

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	23.31	PASS
		1	3	23.22	PASS
		1	5	23.42	PASS
		3	0	23.18	PASS
		3	2	23.03	PASS
		3	3	22.68	PASS
		6	0	22.91	PASS
	MCH	1	0	23.63	PASS
		1	3	23.72	PASS
		1	5	23.66	PASS
		3	0	22.74	PASS
		3	2	22.55	PASS
		3	3	22.78	PASS
		6	0	22.69	PASS
16QAM	LCH	1	0	23.02	PASS
		1	3	23.78	PASS
		1	5	22.97	PASS
		3	0	23.05	PASS
		3	2	23.15	PASS
		3	3	22.86	PASS
		6	0	22.1	PASS
	MCH	1	0	22.46	PASS
		1	3	22.35	PASS
		1	5	21.64	PASS
		3	0	22.18	PASS
		3	2	22.02	PASS
		3	3	21.71	PASS
		6	0	21.91	PASS

		3	0	21.88	PASS
		3	2	21.64	PASS
		3	3	21.59	PASS
		6	0	20.65	PASS
HCH	HCH	1	0	21.97	PASS
		1	3	21.56	PASS
		1	5	21.76	PASS
		3	0	21.68	PASS
		3	2	21.68	PASS
		3	3	21.65	PASS
		6	0	21.74	PASS

Channel Bandwidth: 3 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.51	PASS
		1	7	23.69	PASS
		1	14	23.38	PASS
		8	0	22.54	PASS
		8	4	22.49	PASS
		8	7	22.48	PASS
		15	0	22.47	PASS
	MCH	1	0	22.69	PASS
		1	7	22.62	PASS
		1	14	22.68	PASS
		8	0	22.49	PASS
		8	4	22.46	PASS
		8	7	22.44	PASS
		15	0	22.43	PASS
16QAM	HCH	1	0	23.31	PASS
		1	7	23.49	PASS
		1	14	23.34	PASS
		8	0	22.36	PASS
		8	4	22.35	PASS
		8	7	22.33	PASS
		15	0	22.27	PASS
	LCH	1	0	22.77	PASS
		1	7	22.78	PASS
		1	14	22.57	PASS
		8	0	21.56	PASS
		8	4	21.59	PASS
		8	7	21.53	PASS

		15	0	21.49	PASS
MCH		1	0	21.81	PASS
		1	7	21.89	PASS
		1	14	21.78	PASS
		8	0	20.53	PASS
		8	4	21.48	PASS
		8	7	21.44	PASS
		15	0	21.46	PASS
HCH		1	0	22.42	PASS
		1	7	22.66	PASS
		1	14	22.45	PASS
		8	0	21.61	PASS
		8	4	21.26	PASS
		8	7	21.22	PASS
		15	0	21.26	PASS

Channel Bandwidth: 5 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.52	PASS
		1	12	23.79	PASS
		1	24	23.25	PASS
		12	0	22.44	PASS
		12	6	22.48	PASS
		12	13	22.35	PASS
		25	0	22.39	PASS
	MCH	1	0	22.5	PASS
		1	12	22.75	PASS
		1	24	23.35	PASS
		12	0	22.49	PASS
		12	6	22.49	PASS
		12	13	22.41	PASS
		25	0	22.46	PASS
	HCH	1	0	22.65	PASS
		1	12	22.59	PASS
		1	24	23.35	PASS
		12	0	22.31	PASS
		12	6	22.35	PASS
		12	13	22.21	PASS
		25	0	22.31	PASS
16QAM	LCH	1	0	22.75	PASS
		1	12	22.81	PASS

		1	24	22.45	PASS
		12	0	21.5	PASS
		12	6	21.54	PASS
		12	13	21.43	PASS
		25	0	21.47	PASS
	MCH	1	0	21.7	PASS
		1	12	21.95	PASS
		1	24	21.63	PASS
		12	0	20.7	PASS
		12	6	20.67	PASS
		12	13	20.62	PASS
		25	0	20.58	PASS
	HCH	1	0	22.33	PASS
		1	12	21.53	PASS
		1	24	22.4	PASS
		12	0	22.32	PASS
		12	6	22.41	PASS
		12	13	22.25	PASS
		25	0	22.29	PASS

Channel Bandwidth: 10 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.49	PASS
		1	24	23.37	PASS
		1	49	22.96	PASS
		25	0	22.39	PASS
		25	12	22.34	PASS
		25	25	22.22	PASS
		50	0	22.29	PASS
	MCH	1	0	22.57	PASS
		1	24	22.63	PASS
		1	49	22.69	PASS
		25	0	21.71	PASS
		25	12	21.78	PASS
		25	25	21.98	PASS
		50	0	21.6	PASS
	HCH	1	0	22.98	PASS
		1	24	22.68	PASS
		1	49	22.76	PASS
		25	0	22.51	PASS
		25	12	22.28	PASS

		25	25	22.19	PASS
		50	0	22.24	PASS
16QAM	LCH	1	0	22.71	PASS
		1	24	22.58	PASS
		1	49	22.17	PASS
		25	0	21.44	PASS
		25	12	21.33	PASS
		25	25	21.25	PASS
		50	0	21.38	PASS
	MCH	1	0	21.97	PASS
		1	24	22.01	PASS
		1	49	21.69	PASS
		25	0	20.78	PASS
		25	12	20.61	PASS
		25	25	20.6	PASS
		50	0	20.67	PASS
	HCH	1	0	22.4	PASS
		1	24	21.55	PASS
		1	49	22.35	PASS
		25	0	21.28	PASS
		25	12	21.24	PASS
		25	25	21.15	PASS
		50	0	21.2	PASS

Channel Bandwidth: 15 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.44	PASS
		1	37	23.3	PASS
		1	74	22.68	PASS
		37	0	22.42	PASS
		37	18	22.28	PASS
		37	38	22.08	PASS
		75	0	22.27	PASS
	MCH	1	0	22.61	PASS
		1	37	22.72	PASS
		1	74	22.98	PASS
		37	0	21.77	PASS
		37	18	21.6	PASS
		37	38	22.41	PASS
		75	0	22.64	PASS
	HCH	1	0	23.2	PASS

		1	37	23.45	PASS
		1	74	23.21	PASS
		37	0	22.29	PASS
		37	18	22.36	PASS
		37	38	22.29	PASS
		75	0	22.33	PASS
16QAM	LCH	1	0	22.66	PASS
		1	37	22.55	PASS
		1	74	21.89	PASS
		37	0	21.39	PASS
		37	18	21.27	PASS
		37	38	21.06	PASS
		75	0	21.27	PASS
	MCH	1	0	21.9	PASS
		1	37	21.9	PASS
		1	74	21.84	PASS
		37	0	21.35	PASS
		37	18	21.63	PASS
		37	38	21.54	PASS
		75	0	21.6	PASS
	HCH	1	0	22.42	PASS
		1	37	22.6	PASS
		1	74	22.35	PASS
		37	0	21.25	PASS
		37	18	21.27	PASS
		37	38	21.21	PASS
		75	0	21.24	PASS

Channel Bandwidth: 20 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	24.07	PASS
		1	49	24.15	PASS
		1	99	24.01	PASS
		50	0	23.38	PASS
		50	25	23.26	PASS
		50	50	23.26	PASS
		100	0	23.06	PASS
	MCH	1	0	23.79	PASS
		1	49	23.68	PASS
		1	99	23.87	PASS
		50	0	22.78	PASS

		50	25	22.76	PASS
		50	50	22.54	PASS
		100	0	22.89	PASS
16QAM	HCH	1	0	23.21	PASS
		1	49	23.43	PASS
		1	99	23.26	PASS
		50	0	23.18	PASS
		50	25	23.09	PASS
		50	50	23.04	PASS
		100	0	23.09	PASS
16QAM	LCH	1	0	23.14	PASS
		1	49	23.26	PASS
		1	99	23.07	PASS
		50	0	22.17	PASS
		50	25	22.14	PASS
		50	50	22.12	PASS
		100	0	21.48	PASS
	MCH	1	0	21.77	PASS
		1	49	21.9	PASS
		1	99	21.71	PASS
		50	0	22.49	PASS
		50	25	22.32	PASS
		50	50	22.21	PASS
		100	0	21.74	PASS
	HCH	1	0	21.98	PASS
		1	49	21.6	PASS
		1	99	22.35	PASS
		50	0	22.31	PASS
		50	25	22.36	PASS
		50	50	22.35	PASS
		100	0	22.28	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	3.84	<13	PASS
		1	3	3.67	<13	PASS
		1	5	3.89	<13	PASS
		3	0	4.03	<13	PASS
		3	2	3.96	<13	PASS
		3	3	4	<13	PASS
		6	0	4.65	<13	PASS
	MCH	1	0	4.58	<13	PASS
		1	3	4.61	<13	PASS
		1	5	4.6	<13	PASS
		3	0	4.86	<13	PASS
		3	2	4.91	<13	PASS
		3	3	4.89	<13	PASS
		6	0	5.3	<13	PASS
16QAM	LCH	1	0	3.43	<13	PASS
		1	3	3.16	<13	PASS
		1	5	3.29	<13	PASS
		3	0	3.49	<13	PASS
		3	2	3.48	<13	PASS
		3	3	3.46	<13	PASS
		6	0	4.31	<13	PASS
	MCH	1	0	4.79	<13	PASS
		1	3	4.63	<13	PASS
		1	5	5	<13	PASS
		3	0	5.06	<13	PASS
		3	2	4.96	<13	PASS
		3	3	5.07	<13	PASS
		6	0	5.66	<13	PASS

		3	2	5.63	<13	PASS
		3	3	5.72	<13	PASS
		6	0	6.26	<13	PASS
HCH		1	0	4.49	<13	PASS
		1	3	4.28	<13	PASS
		1	5	4.25	<13	PASS
		3	0	4.54	<13	PASS
		3	2	4.56	<13	PASS
		3	3	4.58	<13	PASS
		6	0	5.31	<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	3.87	<13	PASS
		1	7	3.82	<13	PASS
		1	14	3.9	<13	PASS
		8	0	4.68	<13	PASS
		8	4	4.63	<13	PASS
		8	7	4.71	<13	PASS
		15	0	4.69	<13	PASS
	MCH	1	0	4.43	<13	PASS
		1	7	4.45	<13	PASS
		1	14	4.54	<13	PASS
		8	0	5.36	<13	PASS
		8	4	5.34	<13	PASS
		8	7	5.35	<13	PASS
		15	0	5.38	<13	PASS
	HCH	1	0	3.41	<13	PASS
		1	7	3.23	<13	PASS
		1	14	3.22	<13	PASS
		8	0	4.36	<13	PASS
		8	4	4.34	<13	PASS
		8	7	4.35	<13	PASS
		15	0	4.3	<13	PASS
16QAM	LCH	1	0	4.81	<13	PASS
		1	7	4.65	<13	PASS
		1	14	4.74	<13	PASS
		8	0	5.53	<13	PASS
		8	4	5.46	<13	PASS

		8	7	5.55	<13	PASS
		15	0	5.65	<13	PASS
MCH		1	0	5.27	<13	PASS
		1	7	5.39	<13	PASS
		1	14	5.32	<13	PASS
		8	0	6.11	<13	PASS
		8	4	6.04	<13	PASS
		8	7	6.12	<13	PASS
		15	0	6.15	<13	PASS
HCH		1	0	4.26	<13	PASS
		1	7	4.26	<13	PASS
		1	14	4.15	<13	PASS
		8	0	5.37	<13	PASS
		8	4	5.34	<13	PASS
		8	7	5.33	<13	PASS
		15	0	5.3	<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	4.22	<13	PASS
		1	12	3.92	<13	PASS
		1	24	4.07	<13	PASS
		12	0	4.81	<13	PASS
		12	6	4.73	<13	PASS
		12	13	4.73	<13	PASS
		25	0	4.72	<13	PASS
	MCH	1	0	4.71	<13	PASS
		1	12	4.6	<13	PASS
		1	24	4.76	<13	PASS
		12	0	5.2	<13	PASS
		12	6	5.23	<13	PASS
		12	13	5.28	<13	PASS
		25	0	5.32	<13	PASS
	HCH	1	0	3.71	<13	PASS
		1	12	3.29	<13	PASS
		1	24	3.25	<13	PASS
		12	0	4.44	<13	PASS
		12	6	4.4	<13	PASS
		12	13	4.48	<13	PASS

		25	0	4.43	<13	PASS
16QAM	LCH	1	0	4.96	<13	PASS
		1	12	4.68	<13	PASS
		1	24	4.77	<13	PASS
		12	0	5.69	<13	PASS
		12	6	5.62	<13	PASS
		12	13	5.7	<13	PASS
		25	0	5.52	<13	PASS
	MCH	1	0	5.57	<13	PASS
		1	12	5.48	<13	PASS
		1	24	5.68	<13	PASS
		12	0	6.08	<13	PASS
		12	6	6.13	<13	PASS
		12	13	6.17	<13	PASS
		25	0	6.16	<13	PASS
	HCH	1	0	4.58	<13	PASS
		1	12	4.24	<13	PASS
		1	24	4.23	<13	PASS
		12	0	5.39	<13	PASS
		12	6	5.34	<13	PASS
		12	13	5.35	<13	PASS
		25	0	5.35	<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	<13	PASS
		1	24	3.81	<13	PASS
		1	49	3.96	<13	PASS
		25	0	4.72	<13	PASS
		25	12	4.64	<13	PASS
		25	25	4.64	<13	PASS
		50	0	4.69	<13	PASS
	MCH	1	0	4.43	<13	PASS
		1	24	4.41	<13	PASS
		1	49	4.67	<13	PASS
		25	0	5.2	<13	PASS
		25	12	5.29	<13	PASS
		25	25	5.3	<13	PASS
		50	0	5.32	<13	PASS

		1	0	4.07	<13	PASS
		1	24	3.51	<13	PASS
		1	49	3.32	<13	PASS
	HCH	25	0	4.58	<13	PASS
		25	12	4.49	<13	PASS
		25	25	4.46	<13	PASS
		50	0	4.61	<13	PASS
16QAM	LCH	1	0	4.78	<13	PASS
		1	24	4.53	<13	PASS
		1	49	4.81	<13	PASS
		25	0	5.55	<13	PASS
		25	12	5.49	<13	PASS
		25	25	5.55	<13	PASS
		50	0	5.54	<13	PASS
	MCH	1	0	5.22	<13	PASS
		1	24	5.32	<13	PASS
		1	49	5.5	<13	PASS
		25	0	6.05	<13	PASS
		25	12	6.19	<13	PASS
		25	25	6.16	<13	PASS
		50	0	6.13	<13	PASS
	HCH	1	0	4.86	<13	PASS
		1	24	4.44	<13	PASS
		1	49	4.3	<13	PASS
		25	0	5.55	<13	PASS
		25	12	5.51	<13	PASS
		25	25	5.48	<13	PASS
		50	0	5.53	<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	3.96	<13	PASS
		1	37	3.83	<13	PASS
		1	74	4.23	<13	PASS
		37	0	4.62	<13	PASS
		37	18	4.57	<13	PASS
		37	38	4.67	<13	PASS
		75	0	5.07	<13	PASS
	MCH	1	0	4.32	<13	PASS

		1	37	4.64	<13	PASS
		1	74	4.82	<13	PASS
		37	0	5.11	<13	PASS
		37	18	5.24	<13	PASS
		37	38	5.25	<13	PASS
		75	0	5.53	<13	PASS
		1	0	4.54	<13	PASS
		1	37	3.77	<13	PASS
		1	74	3.38	<13	PASS
		37	0	4.88	<13	PASS
		37	18	4.63	<13	PASS
		37	38	4.48	<13	PASS
		75	0	5.11	<13	PASS
		1	0	4.86	<13	PASS
		1	37	4.68	<13	PASS
16QAM	LCH	1	74	5	<13	PASS
		37	0	5.52	<13	PASS
		37	18	5.44	<13	PASS
		37	38	5.57	<13	PASS
		75	0	5.77	<13	PASS
	MCH	1	0	5.1	<13	PASS
		1	37	5.41	<13	PASS
		1	74	5.7	<13	PASS
		37	0	6.05	<13	PASS
		37	18	6.15	<13	PASS
		37	38	6.09	<13	PASS
		75	0	6.2	<13	PASS
	HCH	1	0	5.58	<13	PASS
		1	37	4.82	<13	PASS
		1	74	4.33	<13	PASS
		37	0	5.77	<13	PASS
		37	18	5.59	<13	PASS
		37	38	5.46	<13	PASS
		75	0	5.83	<13	PASS

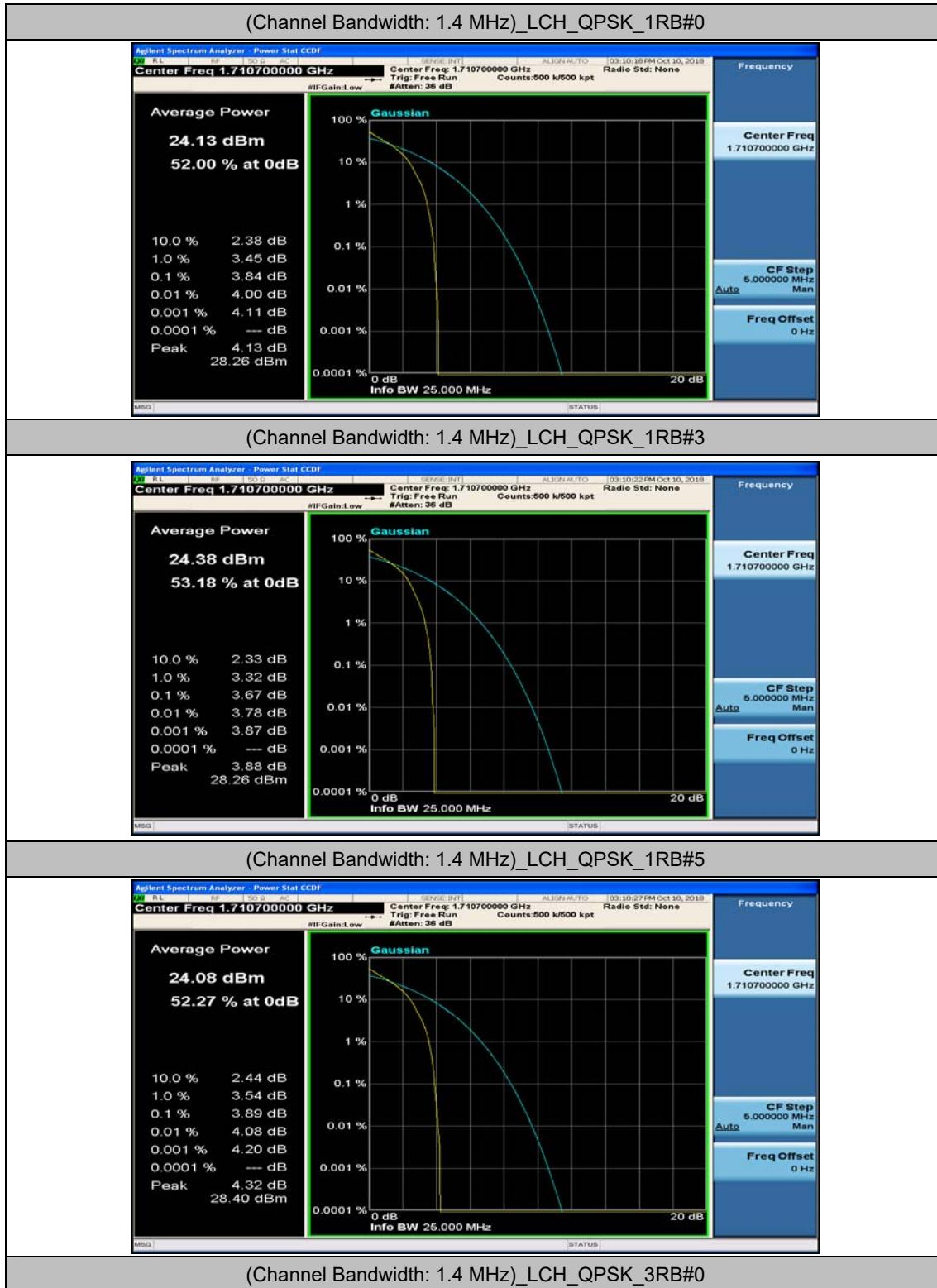
Channel Bandwidth: 20 MHz

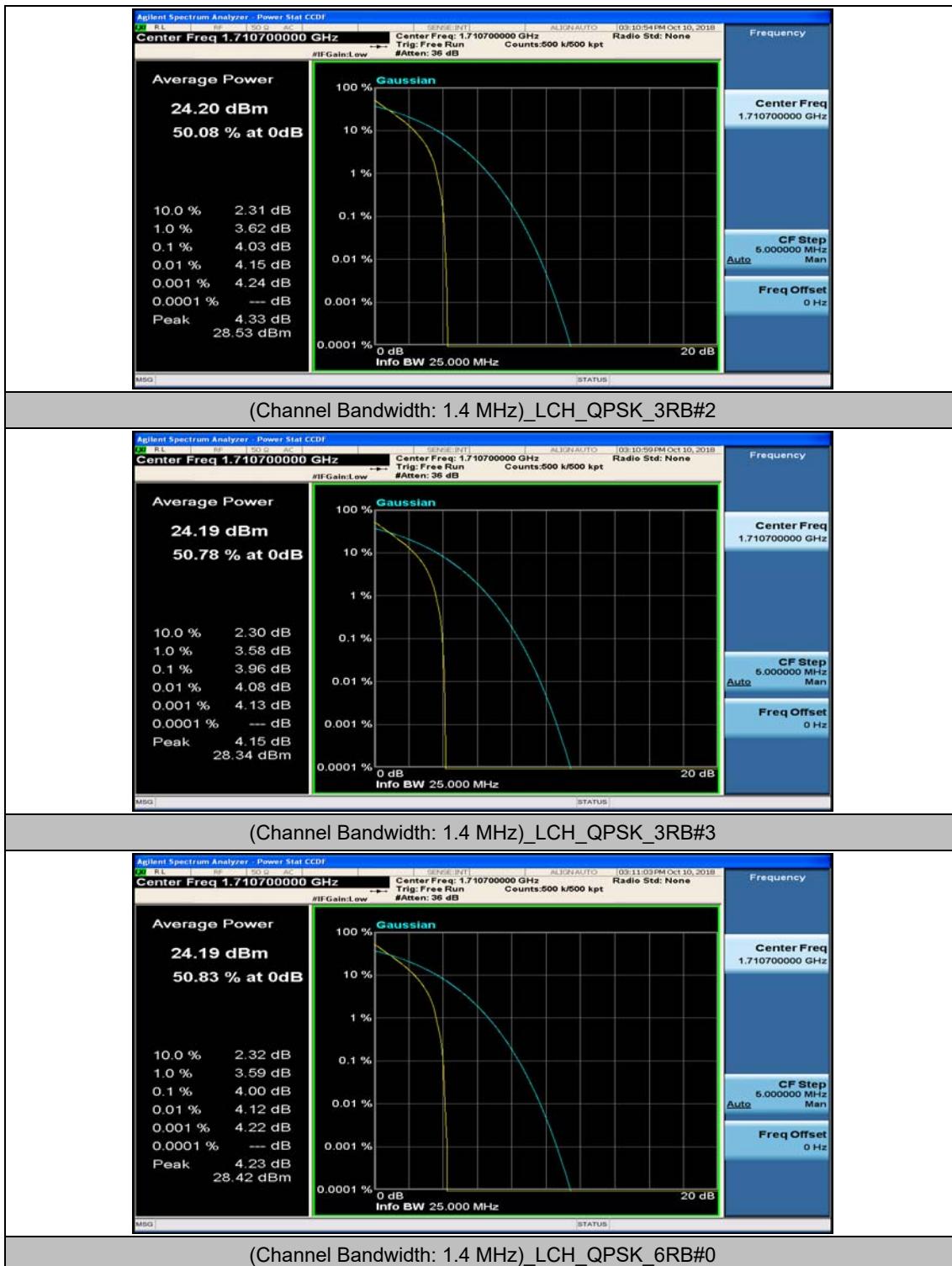
Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	4.08	<13	PASS
		1	49	3.76	<13	PASS

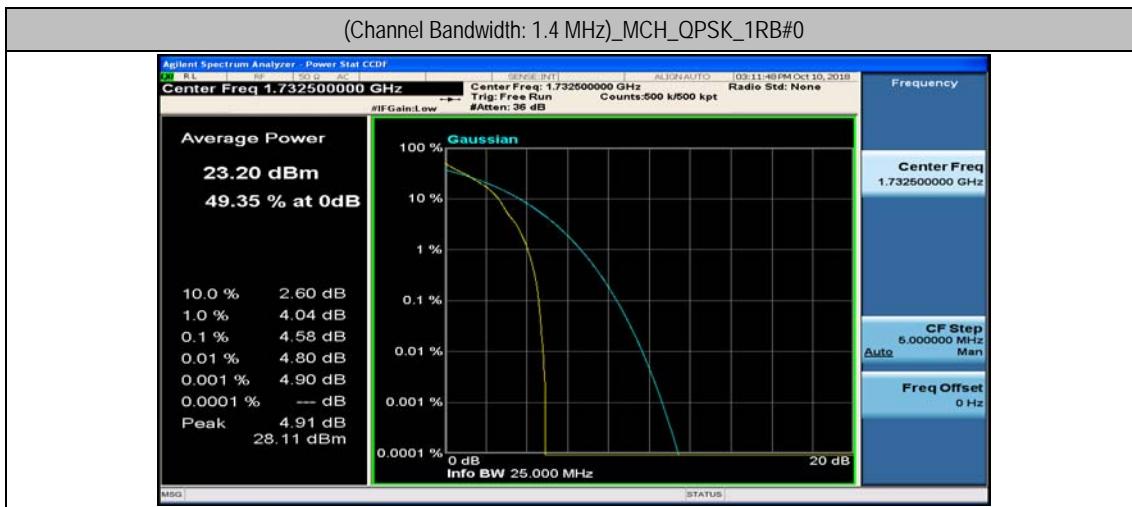
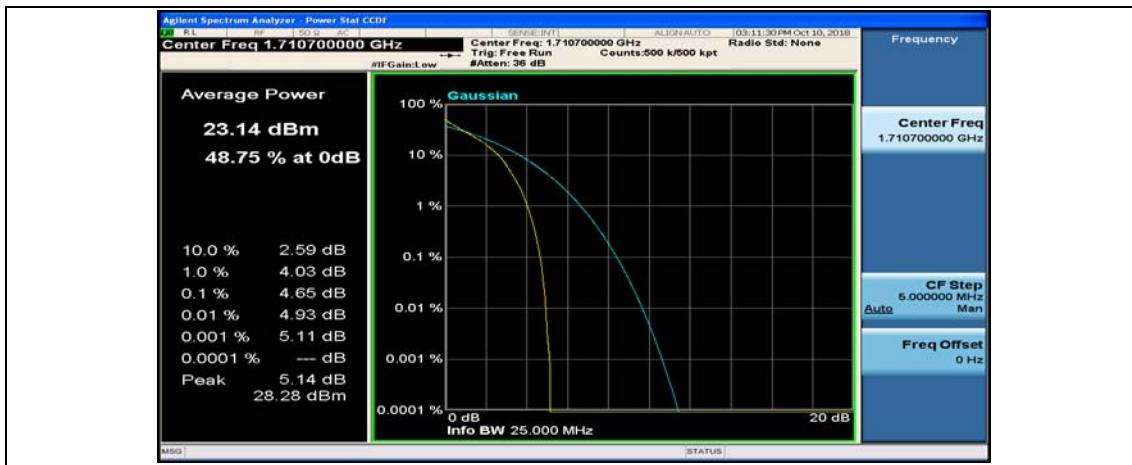
		1	99	4.61	<13	PASS
		50	0	4.76	<13	PASS
		50	25	4.73	<13	PASS
		50	50	5.05	<13	PASS
		100	0	5.14	<13	PASS
	MCH	1	0	4.37	<13	PASS
		1	49	4.77	<13	PASS
		1	99	4.76	<13	PASS
		50	0	5.15	<13	PASS
		50	25	5.29	<13	PASS
		50	50	5.32	<13	PASS
		100	0	5.46	<13	PASS
	HCH	1	0	5.02	<13	PASS
		1	49	4.05	<13	PASS
		1	99	3.53	<13	PASS
		50	0	5.24	<13	PASS
		50	25	4.84	<13	PASS
		50	50	4.75	<13	PASS
		100	0	5.18	<13	PASS
	LCH	1	0	4.84	<13	PASS
		1	49	4.49	<13	PASS
		1	99	5.54	<13	PASS
		50	0	5.63	<13	PASS
		50	25	5.55	<13	PASS
		50	50	5.85	<13	PASS
		100	0	5.93	<13	PASS
	MCH	1	0	5	<13	PASS
		1	49	5.43	<13	PASS
		1	99	5.35	<13	PASS
		50	0	5.99	<13	PASS
		50	25	6.09	<13	PASS
		50	50	6.16	<13	PASS
		100	0	6.13	<13	PASS
	HCH	1	0	5.9	<13	PASS
		1	49	4.97	<13	PASS
		1	99	4.61	<13	PASS
		50	0	6.12	<13	PASS
		50	25	5.77	<13	PASS
		50	50	5.7	<13	PASS
		100	0	6.02	<13	PASS

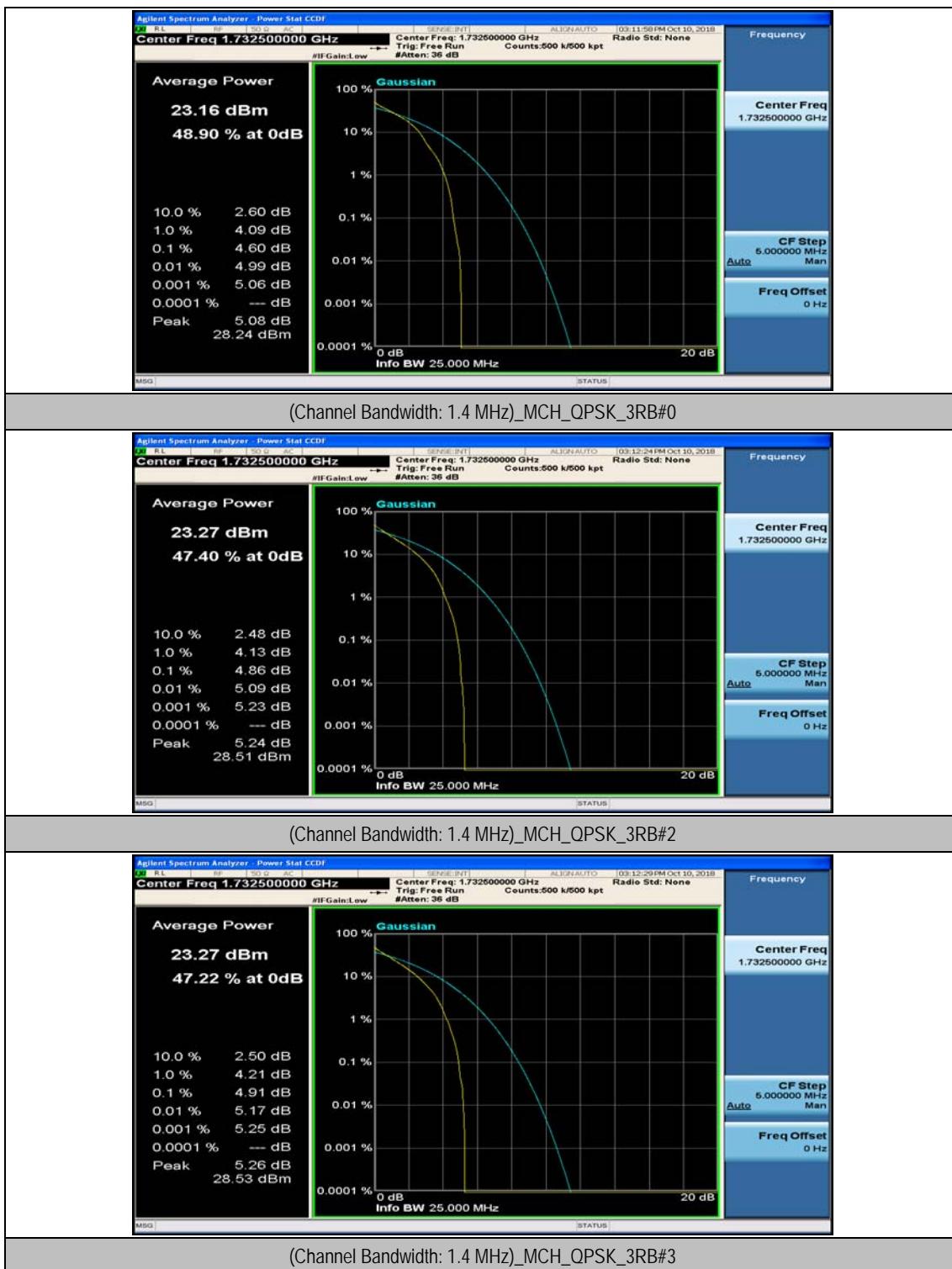
Test Graphs

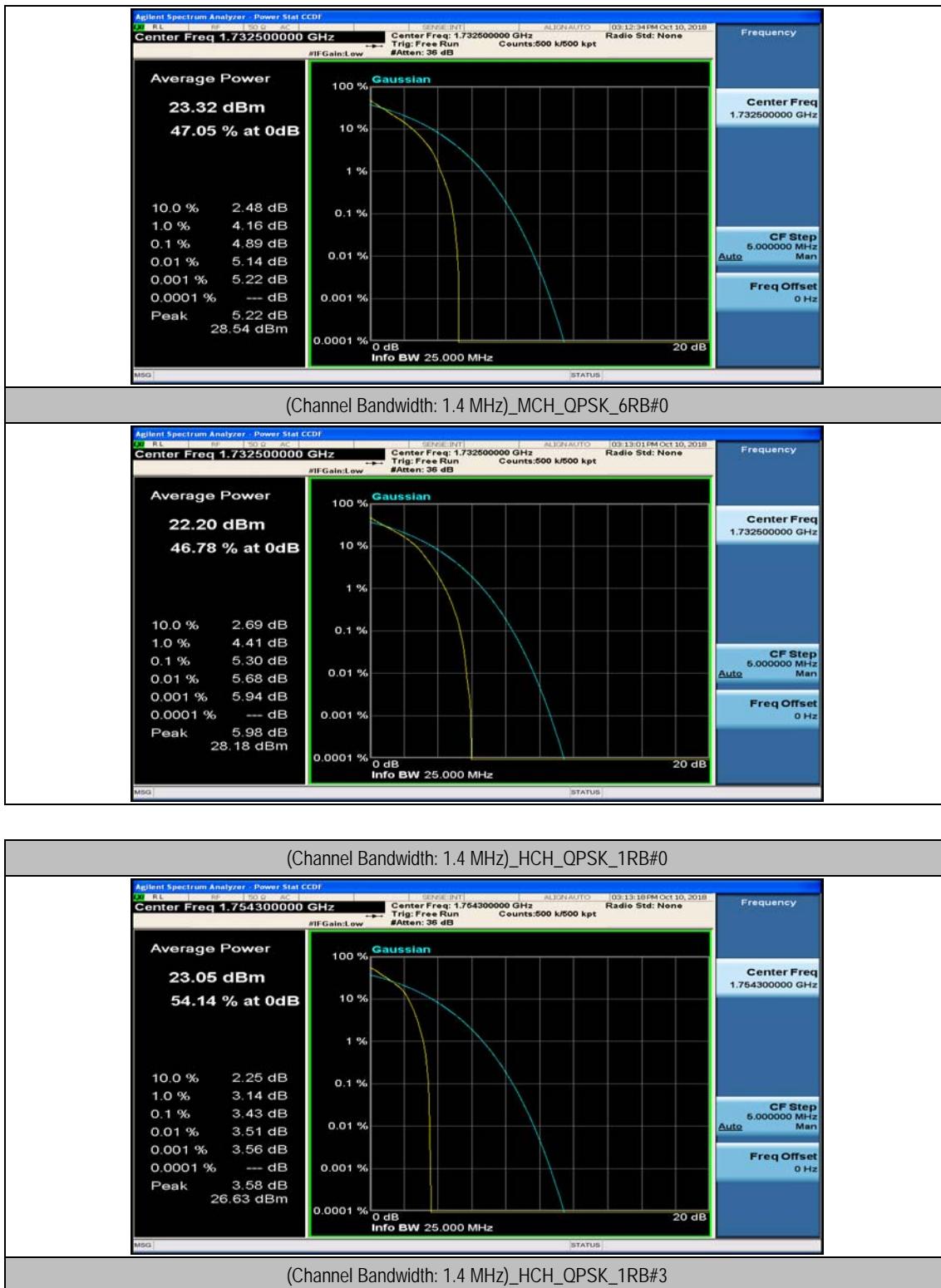
Channel Bandwidth: 1.4 MHz

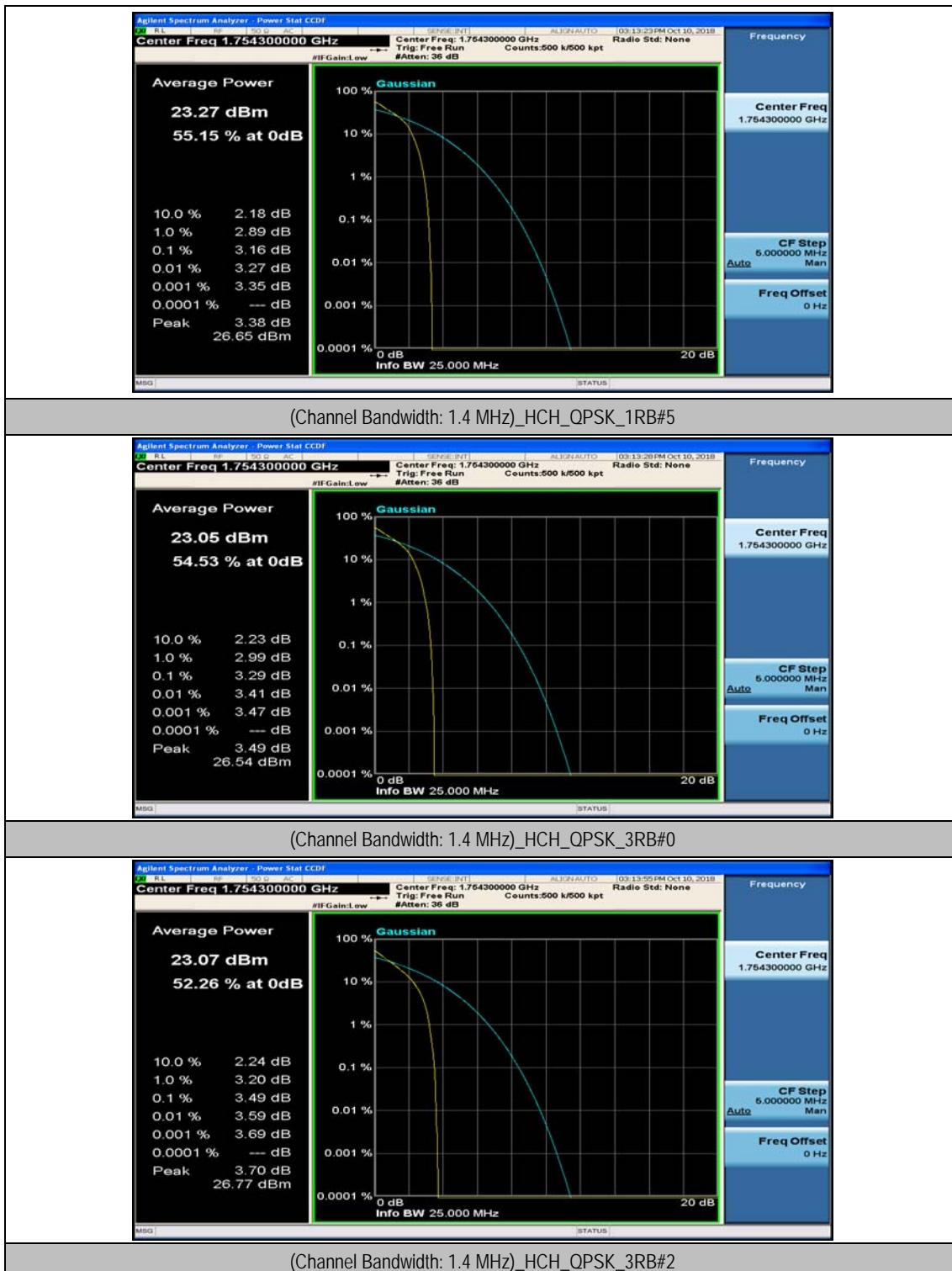


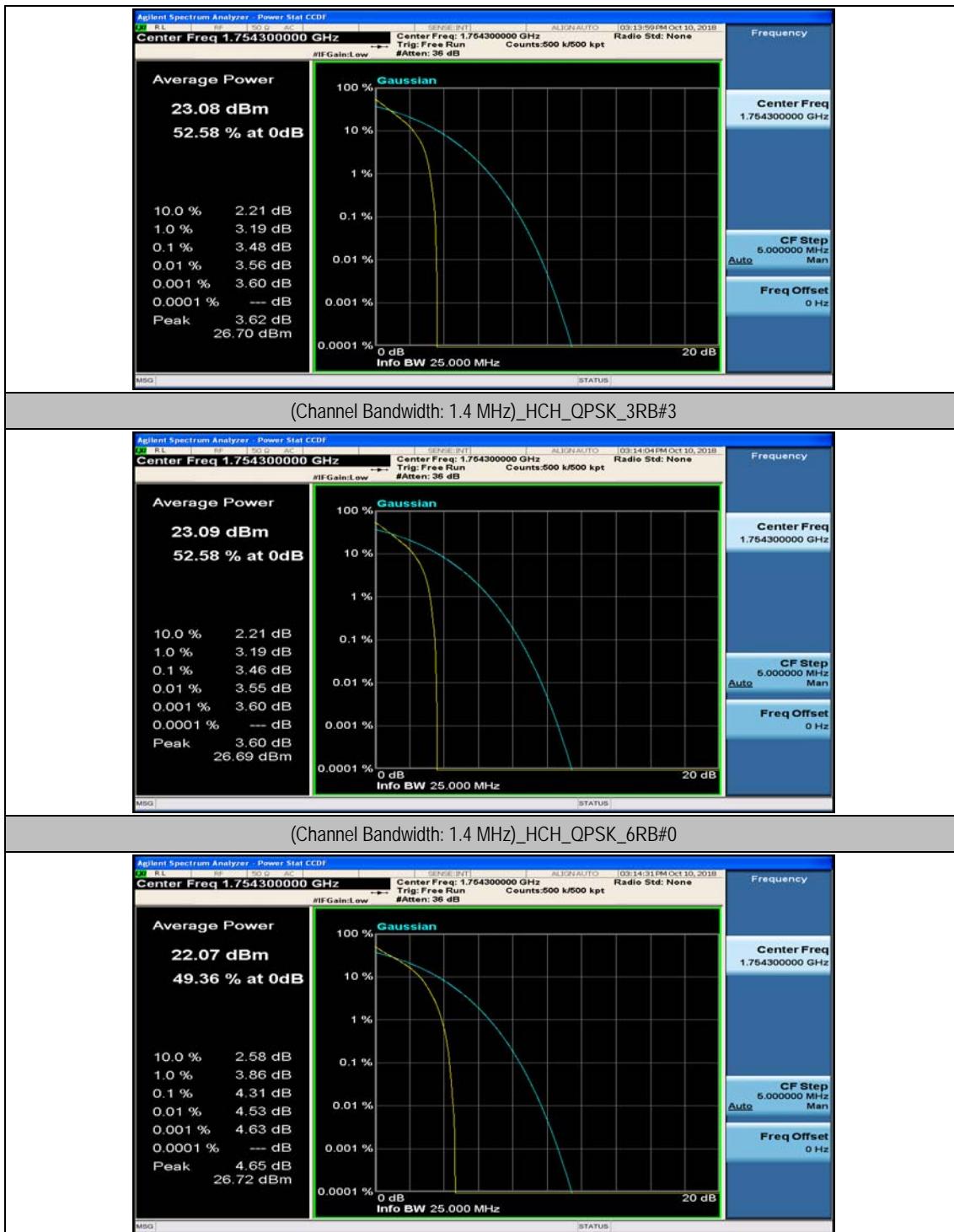


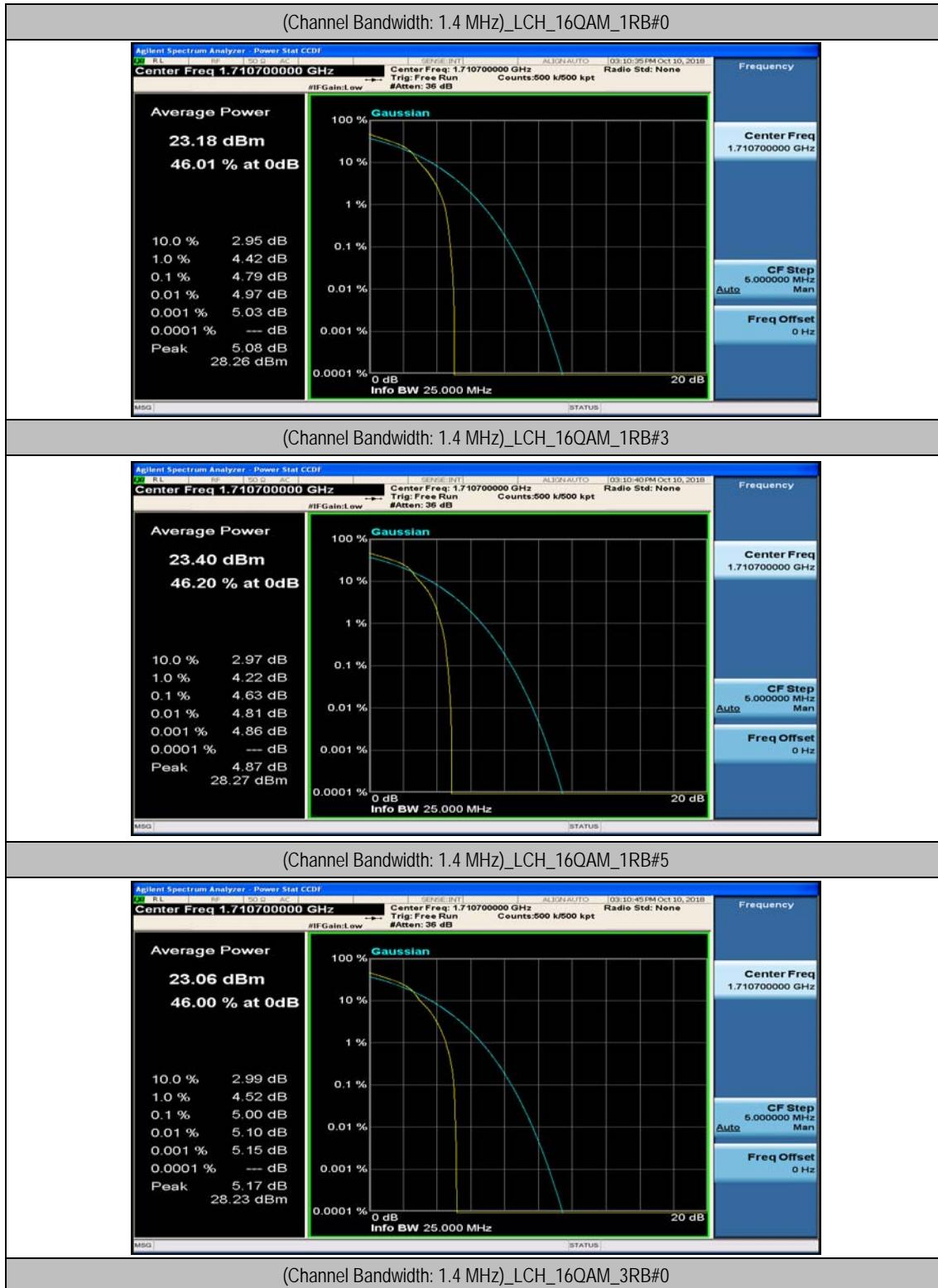


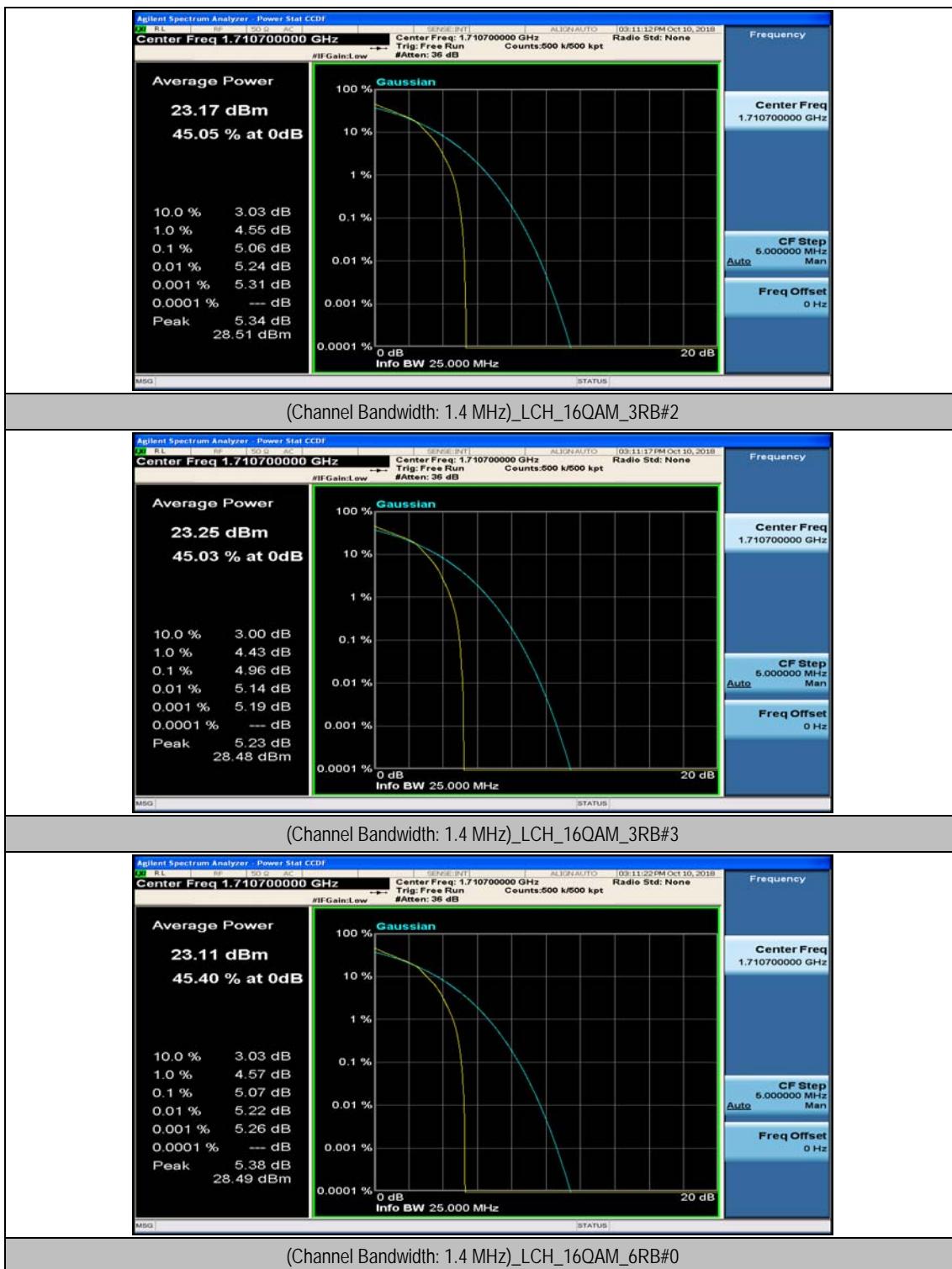


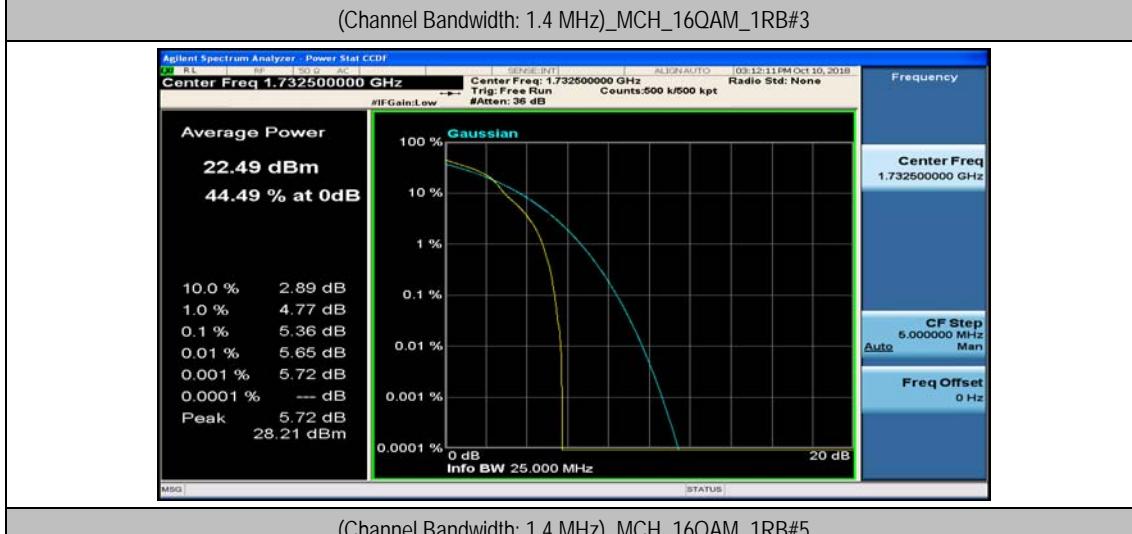
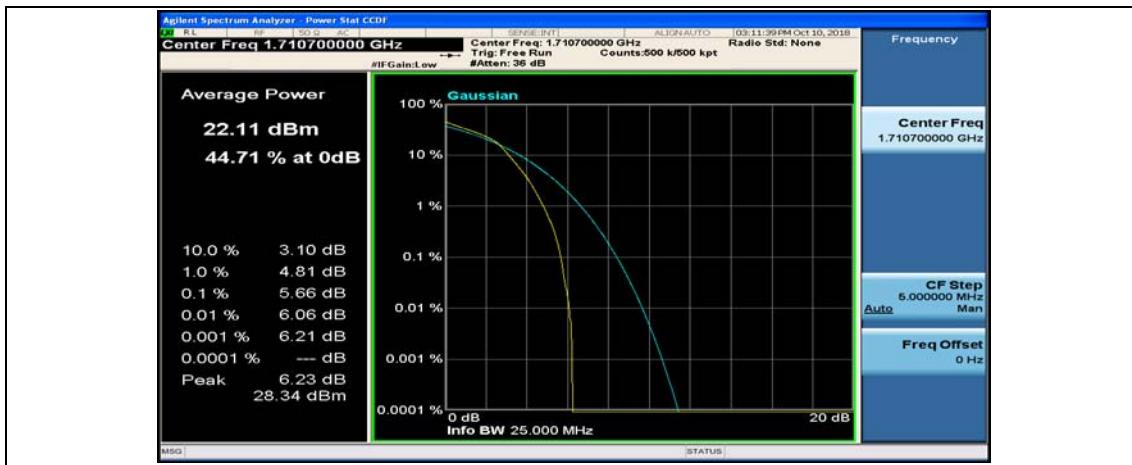


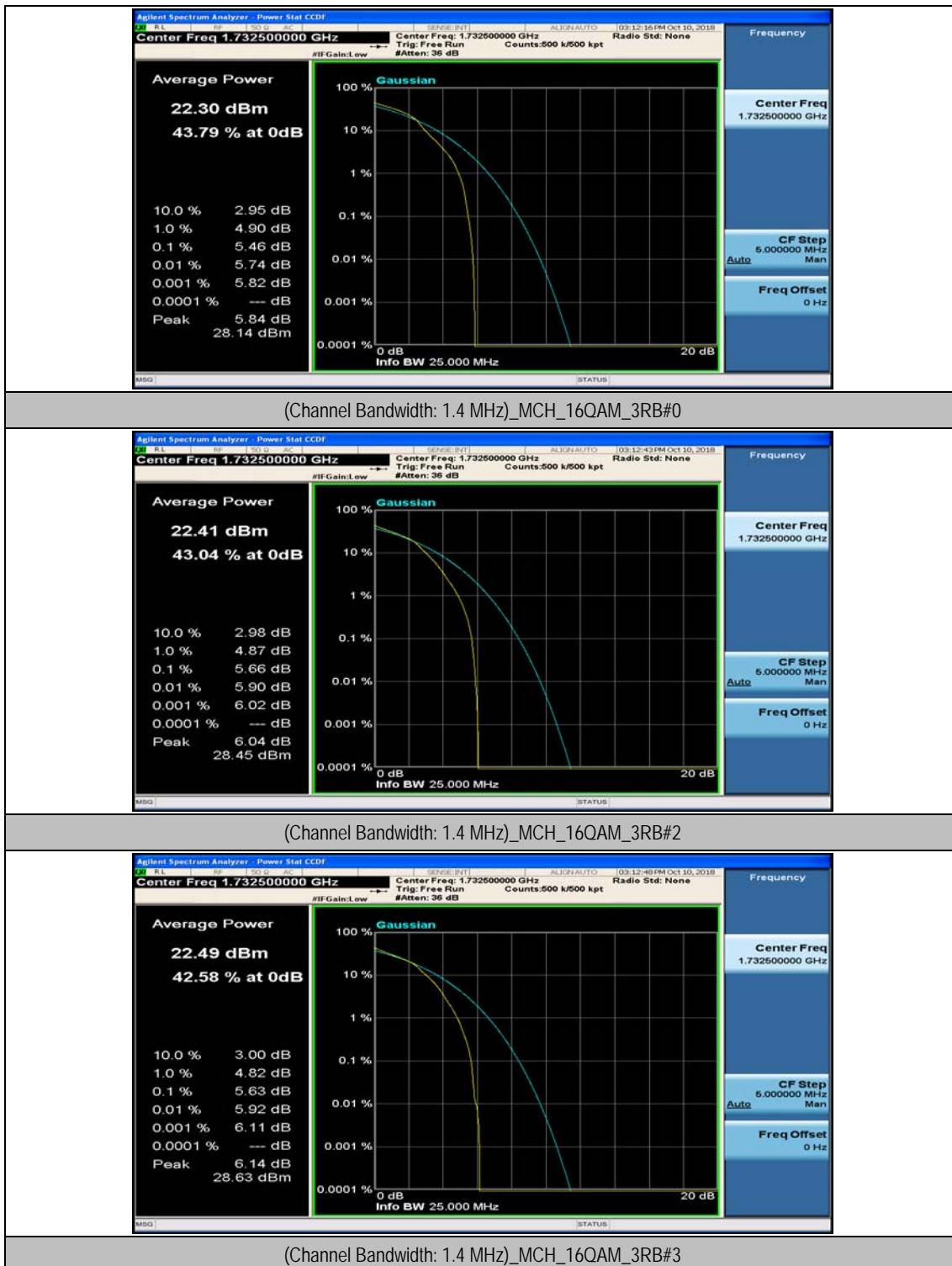


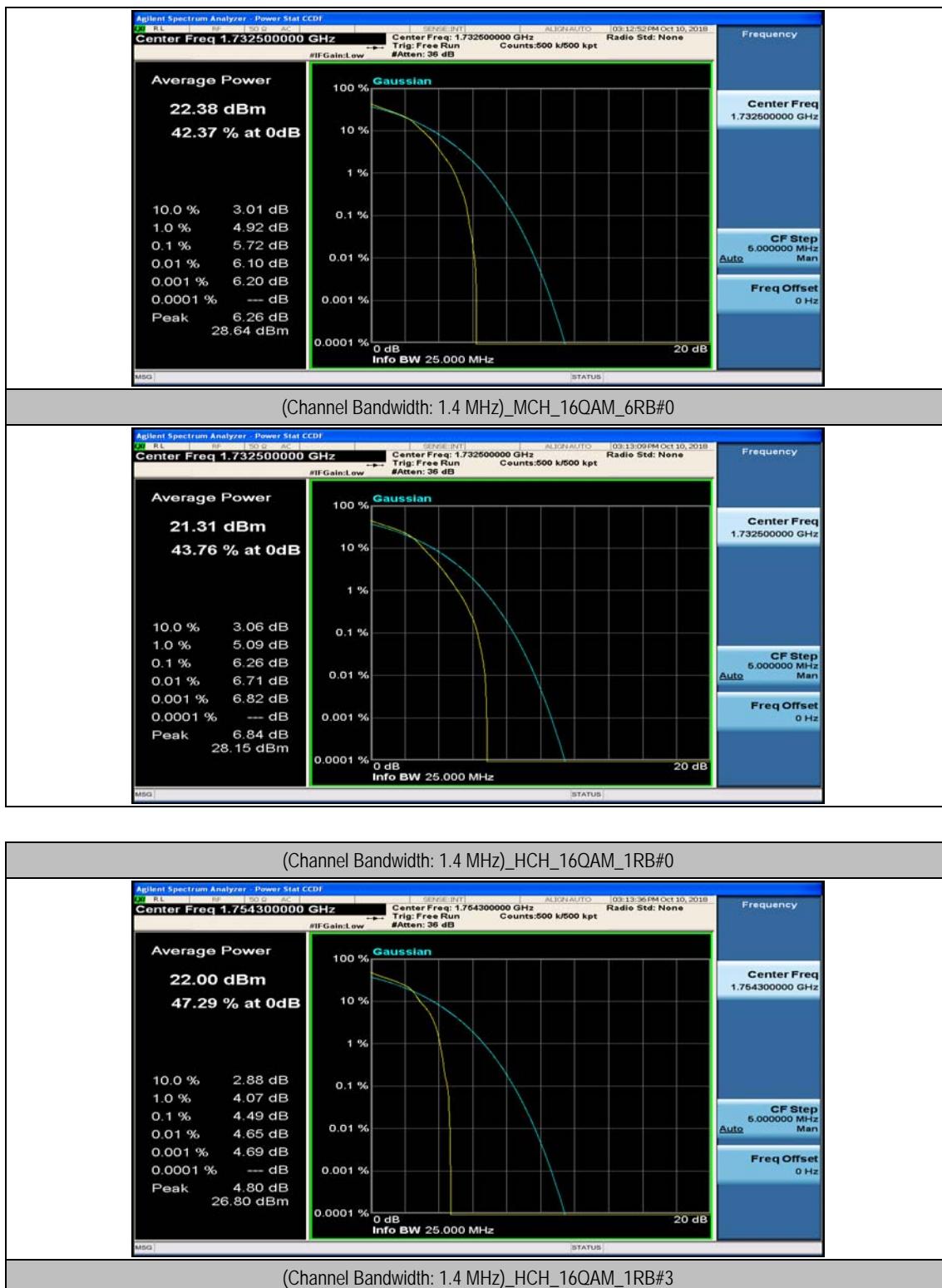


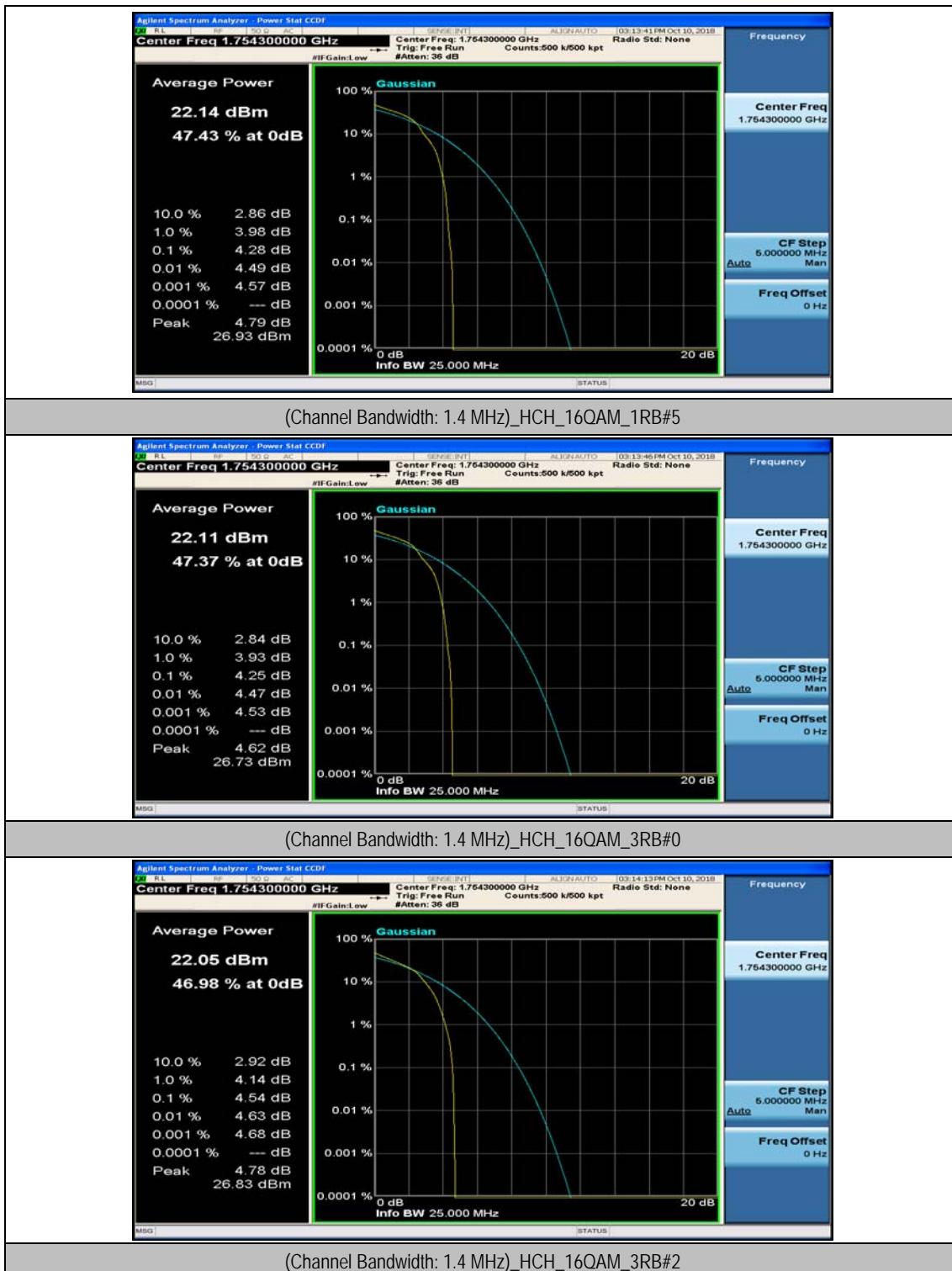


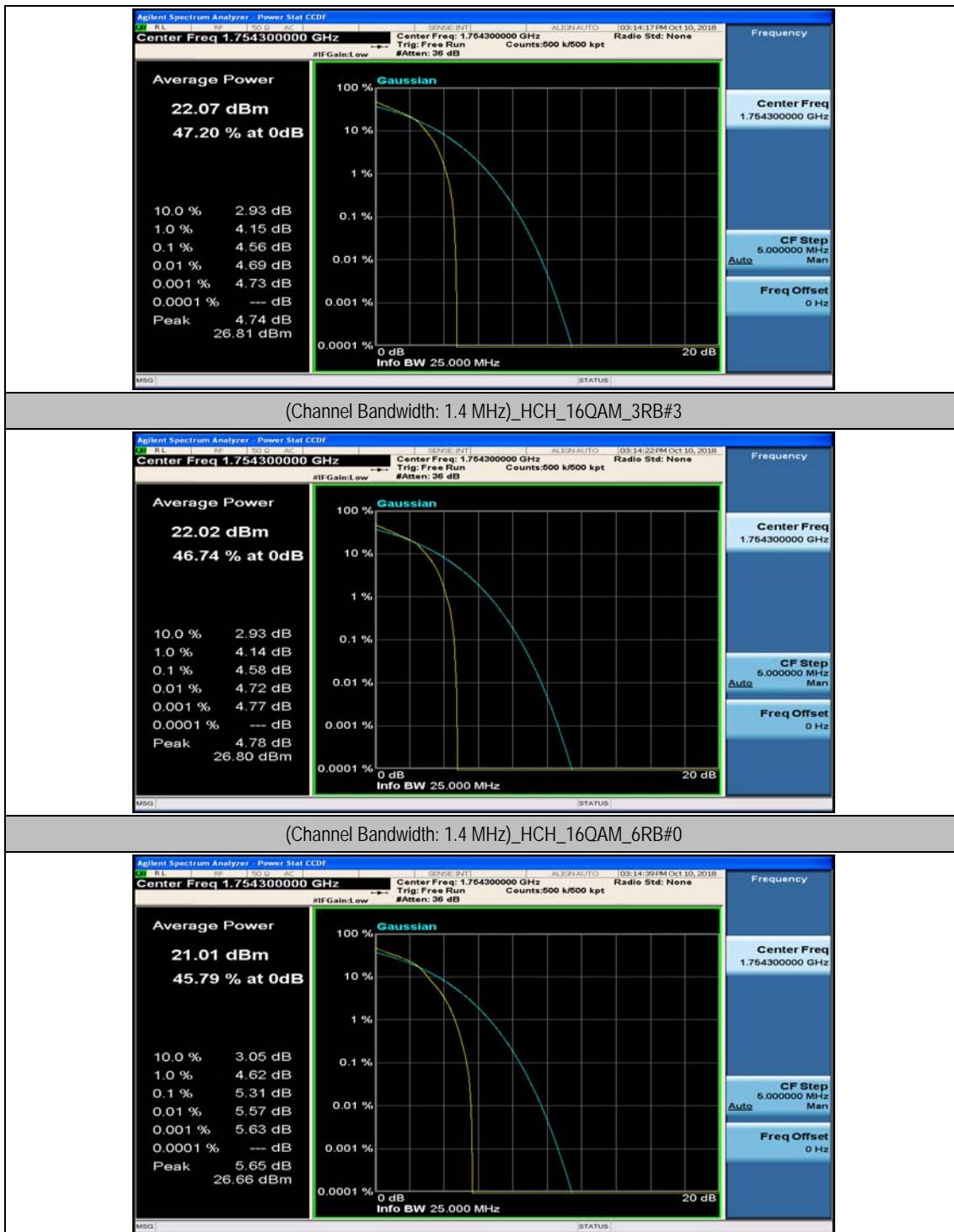




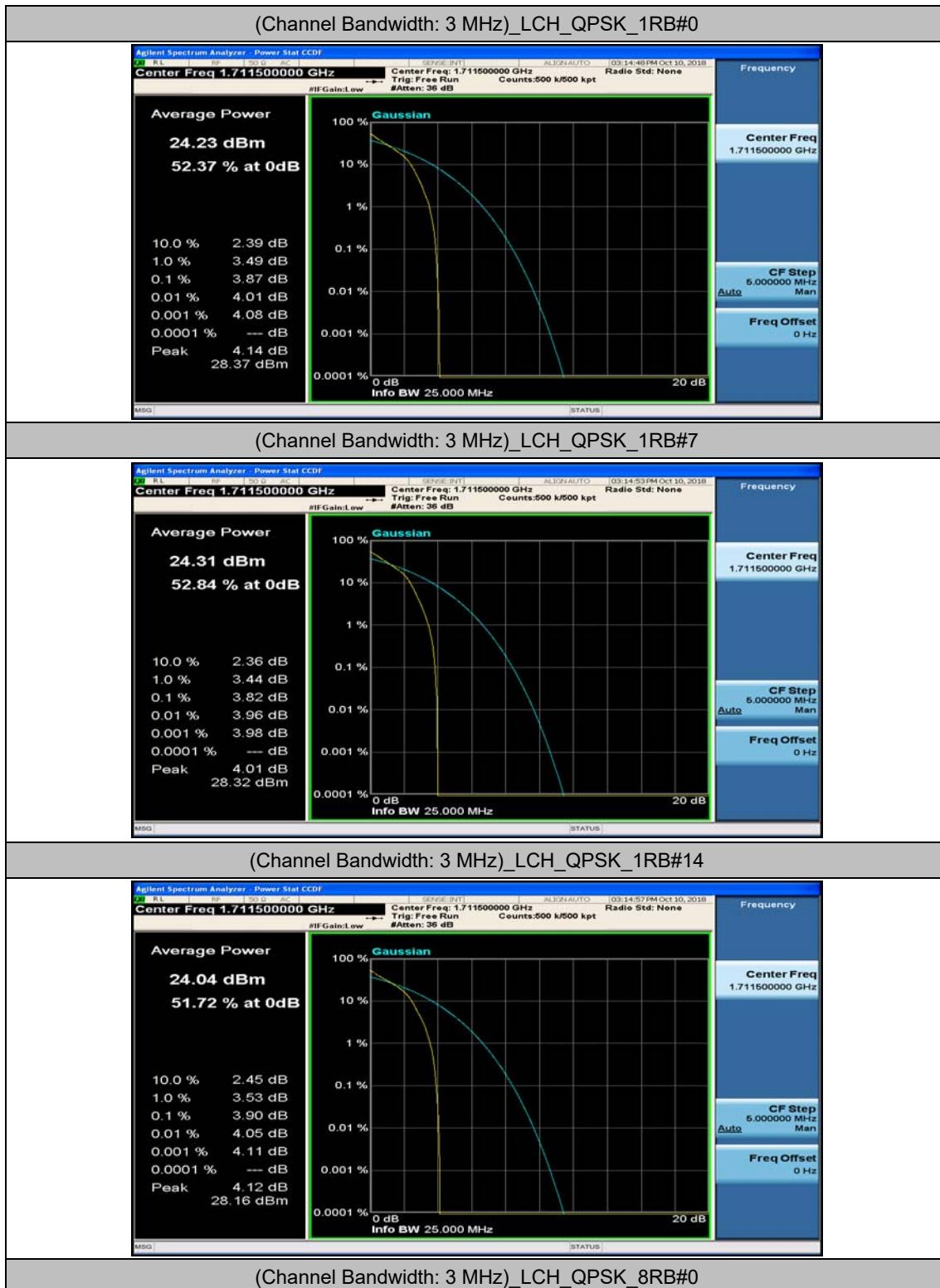


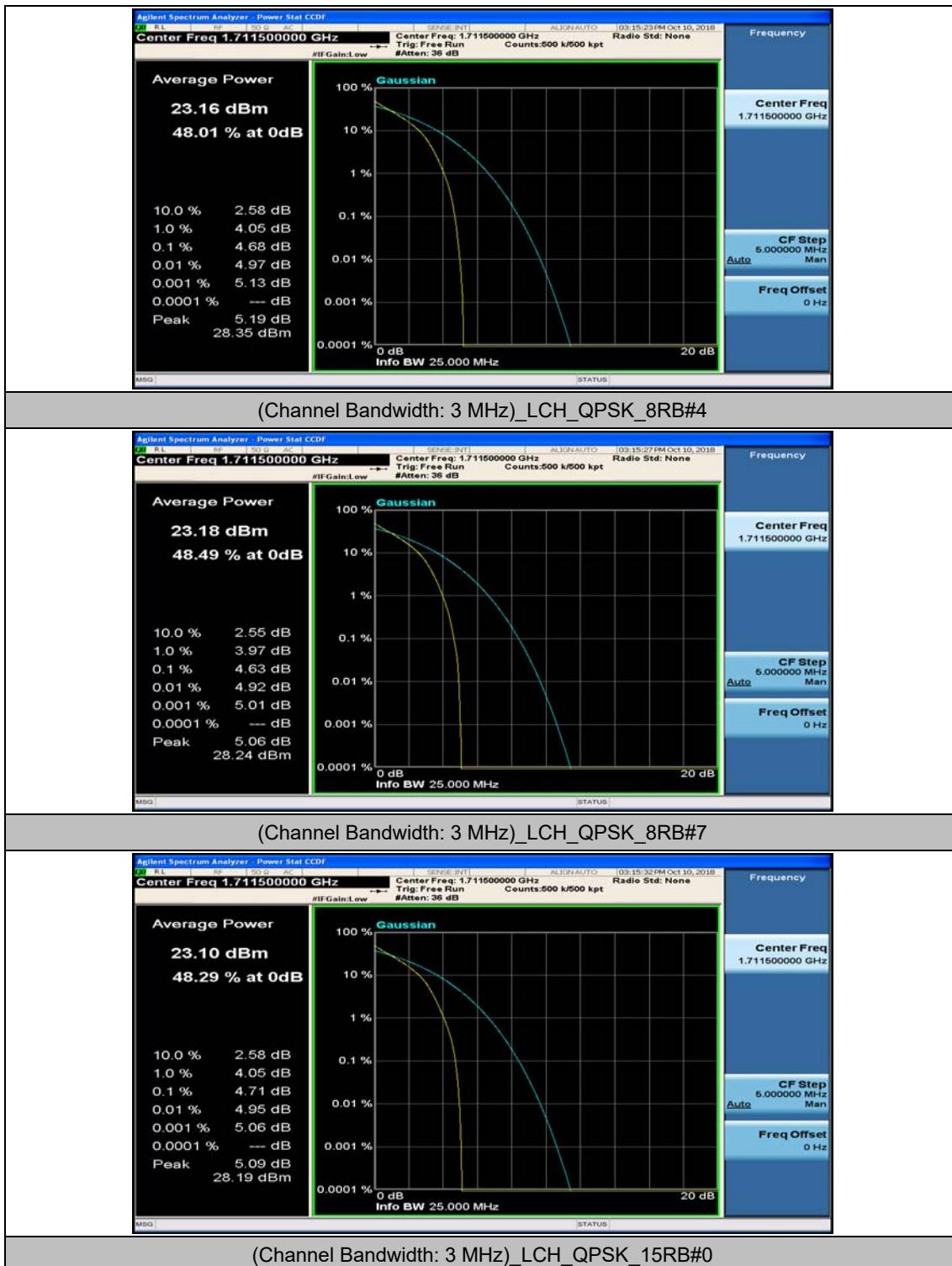


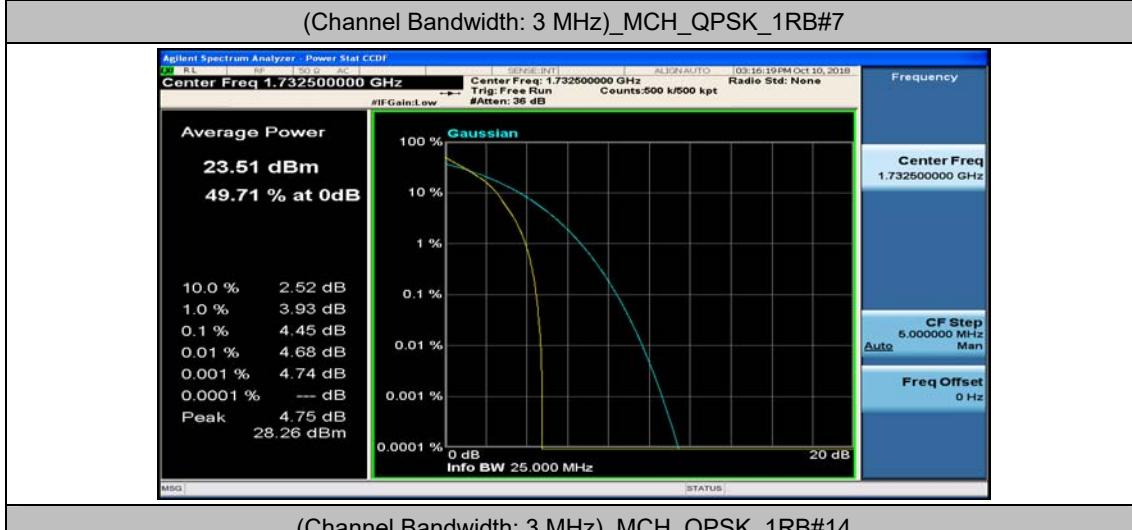
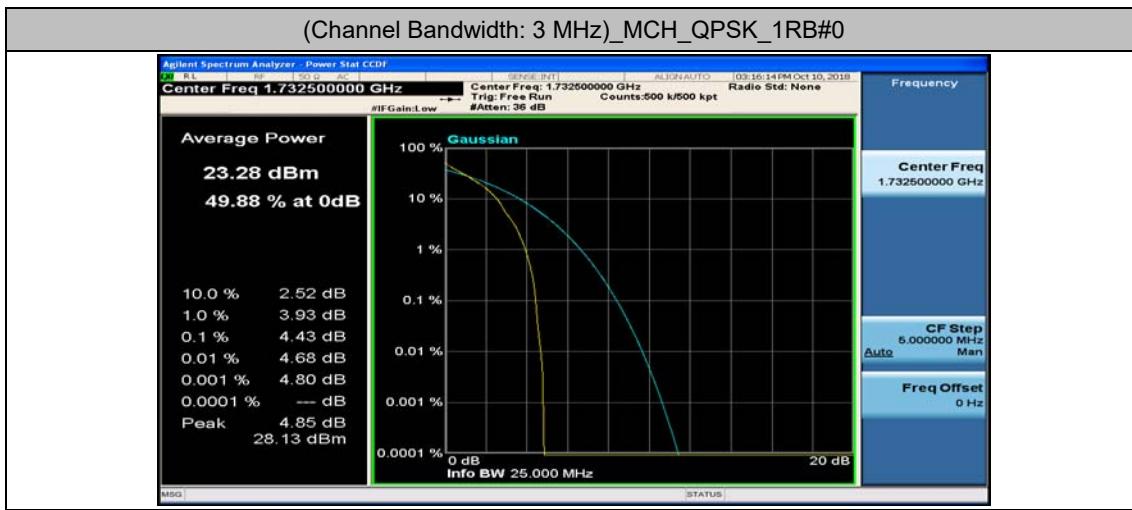
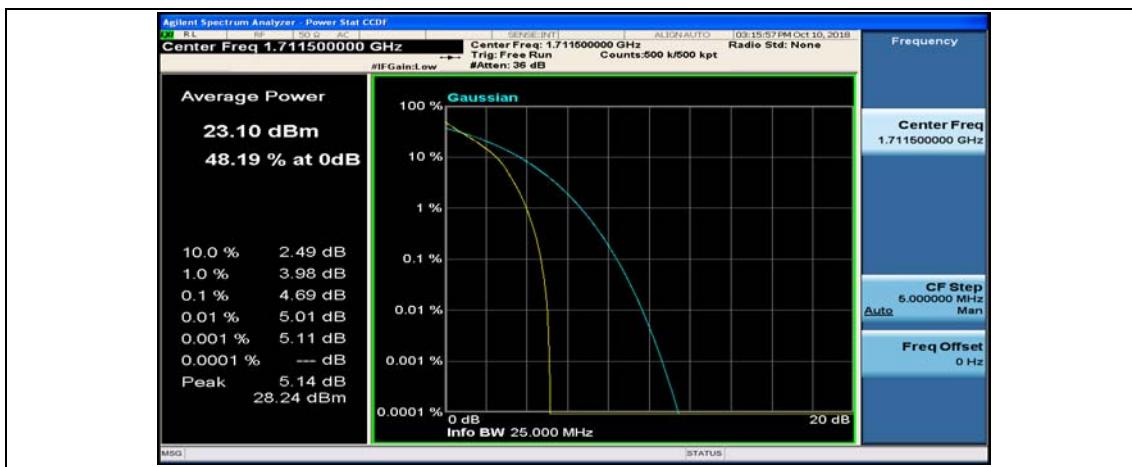




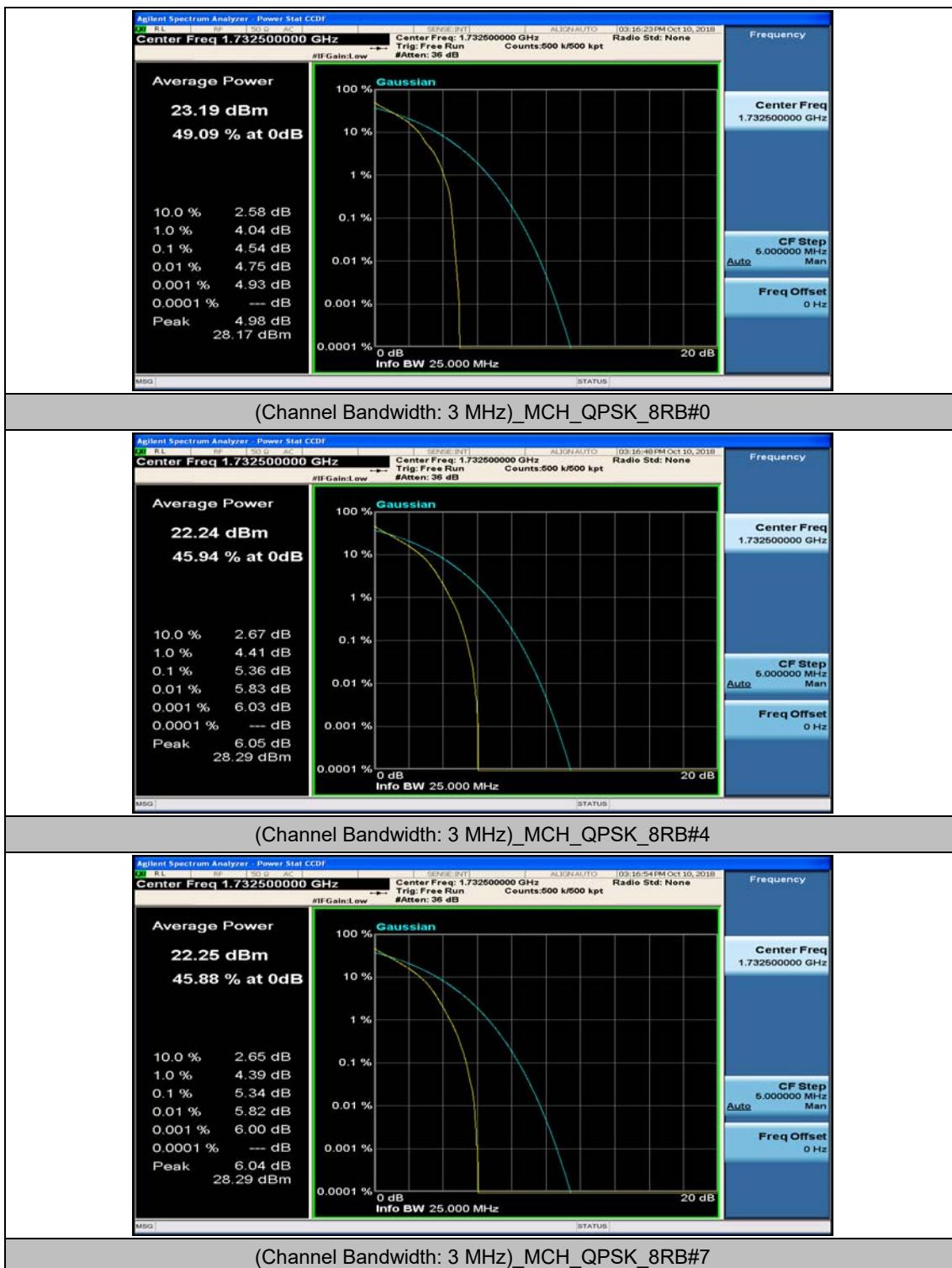
Channel Bandwidth: 3 MHz

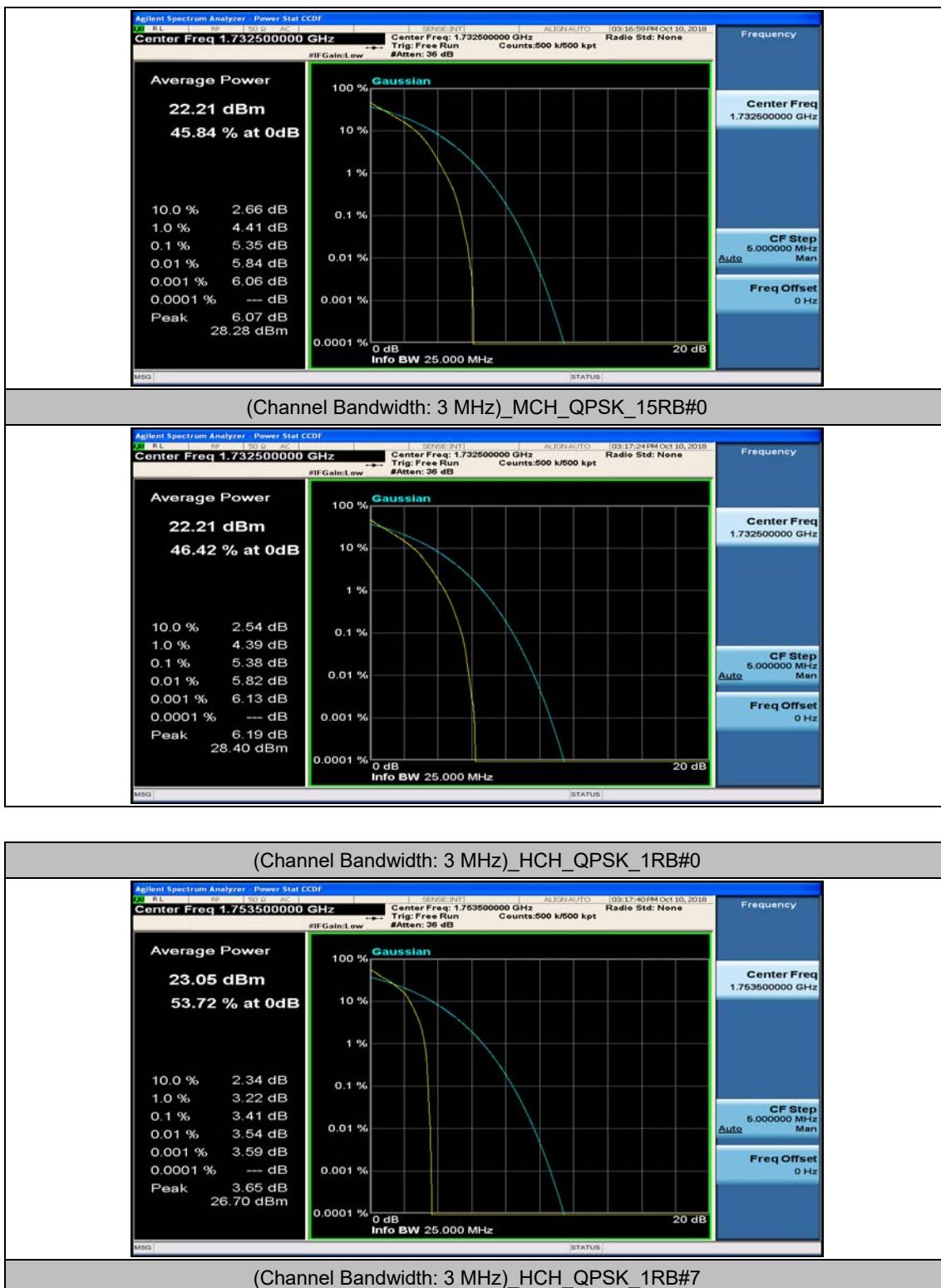


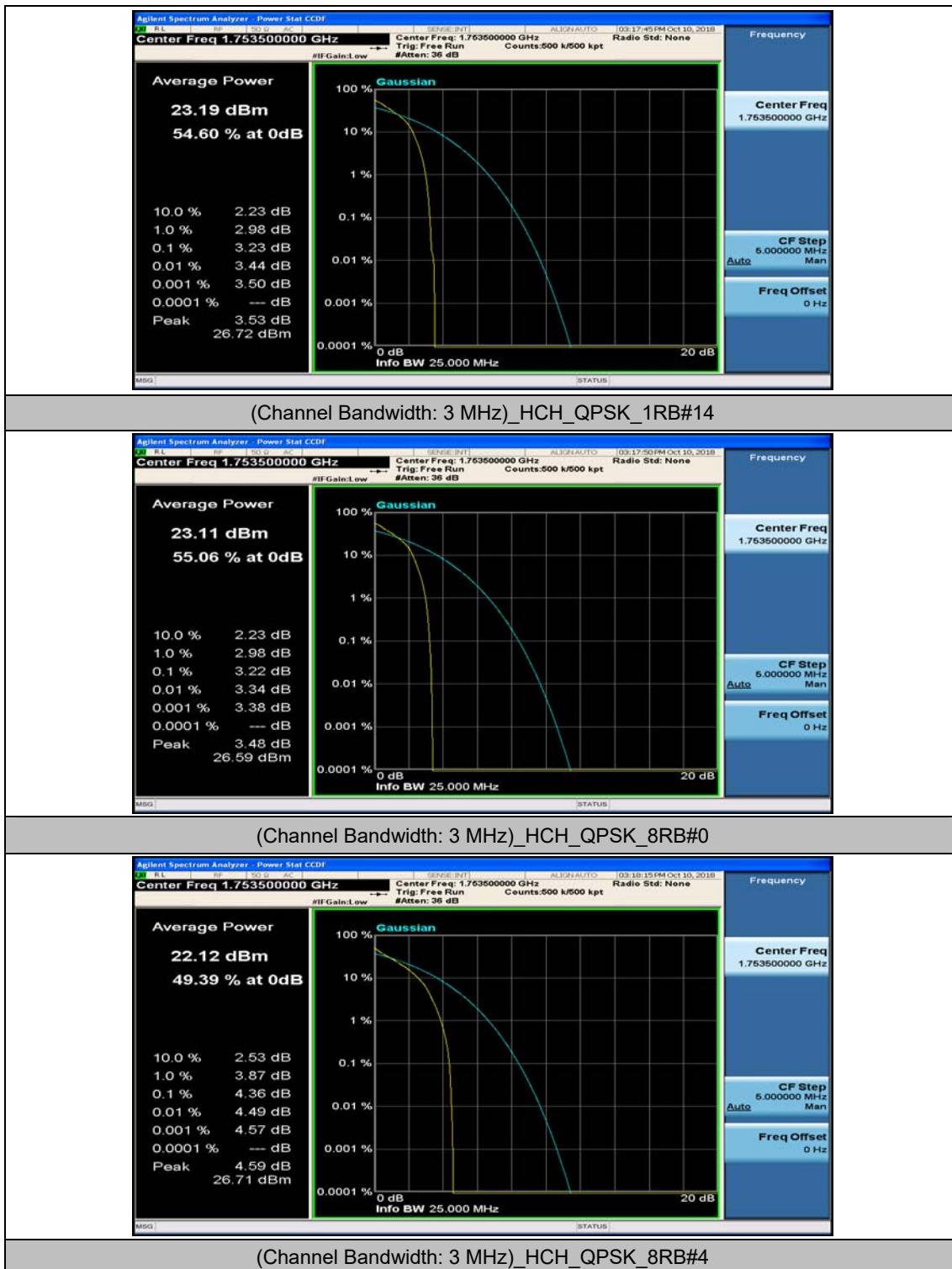


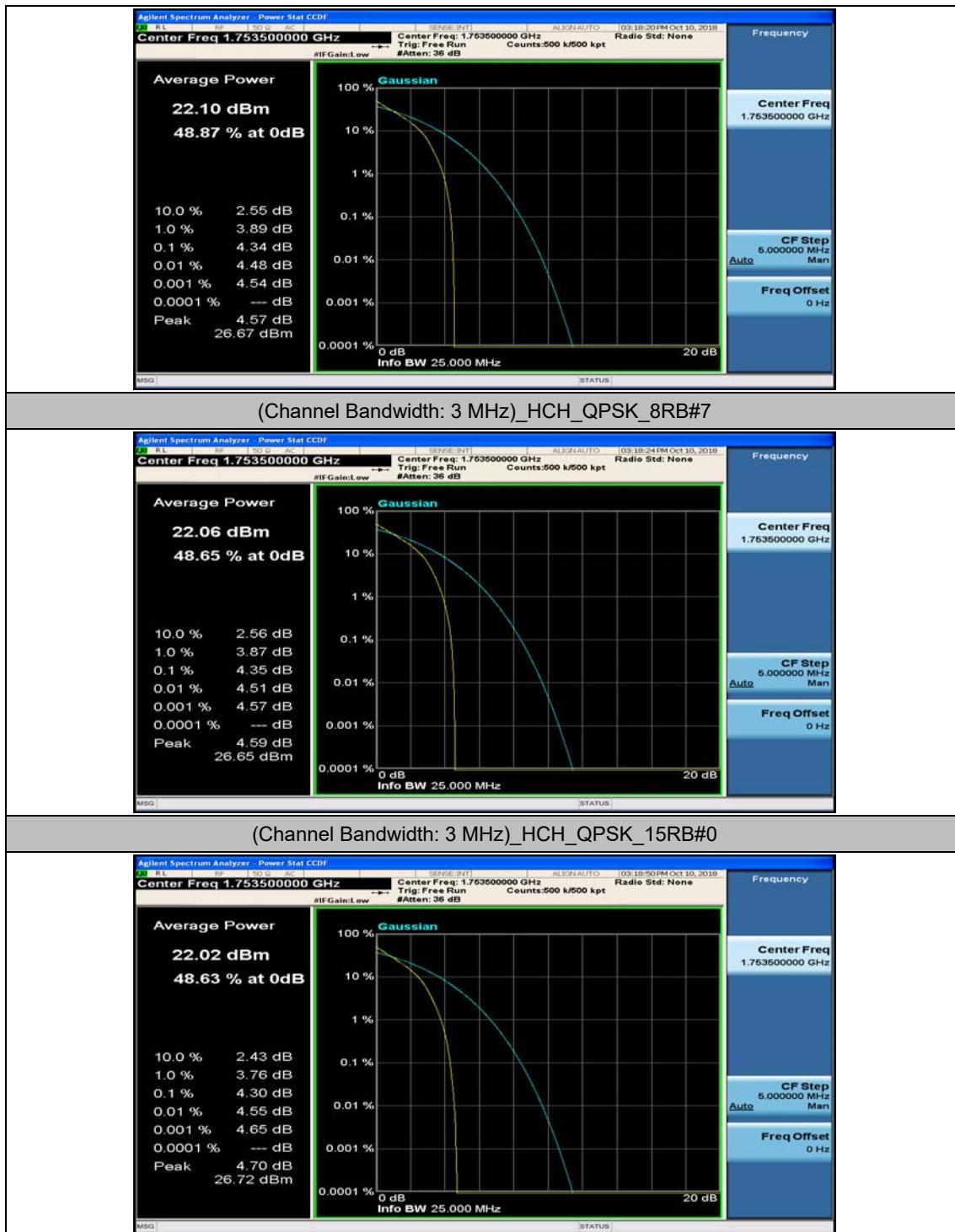


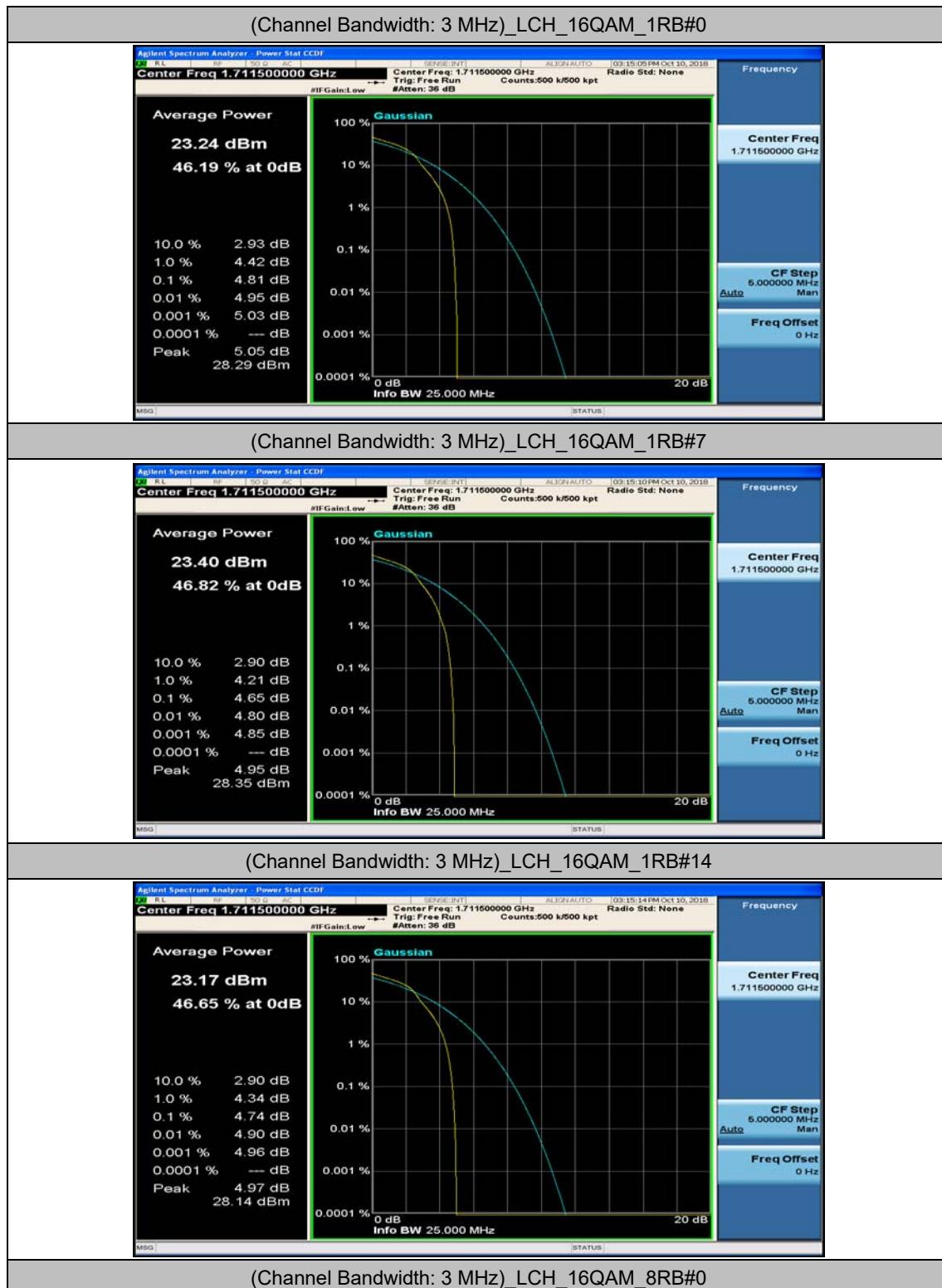
(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#14

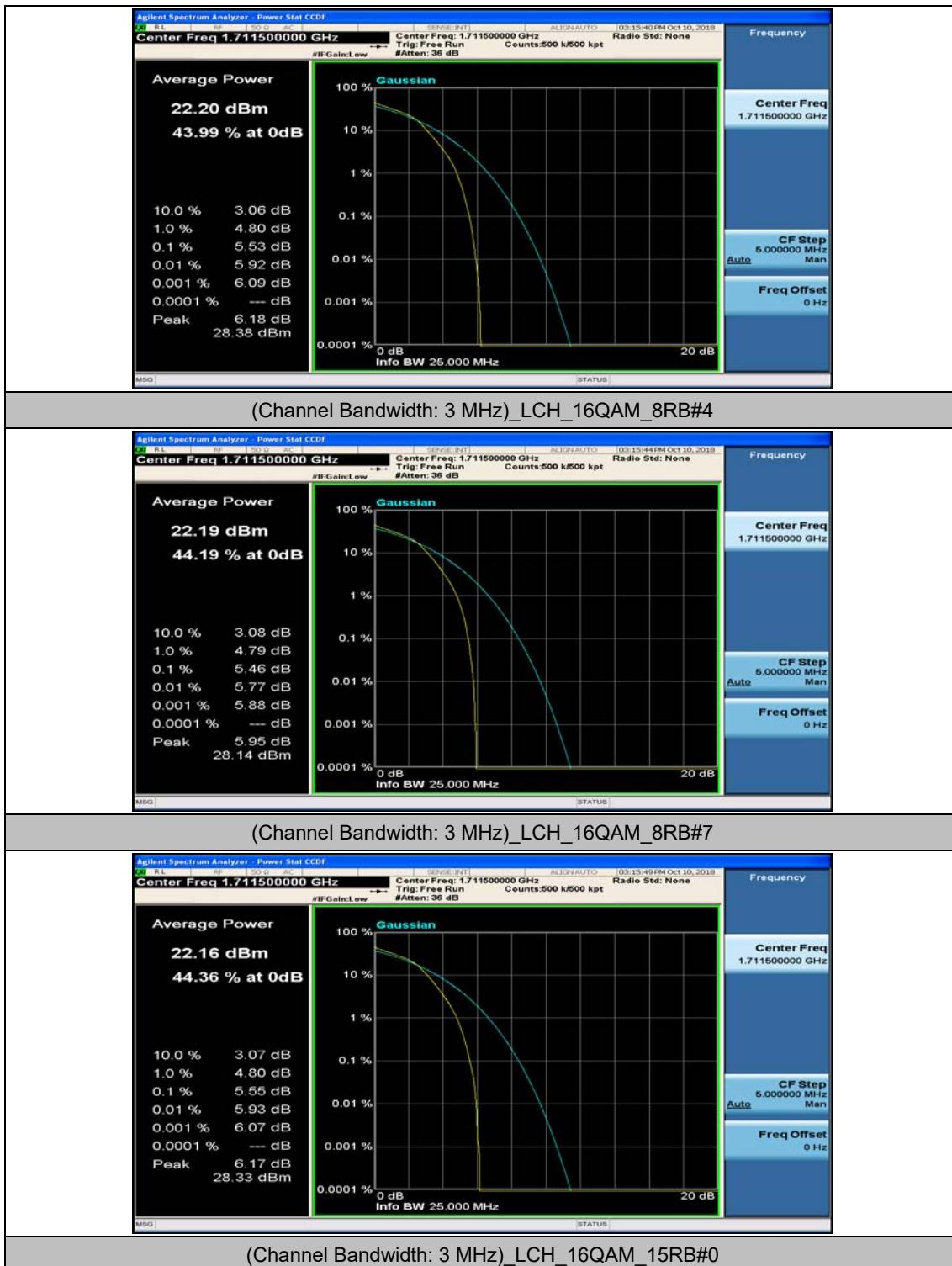


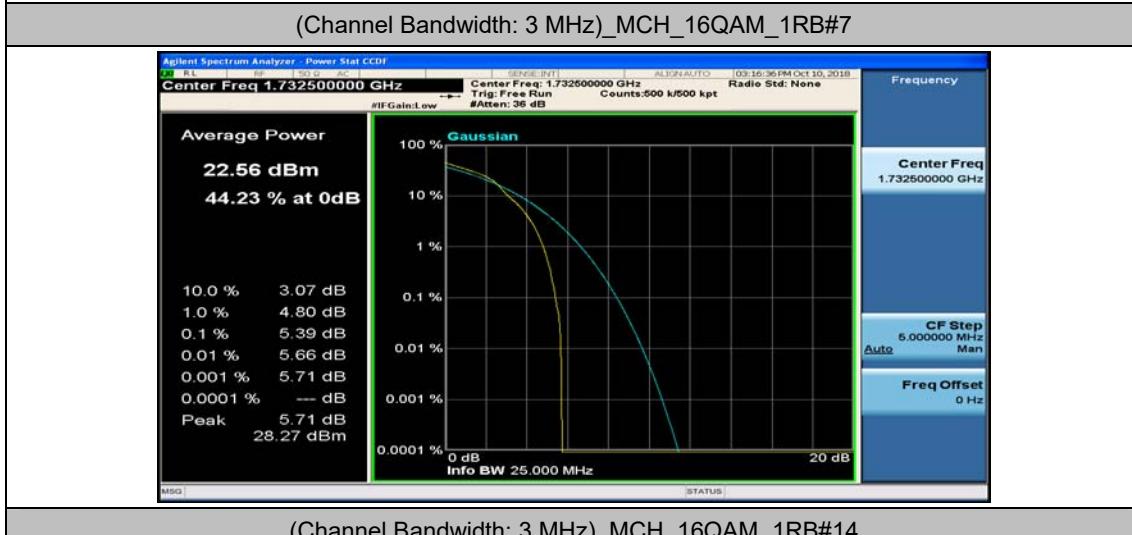
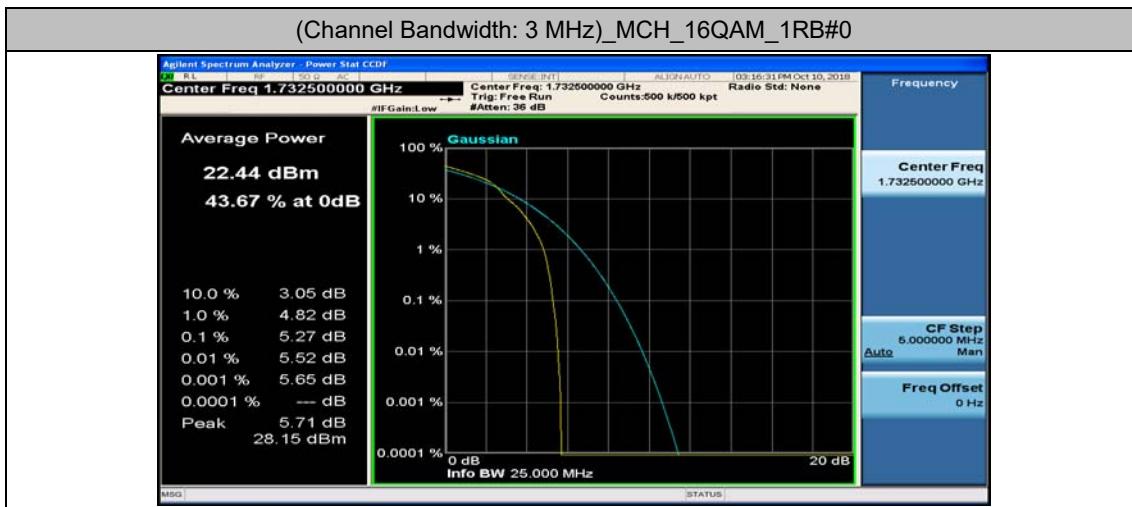
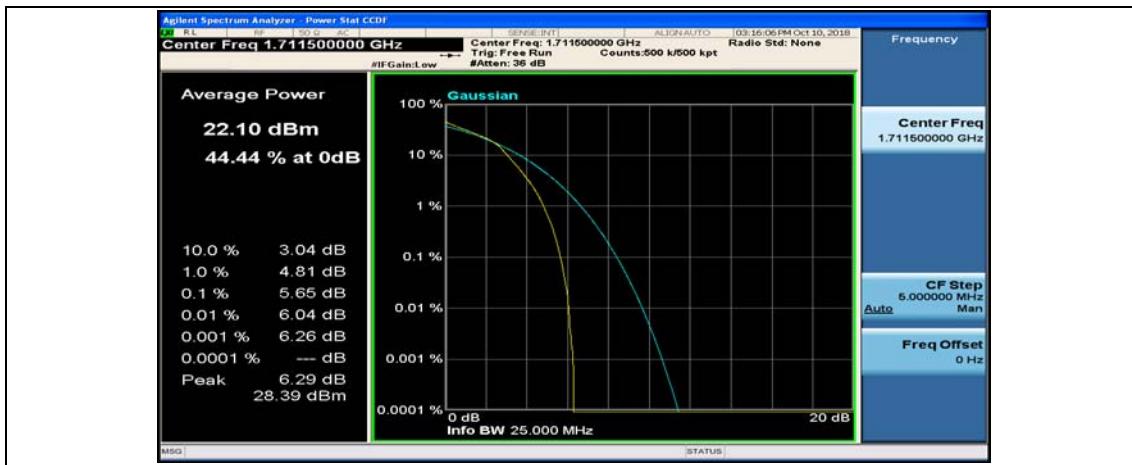




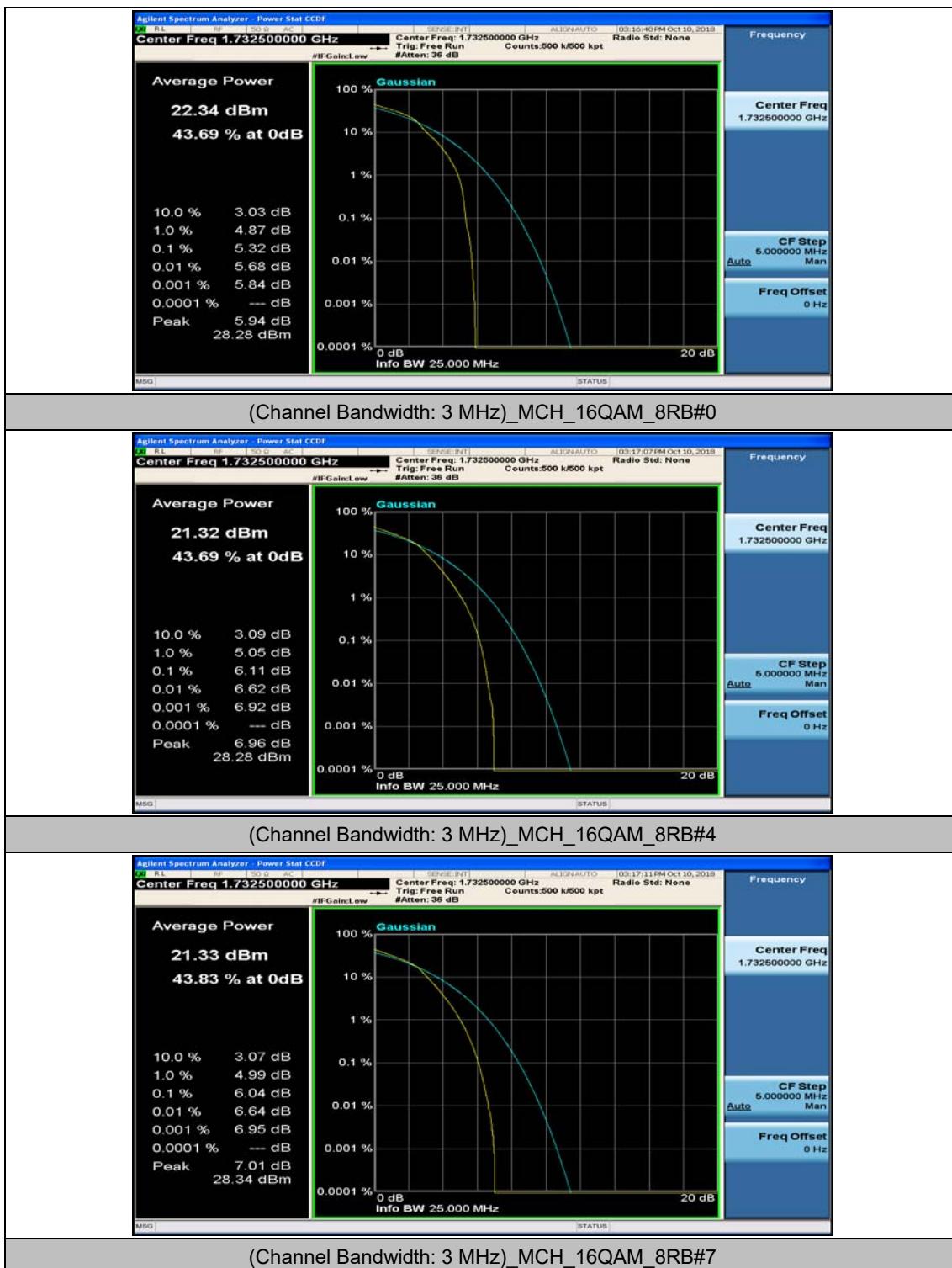


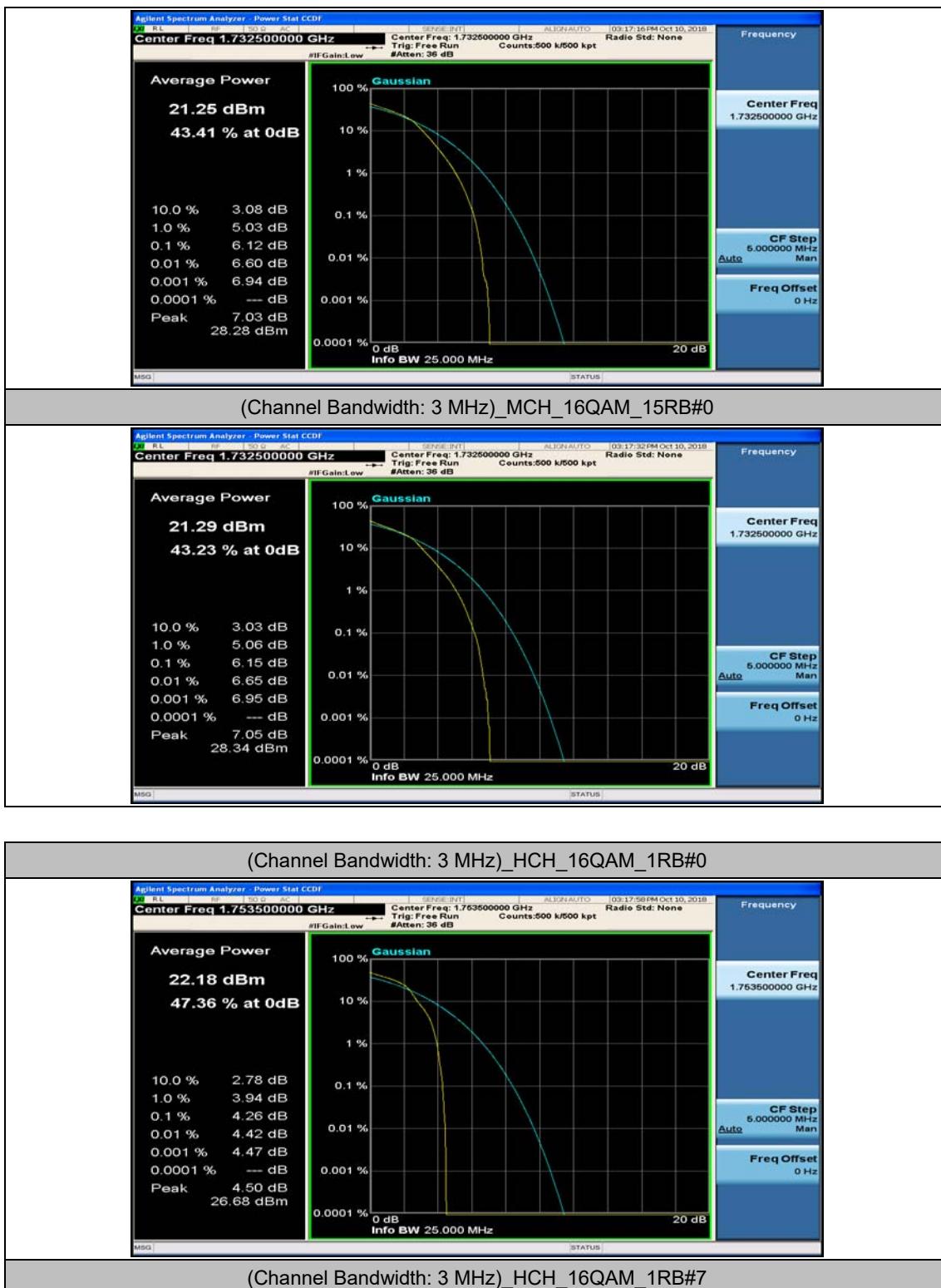


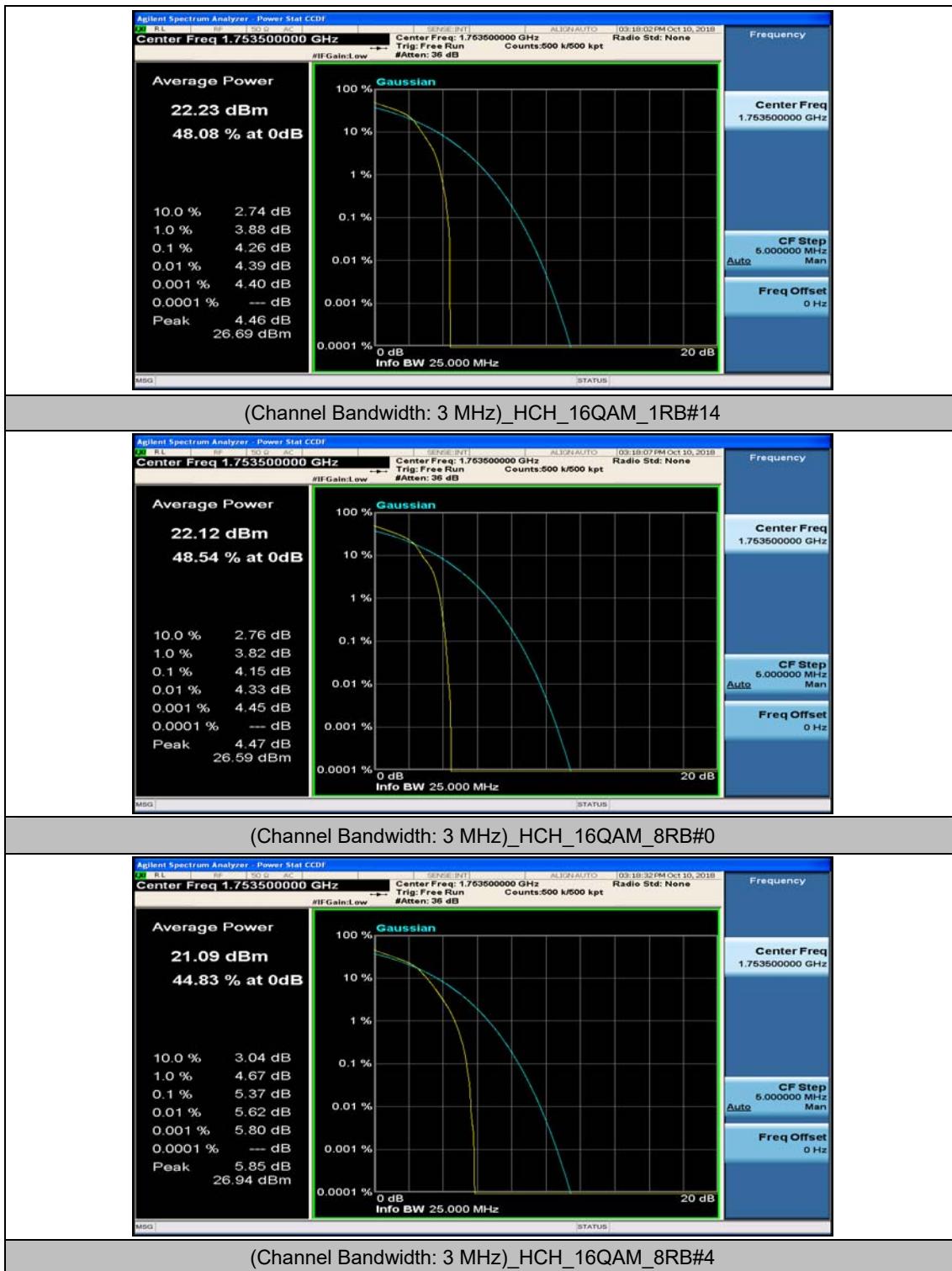


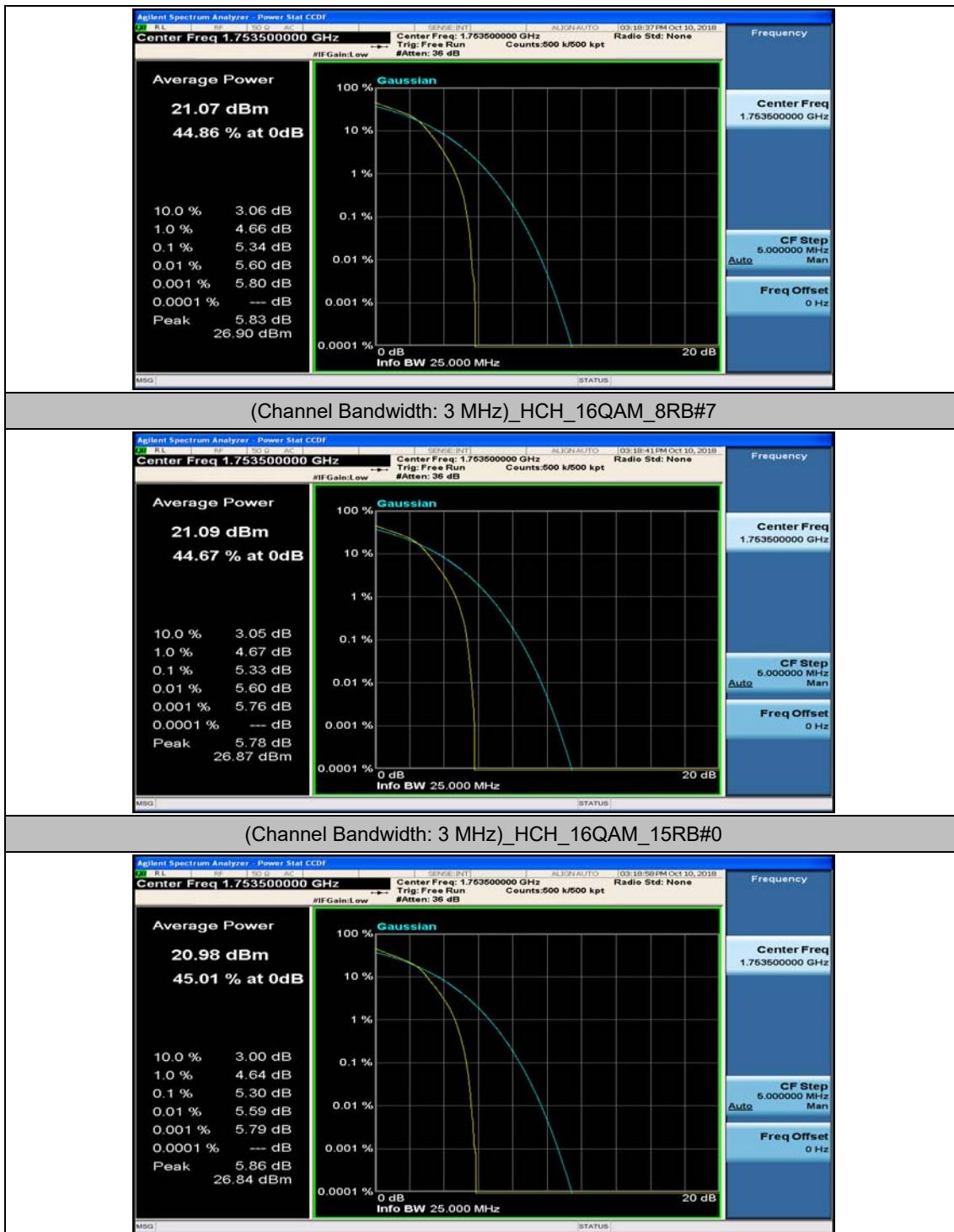


(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#14

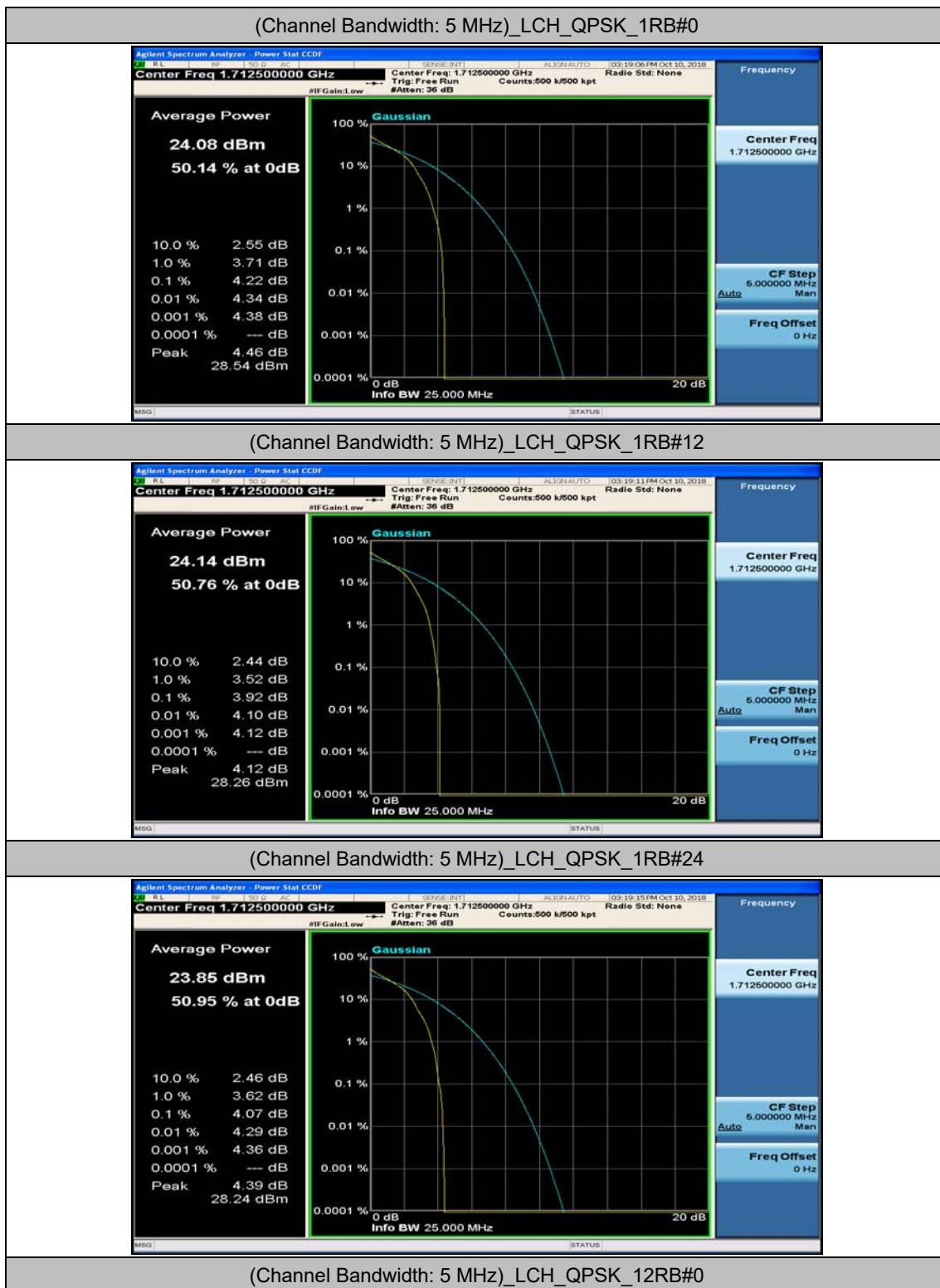


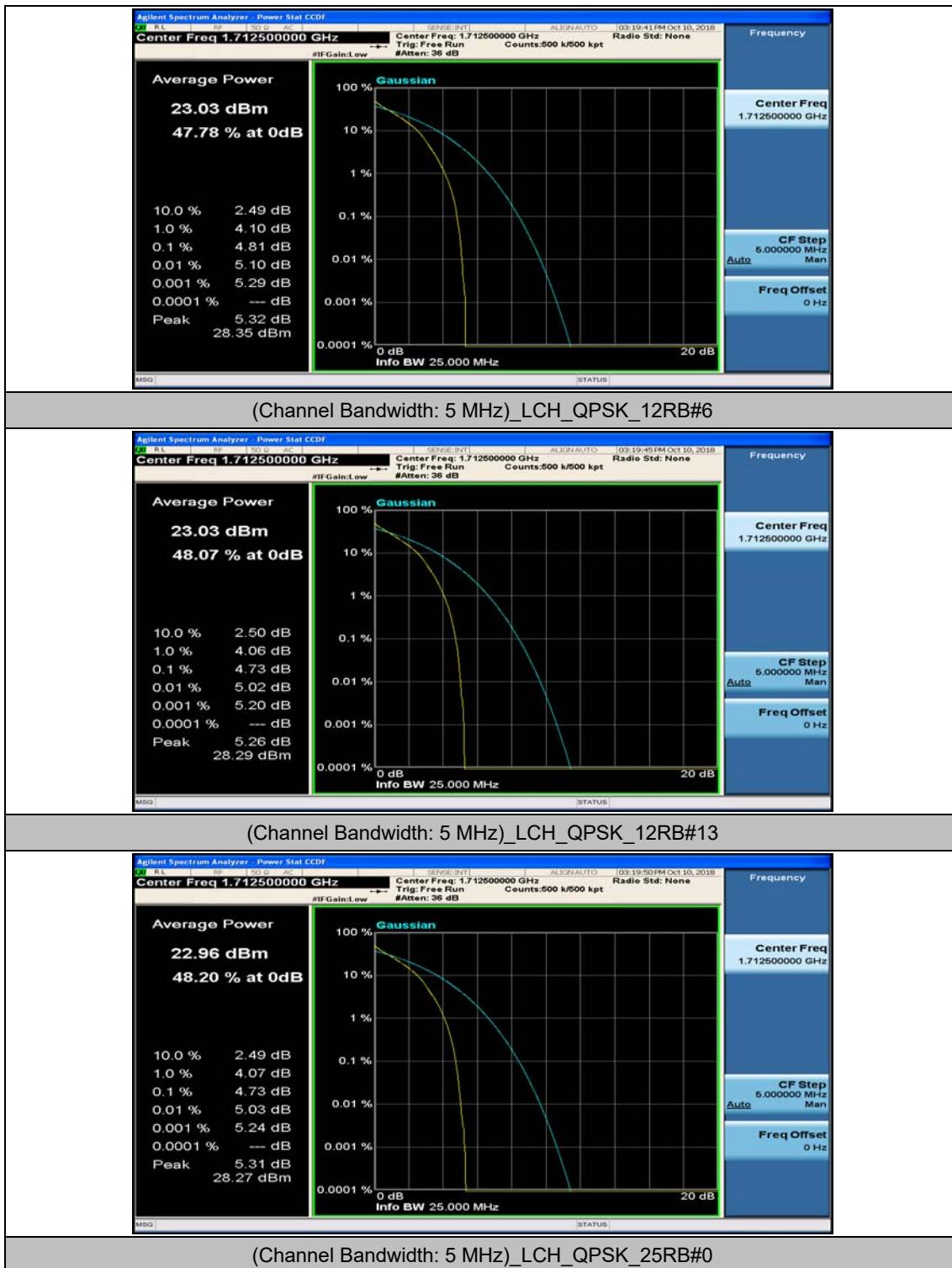


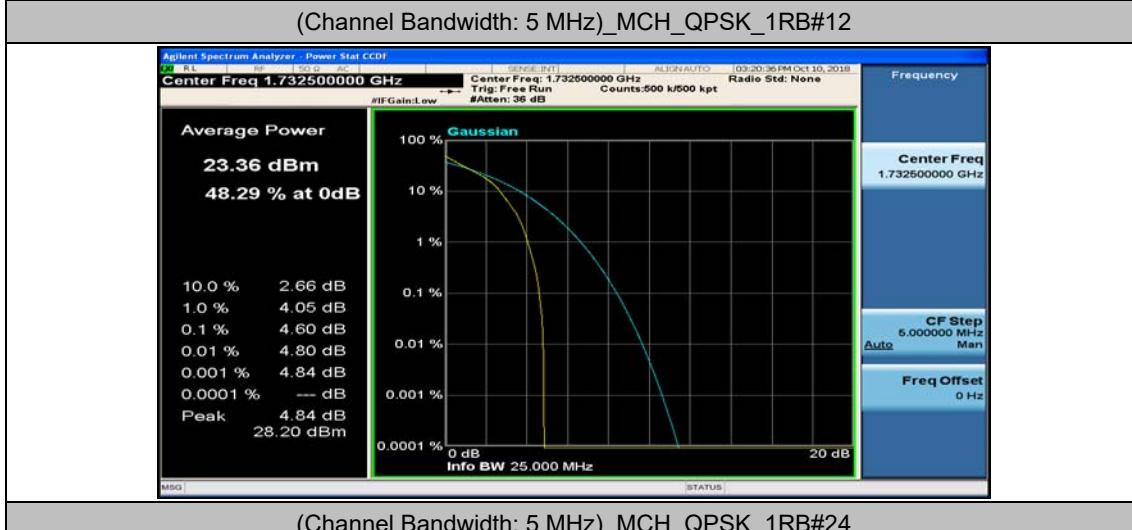
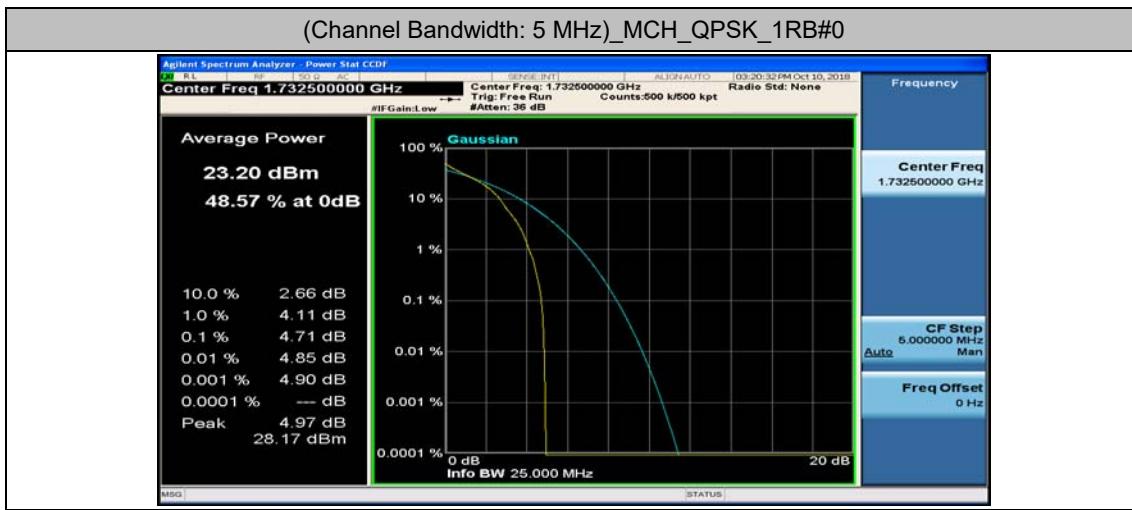
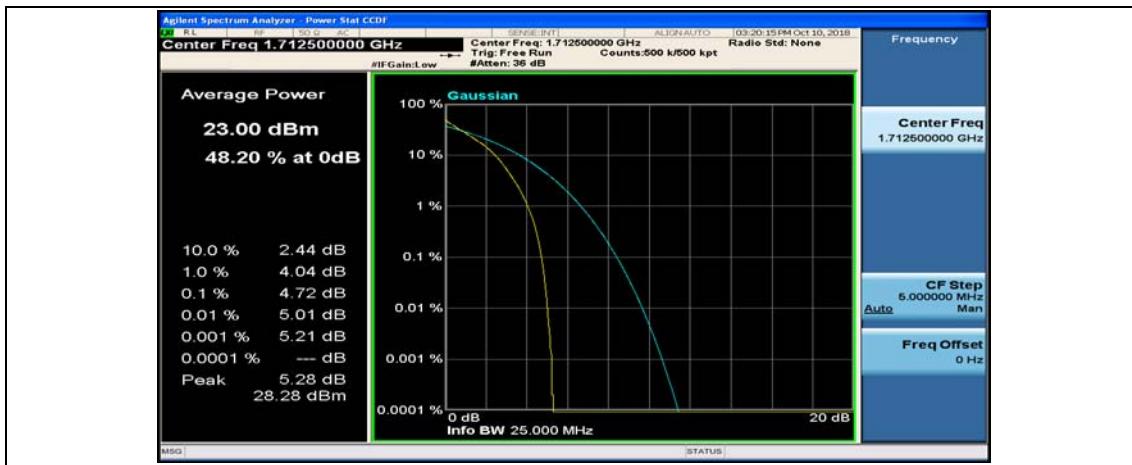




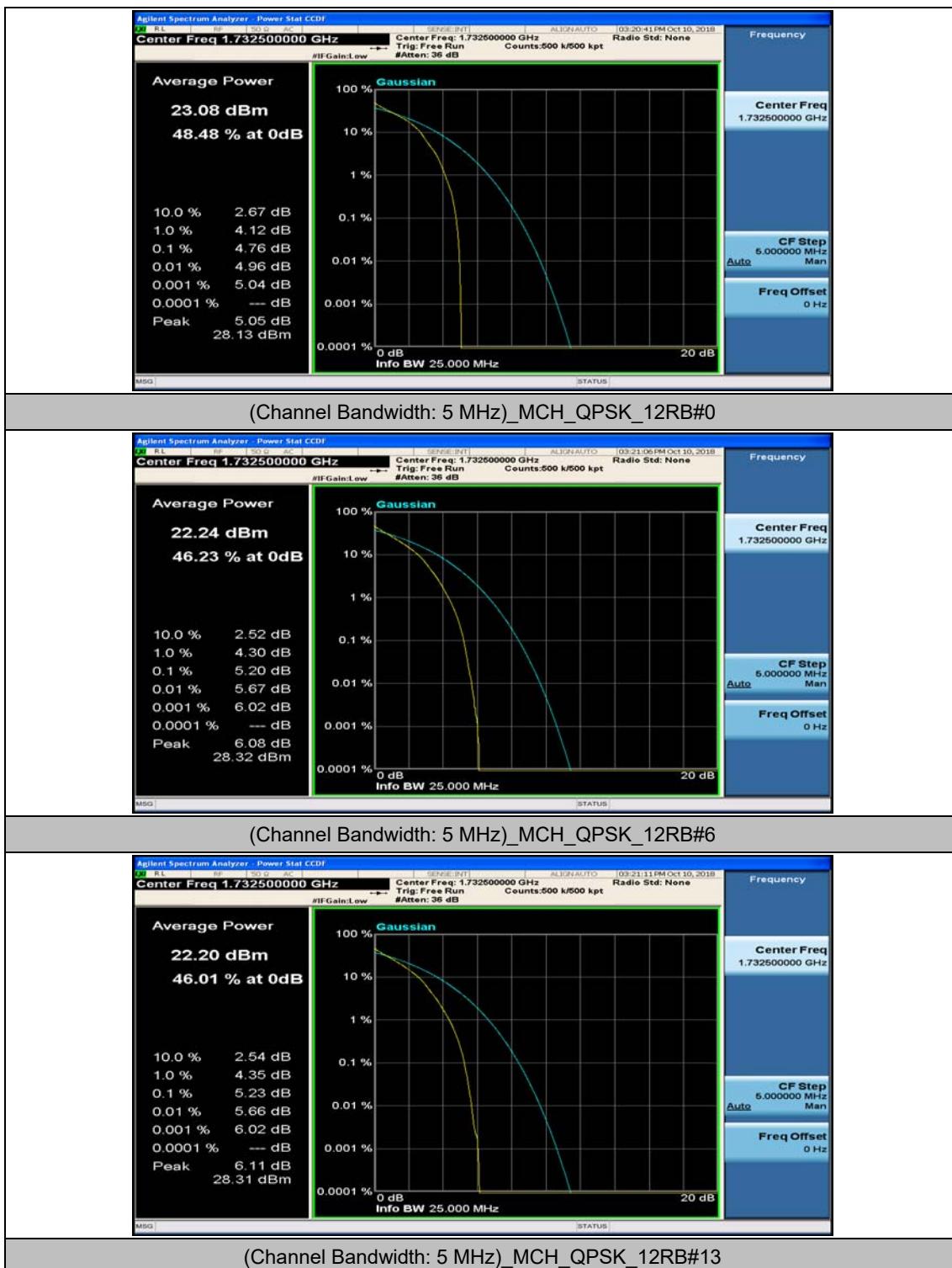
Channel Bandwidth: 5 MHz

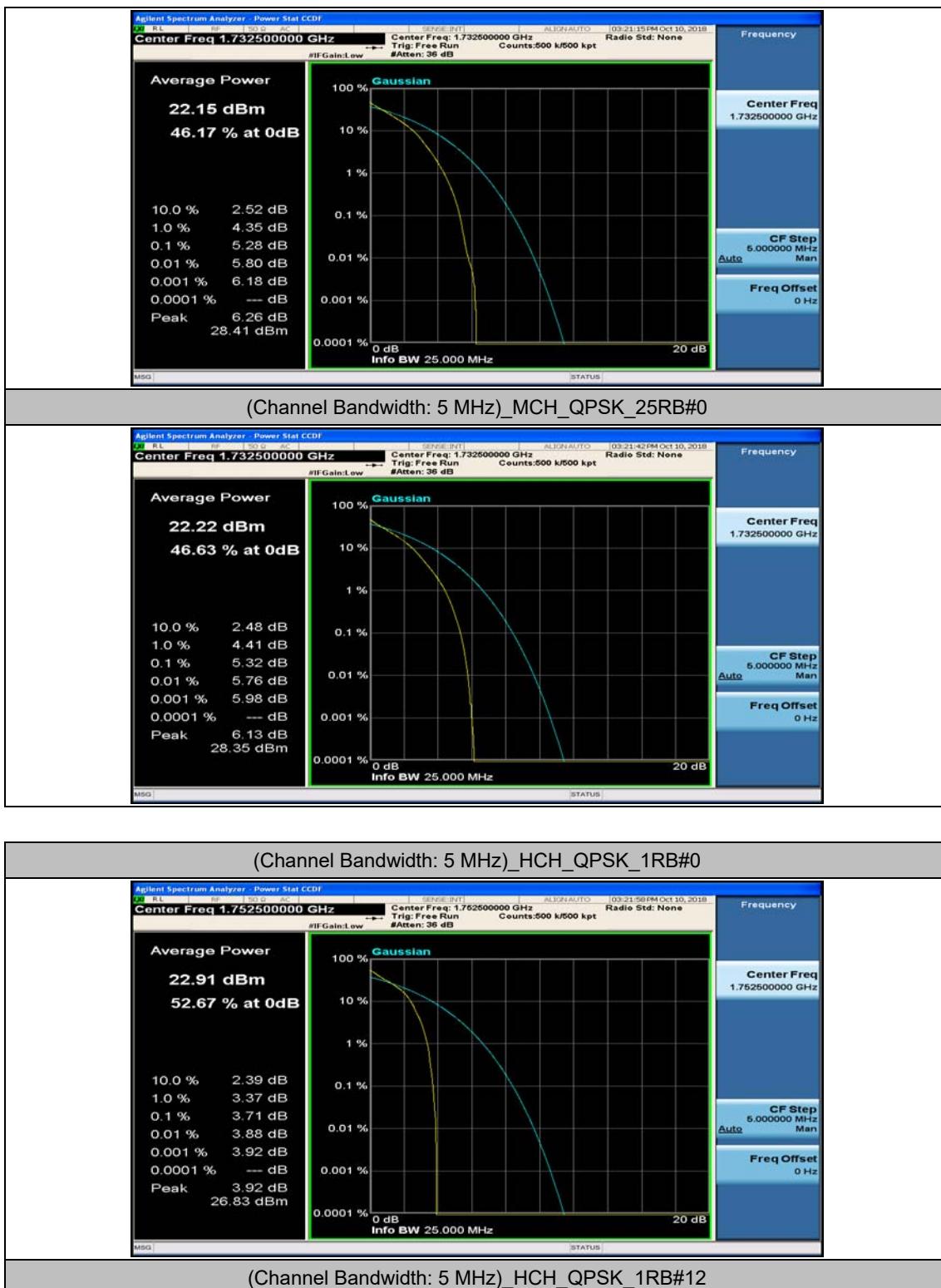


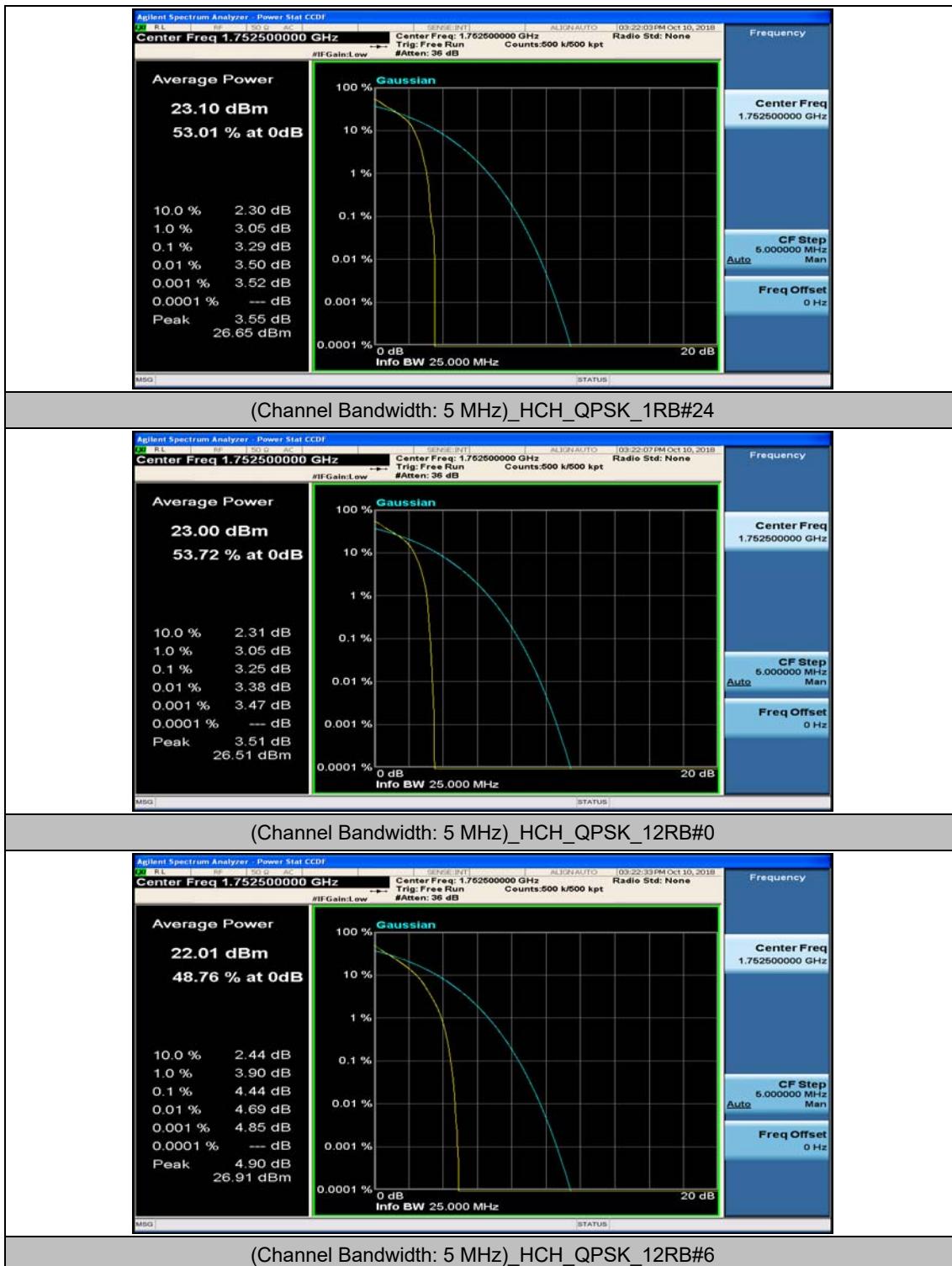


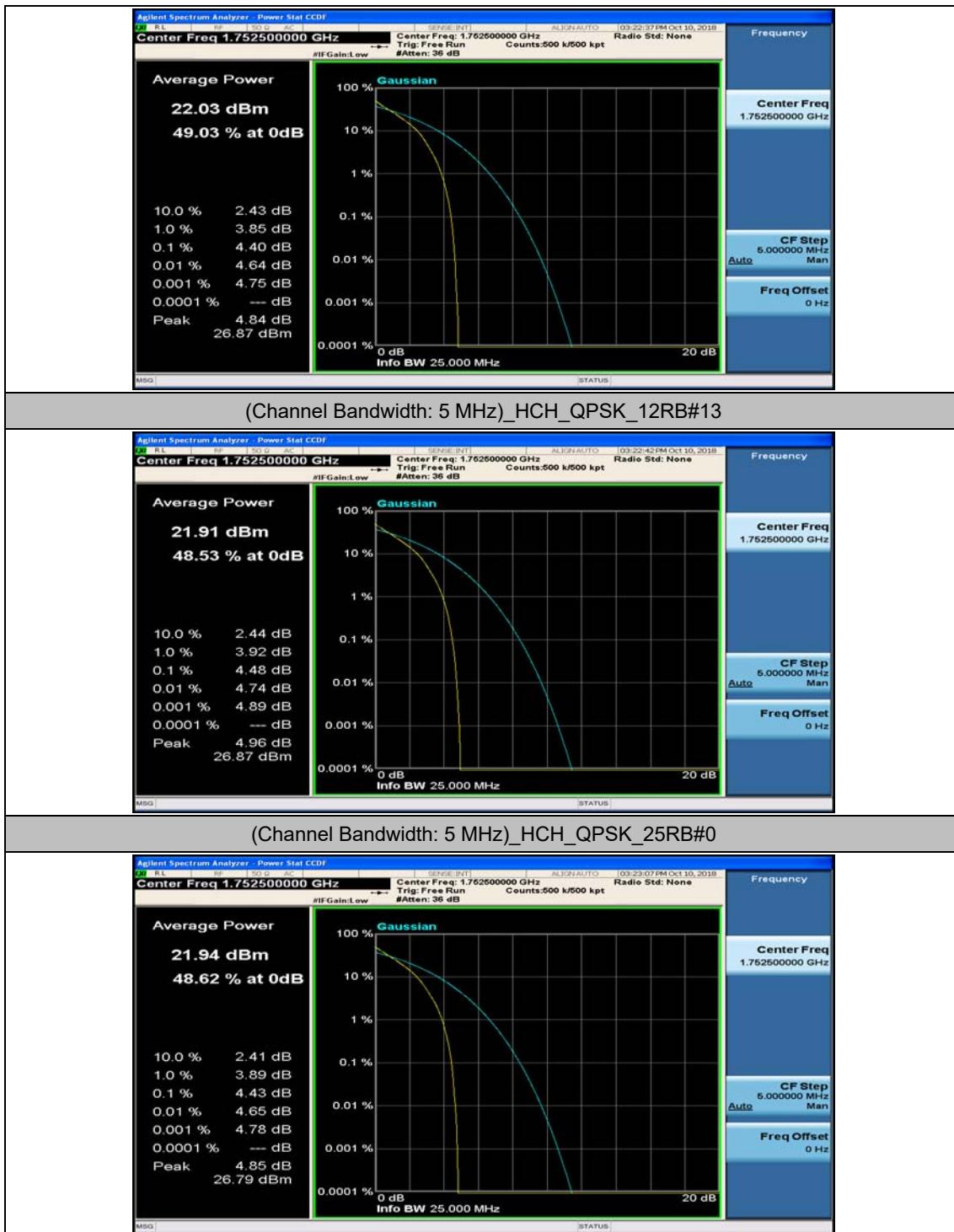


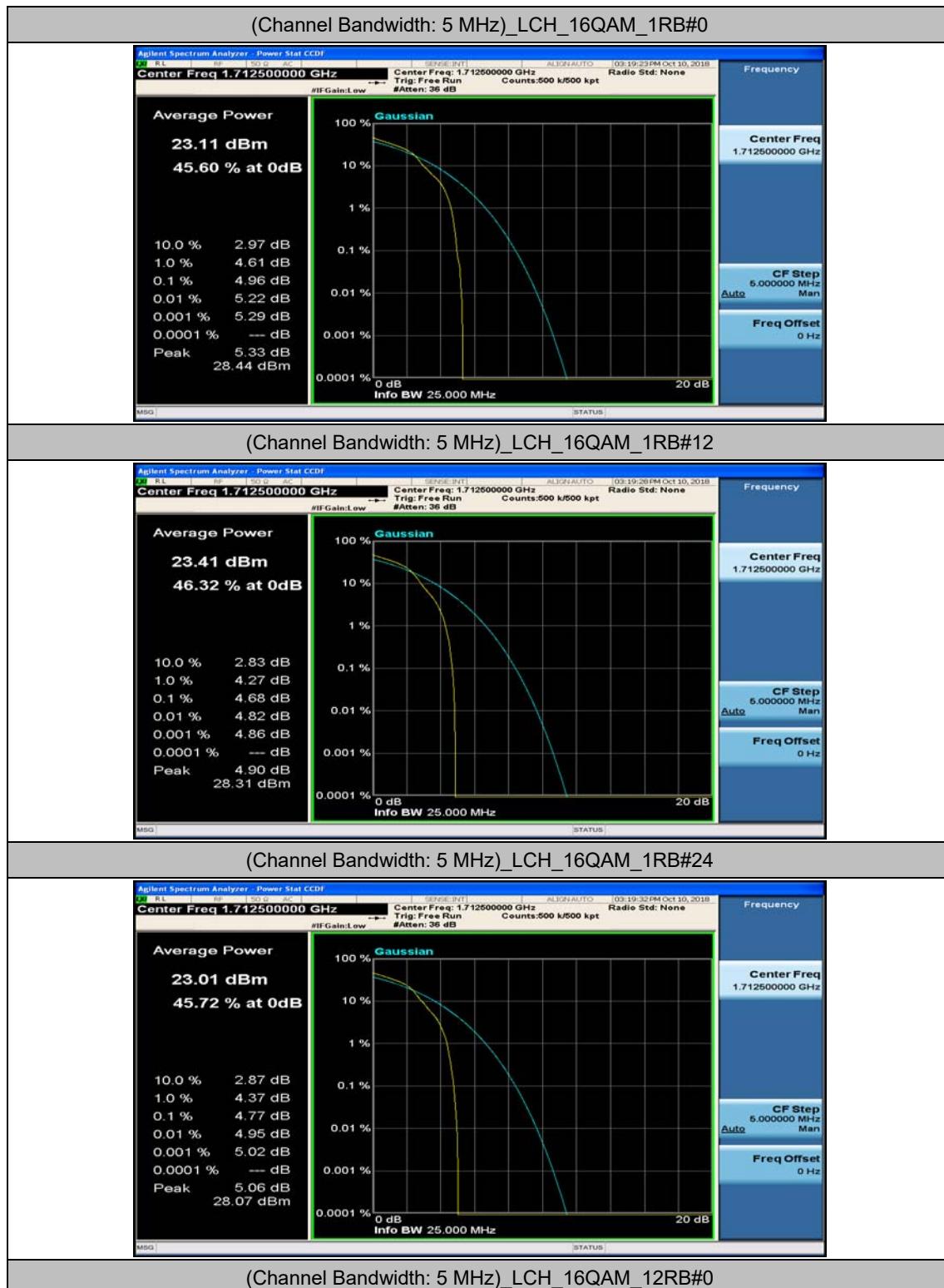
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24

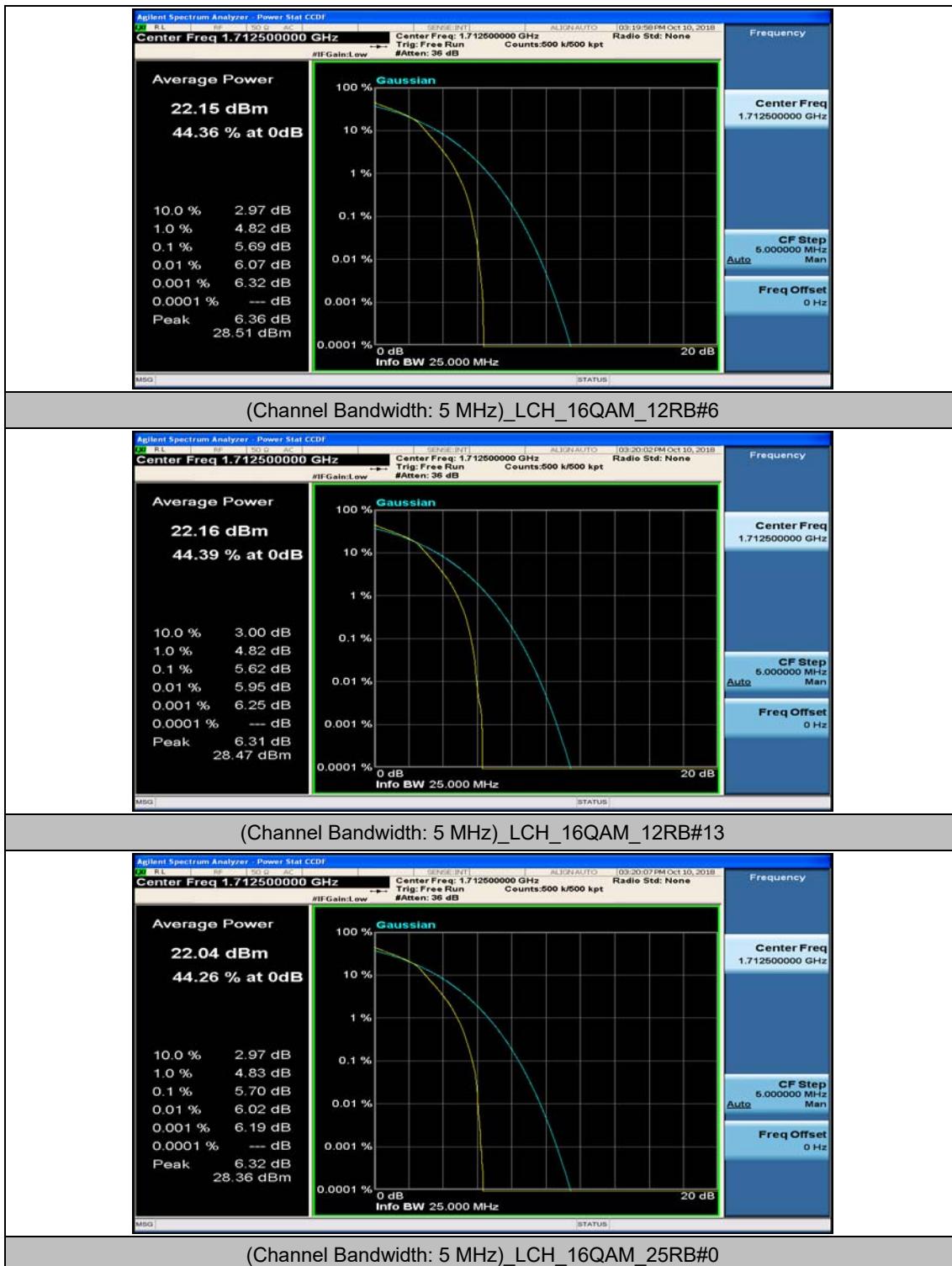


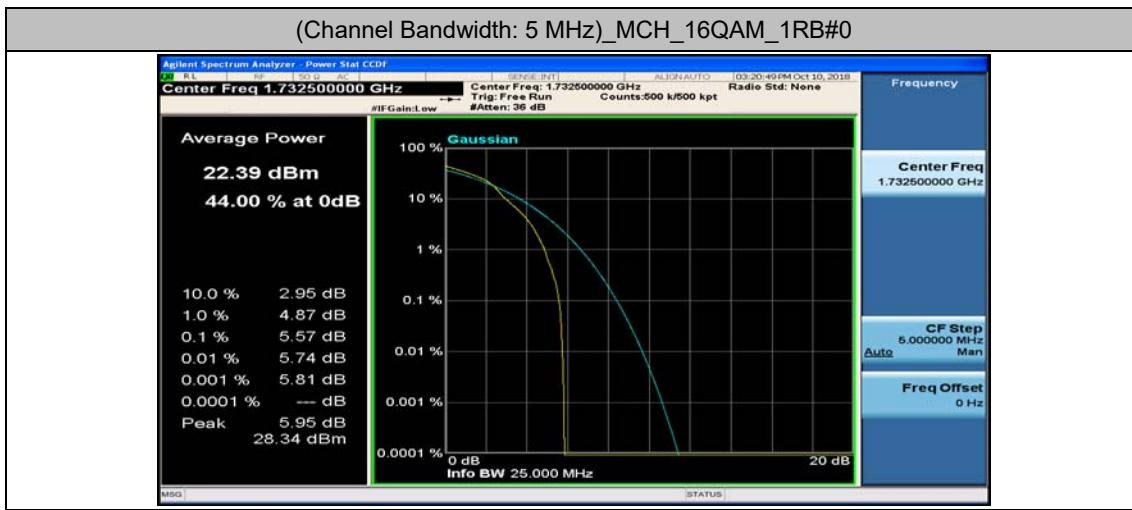
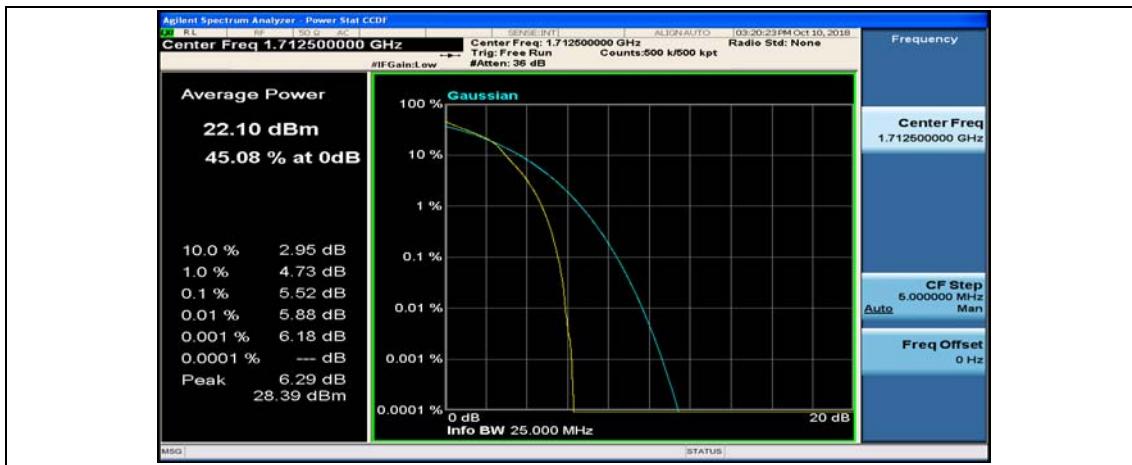




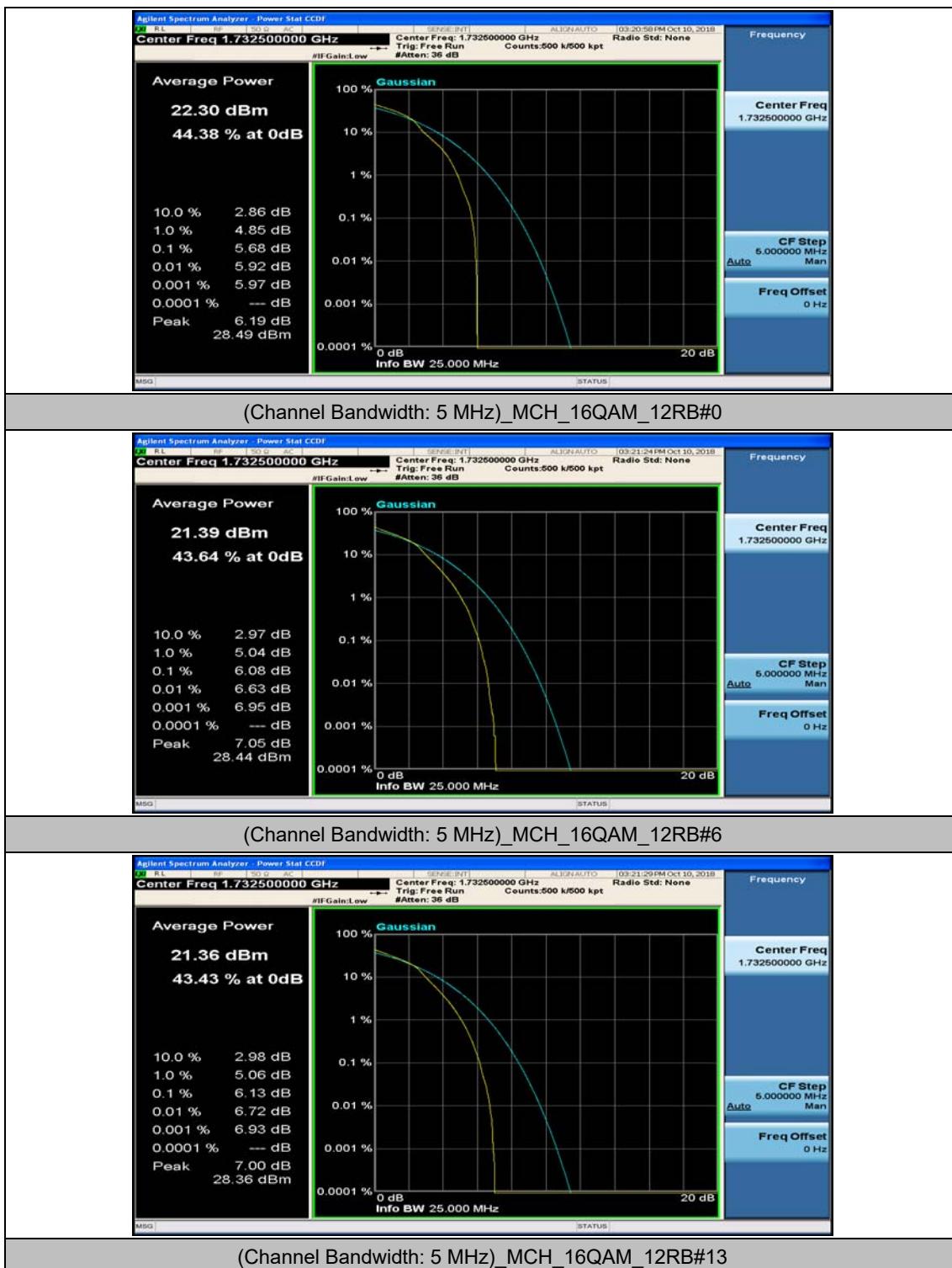


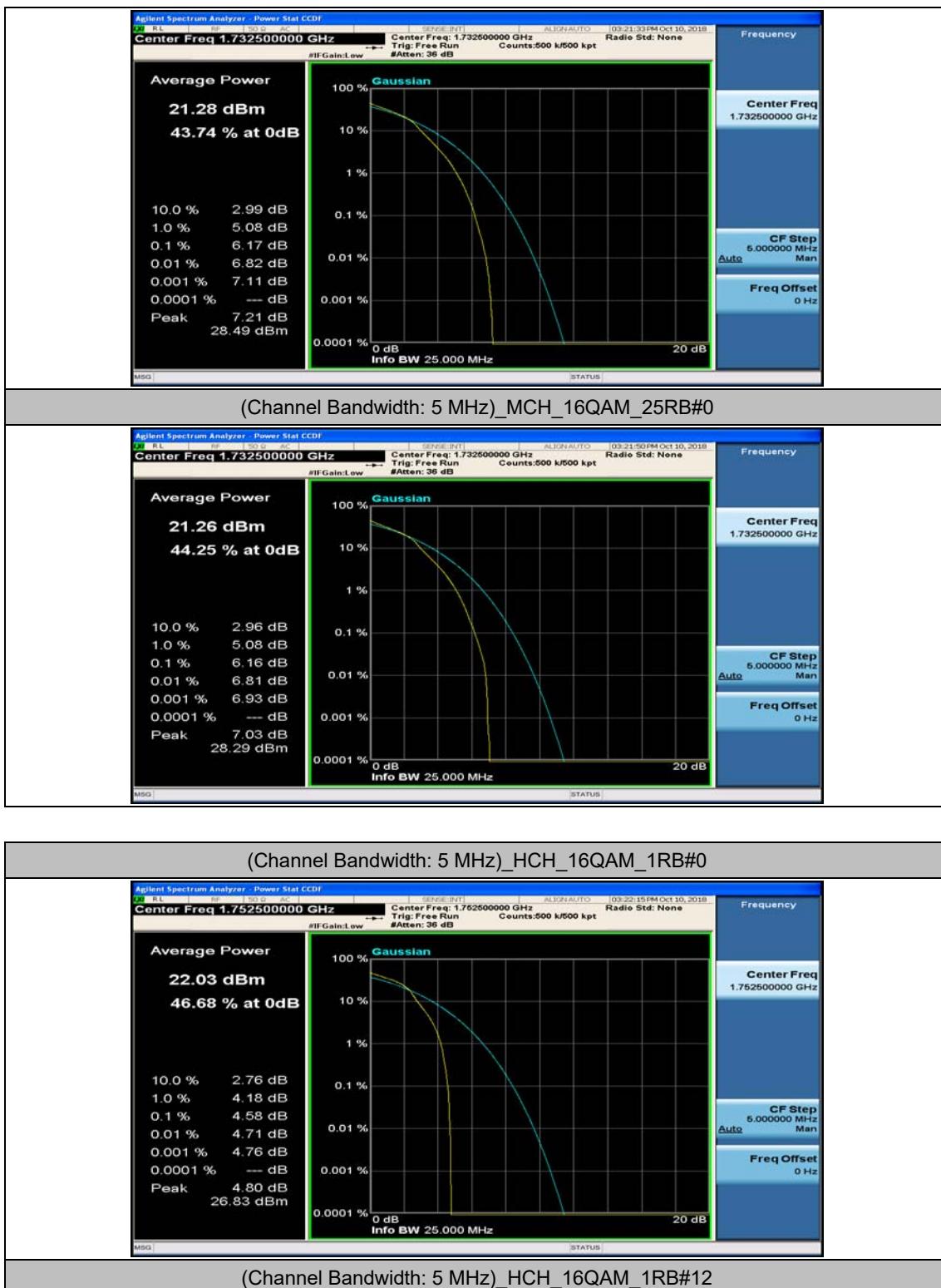


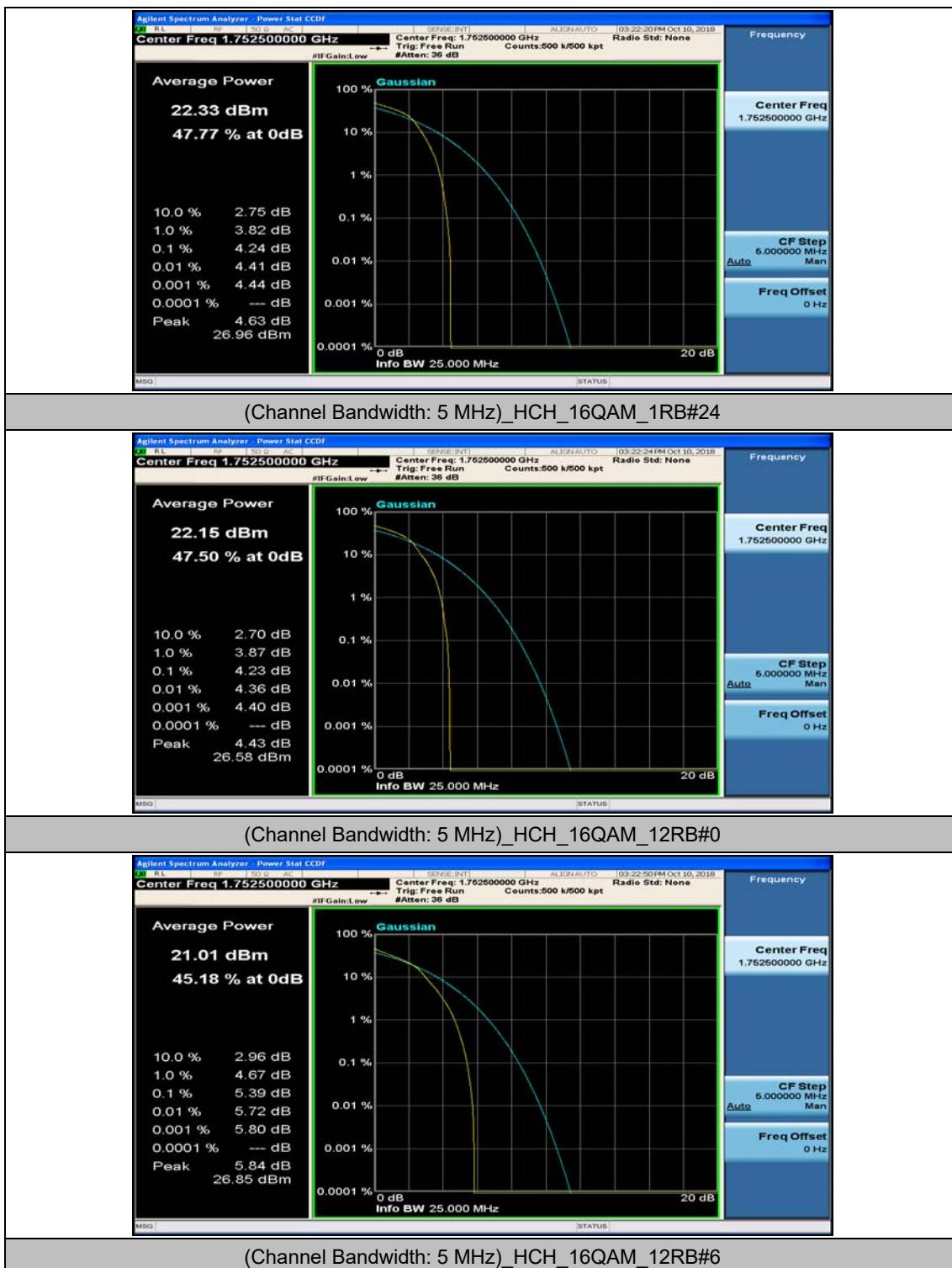


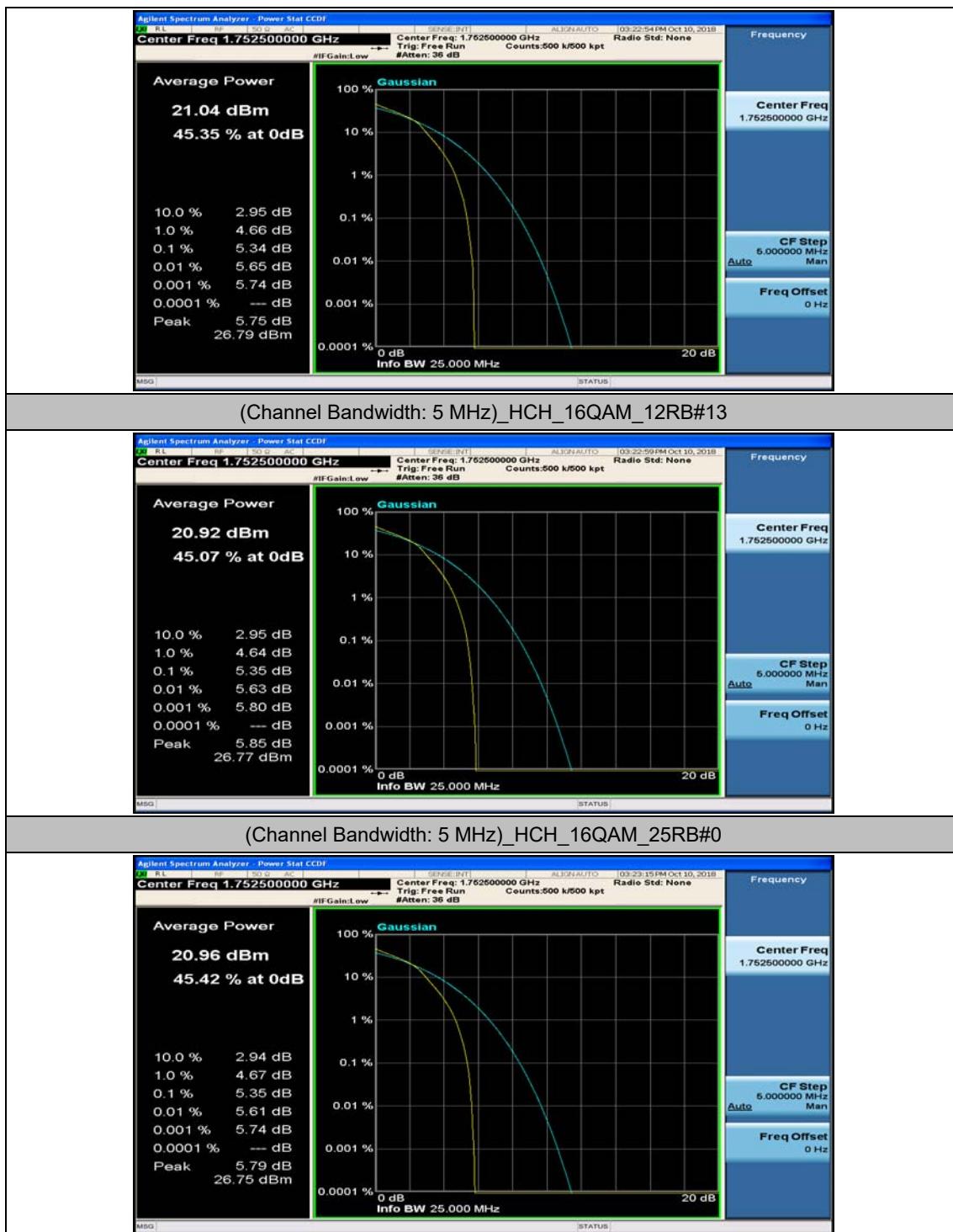


(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24









Channel Bandwidth: 10 MHz

