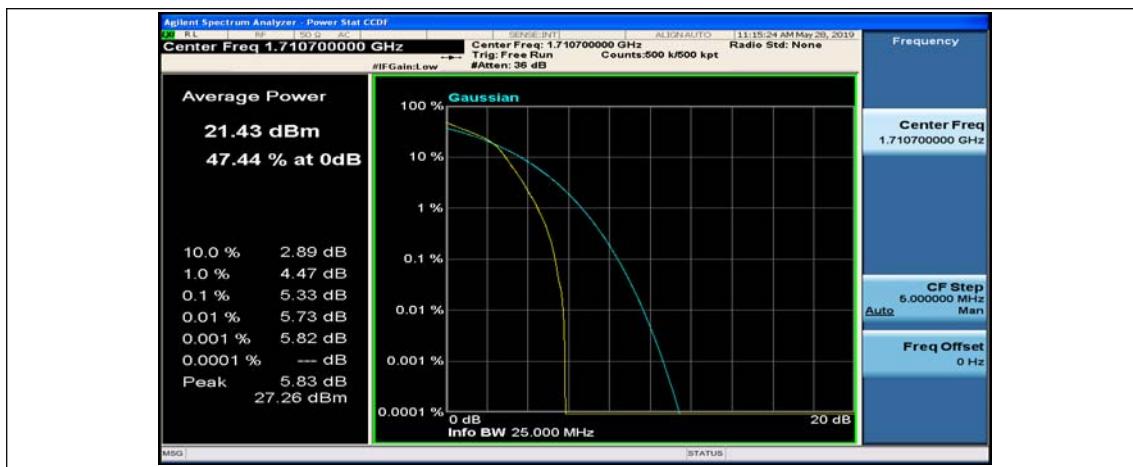


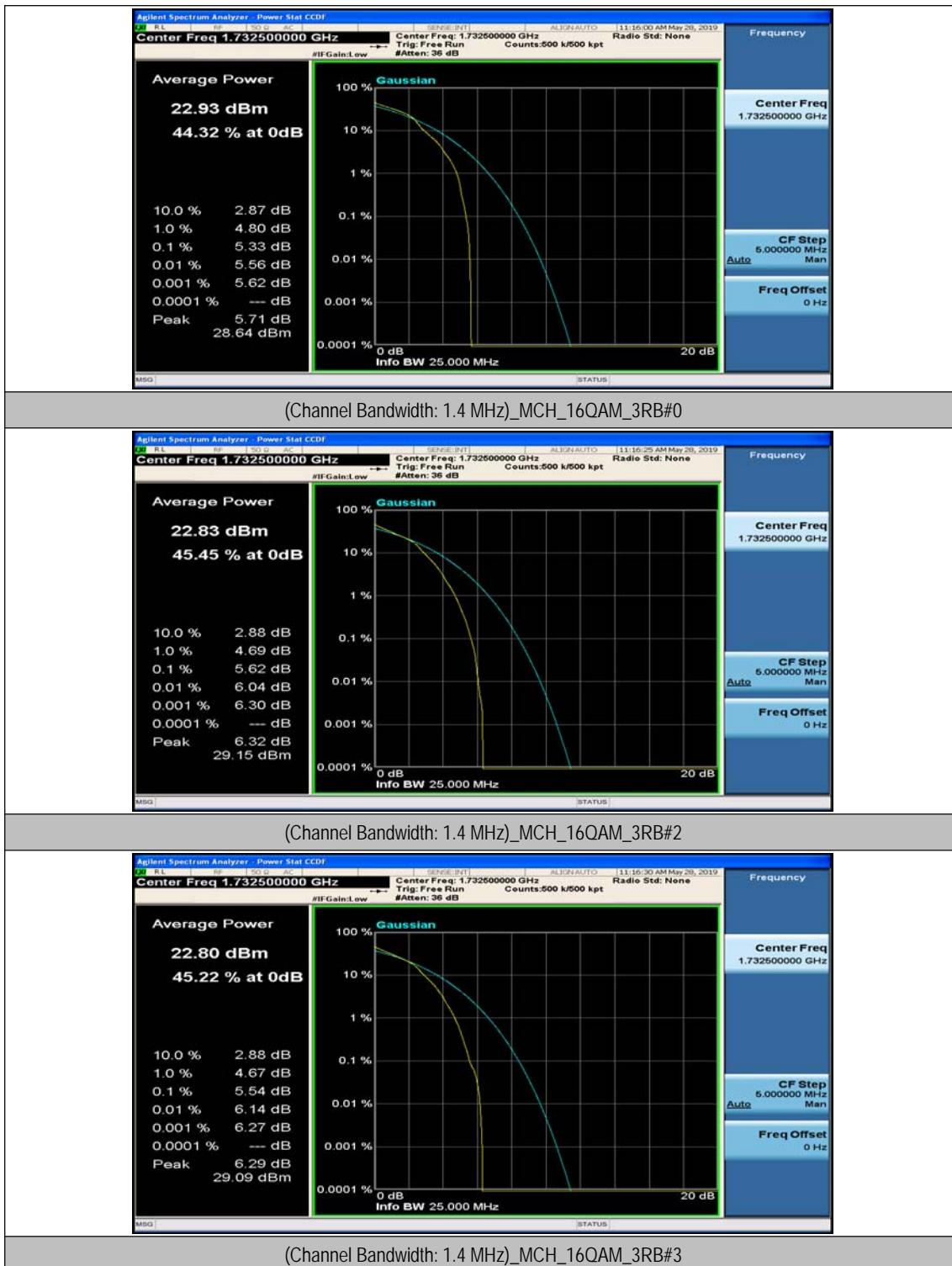


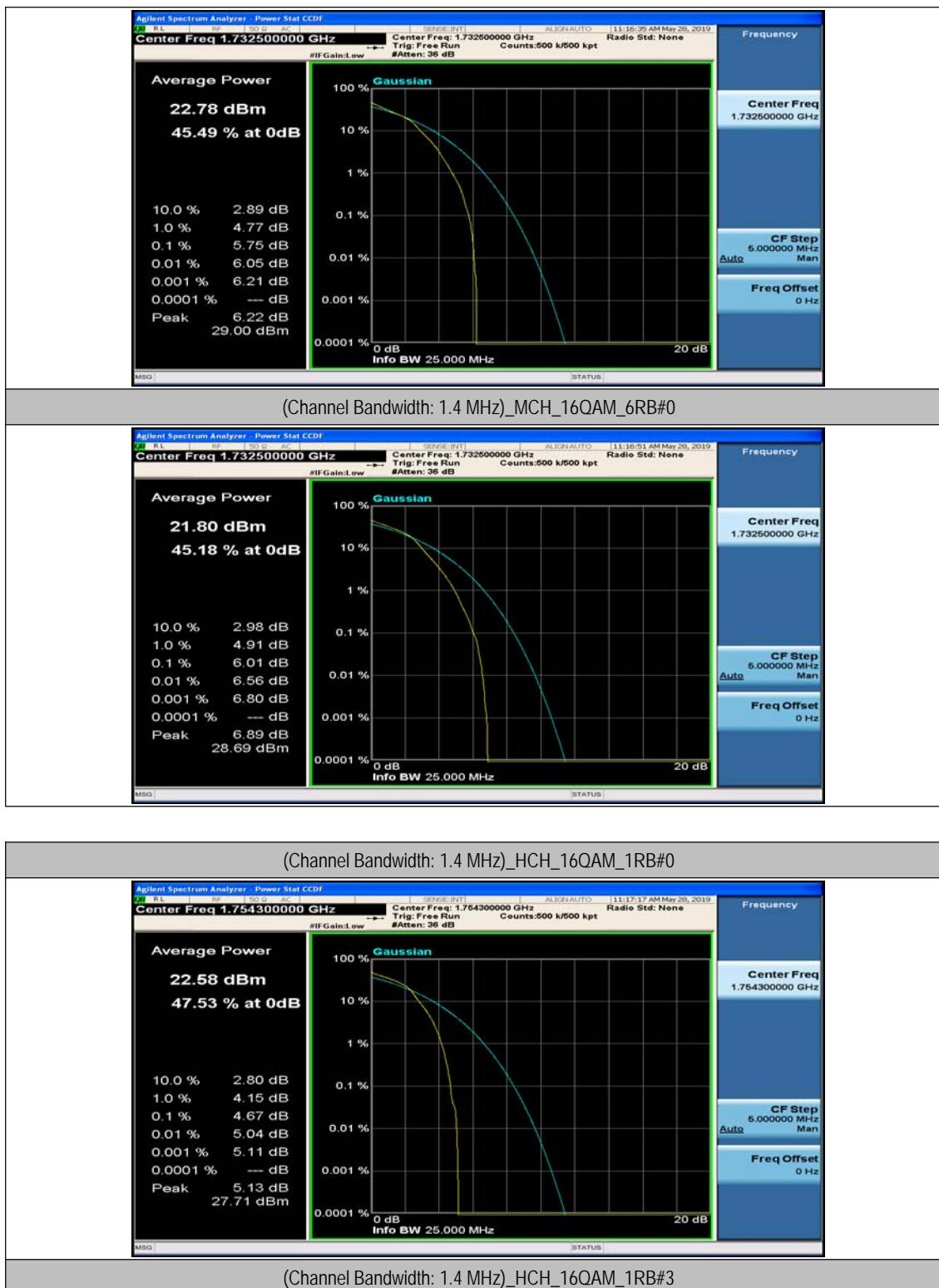


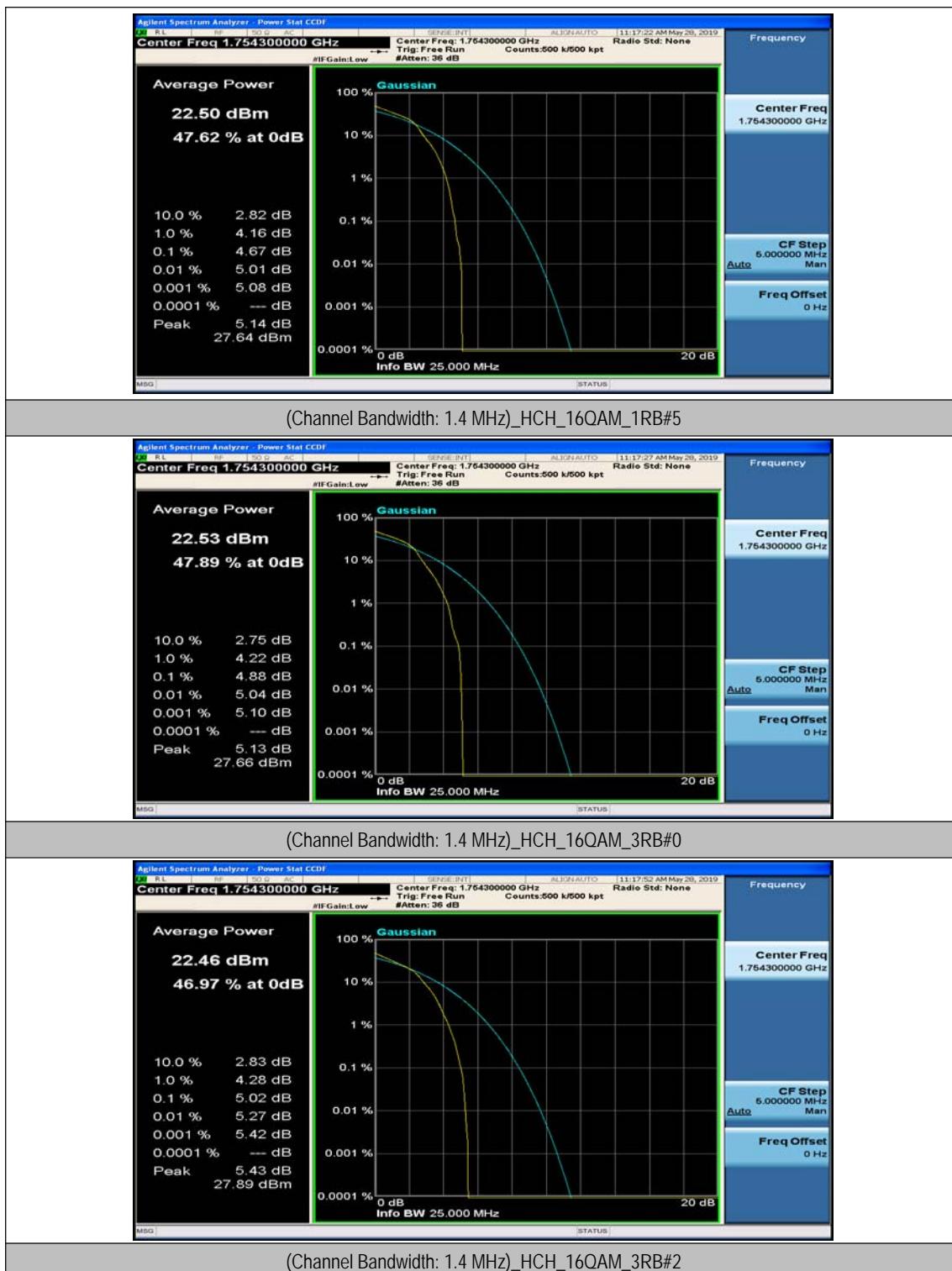


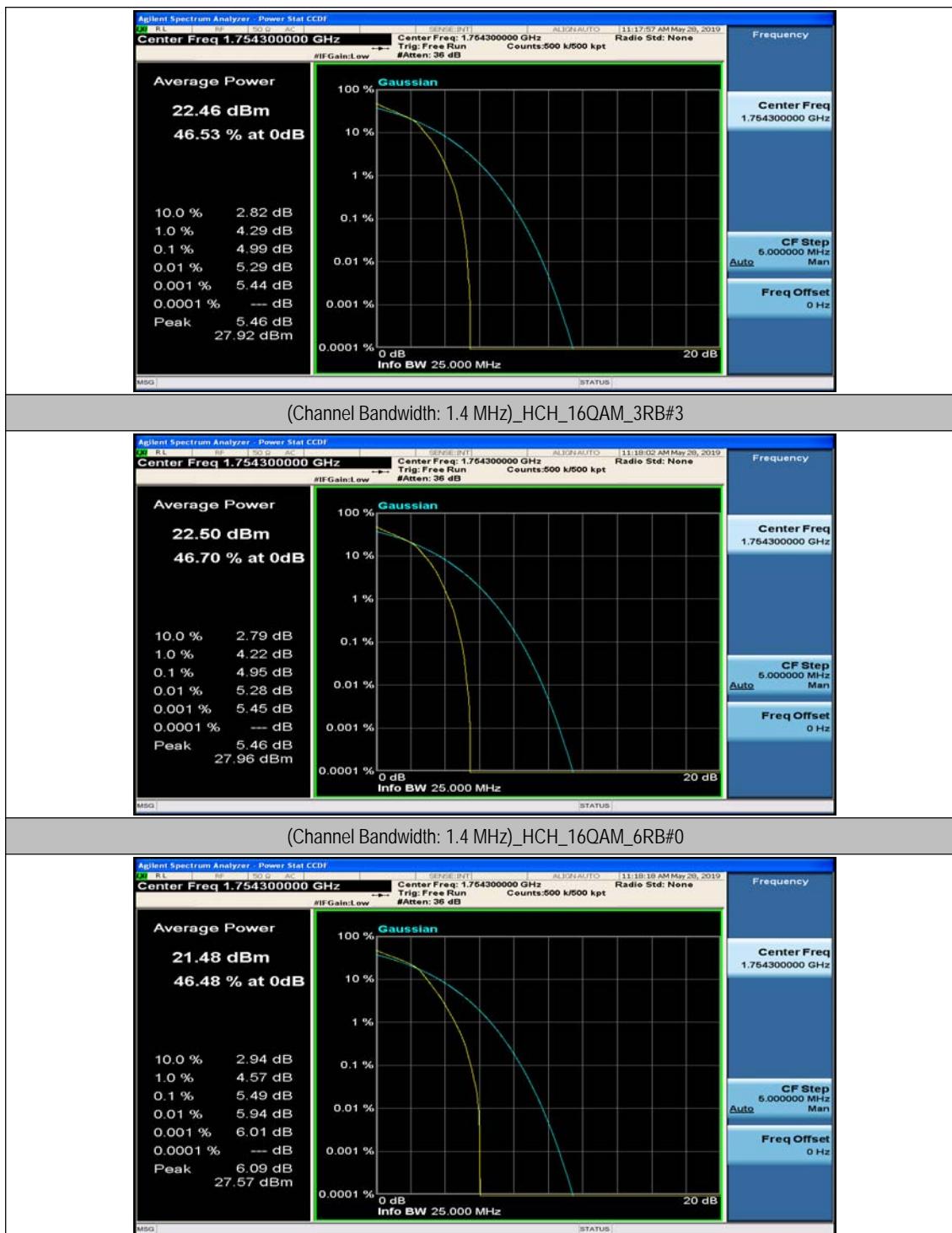




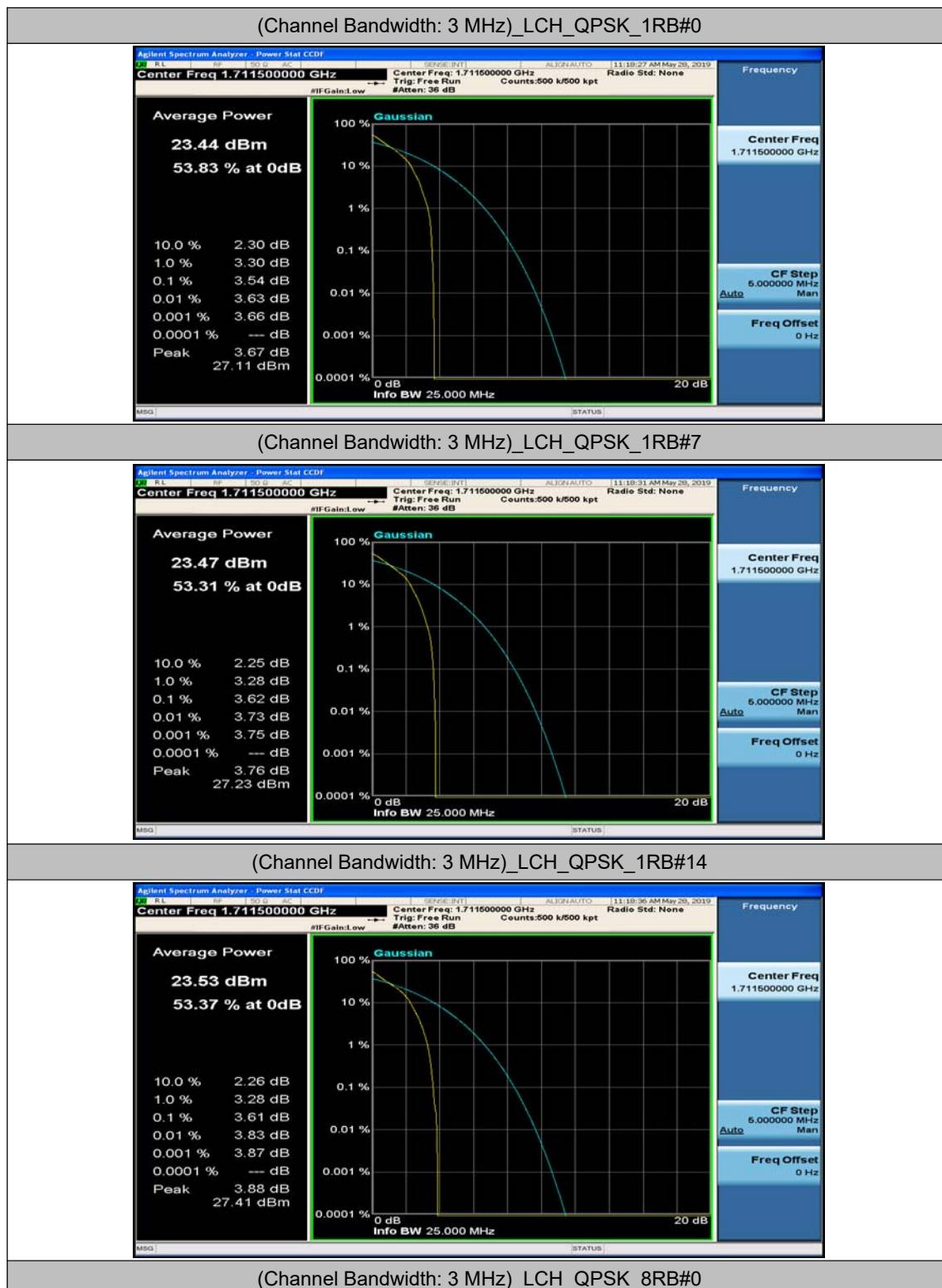


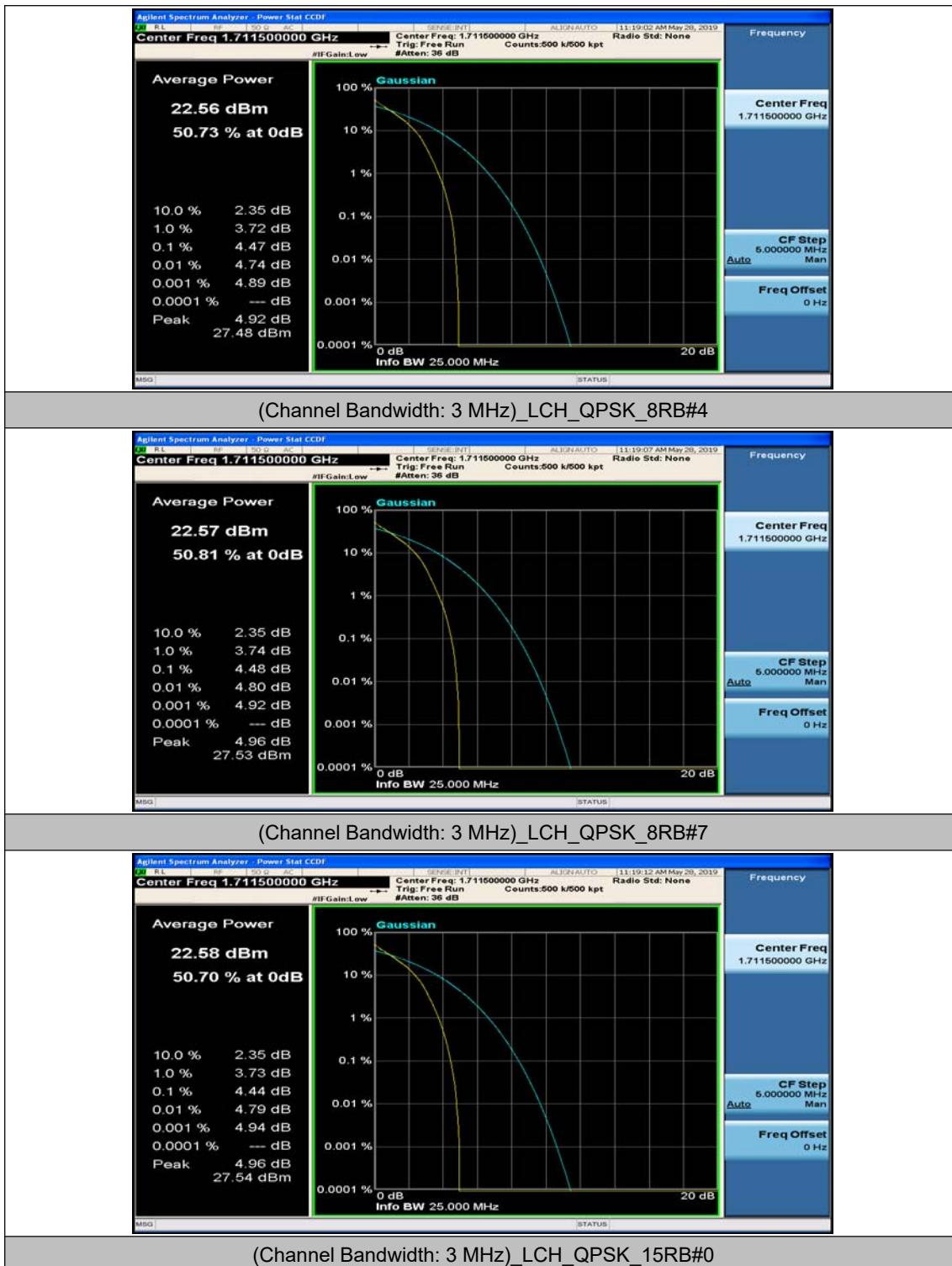


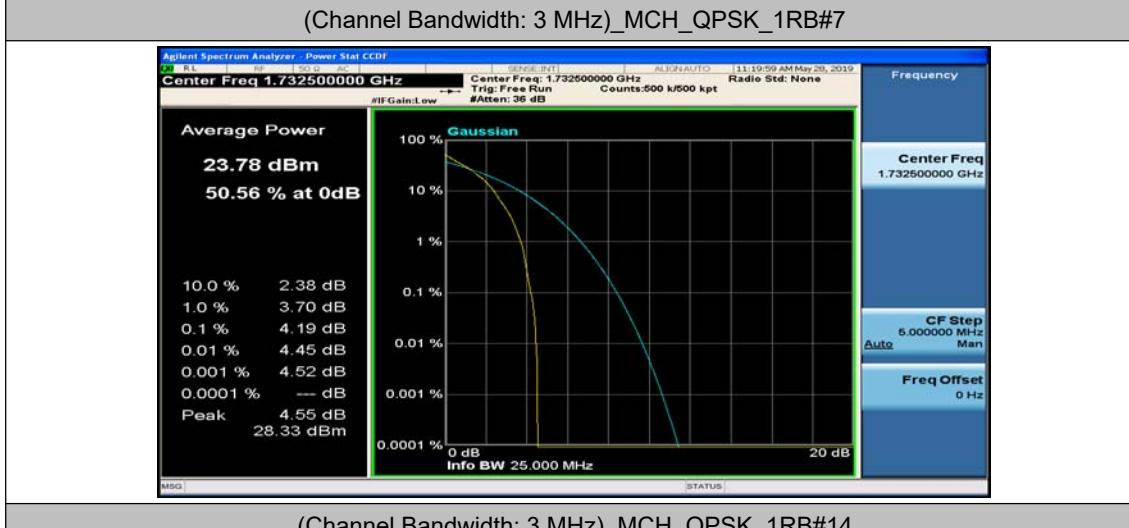
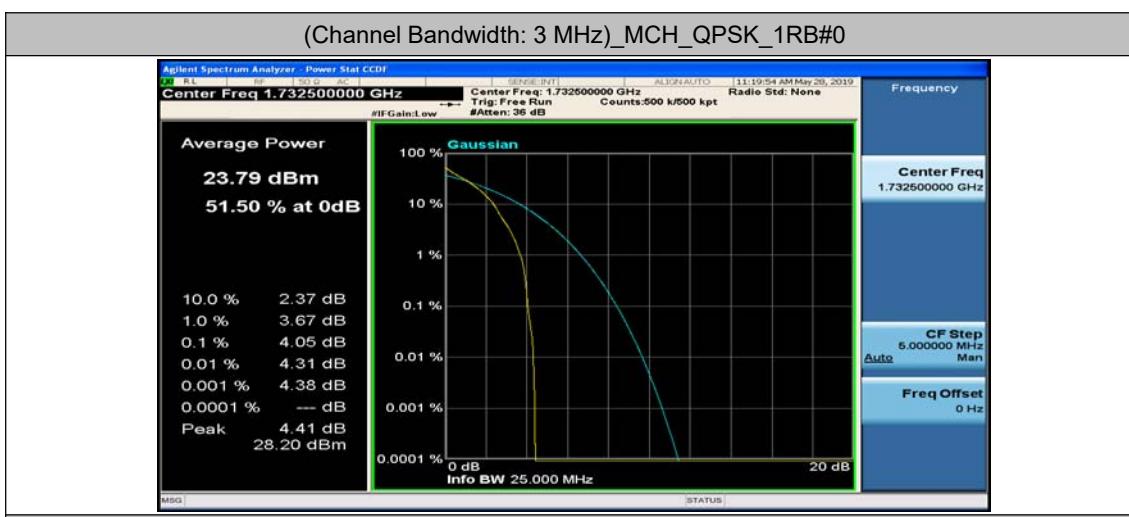
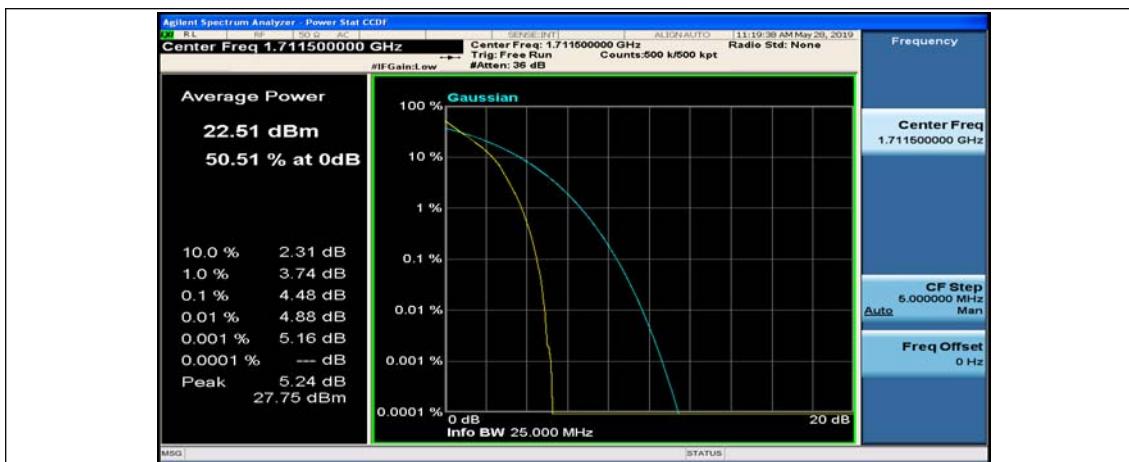




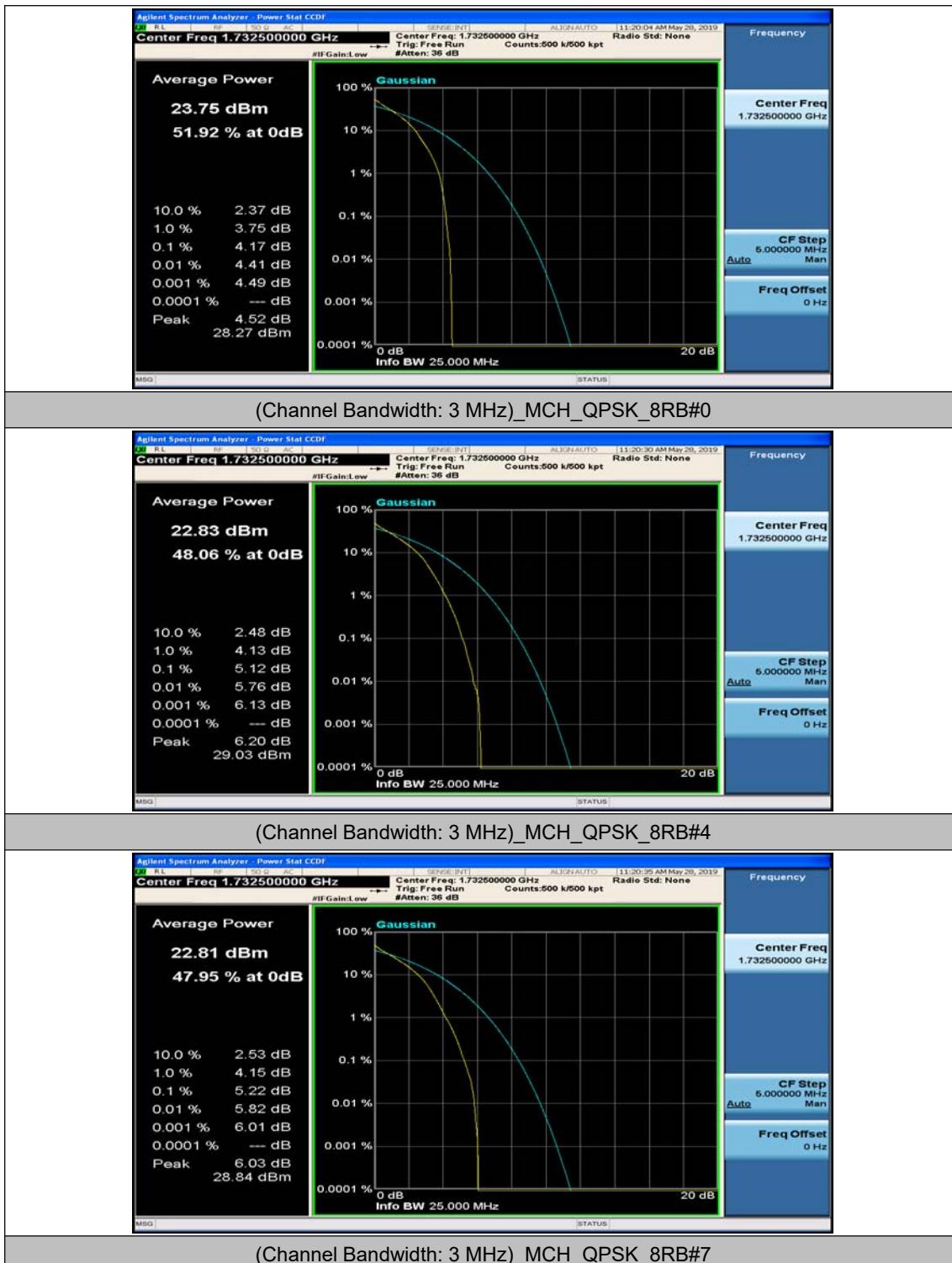
## Channel Bandwidth: 3 MHz

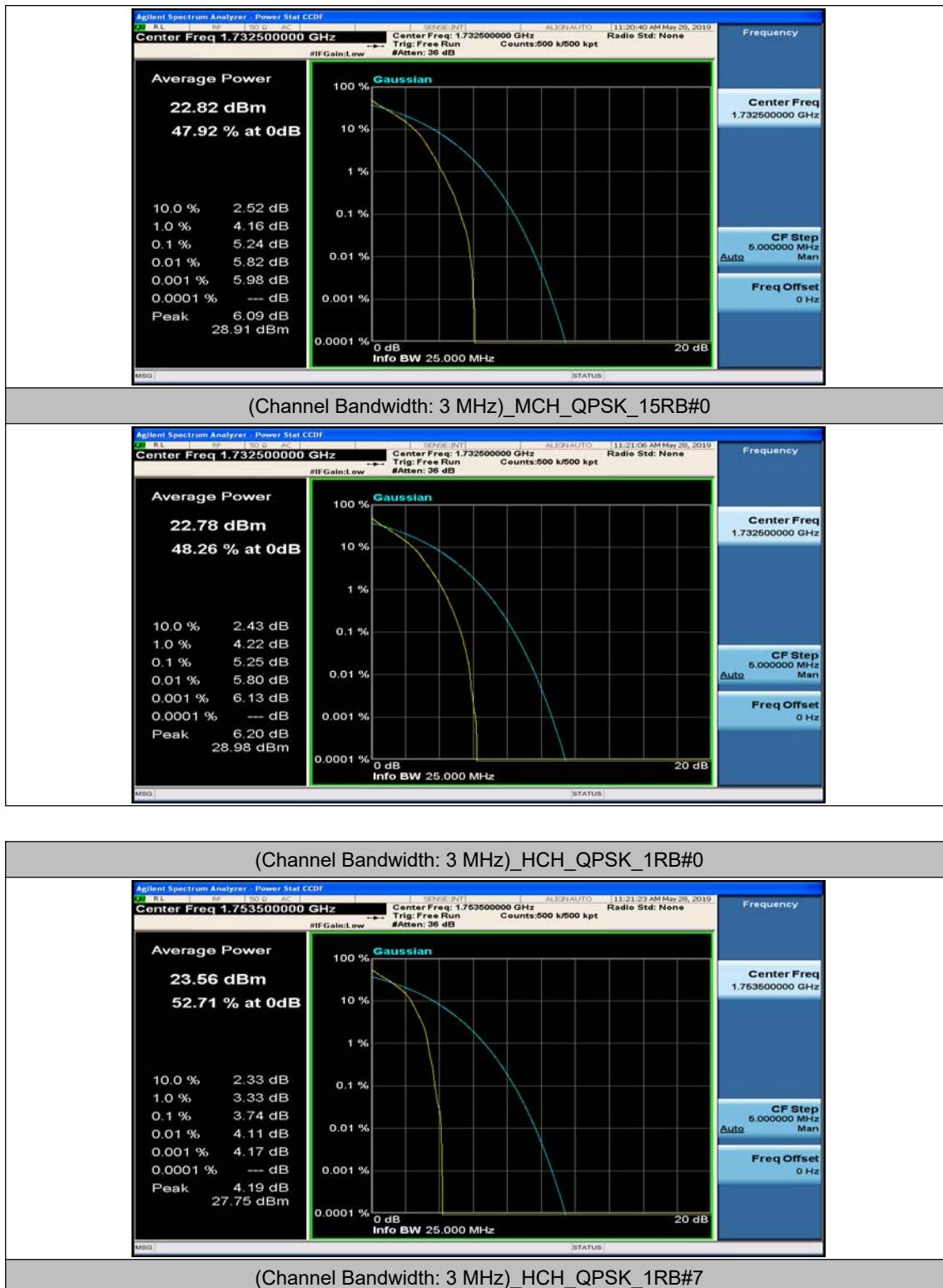


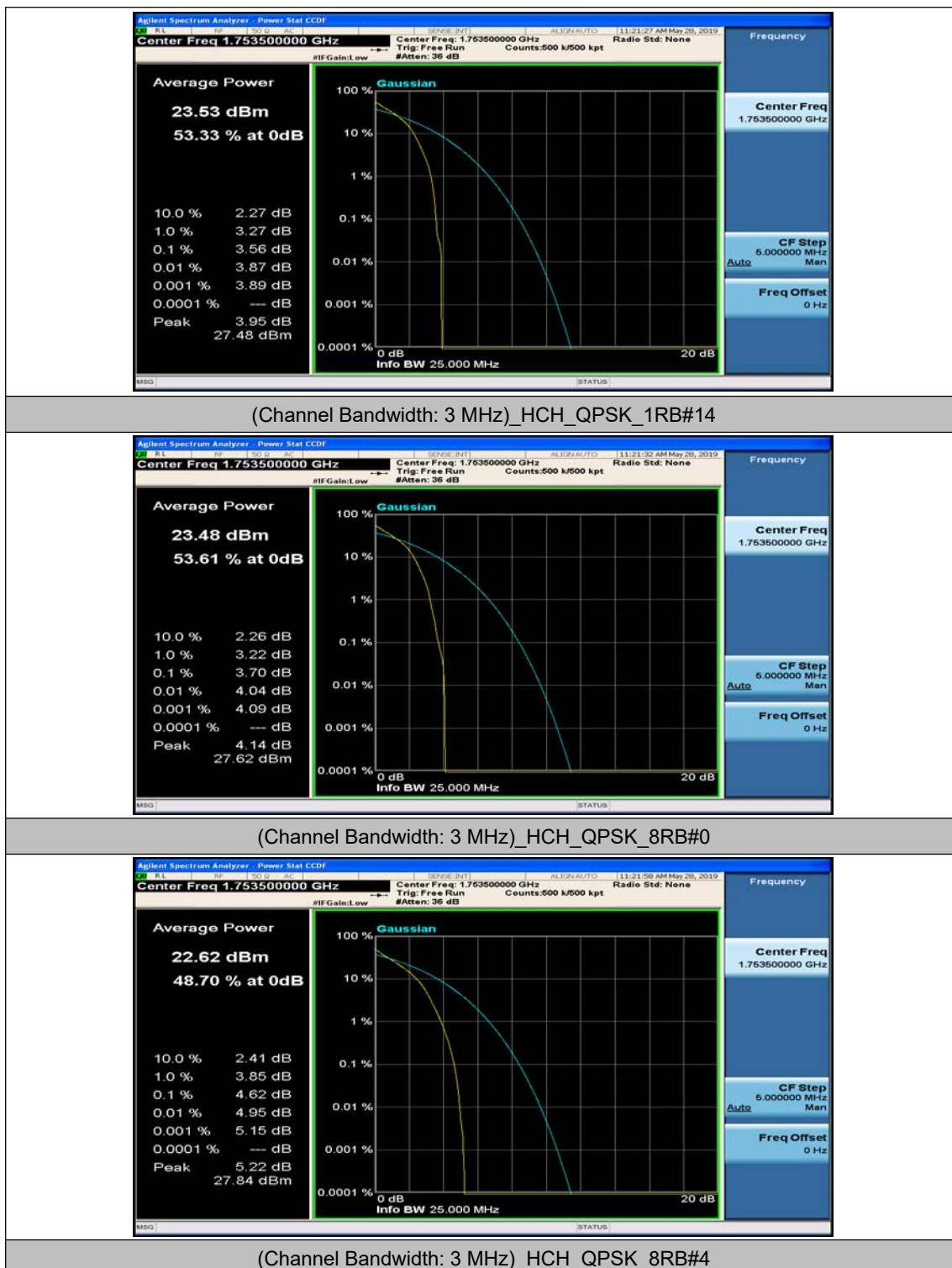


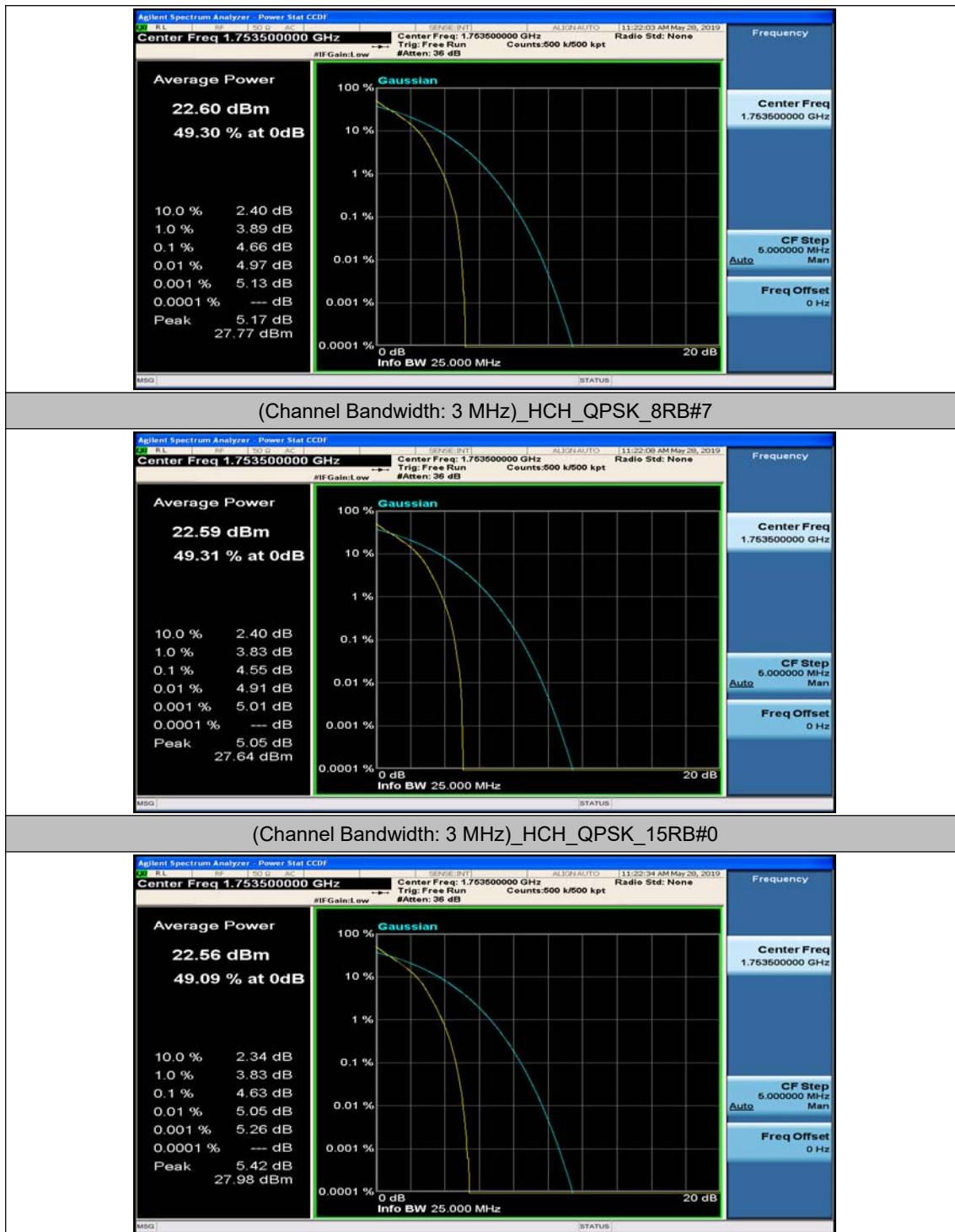


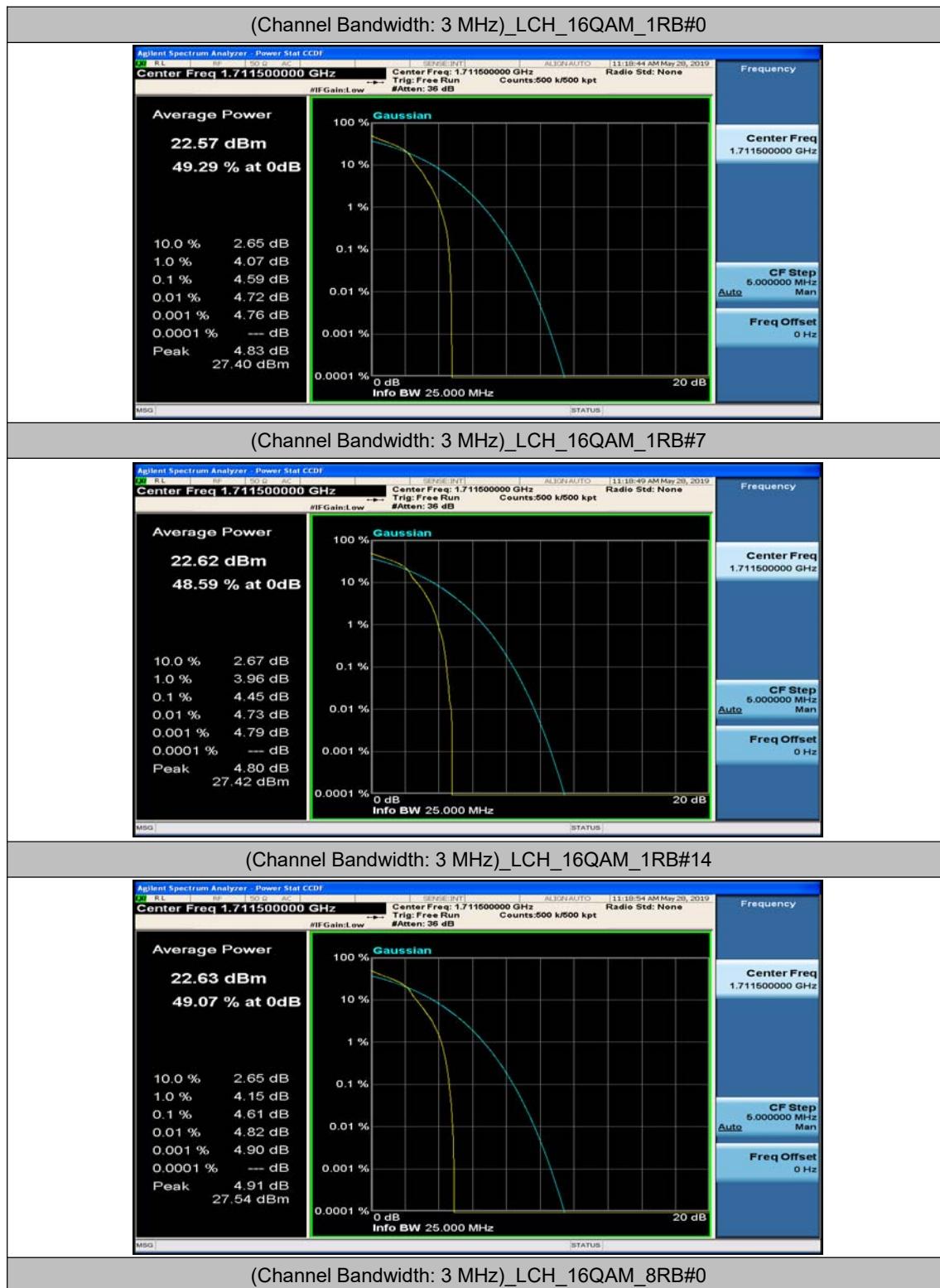
(Channel Bandwidth: 3 MHz)\_MCH\_QPSK\_1RB#14

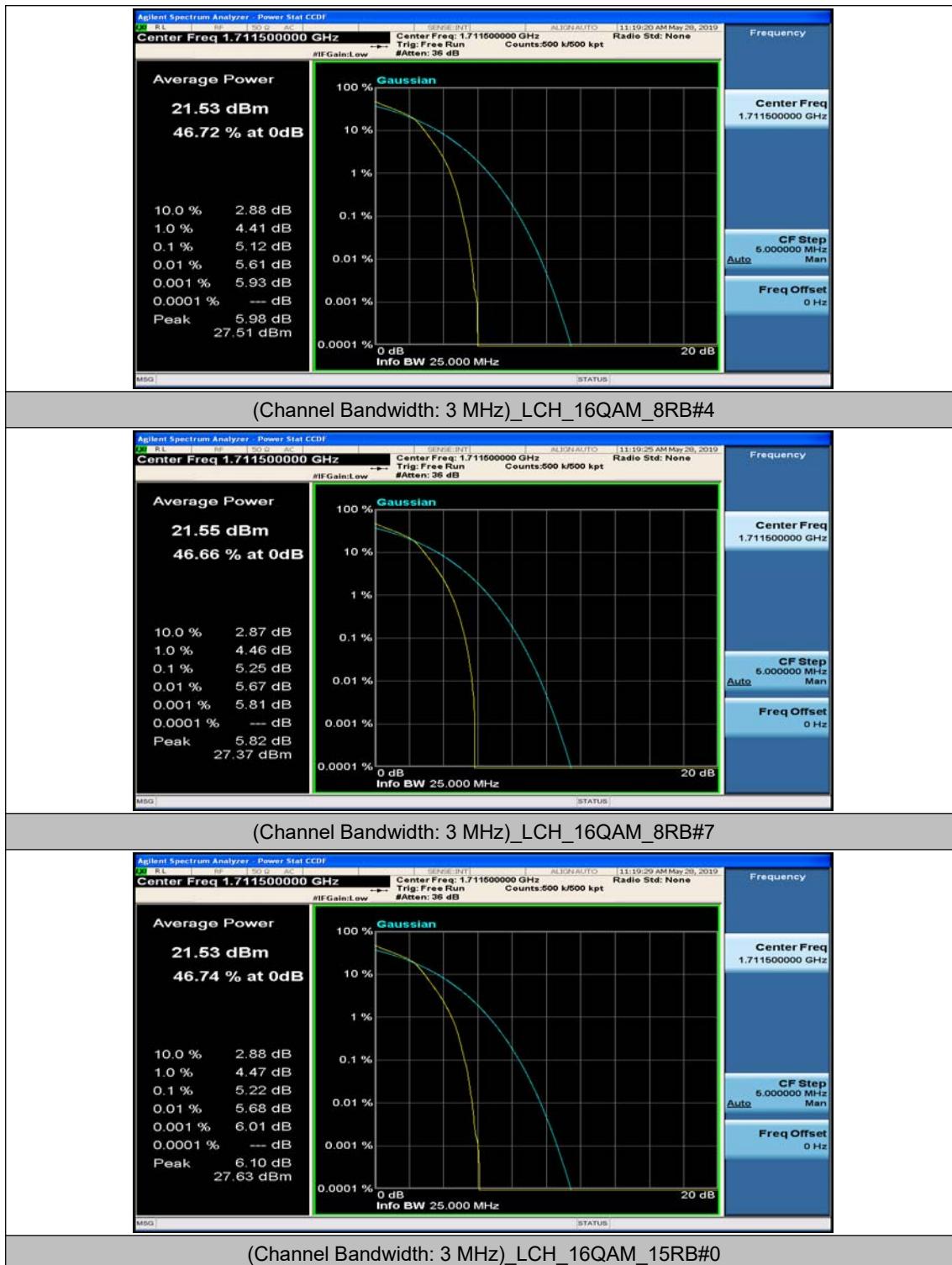


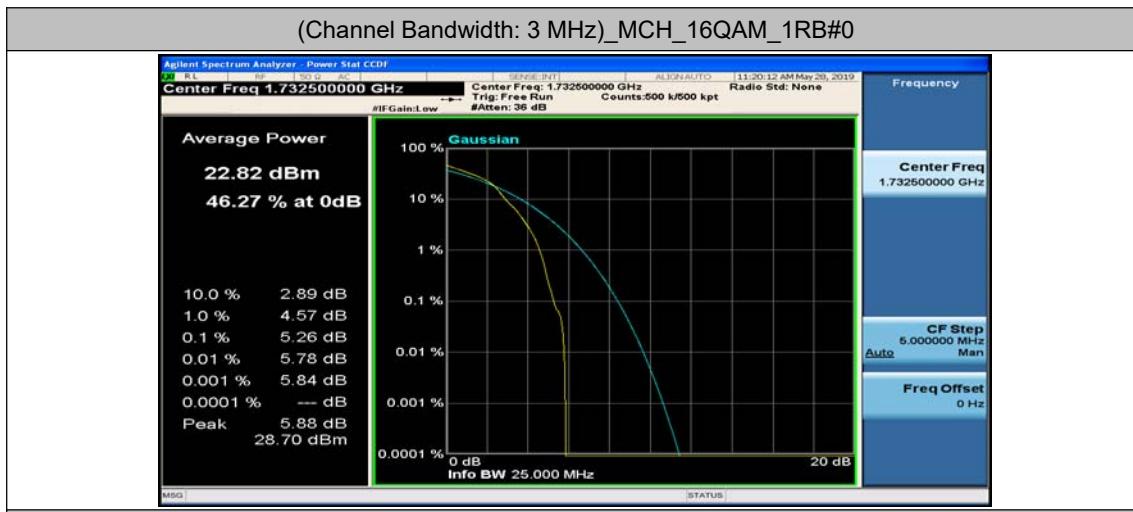
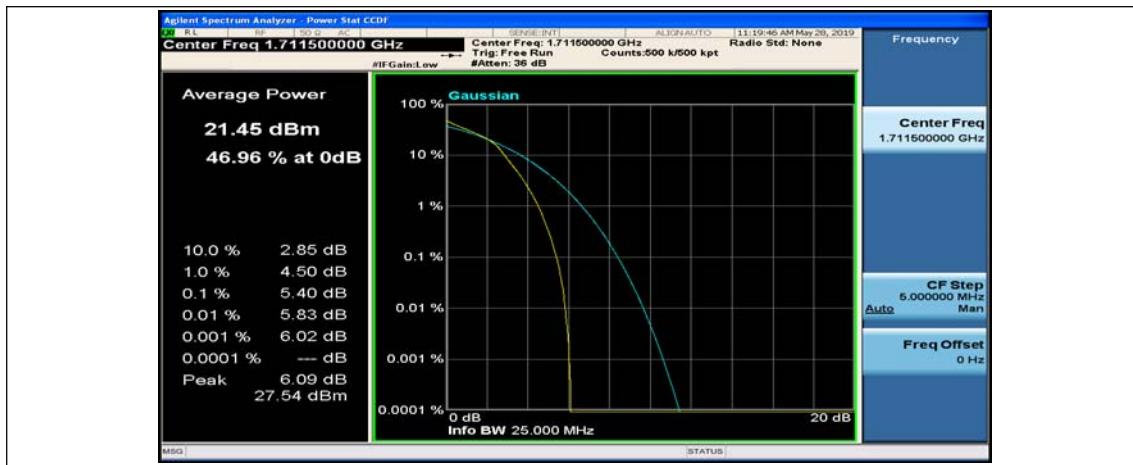




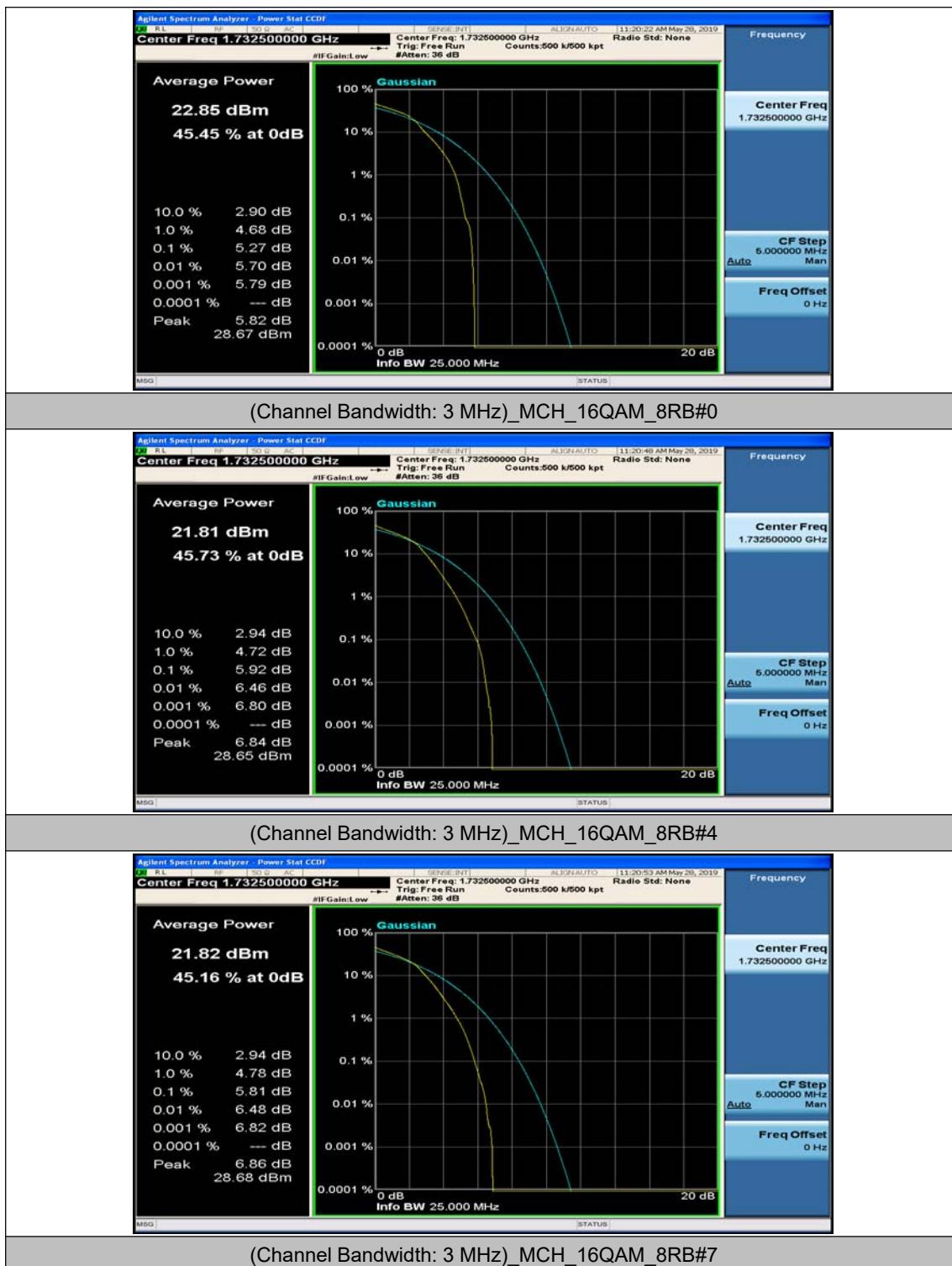


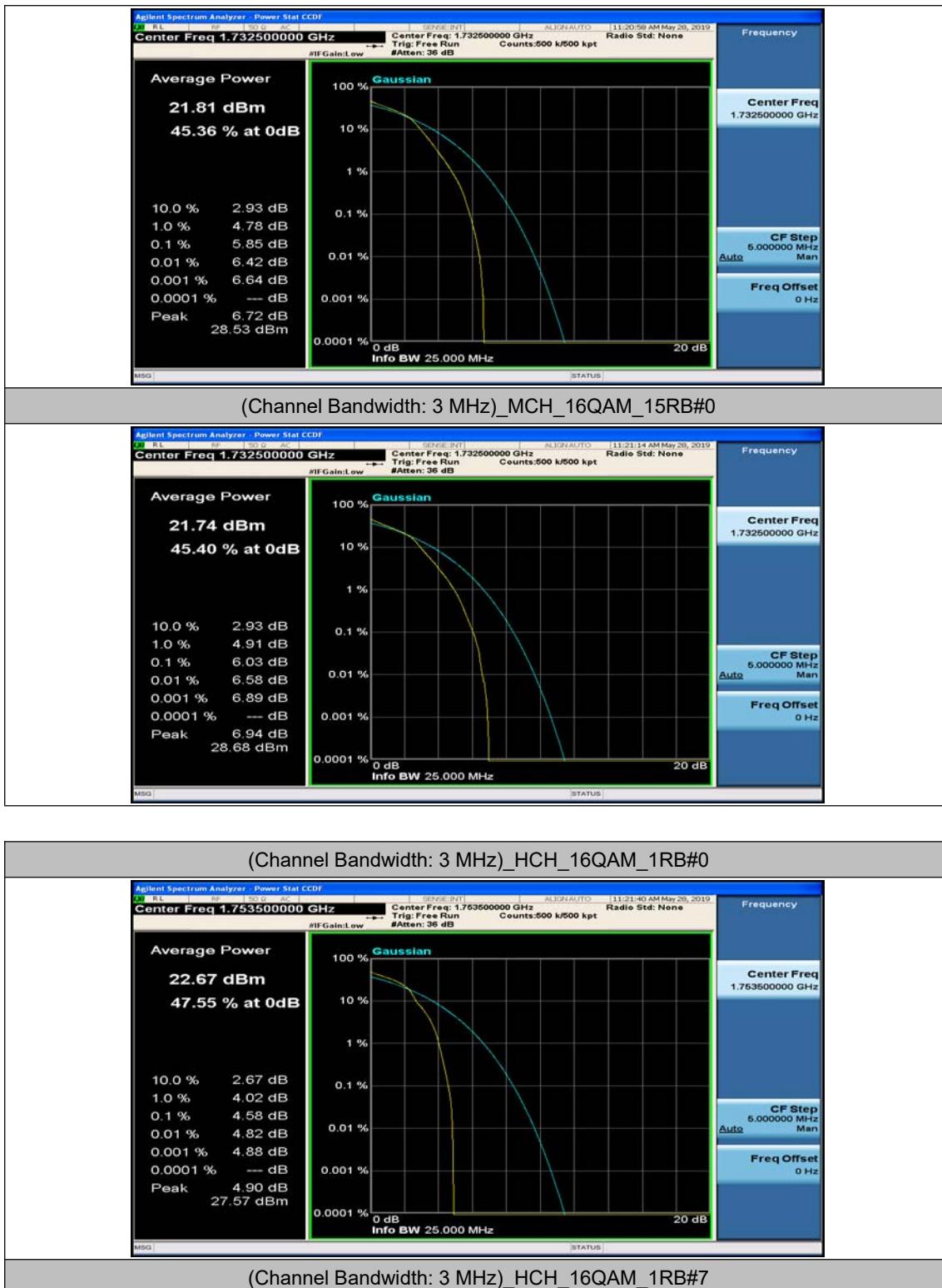


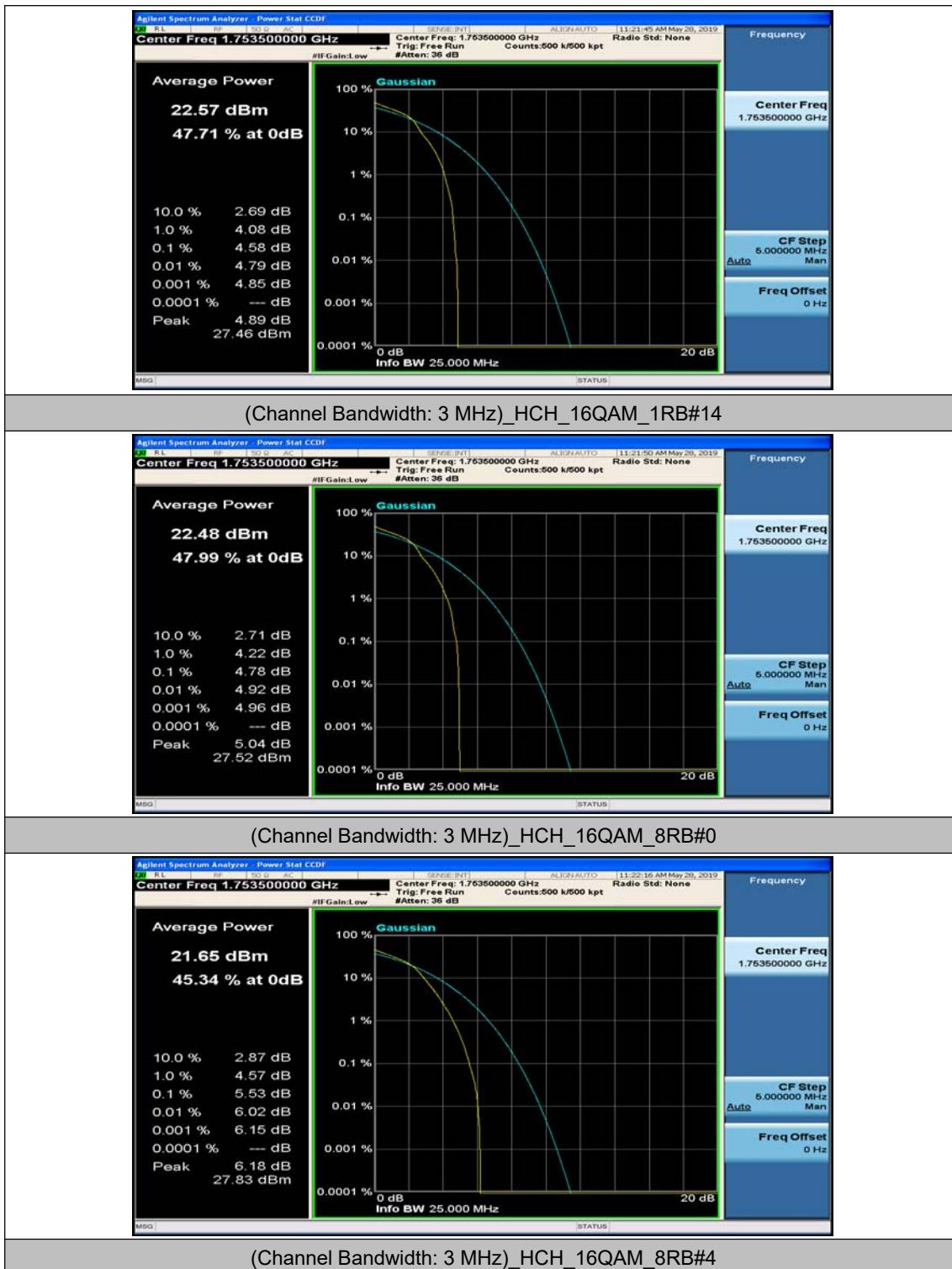


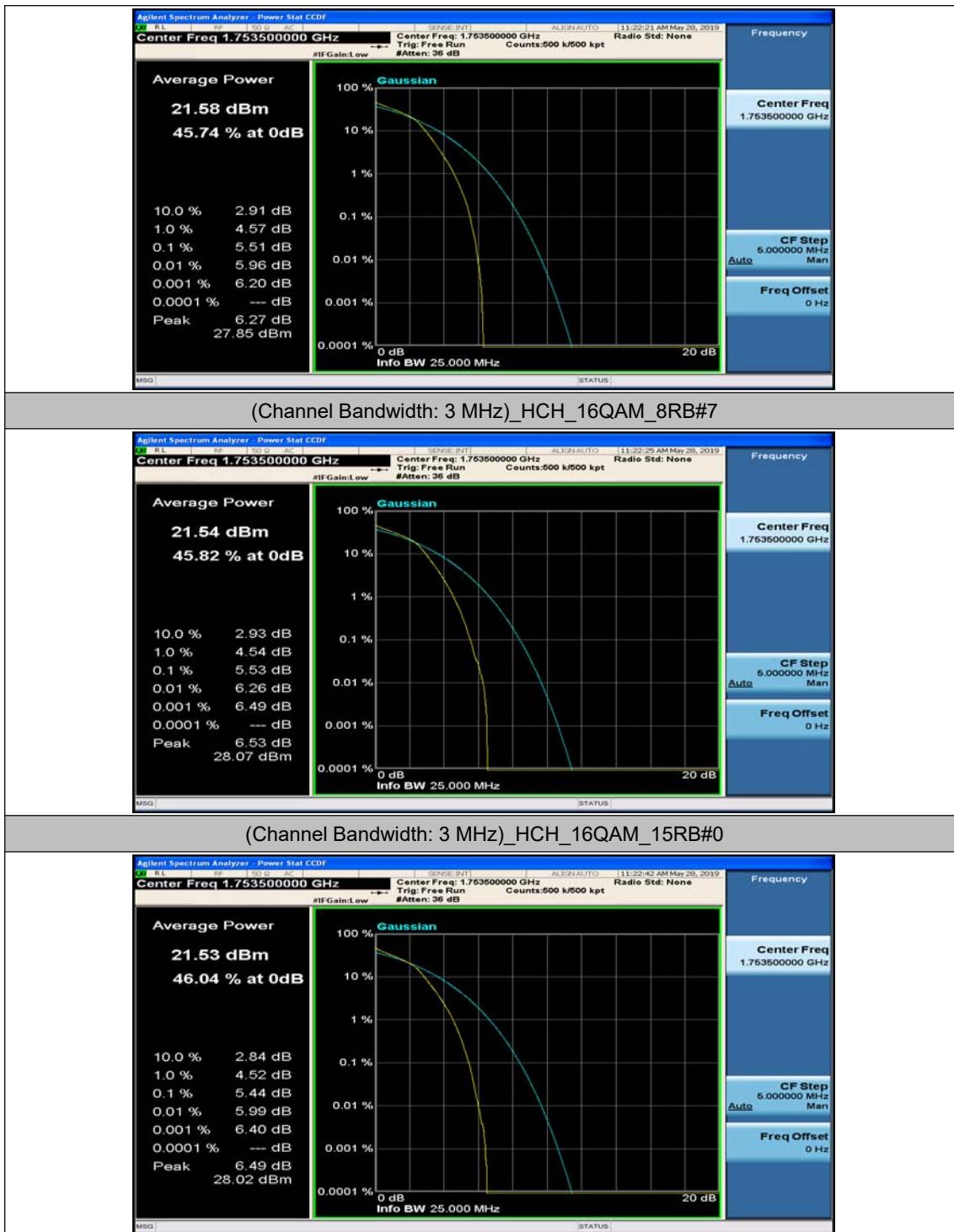


(Channel Bandwidth: 3 MHz)\_MCH\_16QAM\_1RB#14

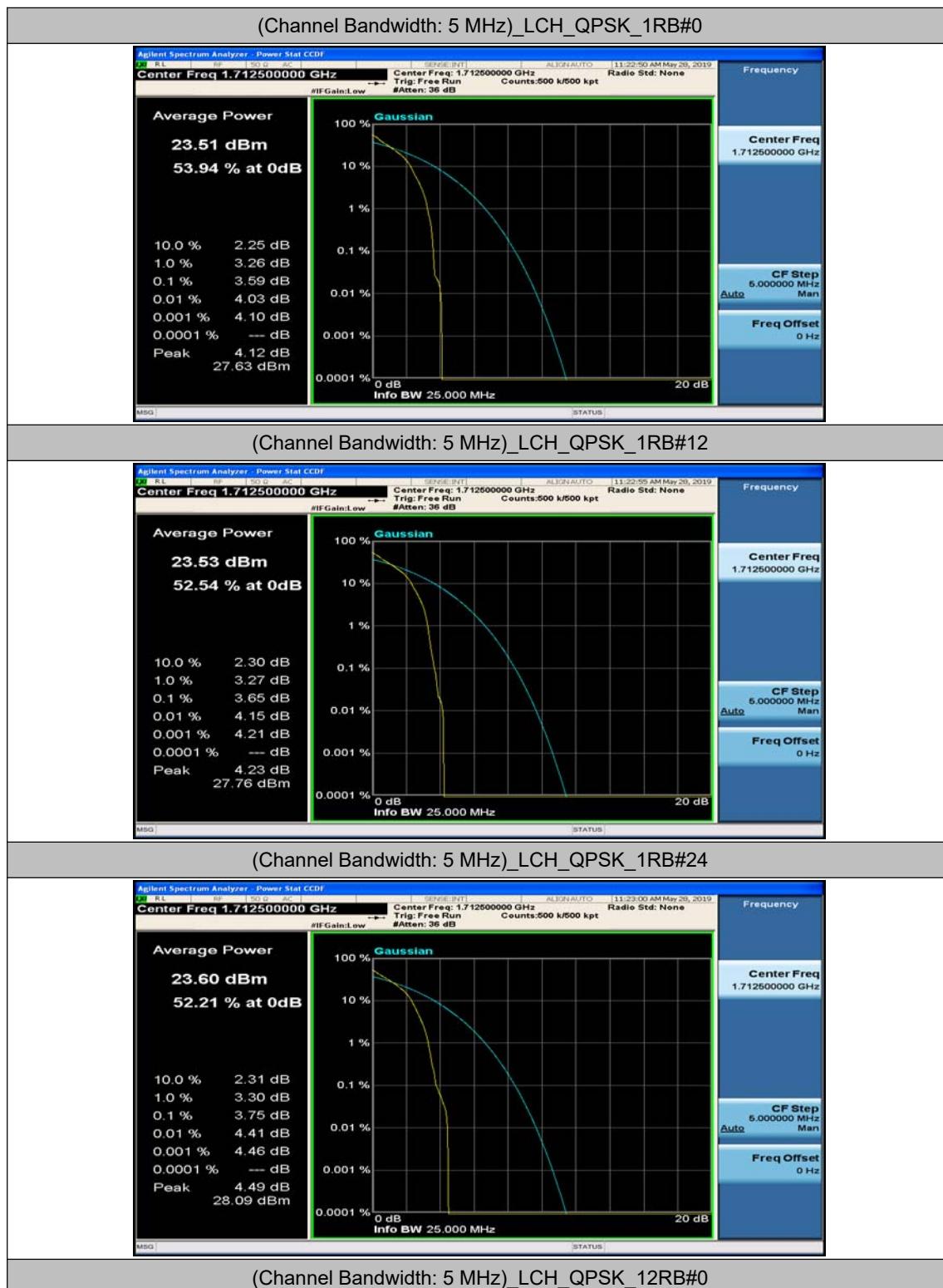


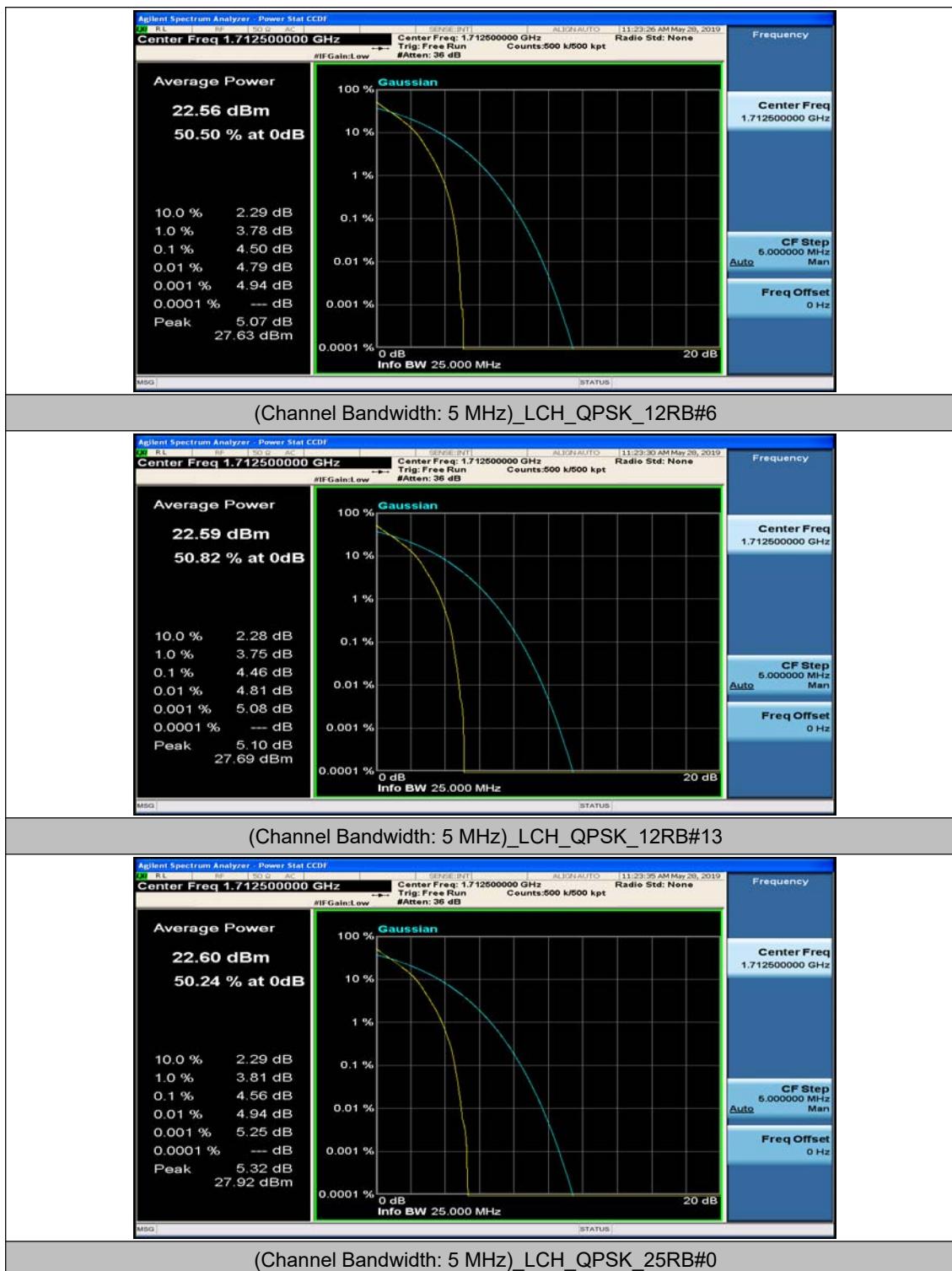


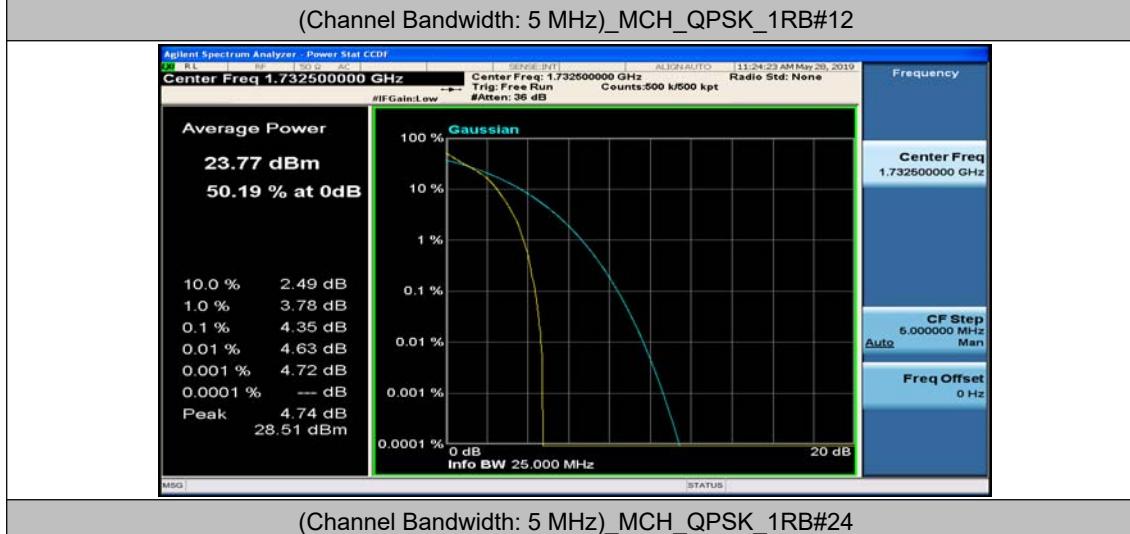
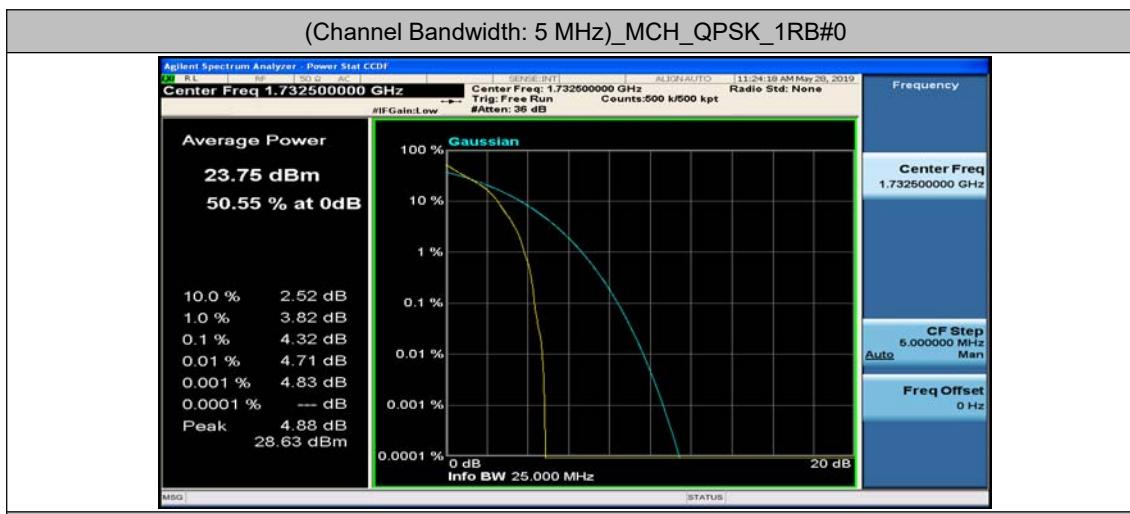
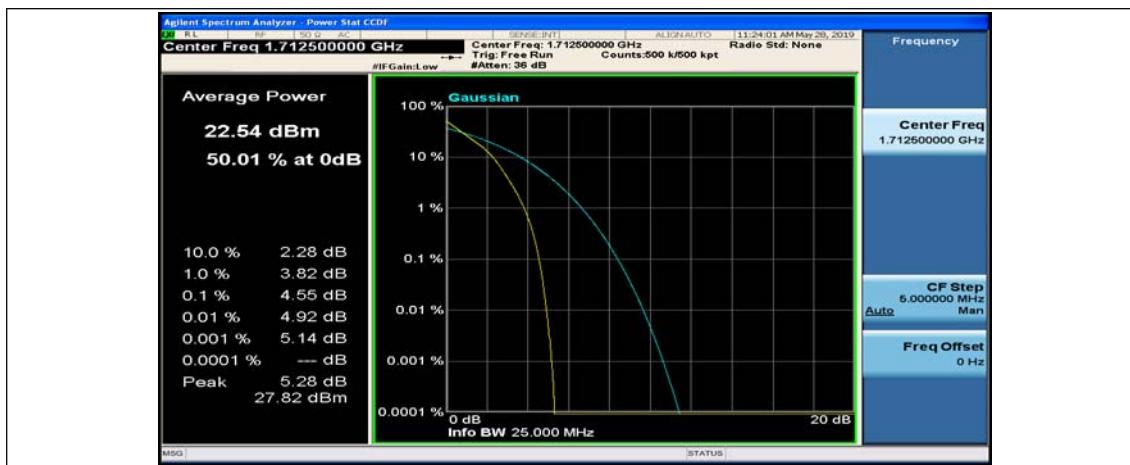




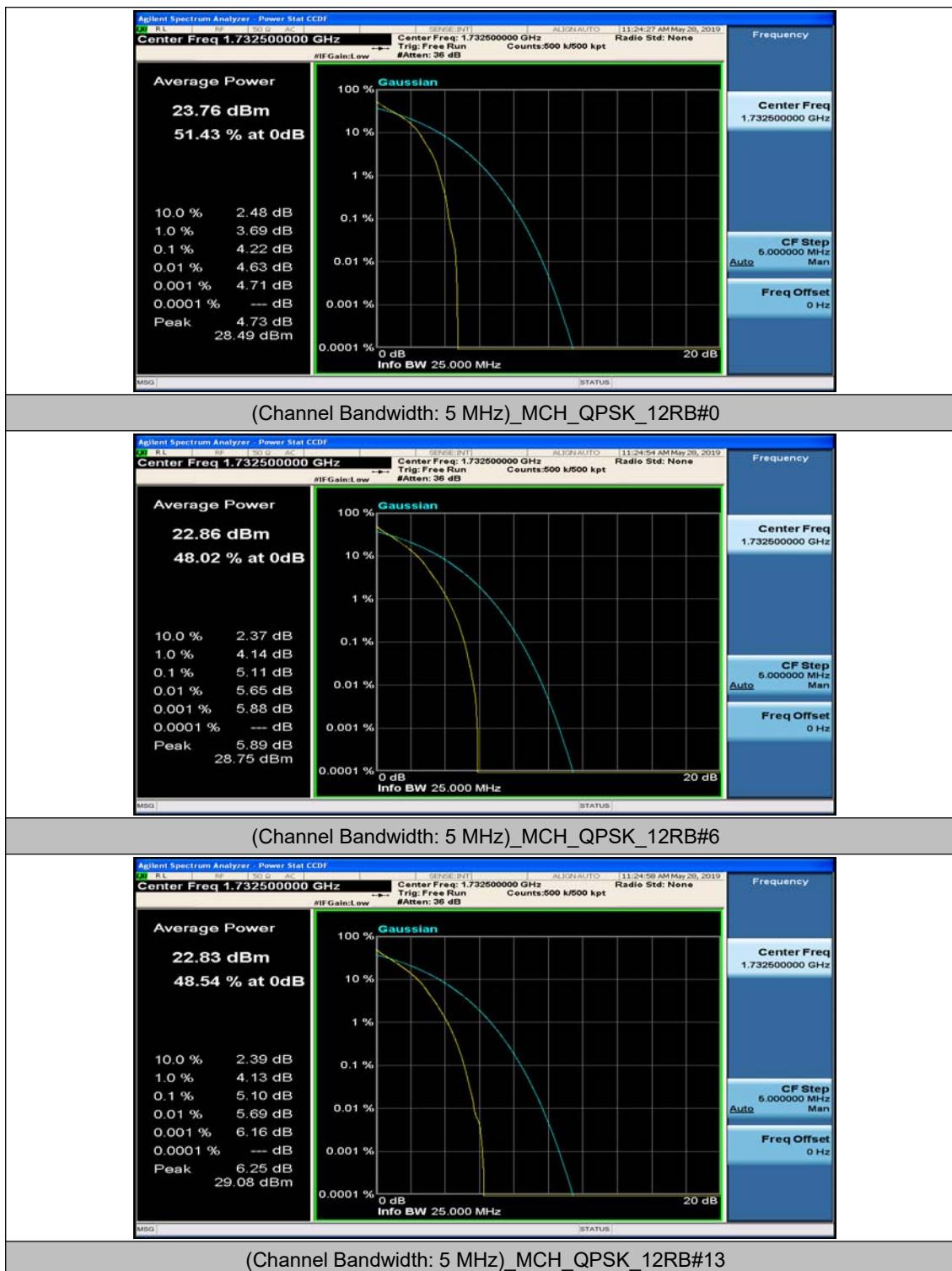
## Channel Bandwidth: 5 MHz

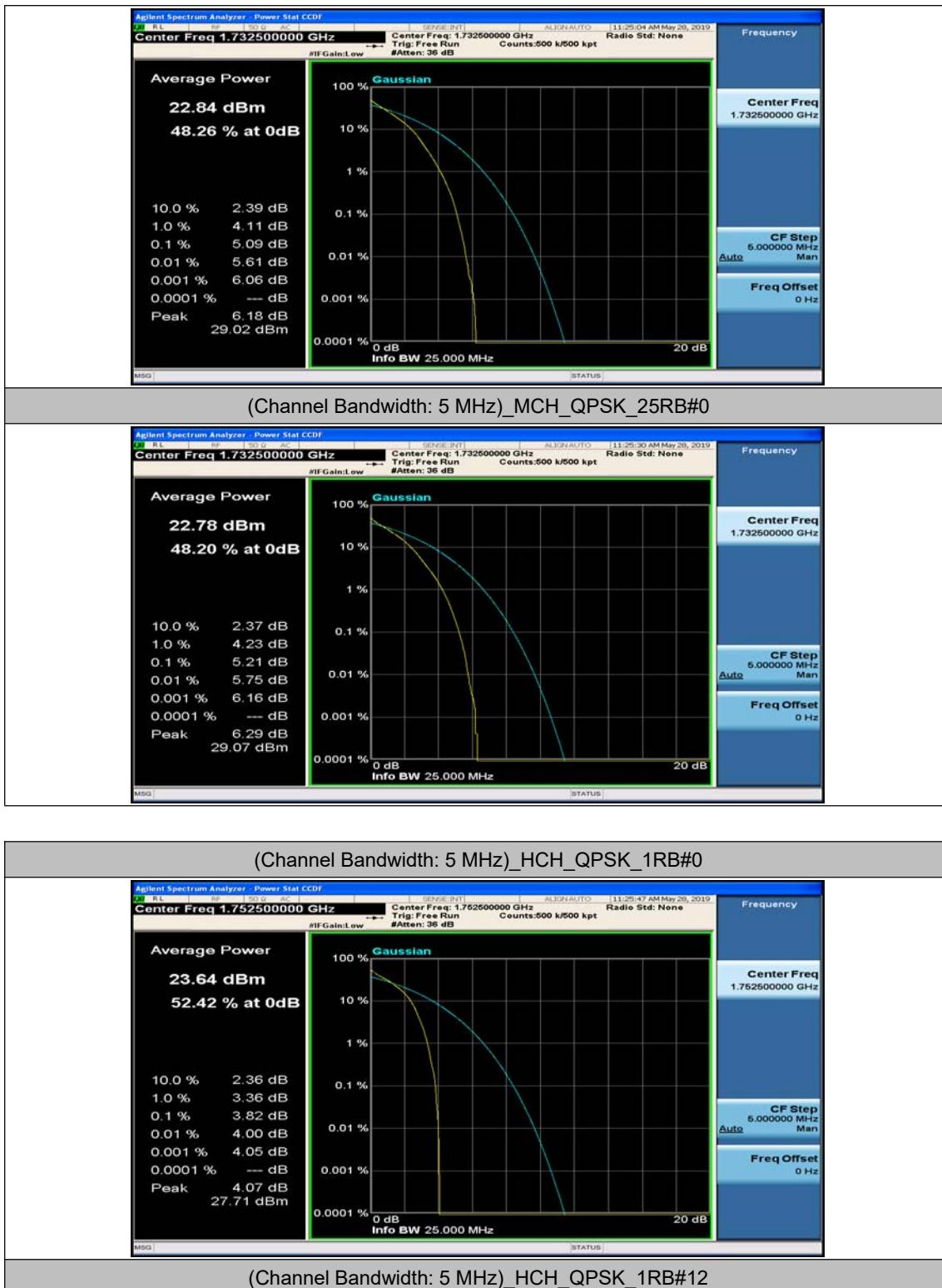


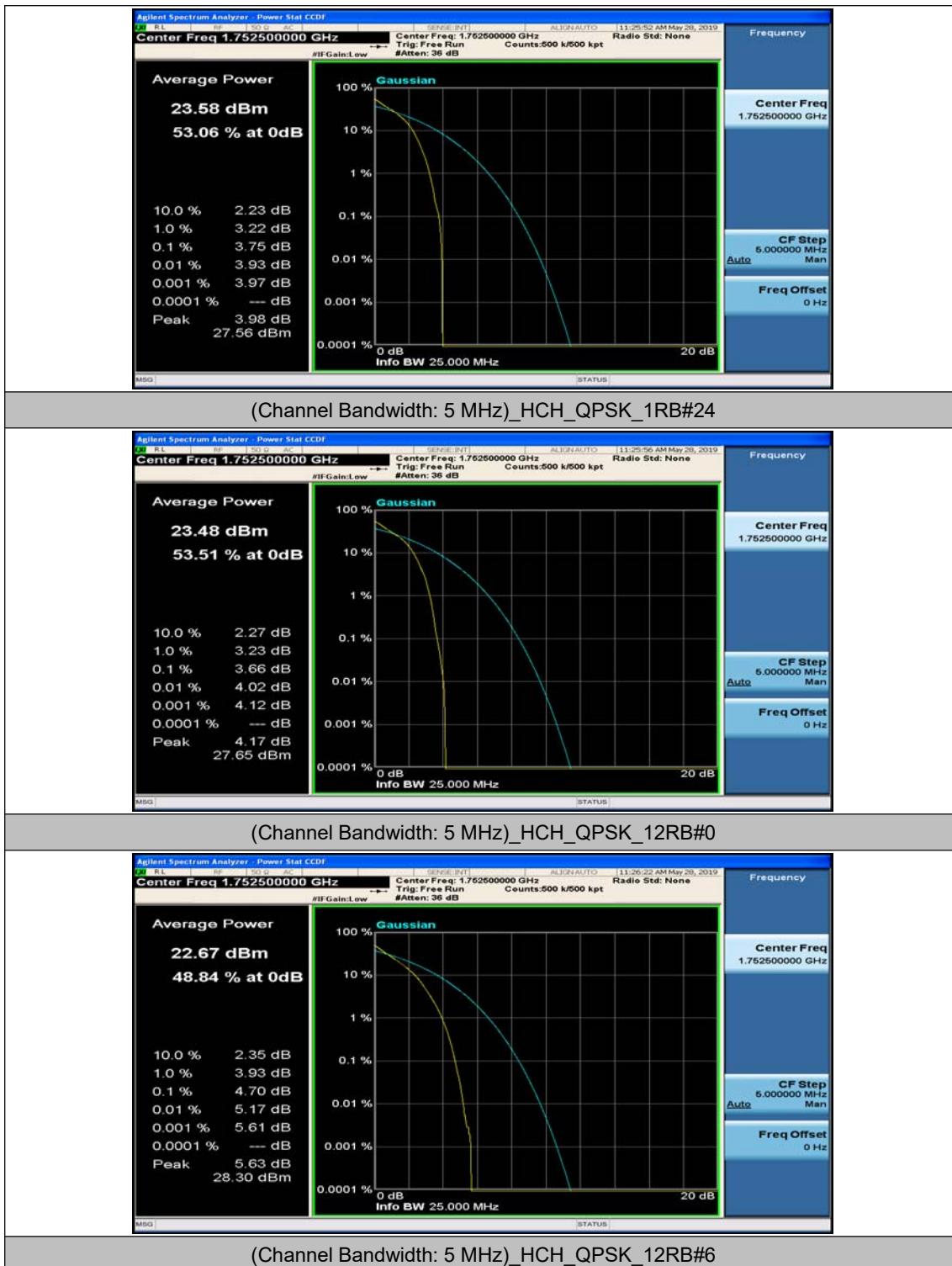


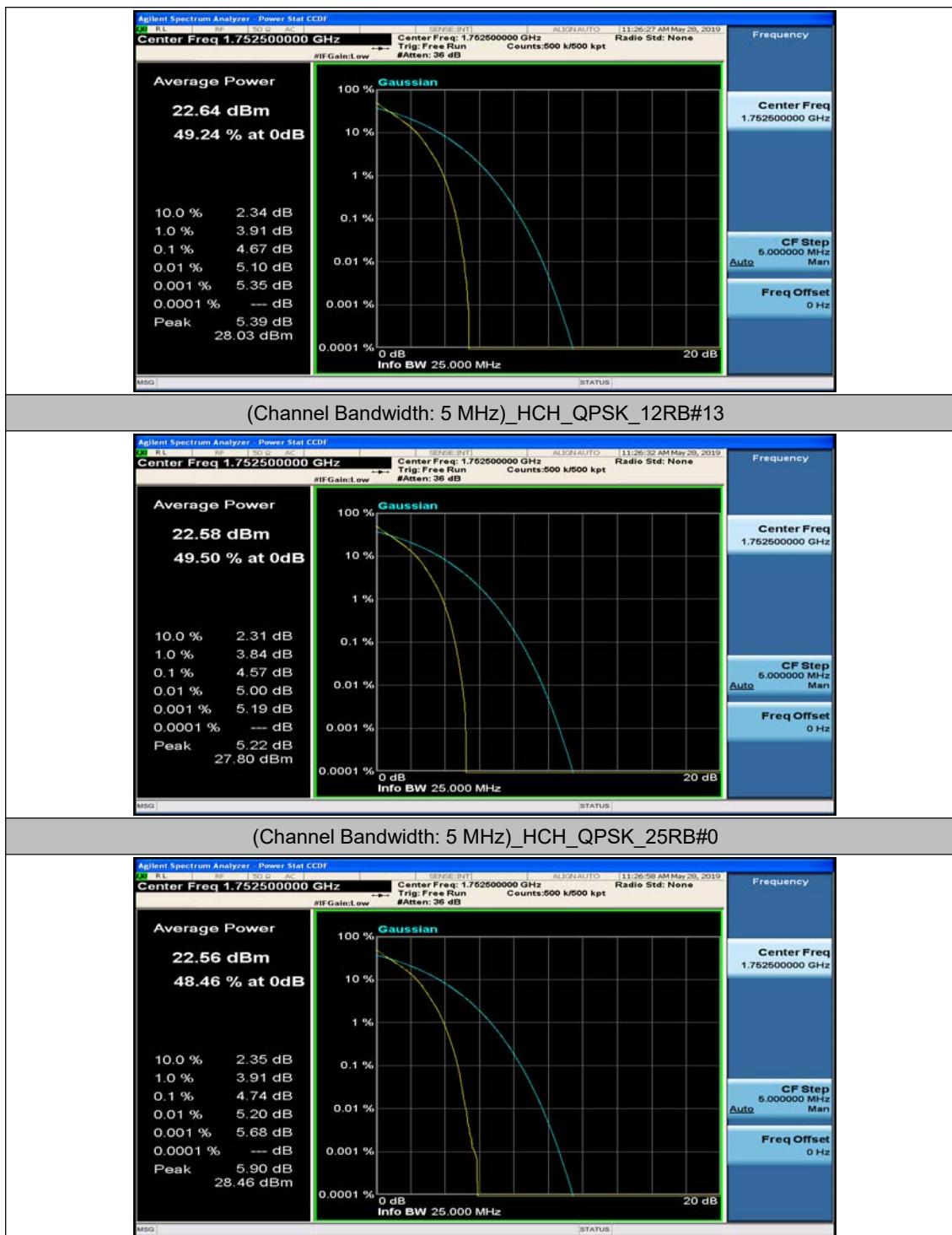


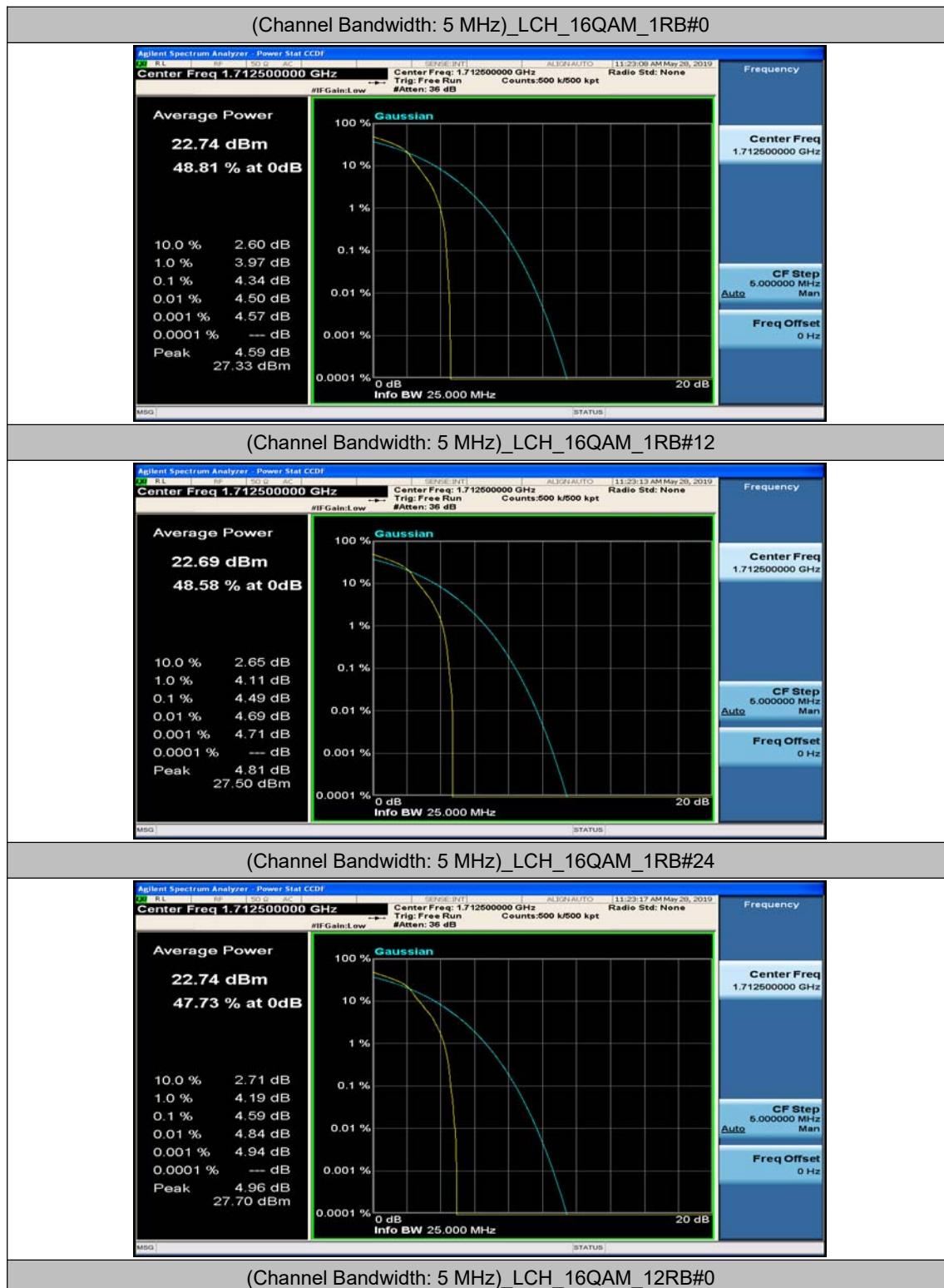
(Channel Bandwidth: 5 MHz)\_MCH\_QPSK\_1RB#24

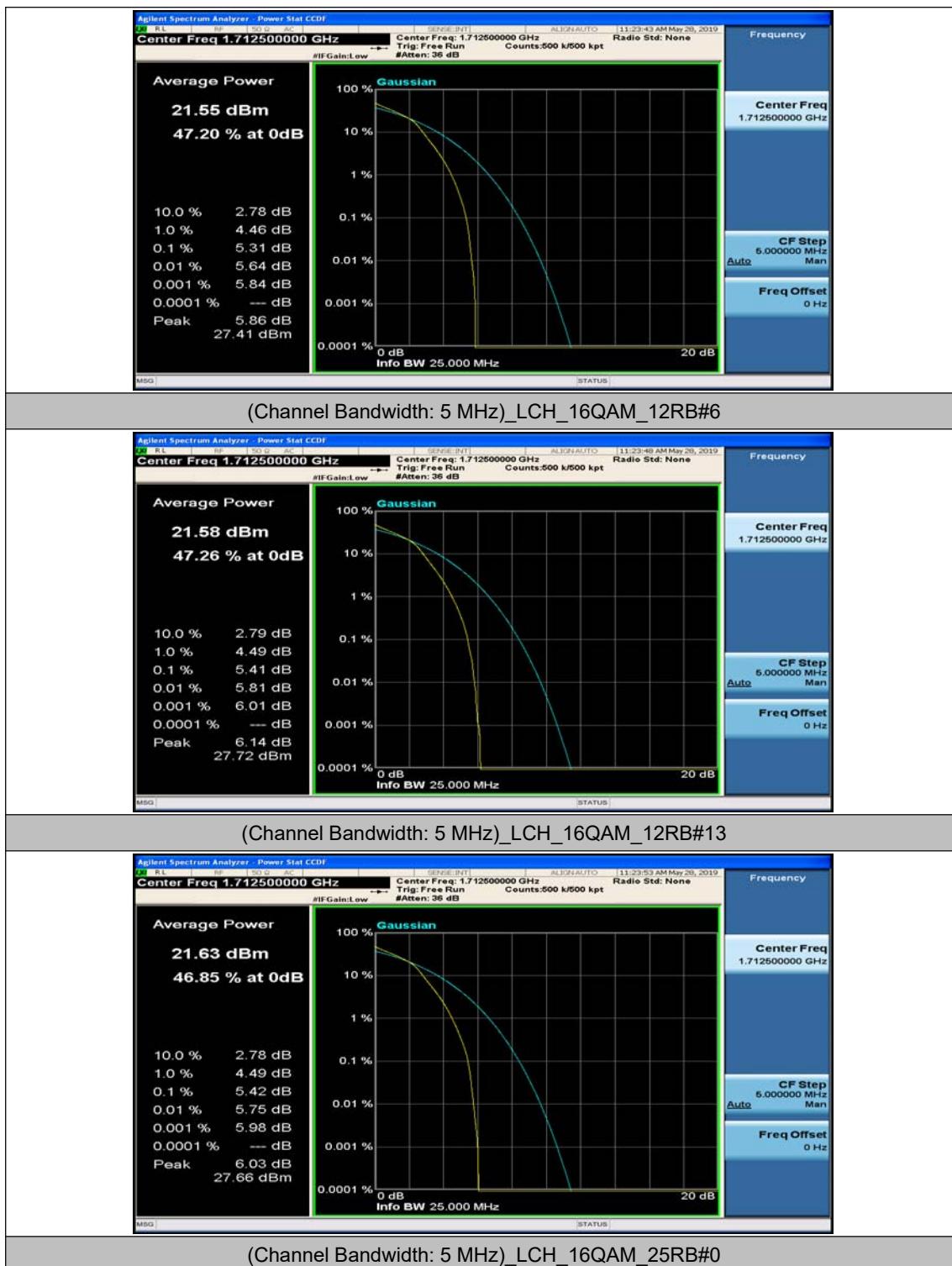


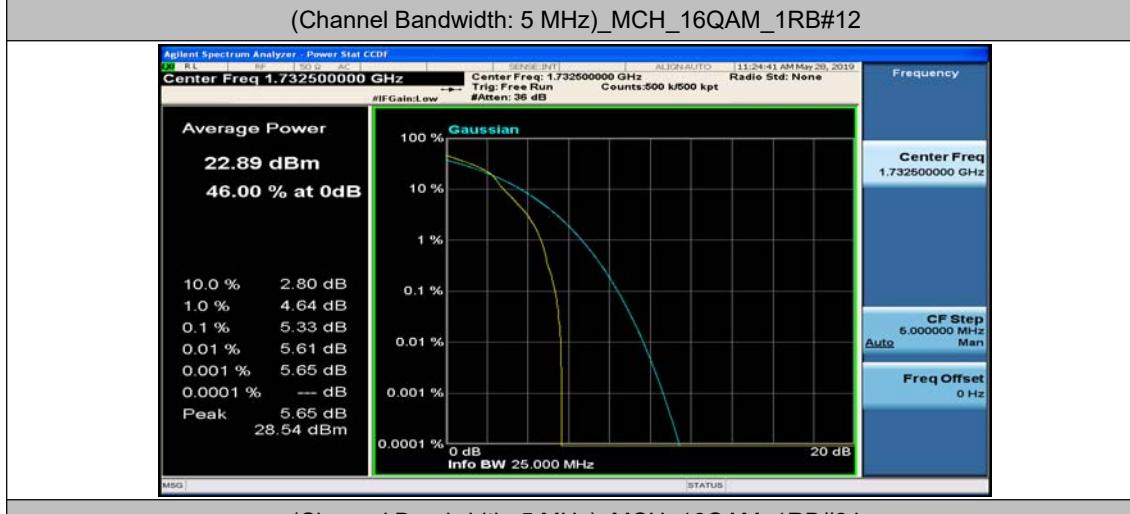
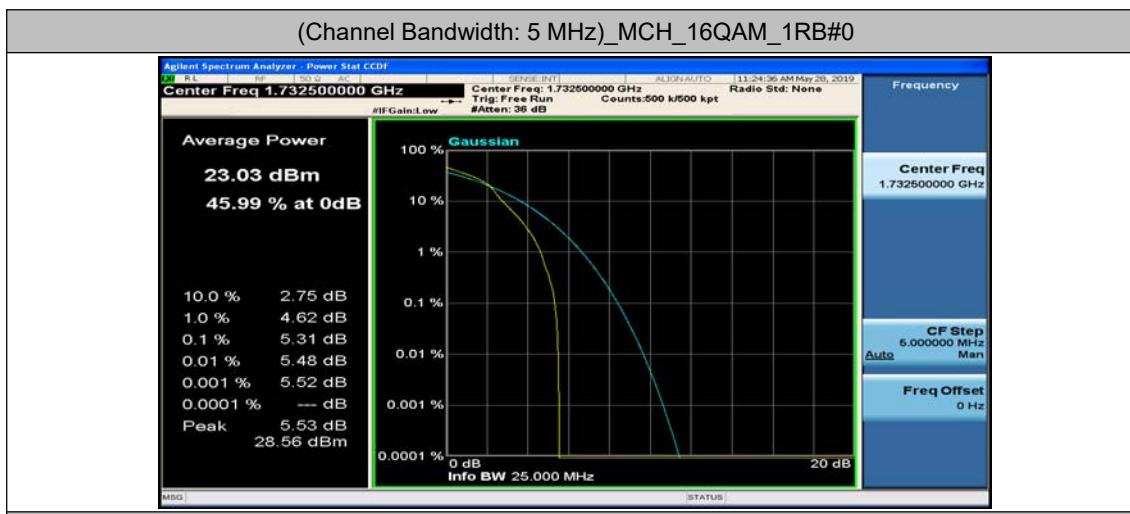
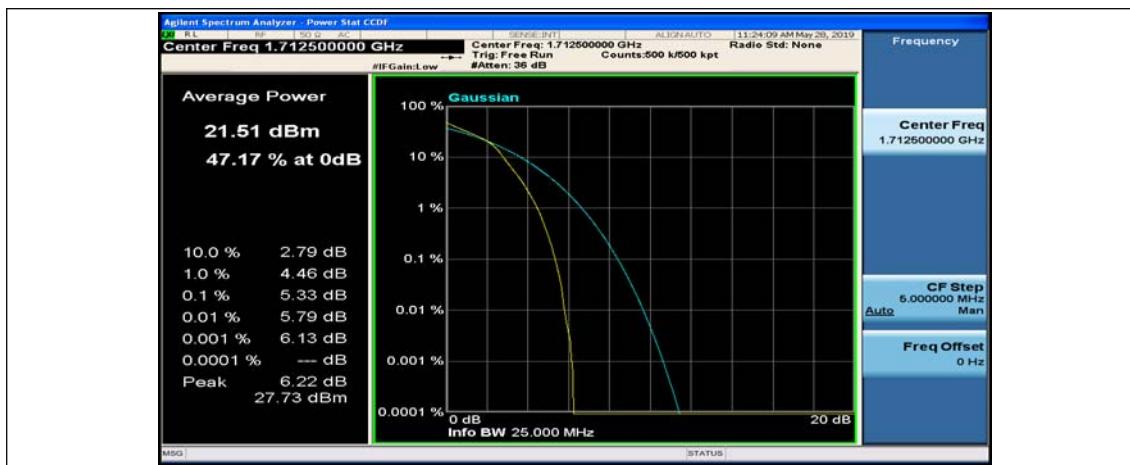












(Channel Bandwidth: 5 MHz)\_MCH\_16QAM\_1RB#24

