

Appendix for Band 4

Appendix A: Average Power Output Data

Test Result

Channel Bandwidth: 1.4 MHz

Channel Bandwidth: 1.4 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.54	PASS
		1	3	22.53	PASS
		1	5	22.56	PASS
		3	0	22.59	PASS
		3	2	22.58	PASS
		3	3	22.59	PASS
		6	0	21.66	PASS
	MCH	1	0	22.65	PASS
		1	3	22.64	PASS
		1	5	22.66	PASS
		3	0	22.64	PASS
		3	2	22.59	PASS
		3	3	22.64	PASS
		6	0	21.70	PASS
16QAM	LCH	1	0	22.70	PASS
		1	3	22.66	PASS
		1	5	22.64	PASS
		3	0	22.74	PASS
		3	2	22.64	PASS
		3	3	22.67	PASS
		6	0	21.70	PASS
	MCH	1	0	21.74	PASS
		1	3	21.92	PASS
		1	5	21.78	PASS
		3	0	21.70	PASS
		3	2	21.69	PASS
		3	3	21.70	PASS
		6	0	20.59	PASS

		3	3	21.70	PASS
		6	0	20.65	PASS
HCH	HCH	1	0	22.02	PASS
		1	3	22.02	PASS
		1	5	21.97	PASS
		3	0	21.68	PASS
		3	2	21.62	PASS
		3	3	21.65	PASS
		6	0	20.63	PASS

Channel Bandwidth: 3 MHz

Channel Bandwidth: 3 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.46	PASS
		1	7	22.51	PASS
		1	14	22.50	PASS
		8	0	21.61	PASS
		8	4	21.60	PASS
		8	7	21.63	PASS
		15	0	21.59	PASS
	MCH	1	0	22.56	PASS
		1	7	22.62	PASS
		1	14	22.62	PASS
		8	0	21.69	PASS
		8	4	21.69	PASS
		8	7	21.72	PASS
		15	0	21.68	PASS
	HCH	1	0	22.77	PASS
		1	7	22.74	PASS
		1	14	22.63	PASS
		8	0	21.83	PASS
		8	4	21.79	PASS
		8	7	21.77	PASS
		15	0	21.76	PASS
16QAM	LCH	1	0	21.74	PASS
		1	7	21.80	PASS
		1	14	21.79	PASS
		8	0	20.66	PASS
		8	4	20.66	PASS
		8	7	20.67	PASS
		15	0	20.57	PASS
	MCH	1	0	21.82	PASS

		1	7	21.87	PASS
		1	14	21.84	PASS
		8	0	20.73	PASS
		8	4	20.74	PASS
		8	7	20.74	PASS
		15	0	20.63	PASS
	HCH	1	0	22.08	PASS
		1	7	22.06	PASS
		1	14	21.95	PASS
		8	0	20.81	PASS
		8	4	20.77	PASS
		8	7	20.75	PASS
		15	0	20.76	PASS

Channel Bandwidth: 5 MHz

Channel Bandwidth: 5 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.58	PASS
		1	12	22.63	PASS
		1	24	22.66	PASS
		12	0	21.67	PASS
		12	6	21.69	PASS
		12	13	21.73	PASS
		25	0	21.65	PASS
	MCH	1	0	22.75	PASS
		1	12	22.75	PASS
		1	24	22.79	PASS
		12	0	21.77	PASS
		12	6	21.77	PASS
		12	13	21.83	PASS
		25	0	21.74	PASS
	HCH	1	0	23.05	PASS
		1	12	22.88	PASS
		1	24	22.72	PASS
		12	0	21.95	PASS
		12	6	21.87	PASS
		12	13	21.82	PASS
		25	0	21.85	PASS
16QAM	LCH	1	0	21.96	PASS
		1	12	21.98	PASS
		1	24	22.04	PASS
		12	0	20.80	PASS

		12	6	20.83	PASS
		12	13	20.88	PASS
		25	0	20.69	PASS
MCH		1	0	22.09	PASS
		1	12	22.03	PASS
		1	24	22.10	PASS
		12	0	20.88	PASS
		12	6	20.88	PASS
		12	13	20.94	PASS
		25	0	20.77	PASS
		1	0	21.96	PASS
HCH		1	12	21.88	PASS
		1	24	21.70	PASS
		12	0	20.99	PASS
		12	6	20.91	PASS
		12	13	20.85	PASS
		25	0	20.84	PASS

Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.55	PASS
		1	24	22.68	PASS
		1	49	22.67	PASS
		25	0	21.66	PASS
		25	12	21.69	PASS
		25	25	21.72	PASS
		50	0	21.70	PASS
	MCH	1	0	22.76	PASS
		1	24	22.66	PASS
		1	49	22.91	PASS
		25	0	21.76	PASS
		25	12	21.73	PASS
		25	25	21.83	PASS
		50	0	21.78	PASS
	HCH	1	0	23.01	PASS
		1	24	22.98	PASS
		1	49	22.74	PASS
		25	0	21.98	PASS
		25	12	21.95	PASS
		25	25	21.87	PASS
		50	0	21.93	PASS

16QAM	LCH	1	0	21.85	PASS
		1	24	21.98	PASS
		1	49	21.97	PASS
		25	0	20.69	PASS
		25	12	20.70	PASS
		25	25	20.75	PASS
		50	0	20.72	PASS
	MCH	1	0	22.03	PASS
		1	24	21.93	PASS
		1	49	22.13	PASS
		25	0	20.75	PASS
		25	12	20.73	PASS
		25	25	20.81	PASS
		50	0	20.77	PASS
	HCH	1	0	22.29	PASS
		1	24	22.29	PASS
		1	49	22.11	PASS
		25	0	21.00	PASS
		25	12	20.96	PASS
		25	25	20.89	PASS
		50	0	20.96	PASS

Channel Bandwidth: 15 MHz

Channel Bandwidth: 15 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.61	PASS
		1	37	22.71	PASS
		1	74	22.72	PASS
		37	0	21.79	PASS
		37	18	21.81	PASS
		37	38	21.81	PASS
		75	0	21.80	PASS
	MCH	1	0	22.76	PASS
		1	37	22.69	PASS
		1	74	22.97	PASS
		37	0	21.87	PASS
		37	18	21.85	PASS
		37	38	22.03	PASS
		75	0	21.96	PASS
	HCH	1	0	23.09	PASS
		1	37	23.02	PASS
		1	74	22.80	PASS

		37	0	22.20	PASS
		37	18	22.17	PASS
		37	38	22.08	PASS
		75	0	22.14	PASS
16QAM	LCH	1	0	21.89	PASS
		1	37	21.98	PASS
		1	74	22.00	PASS
		37	0	20.76	PASS
		37	18	20.79	PASS
		37	38	20.80	PASS
		75	0	20.79	PASS
	MCH	1	0	22.03	PASS
		1	37	21.95	PASS
		1	74	22.19	PASS
		37	0	20.84	PASS
		37	18	20.80	PASS
		37	38	20.97	PASS
		75	0	20.91	PASS
	HCH	1	0	22.29	PASS
		1	37	22.22	PASS
		1	74	22.06	PASS
		37	0	21.15	PASS
		37	18	21.13	PASS
		37	38	21.05	PASS
		75	0	21.08	PASS

Channel Bandwidth: 20 MHz

Channel Bandwidth: 20 MHz					
Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.71	PASS
		1	49	22.83	PASS
		1	99	22.93	PASS
		50	0	21.71	PASS
		50	25	21.75	PASS
		50	50	21.78	PASS
		100	0	21.74	PASS
	MCH	1	0	22.83	PASS
		1	49	22.78	PASS
		1	99	23.19	PASS
		50	0	21.80	PASS
		50	25	21.79	PASS
		50	50	21.96	PASS

		100	0	21.86	PASS
16QAM	HCH	1	0	23.01	PASS
		1	49	23.10	PASS
		1	99	22.90	PASS
		50	0	22.02	PASS
		50	25	22.02	PASS
		50	50	21.95	PASS
		100	0	21.99	PASS
	LCH	1	0	21.89	PASS
		1	49	21.98	PASS
		1	99	22.05	PASS
		50	0	20.72	PASS
		50	25	20.73	PASS
		50	50	20.78	PASS
		100	0	20.74	PASS
	MCH	1	0	22.00	PASS
		1	49	21.94	PASS
		1	99	22.31	PASS
		50	0	20.77	PASS
		50	25	20.78	PASS
		50	50	20.92	PASS
		100	0	20.86	PASS
	HCH	1	0	22.25	PASS
		1	49	22.34	PASS
		1	99	22.18	PASS
		50	0	21.04	PASS
		50	25	21.03	PASS
		50	50	20.99	PASS
		100	0	20.98	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	2.02	<13	PASS
		1	3	3.35	<13	PASS
		1	5	2.01	<13	PASS
		3	0	3.02	<13	PASS
		3	2	3.28	<13	PASS
		3	3	3.01	<13	PASS
		6	0	4.35	<13	PASS
	MCH	1	0	1.81	<13	PASS
		1	3	3.18	<13	PASS
		1	5	1.79	<13	PASS
		3	0	2.85	<13	PASS
		3	2	3.18	<13	PASS
		3	3	2.85	<13	PASS
		6	0	4.13	<13	PASS
16QAM	LCH	1	0	1.87	<13	PASS
		1	3	3.29	<13	PASS
		1	5	1.91	<13	PASS
		3	0	2.89	<13	PASS
		3	2	3.24	<13	PASS
		3	3	2.93	<13	PASS
		6	0	4.22	<13	PASS
	MCH	1	0	2.81	<13	PASS
		1	3	4.14	<13	PASS
		1	5	2.79	<13	PASS
		3	0	3.9	<13	PASS
		3	2	4.15	<13	PASS
		3	3	3.89	<13	PASS
		6	0	5.04	<13	PASS

		3	2	4.03	<13	PASS
		3	3	3.69	<13	PASS
		6	0	4.85	<13	PASS
HCH		1	0	2.63	<13	PASS
		1	3	4.02	<13	PASS
		1	5	2.67	<13	PASS
		3	0	3.64	<13	PASS
		3	2	4.01	<13	PASS
		3	3	3.65	<13	PASS
		6	0	4.96	<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	<13	PASS
		1	7	3.25	<13	PASS
		1	14	2.01	<13	PASS
		8	0	3.4	<13	PASS
		8	4	3.93	<13	PASS
		8	7	3.41	<13	PASS
		15	0	4.42	<13	PASS
	MCH	1	0	1.86	<13	PASS
		1	7	3.14	<13	PASS
		1	14	1.78	<13	PASS
		8	0	3.24	<13	PASS
		8	4	3.79	<13	PASS
		8	7	3.23	<13	PASS
		15	0	4.3	<13	PASS
	HCH	1	0	1.73	<13	PASS
		1	7	3.15	<13	PASS
		1	14	1.86	<13	PASS
		8	0	3.22	<13	PASS
		8	4	3.83	<13	PASS
		8	7	3.36	<13	PASS
		15	0	4.35	<13	PASS
16QAM	LCH	1	0	2.77	<13	PASS
		1	7	3.88	<13	PASS
		1	14	2.77	<13	PASS
		8	0	4.23	<13	PASS
		8	4	4.76	<13	PASS

		8	7	4.2	<13	PASS
		15	0	5.15	<13	PASS
MCH		1	0	2.6	<13	PASS
		1	7	3.89	<13	PASS
		1	14	2.54	<13	PASS
		8	0	4.06	<13	PASS
		8	4	4.61	<13	PASS
		8	7	4.04	<13	PASS
		15	0	5.01	<13	PASS
HCH		1	0	2.58	<13	PASS
		1	7	3.98	<13	PASS
		1	14	2.64	<13	PASS
		8	0	3.98	<13	PASS
		8	4	4.65	<13	PASS
		8	7	4.11	<13	PASS
		15	0	5	<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	2.07	<13	PASS
		1	12	3.2	<13	PASS
		1	24	1.92	<13	PASS
		12	0	3.26	<13	PASS
		12	6	3.84	<13	PASS
		12	13	3.27	<13	PASS
		25	0	4.38	<13	PASS
	MCH	1	0	1.87	<13	PASS
		1	12	3.08	<13	PASS
		1	24	1.68	<13	PASS
		12	0	3.1	<13	PASS
		12	6	3.7	<13	PASS
		12	13	3.11	<13	PASS
		25	0	4.24	<13	PASS
	HCH	1	0	1.72	<13	PASS
		1	12	3.07	<13	PASS
		1	24	1.86	<13	PASS
		12	0	2.99	<13	PASS
		12	6	3.68	<13	PASS
		12	13	3.18	<13	PASS

		25	0	4.28	<13	PASS
16QAM	LCH	1	0	2.93	<13	PASS
		1	12	4	<13	PASS
		1	24	2.71	<13	PASS
		12	0	4.06	<13	PASS
		12	6	4.67	<13	PASS
		12	13	4.08	<13	PASS
		25	0	5.08	<13	PASS
	MCH	1	0	2.74	<13	PASS
		1	12	3.92	<13	PASS
		1	24	2.5	<13	PASS
		12	0	3.91	<13	PASS
		12	6	4.55	<13	PASS
		12	13	3.88	<13	PASS
		25	0	4.95	<13	PASS
	HCH	1	0	2.44	<13	PASS
		1	12	3.7	<13	PASS
		1	24	2.55	<13	PASS
		12	0	3.82	<13	PASS
		12	6	4.55	<13	PASS
		12	13	4.01	<13	PASS
		25	0	4.96	<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	2.89	<13	PASS
		1	24	3.16	<13	PASS
		1	49	2.23	<13	PASS
		25	0	3.58	<13	PASS
		25	12	3.96	<13	PASS
		25	25	3.5	<13	PASS
		50	0	4.65	<13	PASS
	MCH	1	0	2.6	<13	PASS
		1	24	3.08	<13	PASS
		1	49	1.93	<13	PASS
		25	0	3.39	<13	PASS
		25	12	3.83	<13	PASS
		25	25	3.33	<13	PASS
		50	0	4.5	<13	PASS

		1	0	2.21	<13	PASS
	HCH	1	24	2.96	<13	PASS
		1	49	2.13	<13	PASS
		25	0	3.19	<13	PASS
		25	12	3.73	<13	PASS
		25	25	3.35	<13	PASS
		50	0	4.41	<13	PASS
		1	0	3.64	<13	PASS
	LCH	1	24	3.85	<13	PASS
		1	49	2.97	<13	PASS
		25	0	4.33	<13	PASS
		25	12	4.73	<13	PASS
		25	25	4.24	<13	PASS
		50	0	5.25	<13	PASS
		1	0	3.4	<13	PASS
	MCH	1	24	3.78	<13	PASS
		1	49	2.71	<13	PASS
		25	0	4.2	<13	PASS
		25	12	4.62	<13	PASS
		25	25	4.06	<13	PASS
		50	0	5.11	<13	PASS
		1	0	3.17	<13	PASS
	HCH	1	24	3.8	<13	PASS
		1	49	2.99	<13	PASS
		25	0	4.01	<13	PASS
		25	12	4.54	<13	PASS
		25	25	4.08	<13	PASS
		50	0	5.09	<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	9.55	<13	PASS
		1	37	3.16	<13	PASS
		1	74	8.73	<13	PASS
		37	0	4.21	<13	PASS
		37	18	4.3	<13	PASS
		37	38	3.97	<13	PASS
		75	0	4.76	<13	PASS
	MCH	1	0	9.55	<13	PASS

	16QAM	HCH	1	37	3.13	<13	PASS
			1	74	9.11	<13	PASS
			37	0	4.16	<13	PASS
			37	18	4.16	<13	PASS
			37	38	3.9	<13	PASS
			75	0	4.78	<13	PASS
		LCH	1	0	9.49	<13	PASS
			1	37	2.92	<13	PASS
			1	74	8.56	<13	PASS
			37	0	4.05	<13	PASS
			37	18	3.97	<13	PASS
			37	38	3.85	<13	PASS
			75	0	4.72	<13	PASS
		MCH	1	0	9.06	<13	PASS
			1	37	3.95	<13	PASS
			1	74	8.85	<13	PASS
			37	0	5.14	<13	PASS
			37	18	5.04	<13	PASS
			37	38	4.83	<13	PASS
			75	0	5.68	<13	PASS
		HCH	1	0	9.41	<13	PASS
			1	37	3.85	<13	PASS
			1	74	9.44	<13	PASS
			37	0	5.02	<13	PASS
			37	18	4.86	<13	PASS
			37	38	4.74	<13	PASS
			75	0	5.55	<13	PASS

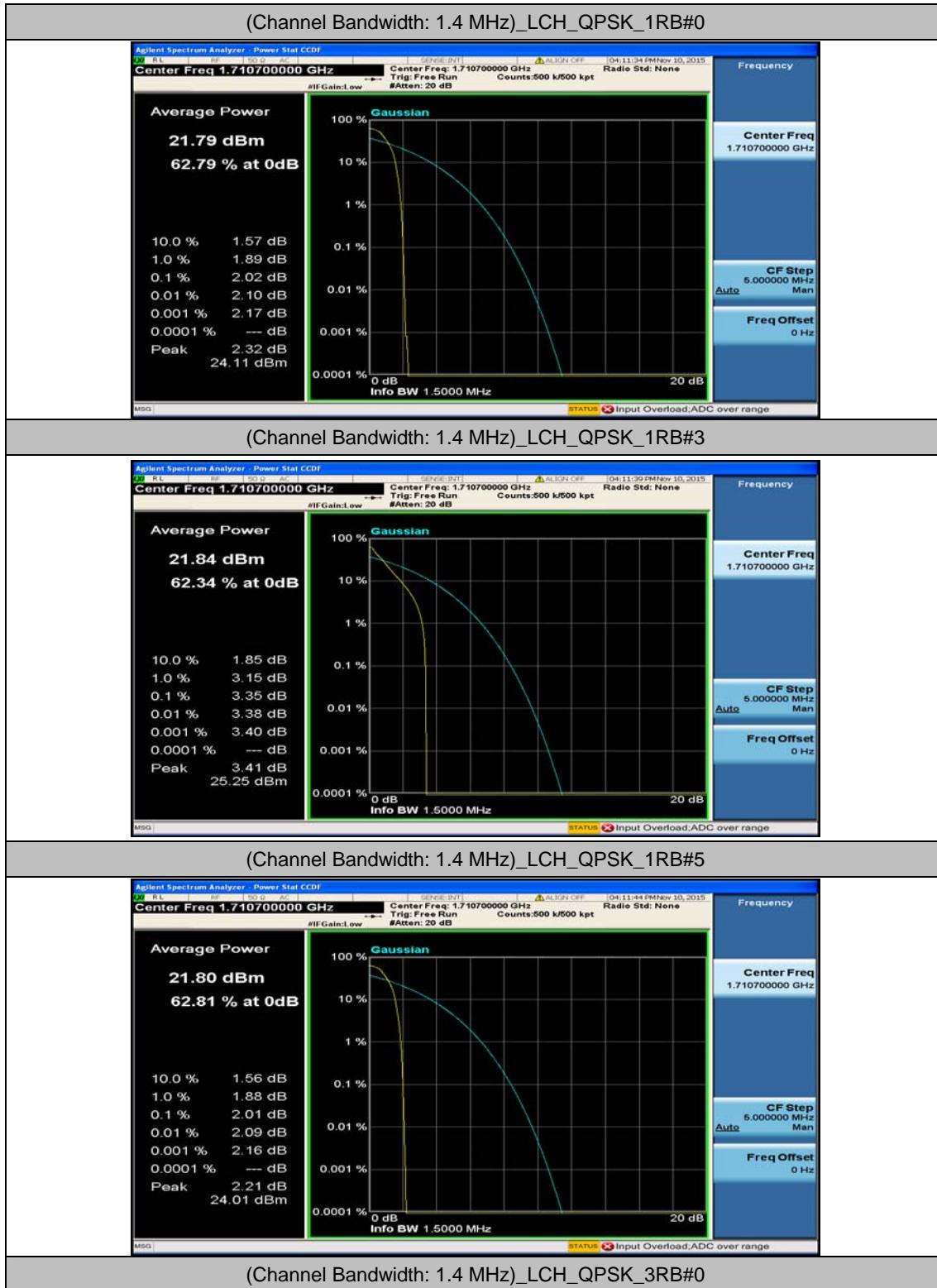
Channel Bandwidth: 20 MHz

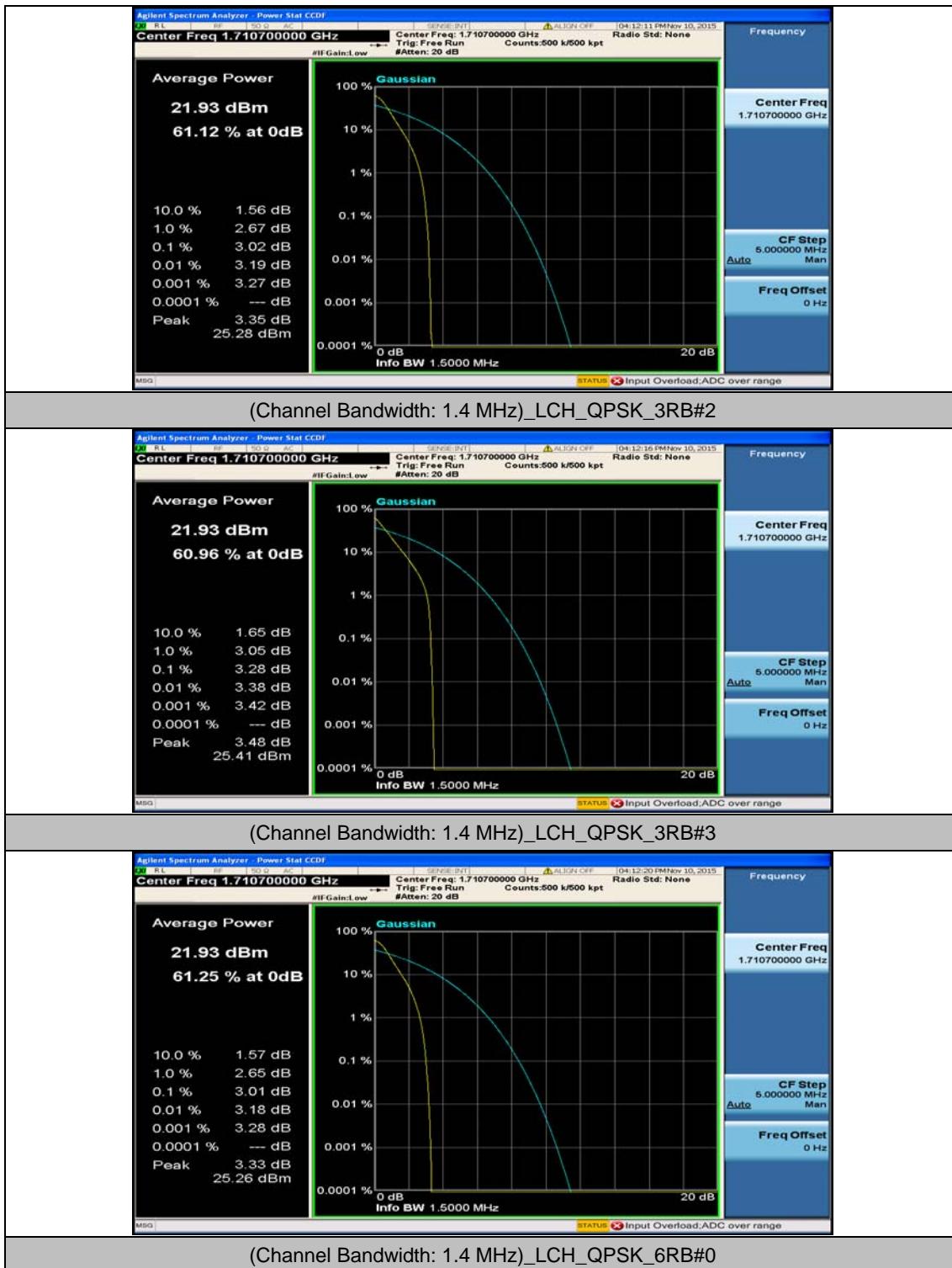
Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	7.16	<13	PASS
		1	49	3.13	<13	PASS

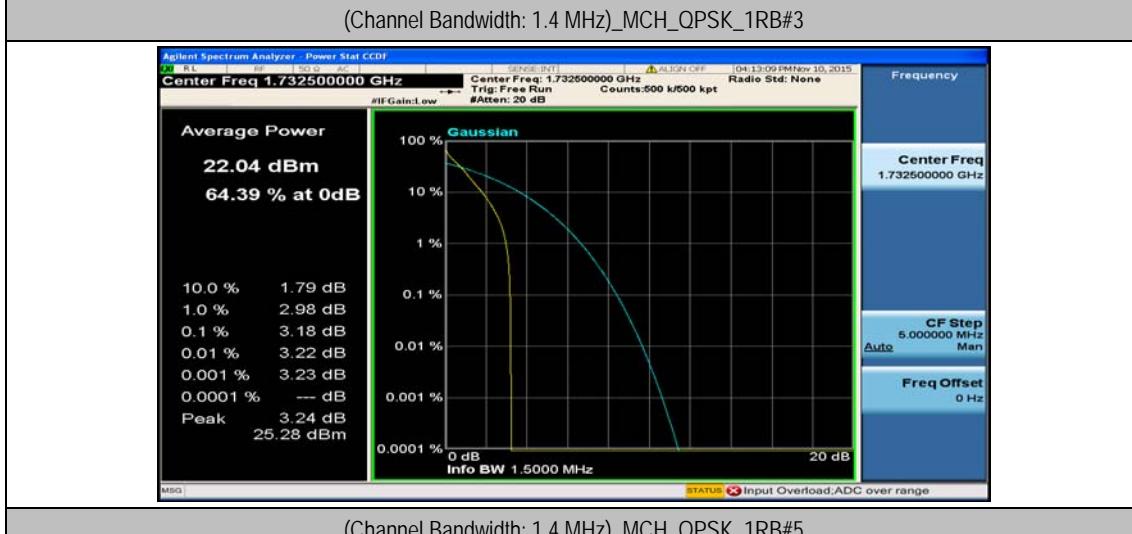
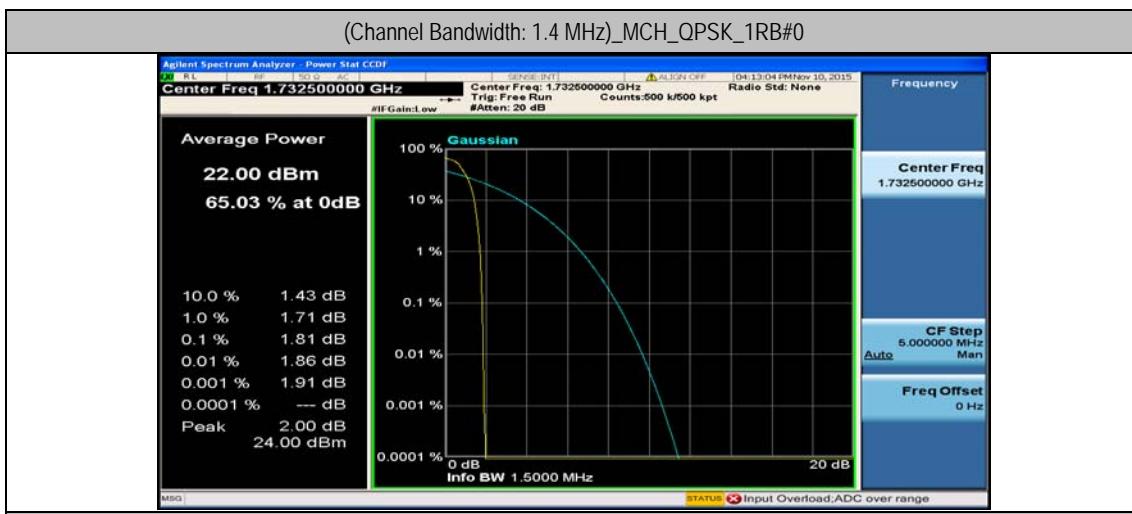
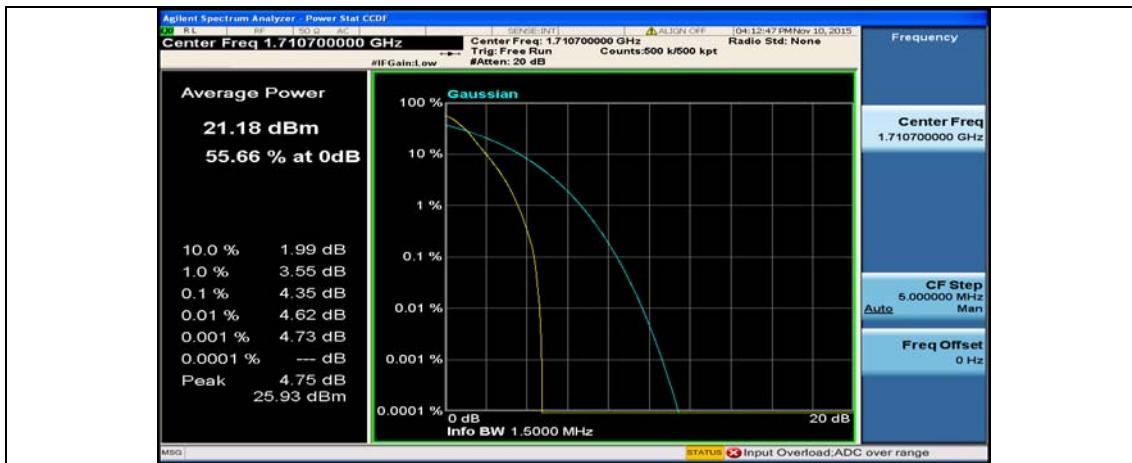
		1	99	6.5	<13	PASS
		50	0	5.04	<13	PASS
		50	25	4.62	<13	PASS
		50	50	4.97	<13	PASS
		100	0	5.59	<13	PASS
	MCH	1	0	7.05	<13	PASS
		1	49	3.07	<13	PASS
		1	99	6.98	<13	PASS
		50	0	4.99	<13	PASS
		50	25	4.5	<13	PASS
		50	50	4.9	<13	PASS
		100	0	5.6	<13	PASS
	HCH	1	0	6.55	<13	PASS
		1	49	2.89	<13	PASS
		1	99	7.45	<13	PASS
		50	0	4.9	<13	PASS
		50	25	4.39	<13	PASS
		50	50	4.95	<13	PASS
		100	0	5.58	<13	PASS
16QAM	LCH	1	0	7.86	<13	PASS
		1	49	3.8	<13	PASS
		1	99	7.65	<13	PASS
		50	0	5.93	<13	PASS
		50	25	5.26	<13	PASS
		50	50	5.62	<13	PASS
		100	0	6.19	<13	PASS
	MCH	1	0	7.26	<13	PASS
		1	49	3.79	<13	PASS
		1	99	7.34	<13	PASS
		50	0	5.87	<13	PASS
		50	25	5.15	<13	PASS
		50	50	5.53	<13	PASS
		100	0	6.17	<13	PASS
	HCH	1	0	7.05	<13	PASS
		1	49	3.66	<13	PASS
		1	99	8.09	<13	PASS
		50	0	5.74	<13	PASS
		50	25	5.01	<13	PASS
		50	50	5.55	<13	PASS
		100	0	6.11	<13	PASS

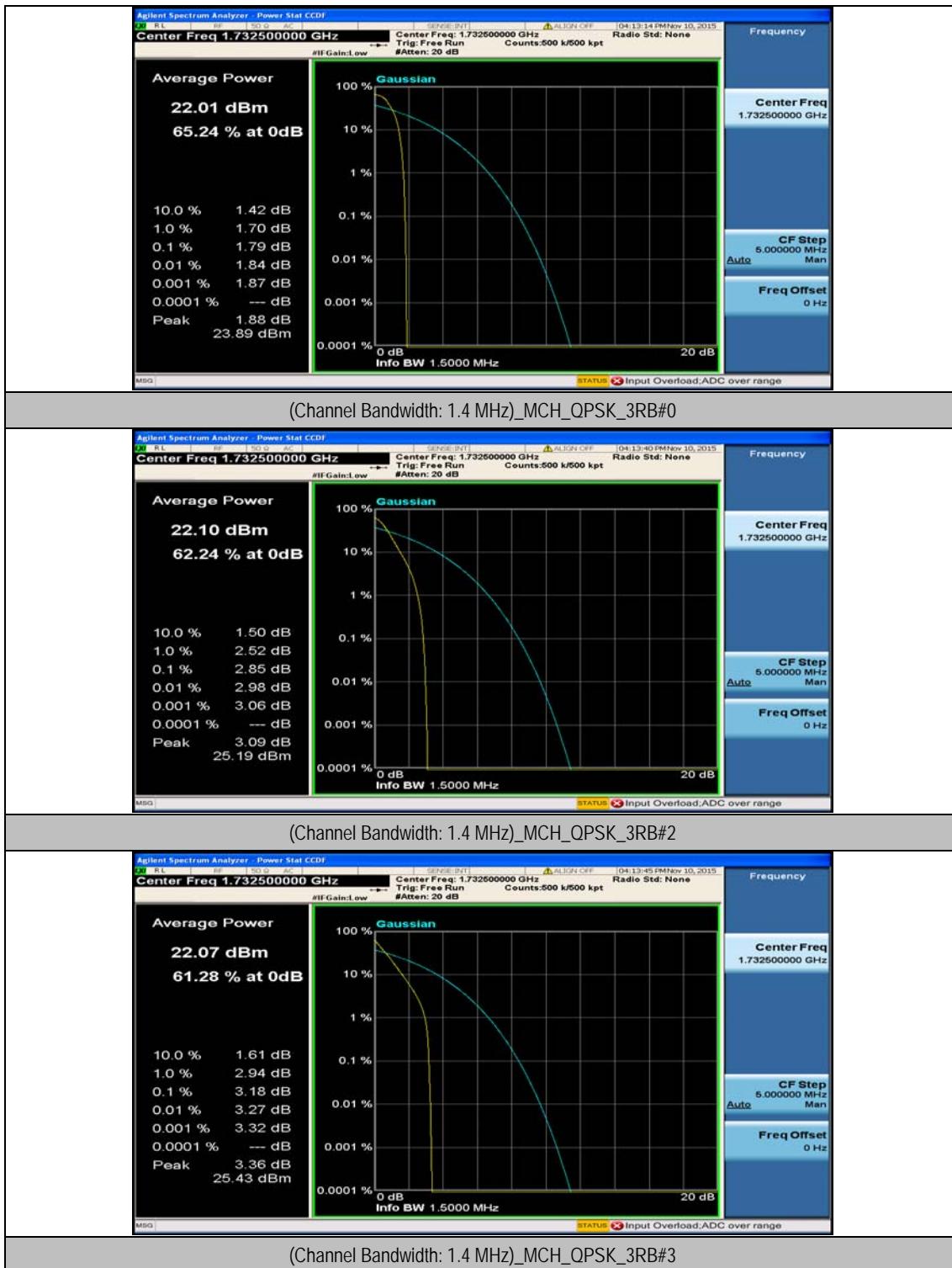
Test Graphs

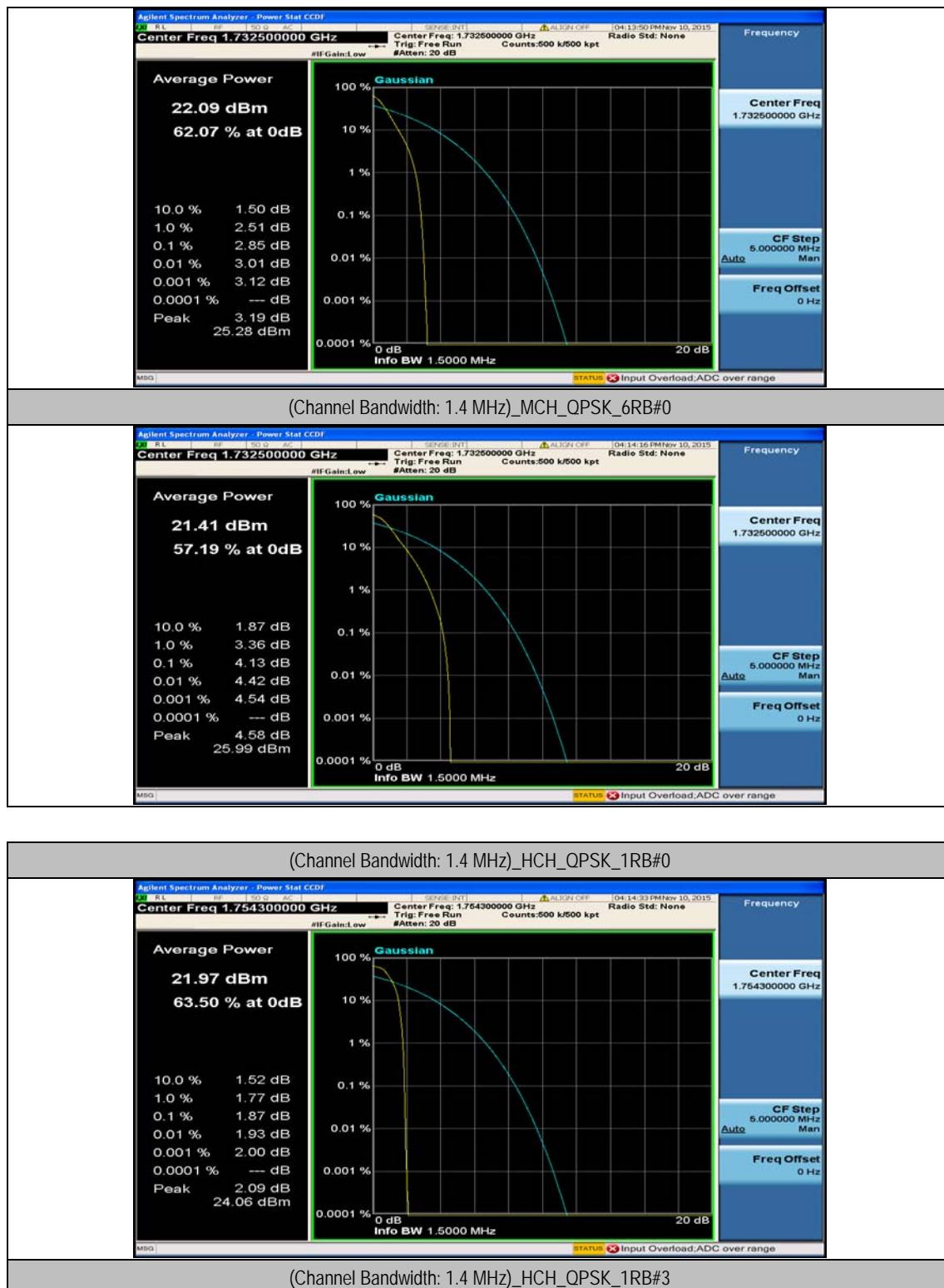
Channel Bandwidth: 1.4 MHz

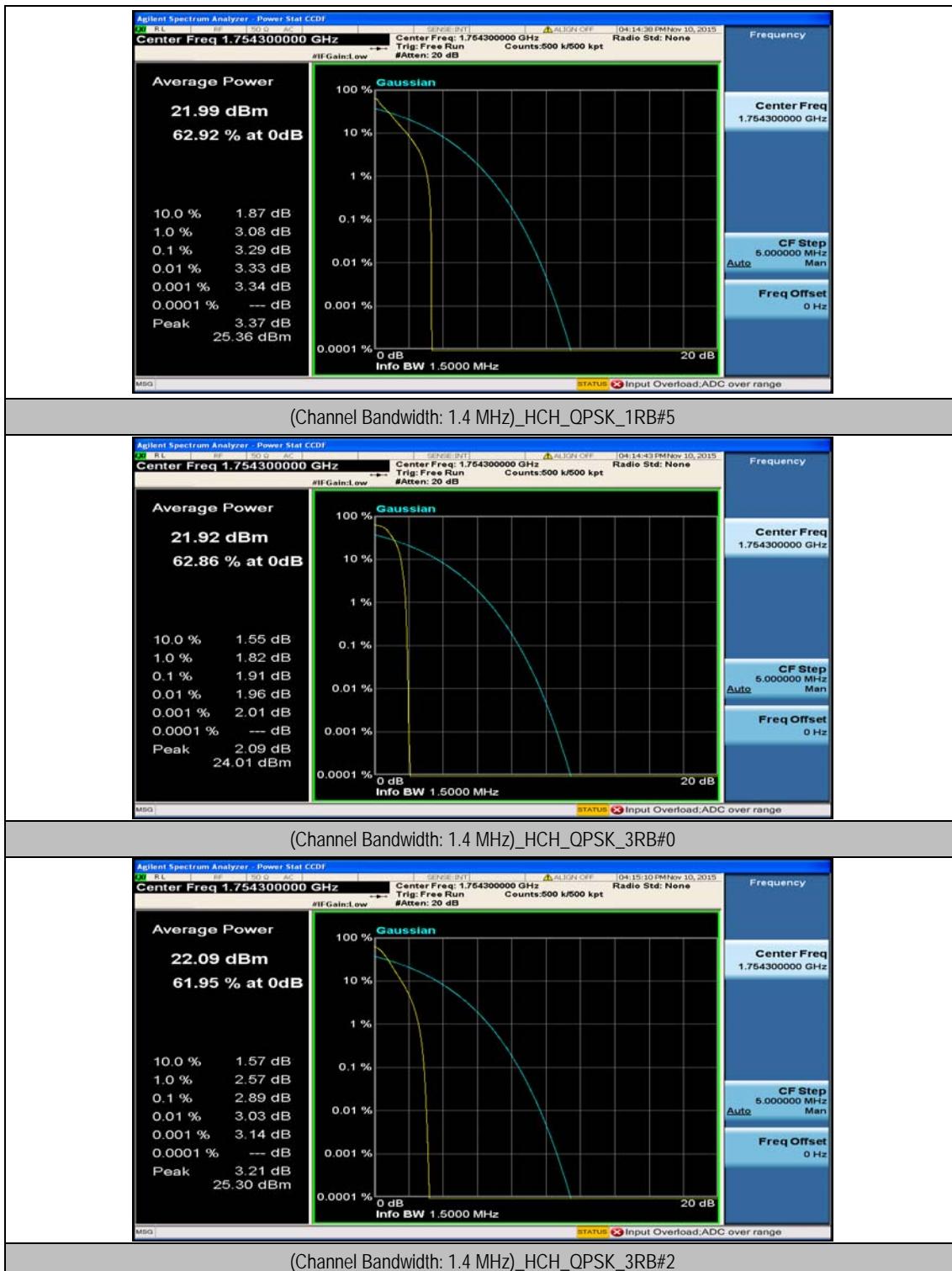


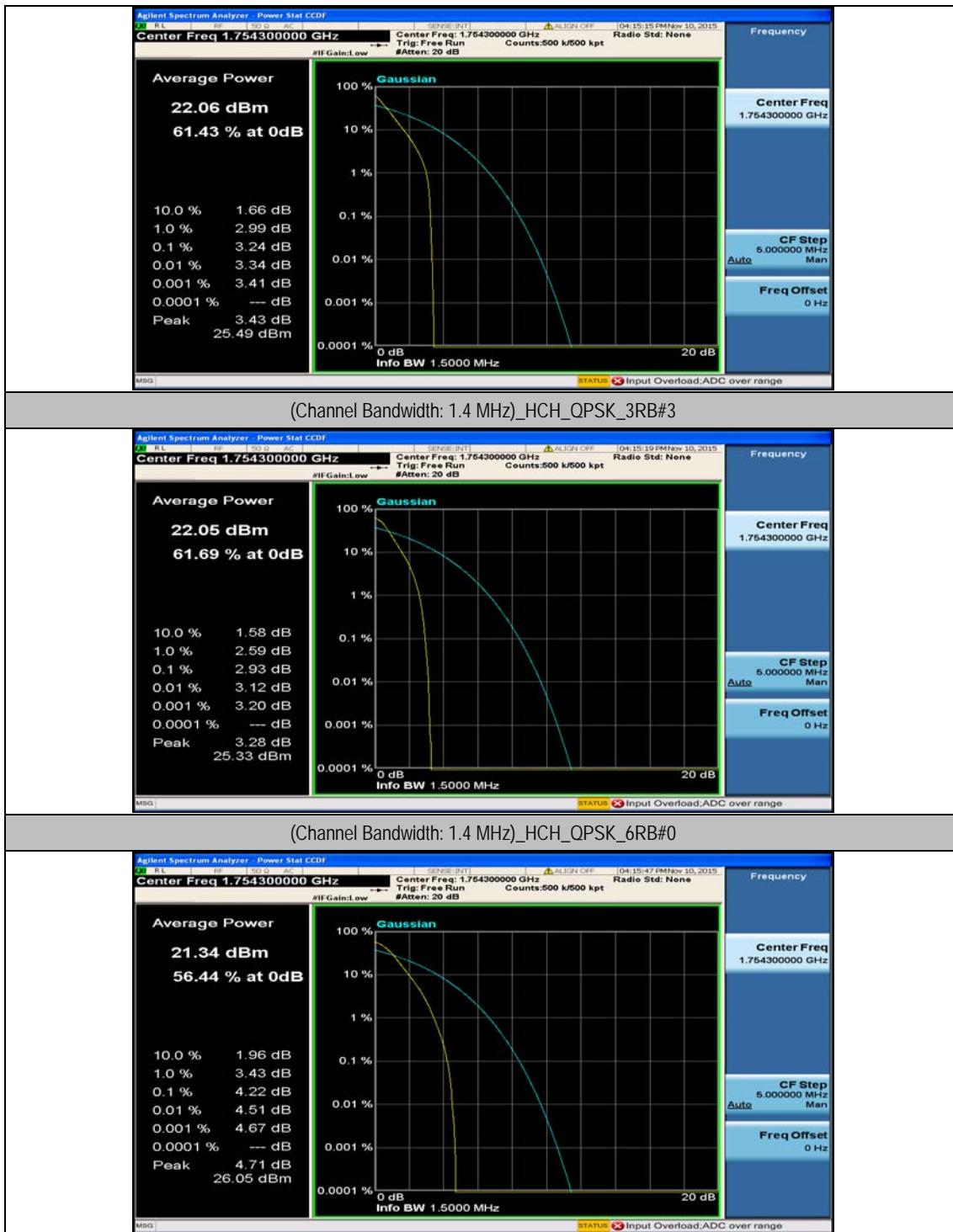




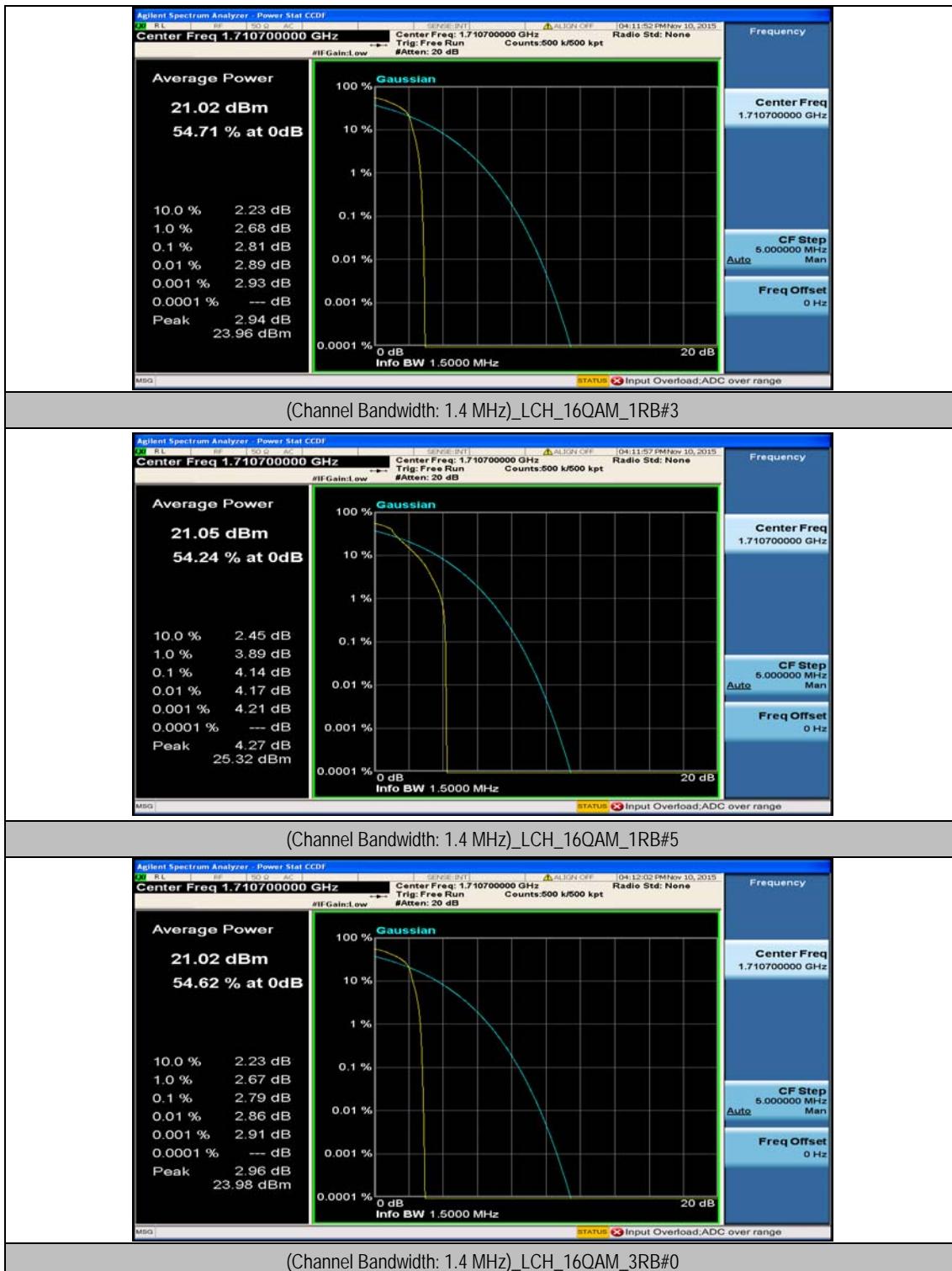


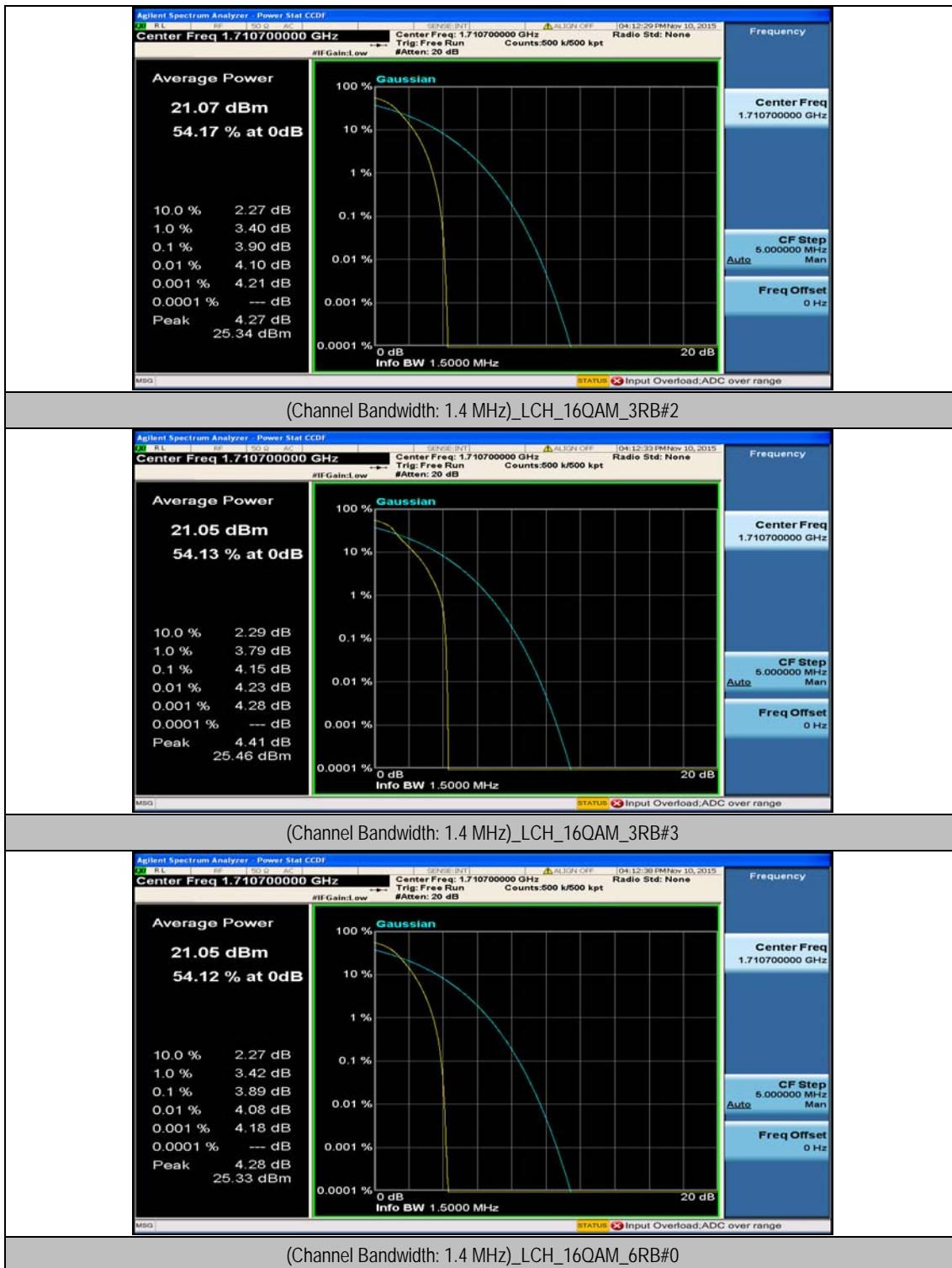


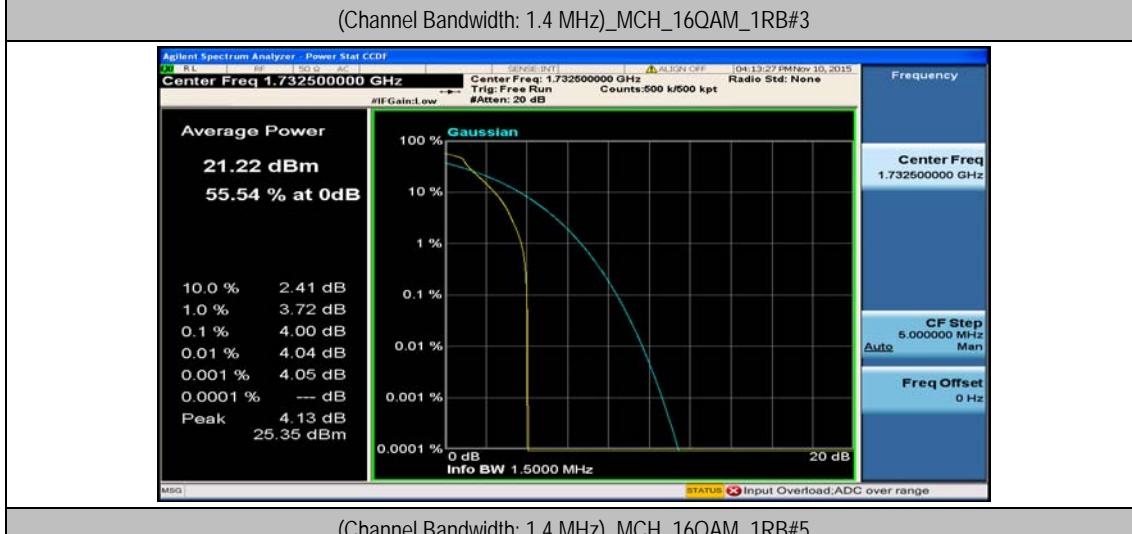
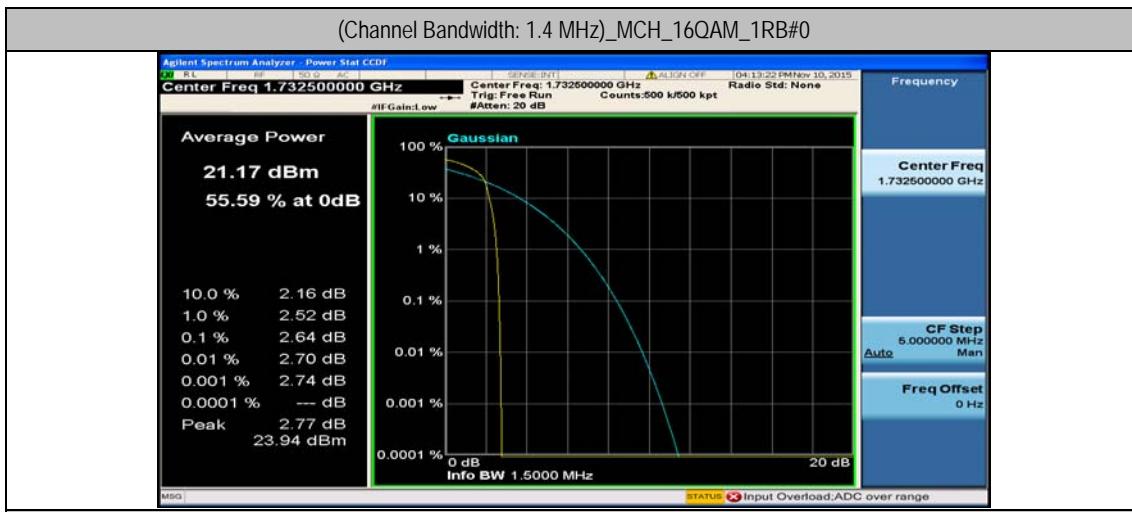
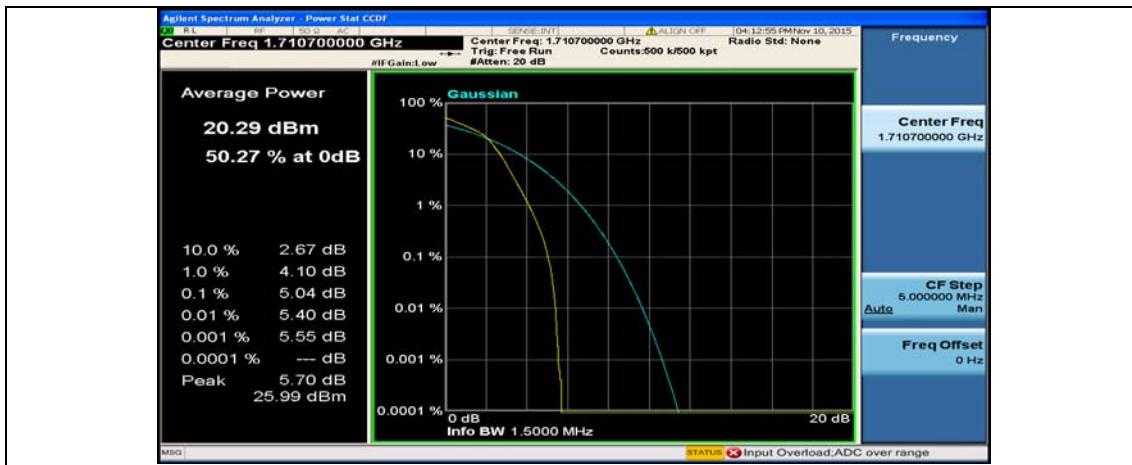


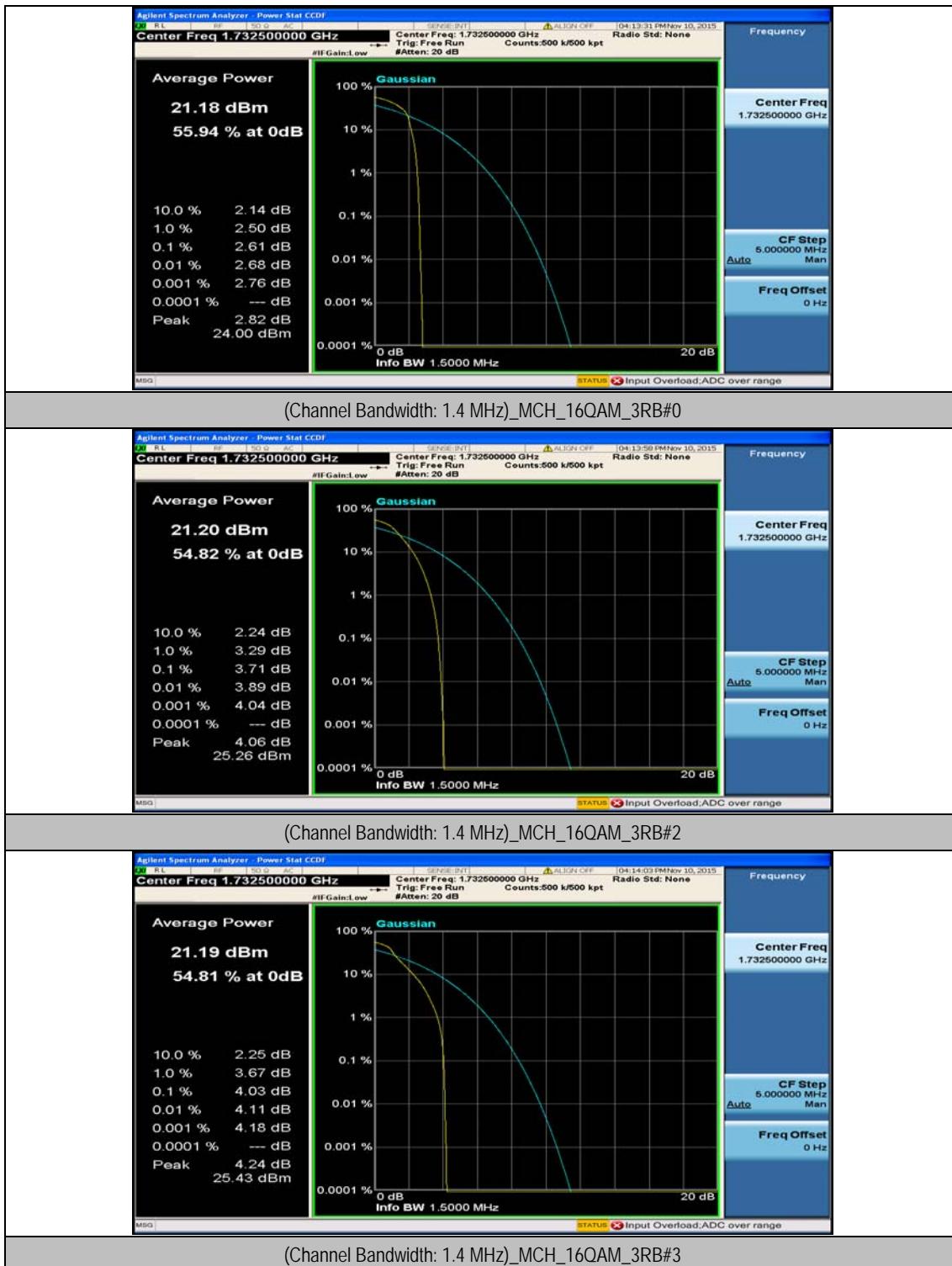


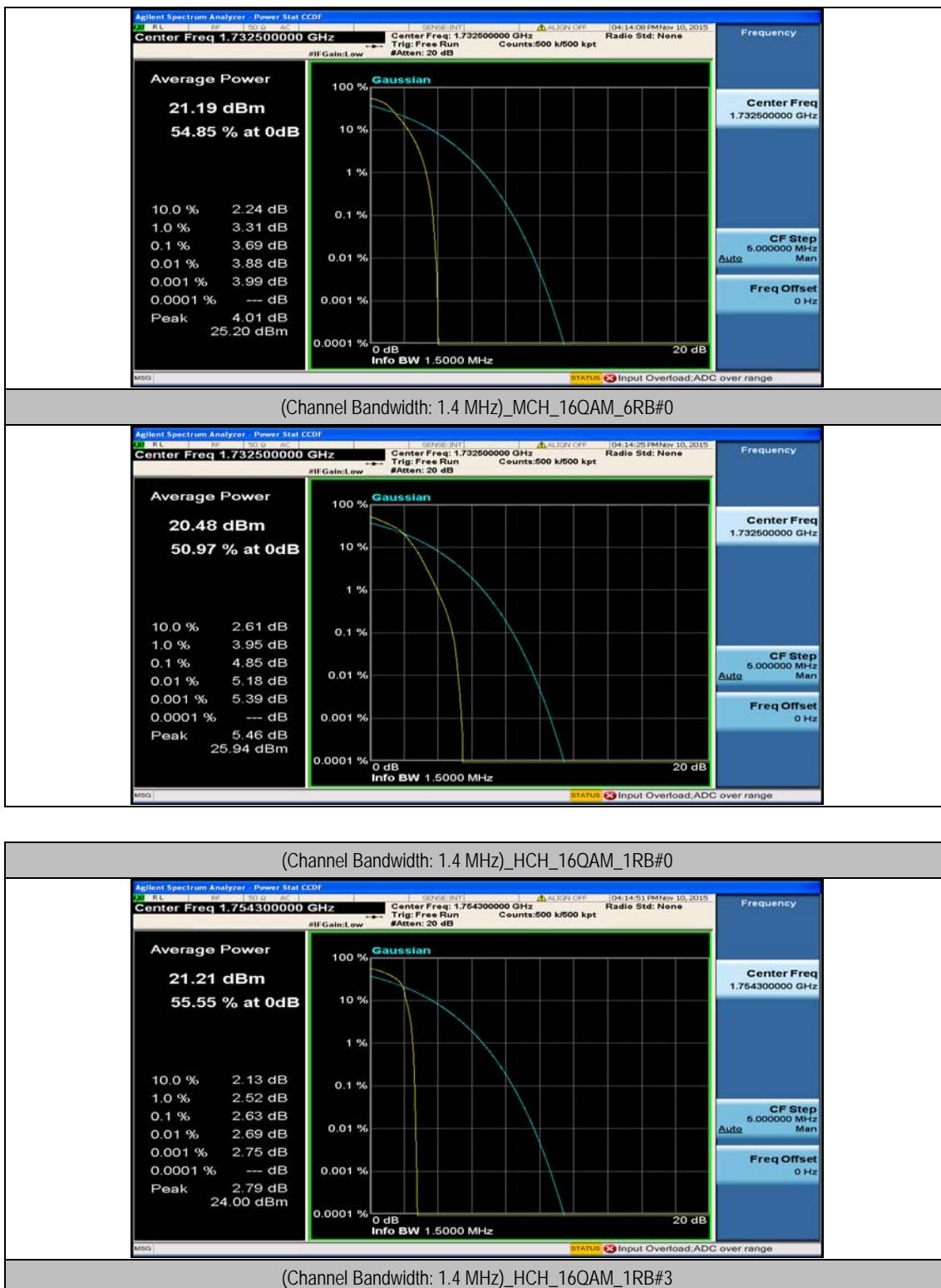
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#0

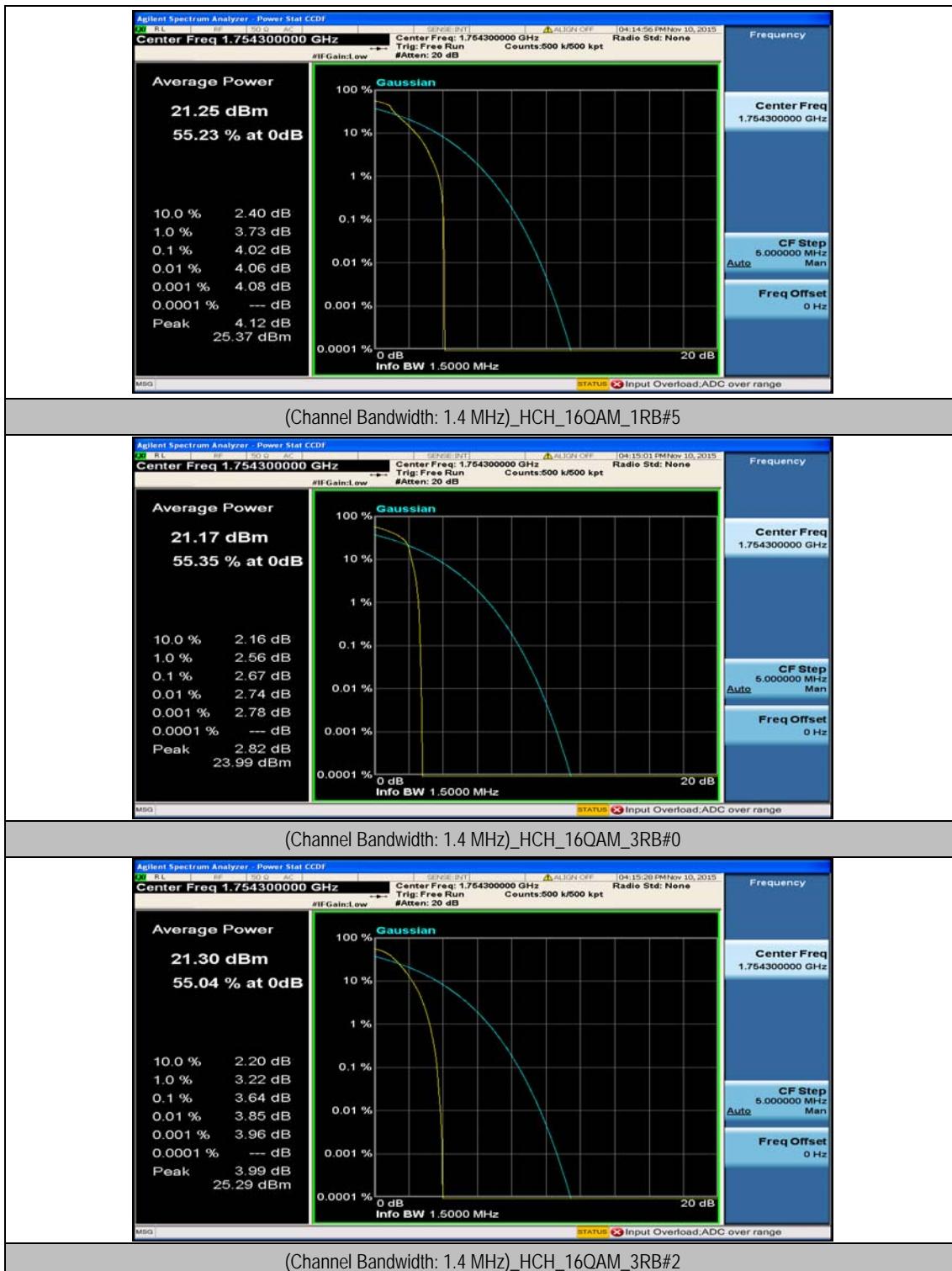


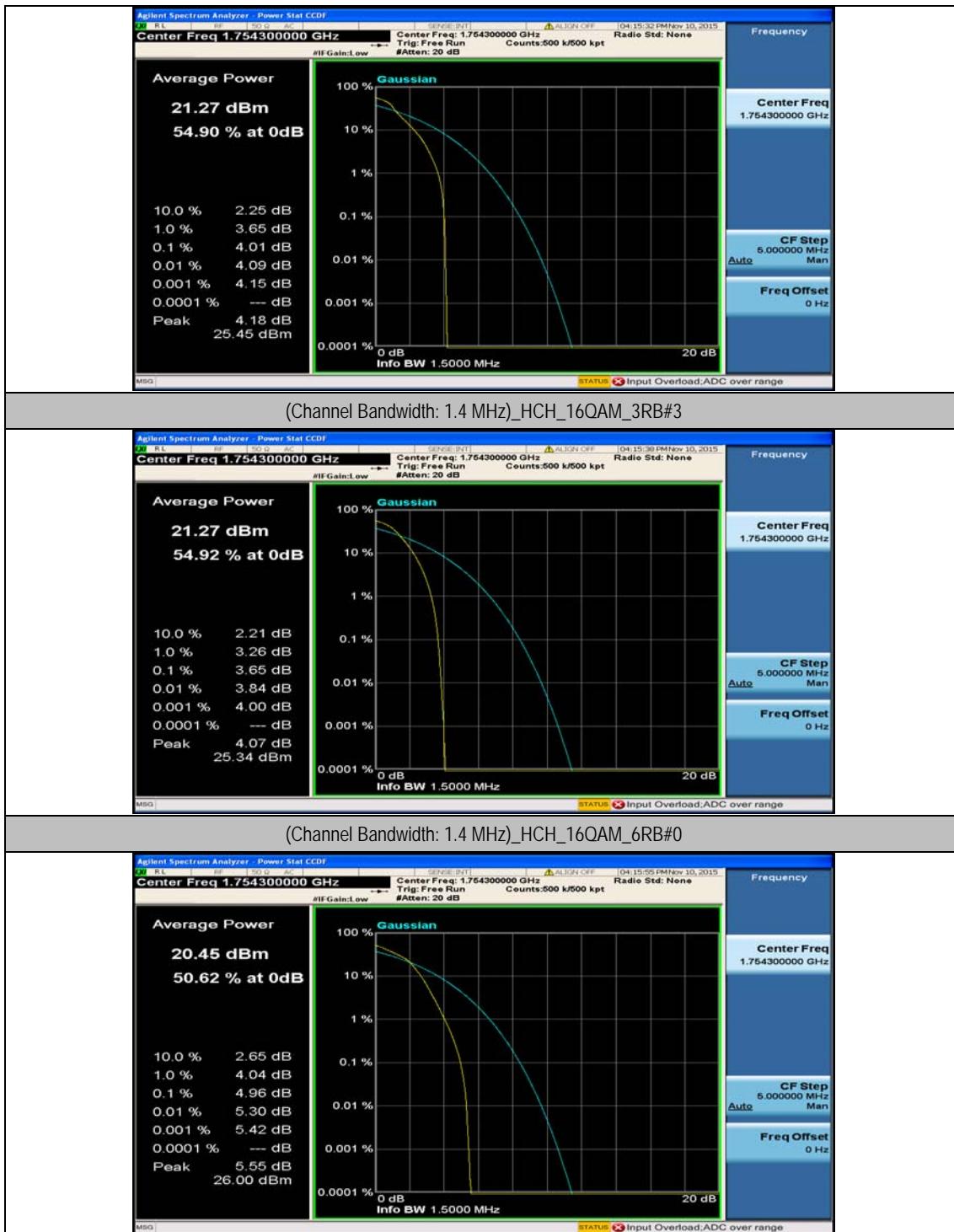




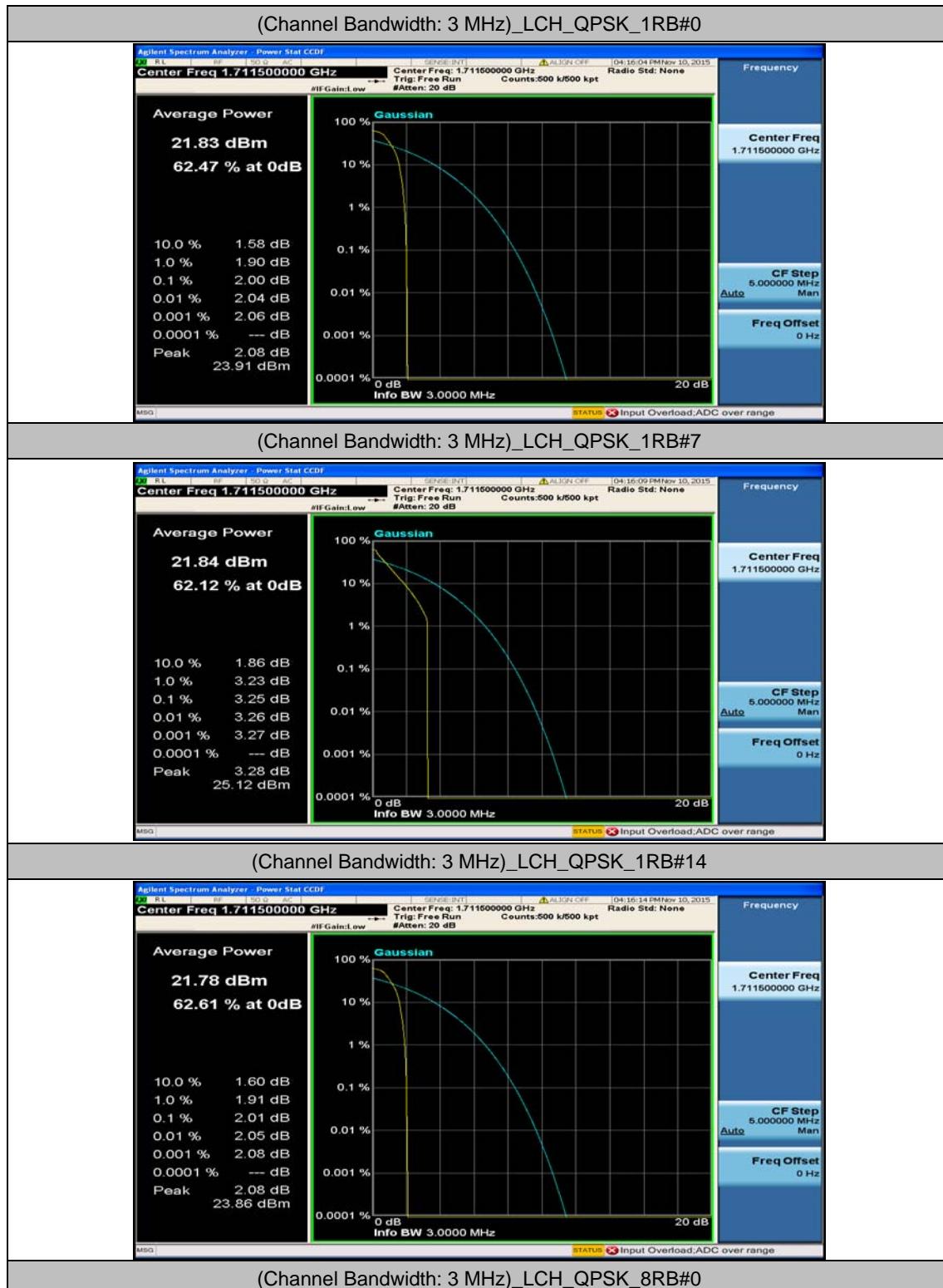


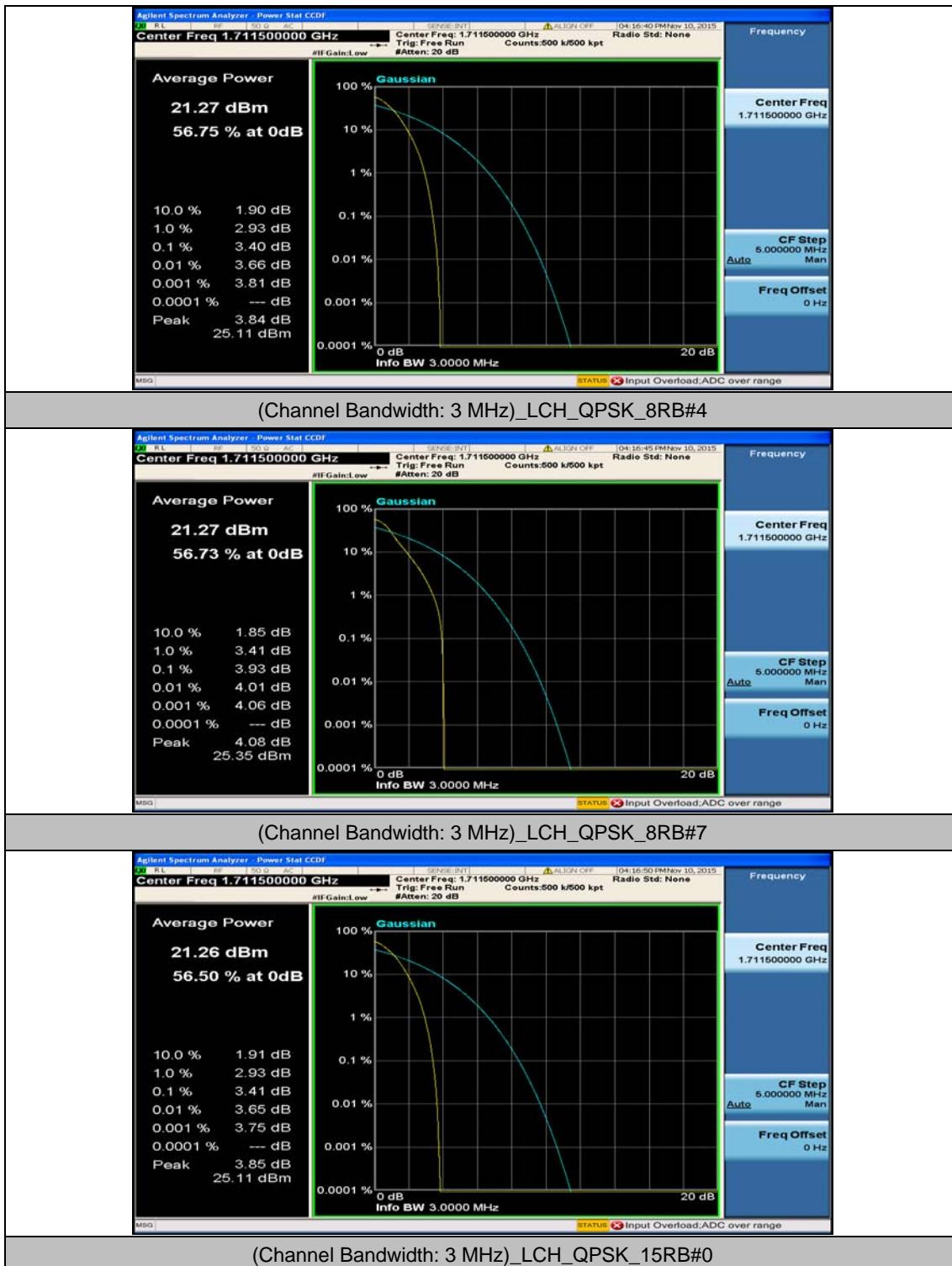


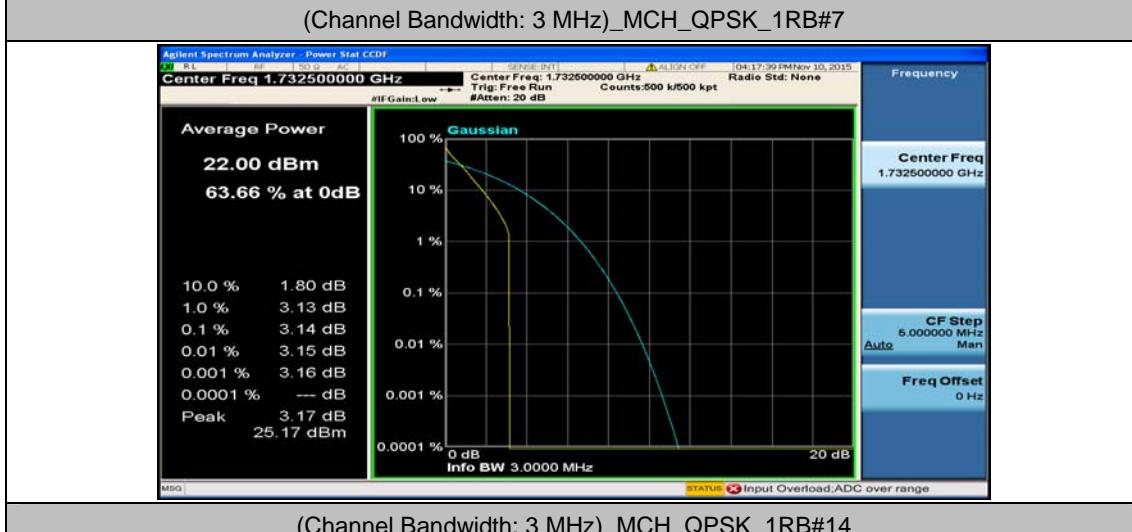
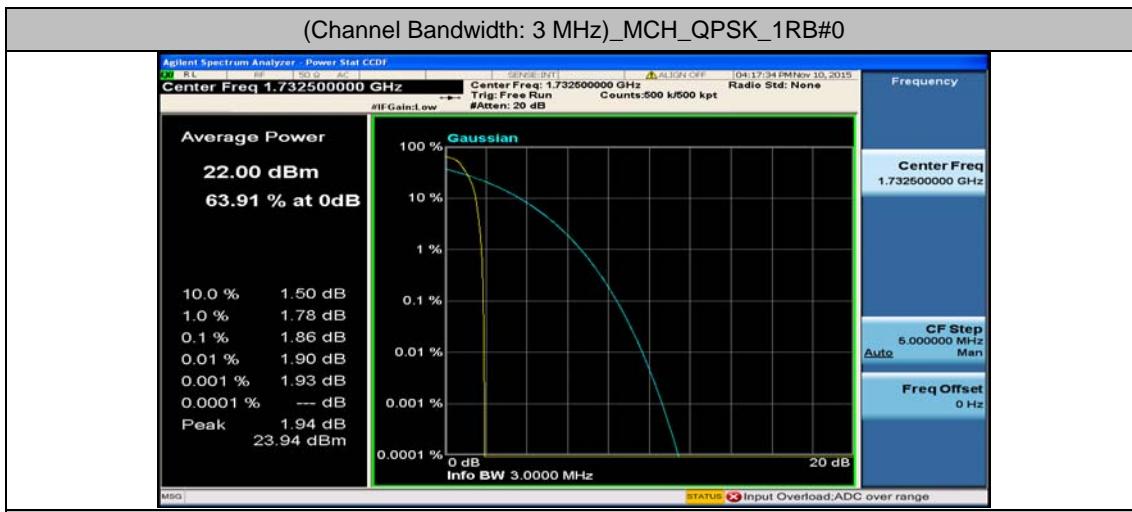
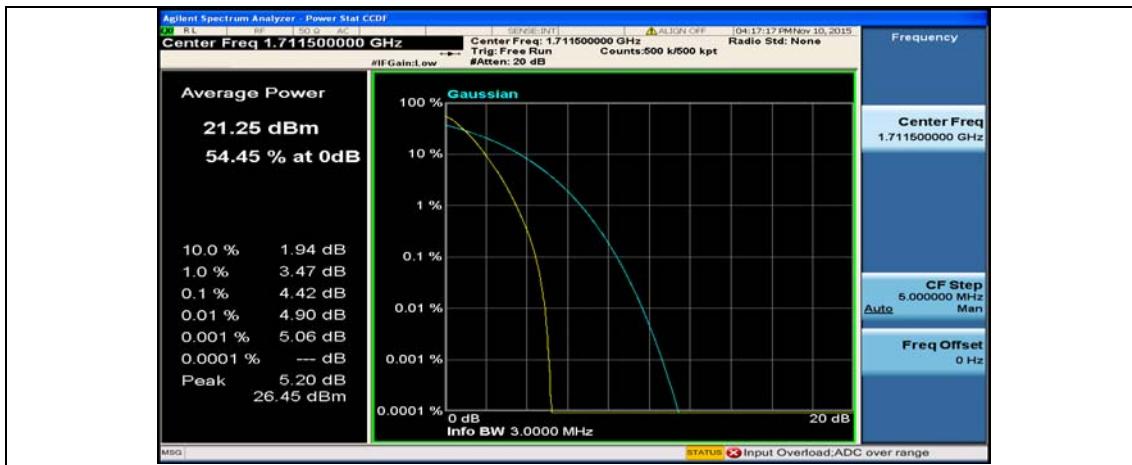


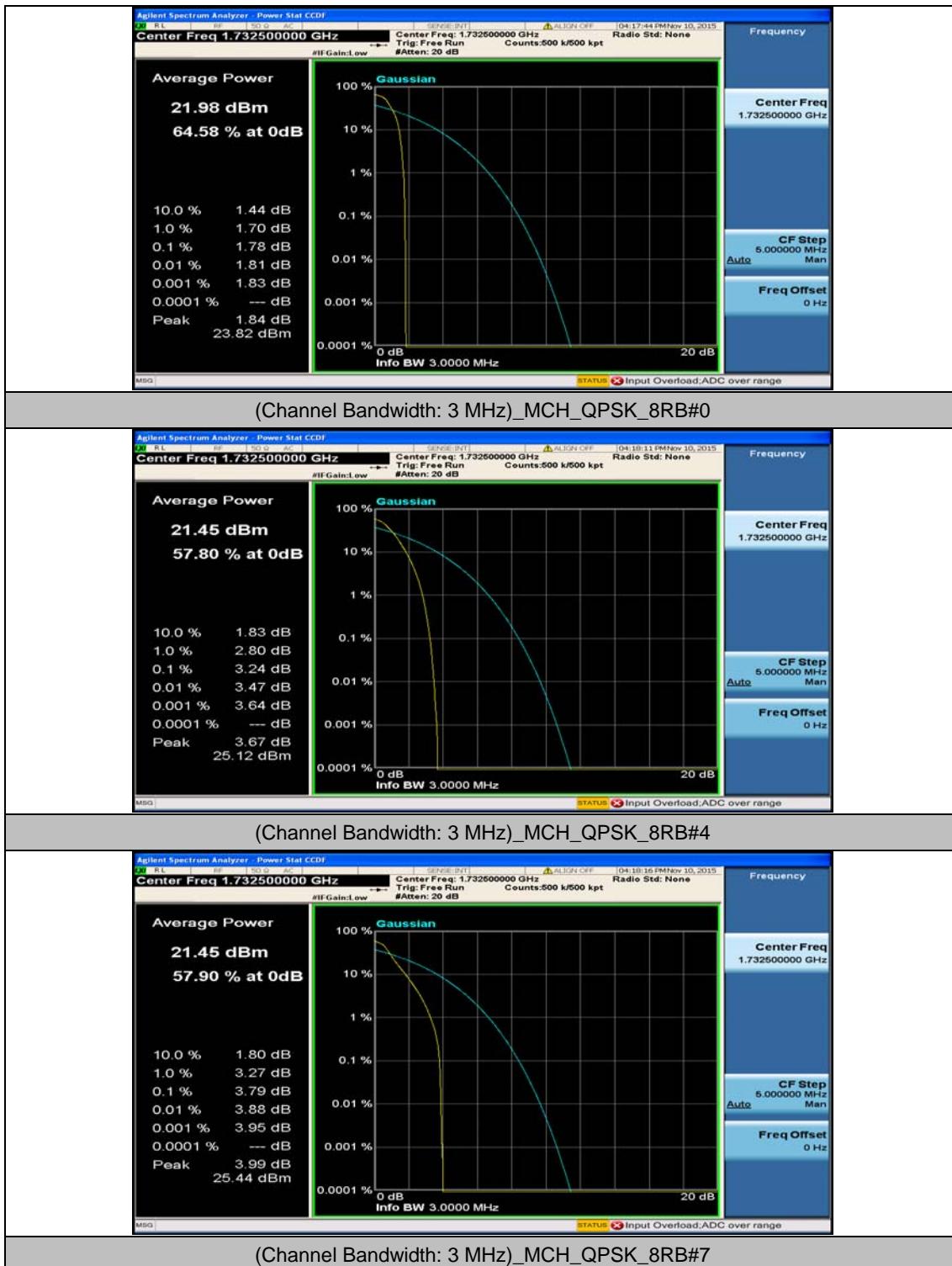


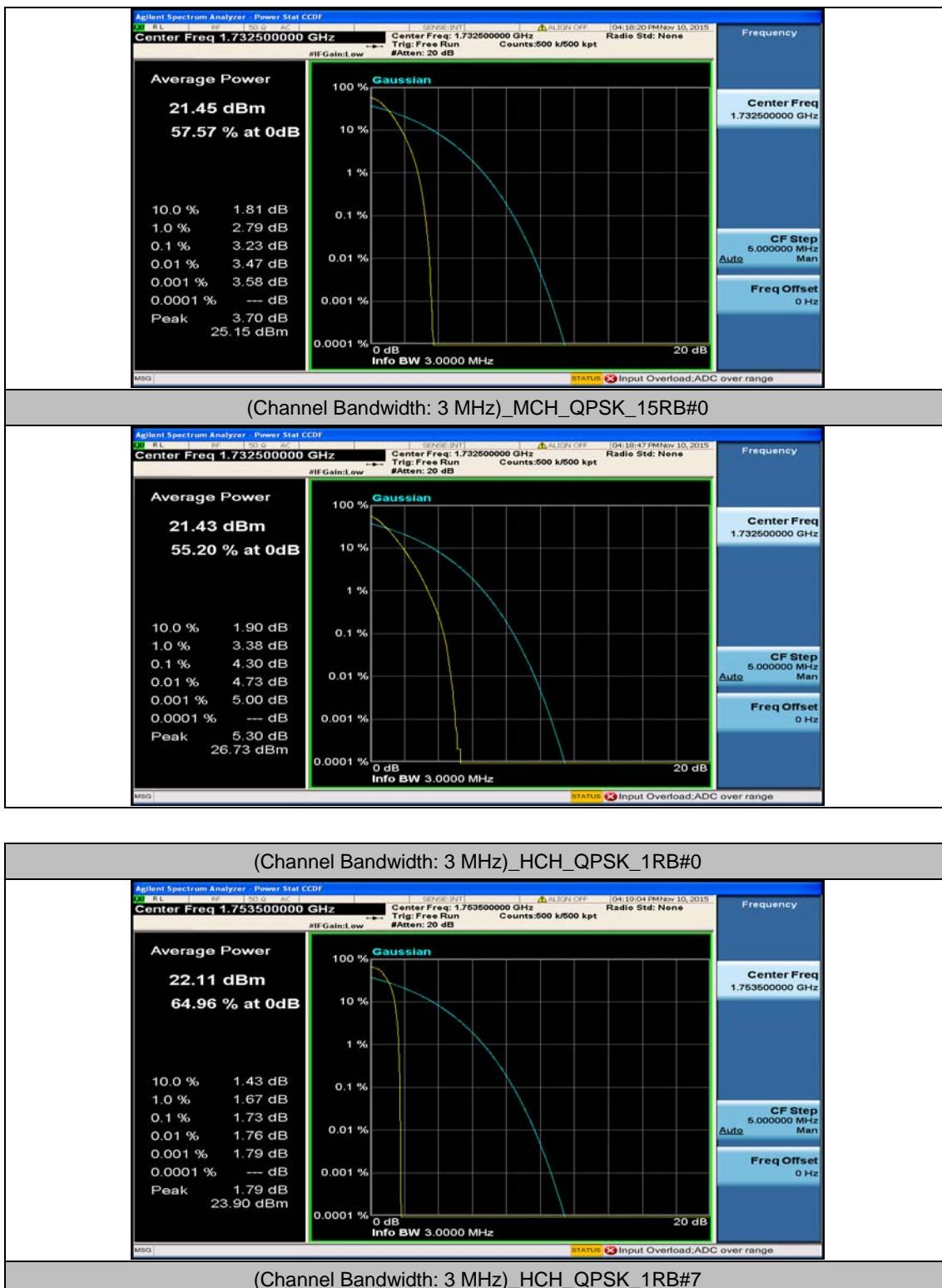
Channel Bandwidth: 3 MHz

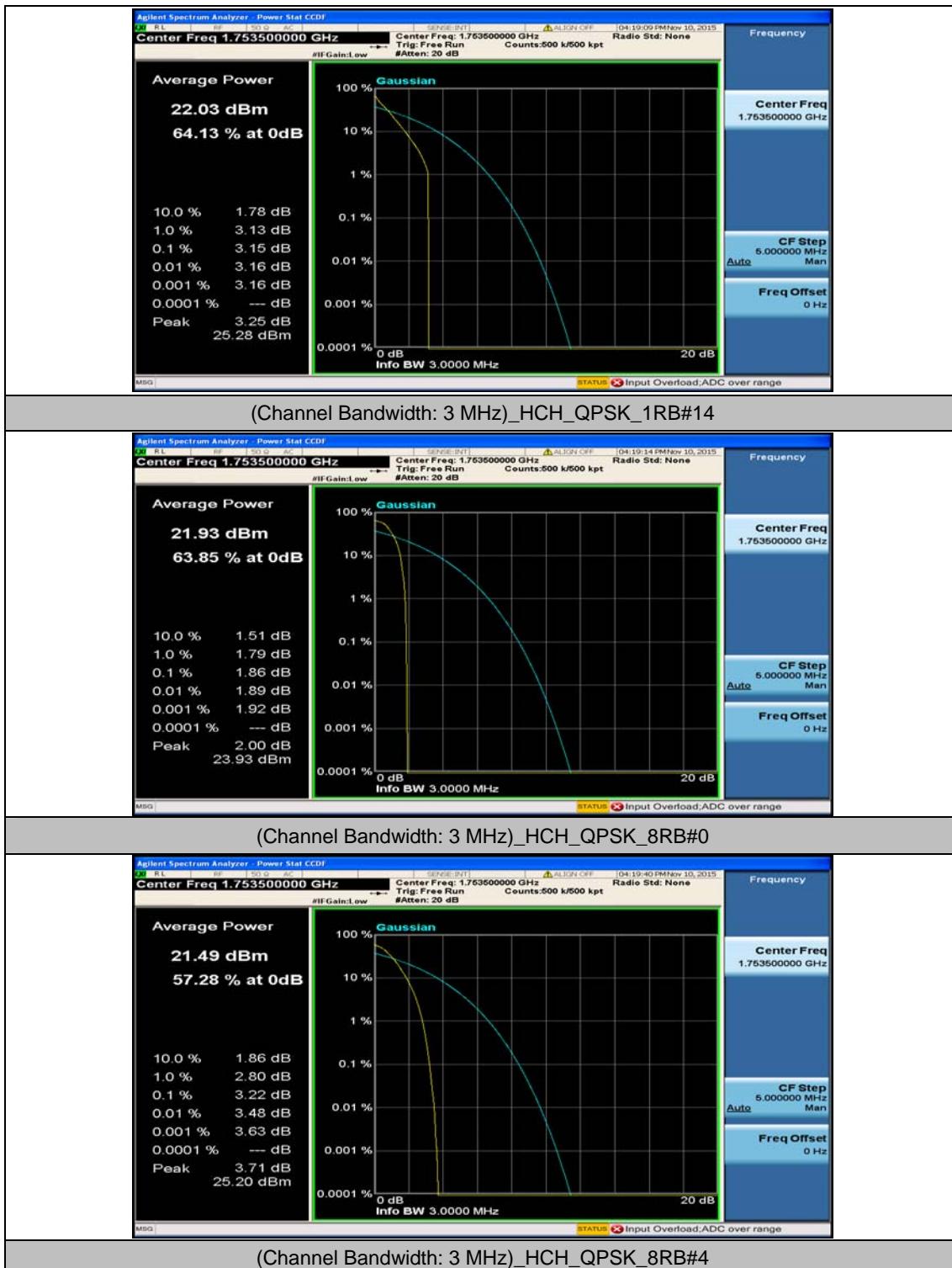


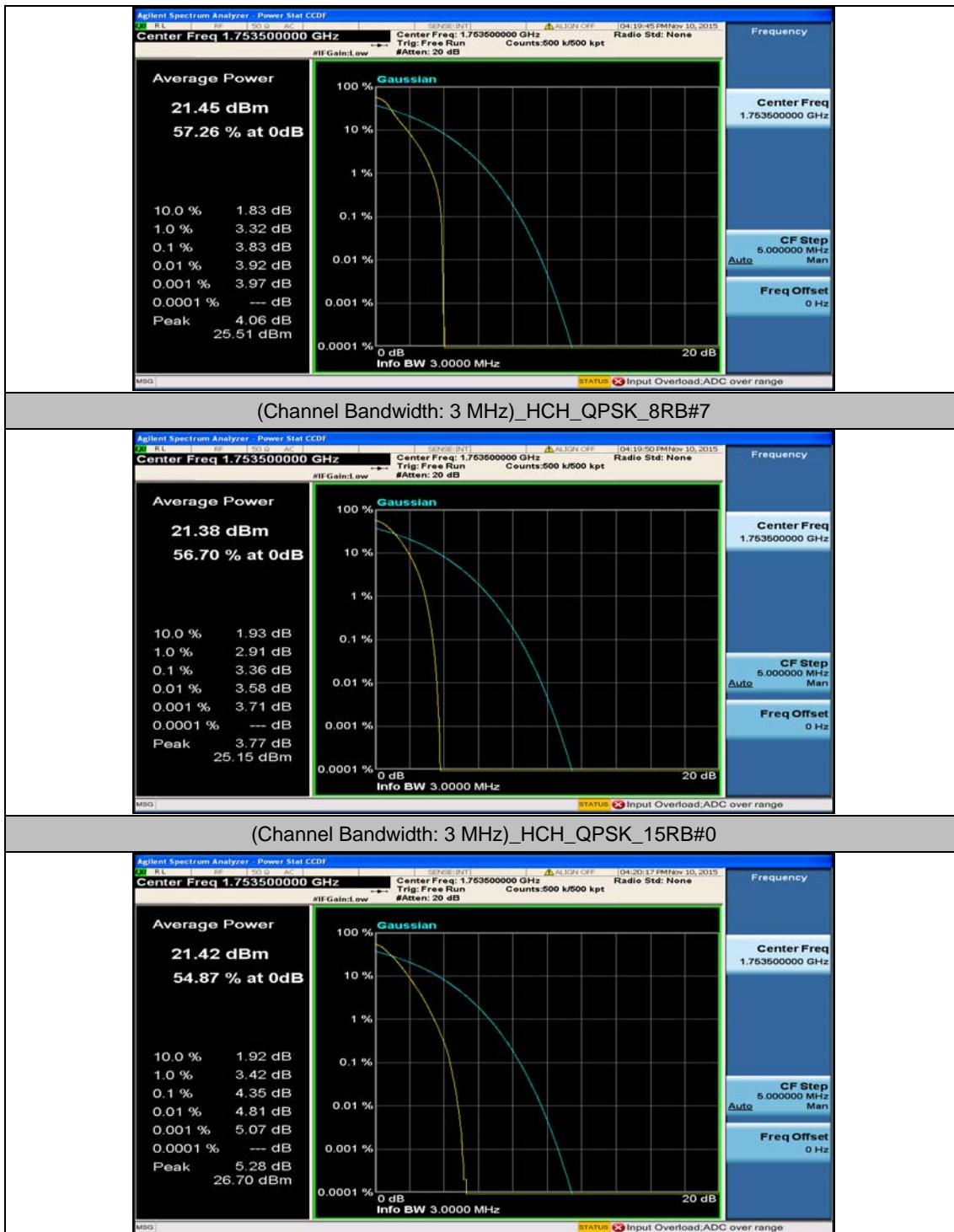


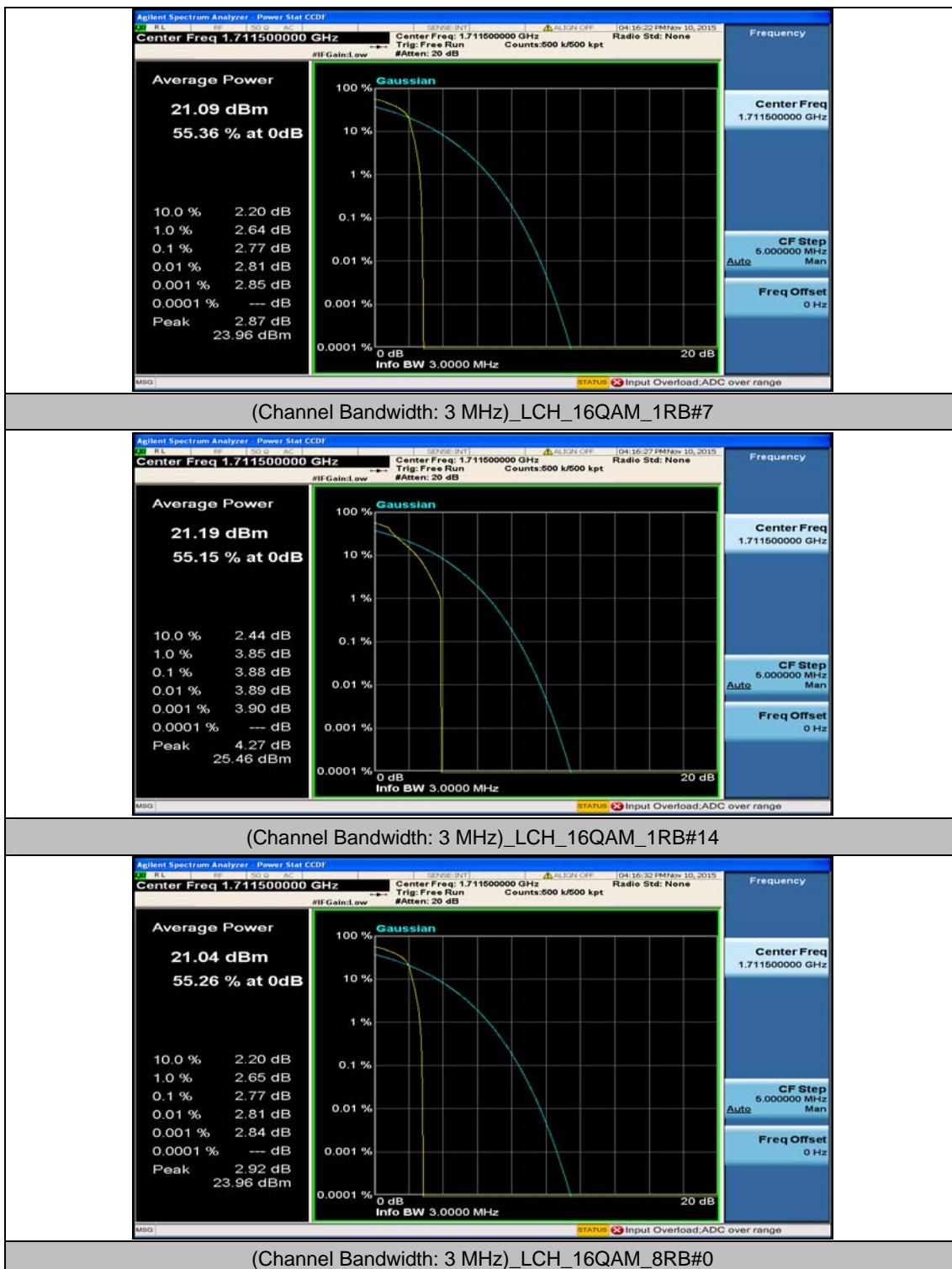


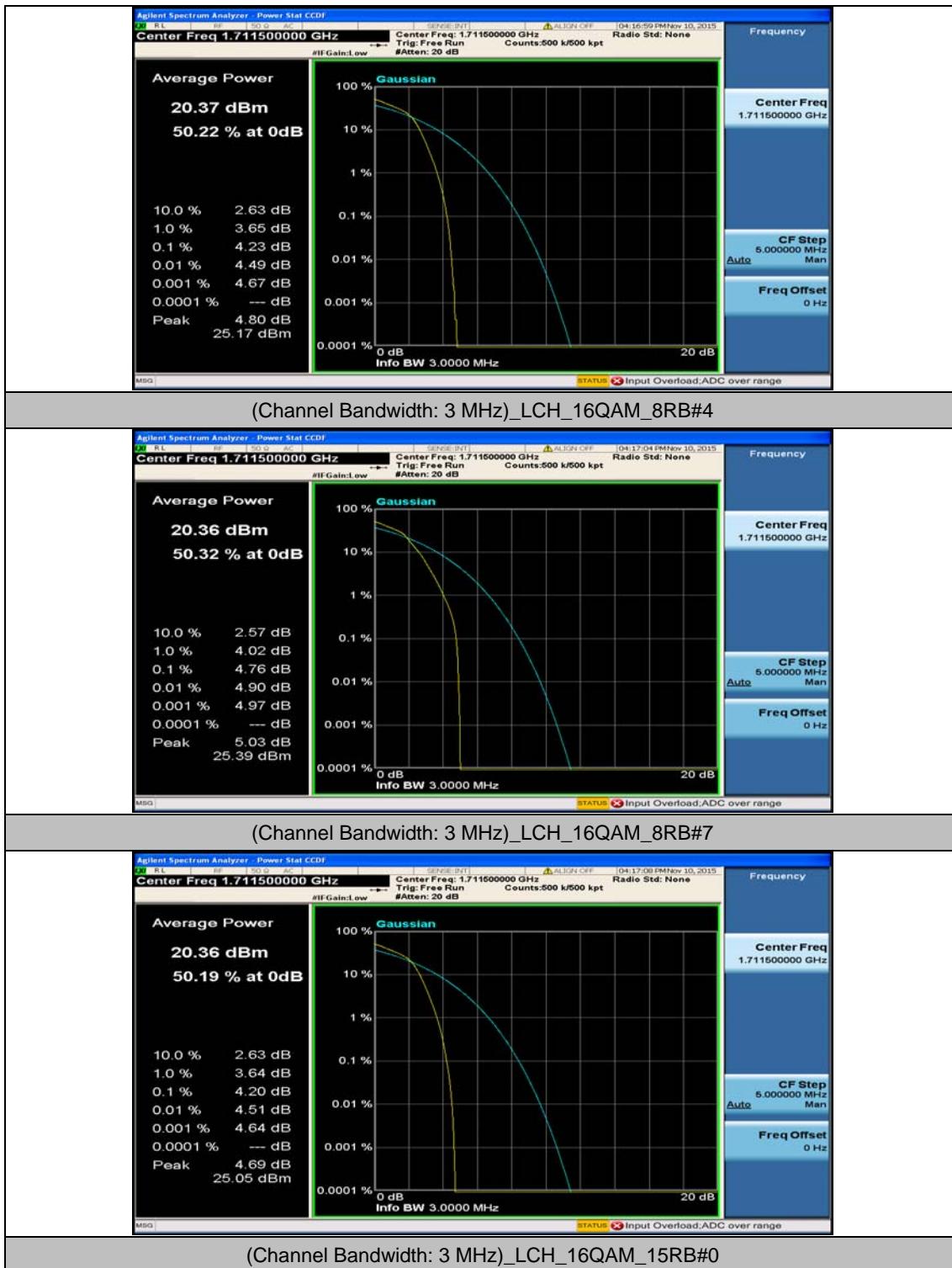


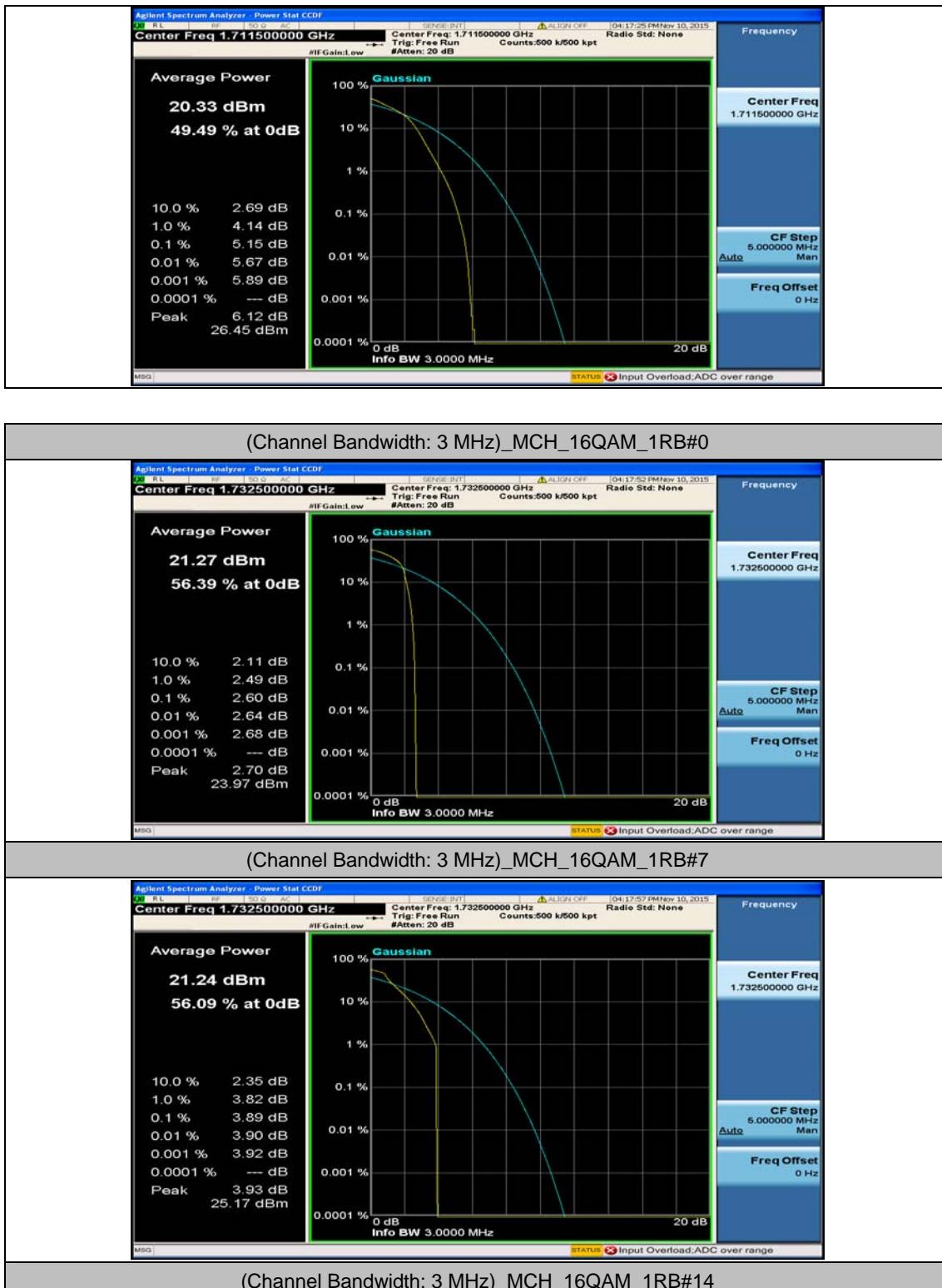


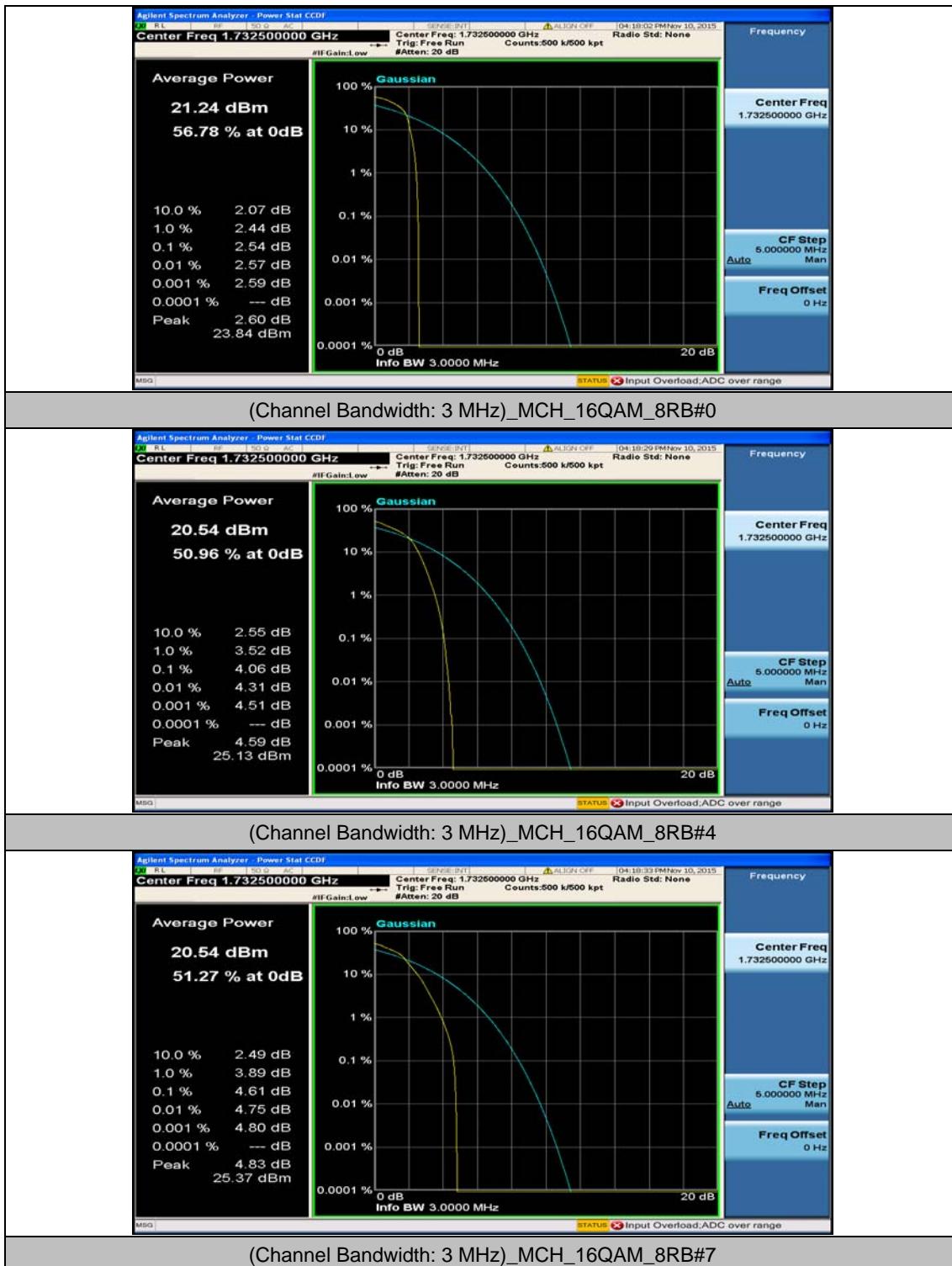


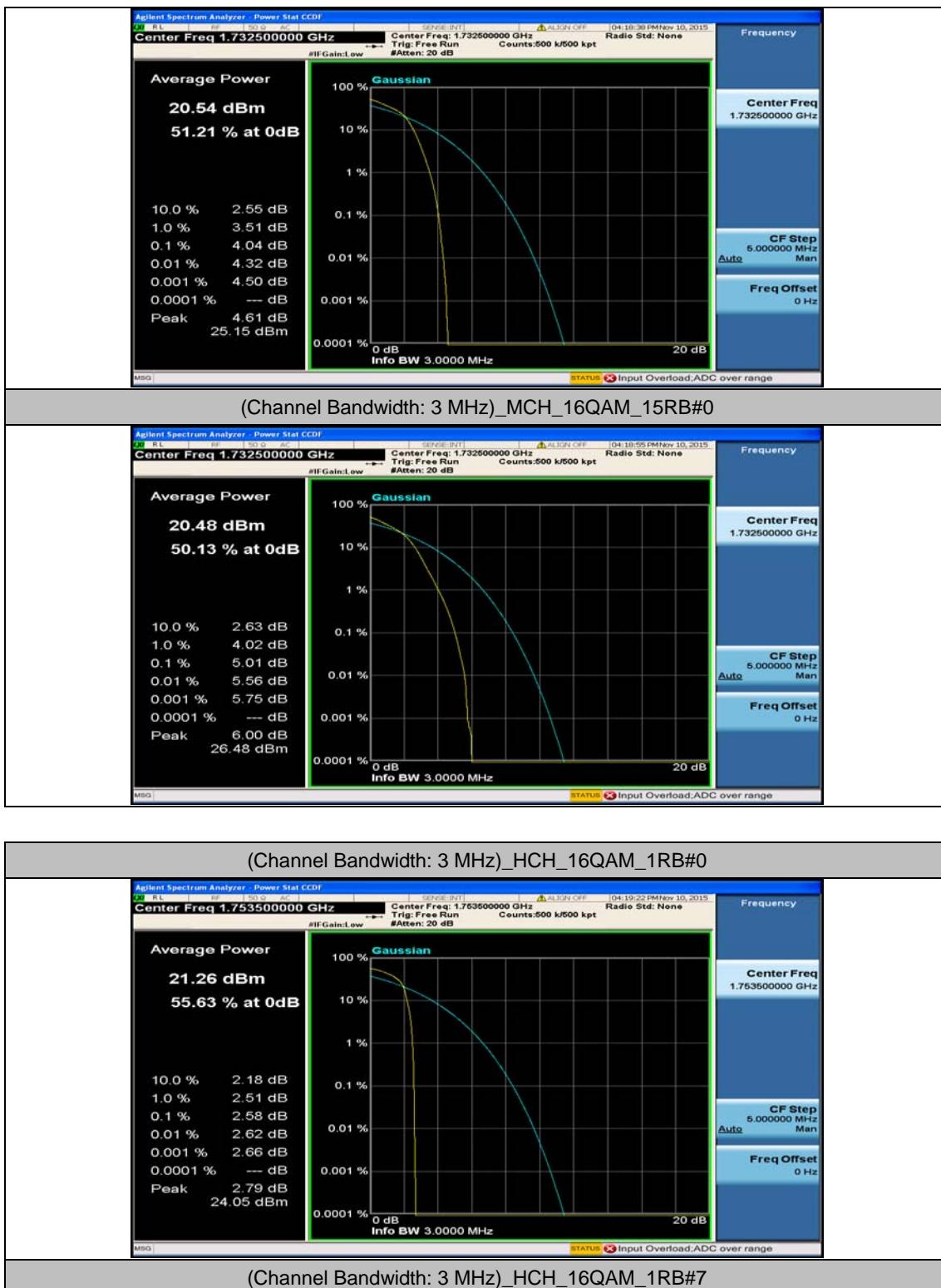


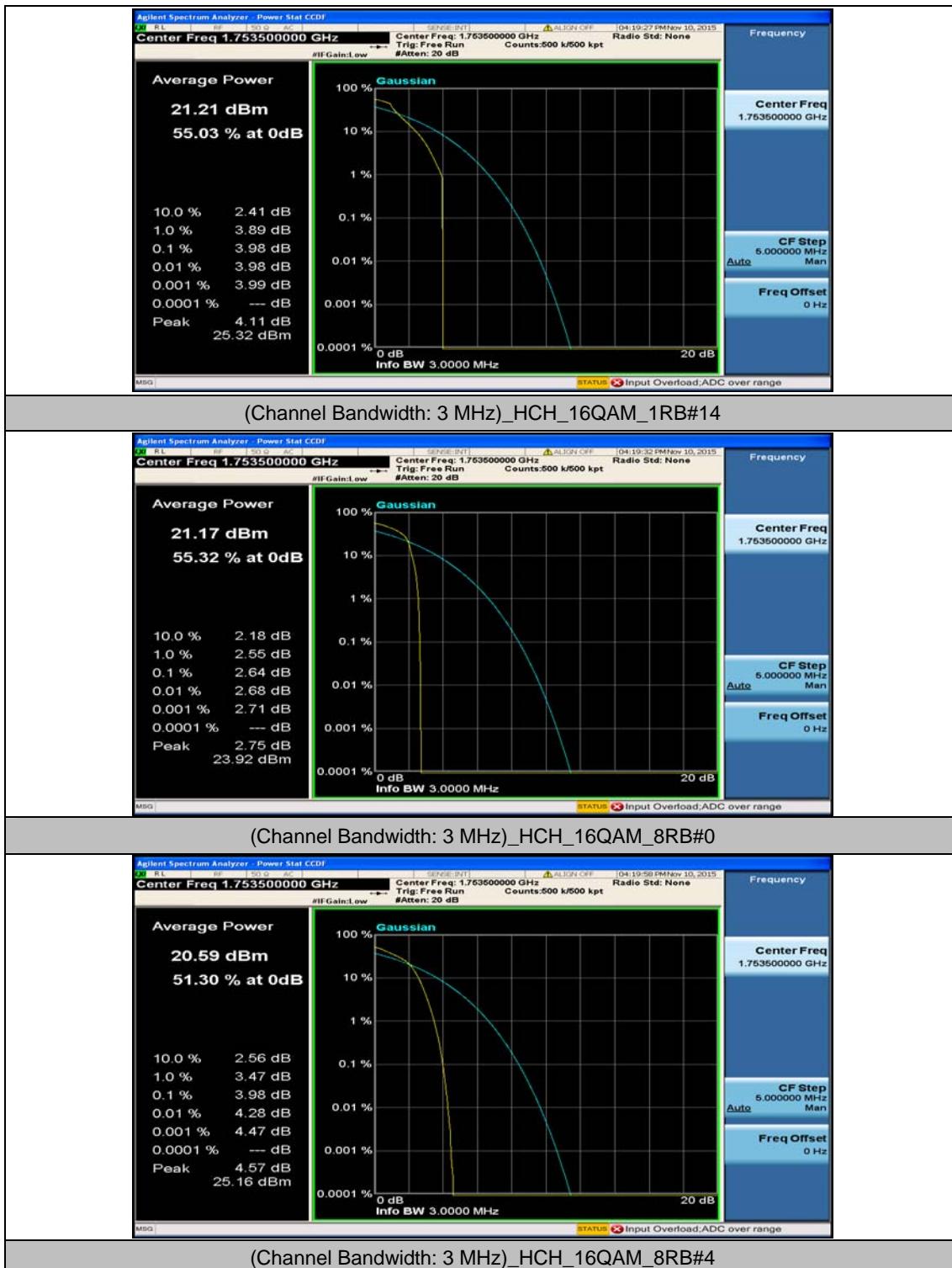


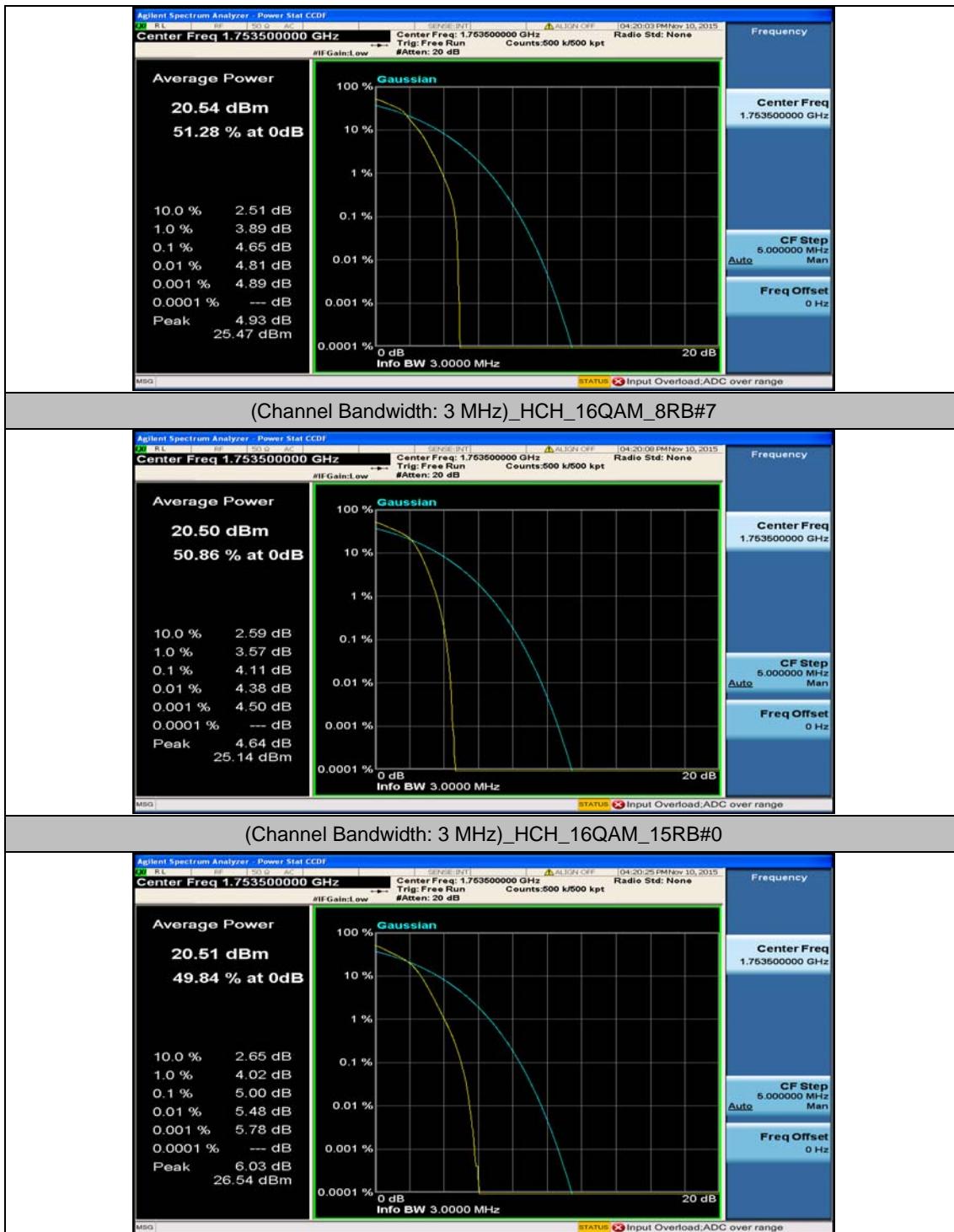












Channel Bandwidth: 5 MHz

(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0

