

Appendix for Band 4

Appendix A: Average Power Output Data

Test Result

Channel Bandwidth: 1.4 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	24.11	PASS
		1	3	24.09	PASS
		1	5	24.27	PASS
		3	0	23.81	PASS
		3	2	23.92	PASS
		3	3	23.98	PASS
		6	0	23.07	PASS
	MCH	1	0	23.88	PASS
		1	3	23.83	PASS
		1	5	23.96	PASS
		3	0	23.88	PASS
		3	2	23.85	PASS
		3	3	23.90	PASS
		6	0	22.15	PASS
	HCH	1	0	24.18	PASS
		1	3	24.06	PASS
		1	5	24.22	PASS
		3	0	23.19	PASS
		3	2	23.43	PASS
		3	3	23.42	PASS
		6	0	22.71	PASS
16QAM	LCH	1	0	22.21	PASS
		1	3	22.33	PASS
		1	5	22.49	PASS
		3	0	22.02	PASS
		3	2	22.08	PASS
		3	3	22.19	PASS
		6	0	21.11	PASS
	MCH	1	0	22.36	PASS
		1	3	22.36	PASS
		1	5	22.44	PASS
		3	0	22.19	PASS
		3	2	22.02	PASS

		3	3	22.05	PASS
		6	0	21.29	PASS
HCH	HCH	1	0	22.84	PASS
		1	3	22.77	PASS
		1	5	22.81	PASS
		3	0	22.66	PASS
		3	2	22.61	PASS
		3	3	22.63	PASS
		6	0	21.97	PASS

Channel Bandwidth: 3 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.75	PASS
		1	7	24.04	PASS
		1	14	23.42	PASS
		8	0	22.07	PASS
		8	4	22.27	PASS
		8	7	22.47	PASS
		15	0	22.30	PASS
	MCH	1	0	23.10	PASS
		1	7	23.17	PASS
		1	14	23.30	PASS
		8	0	22.49	PASS
		8	4	22.55	PASS
		8	7	22.61	PASS
		15	0	22.60	PASS
	HCH	1	0	24.21	PASS
		1	7	24.24	PASS
		1	14	24.37	PASS
		8	0	23.16	PASS
		8	4	23.14	PASS
		8	7	23.28	PASS
		15	0	22.86	PASS
16QAM	LCH	1	0	22.13	PASS
		1	7	22.42	PASS
		1	14	22.80	PASS
		8	0	21.22	PASS
		8	4	21.46	PASS
		8	7	21.61	PASS
		15	0	21.37	PASS
	MCH	1	0	22.55	PASS

		1	7	22.60	PASS
		1	14	22.76	PASS
		8	0	21.70	PASS
		8	4	21.77	PASS
		8	7	21.81	PASS
		15	0	21.70	PASS
	HCH	1	0	23.25	PASS
		1	7	23.00	PASS
		1	14	22.85	PASS
		8	0	22.04	PASS
		8	4	21.94	PASS
		8	7	21.90	PASS
		15	0	21.89	PASS

Channel Bandwidth: 5 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.85	PASS
		1	12	23.08	PASS
		1	24	23.84	PASS
		12	0	22.94	PASS
		12	6	22.17	PASS
		12	13	22.65	PASS
		25	0	22.29	PASS
	MCH	1	0	23.11	PASS
		1	12	23.12	PASS
		1	24	23.39	PASS
		12	0	22.24	PASS
		12	6	22.21	PASS
		12	13	22.41	PASS
		25	0	22.31	PASS
	HCH	1	0	24.09	PASS
		1	12	23.45	PASS
		1	24	23.39	PASS
		12	0	23.26	PASS
		12	6	23.16	PASS
		12	13	23.17	PASS
		25	0	22.26	PASS
16QAM	LCH	1	0	22.31	PASS
		1	12	22.50	PASS
		1	24	22.10	PASS
		12	0	21.16	PASS

		12	6	21.40	PASS
		12	13	21.87	PASS
		25	0	21.41	PASS
MCH		1	0	22.62	PASS
		1	12	22.42	PASS
		1	24	22.94	PASS
		12	0	21.50	PASS
		12	6	21.50	PASS
		12	13	21.68	PASS
		25	0	21.43	PASS
		1	0	23.27	PASS
HCH		1	12	22.53	PASS
		1	24	22.48	PASS
		12	0	22.24	PASS
		12	6	22.26	PASS
		12	13	22.28	PASS
		25	0	22.24	PASS

Channel Bandwidth: 10 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.29	PASS
		1	24	23.25	PASS
		1	49	23.14	PASS
		25	0	22.14	PASS
		25	12	22.52	PASS
		25	25	22.64	PASS
		50	0	22.50	PASS
	MCH	1	0	23.58	PASS
		1	24	23.54	PASS
		1	49	23.42	PASS
		25	0	22.94	PASS
		25	12	22.90	PASS
		25	25	22.87	PASS
		50	0	22.94	PASS
	HCH	1	0	24.03	PASS
		1	24	24.10	PASS
		1	49	24.11	PASS
		25	0	23.36	PASS
		25	12	23.03	PASS
		25	25	23.08	PASS
		50	0	22.97	PASS

16QAM	LCH	1	0	22.65	PASS
		1	24	22.66	PASS
		1	49	22.56	PASS
		25	0	21.20	PASS
		25	12	21.49	PASS
		25	25	21.60	PASS
		50	0	21.53	PASS
	MCH	1	0	22.02	PASS
		1	24	22.98	PASS
		1	49	22.87	PASS
		25	0	21.10	PASS
		25	12	21.06	PASS
		25	25	21.03	PASS
		50	0	21.09	PASS
	HCH	1	0	22.55	PASS
		1	24	22.27	PASS
		1	49	22.92	PASS
		25	0	22.38	PASS
		25	12	22.12	PASS
		25	25	22.22	PASS
		50	0	22.11	PASS

Channel Bandwidth: 15 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.56	PASS
		1	37	23.38	PASS
		1	74	23.78	PASS
		37	0	22.41	PASS
		37	18	22.68	PASS
		37	38	22.60	PASS
		75	0	22.56	PASS
	MCH	1	0	23.89	PASS
		1	37	23.53	PASS
		1	74	23.76	PASS
		37	0	23.03	PASS
		37	18	22.87	PASS
		37	38	22.88	PASS
		75	0	22.94	PASS
	HCH	1	0	23.30	PASS
		1	37	24.45	PASS
		1	74	24.47	PASS

		37	0	23.02	PASS
		37	18	23.58	PASS
		37	38	23.33	PASS
		75	0	22.55	PASS
16QAM	LCH	1	0	22.92	PASS
		1	37	22.77	PASS
		1	74	22.24	PASS
		37	0	21.51	PASS
		37	18	21.66	PASS
		37	38	21.82	PASS
		75	0	21.71	PASS
	MCH	1	0	22.32	PASS
		1	37	22.25	PASS
		1	74	22.22	PASS
		37	0	21.17	PASS
		37	18	21.02	PASS
		37	38	21.03	PASS
		75	0	21.10	PASS
	HCH	1	0	22.75	PASS
		1	37	22.85	PASS
		1	74	22.97	PASS
		37	0	22.22	PASS
		37	18	22.77	PASS
		37	38	22.11	PASS
		75	0	22.69	PASS

Channel Bandwidth: 20 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.75	PASS
		1	49	23.41	PASS
		1	99	24.47	PASS
		50	0	22.59	PASS
		50	25	22.66	PASS
		50	50	22.27	PASS
		100	0	22.47	PASS
	MCH	1	0	23.23	PASS
		1	49	23.64	PASS
		1	99	24.12	PASS
		50	0	22.14	PASS
		50	25	22.89	PASS
		50	50	22.95	PASS

		100	0	22.03	PASS
HCH	LCH	1	0	23.82	PASS
		1	49	23.99	PASS
		1	99	24.51	PASS
		50	0	22.43	PASS
		50	25	23.13	PASS
		50	50	23.70	PASS
		100	0	23.12	PASS
		1	0	22.02	PASS
16QAM	MCH	1	49	22.75	PASS
		1	99	22.80	PASS
		50	0	21.55	PASS
		50	25	21.62	PASS
		50	50	21.45	PASS
		100	0	21.58	PASS
		1	0	22.57	PASS
		1	49	22.95	PASS
	HCH	1	99	22.43	PASS
		50	0	21.26	PASS
		50	25	21.02	PASS
		50	50	21.07	PASS
		100	0	21.19	PASS
		1	0	22.27	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	3.93	<13	PASS
		1	3	3.91	<13	PASS
		1	5	3.75	<13	PASS
		3	0	3.67	<13	PASS
		3	2	3.65	<13	PASS
		3	3	3.62	<13	PASS
		6	0	4.52	<13	PASS
	MCH	1	0	3.17	<13	PASS
		1	3	3.34	<13	PASS
		1	5	3.25	<13	PASS
		3	0	3.1	<13	PASS
		3	2	3.13	<13	PASS
		3	3	3.14	<13	PASS
		6	0	3.88	<13	PASS
16QAM	LCH	1	0	3.09	<13	PASS
		1	3	3.17	<13	PASS
		1	5	3.06	<13	PASS
		3	0	2.96	<13	PASS
		3	2	2.96	<13	PASS
		3	3	2.96	<13	PASS
		6	0	3.66	<13	PASS
	MCH	1	0	4.71	<13	PASS
		1	3	4.64	<13	PASS
		1	5	4.6	<13	PASS
		3	0	4.52	<13	PASS
		3	2	4.6	<13	PASS
		3	3	4.51	<13	PASS
		6	0	5.33	<13	PASS

		3	3	3.92	<13	PASS
		6	0	4.64	<13	PASS
HCH		1	0	3.94	<13	PASS
		1	3	3.9	<13	PASS
		1	5	3.81	<13	PASS
		3	0	3.75	<13	PASS
		3	2	3.7	<13	PASS
		3	3	3.71	<13	PASS
		6	0	4.52	<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	3.78	<13	PASS
		1	7	3.74	<13	PASS
		1	14	3.58	<13	PASS
		8	0	4.52	<13	PASS
		8	4	4.55	<13	PASS
		8	7	4.45	<13	PASS
		15	0	4.59	<13	PASS
	MCH	1	0	3.16	<13	PASS
		1	7	3.29	<13	PASS
		1	14	3.38	<13	PASS
		8	0	3.88	<13	PASS
		8	4	3.98	<13	PASS
		8	7	3.99	<13	PASS
		15	0	3.97	<13	PASS
	HCH	1	0	3.1	<13	PASS
		1	7	3.06	<13	PASS
		1	14	3.06	<13	PASS
		8	0	3.92	<13	PASS
		8	4	3.81	<13	PASS
		8	7	3.75	<13	PASS
		15	0	4.05	<13	PASS
16QAM	LCH	1	0	4.47	<13	PASS
		1	7	4.53	<13	PASS
		1	14	4.49	<13	PASS
		8	0	5.26	<13	PASS
		8	4	5.15	<13	PASS
		8	7	5.13	<13	PASS

		15	0	5.39	<13	PASS
MCH	1	0		3.95	<13	PASS
	1	7		4.09	<13	PASS
	1	14		4.09	<13	PASS
	8	0		4.57	<13	PASS
	8	4		4.62	<13	PASS
	8	7		4.61	<13	PASS
	15	0		4.8	<13	PASS
HCH	1	0		4.08	<13	PASS
	1	7		3.9	<13	PASS
	1	14		3.86	<13	PASS
	8	0		4.73	<13	PASS
	8	4		4.7	<13	PASS
	8	7		4.69	<13	PASS
	15	0		4.87	<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	3.7	<13	PASS
		1	12	3.78	<13	PASS
		1	24	3.44	<13	PASS
		12	0	4.75	<13	PASS
		12	6	4.67	<13	PASS
		12	13	4.48	<13	PASS
		25	0	4.74	<13	PASS
QPSK	MCH	1	0	3.08	<13	PASS
		1	12	3.39	<13	PASS
		1	24	3.41	<13	PASS
		12	0	4.06	<13	PASS
		12	6	4.12	<13	PASS
		12	13	4.24	<13	PASS
		25	0	4.24	<13	PASS
QPSK	HCH	1	0	3.31	<13	PASS
		1	12	3.34	<13	PASS
		1	24	3.14	<13	PASS
		12	0	4.16	<13	PASS
		12	6	4.13	<13	PASS
		12	13	3.97	<13	PASS
		25	0	4.16	<13	PASS

16QAM	LCH	1	0	4.65	<13	PASS
		1	12	4.67	<13	PASS
		1	24	4.27	<13	PASS
		12	0	5.49	<13	PASS
		12	6	5.42	<13	PASS
		12	13	5.25	<13	PASS
		25	0	5.49	<13	PASS
	MCH	1	0	3.88	<13	PASS
		1	12	4.17	<13	PASS
		1	24	4.31	<13	PASS
		12	0	4.77	<13	PASS
		12	6	4.88	<13	PASS
		12	13	4.99	<13	PASS
		25	0	4.96	<13	PASS
	HCH	1	0	4.26	<13	PASS
		1	12	4.09	<13	PASS
		1	24	3.75	<13	PASS
		12	0	5.12	<13	PASS
		12	6	5.01	<13	PASS
		12	13	4.9	<13	PASS
		25	0	5.06	<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	4.14	<13	PASS
		1	24	3.55	<13	PASS
		1	49	3.18	<13	PASS
		25	0	4.65	<13	PASS
		25	12	4.57	<13	PASS
		25	25	4.32	<13	PASS
		50	0	4.54	<13	PASS
	MCH	1	0	2.9	<13	PASS
		1	24	3.2	<13	PASS
		1	49	3.73	<13	PASS
		25	0	3.8	<13	PASS
		25	12	4.06	<13	PASS
		25	25	4.23	<13	PASS
		50	0	4.11	<13	PASS
	HCH	1	0	3.82	<13	PASS

		1	24	3.49	<13	PASS
		1	49	3.23	<13	PASS
		25	0	4.55	<13	PASS
		25	12	4.47	<13	PASS
		25	25	4.23	<13	PASS
		50	0	4.48	<13	PASS
16QAM	LCH	1	0	5.08	<13	PASS
		1	24	8.41	<13	PASS
		1	49	4.13	<13	PASS
		25	0	5.47	<13	PASS
		25	12	5.43	<13	PASS
		25	25	5.15	<13	PASS
		50	0	5.35	<13	PASS
	MCH	1	0	3.68	<13	PASS
		1	24	4.01	<13	PASS
		1	49	4.46	<13	PASS
		25	0	4.57	<13	PASS
		25	12	4.8	<13	PASS
		25	25	5.06	<13	PASS
		50	0	4.83	<13	PASS
	HCH	1	0	4.69	<13	PASS
		1	24	4.29	<13	PASS
		1	49	4.1	<13	PASS
		25	0	5.39	<13	PASS
		25	12	5.35	<13	PASS
		25	25	5.14	<13	PASS
		50	0	5.29	<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	3.86	<13	PASS
		1	37	3.07	<13	PASS
		1	74	2.88	<13	PASS
		37	0	4.43	<13	PASS
		37	18	4.07	<13	PASS
		37	38	3.63	<13	PASS
		75	0	4.34	<13	PASS
	MCH	1	0	2.82	<13	PASS
		1	37	3.36	<13	PASS

		1	74	3.97	<13	PASS
		37	0	3.79	<13	PASS
		37	18	4.12	<13	PASS
		37	38	4.49	<13	PASS
		75	0	4.55	<13	PASS
	HCH	1	0	3.91	<13	PASS
		1	37	3.81	<13	PASS
		1	74	3.29	<13	PASS
		37	0	4.71	<13	PASS
		37	18	4.65	<13	PASS
		37	38	4.38	<13	PASS
		75	0	4.82	<13	PASS
16QAM	LCH	1	0	4.63	<13	PASS
		1	37	3.99	<13	PASS
		1	74	3.55	<13	PASS
		37	0	5.31	<13	PASS
		37	18	4.99	<13	PASS
		37	38	4.54	<13	PASS
		75	0	5.13	<13	PASS
	MCH	1	0	3.53	<13	PASS
		1	37	4.12	<13	PASS
		1	74	4.75	<13	PASS
		37	0	4.57	<13	PASS
		37	18	4.88	<13	PASS
		37	38	5.23	<13	PASS
		75	0	5.19	<13	PASS
	HCH	1	0	4.73	<13	PASS
		1	37	4.72	<13	PASS
		1	74	4.2	<13	PASS
		37	0	5.56	<13	PASS
		37	18	5.47	<13	PASS
		37	38	5.22	<13	PASS
		75	0	5.5	<13	PASS

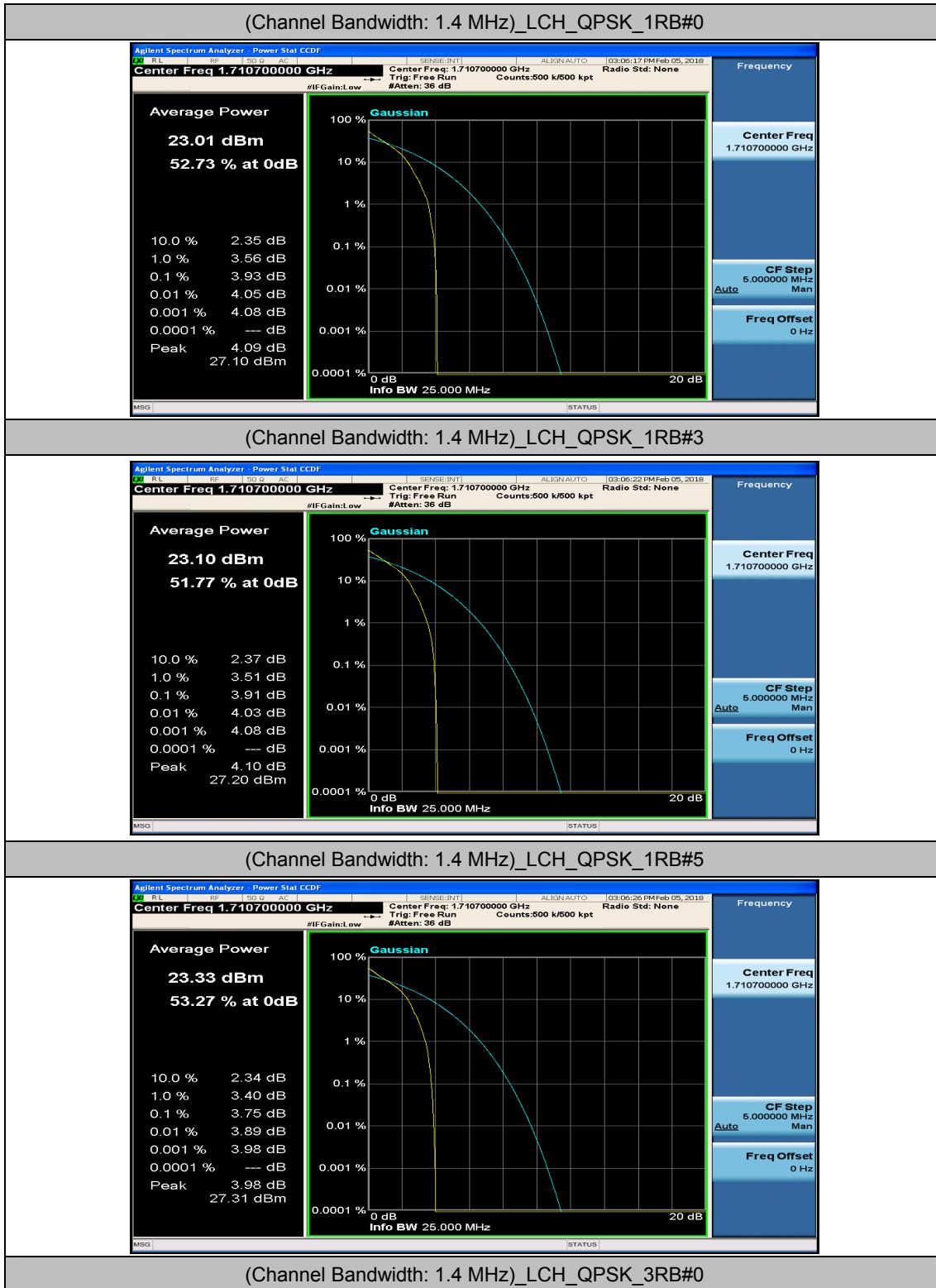
Channel Bandwidth: 20 MHz

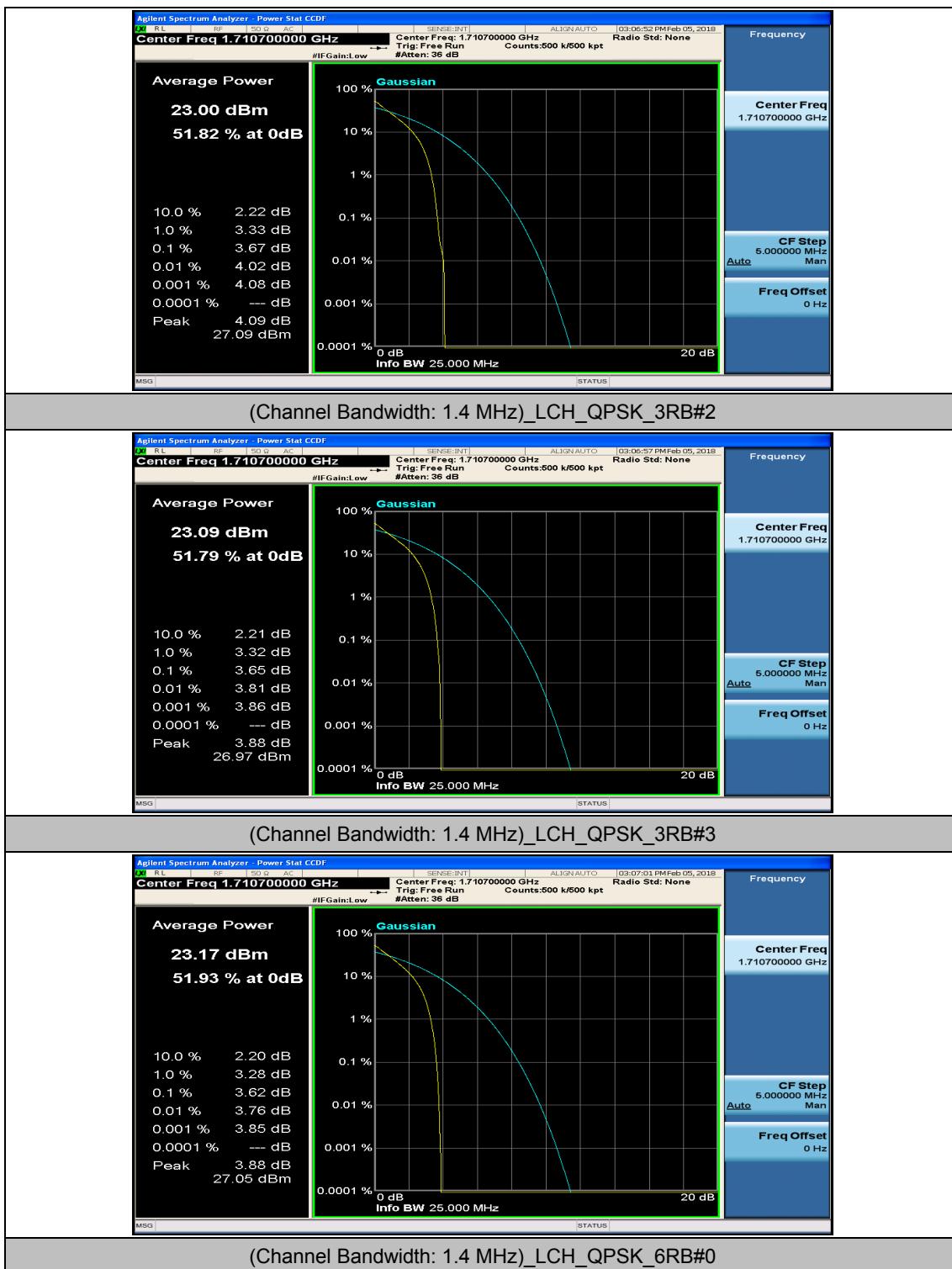
Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	3.86	<13	PASS
		1	49	2.85	<13	PASS
		1	99	3.27	<13	PASS

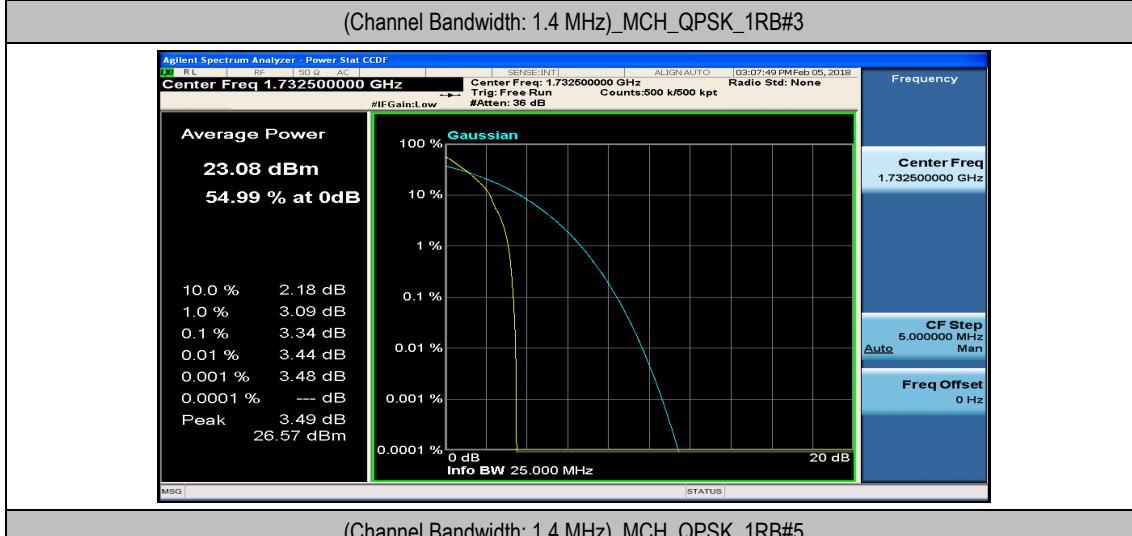
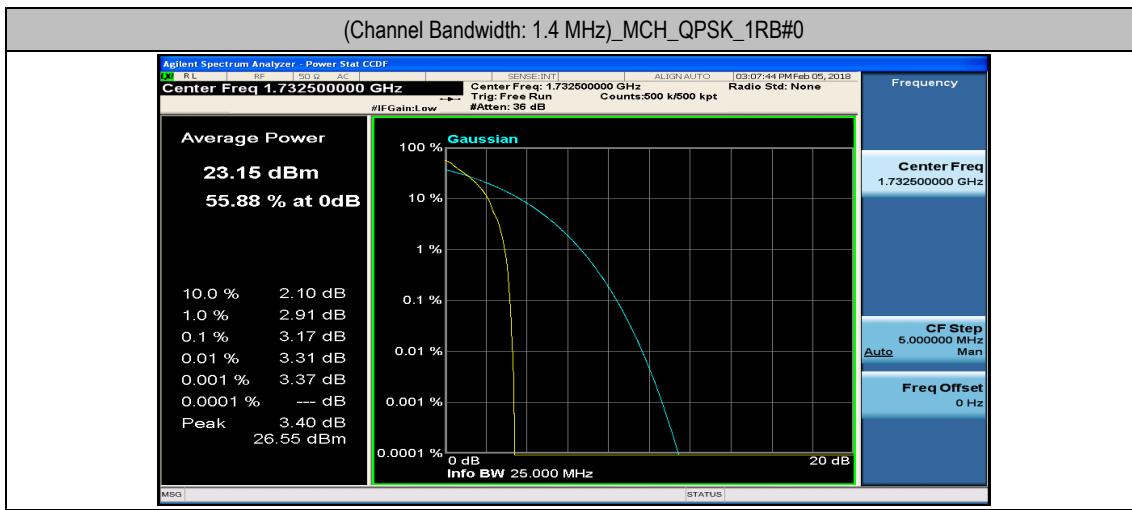
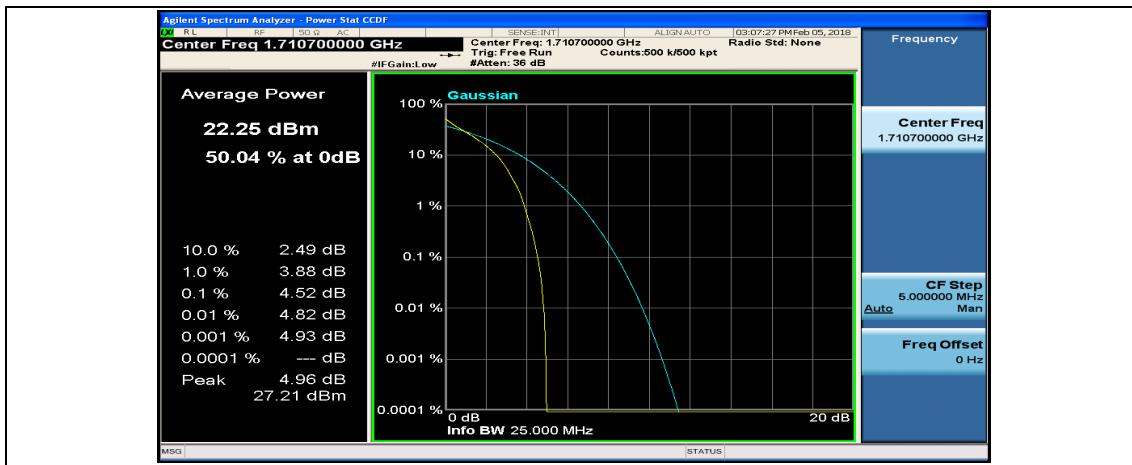
		50	0	4.37	<13	PASS
		50	25	3.89	<13	PASS
		50	50	3.87	<13	PASS
		100	0	4.42	<13	PASS
MCH	MCH	1	0	2.78	<13	PASS
		1	49	3.37	<13	PASS
		1	99	4.01	<13	PASS
		50	0	3.96	<13	PASS
		50	25	4.22	<13	PASS
		50	50	4.73	<13	PASS
		100	0	4.77	<13	PASS
HCH	HCH	1	0	3.61	<13	PASS
		1	49	4.02	<13	PASS
		1	99	3.43	<13	PASS
		50	0	4.78	<13	PASS
		50	25	4.82	<13	PASS
		50	50	4.64	<13	PASS
		100	0	4.92	<13	PASS
LCH	LCH	1	0	4.46	<13	PASS
		1	49	3.65	<13	PASS
		1	99	4.08	<13	PASS
		50	0	5.22	<13	PASS
		50	25	4.77	<13	PASS
		50	50	4.58	<13	PASS
		100	0	5.18	<13	PASS
16QAM	MCH	1	0	3.54	<13	PASS
		1	49	4.04	<13	PASS
		1	99	4.98	<13	PASS
		50	0	4.66	<13	PASS
		50	25	4.97	<13	PASS
		50	50	5.49	<13	PASS
		100	0	5.38	<13	PASS
HCH	HCH	1	0	4.25	<13	PASS
		1	49	4.75	<13	PASS
		1	99	4.2	<13	PASS
		50	0	5.53	<13	PASS
		50	25	5.61	<13	PASS
		50	50	5.4	<13	PASS
		100	0	5.66	<13	PASS

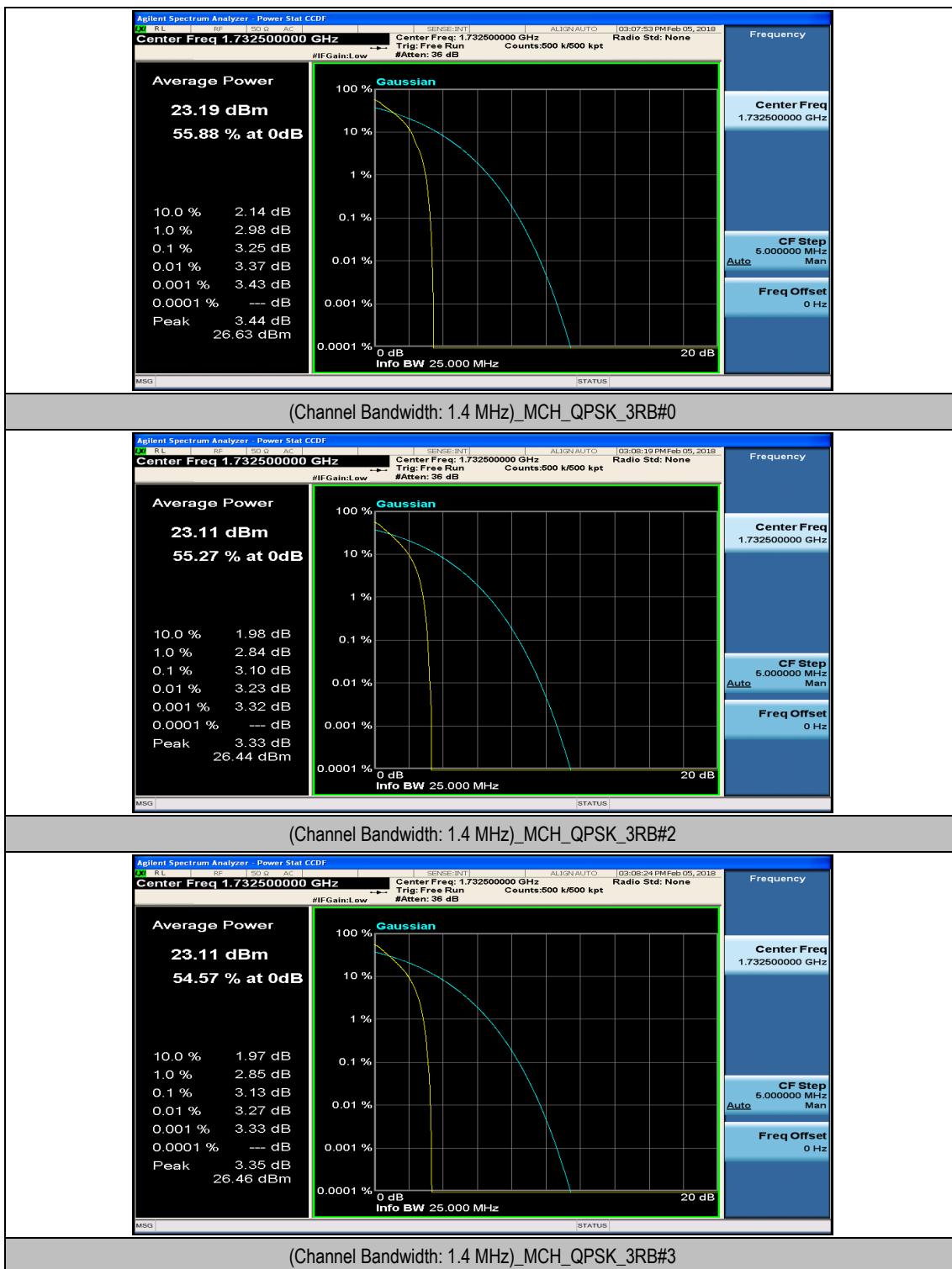
Test Graphs

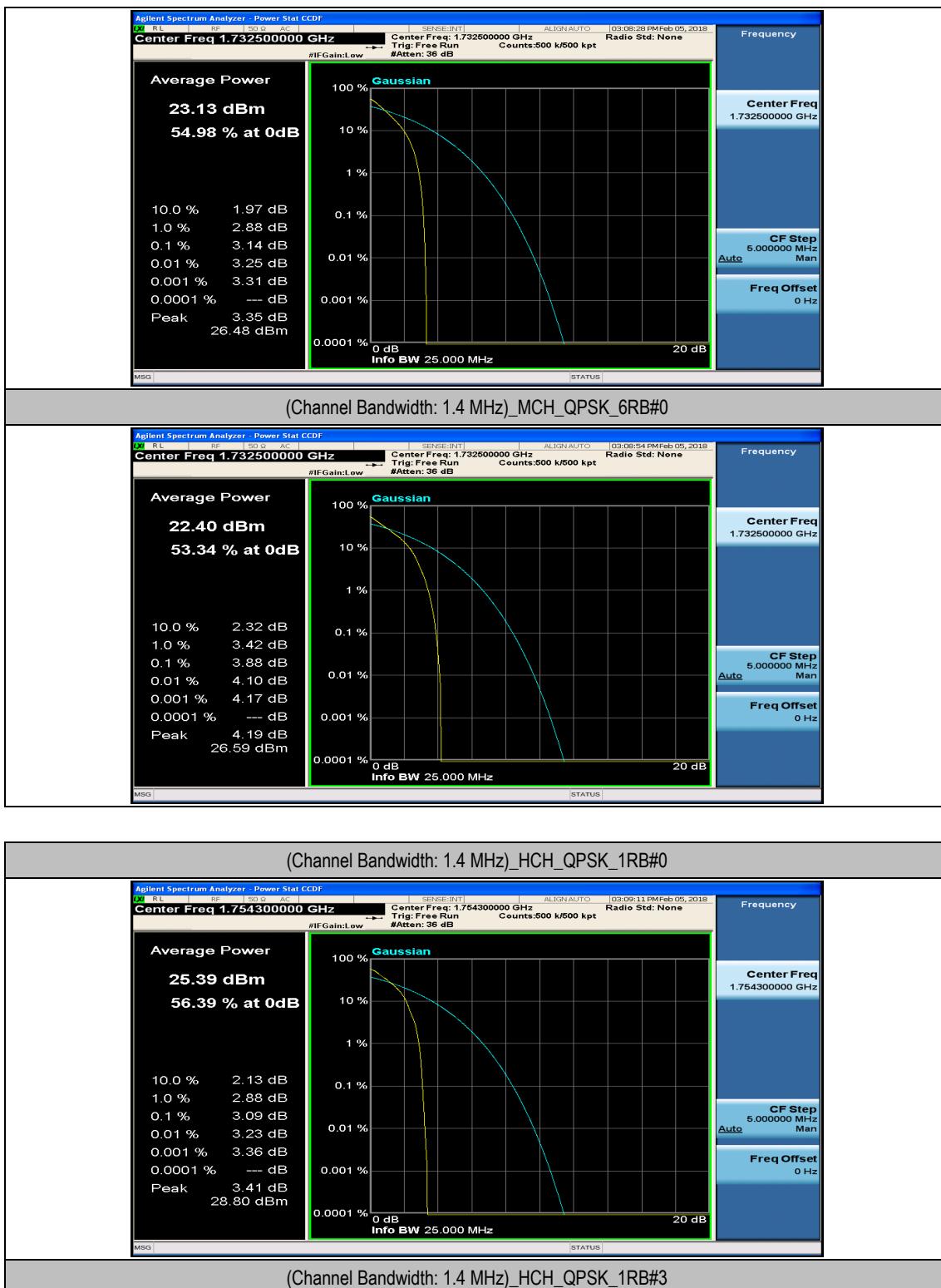
Channel Bandwidth: 1.4 MHz

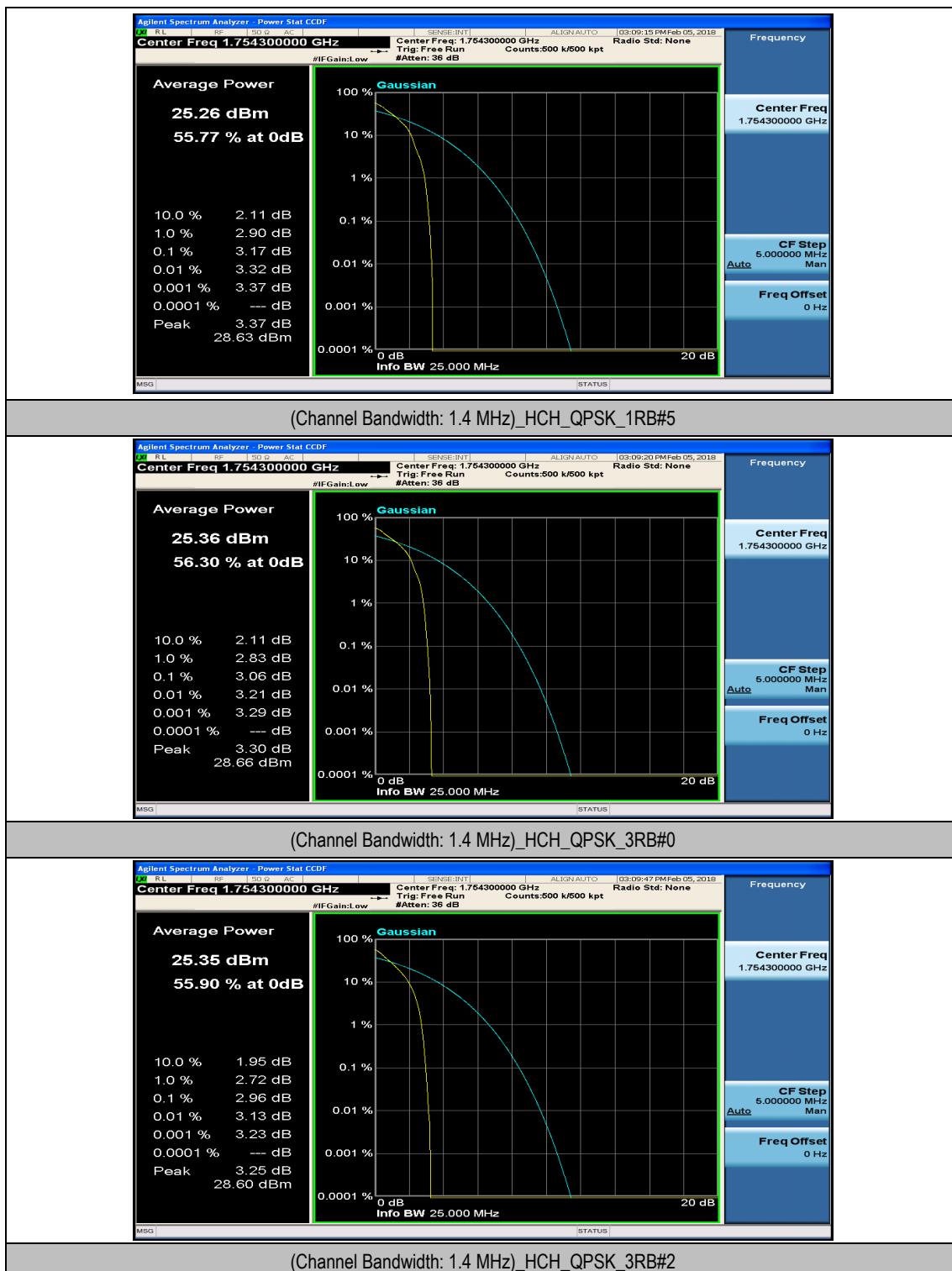


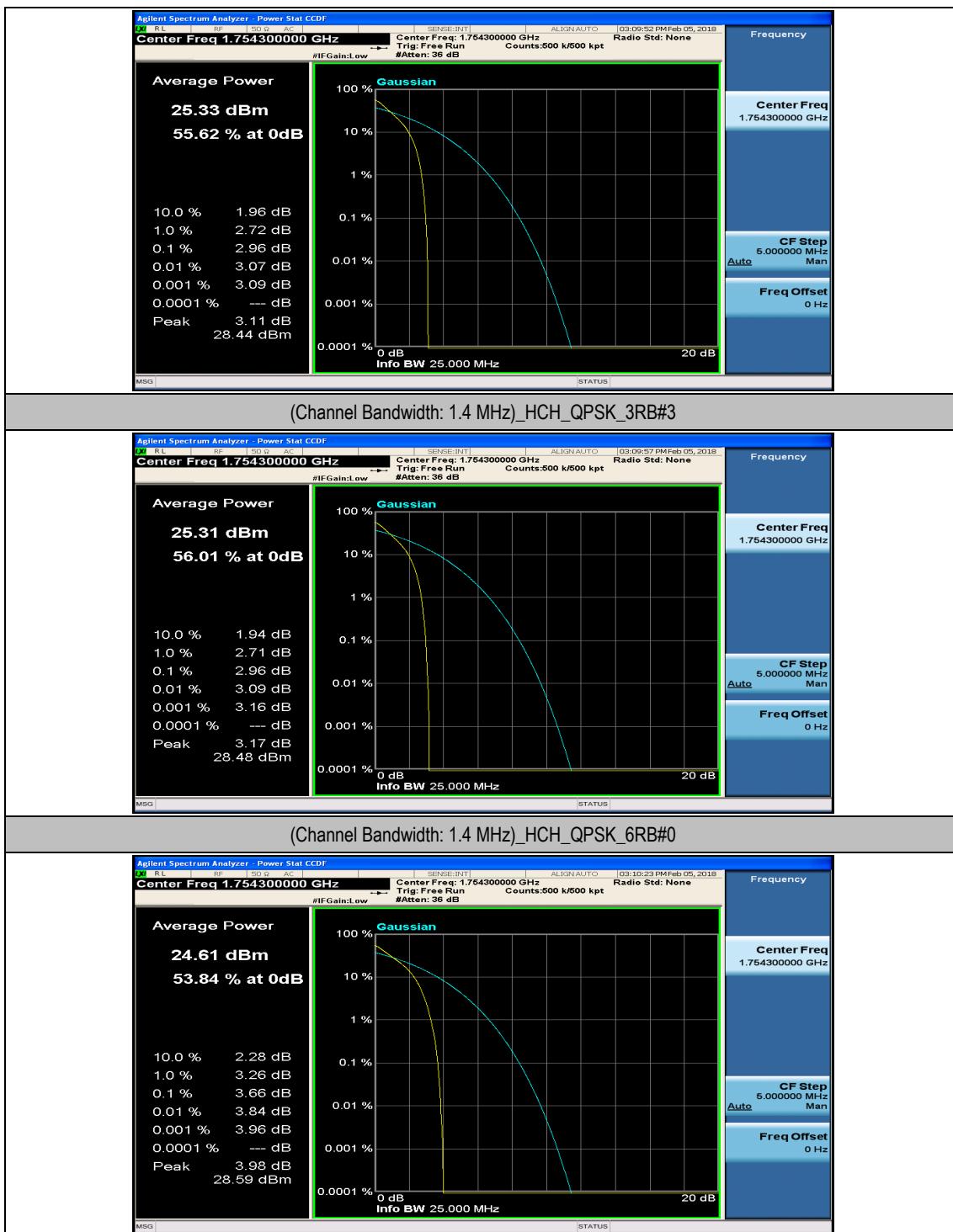


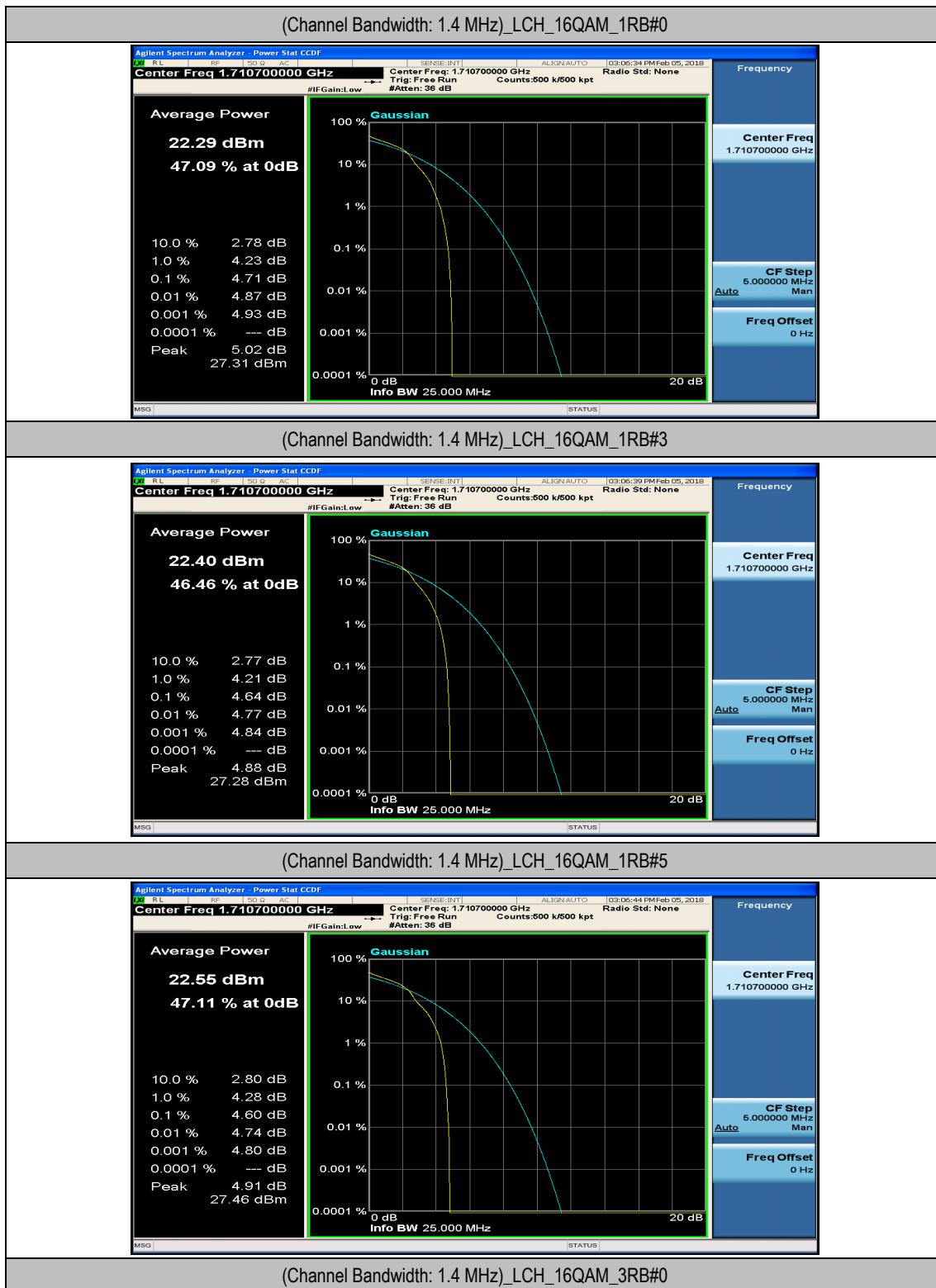


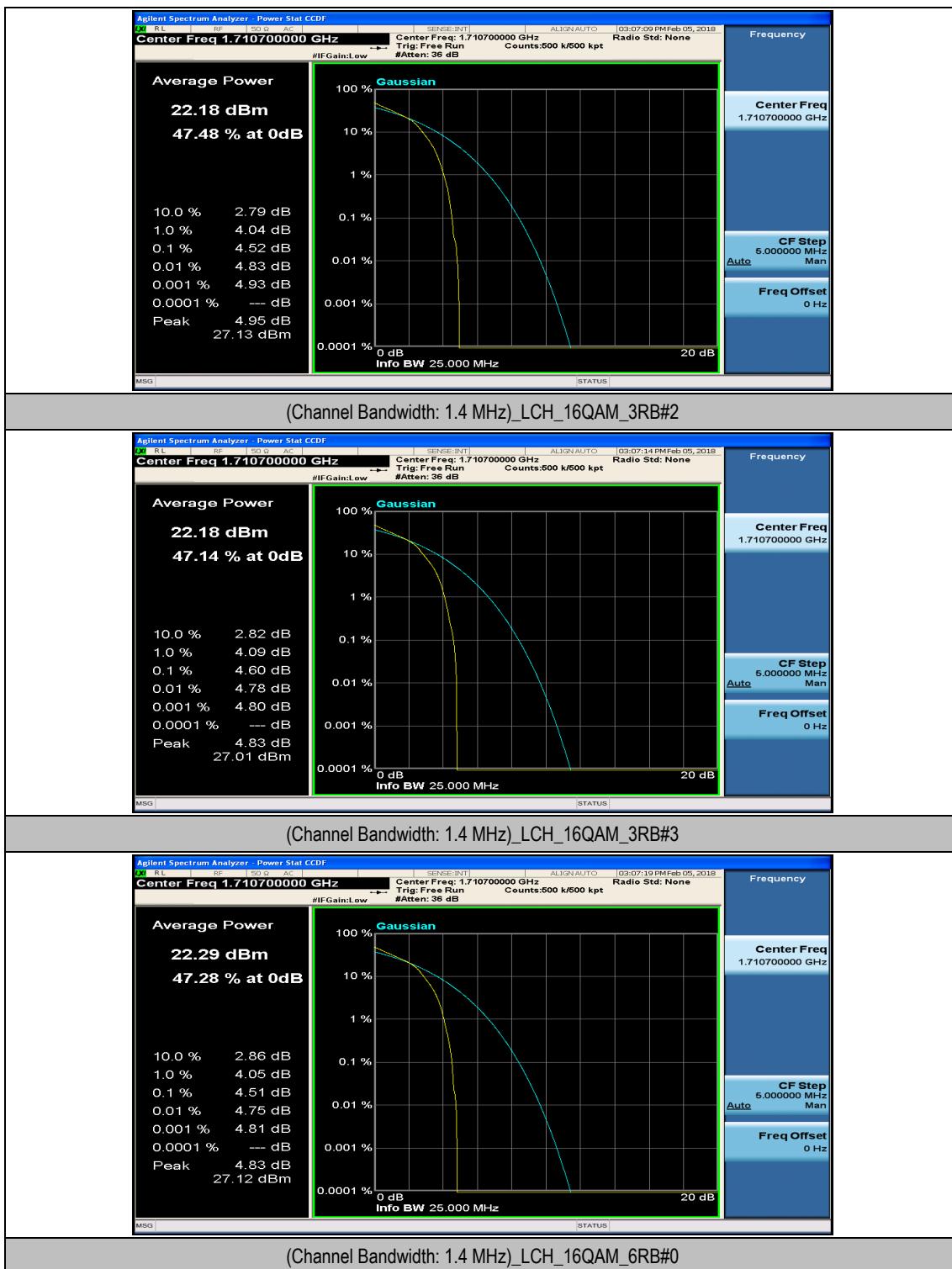


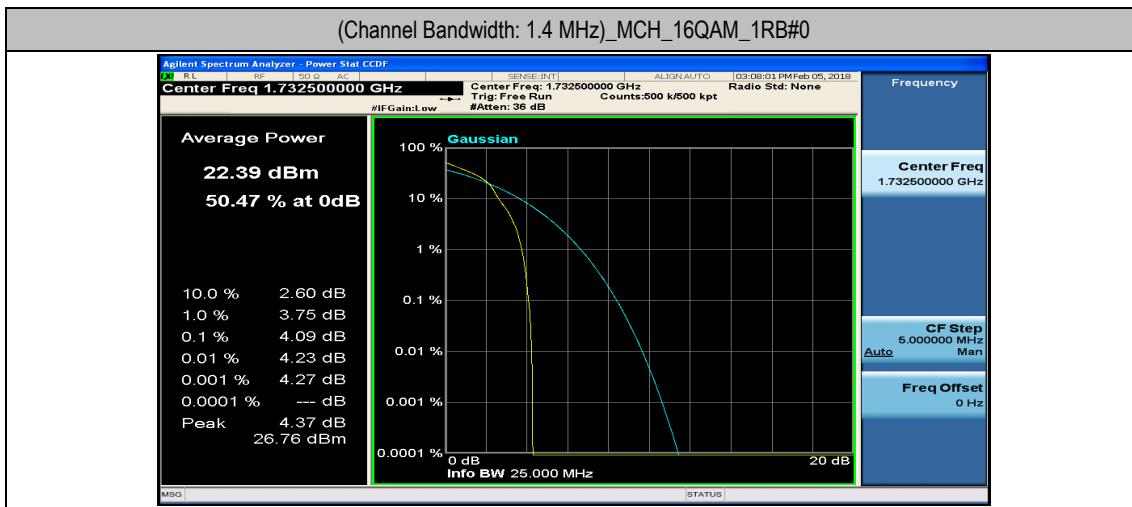
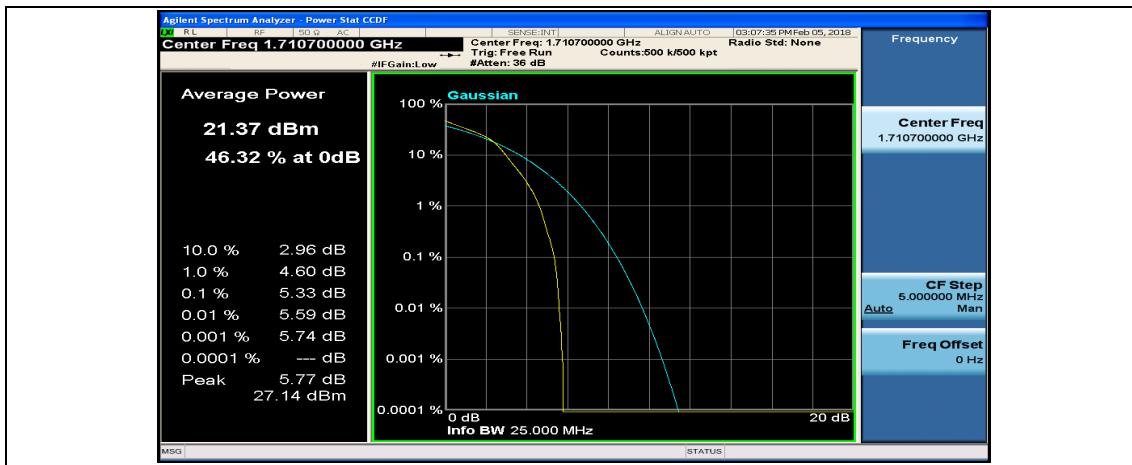


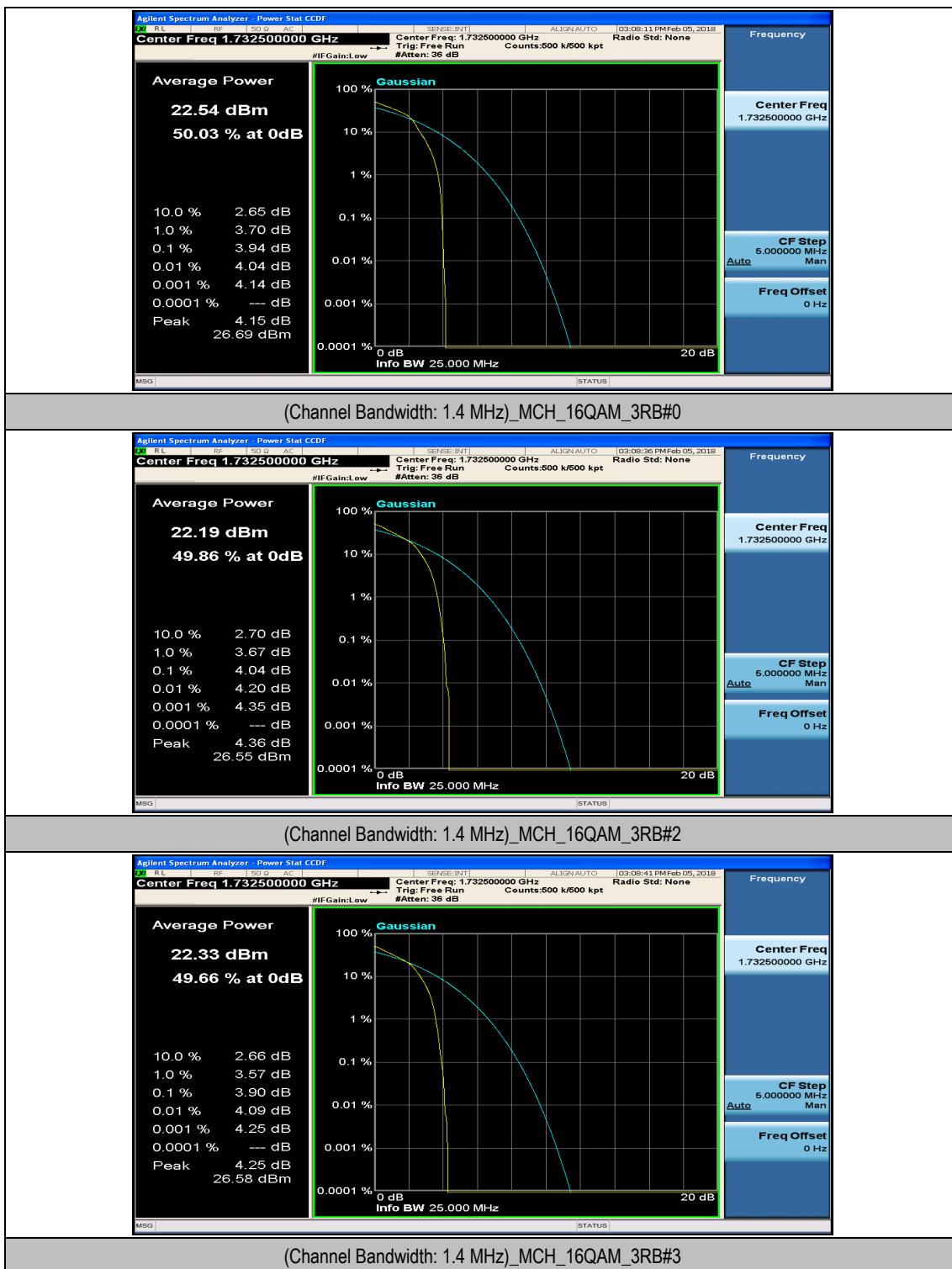


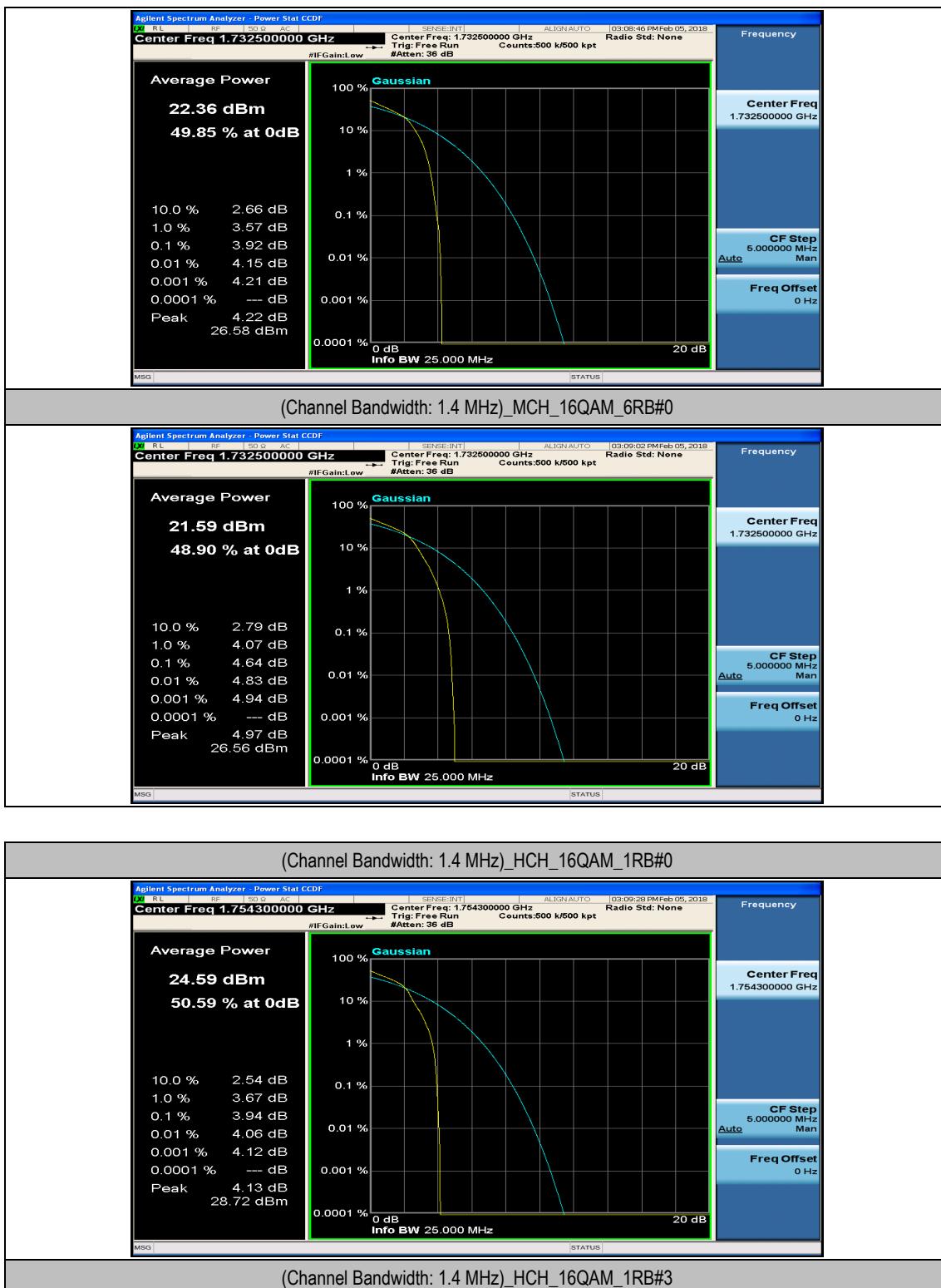


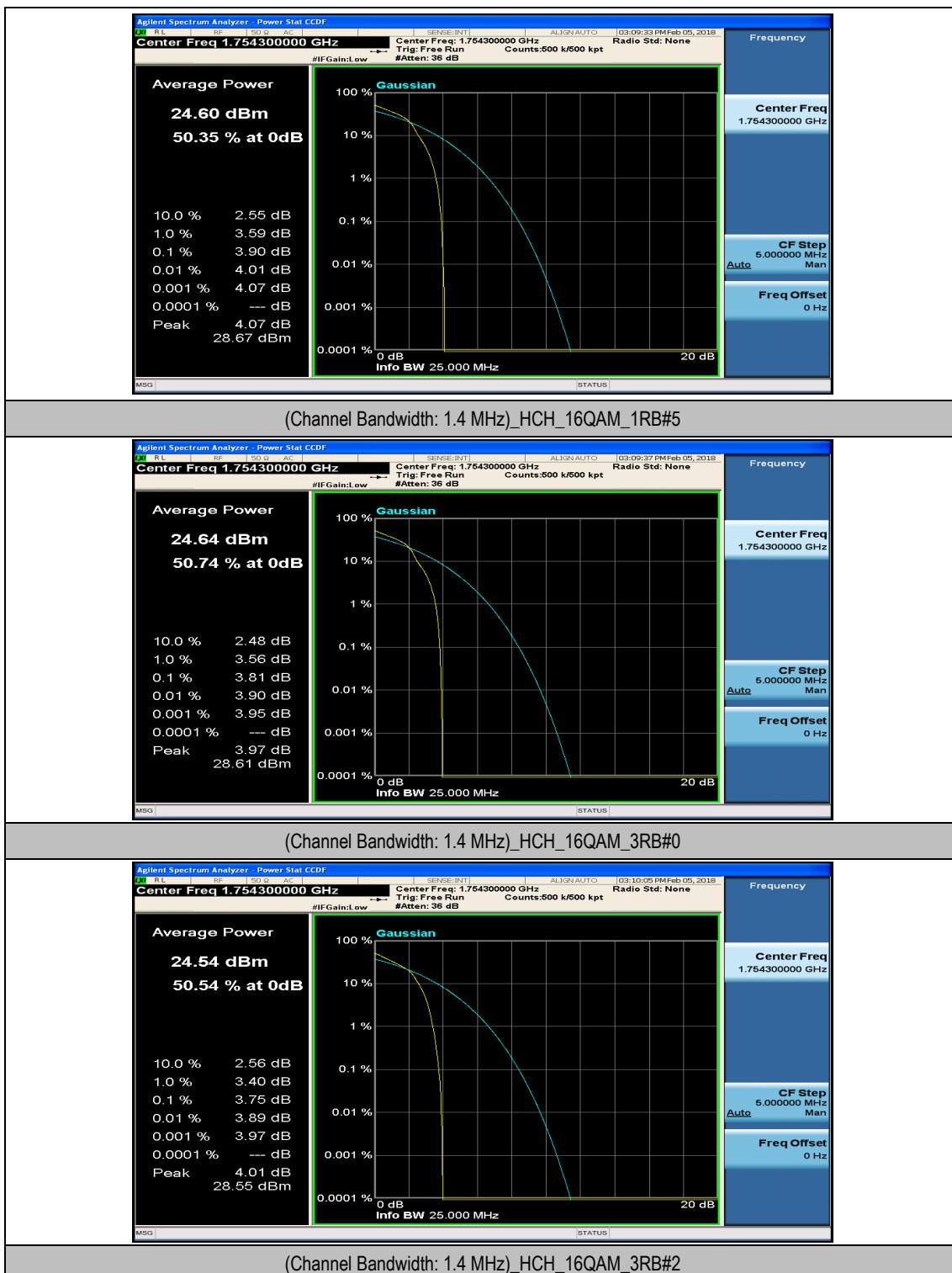


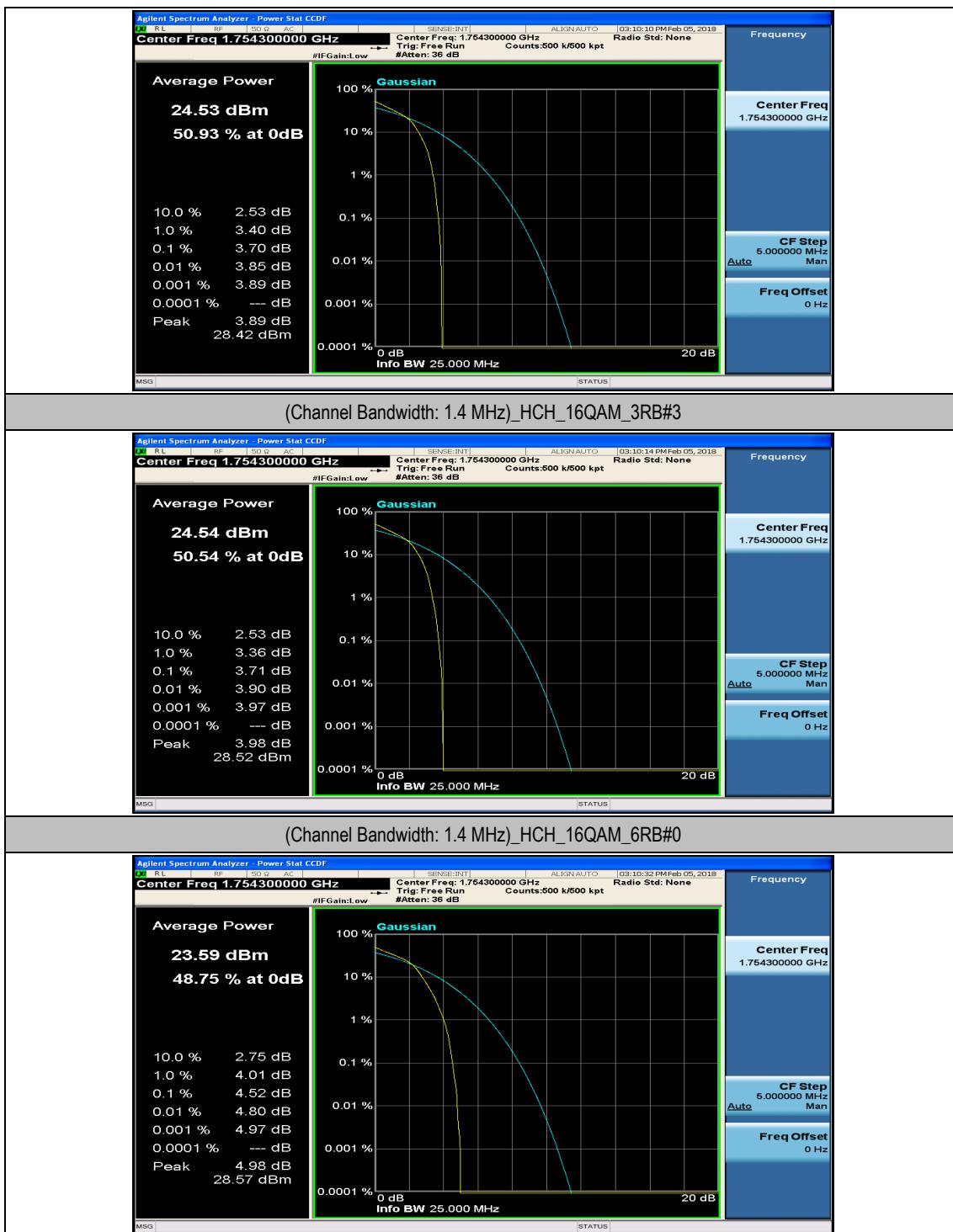




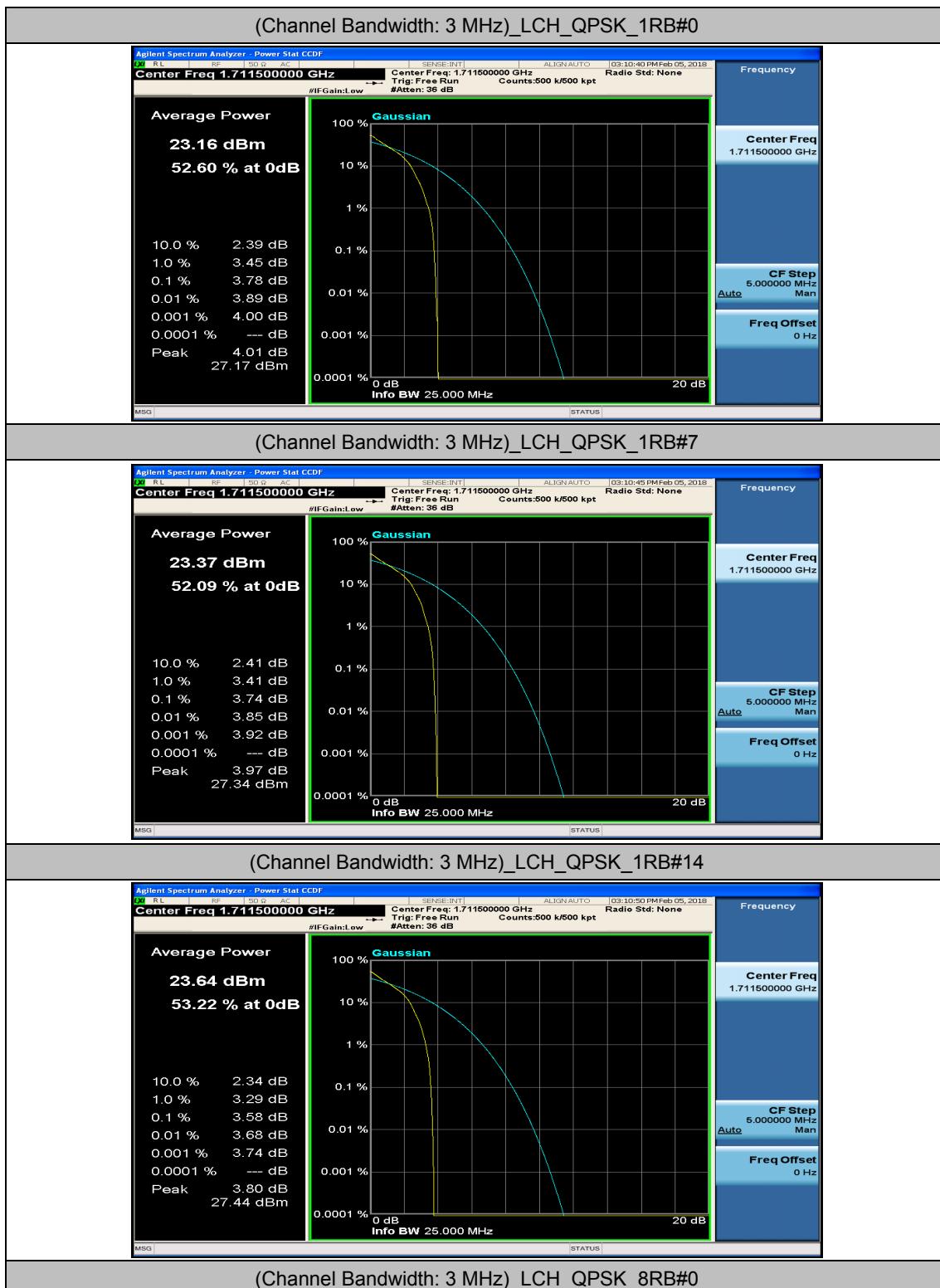


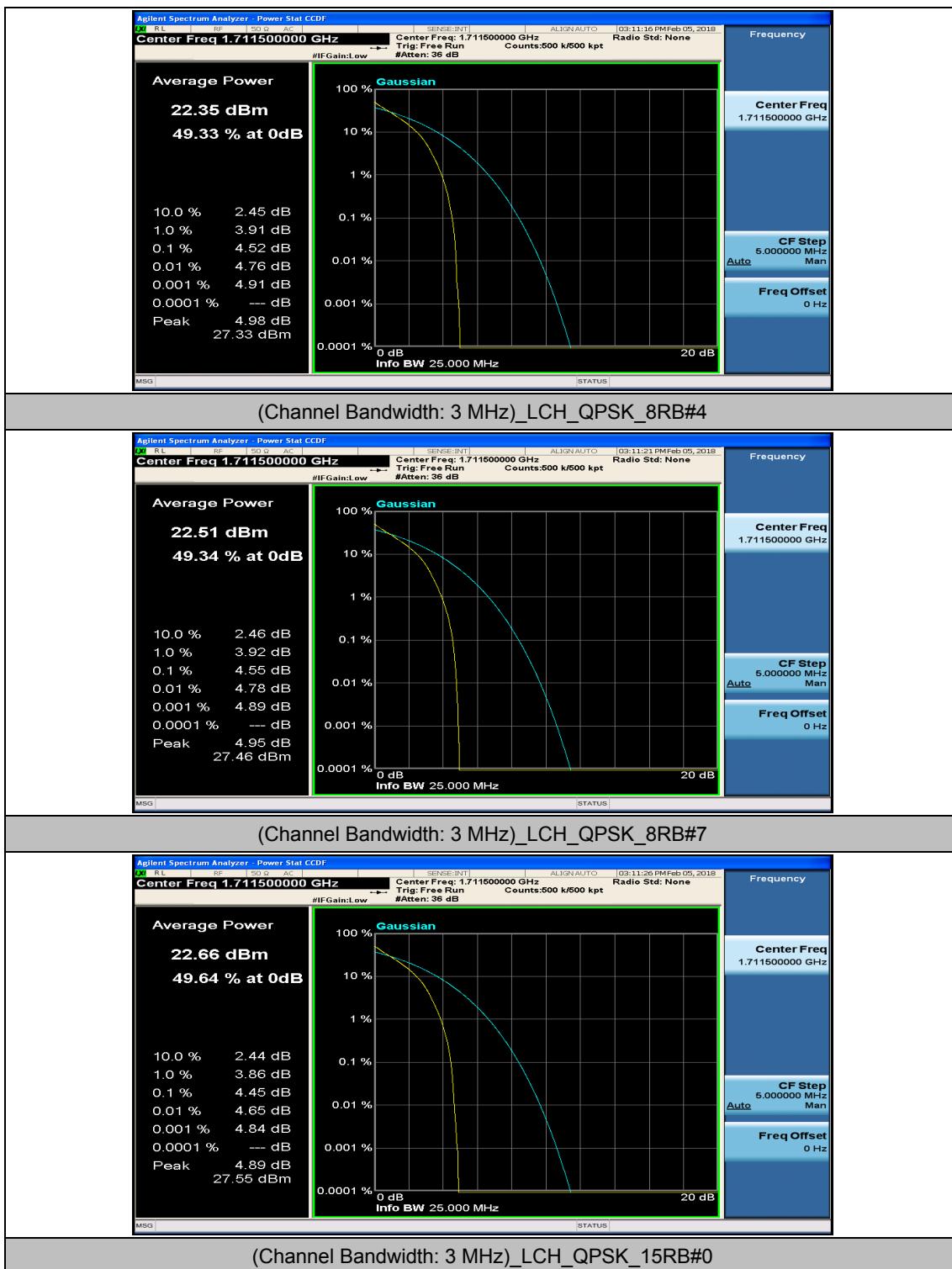


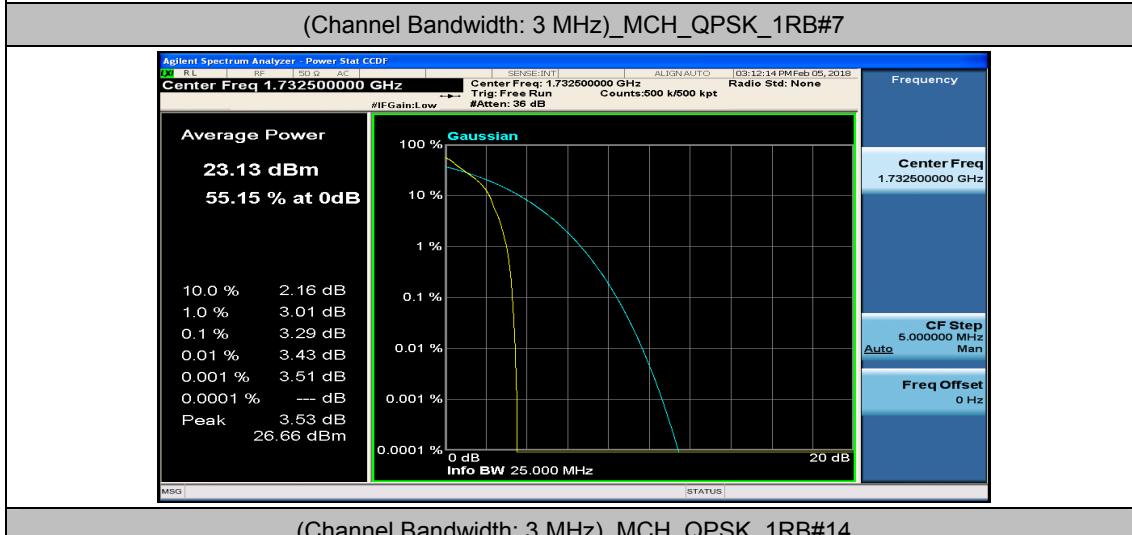
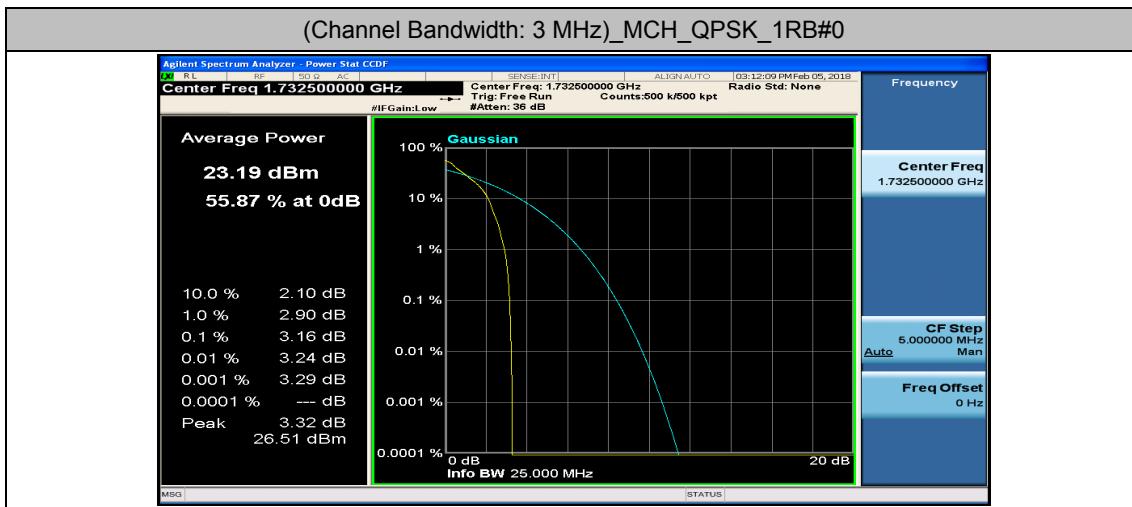
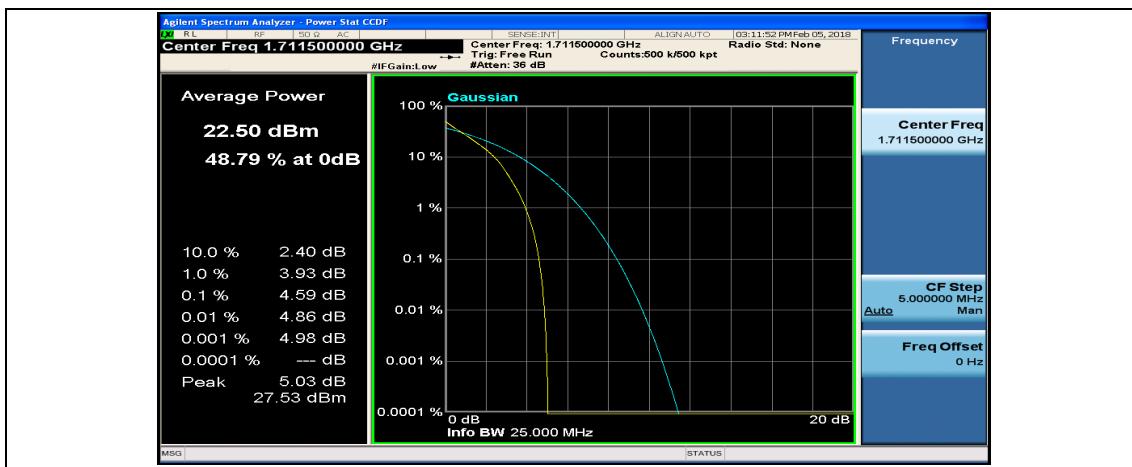


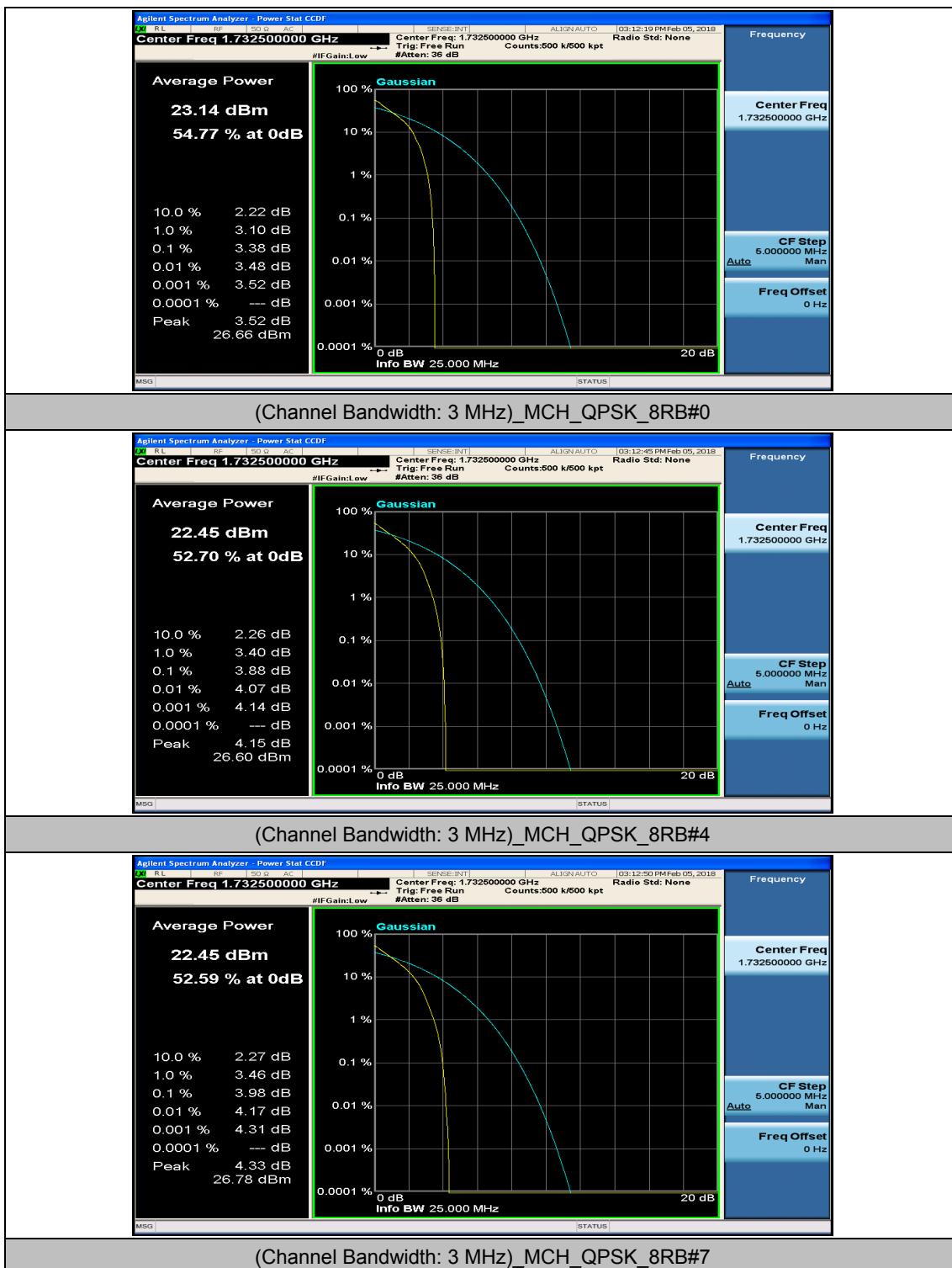


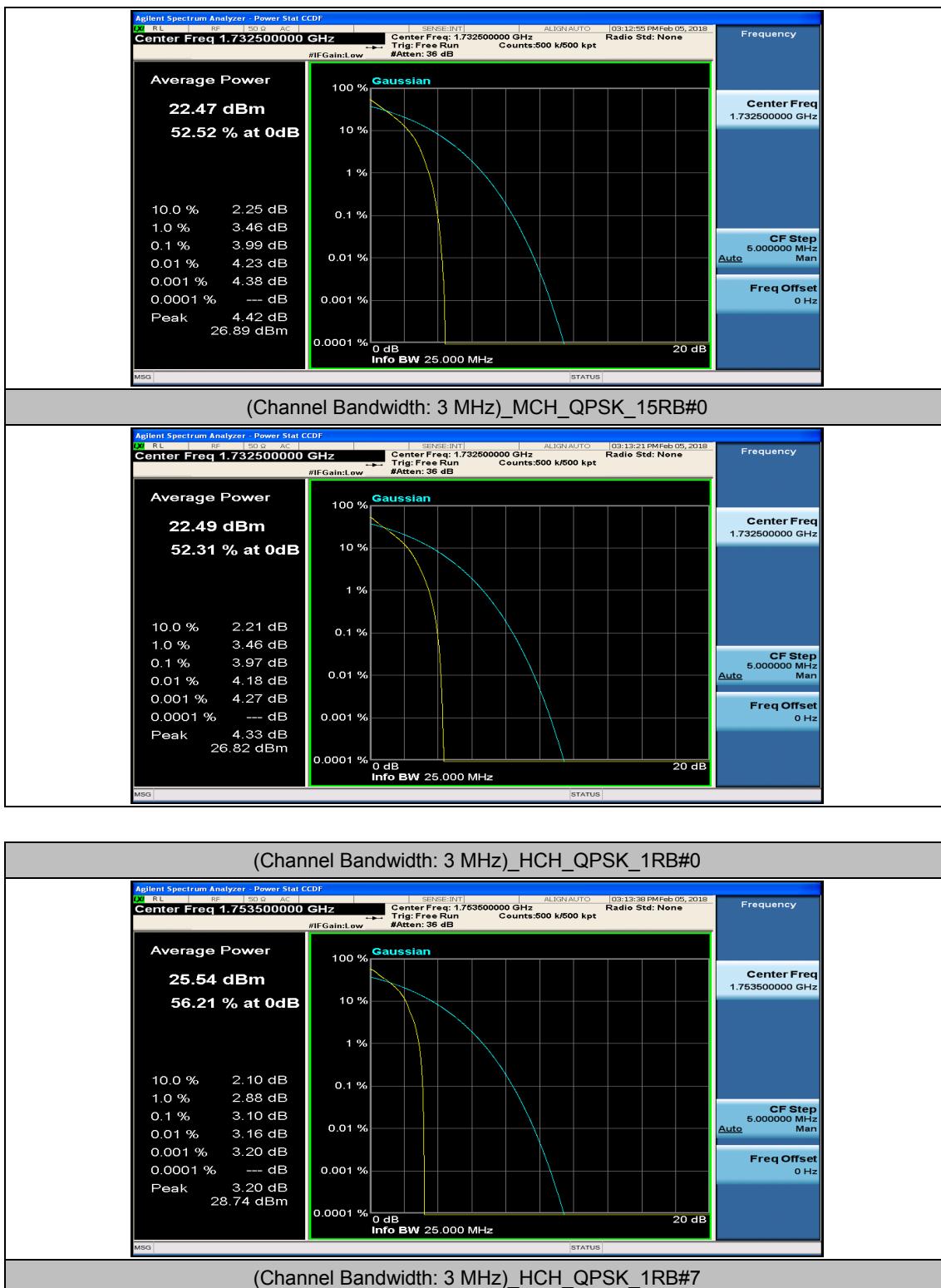
Channel Bandwidth: 3 MHz

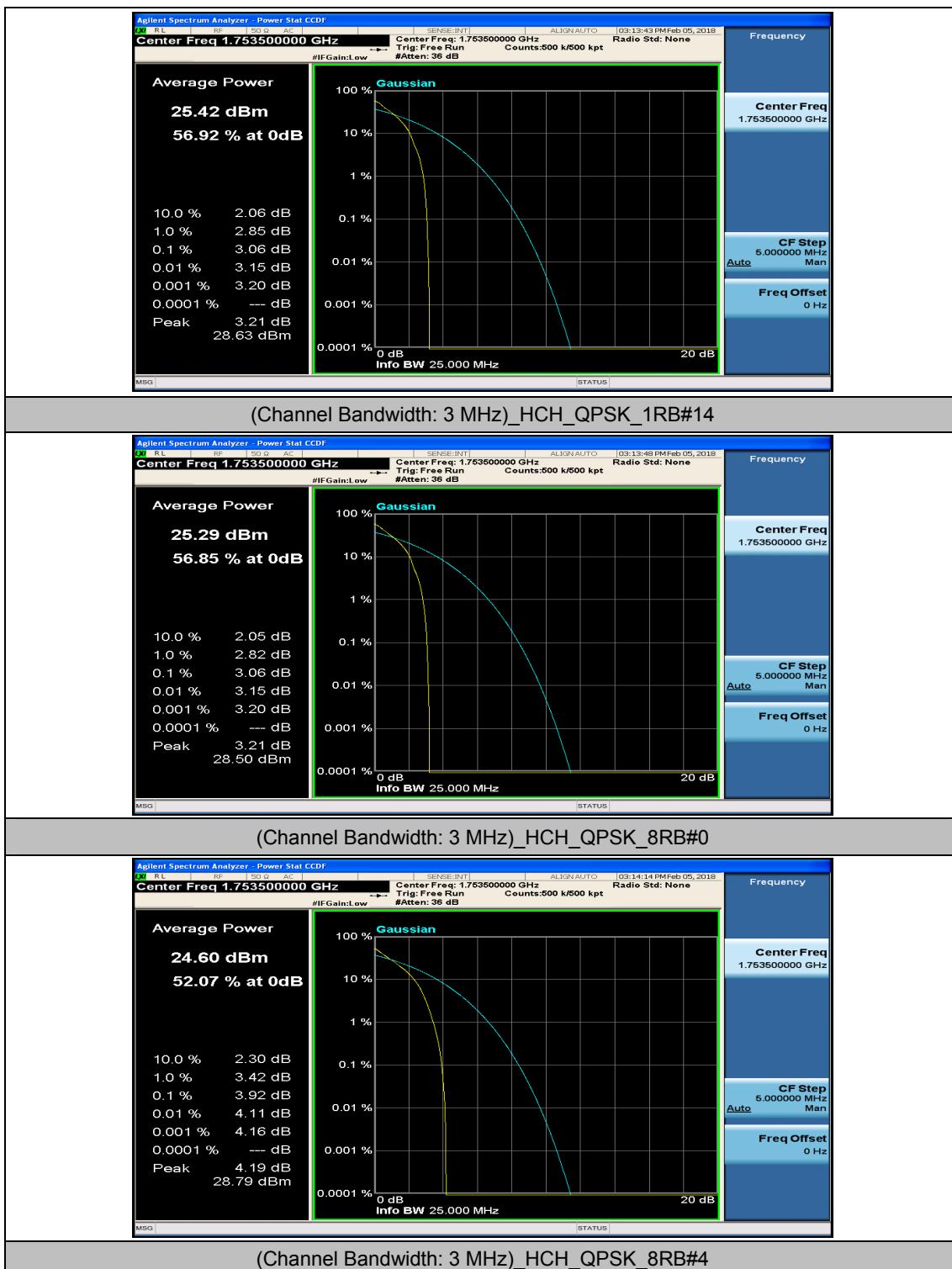


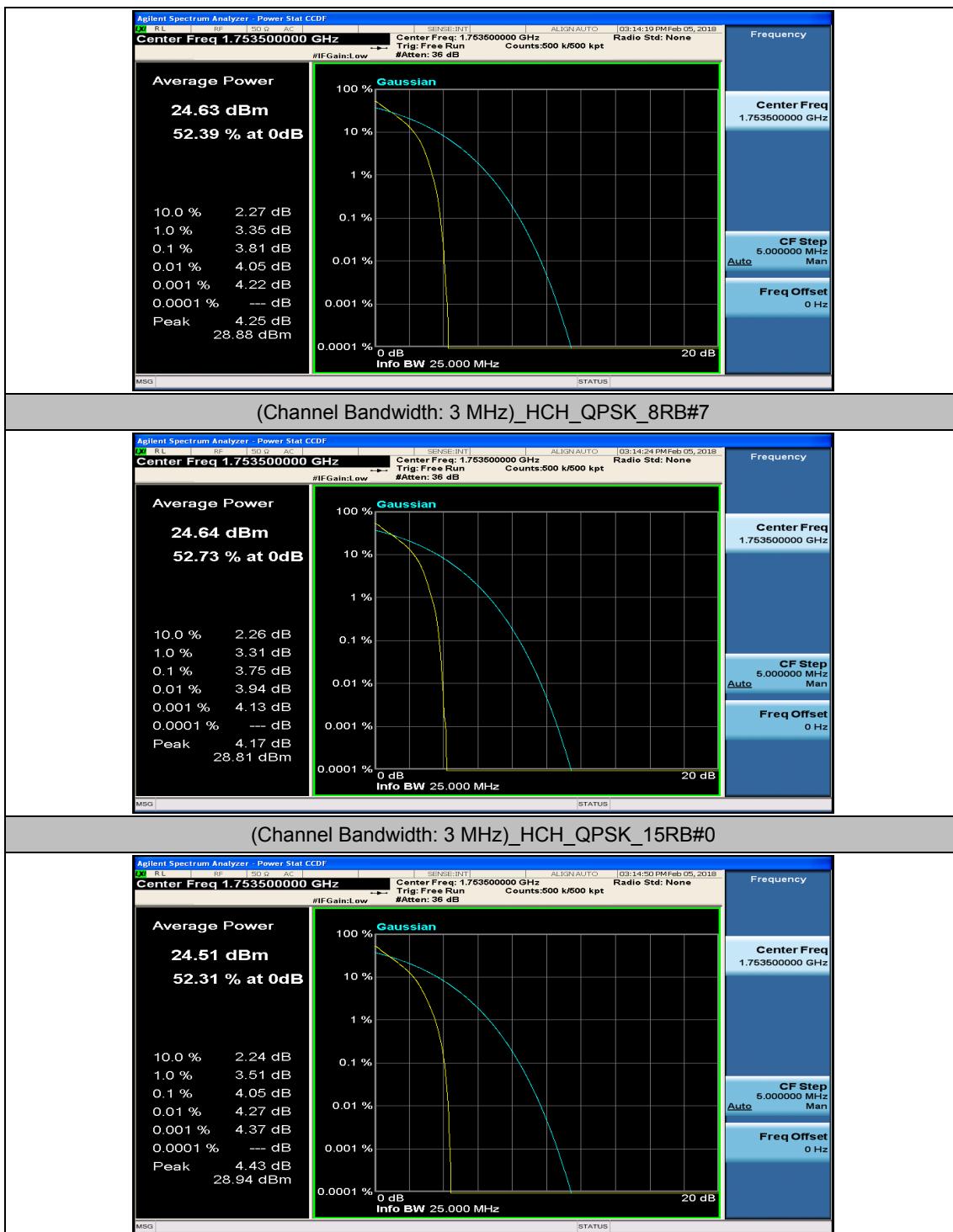


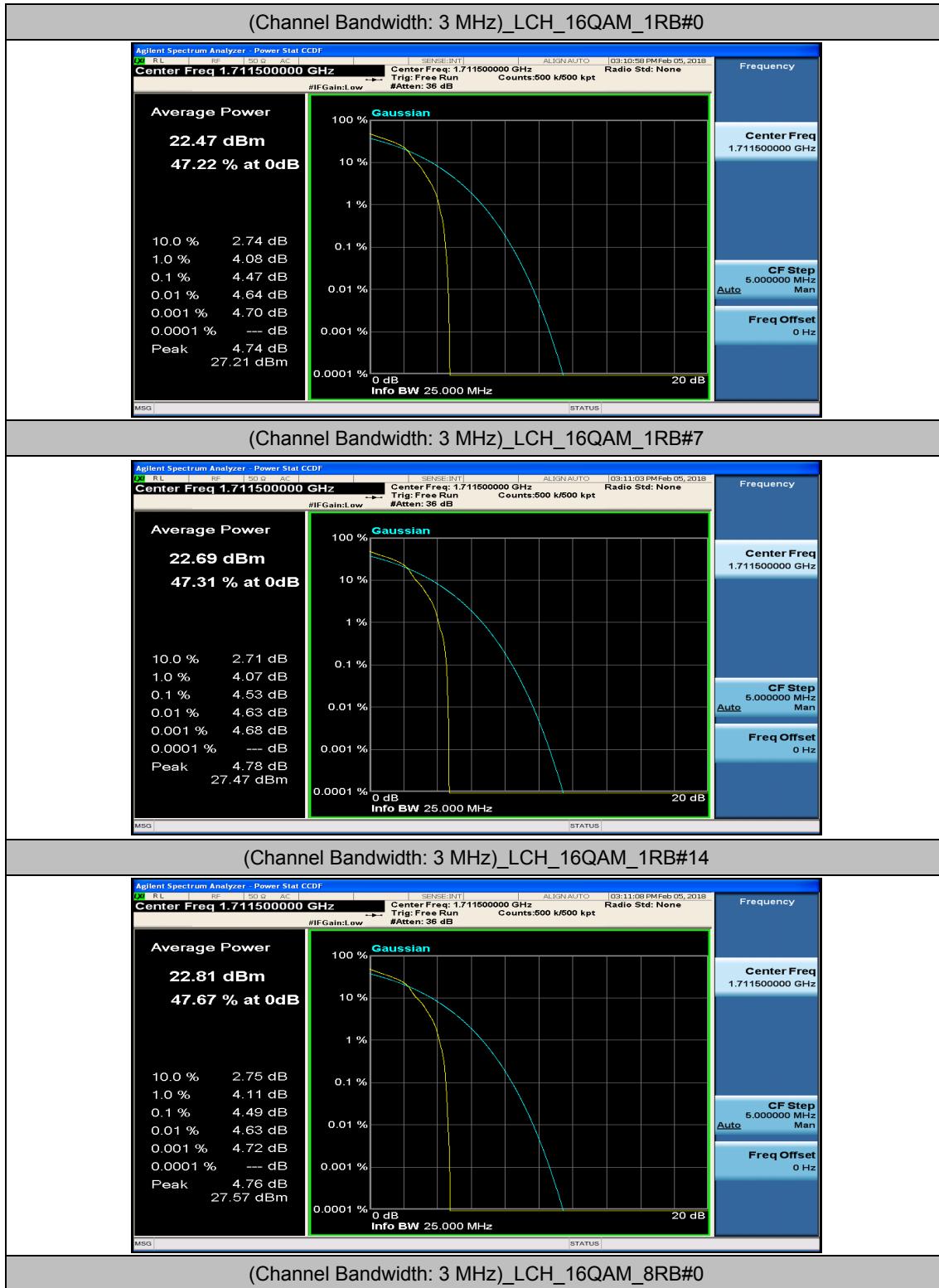


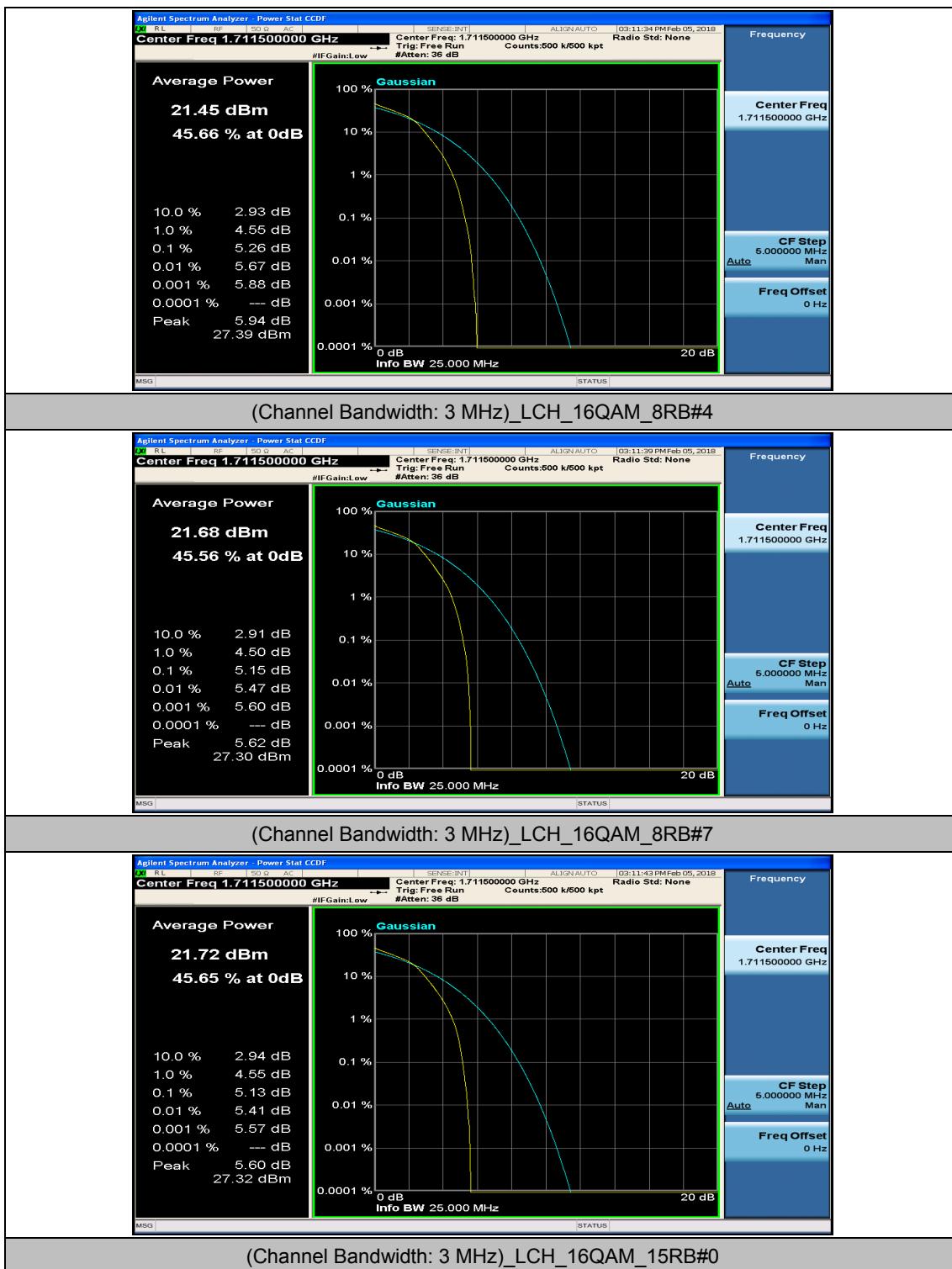


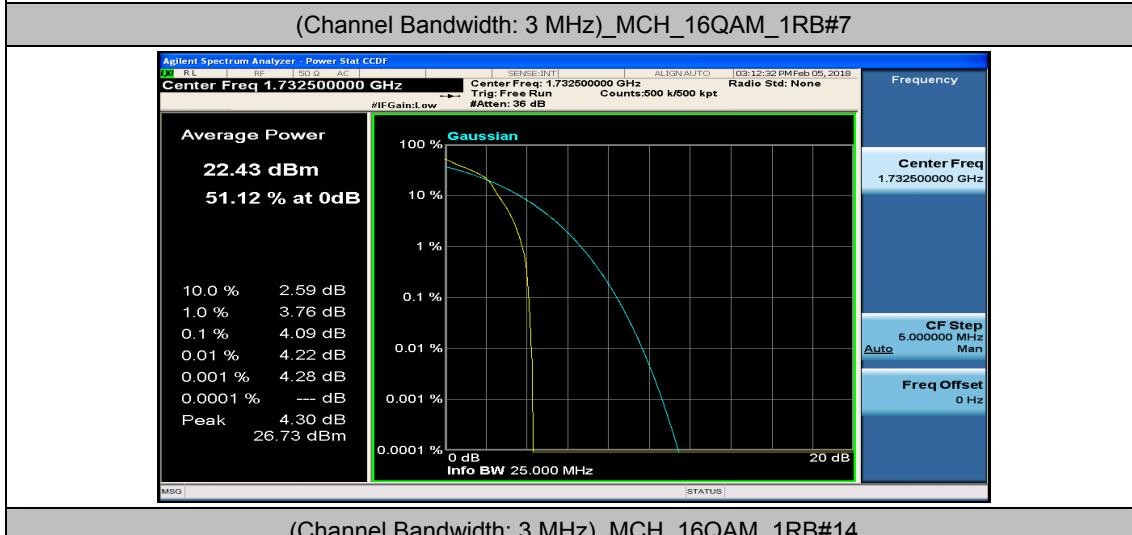
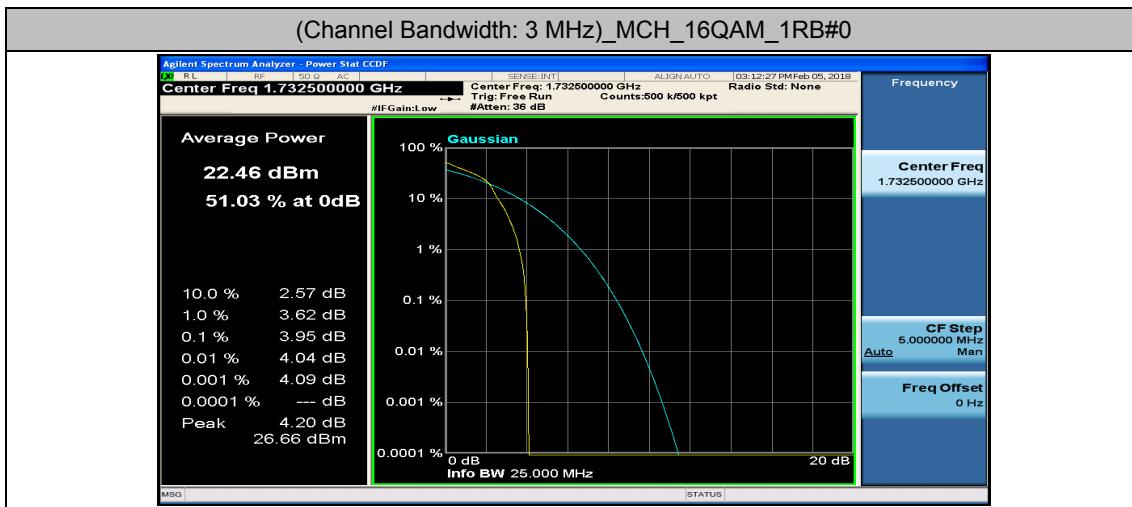


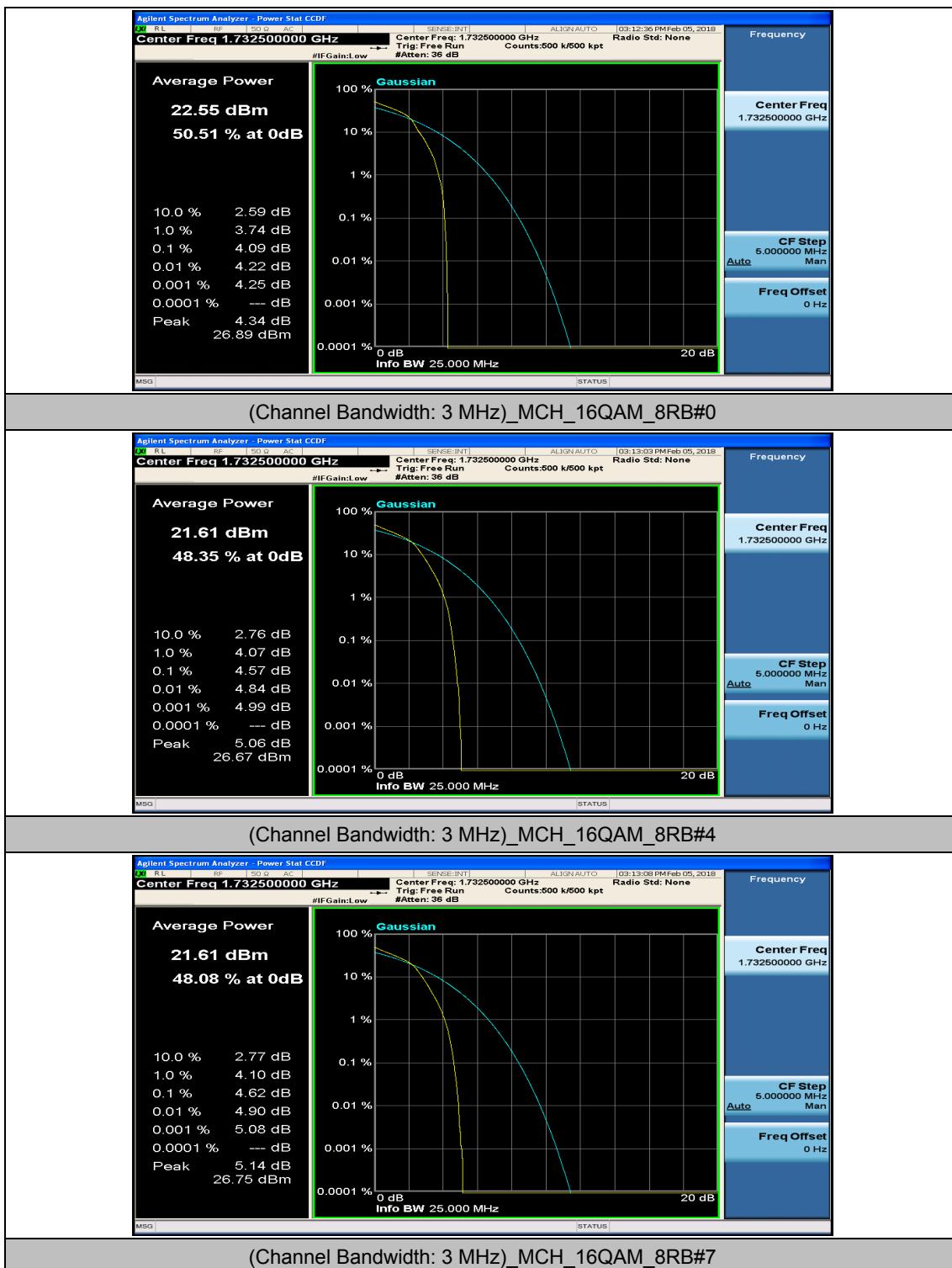


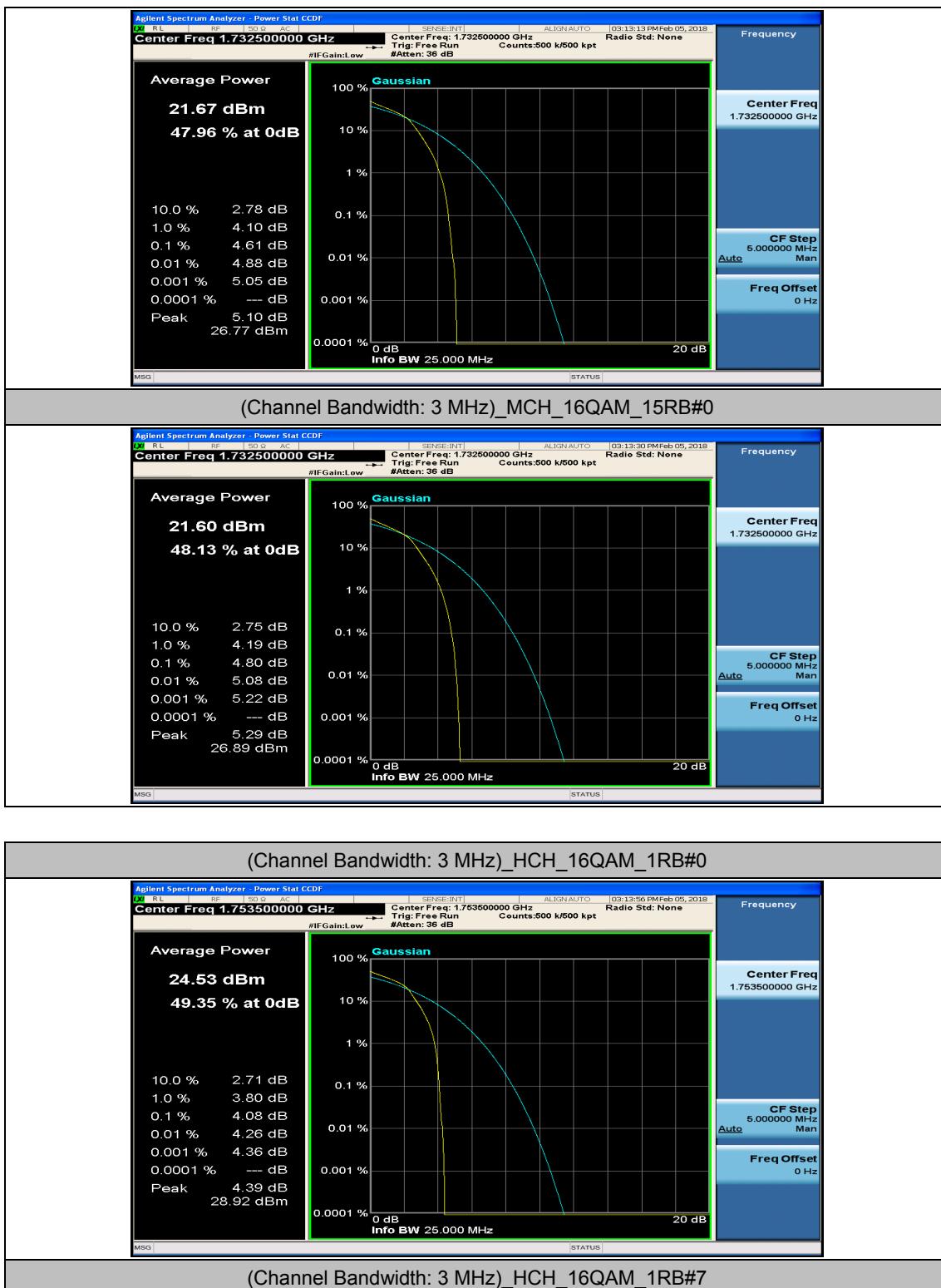


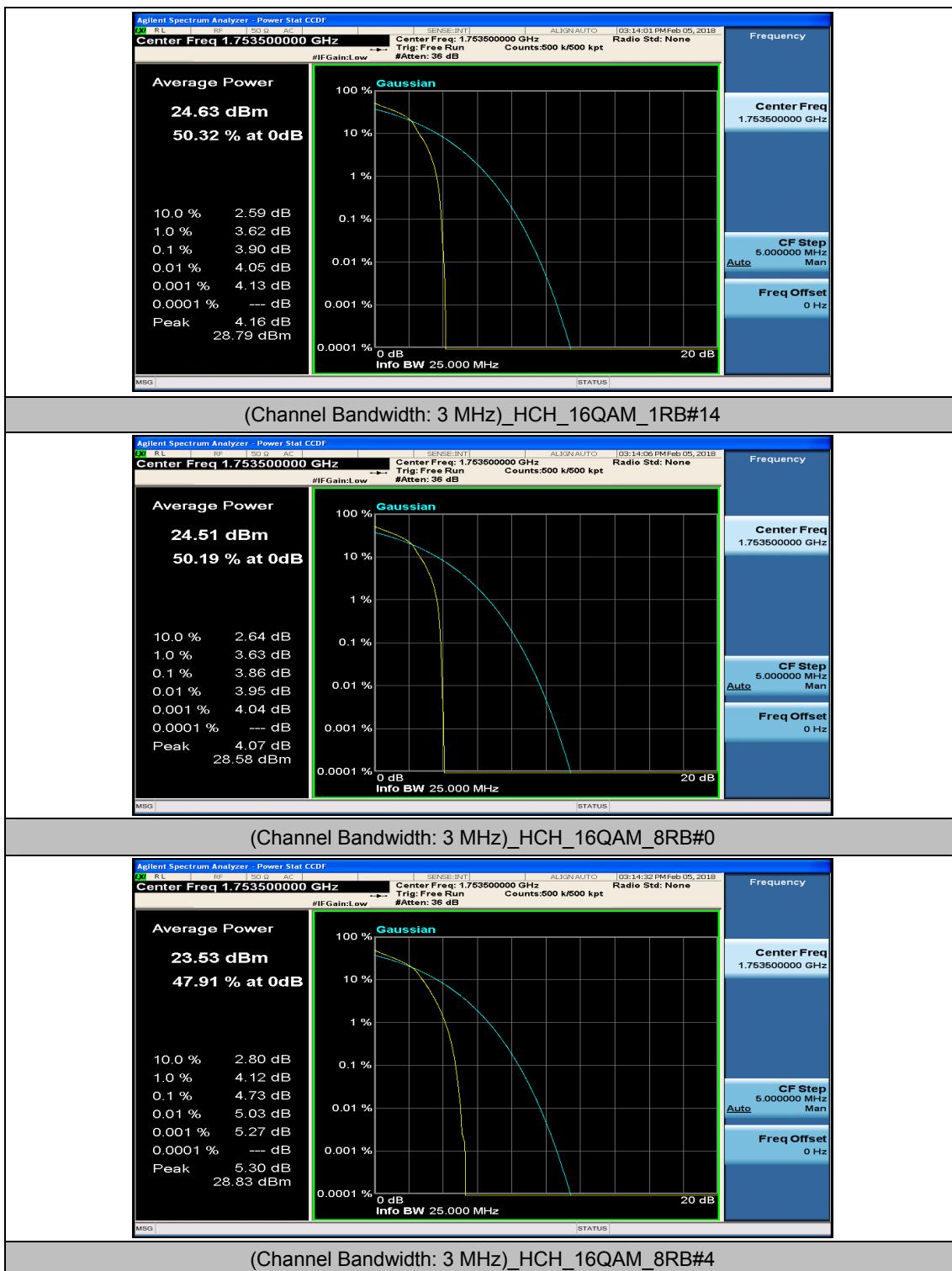


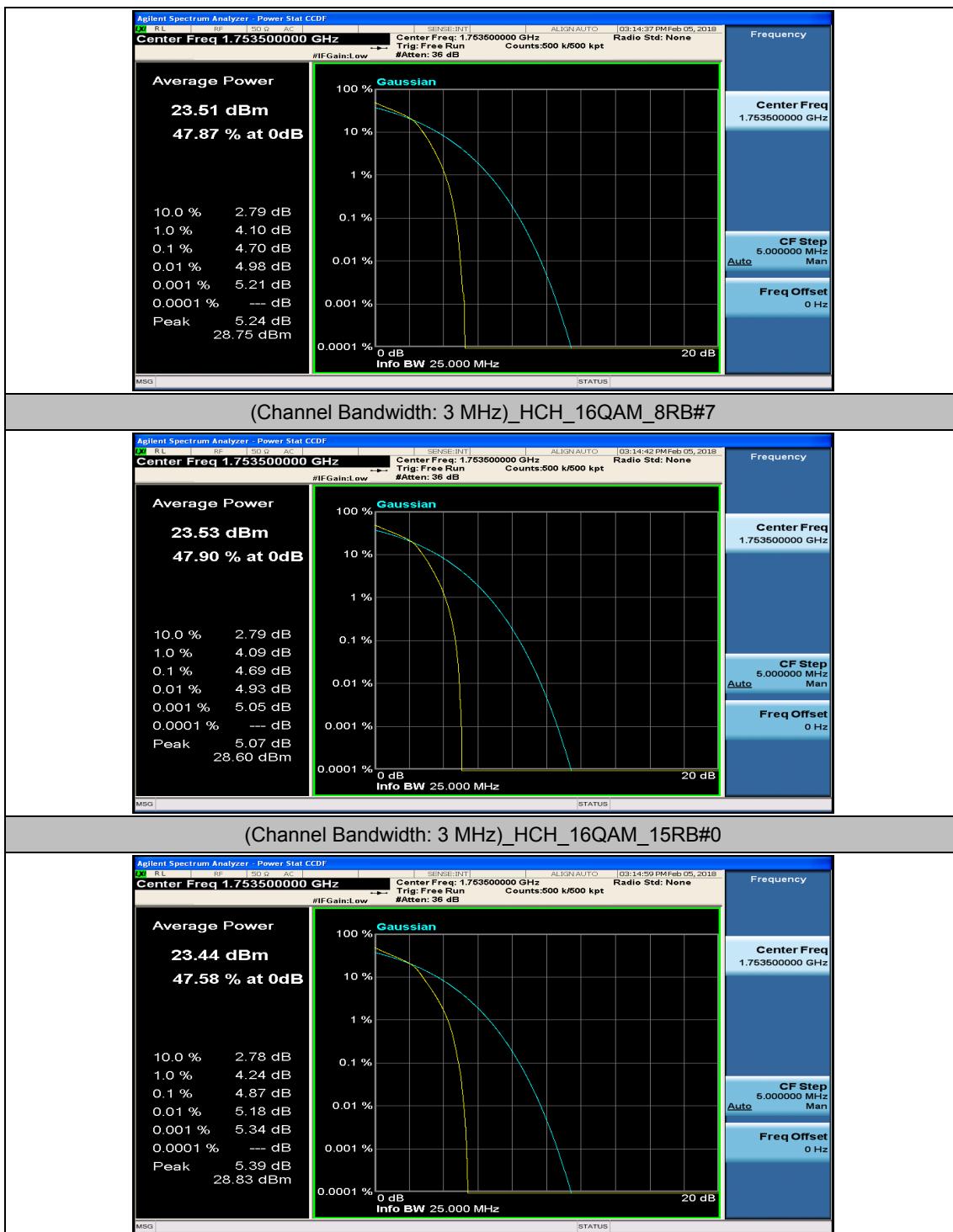


**(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#14**

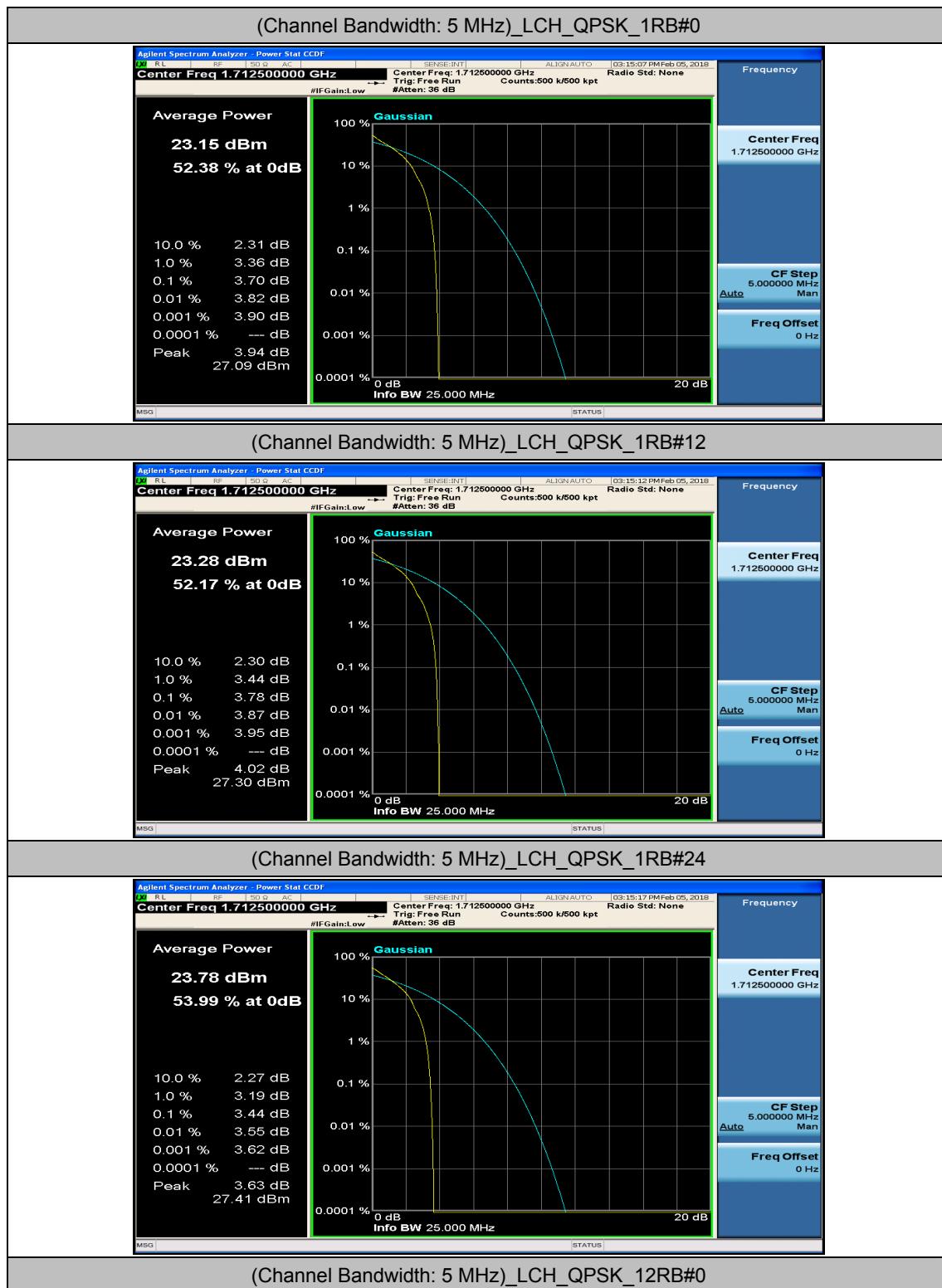


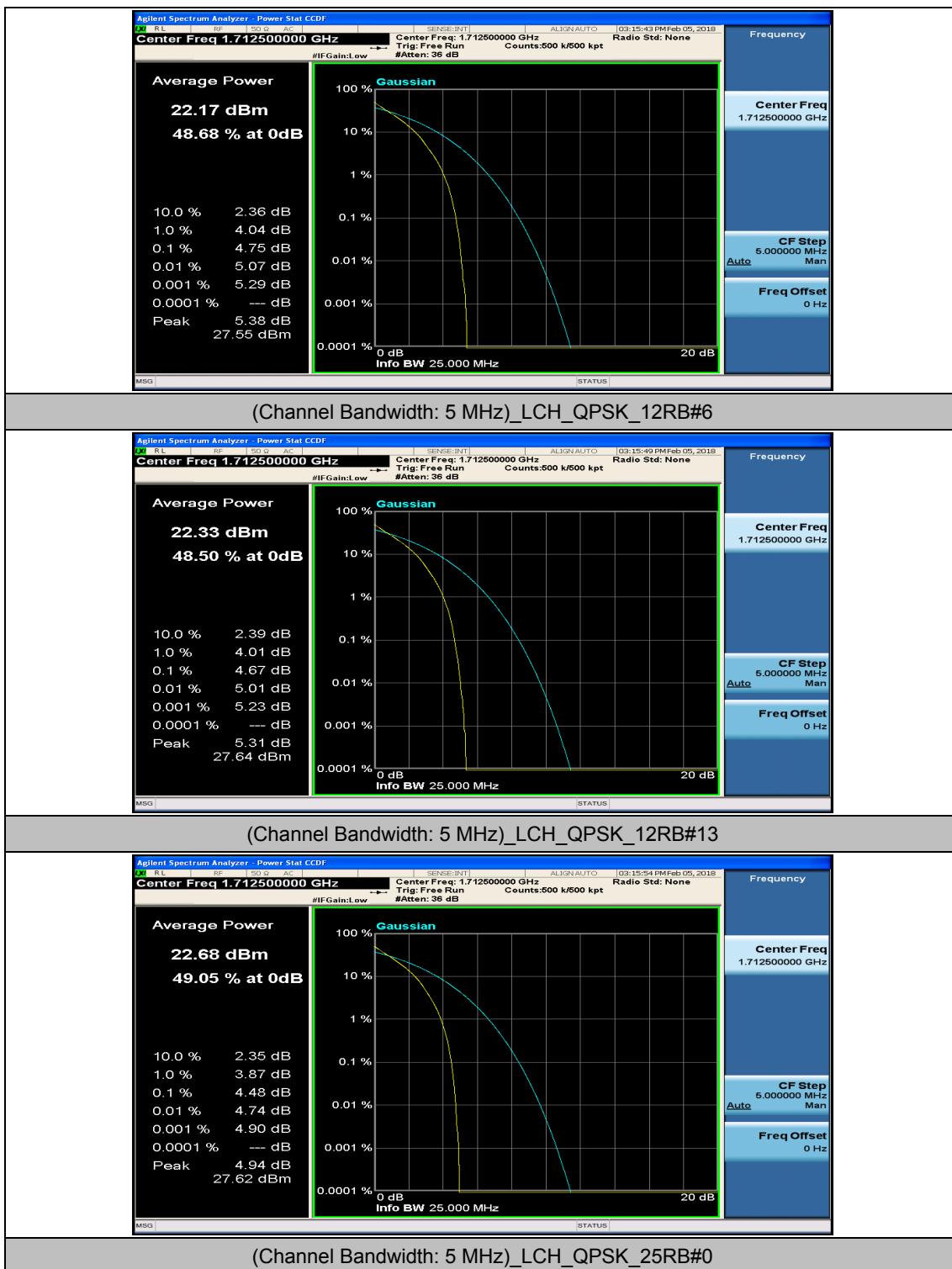


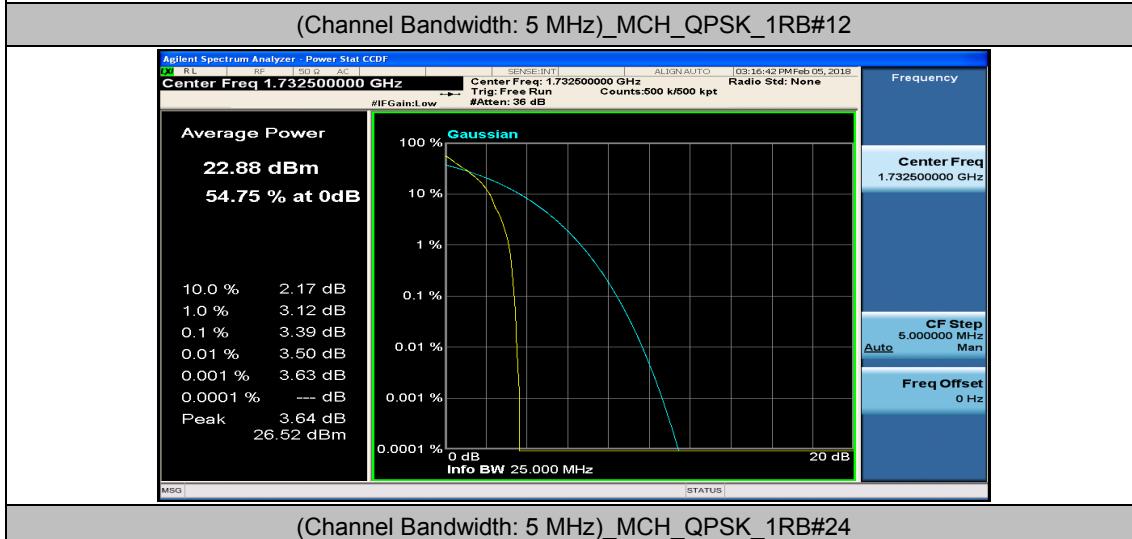
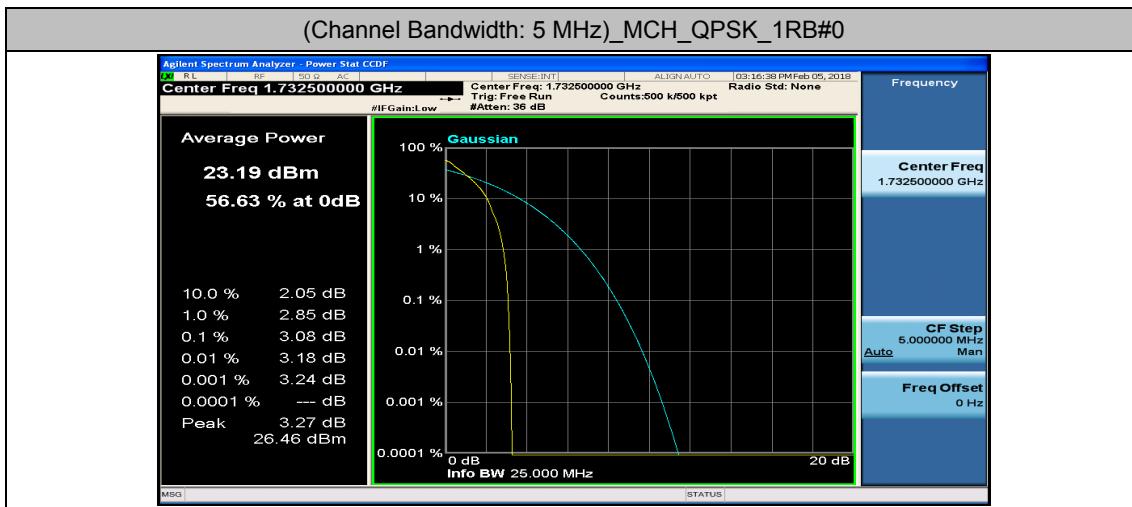
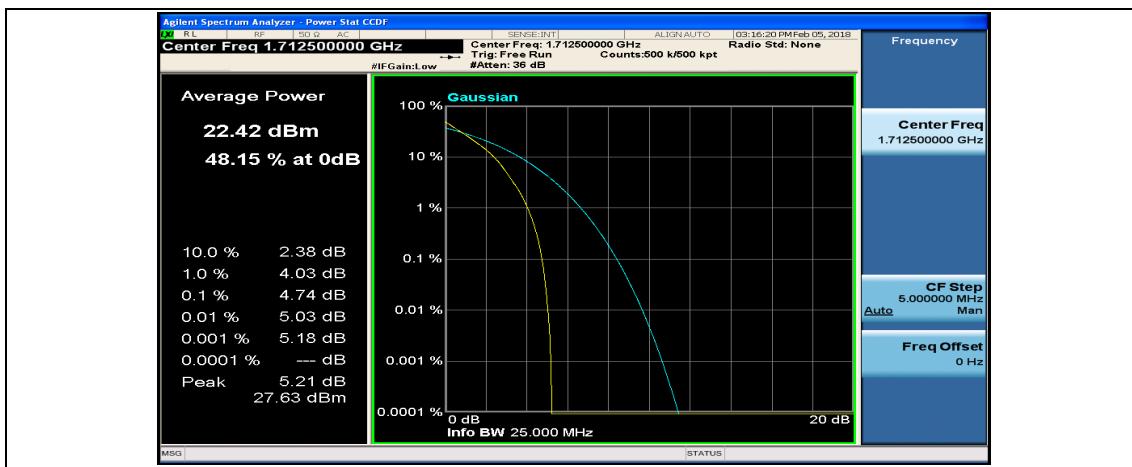




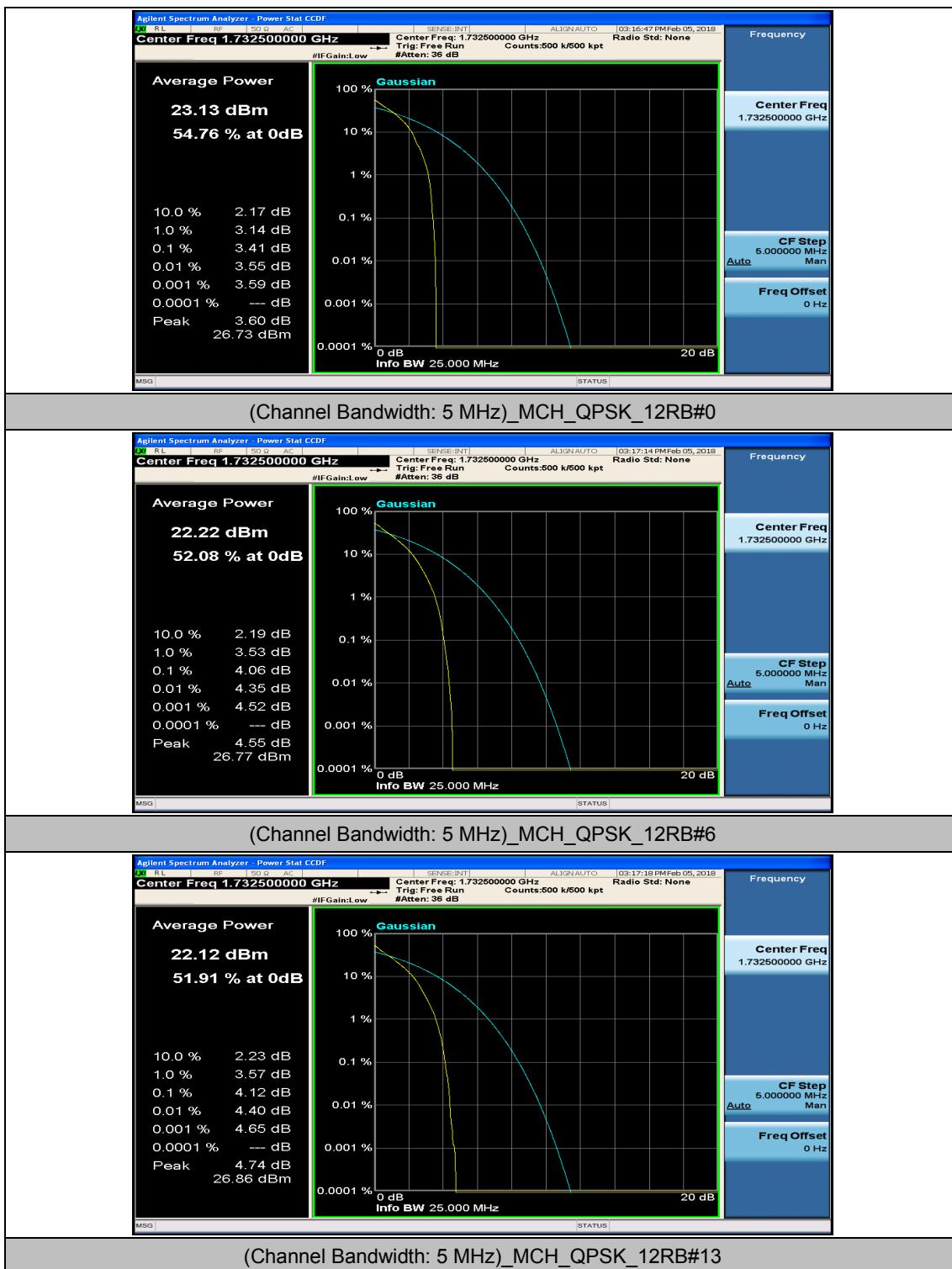
Channel Bandwidth: 5 MHz

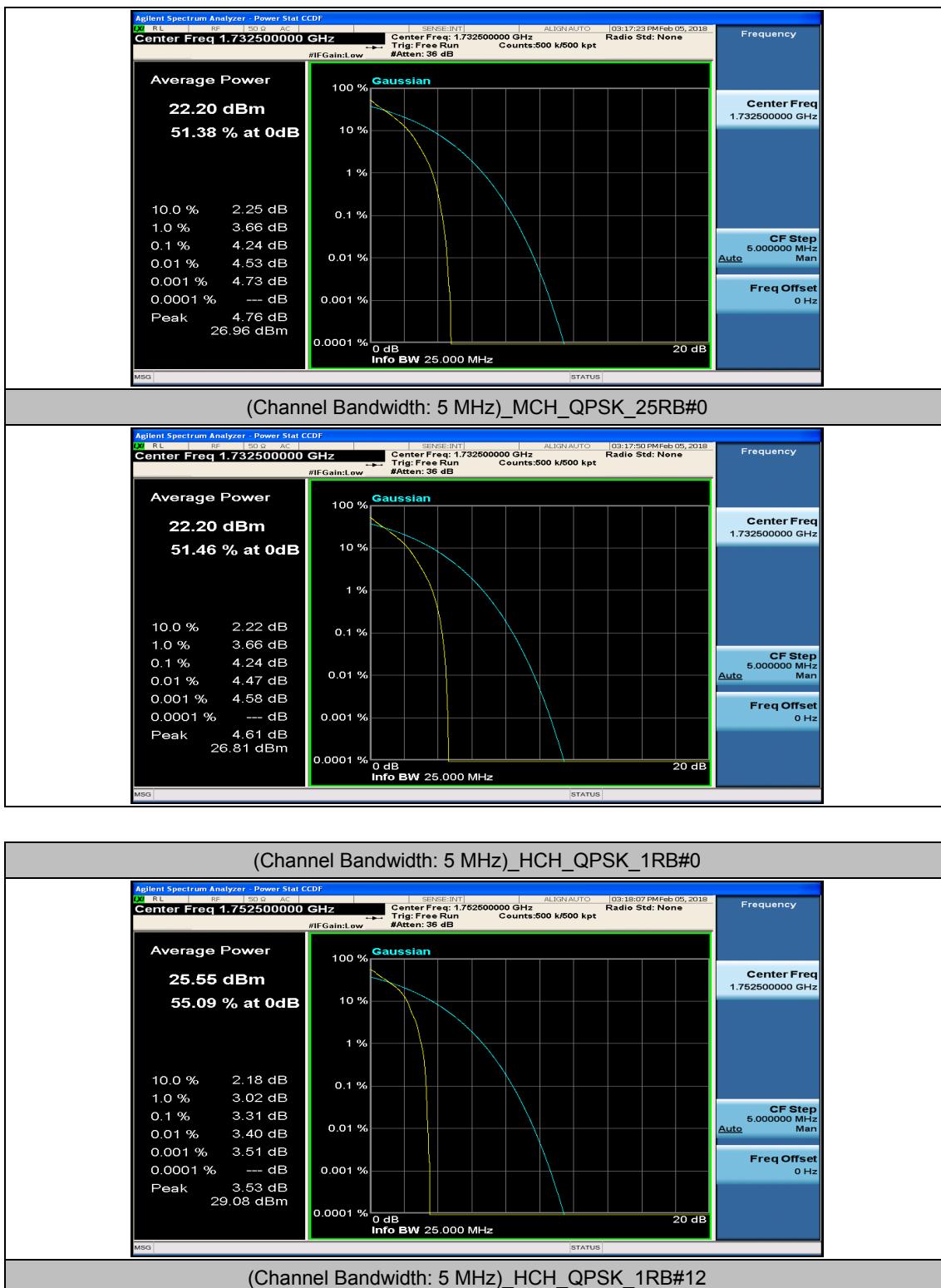


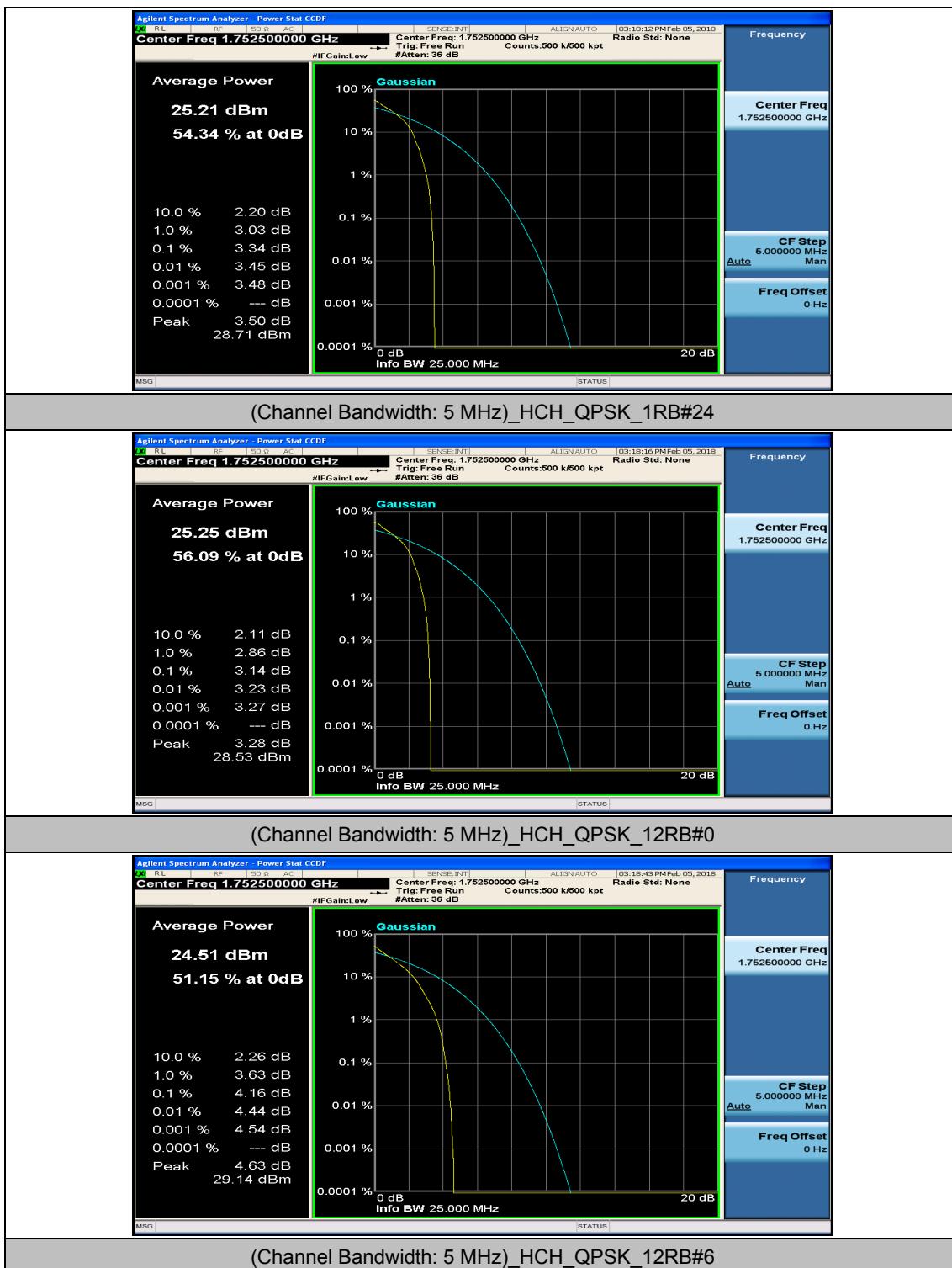


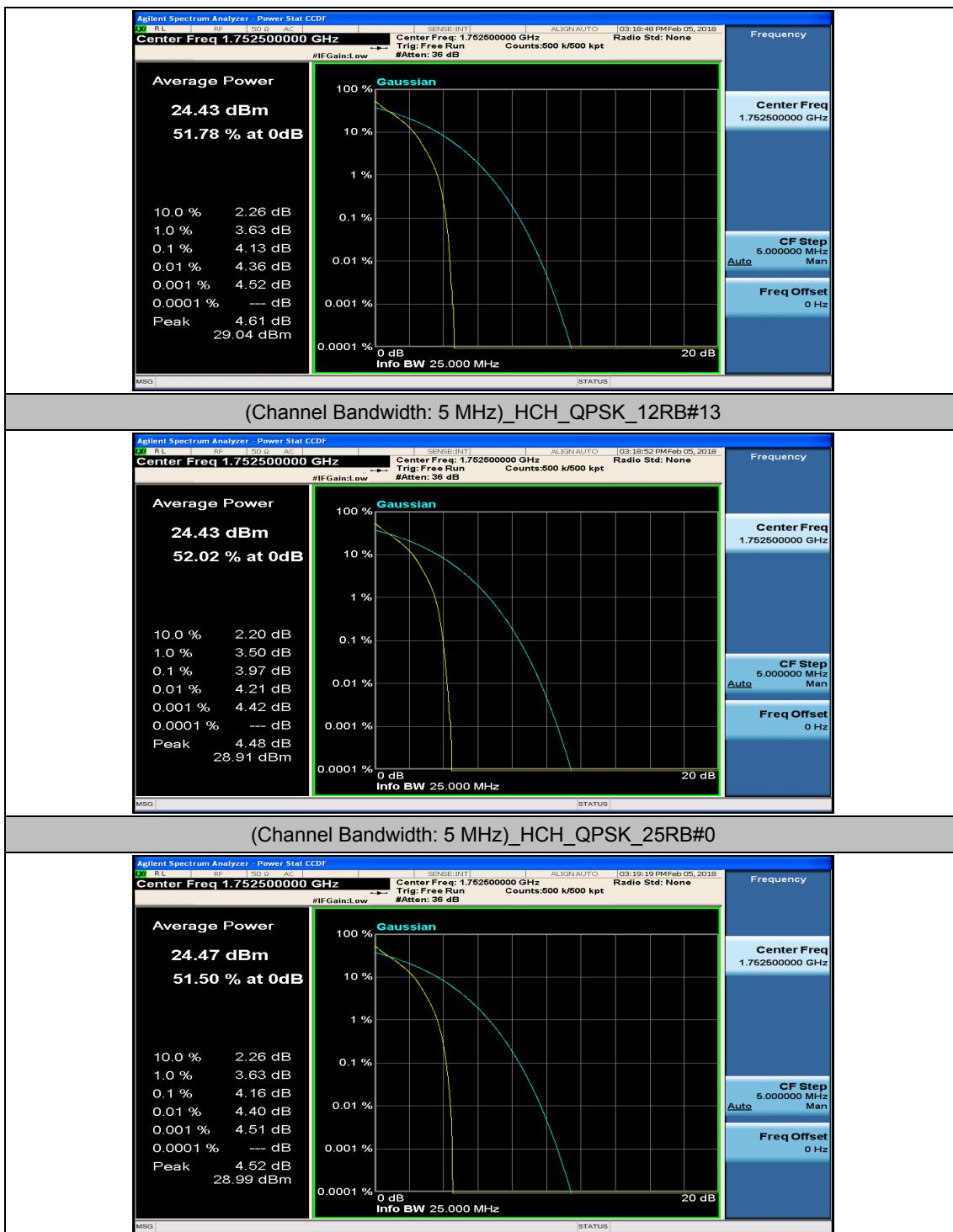


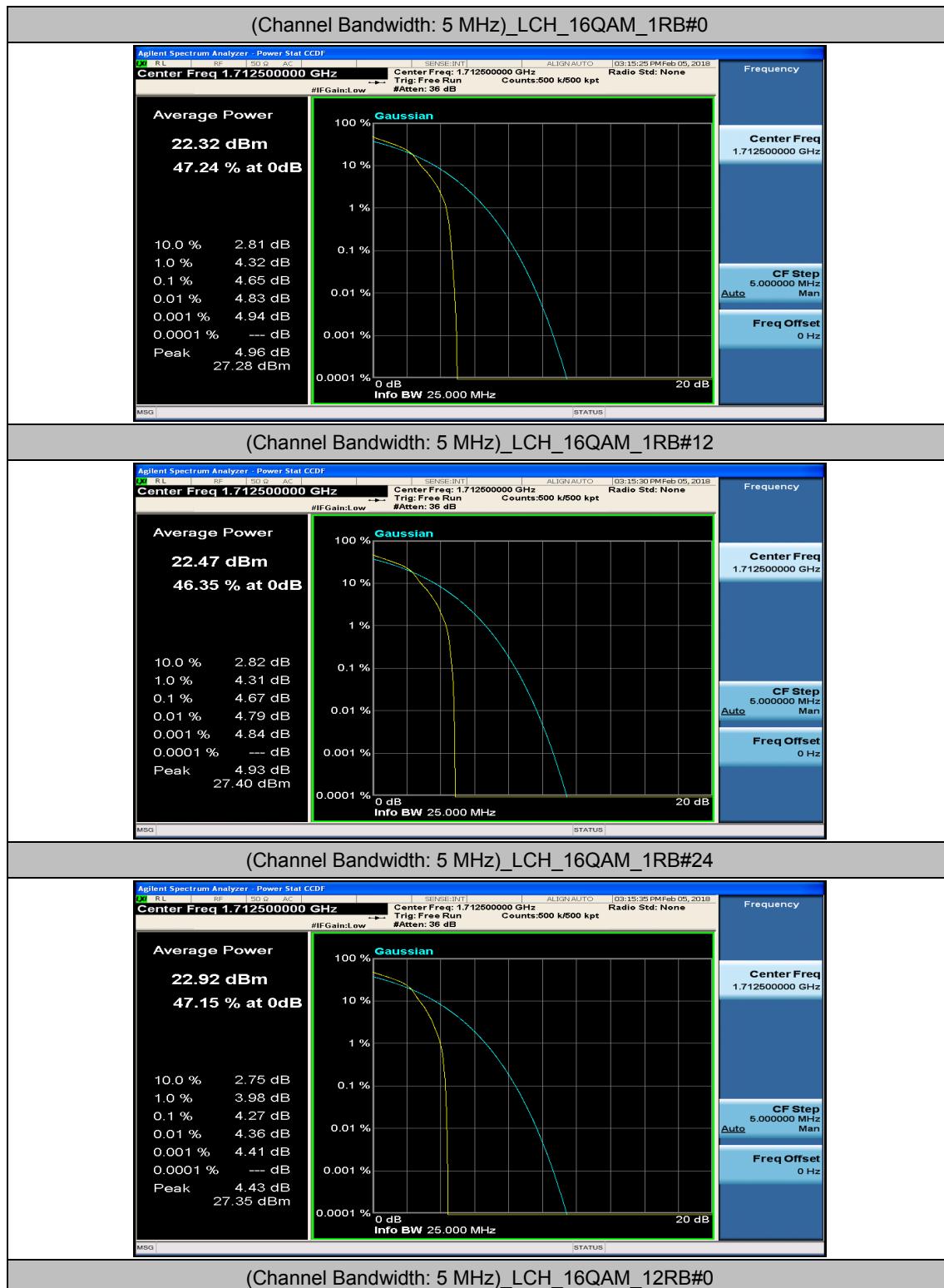
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24

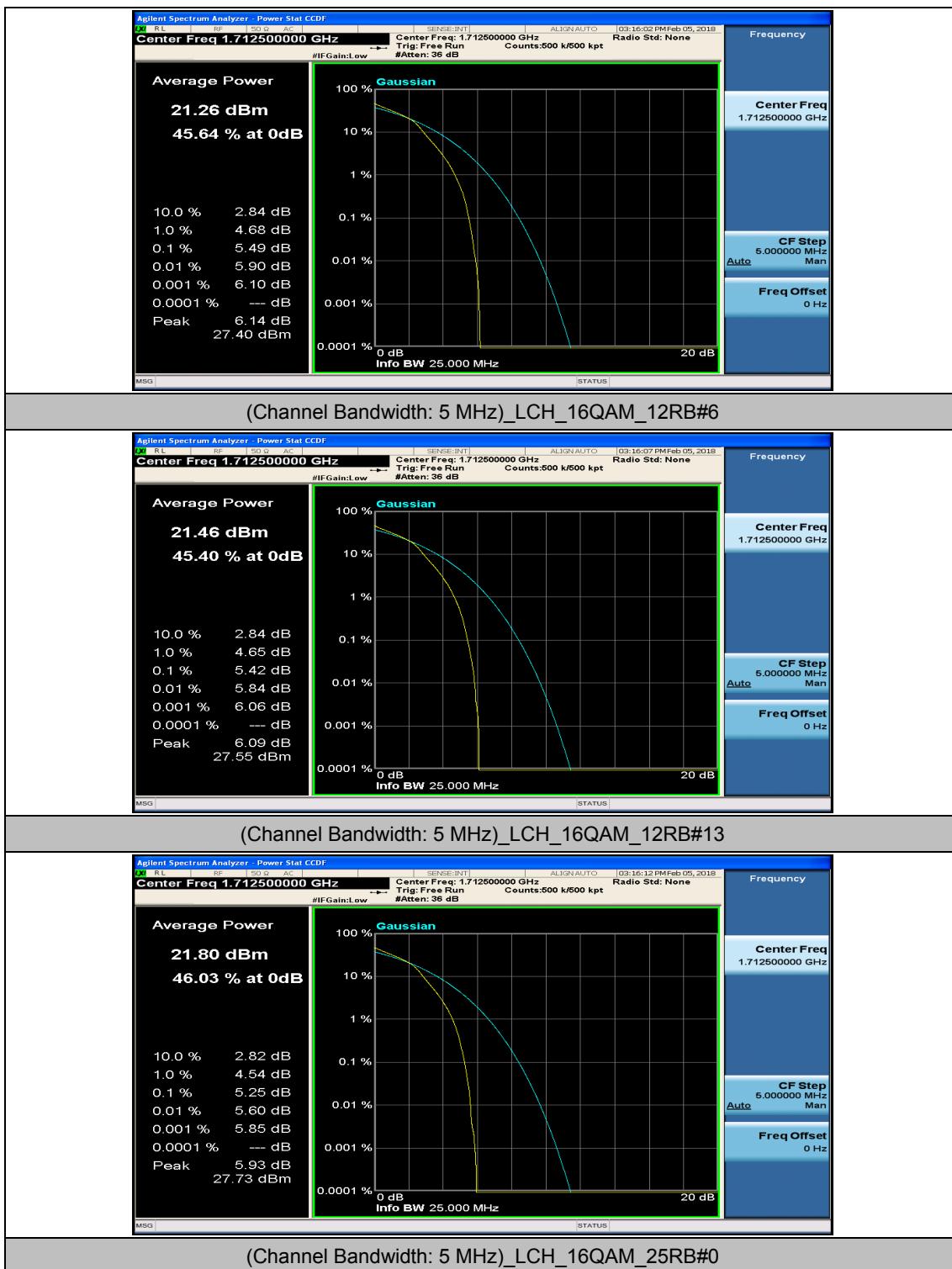


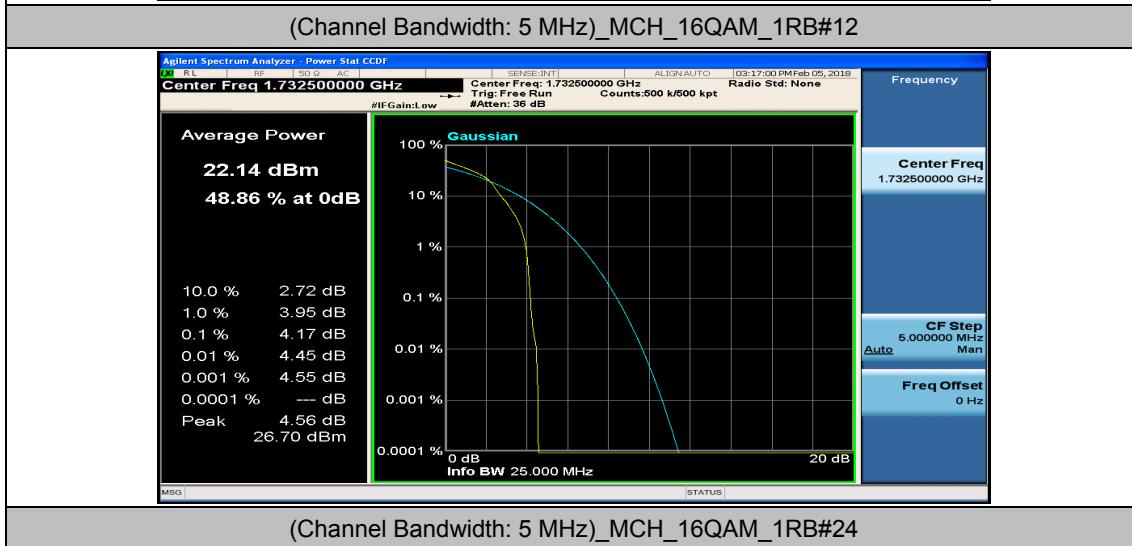
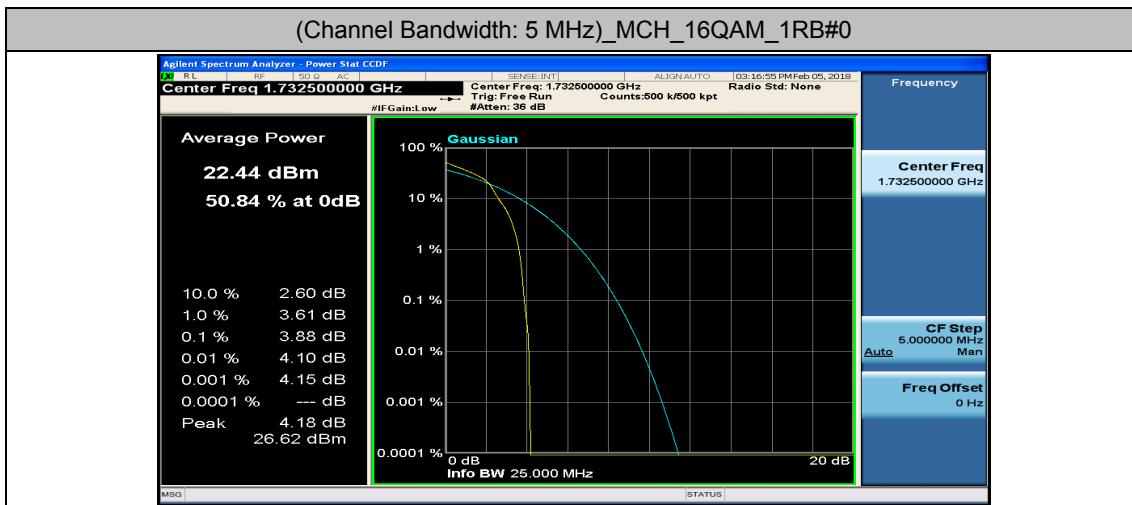
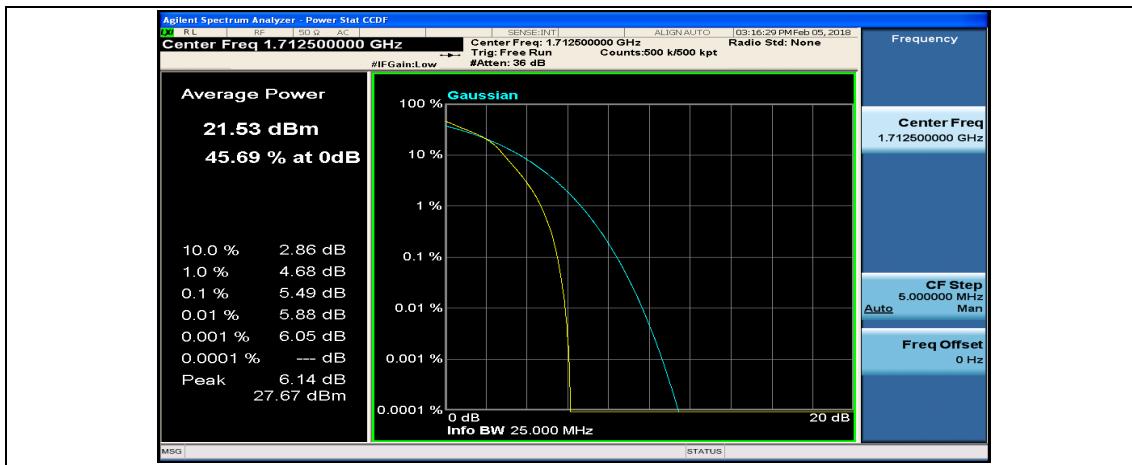




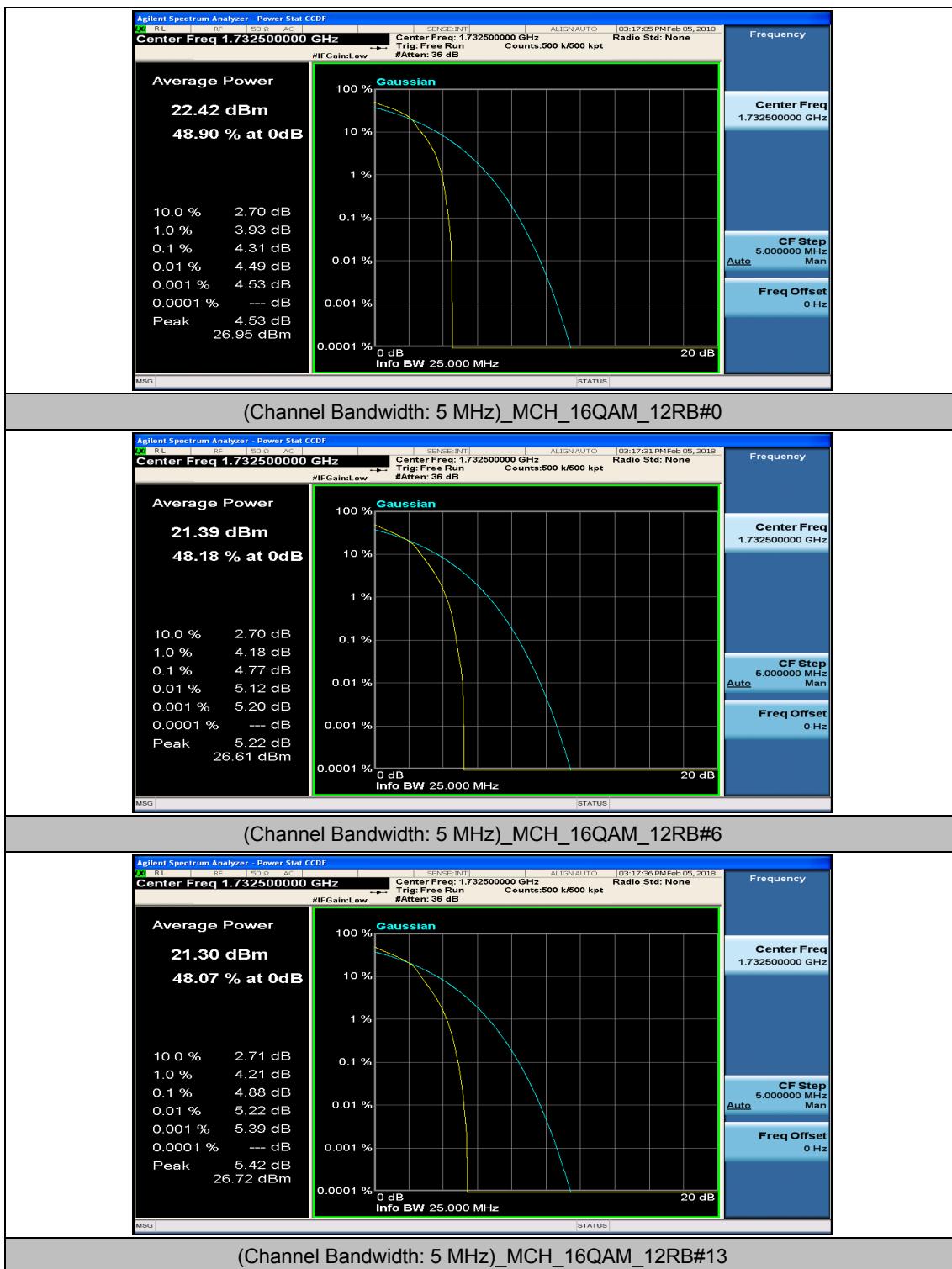


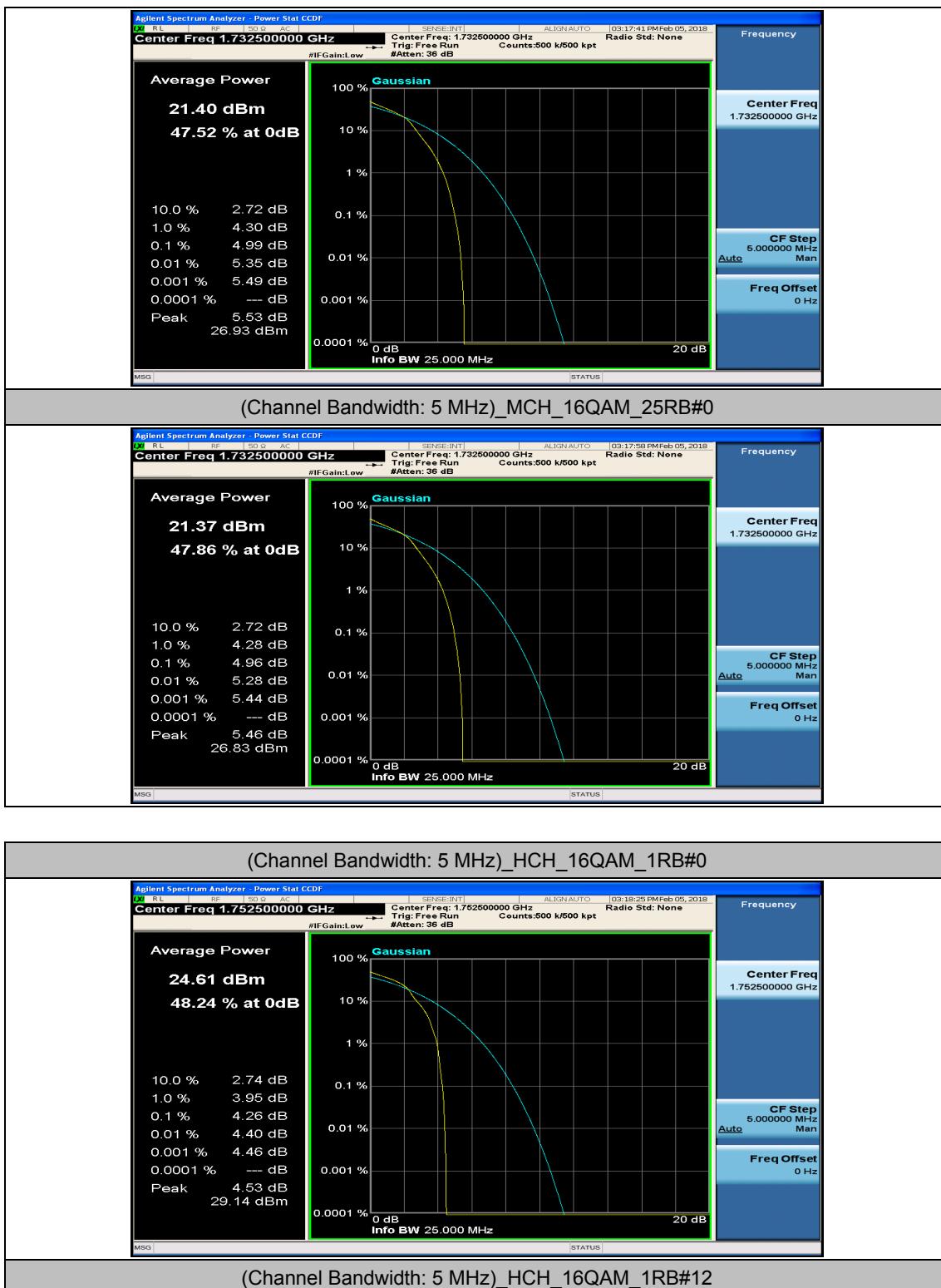


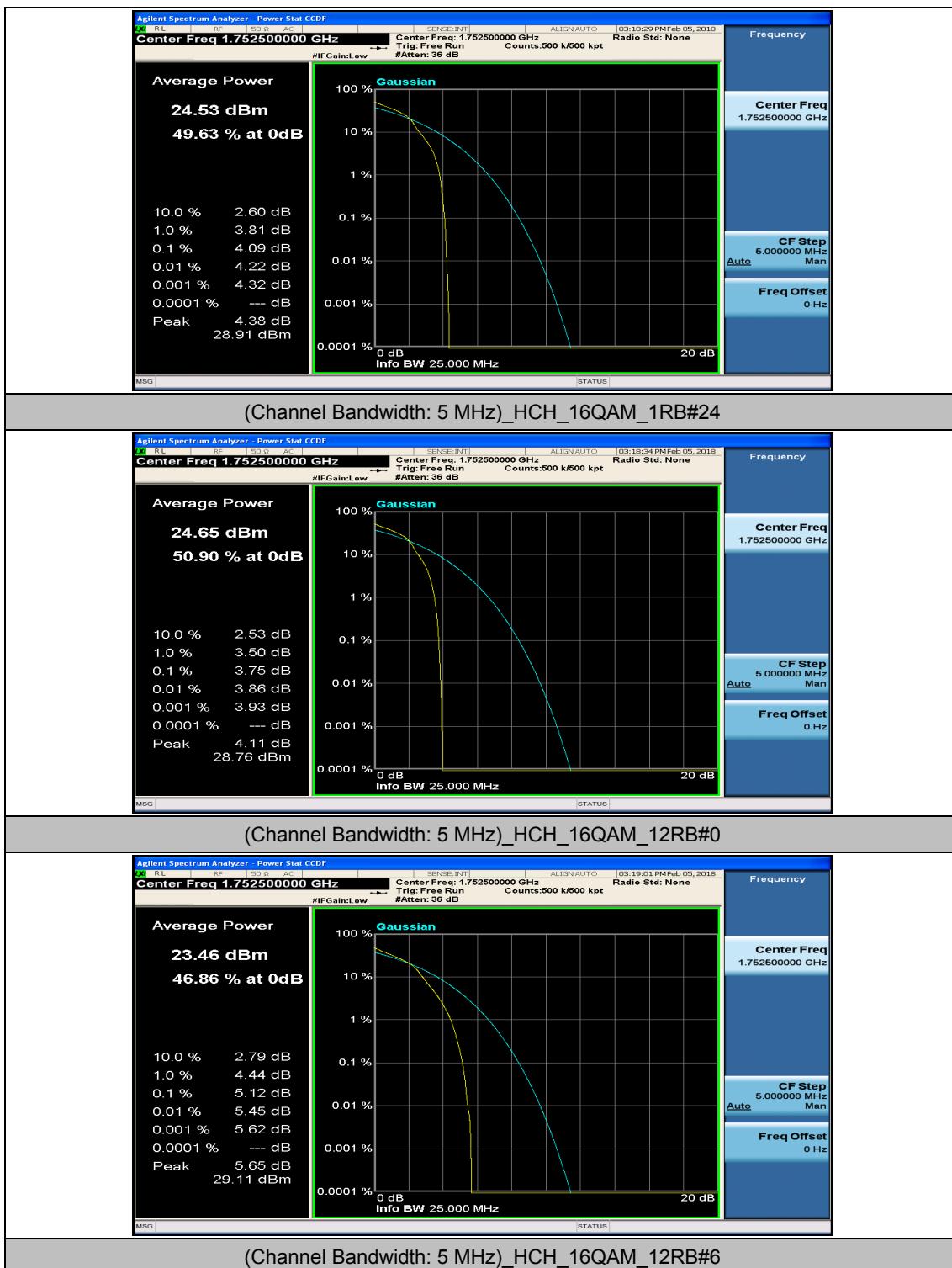


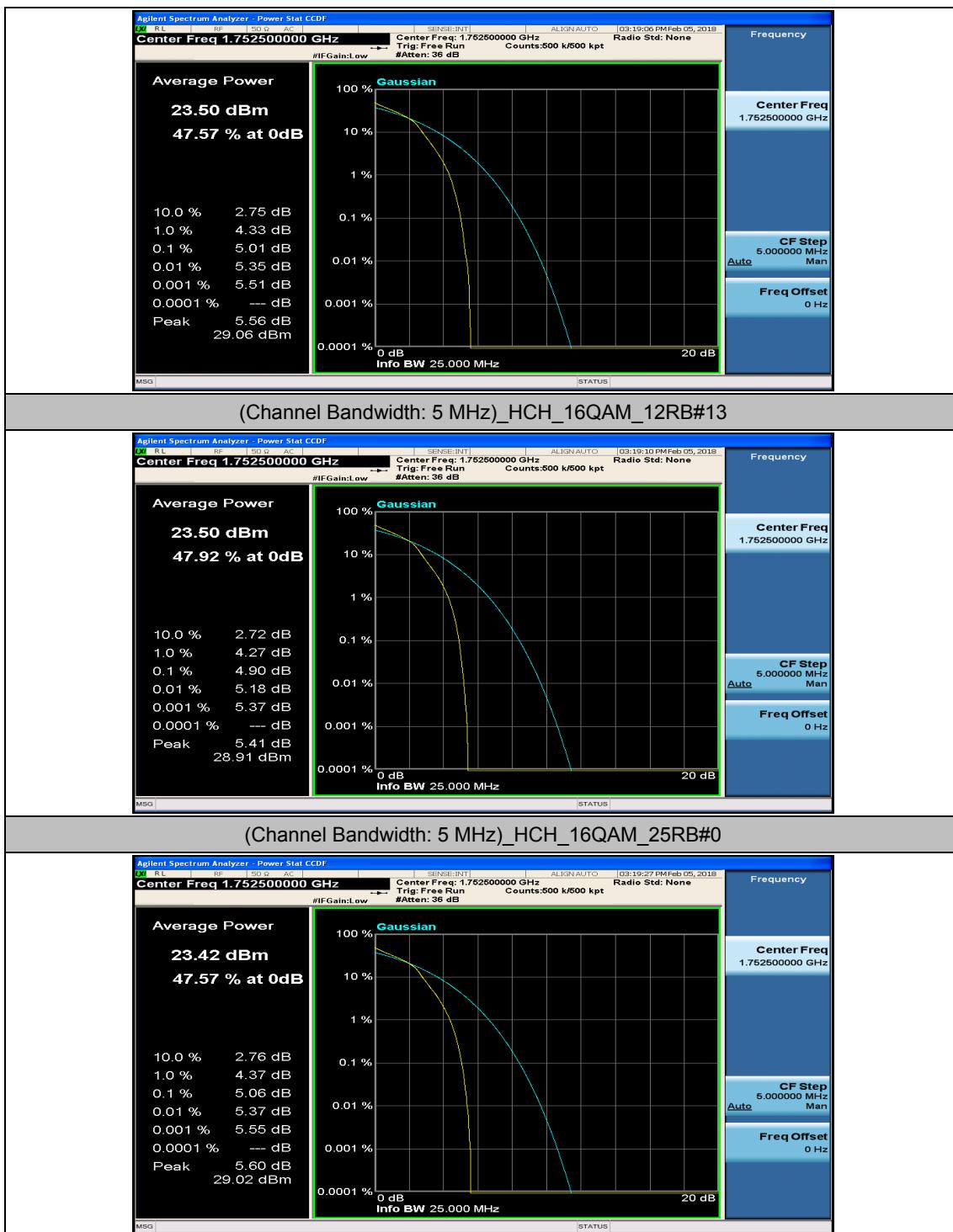


(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24









Channel Bandwidth: 10 MHz

