

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	23.37	PASS
		1	5	23.29	PASS
		3	0	23.41	PASS
		3	2	23.40	PASS
		3	3	23.41	PASS
		6	0	22.36	PASS
	MCH	1	0	23.34	PASS
		1	3	23.40	PASS
		1	5	23.34	PASS
		3	0	23.42	PASS
		3	2	23.35	PASS
		3	3	23.41	PASS
		6	0	22.34	PASS
	HCH	1	0	23.06	PASS
		1	3	23.14	PASS
		1	5	23.05	PASS
		3	0	23.18	PASS
		3	2	23.19	PASS
		3	3	23.19	PASS
		6	0	22.11	PASS
16QAM	LCH	1	0	22.60	PASS
		1	3	22.73	PASS
		1	5	22.62	PASS
		3	0	22.60	PASS
		3	2	22.55	PASS
		3	3	22.56	PASS
		6	0	21.39	PASS
	MCH	1	0	22.73	PASS
		1	3	22.83	PASS
		1	5	22.70	PASS
		3	0	22.42	PASS

		3	2	22.41	PASS
		3	3	22.45	PASS
		6	0	21.33	PASS
HCH		1	0	22.25	PASS
		1	3	22.38	PASS
		1	5	22.24	PASS
		3	0	22.18	PASS
		3	2	22.17	PASS
		3	3	22.20	PASS
		6	0	21.24	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.22	PASS
		1	7	23.37	PASS
		1	14	23.22	PASS
		8	0	22.35	PASS
		8	4	22.38	PASS
		8	7	22.39	PASS
		15	0	22.38	PASS
	MCH	1	0	23.23	PASS
		1	7	23.36	PASS
		1	14	23.23	PASS
		8	0	22.40	PASS
		8	4	22.40	PASS
		8	7	22.38	PASS
		15	0	22.37	PASS
	HCH	1	0	23.08	PASS
		1	7	23.17	PASS
		1	14	23.05	PASS
		8	0	22.18	PASS
		8	4	22.16	PASS
		8	7	22.16	PASS
		15	0	22.13	PASS
16QAM	LCH	1	0	22.54	PASS
		1	7	22.69	PASS
		1	14	22.53	PASS
		8	0	21.46	PASS
		8	4	21.51	PASS
		8	7	21.48	PASS
		15	0	21.40	PASS

	MCH	1	0	22.54	PASS
	MCH	1	7	22.65	PASS
	MCH	1	14	22.54	PASS
	MCH	8	0	21.45	PASS
	MCH	8	4	21.49	PASS
	MCH	8	7	21.45	PASS
	MCH	15	0	21.38	PASS
	HCH	1	0	22.39	PASS
	HCH	1	7	22.47	PASS
	HCH	1	14	22.35	PASS
	HCH	8	0	21.19	PASS
	HCH	8	4	21.13	PASS
	HCH	8	7	21.14	PASS
	HCH	15	0	21.12	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.37	PASS
		1	12	23.44	PASS
		1	24	23.39	PASS
		12	0	22.45	PASS
		12	6	22.46	PASS
		12	13	22.47	PASS
		25	0	22.40	PASS
	MCH	1	0	23.38	PASS
		1	12	23.42	PASS
		1	24	23.35	PASS
		12	0	22.45	PASS
		12	6	22.42	PASS
		12	13	22.43	PASS
		25	0	22.37	PASS
	HCH	1	0	23.24	PASS
		1	12	23.28	PASS
		1	24	23.22	PASS
		12	0	22.24	PASS
		12	6	22.19	PASS
		12	13	22.20	PASS
		25	0	22.18	PASS
16QAM	LCH	1	0	22.78	PASS
		1	12	22.86	PASS
		1	24	22.78	PASS

		12	0	21.64	PASS
		12	6	21.64	PASS
		12	13	21.65	PASS
		25	0	21.47	PASS
MCH		1	0	22.75	PASS
		1	12	22.84	PASS
		1	24	22.74	PASS
		12	0	21.60	PASS
		12	6	21.58	PASS
		12	13	21.61	PASS
		25	0	21.43	PASS
HCH		1	0	22.18	PASS
		1	12	22.19	PASS
		1	24	22.11	PASS
		12	0	21.28	PASS
		12	6	21.25	PASS
		12	13	21.23	PASS
		25	0	21.22	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.32	PASS
		1	24	23.37	PASS
		1	49	23.38	PASS
		25	0	22.44	PASS
		25	12	22.45	PASS
		25	25	22.44	PASS
		50	0	22.45	PASS
	MCH	1	0	23.34	PASS
		1	24	23.32	PASS
		1	49	23.30	PASS
		25	0	22.39	PASS
		25	12	22.37	PASS
		25	25	22.40	PASS
		50	0	22.42	PASS
	HCH	1	0	23.21	PASS
		1	24	23.15	PASS
		1	49	23.14	PASS
		25	0	22.23	PASS
		25	12	22.19	PASS
		25	25	22.14	PASS

		50	0	22.22	PASS
16QAM	LCH	1	0	22.62	PASS
		1	24	22.68	PASS
		1	49	22.67	PASS
		25	0	21.47	PASS
		25	12	21.47	PASS
		25	25	21.48	PASS
		50	0	21.45	PASS
	MCH	1	0	22.60	PASS
		1	24	22.64	PASS
		1	49	22.62	PASS
		25	0	21.45	PASS
		25	12	21.41	PASS
		25	25	21.45	PASS
		50	0	21.43	PASS
		1	0	22.60	PASS
HCH	HCH	1	24	22.52	PASS
		1	49	22.45	PASS
		25	0	21.31	PASS
		25	12	21.24	PASS
		25	25	21.22	PASS
		50	0	21.29	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.34	PASS
		1	37	23.40	PASS
		1	74	23.39	PASS
		37	0	22.42	PASS
		37	18	22.45	PASS
		37	38	22.52	PASS
		75	0	22.46	PASS
	MCH	1	0	23.38	PASS
		1	37	23.40	PASS
		1	74	23.28	PASS
		37	0	22.46	PASS
		37	18	22.43	PASS
		37	38	22.39	PASS
		75	0	22.44	PASS
		1	0	23.25	PASS
	HCH	1	37	23.28	PASS

		1	74	23.21	PASS
		37	0	22.26	PASS
		37	18	22.27	PASS
		37	38	22.25	PASS
		75	0	22.30	PASS
16QAM	LCH	1	0	22.65	PASS
		1	37	22.72	PASS
		1	74	22.66	PASS
		37	0	21.42	PASS
		37	18	21.45	PASS
		37	38	21.47	PASS
		75	0	21.45	PASS
	MCH	1	0	22.64	PASS
		1	37	22.70	PASS
		1	74	22.55	PASS
		37	0	21.44	PASS
		37	18	21.44	PASS
		37	38	21.40	PASS
		75	0	21.42	PASS
	HCH	1	0	22.56	PASS
		1	37	22.56	PASS
		1	74	22.37	PASS
		37	0	21.33	PASS
		37	18	21.31	PASS
		37	38	21.26	PASS
		75	0	21.29	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.46	PASS
		1	49	23.50	PASS
		1	99	23.56	PASS
		50	0	22.45	PASS
		50	25	22.44	PASS
		50	50	22.47	PASS
		100	0	22.44	PASS
	MCH	1	0	23.51	PASS
		1	49	23.46	PASS
		1	99	23.43	PASS
		50	0	22.45	PASS
		50	25	22.42	PASS

	HCH	50	50	22.41	PASS
		100	0	22.42	PASS
		1	0	23.45	PASS
		1	49	23.33	PASS
		1	99	23.36	PASS
		50	0	22.37	PASS
		50	25	22.30	PASS
		50	50	22.24	PASS
16QAM	LCH	100	0	22.27	PASS
		1	0	22.66	PASS
		1	49	22.67	PASS
		1	99	22.72	PASS
		50	0	21.44	PASS
		50	25	21.43	PASS
		50	50	21.44	PASS
	MCH	100	0	21.44	PASS
		1	0	22.68	PASS
		1	49	22.65	PASS
		1	99	22.61	PASS
		50	0	21.40	PASS
		50	25	21.42	PASS
		50	50	21.41	PASS
	HCH	100	0	21.42	PASS
		1	0	22.75	PASS
		1	49	22.61	PASS
		1	99	22.49	PASS
		50	0	21.45	PASS
		50	25	21.36	PASS
		50	50	21.30	PASS
		100	0	21.32	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	1.37	<13	PASS
		1	3	2.44	<13	PASS
		1	5	1.35	<13	PASS
		3	0	2.72	<13	PASS
		3	2	2.6	<13	PASS
		3	3	2.67	<13	PASS
		6	0	3.52	<13	PASS
	MCH	1	0	1.39	<13	PASS
		1	3	2.43	<13	PASS
		1	5	1.36	<13	PASS
		3	0	2.63	<13	PASS
		3	2	2.54	<13	PASS
		3	3	2.61	<13	PASS
		6	0	3.46	<13	PASS
16QAM	LCH	1	0	1.26	<13	PASS
		1	3	2.44	<13	PASS
		1	5	1.26	<13	PASS
		3	0	2.52	<13	PASS
		3	2	2.56	<13	PASS
		3	3	2.53	<13	PASS
		6	0	3.52	<13	PASS
	MCH	1	0	2.02	<13	PASS
		1	3	3.09	<13	PASS
		1	5	2.09	<13	PASS
		3	0	3.44	<13	PASS
		3	2	3.29	<13	PASS
		3	3	3.42	<13	PASS
		6	0	4.22	<13	PASS

		3	2	3.21	<13	PASS
		3	3	3.33	<13	PASS
		6	0	4.18	<13	PASS
HCH		1	0	1.97	<13	PASS
		1	3	3.21	<13	PASS
		1	5	1.99	<13	PASS
		3	0	3.26	<13	PASS
		3	2	3.3	<13	PASS
		3	3	3.24	<13	PASS
		6	0	4.27	<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	1.36	<13	PASS
		1	7	2.34	<13	PASS
		1	14	1.34	<13	PASS
		8	0	8.38	<13	PASS
		8	4	3.03	<13	PASS
		8	7	2.94	<13	PASS
		15	0	3.8	<13	PASS
	MCH	1	0	1.29	<13	PASS
		1	7	2.25	<13	PASS
		1	14	1.3	<13	PASS
		8	0	2.85	<13	PASS
		8	4	2.98	<13	PASS
		8	7	2.86	<13	PASS
		15	0	3.8	<13	PASS
	HCH	1	0	1.27	<13	PASS
		1	7	2.37	<13	PASS
		1	14	1.28	<13	PASS
		8	0	2.86	<13	PASS
		8	4	3.08	<13	PASS
		8	7	2.86	<13	PASS
		15	0	3.85	<13	PASS
16QAM	LCH	1	0	2.01	<13	PASS
		1	7	2.97	<13	PASS
		1	14	1.96	<13	PASS
		8	0	3.66	<13	PASS
		8	4	3.75	<13	PASS

		8	7	3.63	<13	PASS
		15	0	4.45	<13	PASS
MCH		1	0	1.9	<13	PASS
		1	7	2.91	<13	PASS
		1	14	1.92	<13	PASS
		8	0	3.59	<13	PASS
		8	4	3.72	<13	PASS
		8	7	3.59	<13	PASS
		15	0	4.42	<13	PASS
HCH		1	0	1.94	<13	PASS
		1	7	3.09	<13	PASS
		1	14	1.92	<13	PASS
		8	0	3.6	<13	PASS
		8	4	3.84	<13	PASS
		8	7	3.59	<13	PASS
		15	0	4.51	<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	1.42	<13	PASS
		1	12	2.28	<13	PASS
		1	24	1.29	<13	PASS
		12	0	2.78	<13	PASS
		12	6	2.91	<13	PASS
		12	13	2.85	<13	PASS
		25	0	3.73	<13	PASS
	MCH	1	0	1.31	<13	PASS
		1	12	2.25	<13	PASS
		1	24	1.32	<13	PASS
		12	0	2.68	<13	PASS
		12	6	2.88	<13	PASS
		12	13	2.81	<13	PASS
		25	0	3.72	<13	PASS
	HCH	1	0	1.31	<13	PASS
		1	12	2.34	<13	PASS
		1	24	1.18	<13	PASS
		12	0	2.64	<13	PASS
		12	6	2.96	<13	PASS
		12	13	2.71	<13	PASS

		25	0	3.77	<13	PASS
16QAM	LCH	1	0	2.09	<13	PASS
		1	12	2.95	<13	PASS
		1	24	1.94	<13	PASS
		12	0	3.47	<13	PASS
		12	6	3.61	<13	PASS
		12	13	3.52	<13	PASS
		25	0	4.34	<13	PASS
	MCH	1	0	2.03	<13	PASS
		1	12	2.95	<13	PASS
		1	24	1.96	<13	PASS
		12	0	3.37	<13	PASS
		12	6	3.59	<13	PASS
		12	13	3.51	<13	PASS
		25	0	4.33	<13	PASS
	HCH	1	0	1.91	<13	PASS
		1	12	2.94	<13	PASS
		1	24	1.75	<13	PASS
		12	0	3.37	<13	PASS
		12	6	3.73	<13	PASS
		12	13	3.49	<13	PASS
		25	0	4.42	<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	1.88	<13	PASS
		1	24	2.25	<13	PASS
		1	49	1.39	<13	PASS
		25	0	2.97	<13	PASS
		25	12	3.13	<13	PASS
		25	25	3.06	<13	PASS
		50	0	4.25	<13	PASS
	MCH	1	0	1.78	<13	PASS
		1	24	2.27	<13	PASS
		1	49	1.58	<13	PASS
		25	0	2.88	<13	PASS
		25	12	3.1	<13	PASS
		25	25	3.06	<13	PASS
		50	0	4.22	<13	PASS

		1	0	1.87	<13	PASS
	HCH	1	24	2.29	<13	PASS
		1	49	1.3	<13	PASS
		25	0	2.91	<13	PASS
		25	12	3.17	<13	PASS
		25	25	3.02	<13	PASS
		50	0	4.21	<13	PASS
		1	0	2.61	<13	PASS
	LCH	1	24	2.94	<13	PASS
		1	49	1.98	<13	PASS
		25	0	3.65	<13	PASS
		25	12	3.85	<13	PASS
		25	25	3.68	<13	PASS
		50	0	4.78	<13	PASS
		1	0	2.46	<13	PASS
	MCH	1	24	2.91	<13	PASS
		1	49	2.14	<13	PASS
		25	0	3.56	<13	PASS
		25	12	3.82	<13	PASS
		25	25	3.7	<13	PASS
		50	0	4.74	<13	PASS
		1	0	2.73	<13	PASS
	HCH	1	24	3.05	<13	PASS
		1	49	2.11	<13	PASS
		25	0	3.65	<13	PASS
		25	12	3.93	<13	PASS
		25	25	3.69	<13	PASS
		50	0	4.74	<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	9.49	<13	PASS
		1	37	2.2	<13	PASS
		1	74	9.04	<13	PASS
		37	0	3.83	<13	PASS
		37	18	3.49	<13	PASS
		37	38	3.81	<13	PASS
		75	0	4.73	<13	PASS
	MCH	1	0	9.77	<13	PASS

	16QAM	HCH	1	37	2.3	<13	PASS
			1	74	8.49	<13	PASS
			37	0	3.89	<13	PASS
			37	18	3.54	<13	PASS
			37	38	3.79	<13	PASS
			75	0	4.8	<13	PASS
		LCH	1	0	9.53	<13	PASS
			1	37	2.3	<13	PASS
			1	74	9.48	<13	PASS
			37	0	3.87	<13	PASS
			37	18	8.29	<13	PASS
			37	38	3.84	<13	PASS
			75	0	4.79	<13	PASS
		MCH	1	0	9.32	<13	PASS
			1	37	2.89	<13	PASS
			1	74	9.51	<13	PASS
			37	0	4.48	<13	PASS
			37	18	4.24	<13	PASS
			37	38	4.4	<13	PASS
			75	0	5.35	<13	PASS
		HCH	1	0	9.65	<13	PASS
			1	37	2.86	<13	PASS
			1	74	9.32	<13	PASS
			37	0	4.56	<13	PASS
			37	18	4.28	<13	PASS
			37	38	4.41	<13	PASS
			75	0	5.4	<13	PASS

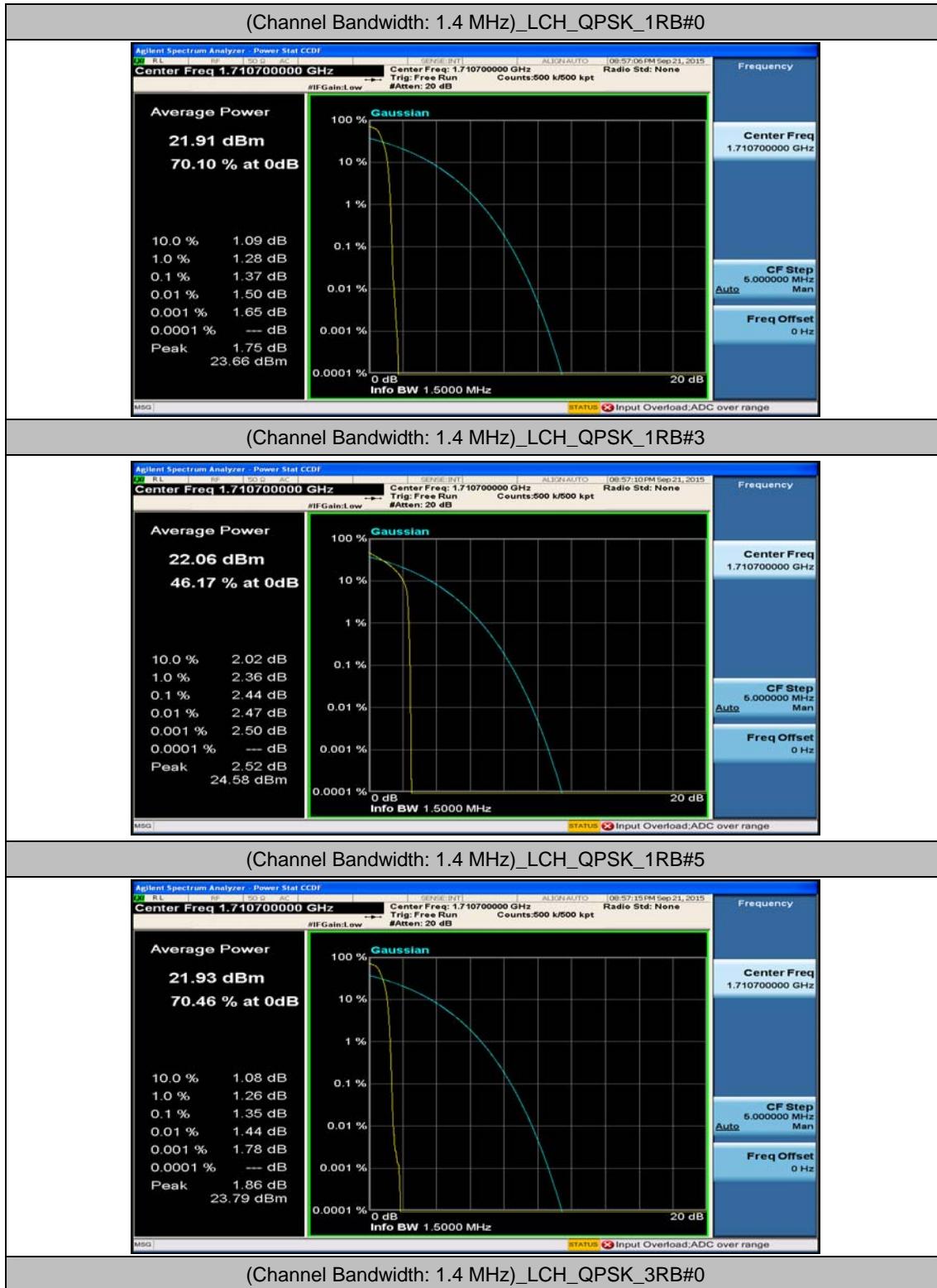
Channel Bandwidth: 20 MHz

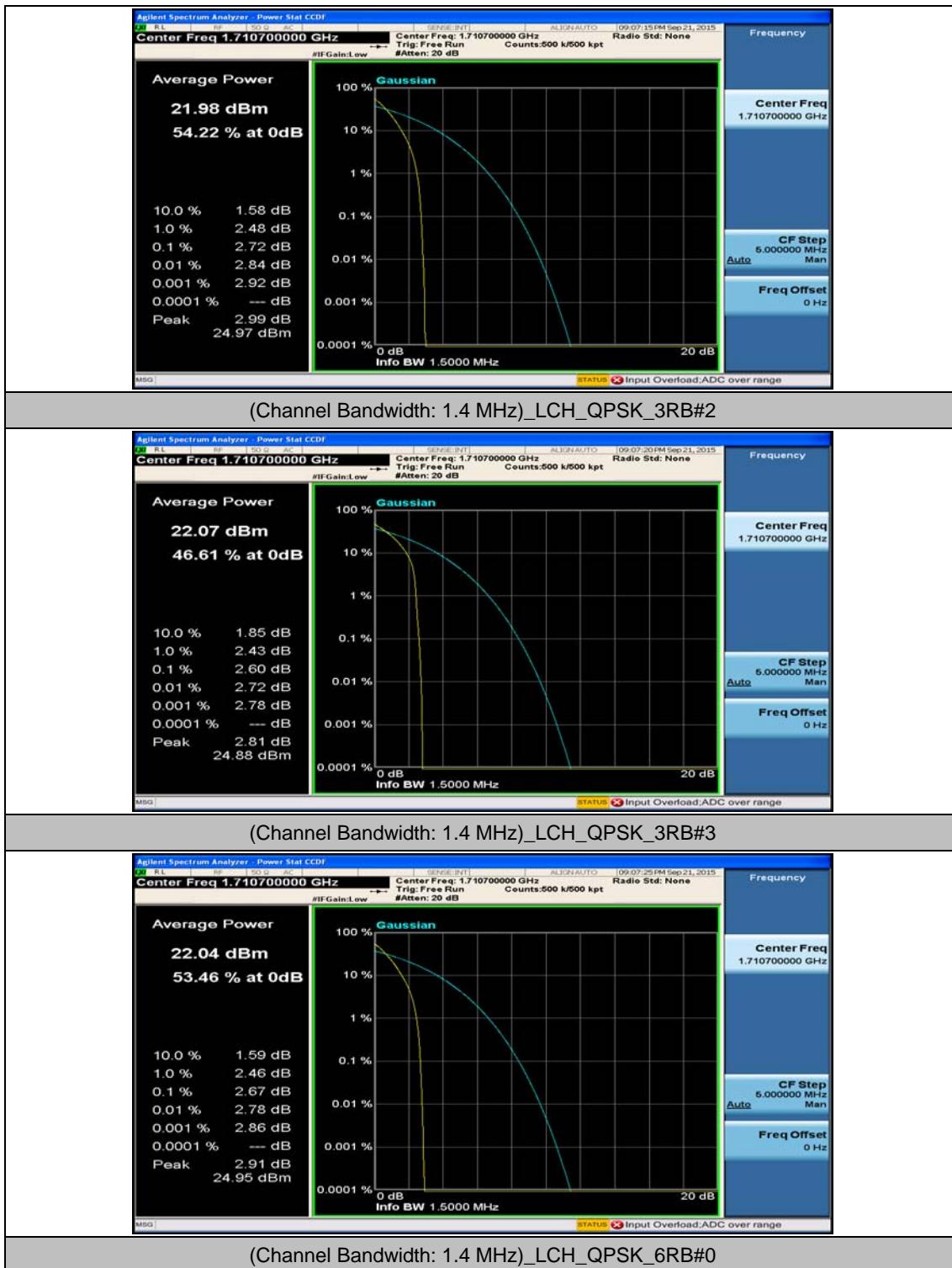
Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	6.82	<13	PASS
		1	49	2.26	<13	PASS

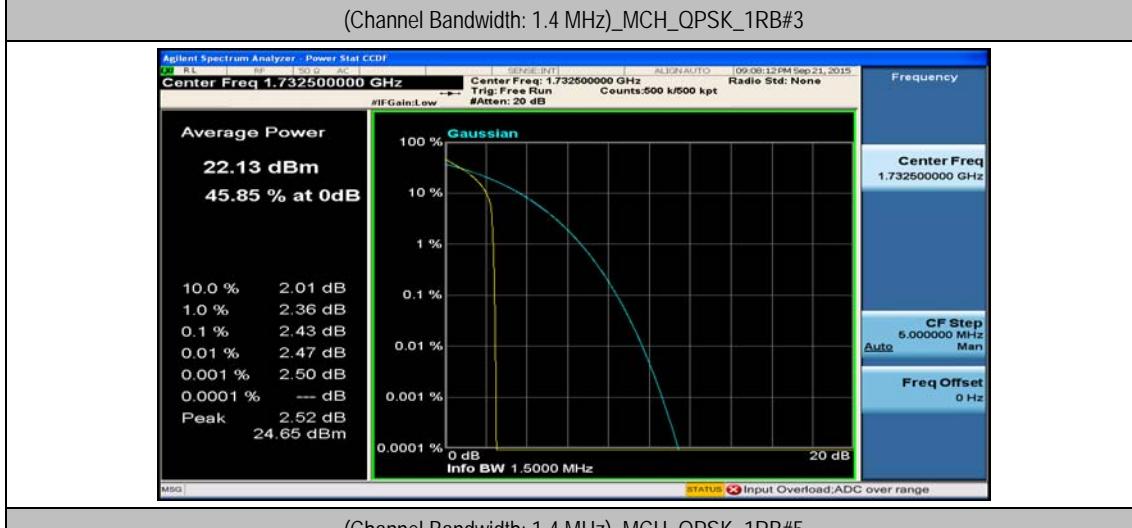
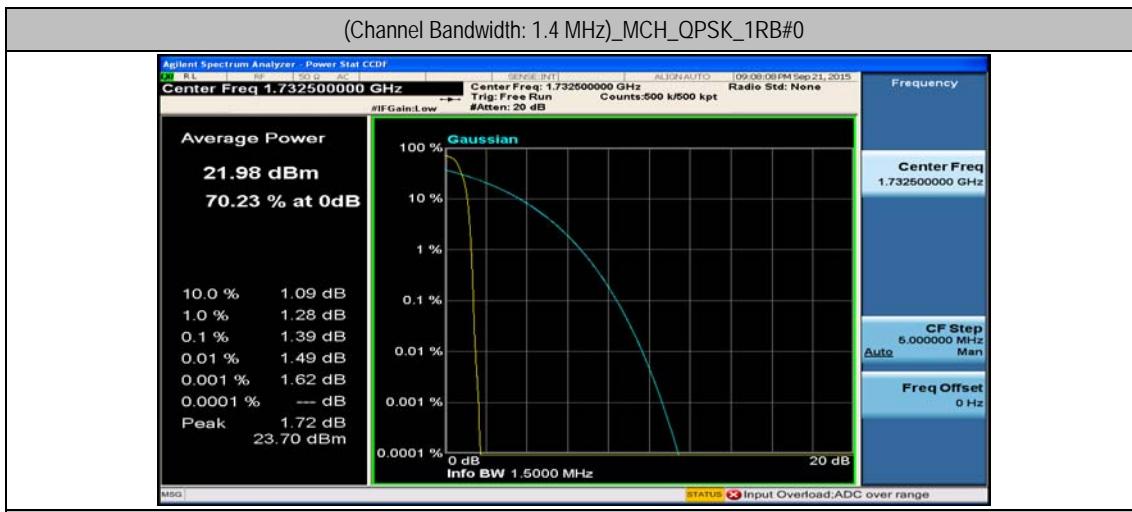
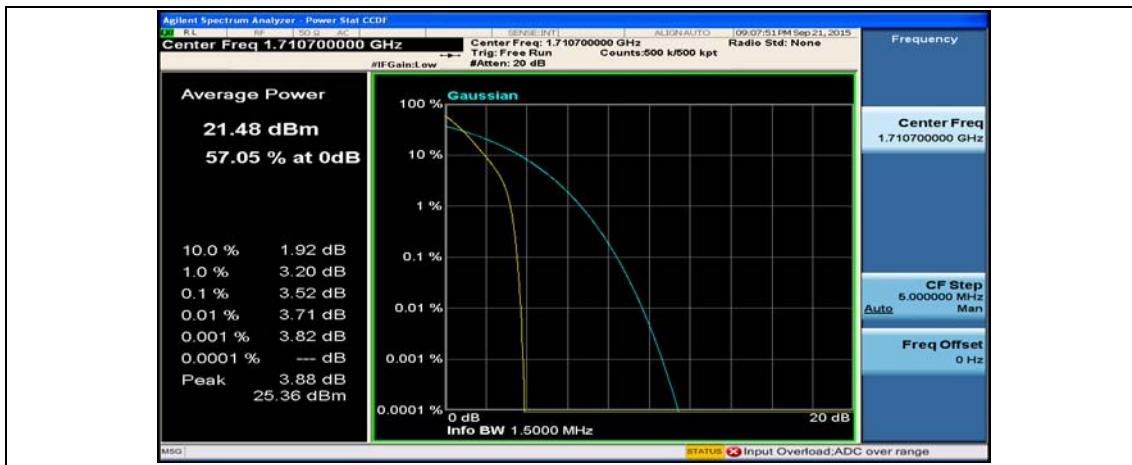
		1	99	6.79	<13	PASS
		50	0	4.42	<13	PASS
		50	25	4.22	<13	PASS
		50	50	4.49	<13	PASS
		100	0	5.47	<13	PASS
	MCH	1	0	7.08	<13	PASS
		1	49	2.29	<13	PASS
		1	99	7.54	<13	PASS
		50	0	4.53	<13	PASS
		50	25	4.25	<13	PASS
		50	50	4.51	<13	PASS
		100	0	5.49	<13	PASS
	HCH	1	0	7.51	<13	PASS
		1	49	2.42	<13	PASS
		1	99	7.57	<13	PASS
		50	0	4.56	<13	PASS
		50	25	4.34	<13	PASS
		50	50	4.67	<13	PASS
		100	0	5.51	<13	PASS
16QAM	LCH	1	0	7.09	<13	PASS
		1	49	2.77	<13	PASS
		1	99	7.48	<13	PASS
		50	0	5.08	<13	PASS
		50	25	4.71	<13	PASS
		50	50	5	<13	PASS
		100	0	5.89	<13	PASS
	MCH	1	0	7.84	<13	PASS
		1	49	2.79	<13	PASS
		1	99	8.37	<13	PASS
		50	0	5.22	<13	PASS
		50	25	4.74	<13	PASS
		50	50	5.02	<13	PASS
		100	0	5.89	<13	PASS
	HCH	1	0	8.64	<13	PASS
		1	49	2.96	<13	PASS
		1	99	8.51	<13	PASS
		50	0	5.25	<13	PASS
		50	25	4.89	<13	PASS
		50	50	5.16	<13	PASS
		100	0	5.94	<13	PASS

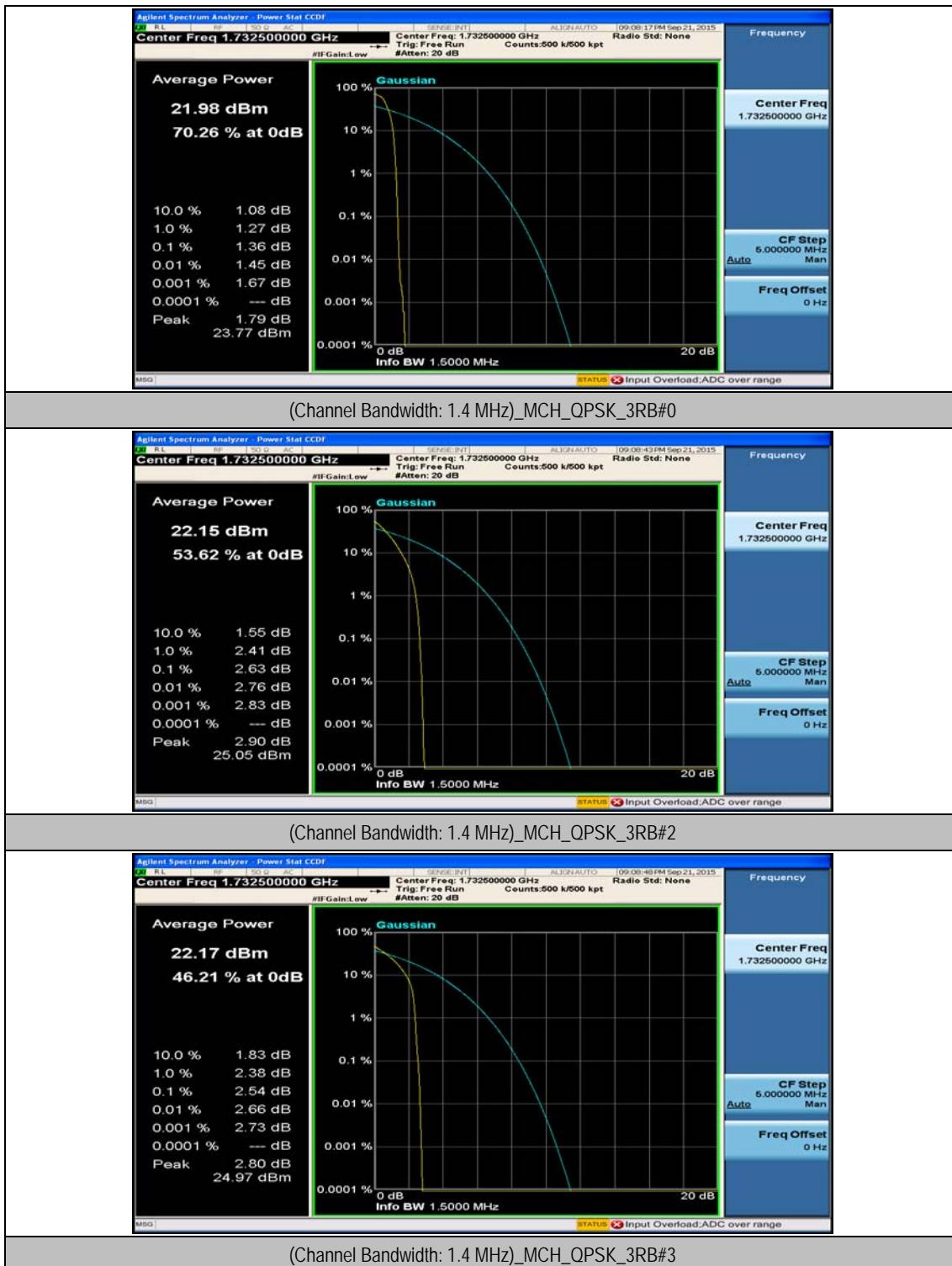
Test Graphs

Channel Bandwidth: 1.4 MHz

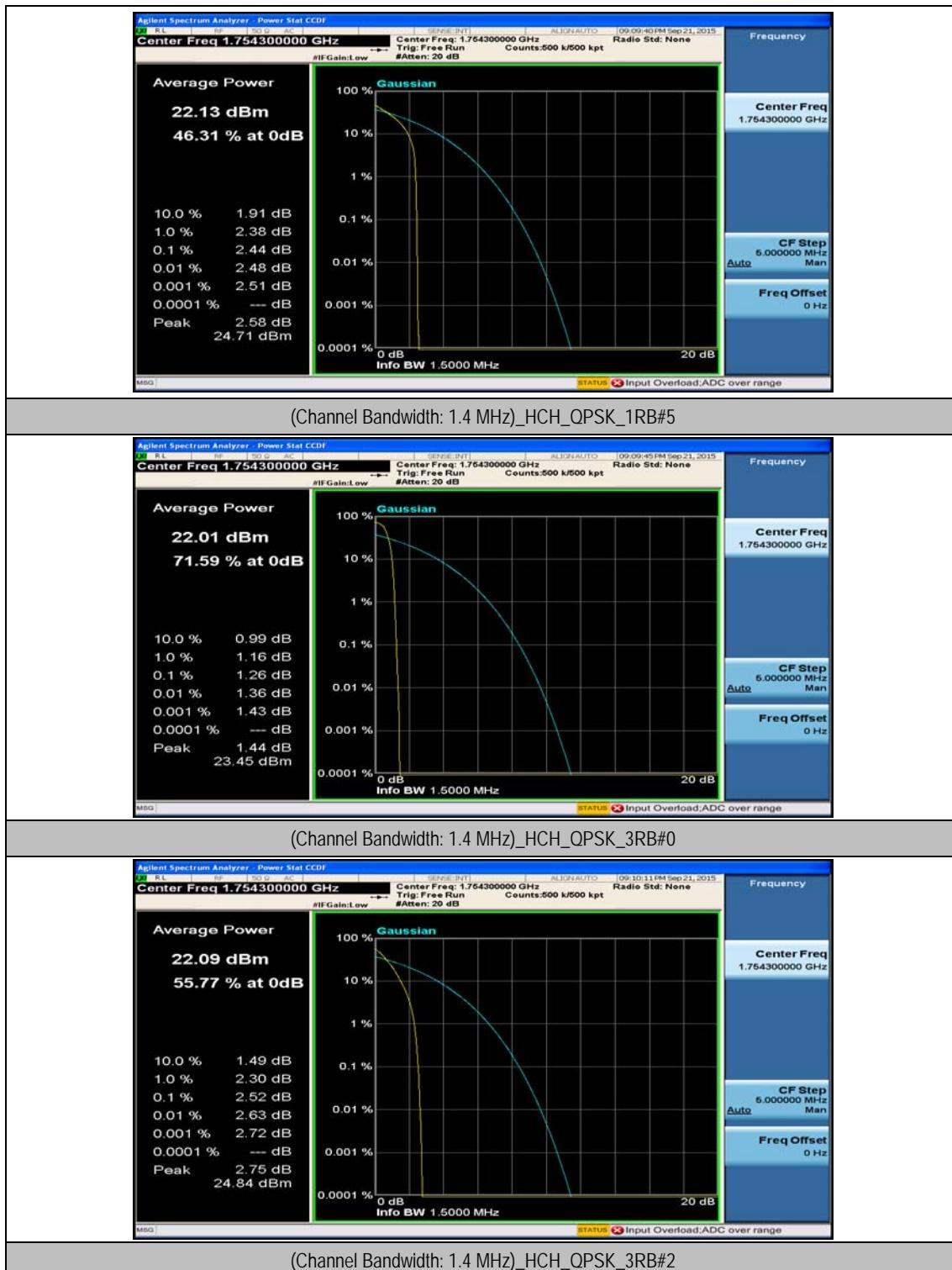


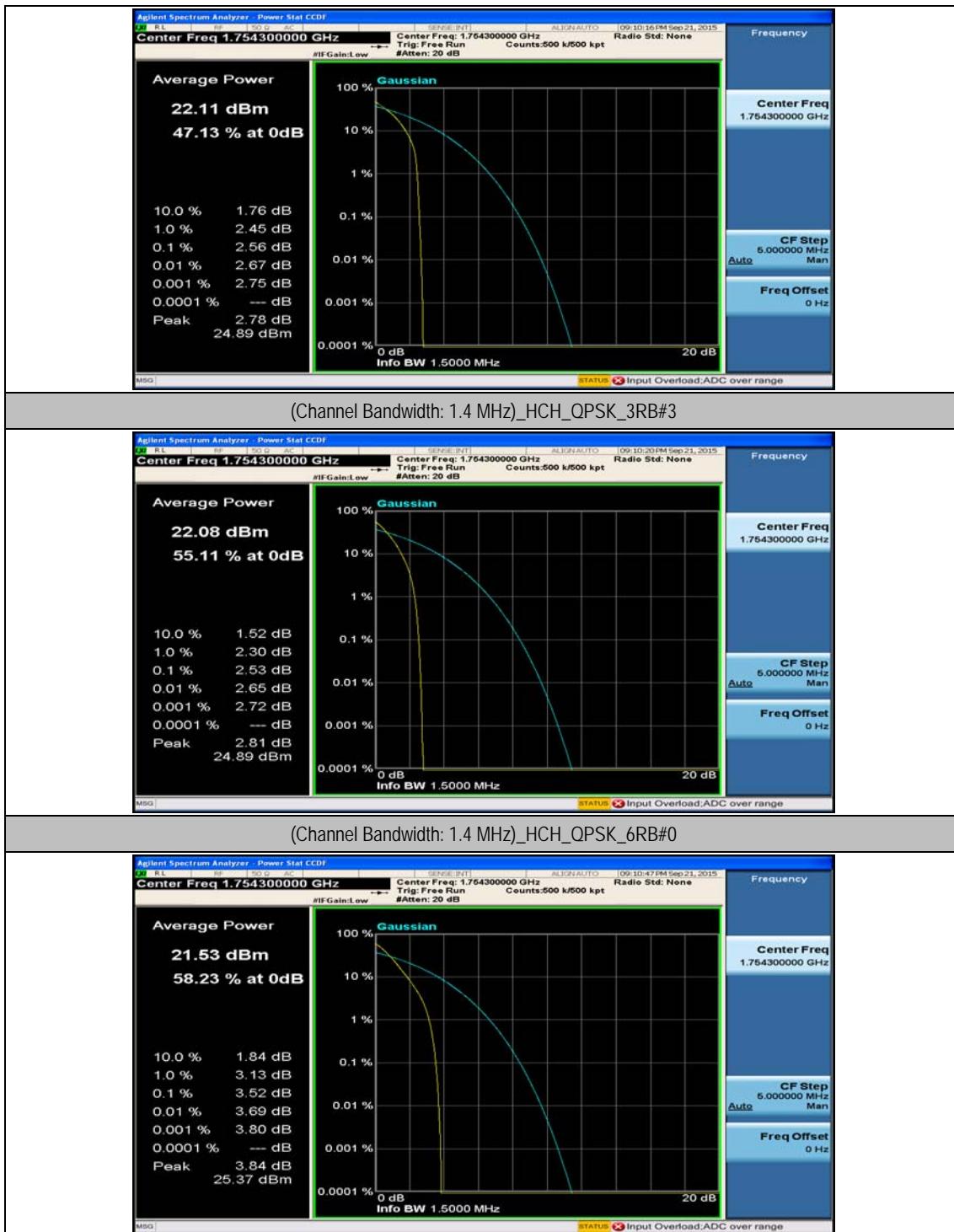


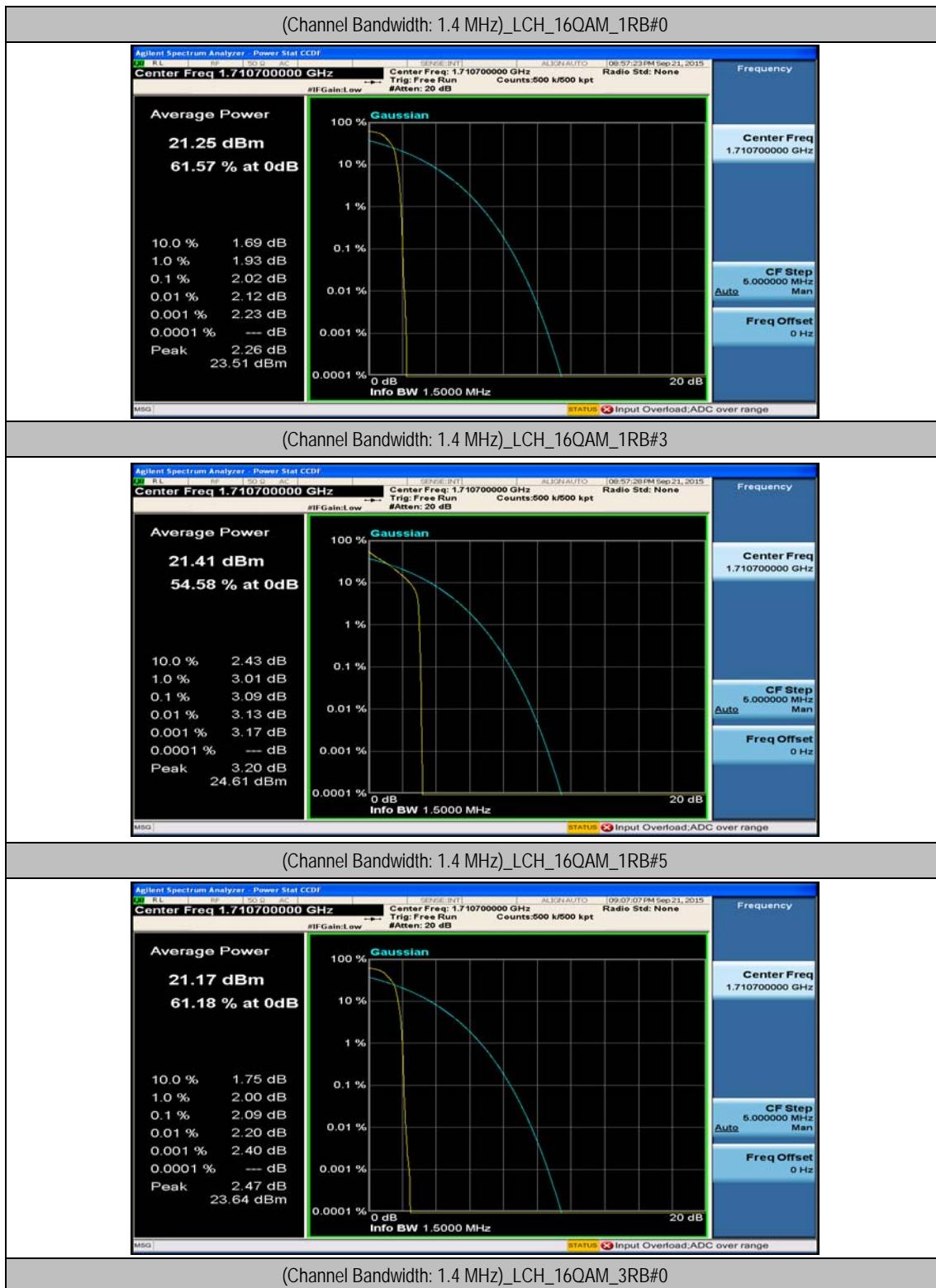


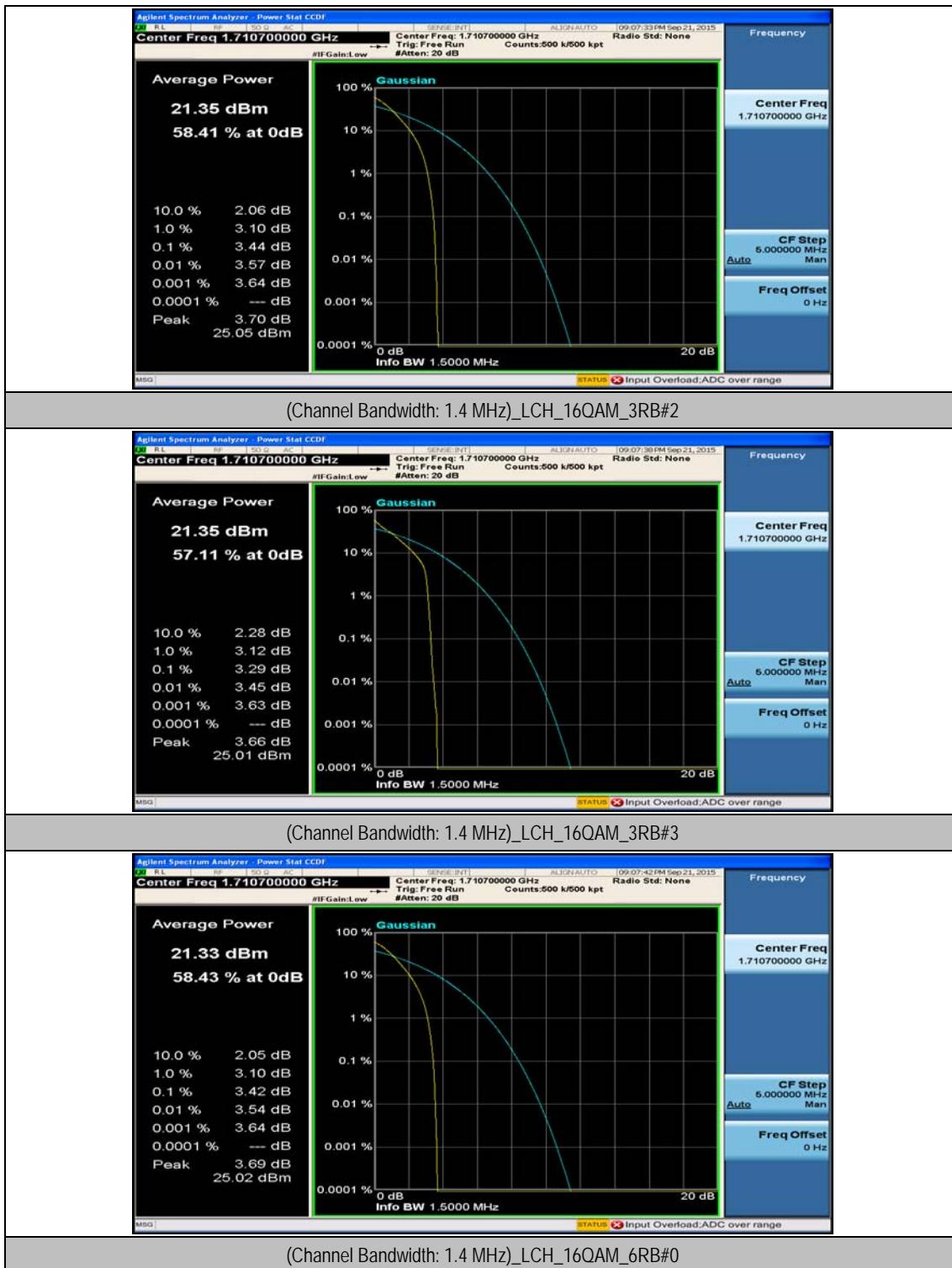


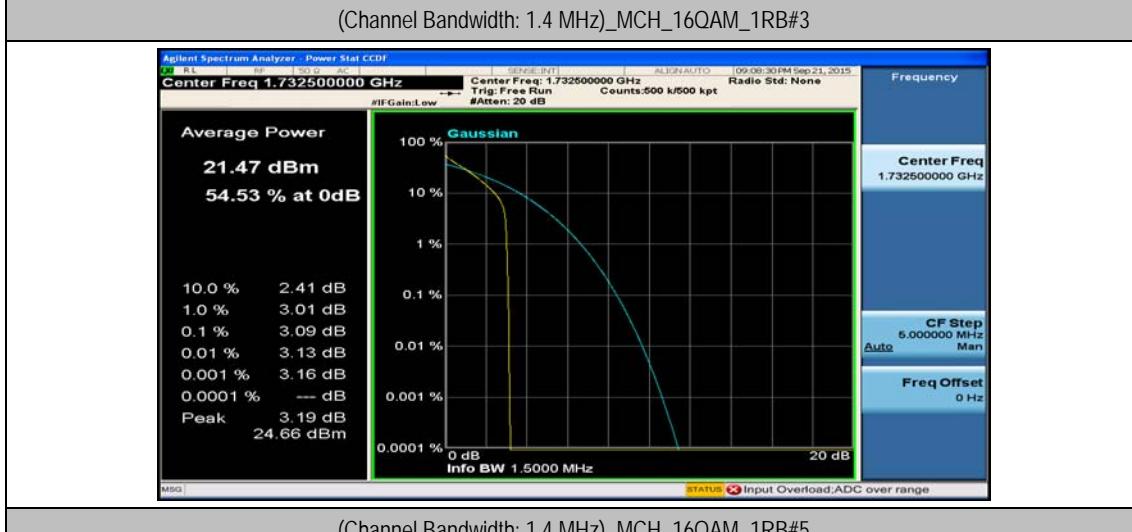
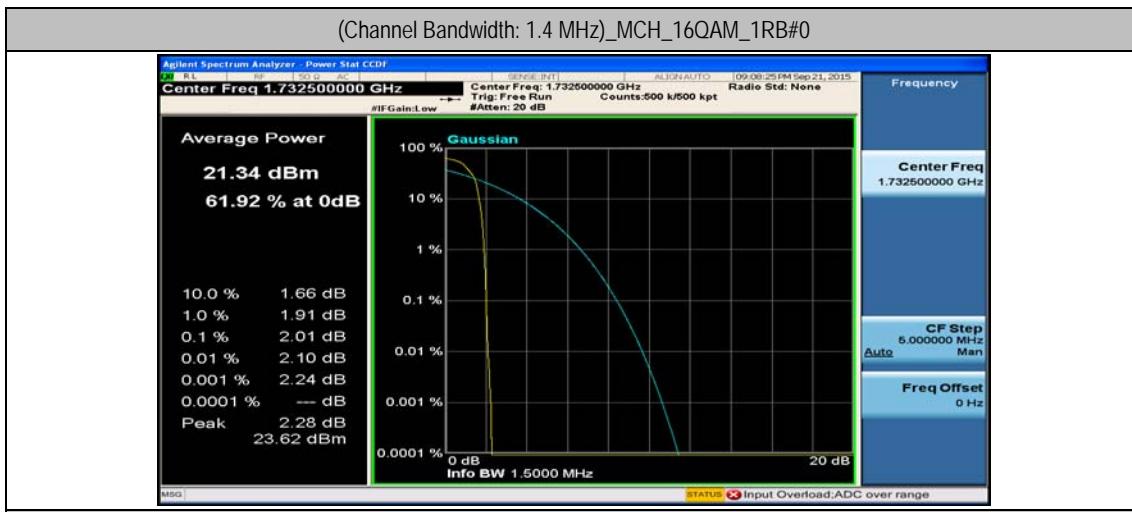
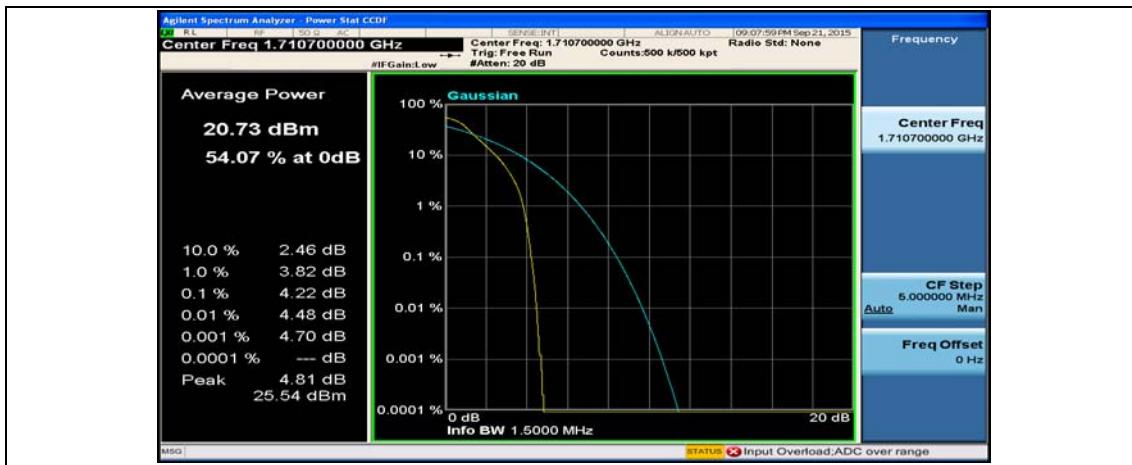


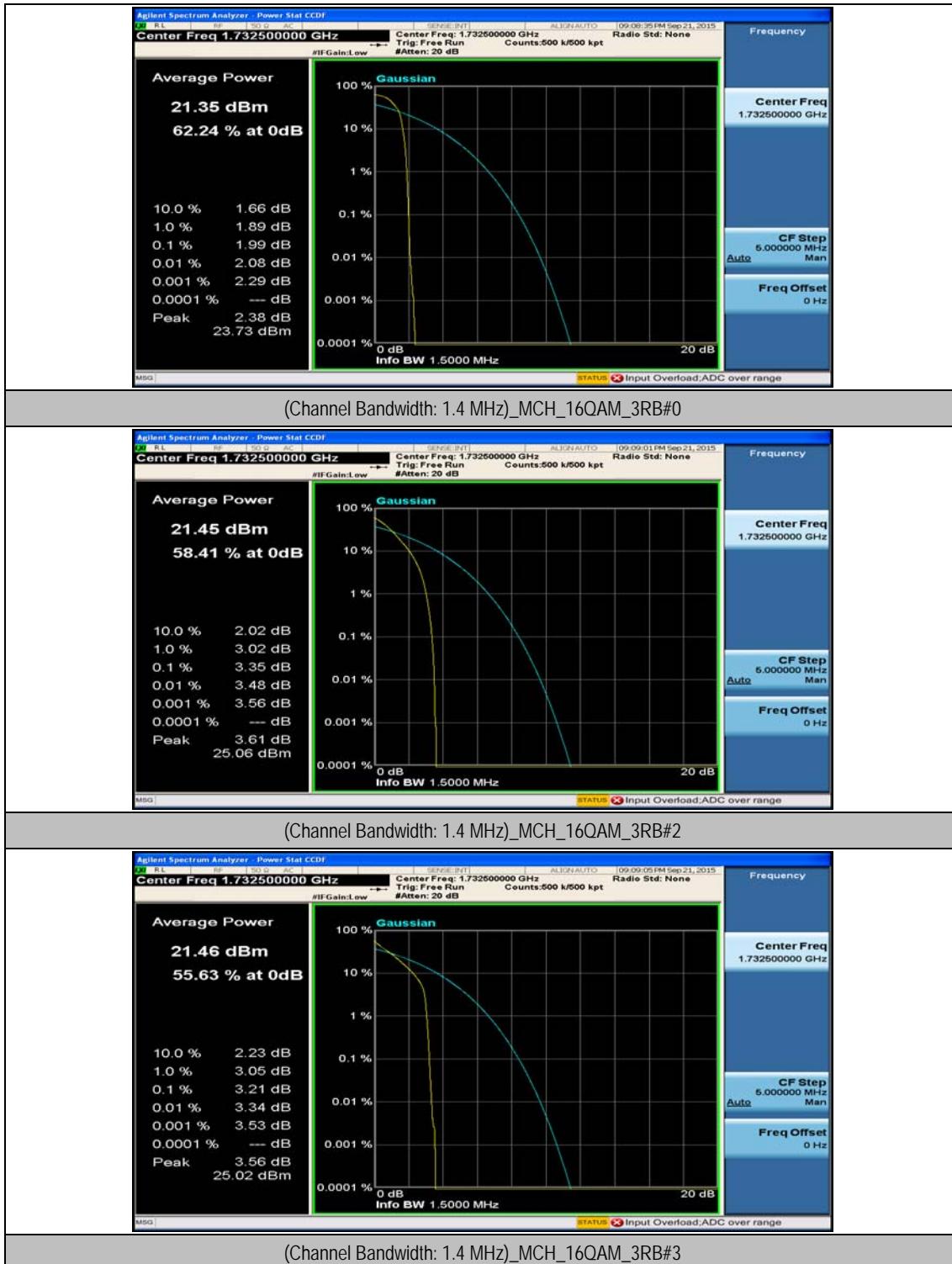


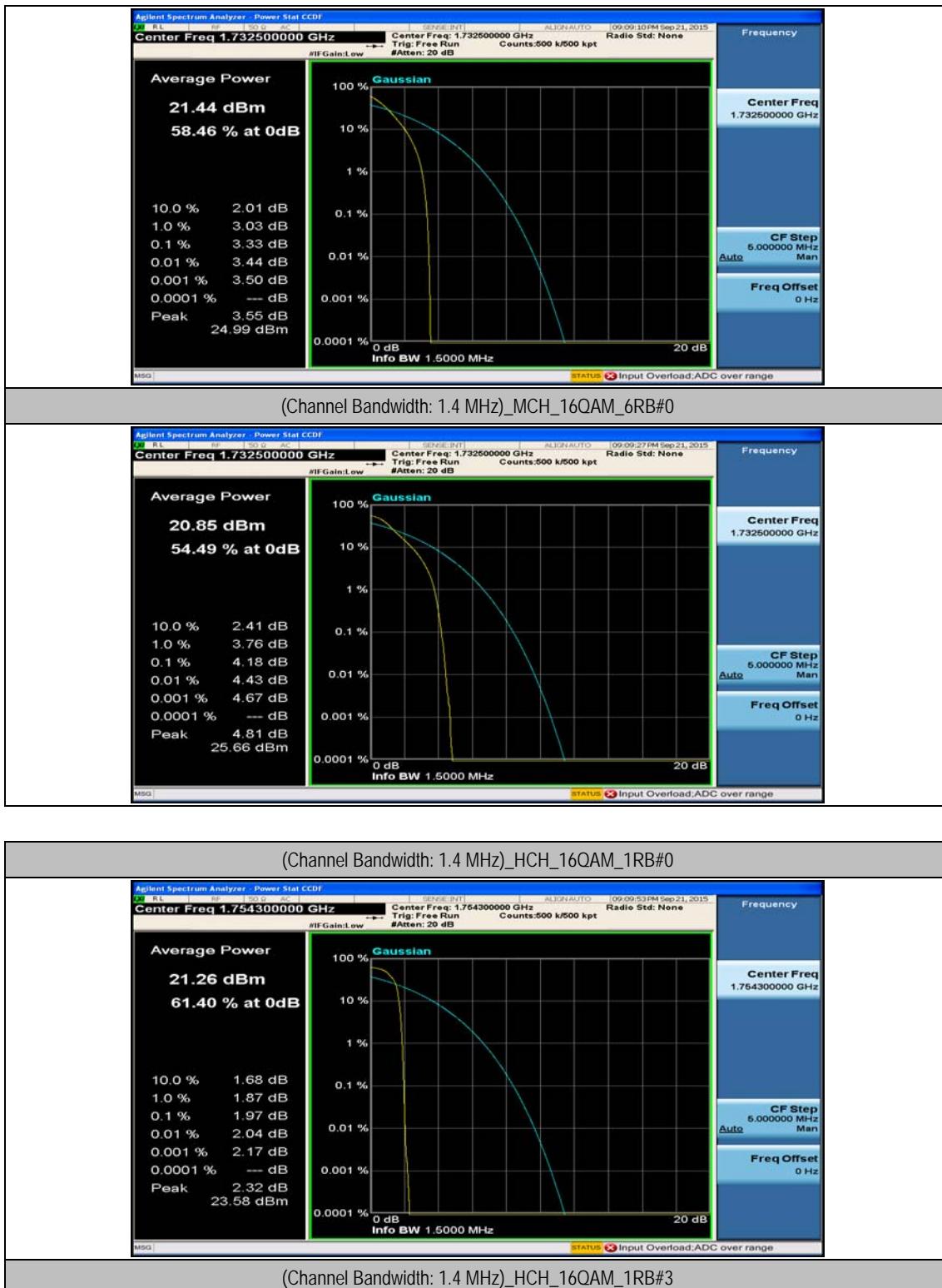


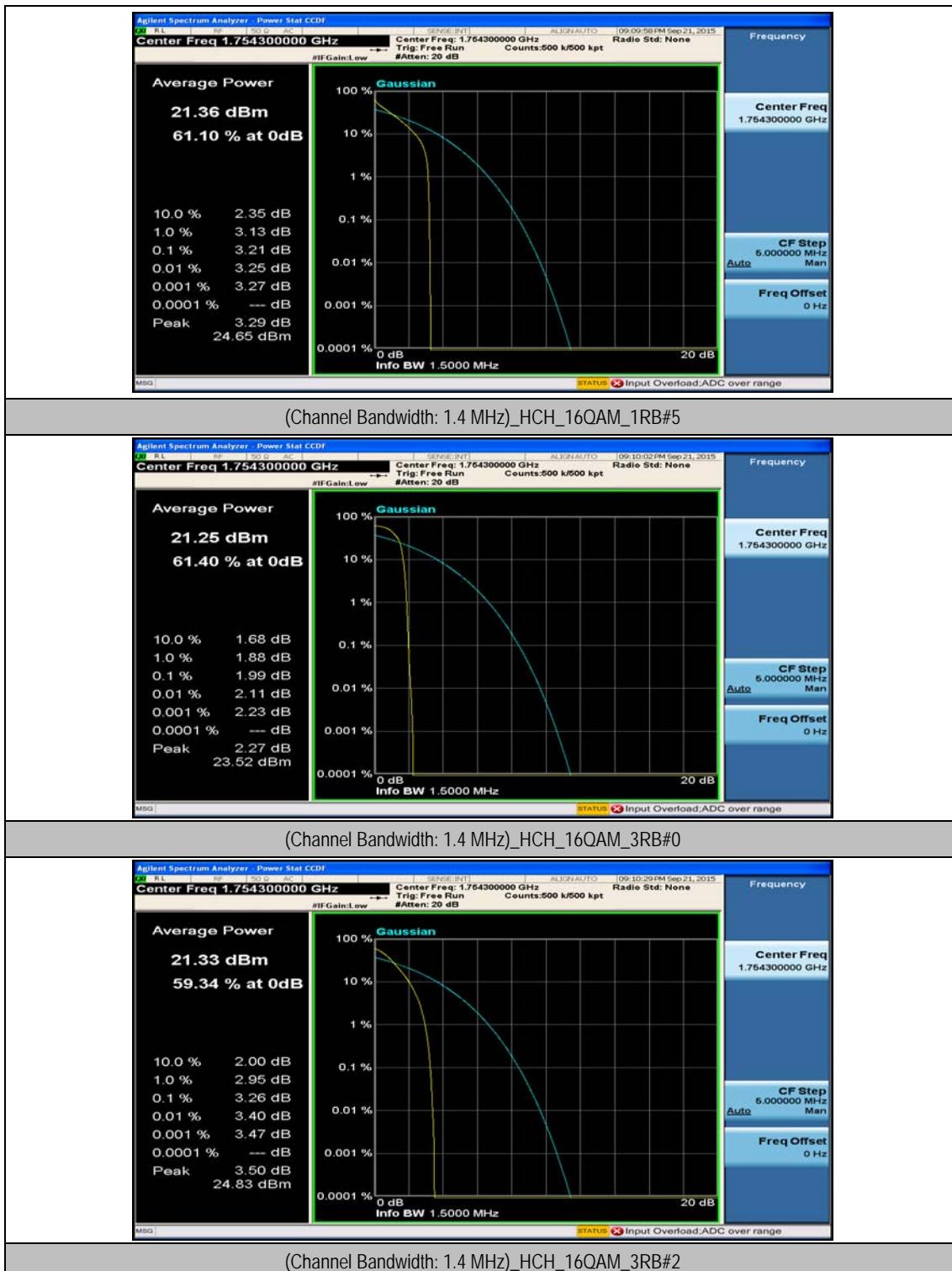


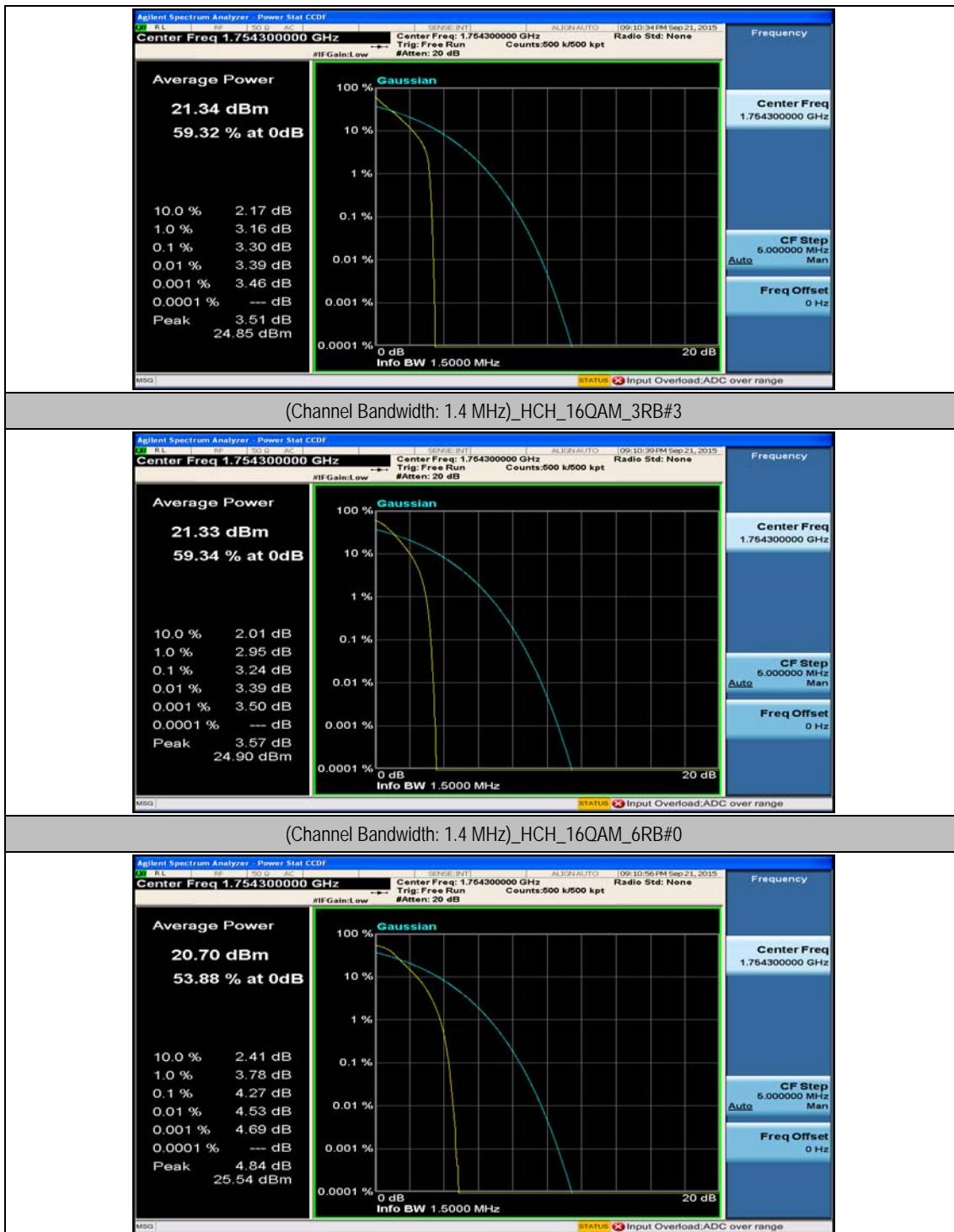




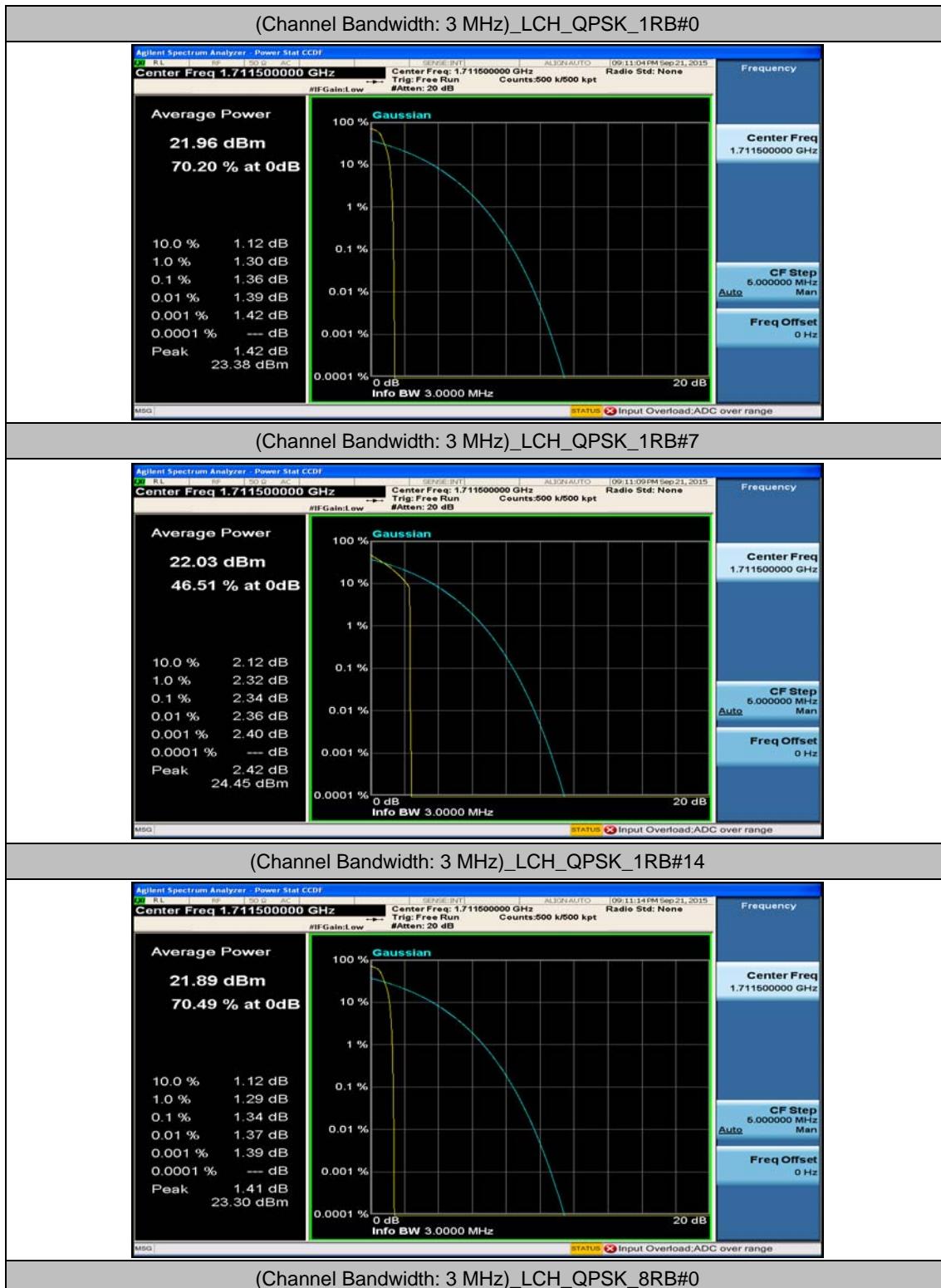


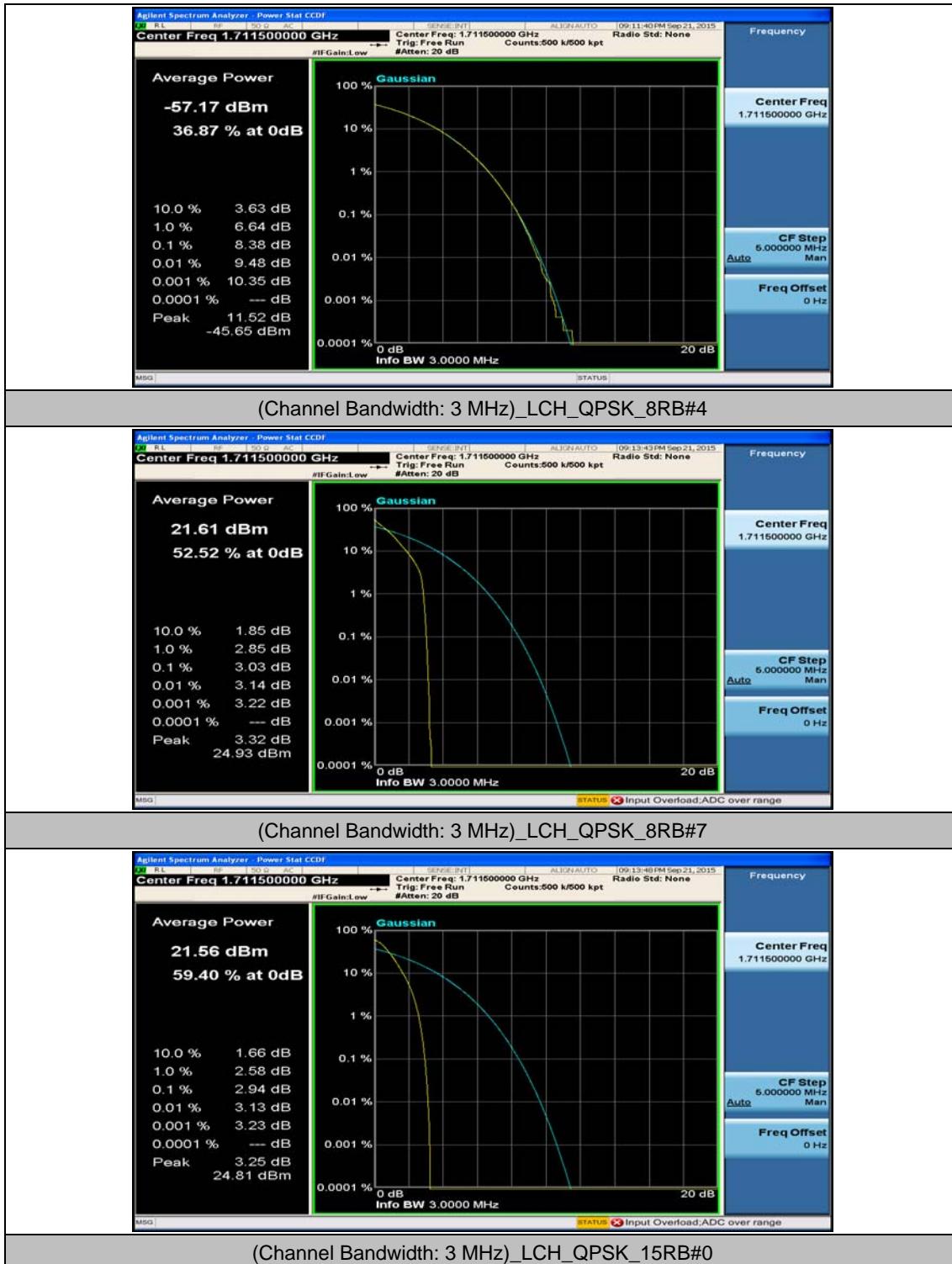


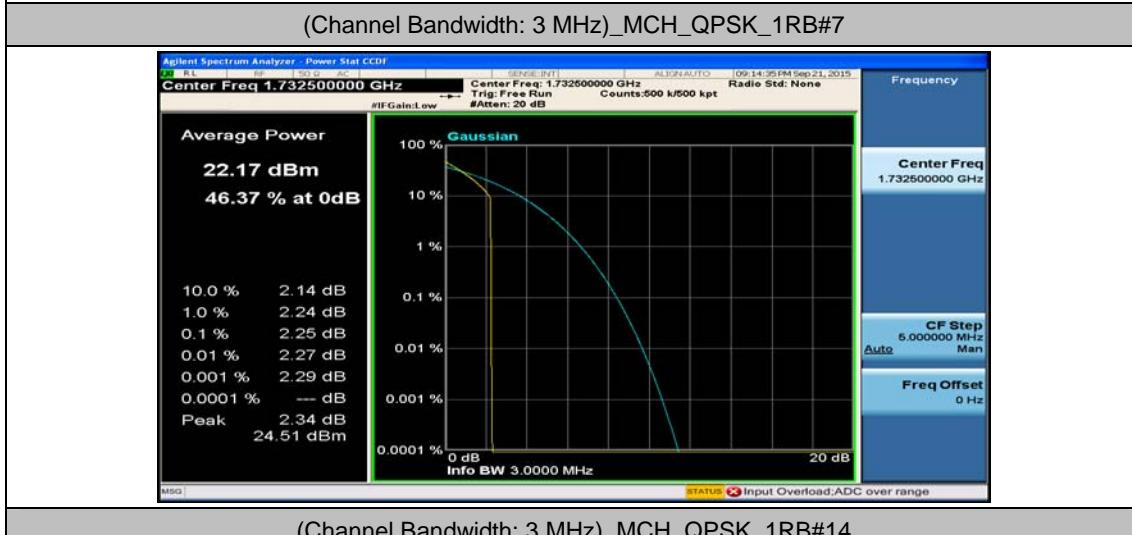
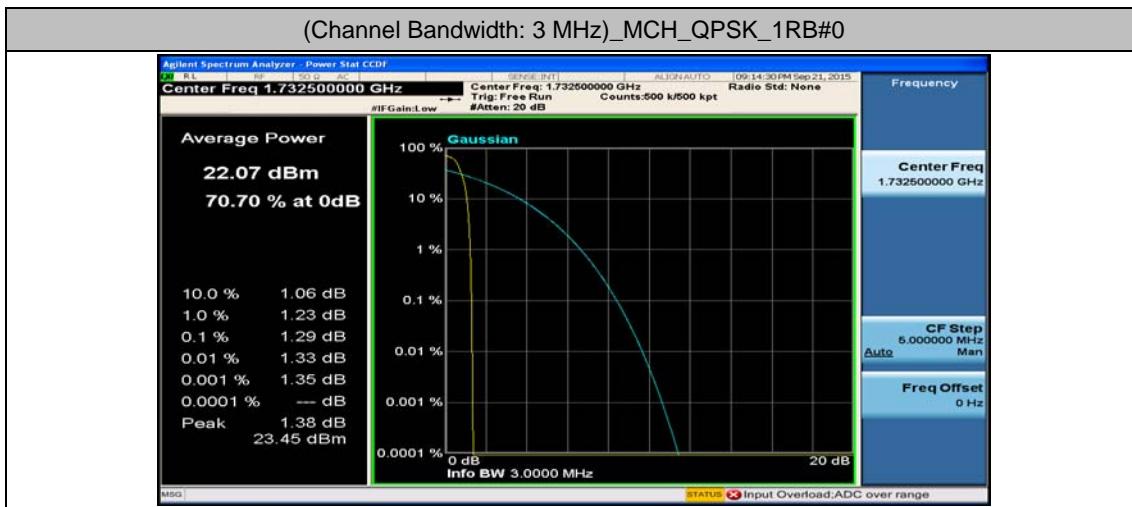
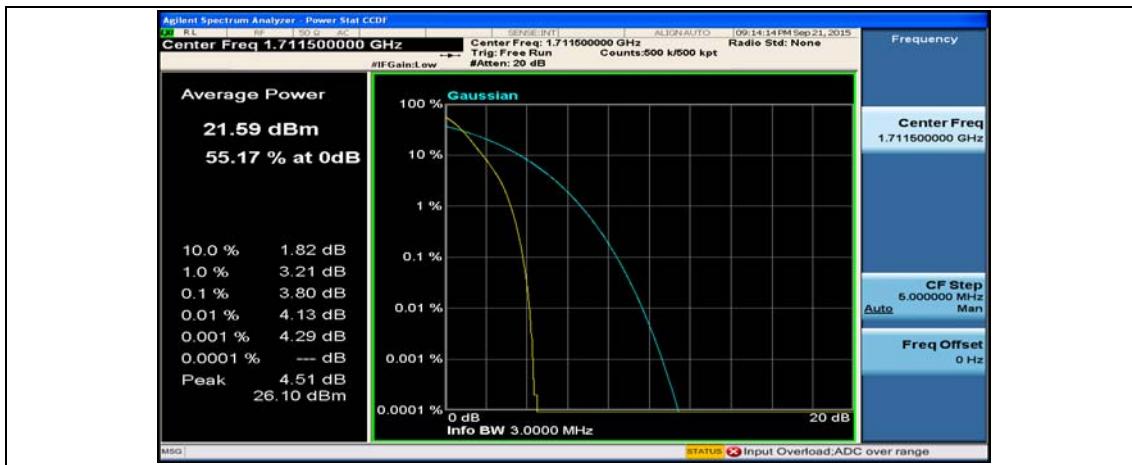




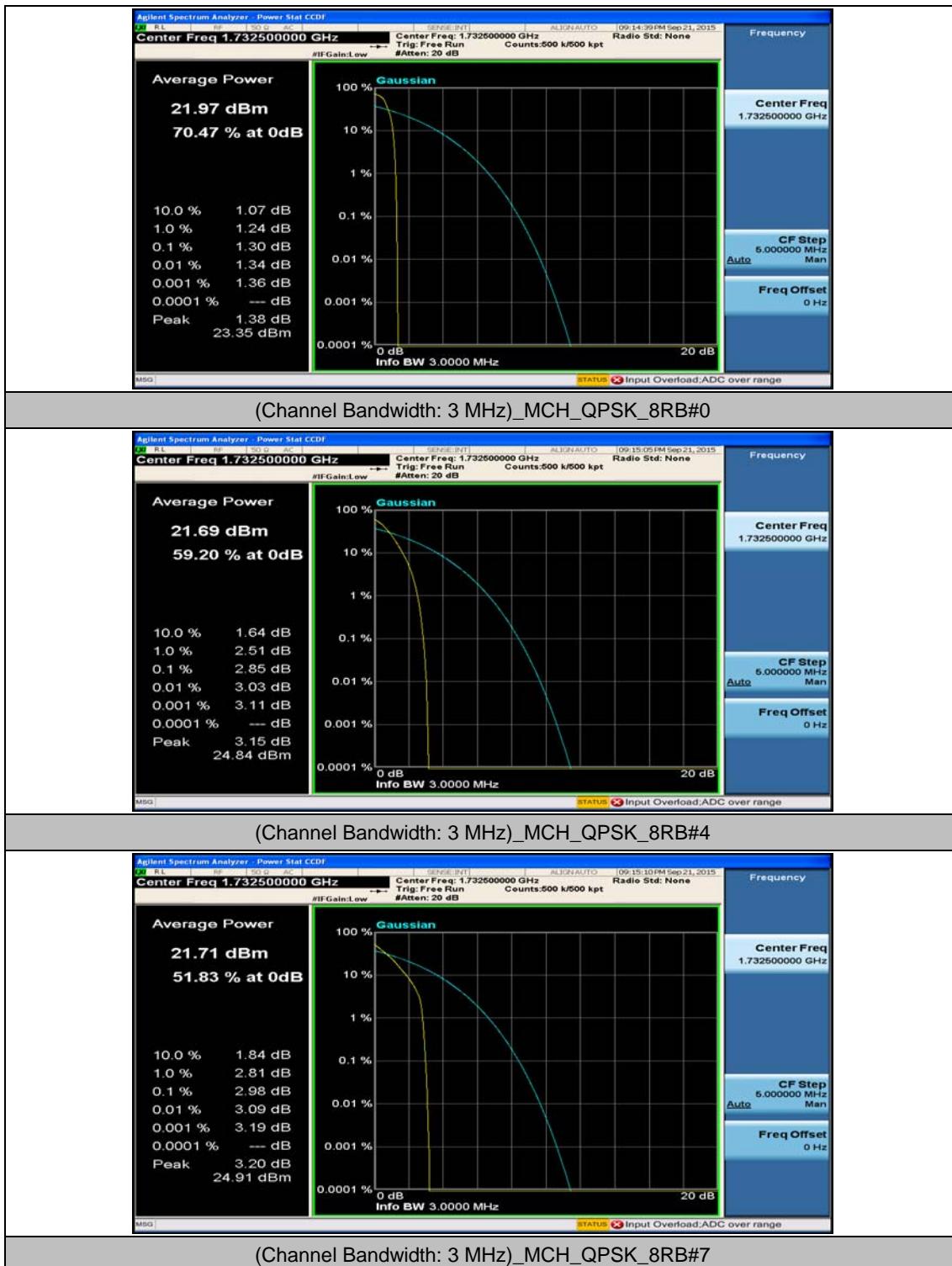
Channel Bandwidth: 3 MHz

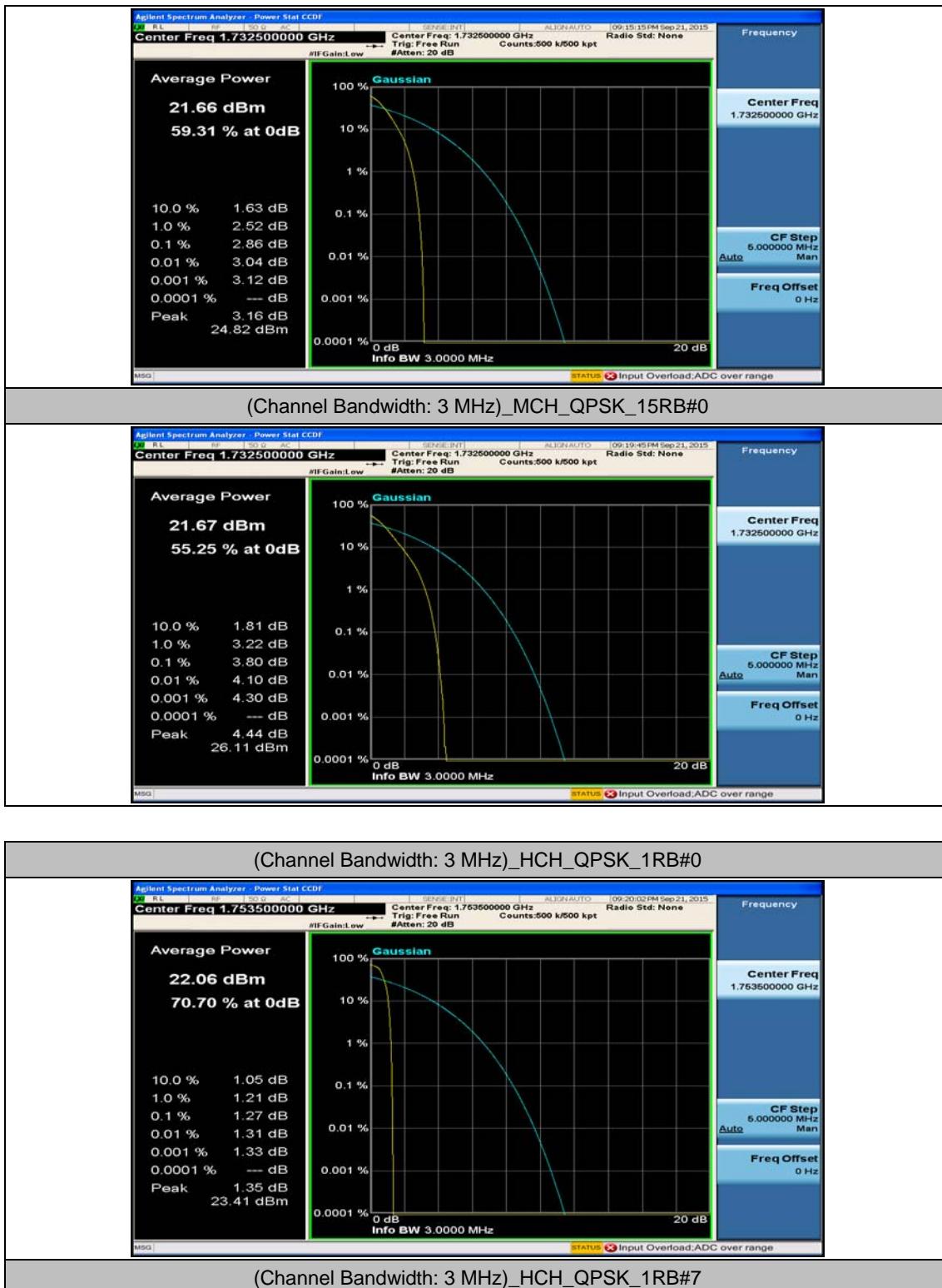


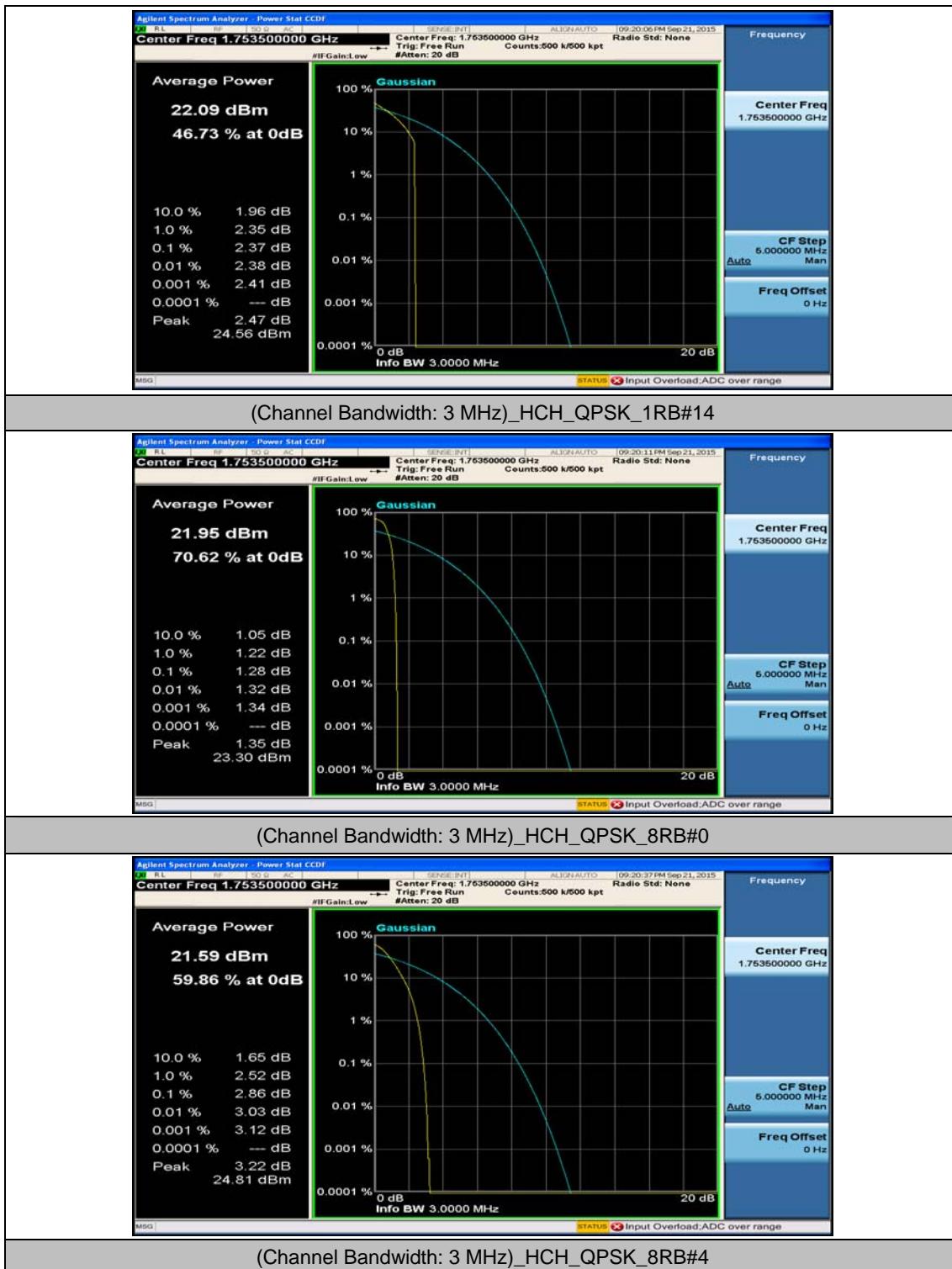


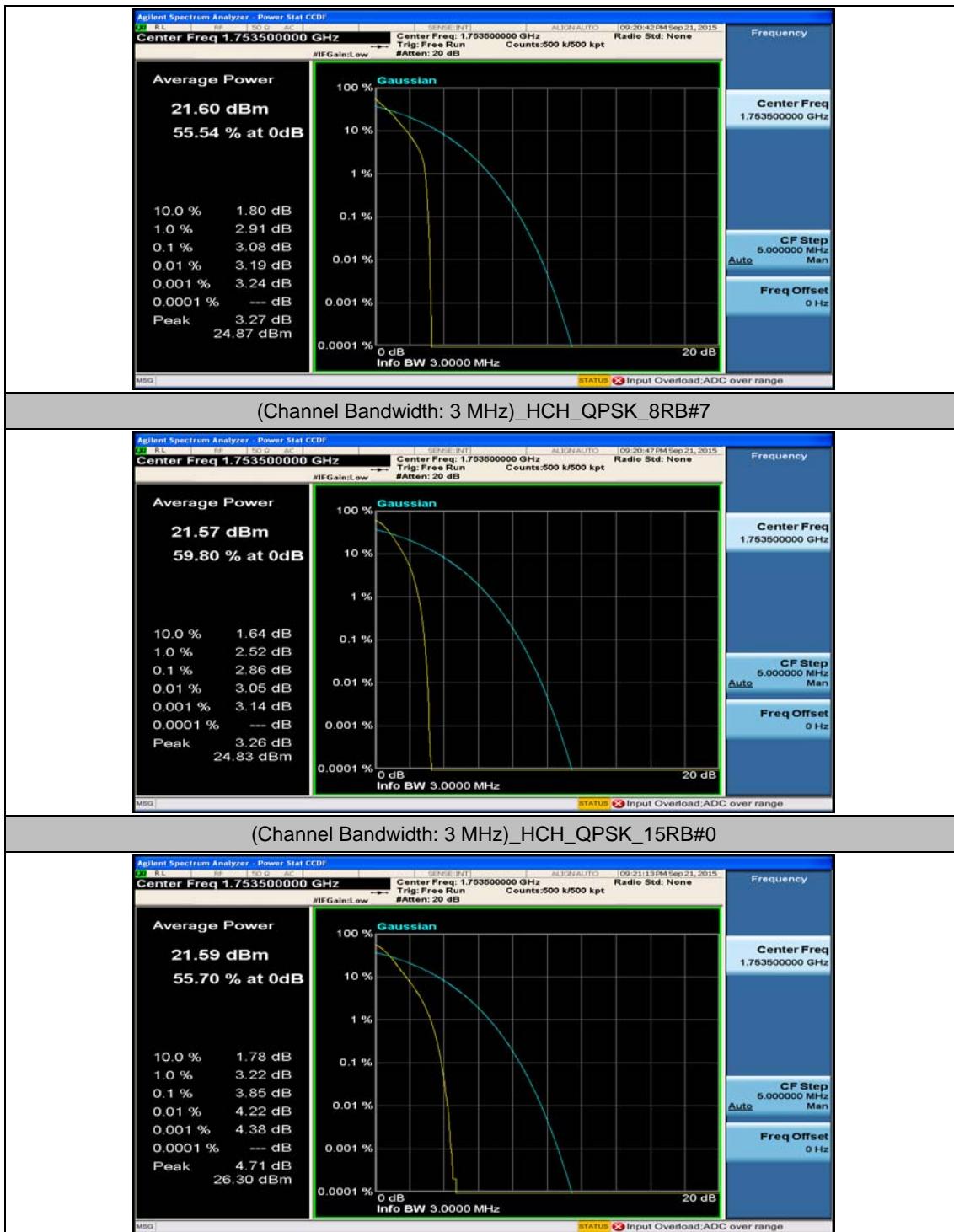


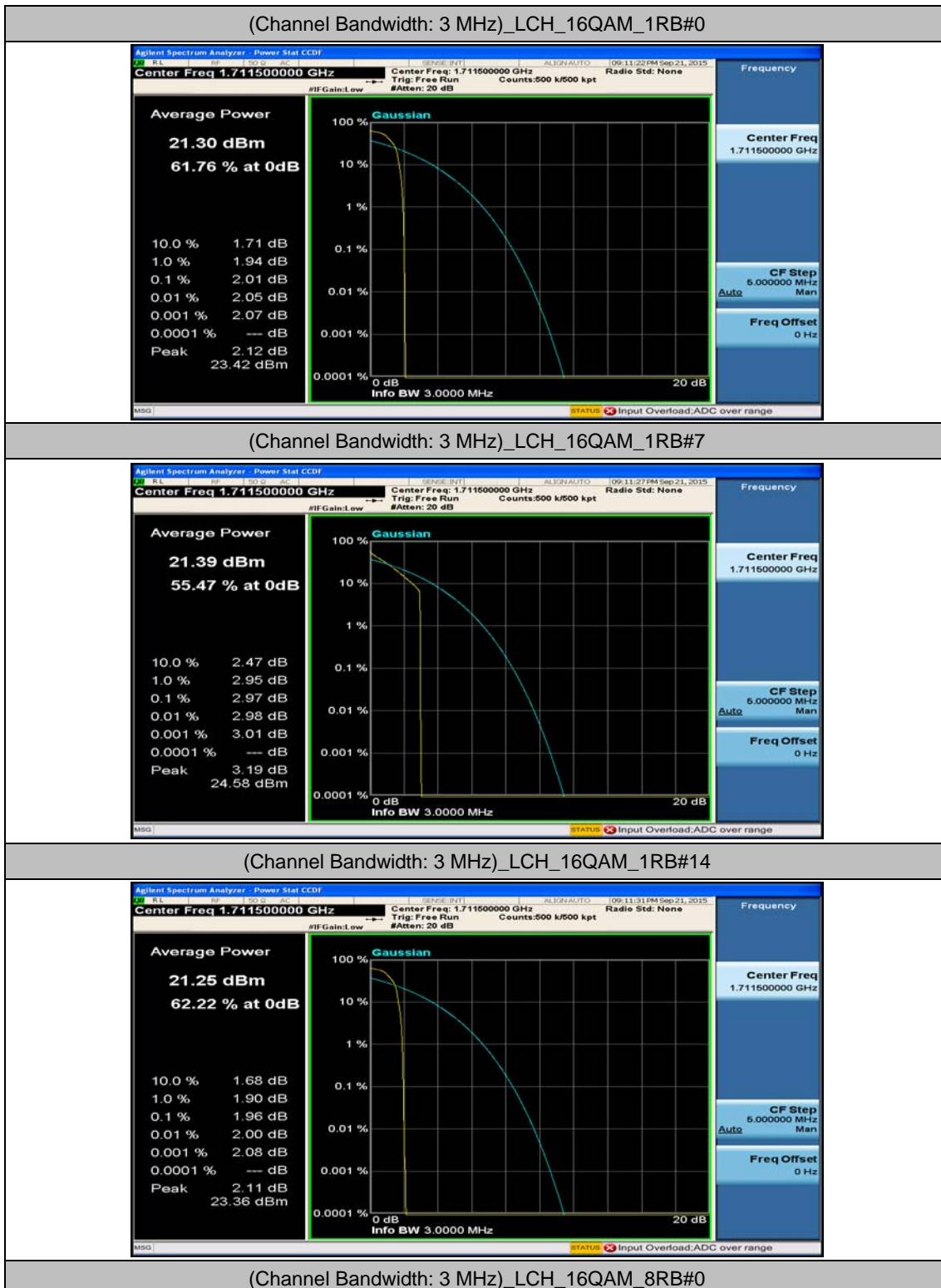
(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#14

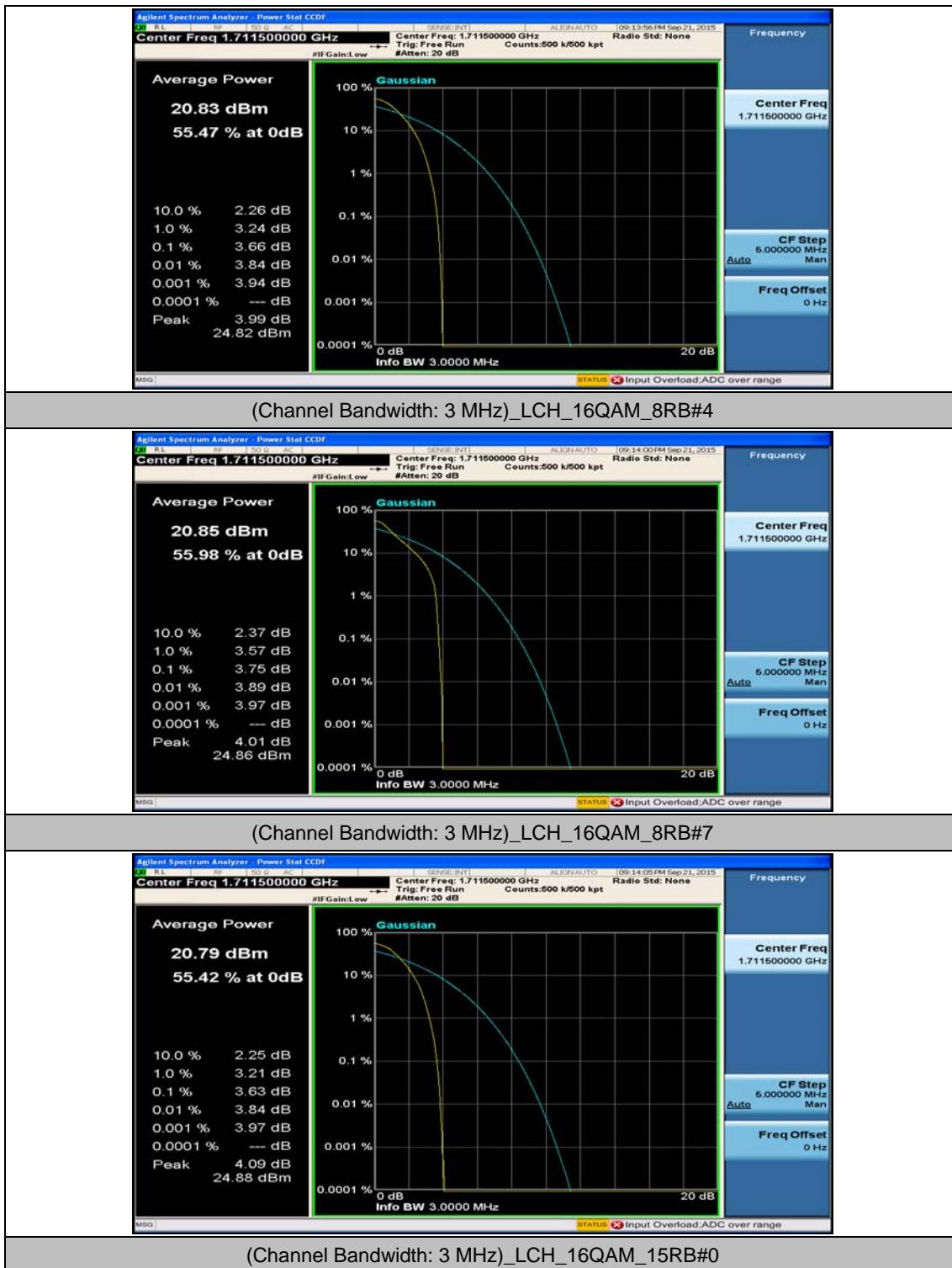


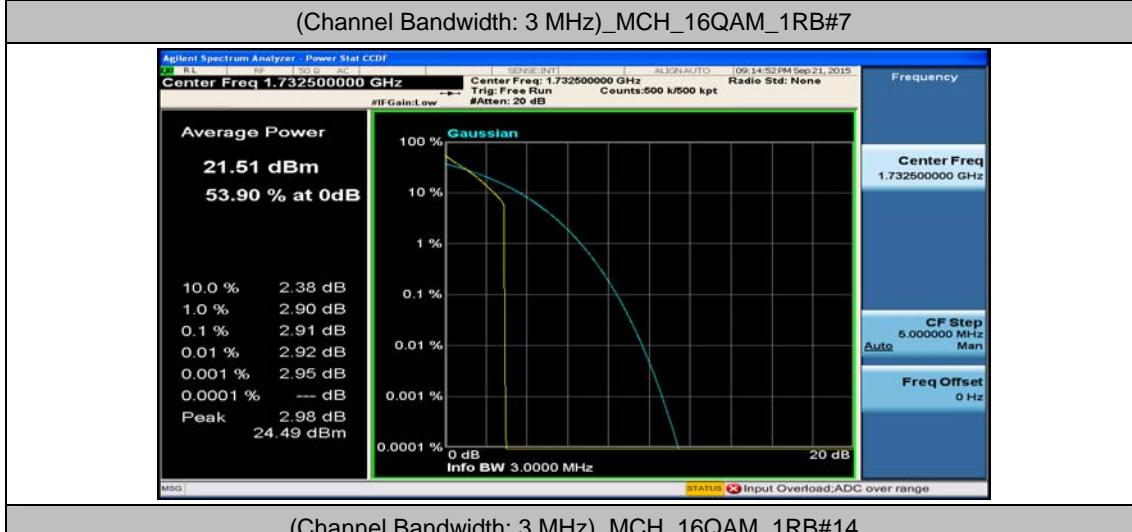
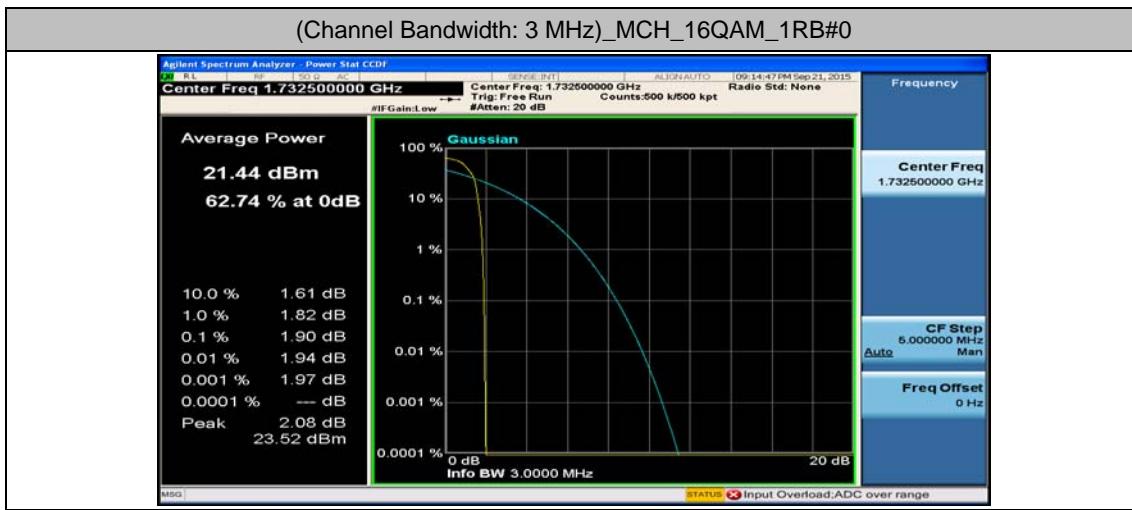
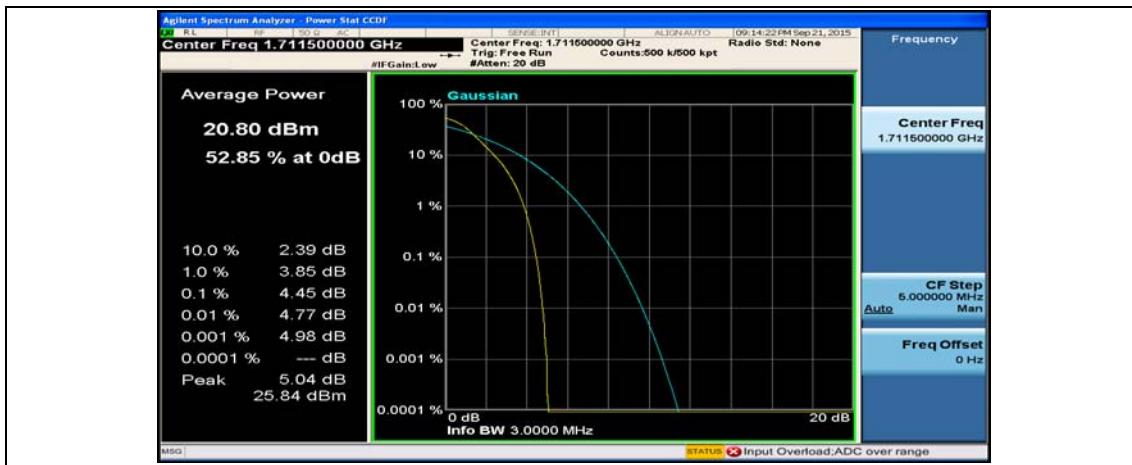


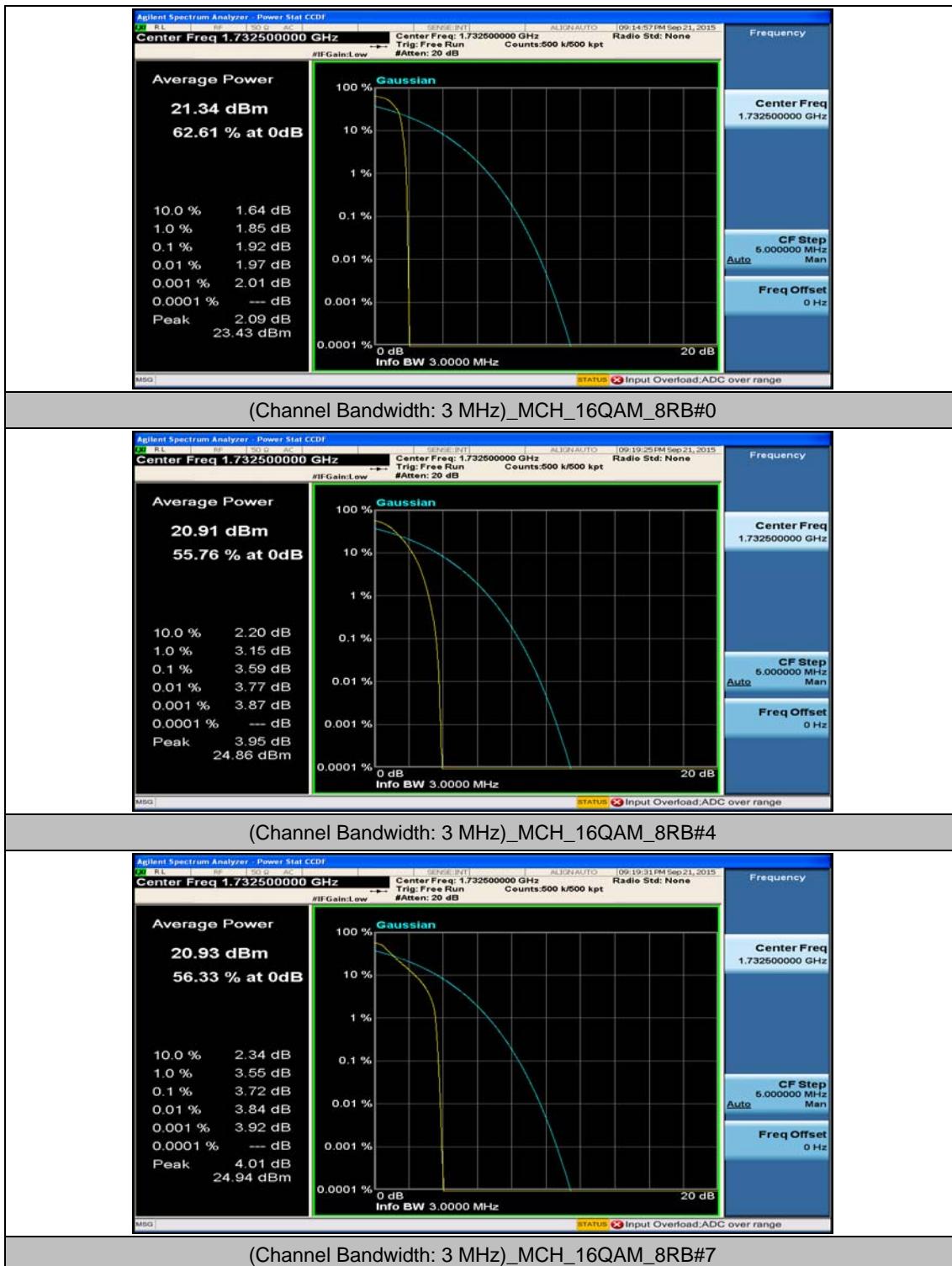


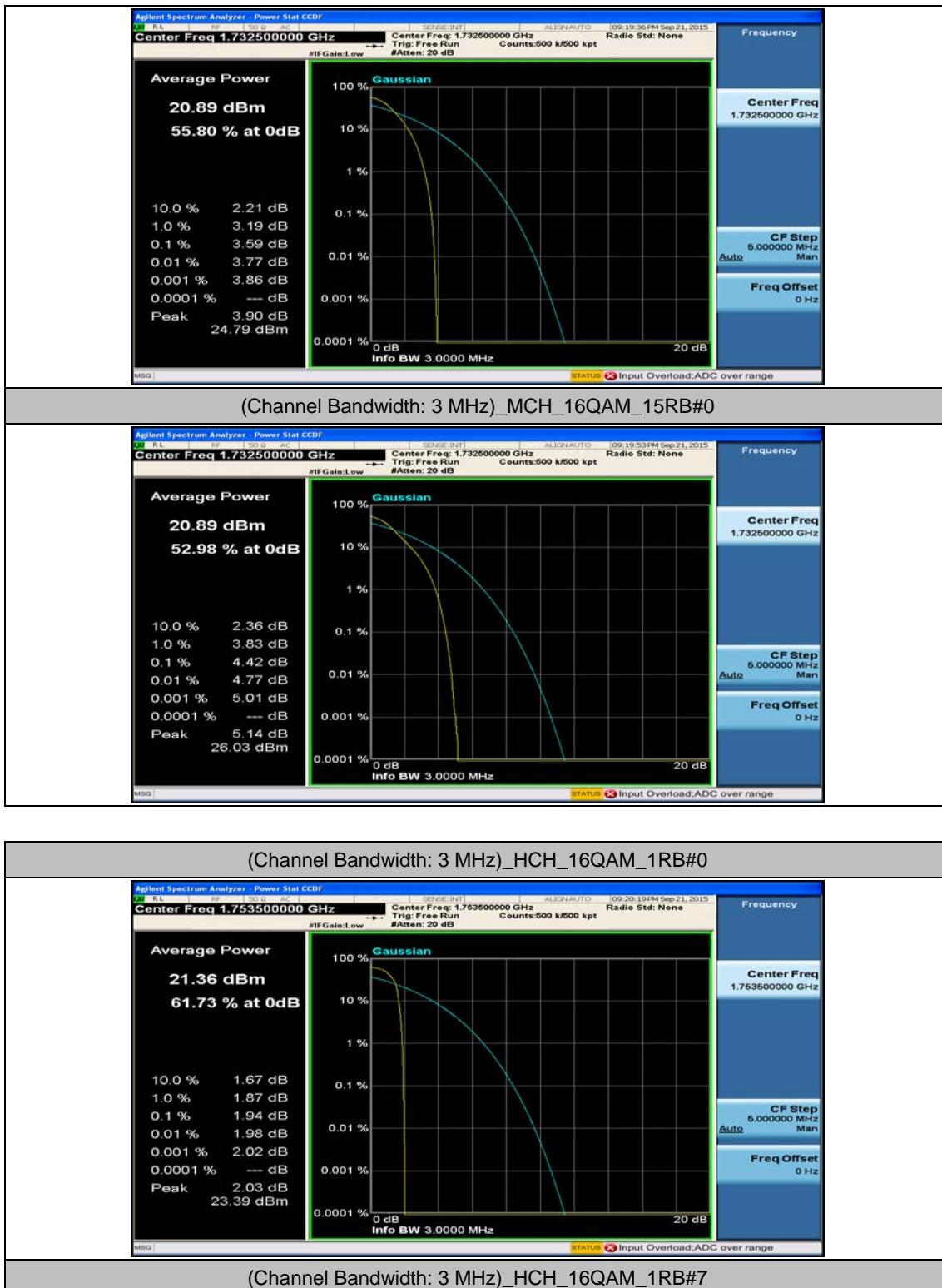


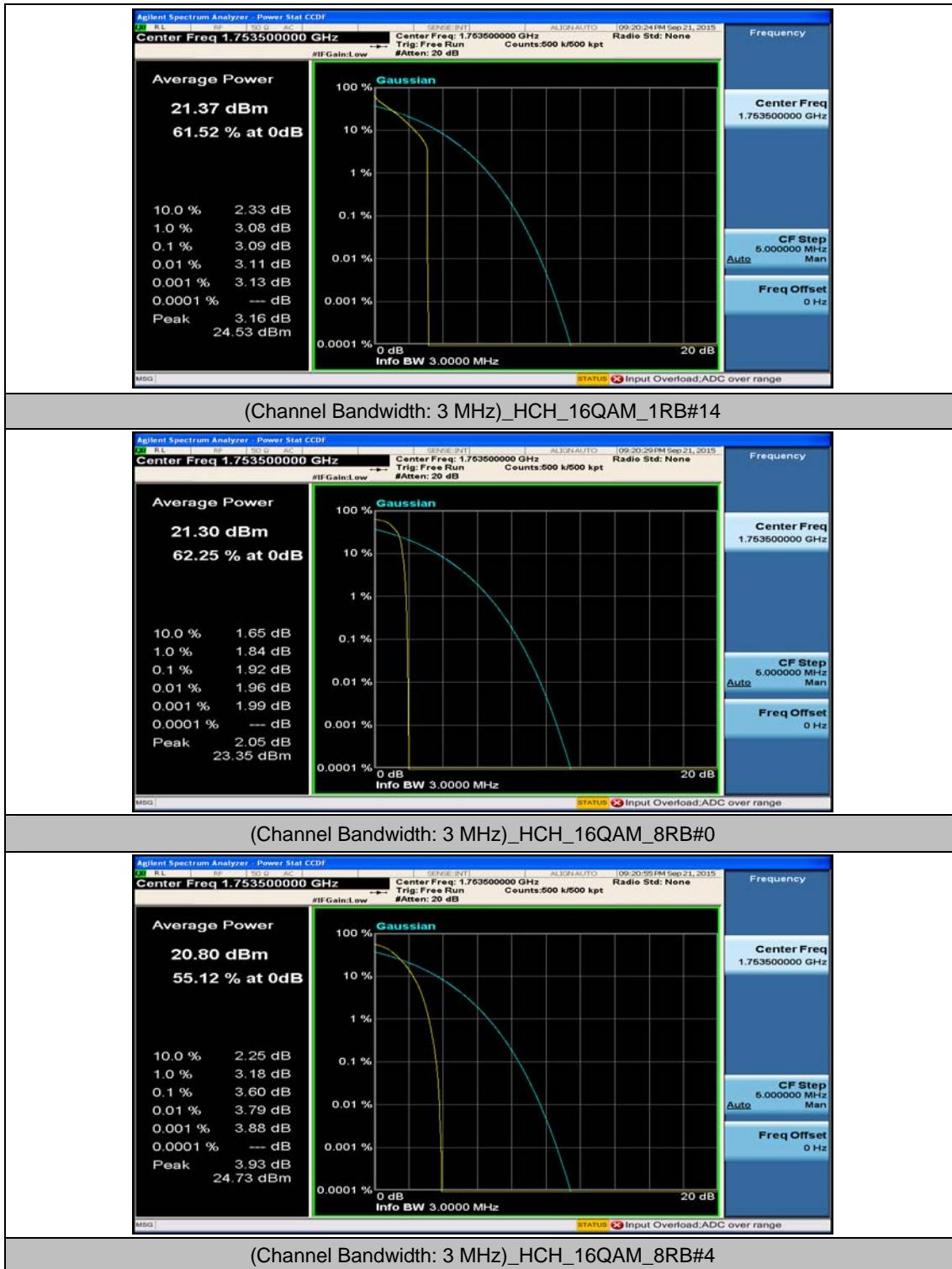


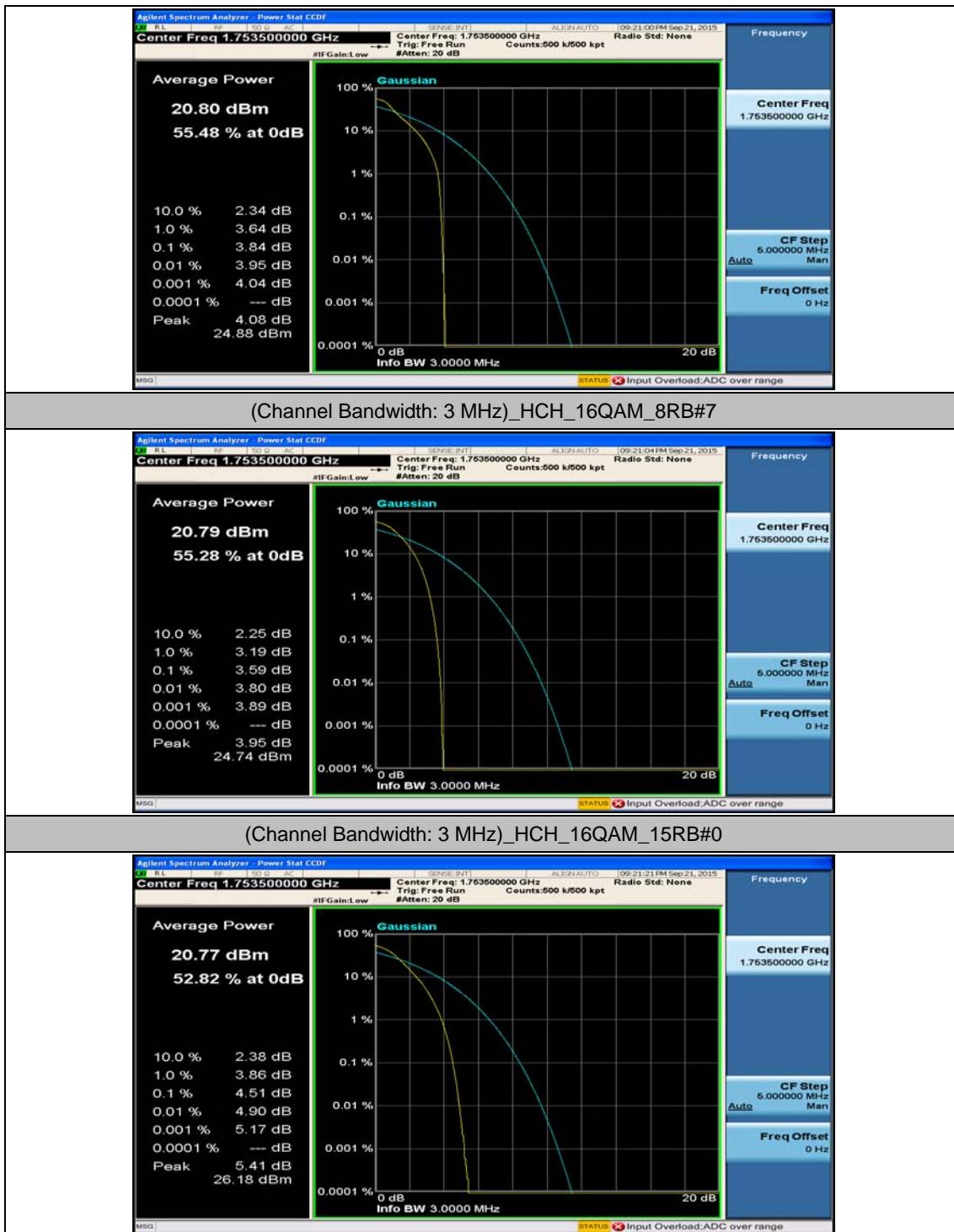




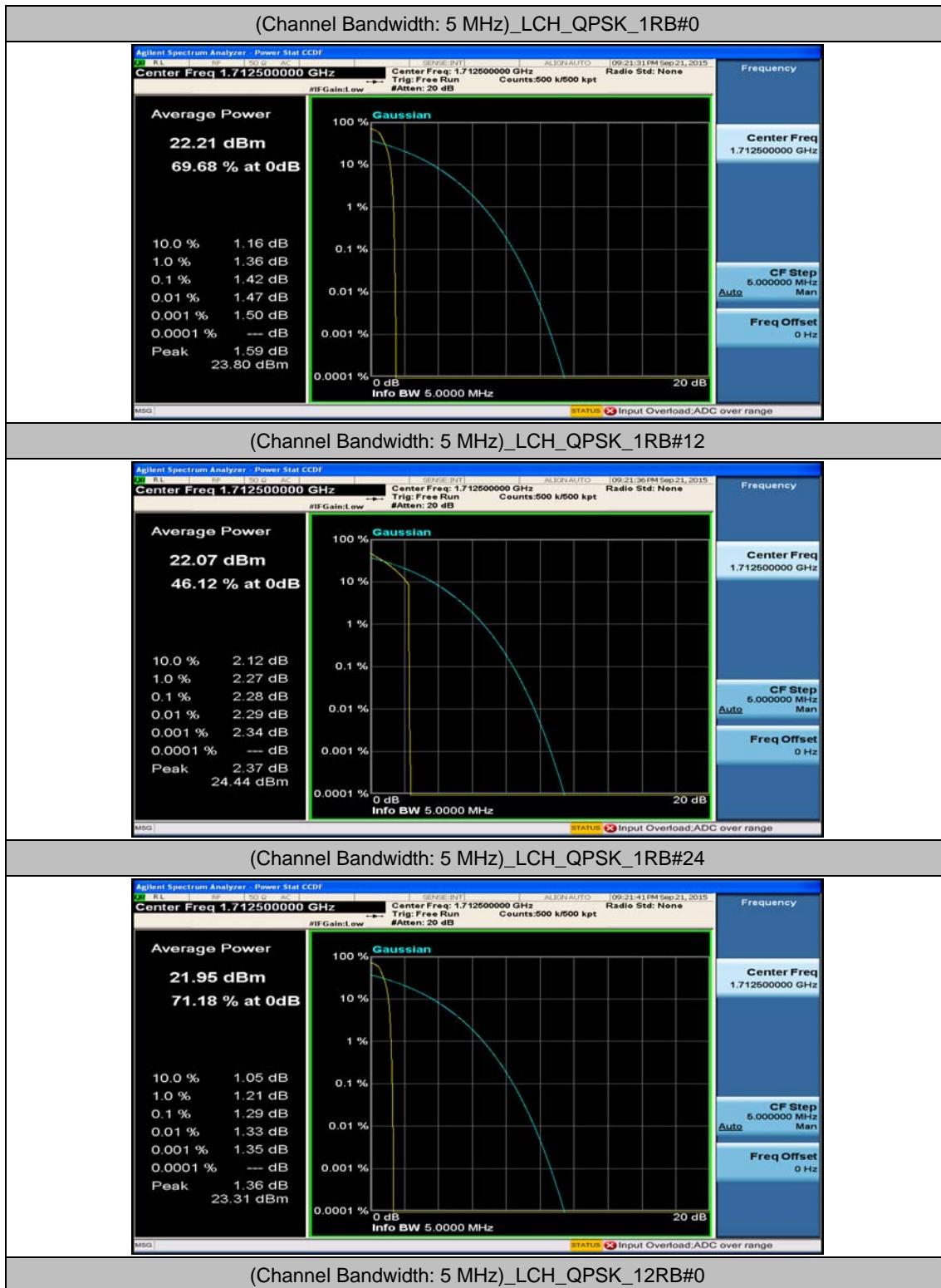


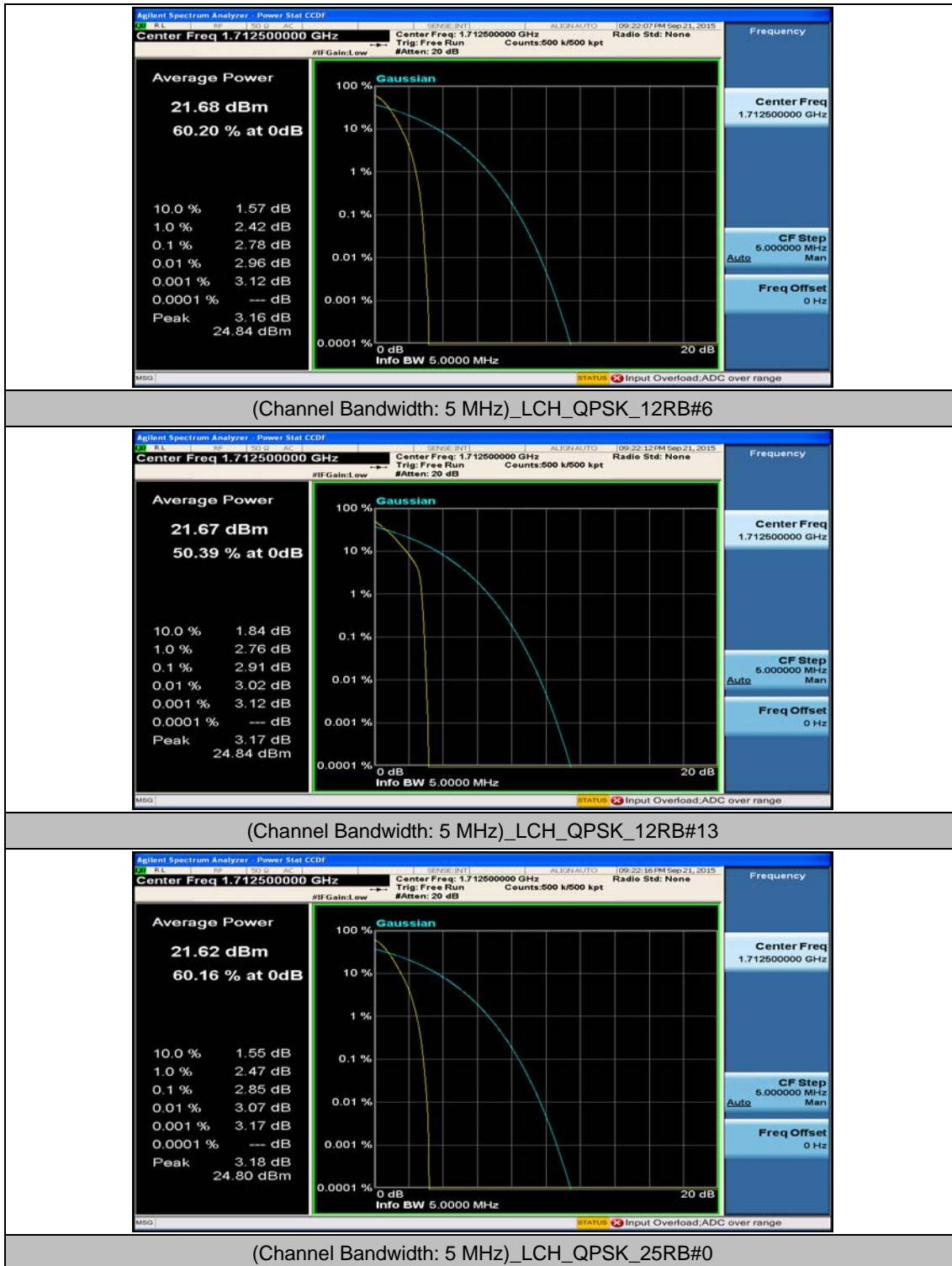


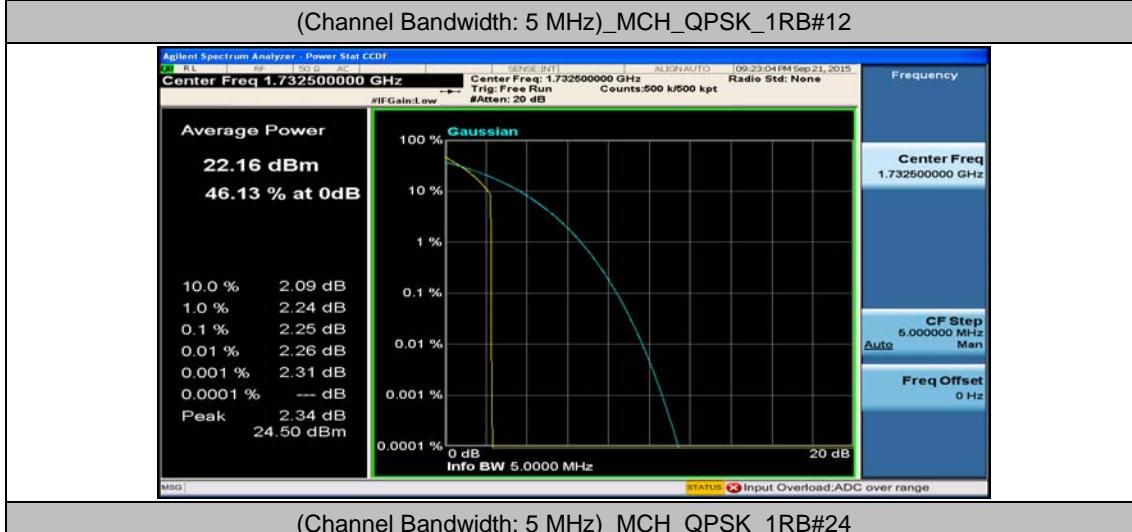
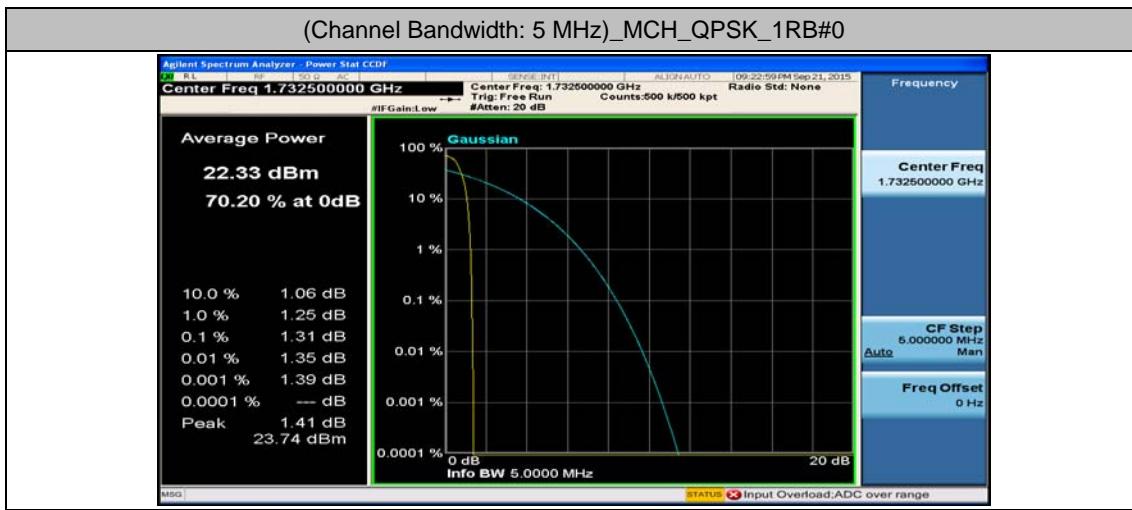
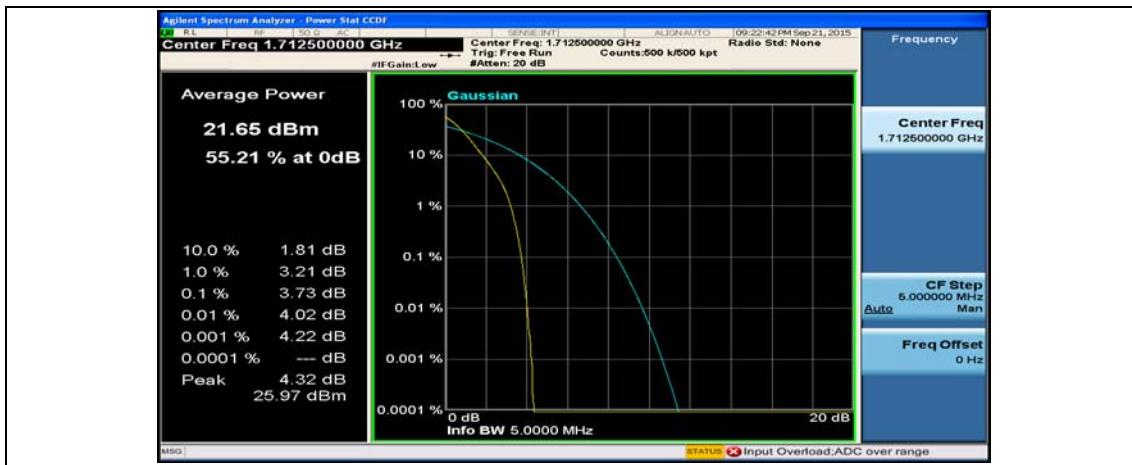


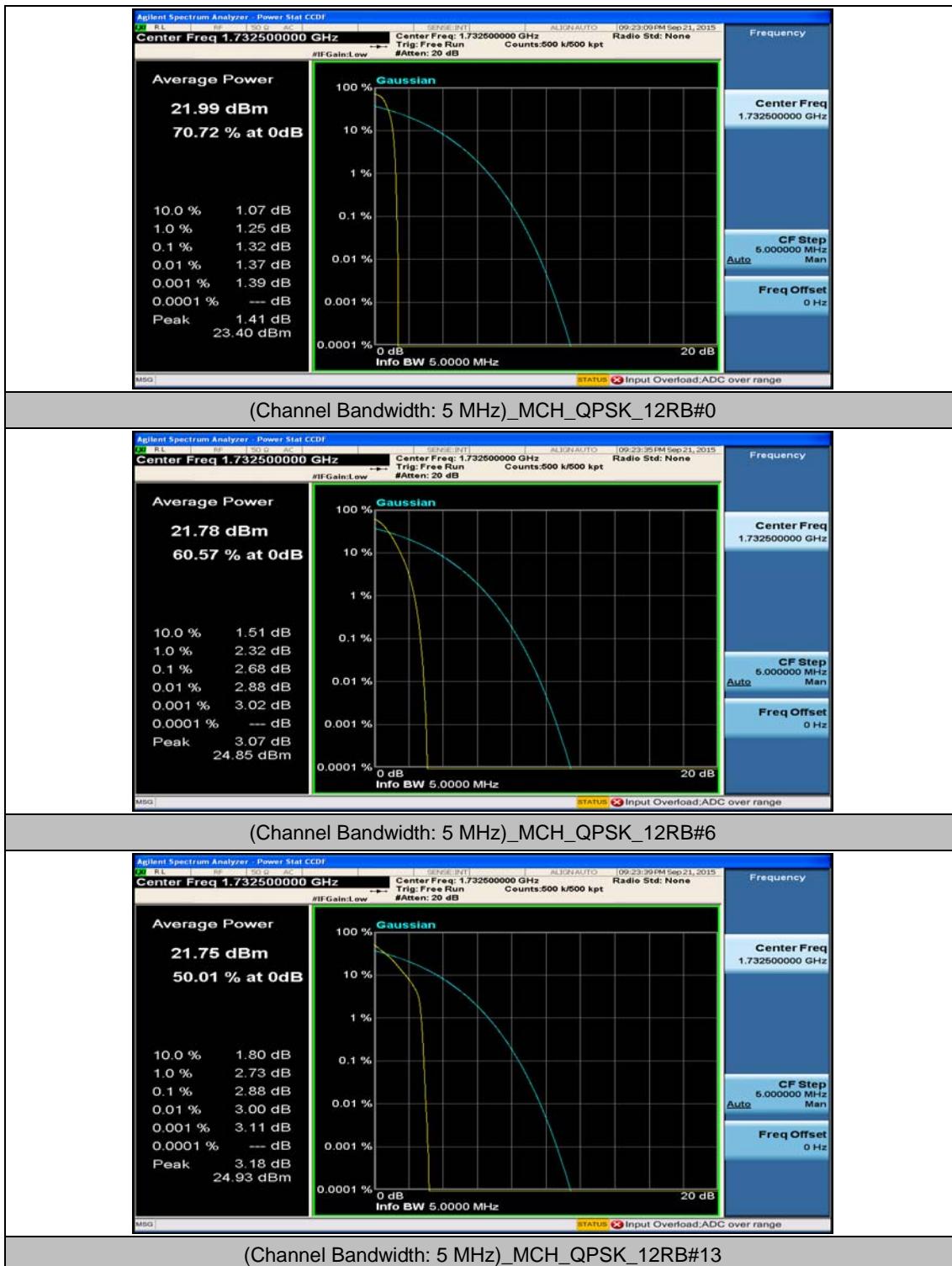


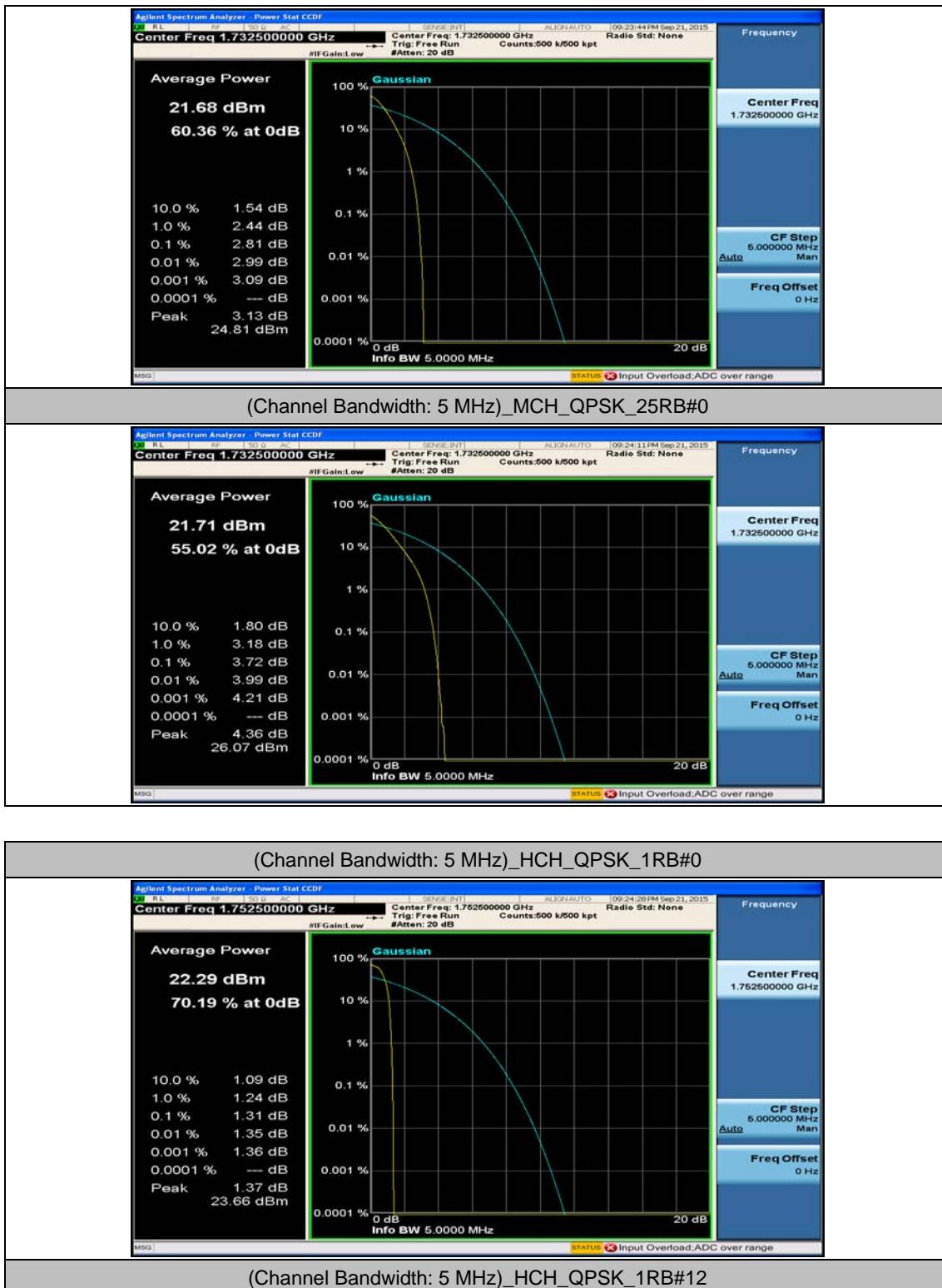
Channel Bandwidth: 5 MHz

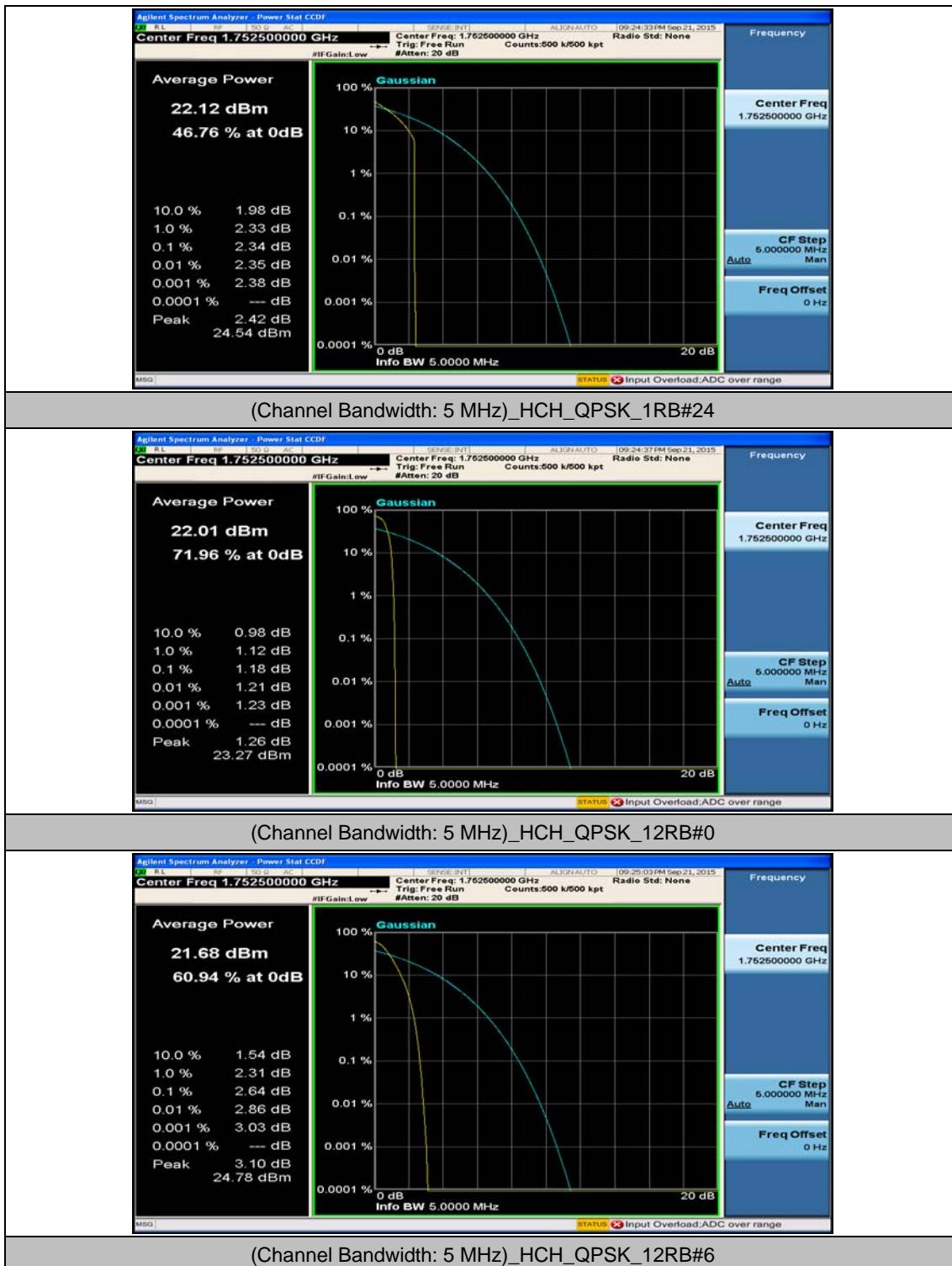


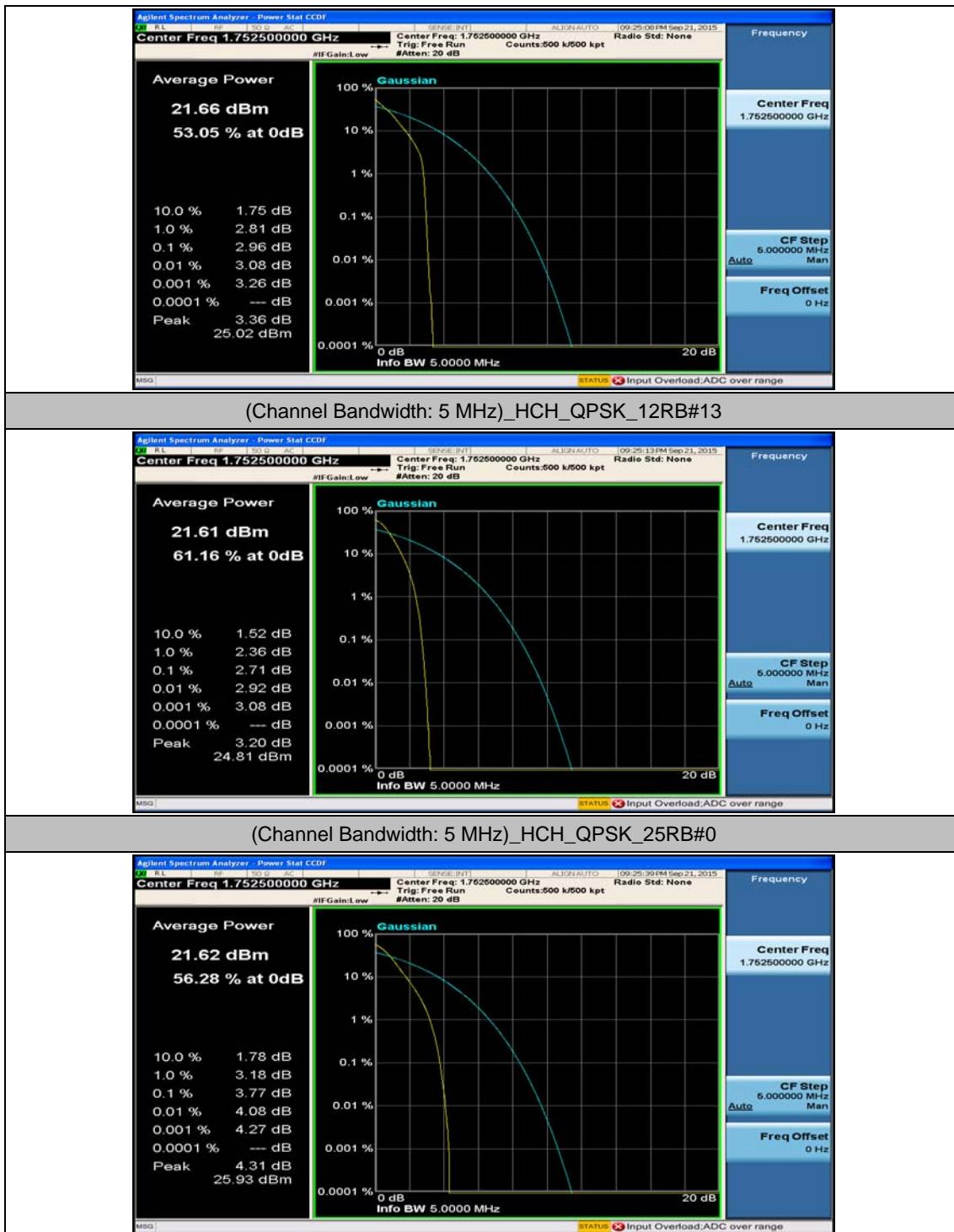


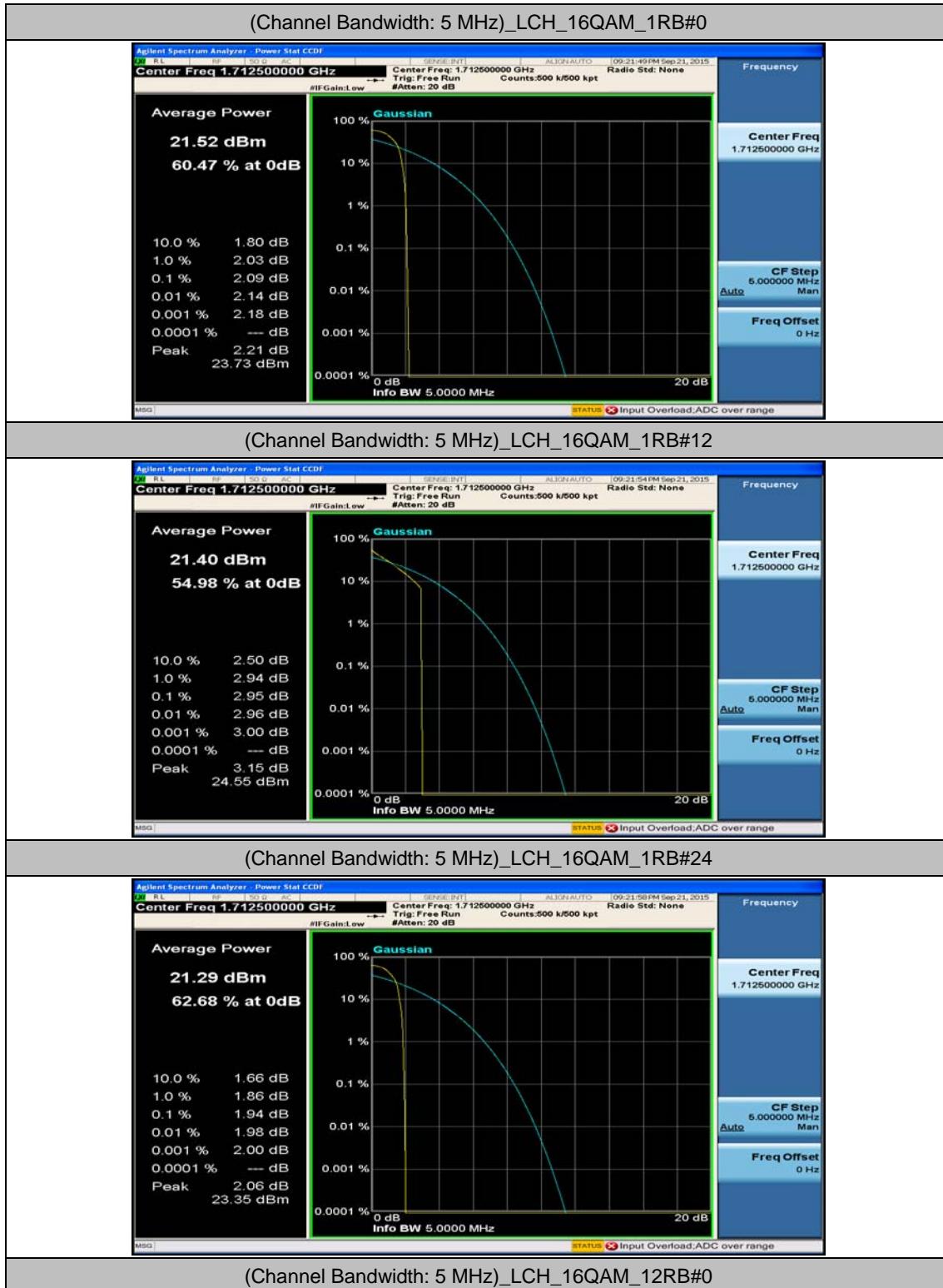


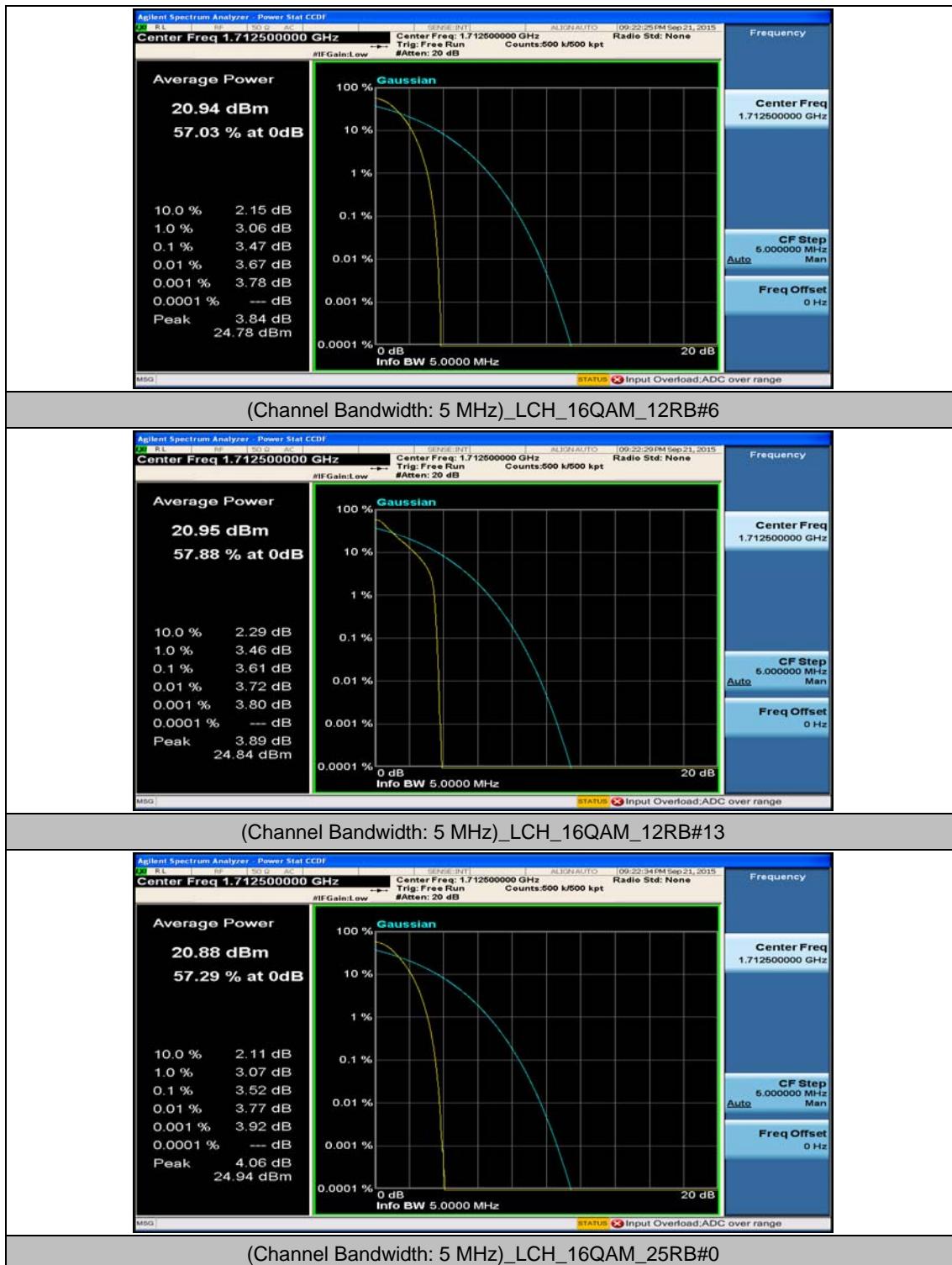


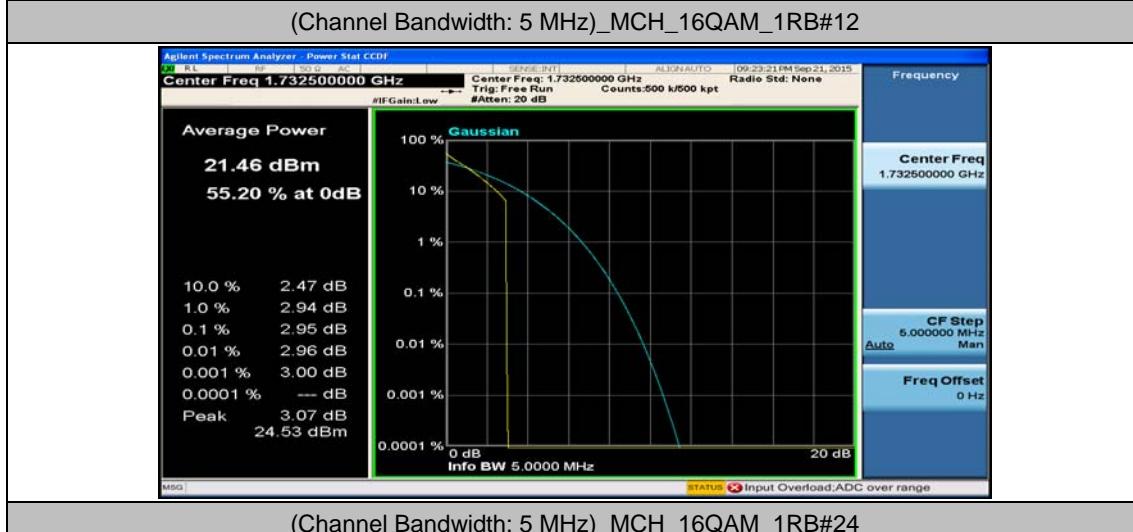
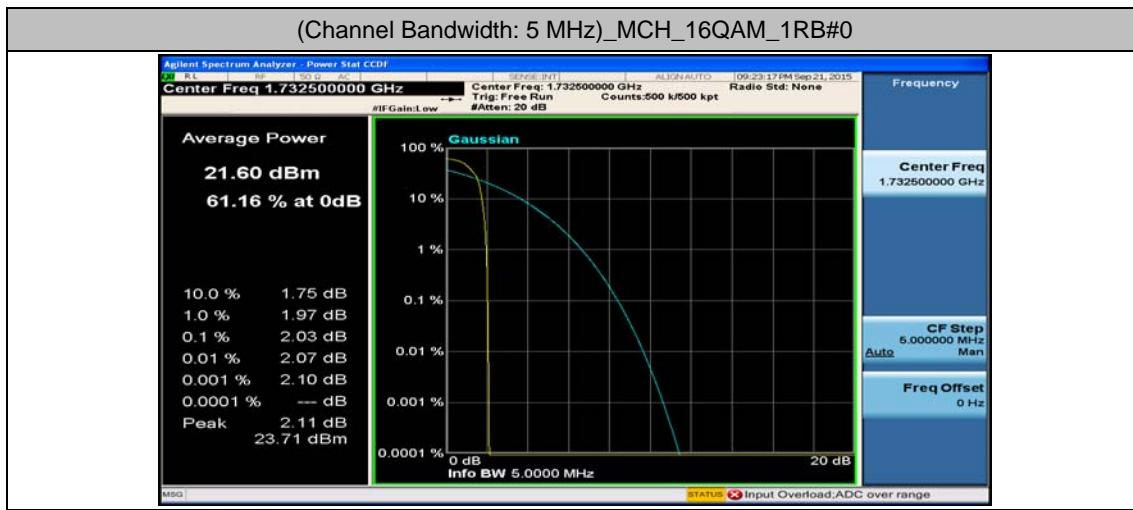
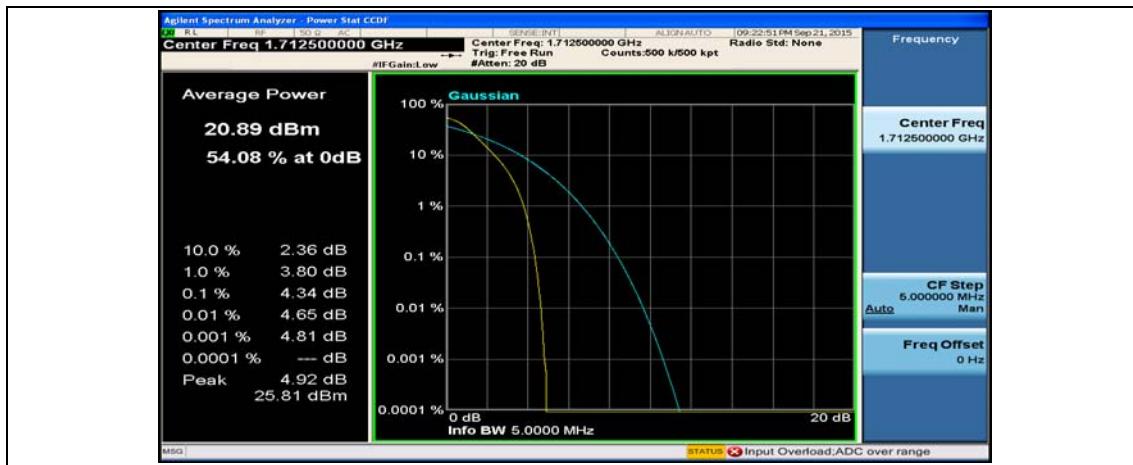












(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24

