

Appendix D: Test Data for E-UTRA Band 5

Product Name: Cellular Wi-Fi Router

Trade Mark:  *Connecting things*
Hongdian

Test Model: H8959-4GSPT

Environmental Conditions

Temperature:	22.9 ° C
Relative Humidity:	54.2%
ATM Pressure:	100.0 kPa
Test Engineer:	Alisa Huang
Supervised by:	Tom.Liu

D.1: Conducted Output Power Data

Test Result

Channel Bandwidth: 1.4 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.32	PASS
		1	3	23.39	PASS
		1	5	23.41	PASS
		3	0	23.41	PASS
		3	2	23.37	PASS
		3	3	23.44	PASS
		6	0	22.50	PASS
	MCH	1	0	23.85	PASS
		1	3	23.99	PASS
		1	5	23.99	PASS
		3	0	23.9	PASS
		3	2	24.01	PASS
		3	3	23.94	PASS

	HCH	6	0	23.03	PASS
		1	0	24.09	PASS
		1	3	24.21	PASS
		1	5	24.21	PASS
		3	0	24.02	PASS
		3	2	24.04	PASS
		3	3	24.02	PASS
		6	0	23.01	PASS
16QAM	LCH	1	0	22.76	PASS
		1	3	22.81	PASS
		1	5	22.79	PASS
		3	0	22.7	PASS
		3	2	22.63	PASS
		3	3	22.51	PASS
		6	0	21.21	PASS
	MCH	1	0	22.77	PASS
		1	3	22.86	PASS
		1	5	22.76	PASS
		3	0	22.84	PASS
		3	2	22.99	PASS
		3	3	22.83	PASS
		6	0	22.02	PASS
	HCH	1	0	22.28	PASS
		1	3	23.20	PASS
		1	5	23.00	PASS
		3	0	23.23	PASS
		3	2	23.39	PASS
		3	3	23.18	PASS
		6	0	22.02	PASS

Channel Bandwidth: 3 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.43	PASS
		1	7	23.49	PASS
		1	14	23.72	PASS
		8	0	22.70	PASS
		8	4	22.72	PASS
		8	7	22.83	PASS
		15	0	22.68	PASS
	MCH	1	0	23.96	PASS

		1	7	24.37	PASS
		1	14	24.19	PASS
		8	0	22.92	PASS
		8	4	23.18	PASS
		8	7	23.18	PASS
		15	0	23.12	PASS
	HCH	1	0	23.86	PASS
		1	7	24.14	PASS
		1	14	24.23	PASS
		8	0	22.99	PASS
		8	4	23.09	PASS
		8	7	23.08	PASS
		15	0	22.99	PASS
16QAM	LCH	1	0	23.08	PASS
		1	7	22.89	PASS
		1	14	23.2	PASS
		8	0	21.7	PASS
		8	4	21.46	PASS
		8	7	21.74	PASS
		15	0	21.64	PASS
	MCH	1	0	23.05	PASS
		1	7	23.43	PASS
		1	14	23.31	PASS
		8	0	21.96	PASS
		8	4	22.19	PASS
		8	7	22.16	PASS
		15	0	21.96	PASS
	HCH	1	0	23.43	PASS
		1	7	23.58	PASS
		1	14	23.37	PASS
		8	0	22.04	PASS
		8	4	22.08	PASS
		8	7	22.15	PASS
		15	0	22.07	PASS

Channel Bandwidth: 5 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.36	PASS
		1	12	23.68	PASS
		1	24	23.69	PASS
		12	0	22.73	PASS

		12	6	22.87	PASS
		12	13	23.07	PASS
		25	0	22.78	PASS
	MCH	1	0	23.67	PASS
		1	12	24.17	PASS
		1	24	23.93	PASS
		12	0	22.99	PASS
		12	6	23.24	PASS
		12	13	23.2	PASS
		25	0	23.04	PASS
	HCH	1	0	24.13	PASS
		1	12	24.37	PASS
		1	24	24.14	PASS
		12	0	23.03	PASS
		12	6	23.04	PASS
		12	13	23.01	PASS
		25	0	23.03	PASS
16QAM	LCH	1	0	22.7	PASS
		1	12	23.13	PASS
		1	24	23.12	PASS
		12	0	21.82	PASS
		12	6	21.84	PASS
		12	13	22.08	PASS
		25	0	21.76	PASS
	MCH	1	0	22.92	PASS
		1	12	23.65	PASS
		1	24	23.27	PASS
		12	0	22.08	PASS
		12	6	22.33	PASS
		12	13	22.21	PASS
		25	0	21.93	PASS
	HCH	1	0	22.44	PASS
		1	12	22.45	PASS
		1	24	22.3	PASS
		12	0	21.95	PASS
		12	6	21.99	PASS
		12	13	21.96	PASS
		25	0	22.23	PASS

Channel Bandwidth: 10 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.48	PASS
		1	24	24.29	PASS
		1	49	23.68	PASS
		25	0	22.93	PASS
		25	12	23.06	PASS
		25	25	22.78	PASS
		50	0	22.93	PASS
	MCH	1	0	23.56	PASS
		1	24	24.52	PASS
		1	49	23.92	PASS
		25	0	23.03	PASS
		25	12	23.25	PASS
		25	25	23.12	PASS
		50	0	23.07	PASS
	HCH	1	0	24.27	PASS
		1	24	24.29	PASS
		1	49	23.8	PASS
		25	0	23.38	PASS
		25	12	23.23	PASS
		25	25	22.98	PASS
		50	0	23.2	PASS
16QAM	LCH	1	0	23.43	PASS
		1	24	23.85	PASS
		1	49	23.02	PASS
		25	0	21.86	PASS
		25	12	22.02	PASS
		25	25	21.75	PASS
		50	0	21.79	PASS
	MCH	1	0	22.78	PASS
		1	24	23.71	PASS
		1	49	23.27	PASS
		25	0	21.9	PASS
		25	12	22.14	PASS
		25	25	22.1	PASS
		50	0	22.12	PASS
	HCH	1	0	23.73	PASS
		1	24	23.77	PASS
		1	49	23.32	PASS

		25	0	22.37	PASS
		25	12	22.33	PASS
		25	25	21.99	PASS
		50	0	22.11	PASS

D.2: 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	4.18	<13	PASS
		1	3	4.23	<13	PASS
		1	5	4.14	<13	PASS
		3	0	4.39	<13	PASS
		3	2	4.27	<13	PASS
		3	3	4.34	<13	PASS
		6	0	5.06	<13	PASS
	MCH	1	0	4.41	<13	PASS
		1	3	4.29	<13	PASS
		1	5	4.4	<13	PASS
		3	0	4.59	<13	PASS
		3	2	4.45	<13	PASS
		3	3	4.55	<13	PASS
		6	0	5.18	<13	PASS
	HCH	1	0	4.19	<13	PASS
		1	3	3.93	<13	PASS
		1	5	3.86	<13	PASS
		3	0	4.21	<13	PASS
		3	2	3.99	<13	PASS
		3	3	4.18	<13	PASS
		6	0	4.9	<13	PASS
16QAM	LCH	1	0	5.12	<13	PASS
		1	3	5.1	<13	PASS
		1	5	5.17	<13	PASS
		3	0	5.23	<13	PASS
		3	2	5.14	<13	PASS
		3	3	5.24	<13	PASS
		6	0	5.93	<13	PASS
	MCH	1	0	5.26	<13	PASS
		1	3	5.07	<13	PASS
		1	5	5.19	<13	PASS
		3	0	5.38	<13	PASS
		3	2	5.32	<13	PASS

		3	3	5.49	<13	PASS
		6	0	6.07	<13	PASS
	HCH	1	0	5.1	<13	PASS
		1	3	4.99	<13	PASS
		1	5	4.99	<13	PASS
		3	0	5.15	<13	PASS
		3	2	4.91	<13	PASS
		3	3	5.07	<13	PASS
		6	0	5.84	<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	4.22	<13	PASS
		1	7	4.17	<13	PASS
		1	14	4.31	<13	PASS
		8	0	4.82	<13	PASS
		8	4	4.76	<13	PASS
		8	7	4.75	<13	PASS
		15	0	5.17	<13	PASS
	MCH	1	0	4.48	<13	PASS
		1	7	4.26	<13	PASS
		1	14	4.31	<13	PASS
		8	0	5.01	<13	PASS
		8	4	4.92	<13	PASS
		8	7	4.97	<13	PASS
		15	0	5.25	<13	PASS
	HCH	1	0	4.2	<13	PASS
		1	7	4.01	<13	PASS
		1	14	3.73	<13	PASS
		8	0	4.84	<13	PASS
		8	4	4.77	<13	PASS
		8	7	4.74	<13	PASS
		15	0	5.11	<13	PASS
16QAM	LCH	1	0	4.83	<13	PASS
		1	7	4.93	<13	PASS
		1	14	4.91	<13	PASS
		8	0	5.72	<13	PASS
		8	4	5.76	<13	PASS
		8	7	5.67	<13	PASS
		15	0	6.08	<13	PASS
	MCH	1	0	5.35	<13	PASS
		1	7	5.07	<13	PASS
		1	14	5.22	<13	PASS
		8	0	5.89	<13	PASS
		8	4	5.78	<13	PASS
		8	7	5.82	<13	PASS
		15	0	6.12	<13	PASS
	HCH	1	0	5.07	<13	PASS
		1	7	4.93	<13	PASS

		1	14	4.85	<13	PASS
		8	0	5.66	<13	PASS
		8	4	5.64	<13	PASS
		8	7	5.64	<13	PASS
		15	0	5.91	<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	4.23	<13	PASS
		1	12	4.14	<13	PASS
		1	24	4.5	<13	PASS
		12	0	4.83	<13	PASS
		12	6	4.67	<13	PASS
		12	13	4.86	<13	PASS
		25	0	5.22	<13	PASS
	MCH	1	0	4.54	<13	PASS
		1	12	4.27	<13	PASS
		1	24	4.35	<13	PASS
		12	0	4.97	<13	PASS
		12	6	4.79	<13	PASS
		12	13	4.88	<13	PASS
		25	0	5.2	<13	PASS
	HCH	1	0	3.98	<13	PASS
		1	12	4.07	<13	PASS
		1	24	3.93	<13	PASS
		12	0	4.7	<13	PASS
		12	6	4.69	<13	PASS
		12	13	4.76	<13	PASS
		25	0	5.08	<13	PASS
16QAM	LCH	1	0	5.03	<13	PASS
		1	12	5.01	<13	PASS
		1	24	5.24	<13	PASS
		12	0	5.73	<13	PASS
		12	6	5.61	<13	PASS
		12	13	5.79	<13	PASS
		25	0	6.06	<13	PASS
	MCH	1	0	5.46	<13	PASS
		1	12	5.14	<13	PASS
		1	24	5.17	<13	PASS
		12	0	5.86	<13	PASS
		12	6	5.72	<13	PASS
		12	13	5.78	<13	PASS
		25	0	6.09	<13	PASS
	HCH	1	0	4.89	<13	PASS
		1	12	5	<13	PASS

		1	24	4.98	<13	PASS
		12	0	5.66	<13	PASS
		12	6	5.61	<13	PASS
		12	13	5.7	<13	PASS
		25	0	5.91	<13	PASS

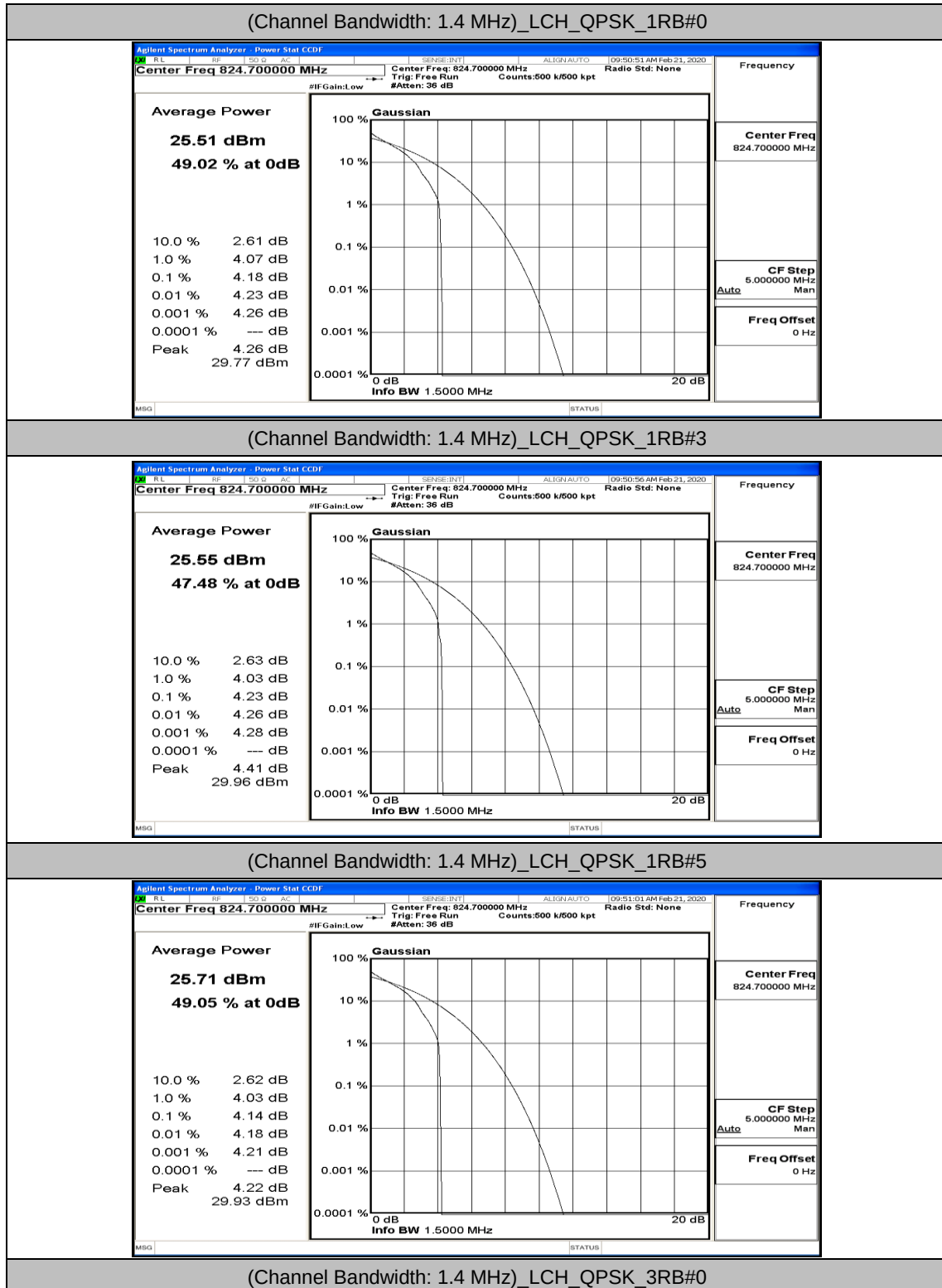
Channel Bandwidth: 10 MHz

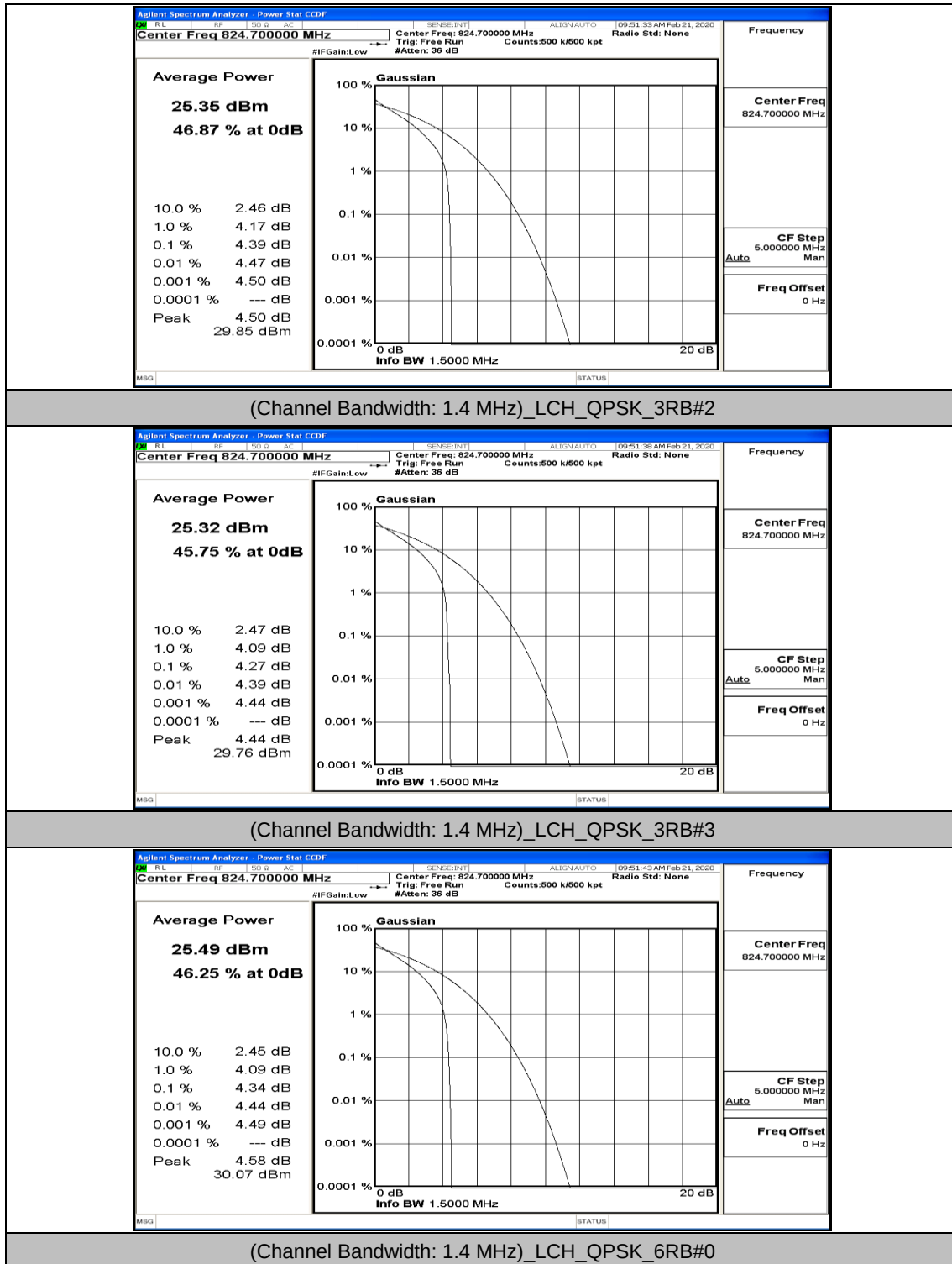
Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	4.24	<13	PASS
		1	24	4.41	<13	PASS
		1	49	4.58	<13	PASS
		25	0	4.86	<13	PASS
		25	12	4.93	<13	PASS
		25	25	5.05	<13	PASS
		50	0	5.22	<13	PASS
	MCH	1	0	4.64	<13	PASS
		1	24	4.23	<13	PASS
		1	49	4.27	<13	PASS
		25	0	4.99	<13	PASS
		25	12	4.88	<13	PASS
		25	25	4.9	<13	PASS
		50	0	5.17	<13	PASS
	HCH	1	0	4.32	<13	PASS
		1	24	3.92	<13	PASS
		1	49	4	<13	PASS
		25	0	4.79	<13	PASS
		25	12	4.64	<13	PASS
		25	25	4.77	<13	PASS
		50	0	5.08	<13	PASS
16QAM	LCH	1	0	4.8	<13	PASS
		1	24	5	<13	PASS
		1	49	5.38	<13	PASS
		25	0	5.82	<13	PASS
		25	12	5.86	<13	PASS
		25	25	5.97	<13	PASS
		50	0	6.05	<13	PASS
	MCH	1	0	5.42	<13	PASS
		1	24	5.01	<13	PASS
		1	49	5.08	<13	PASS
		25	0	5.94	<13	PASS
		25	12	5.81	<13	PASS
		25	25	5.84	<13	PASS
		50	0	5.99	<13	PASS
	HCH	1	0	5.18	<13	PASS
		1	24	4.67	<13	PASS

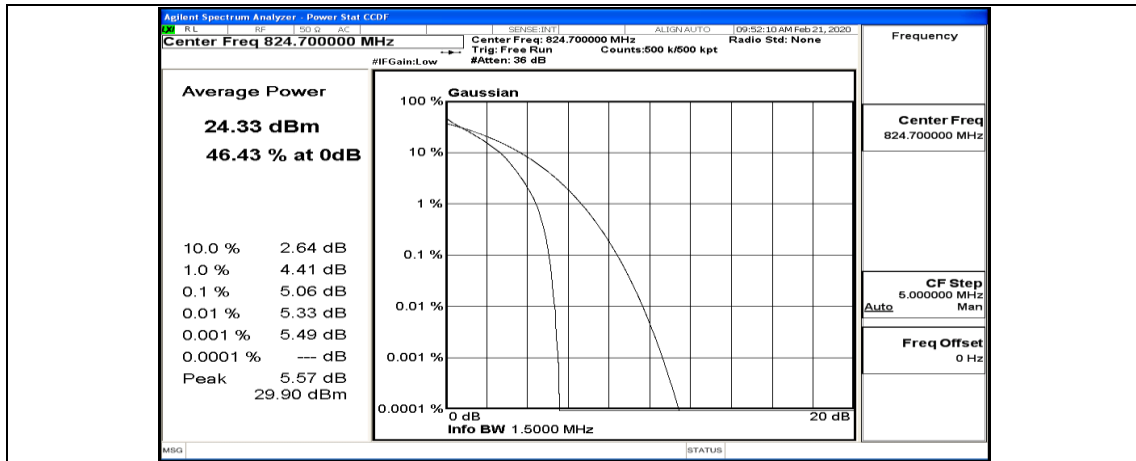
		1	49	4.85	<13	PASS
		25	0	5.67	<13	PASS
		25	12	5.56	<13	PASS
		25	25	5.68	<13	PASS
		50	0	5.91	<13	PASS

Test Graphs

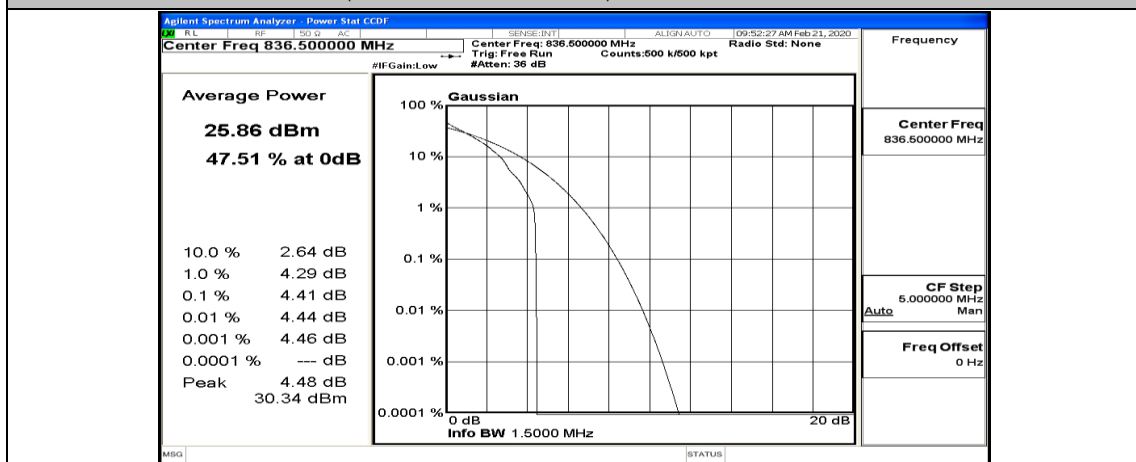
Channel Bandwidth: 1.4 MHz



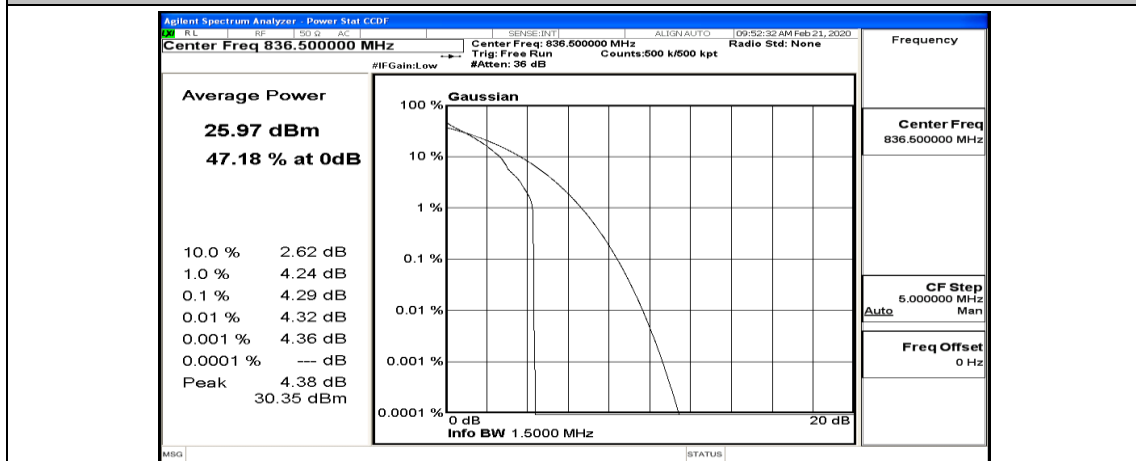




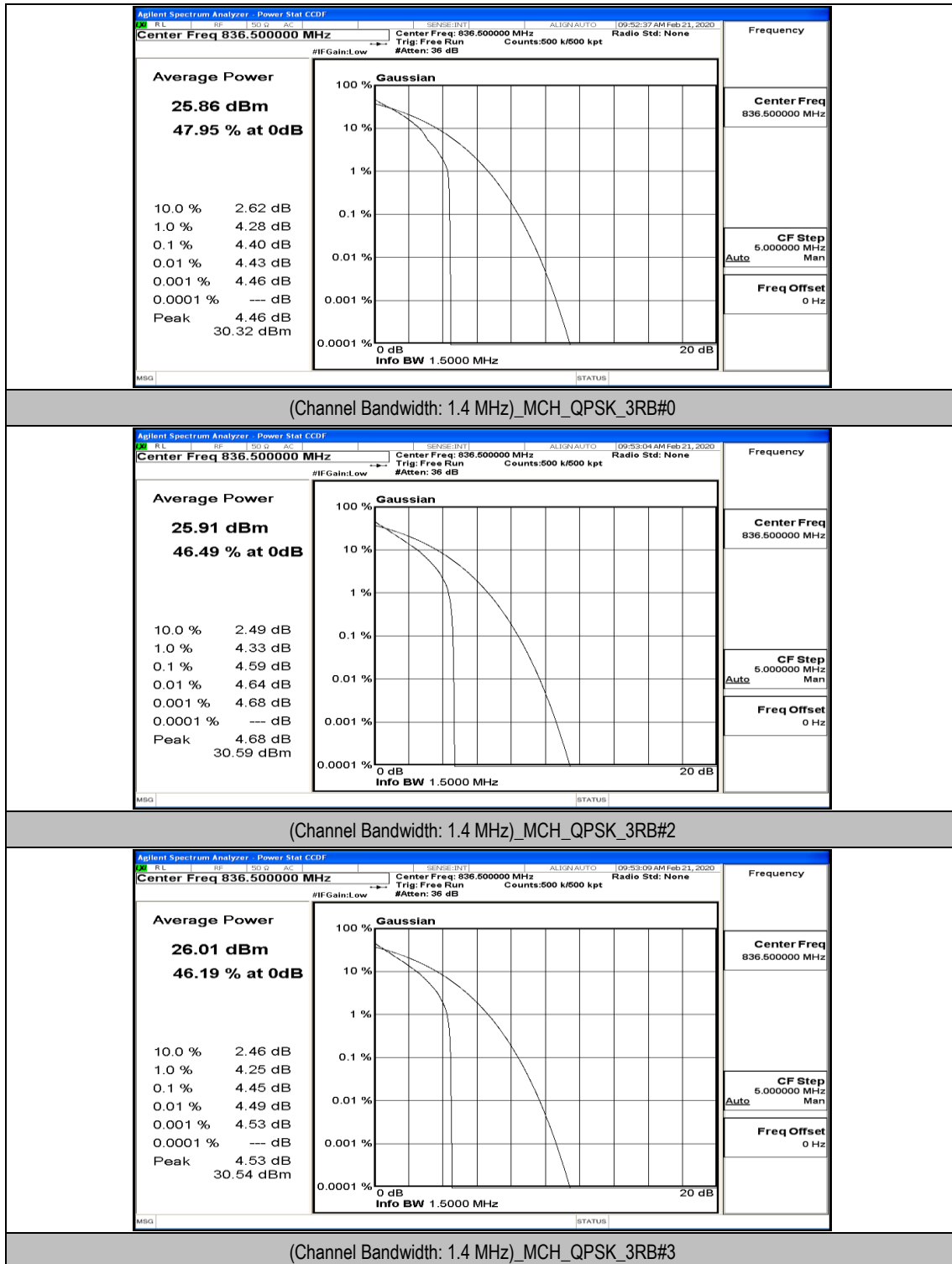
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#0

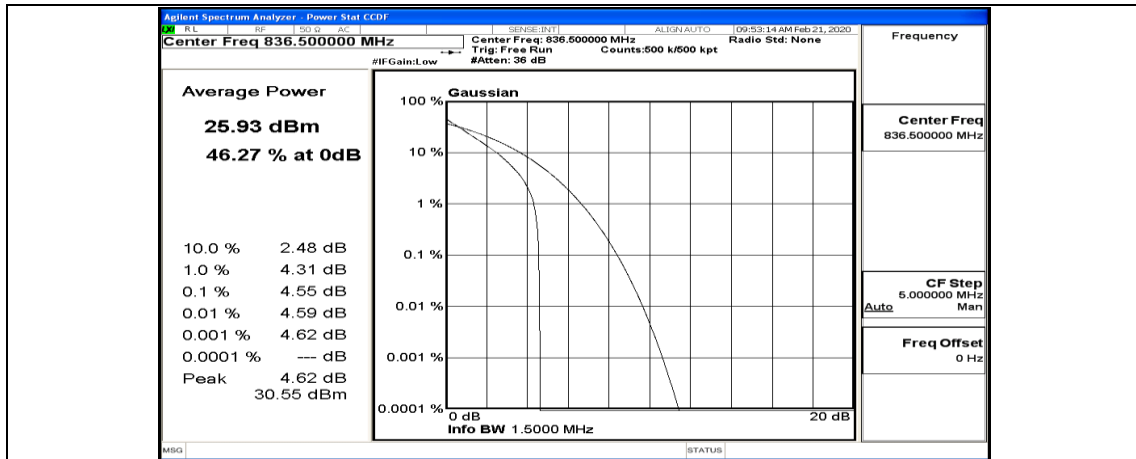


(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#3

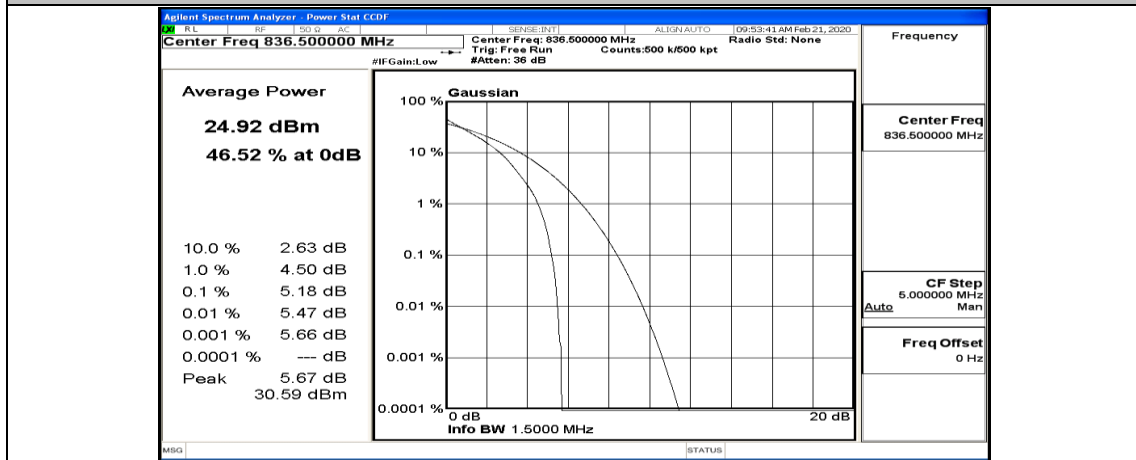


(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#5

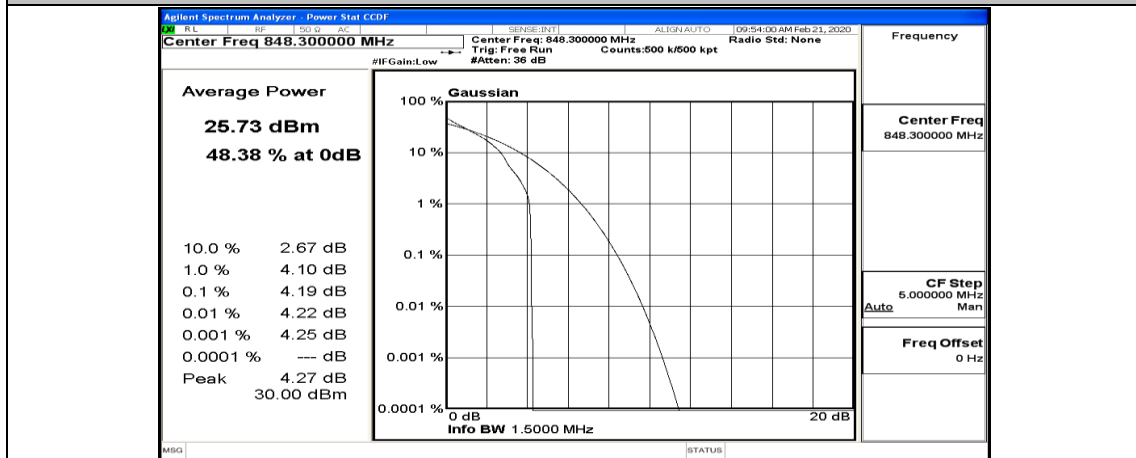




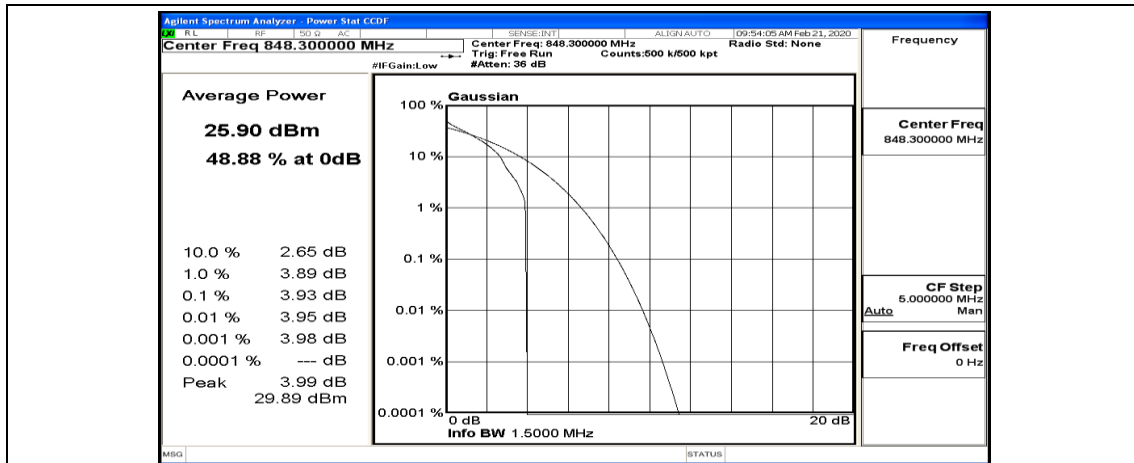
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_6RB#0



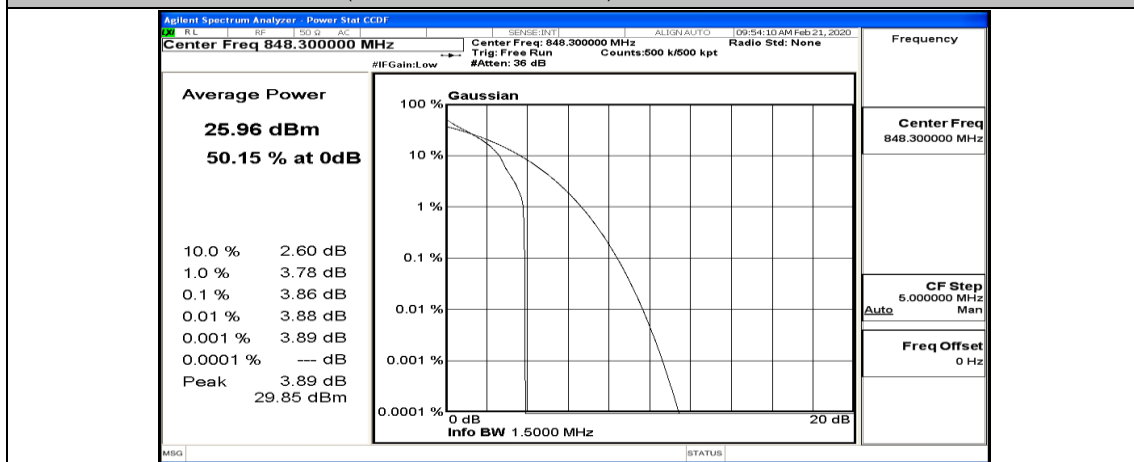
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#0



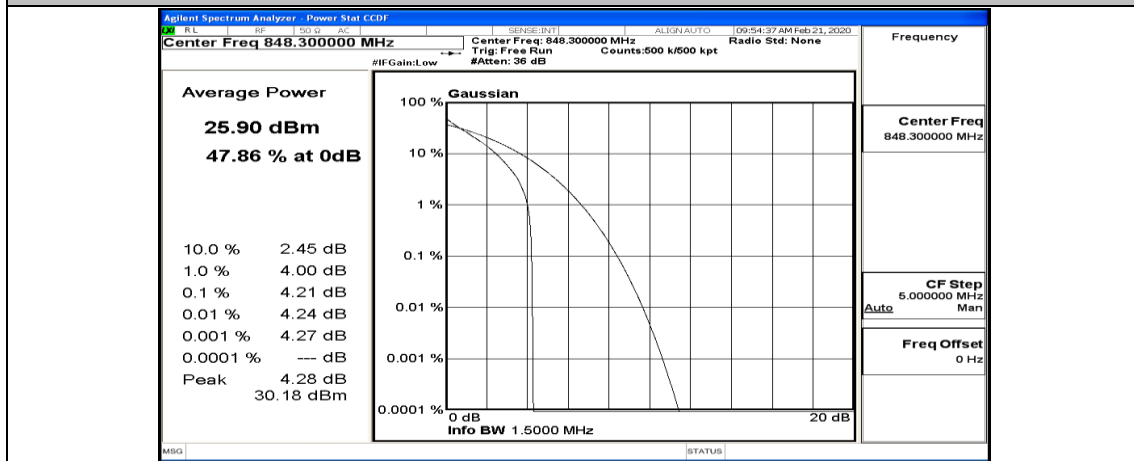
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#3



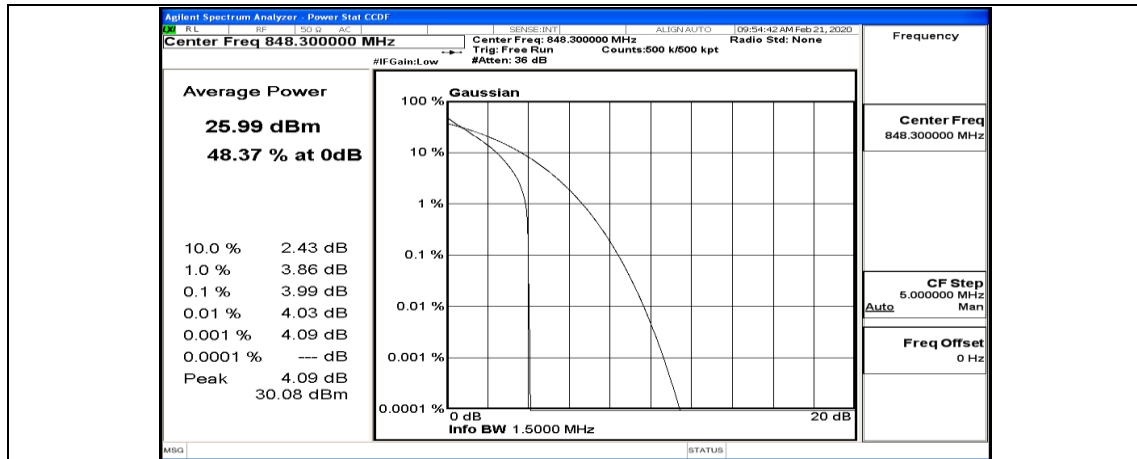
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#5



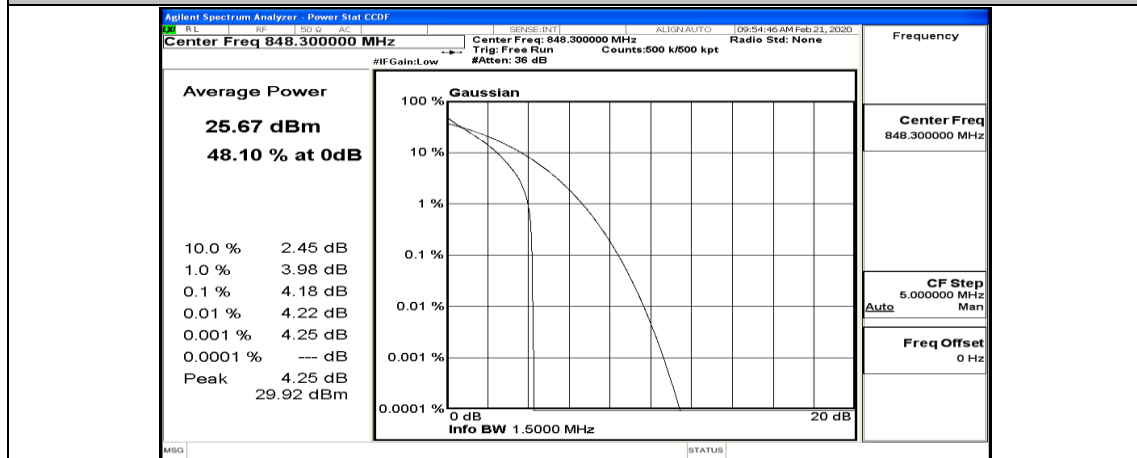
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_3RB#0



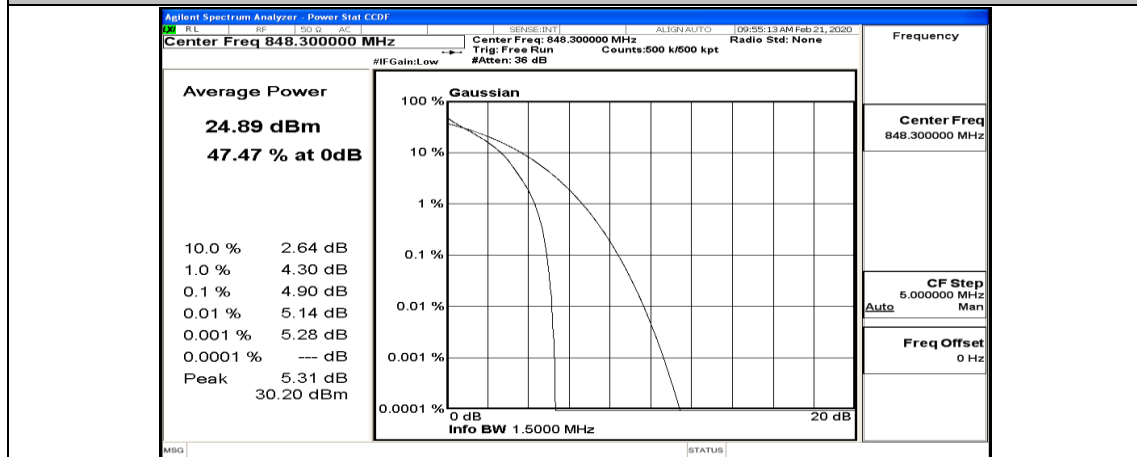
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_3RB#2



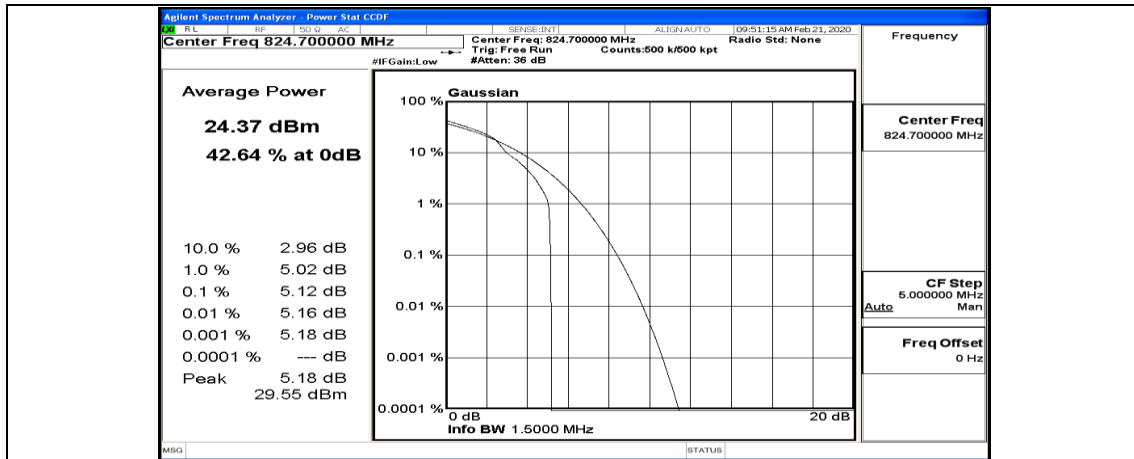
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_3RB#3



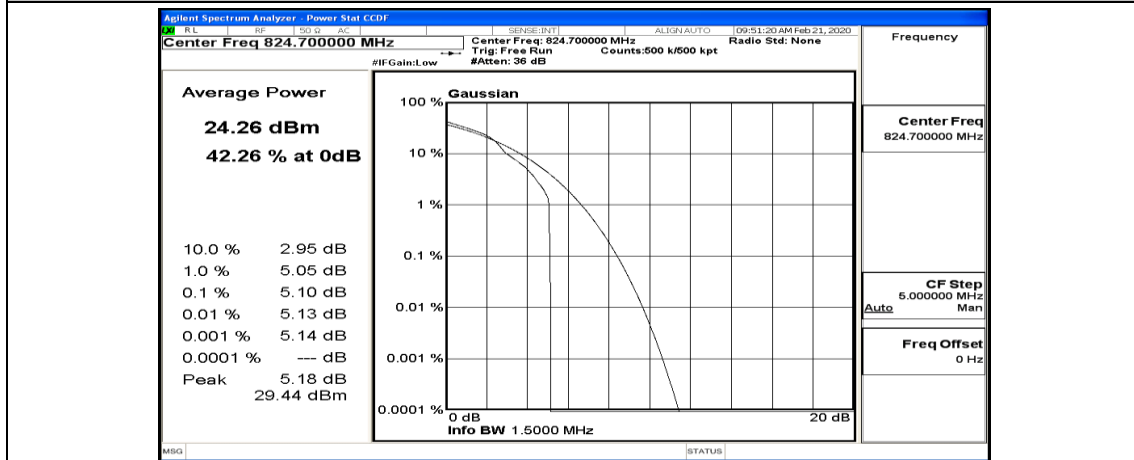
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_6RB#0



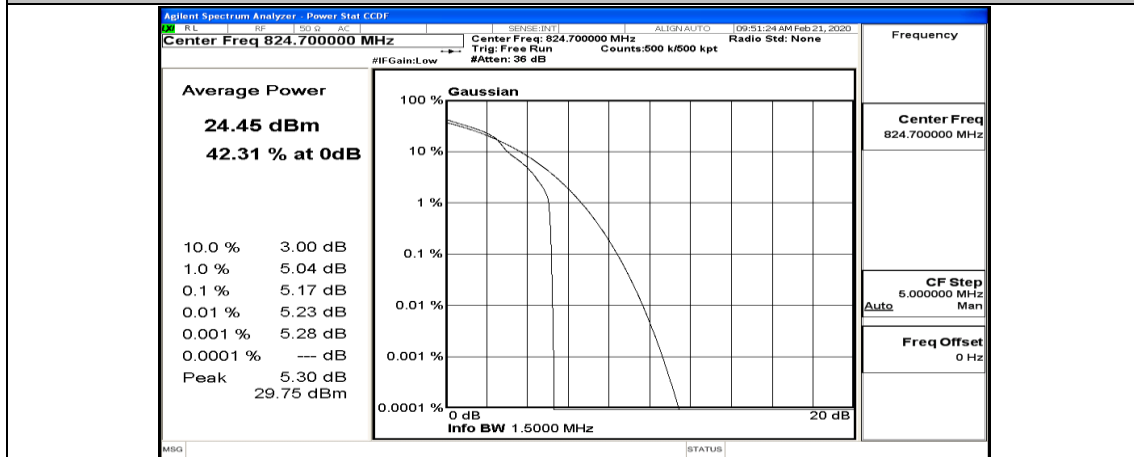
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#0



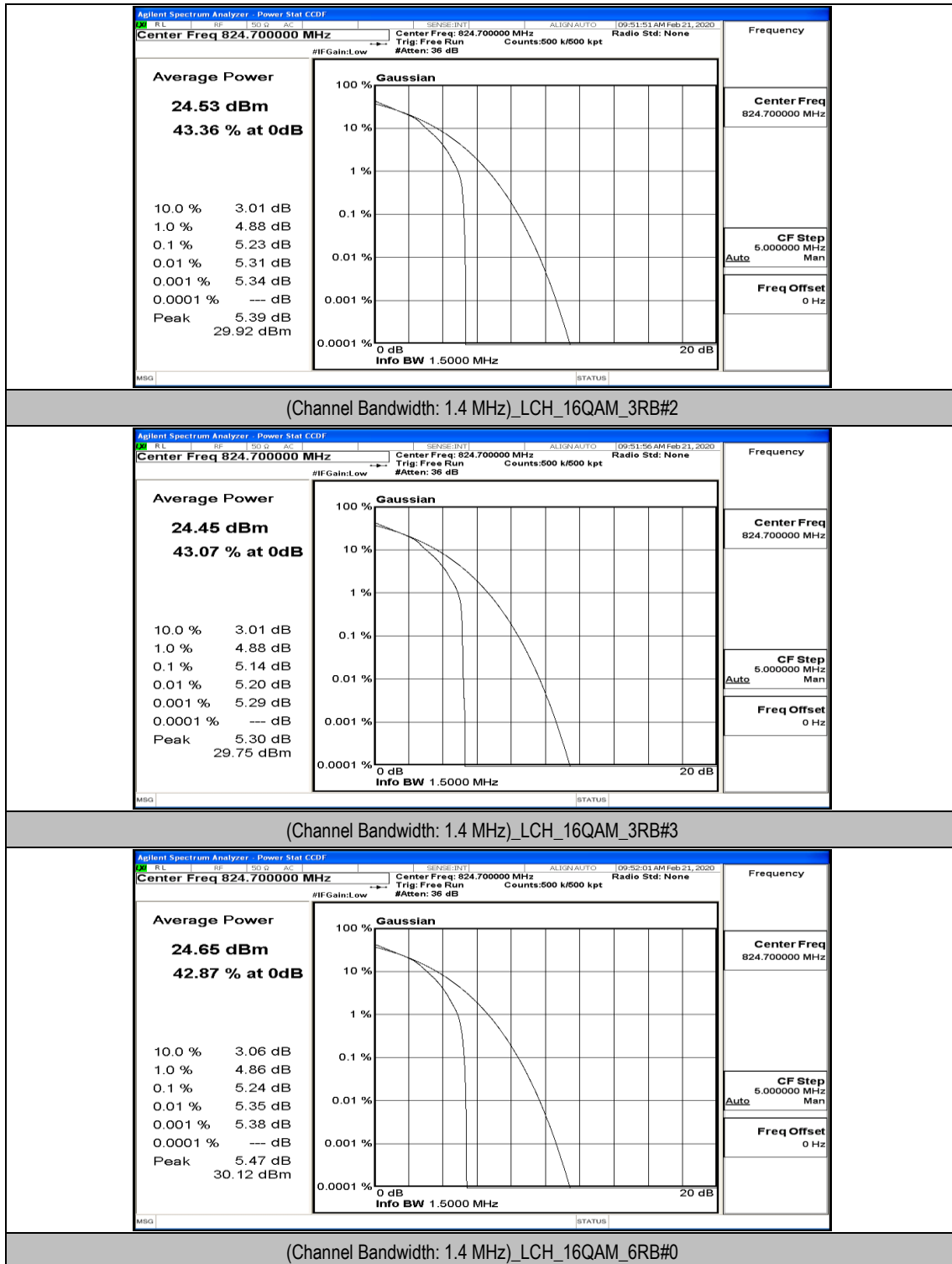
(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#3

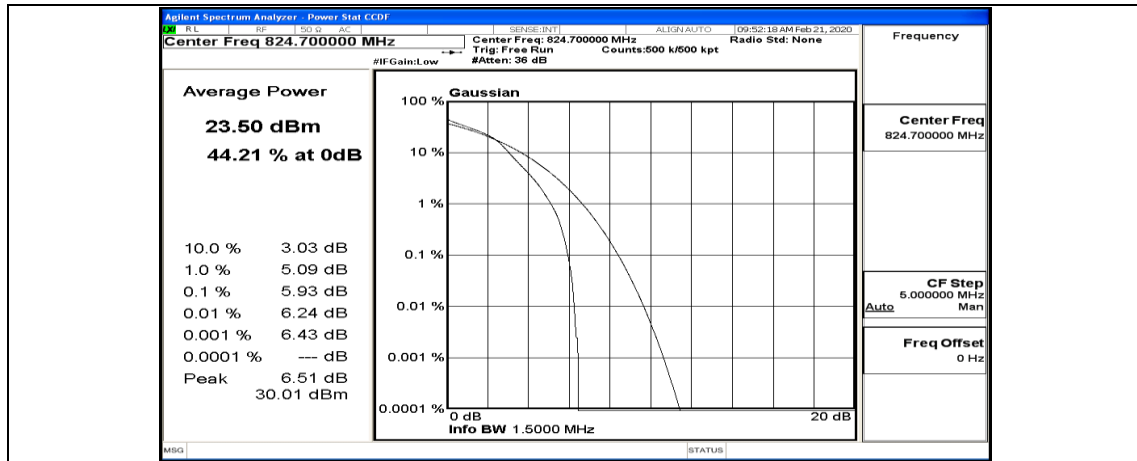


(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#5

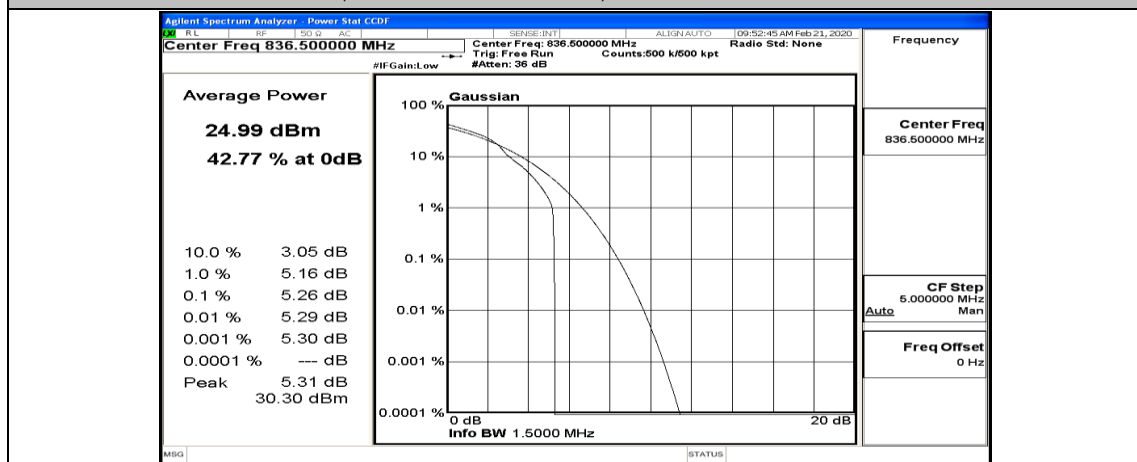


(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_3RB#0

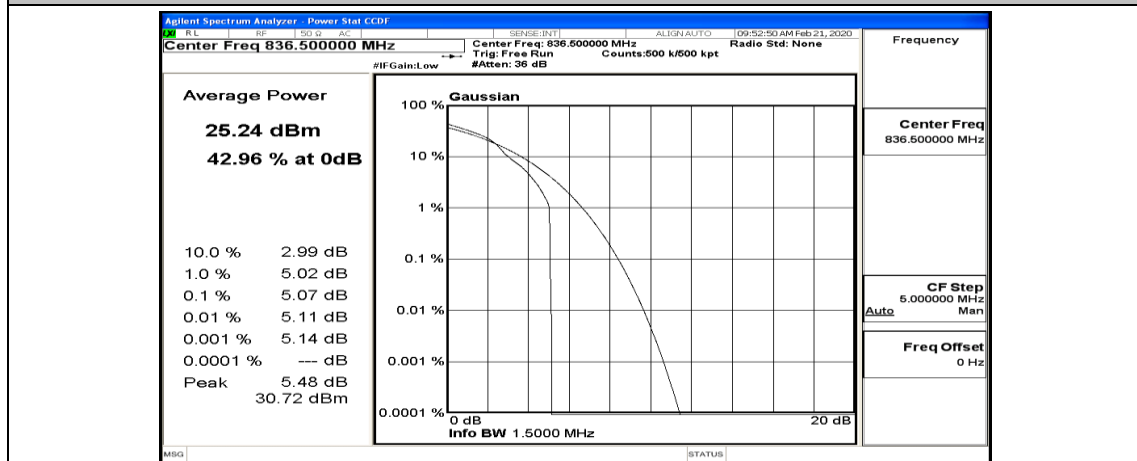




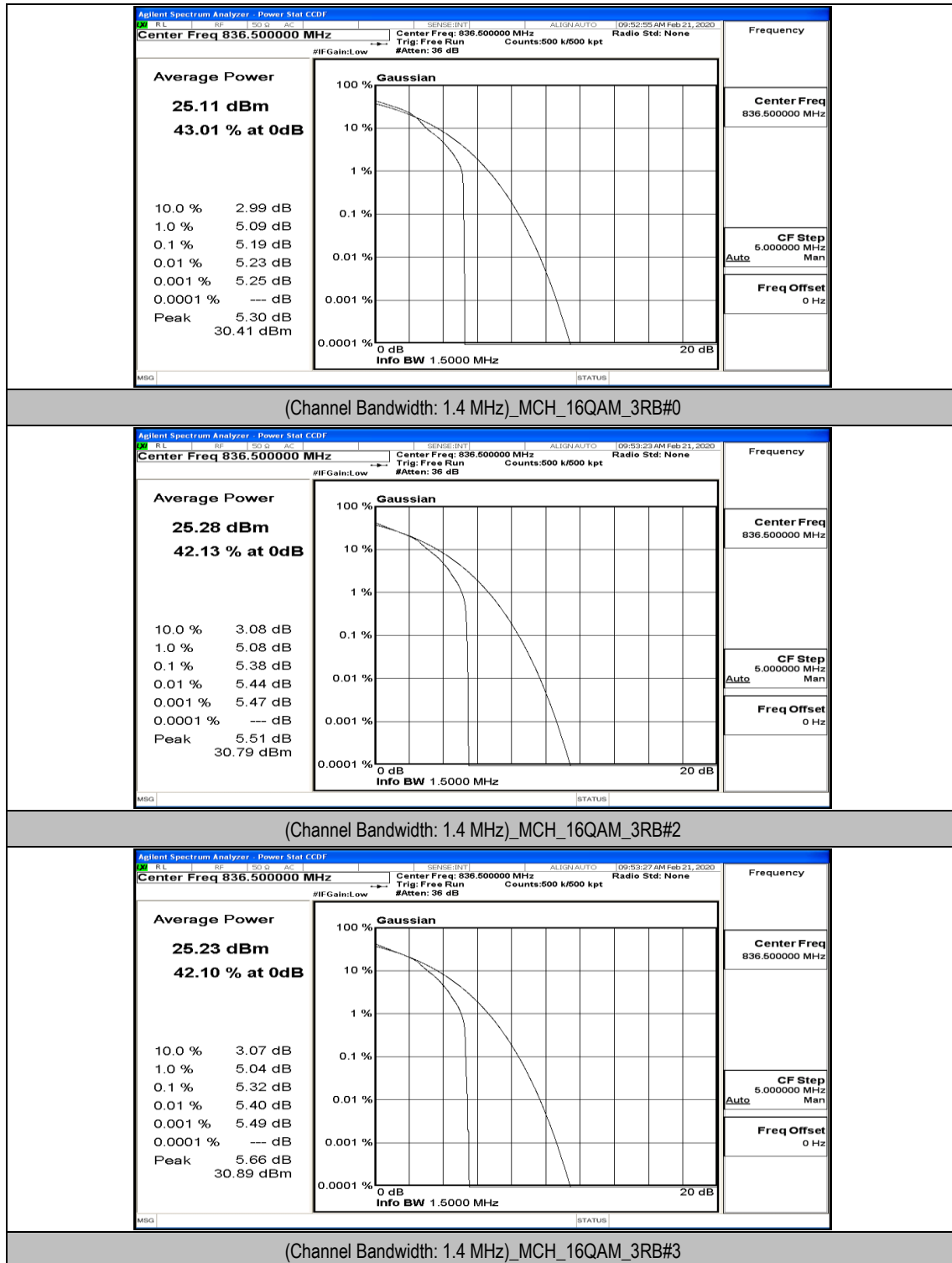
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#0

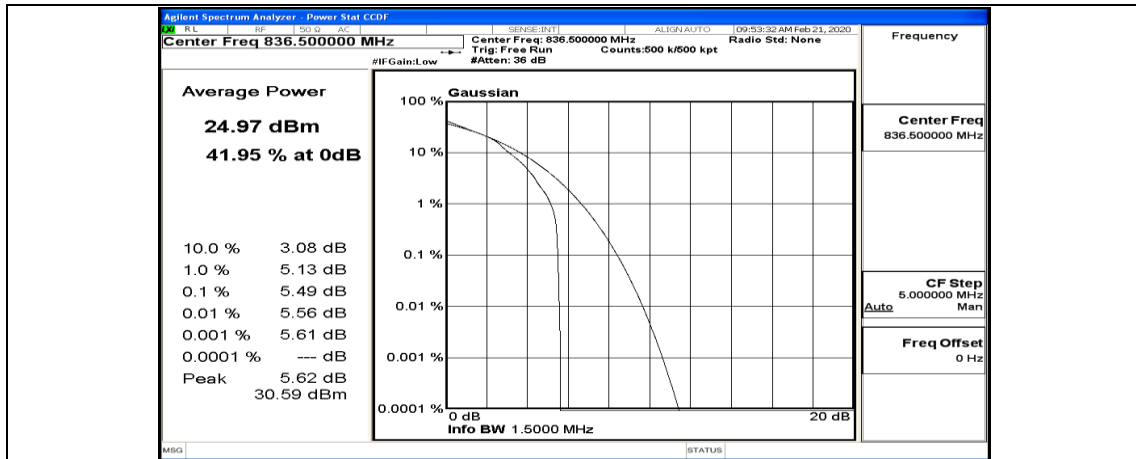


(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#3

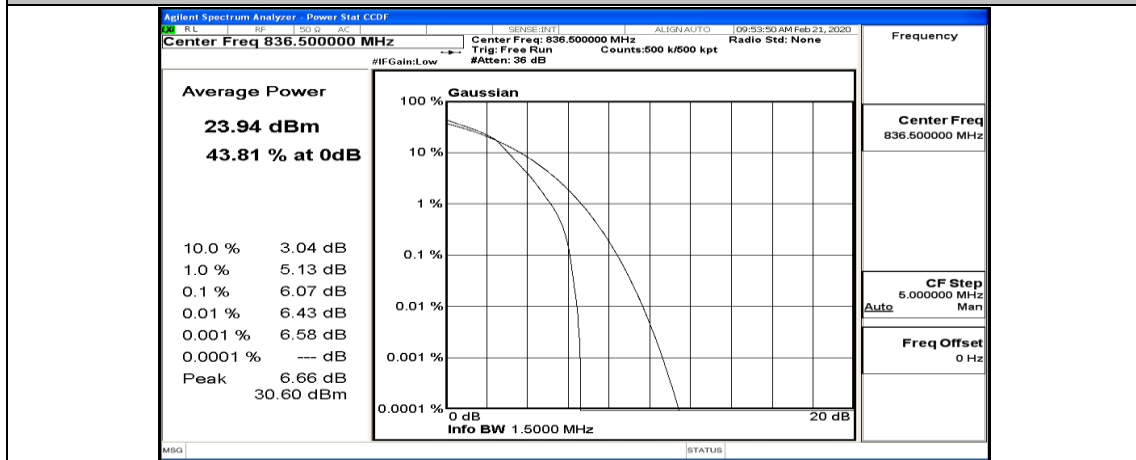


(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#5

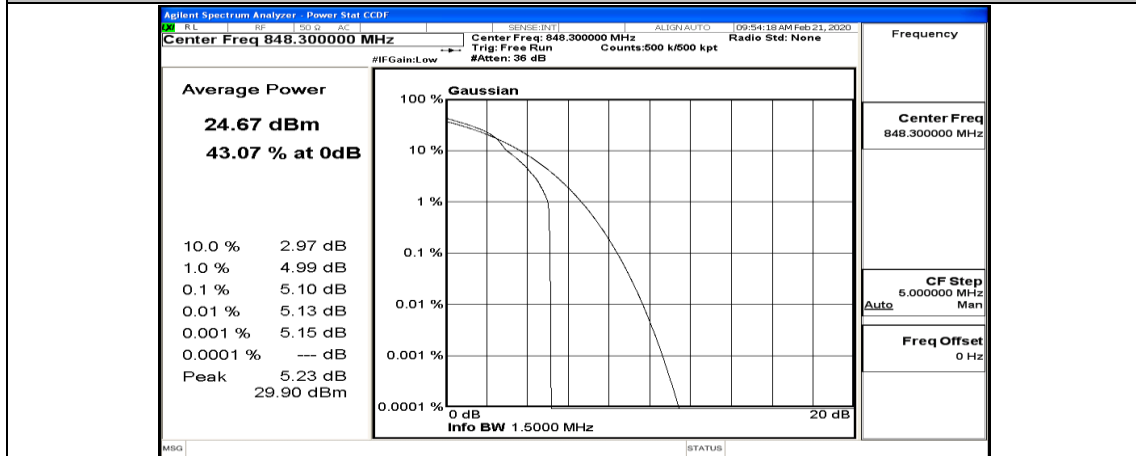




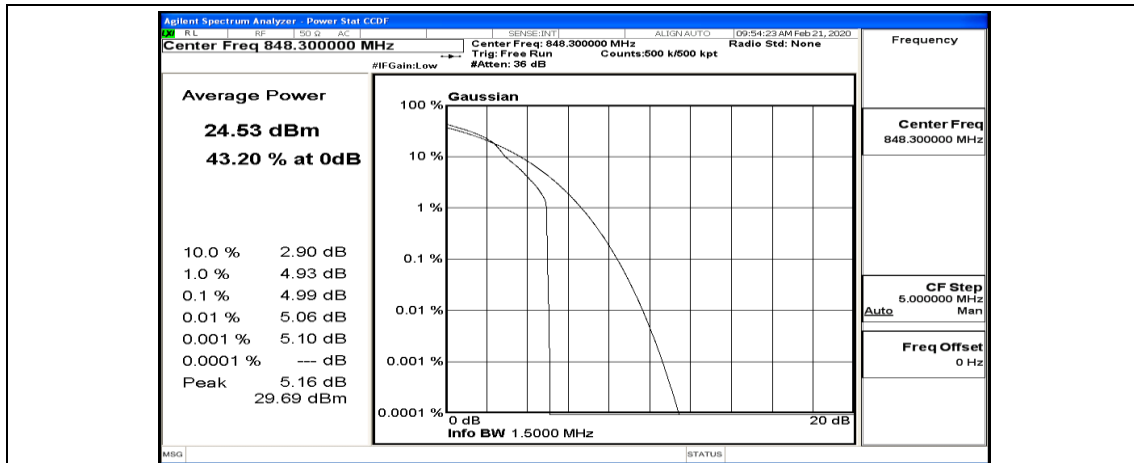
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_6RB#0



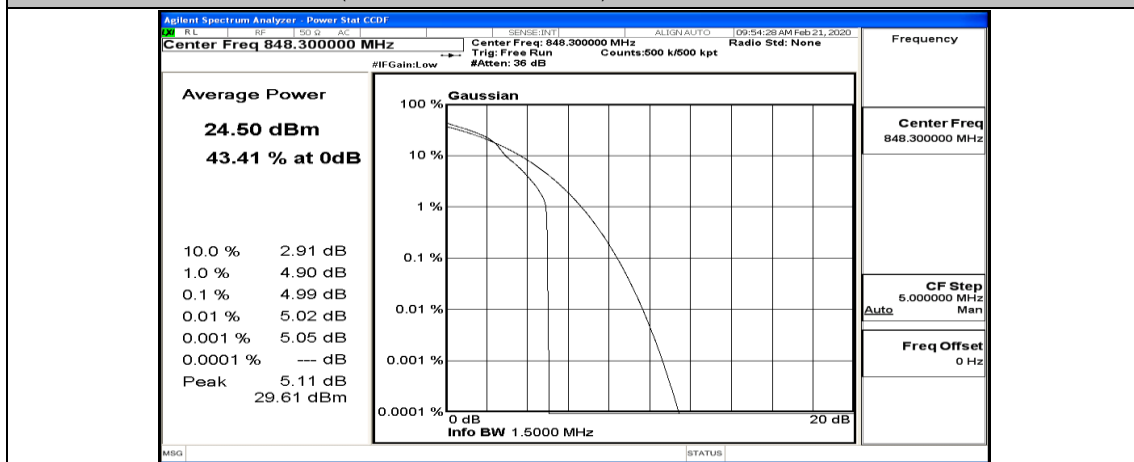
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#0



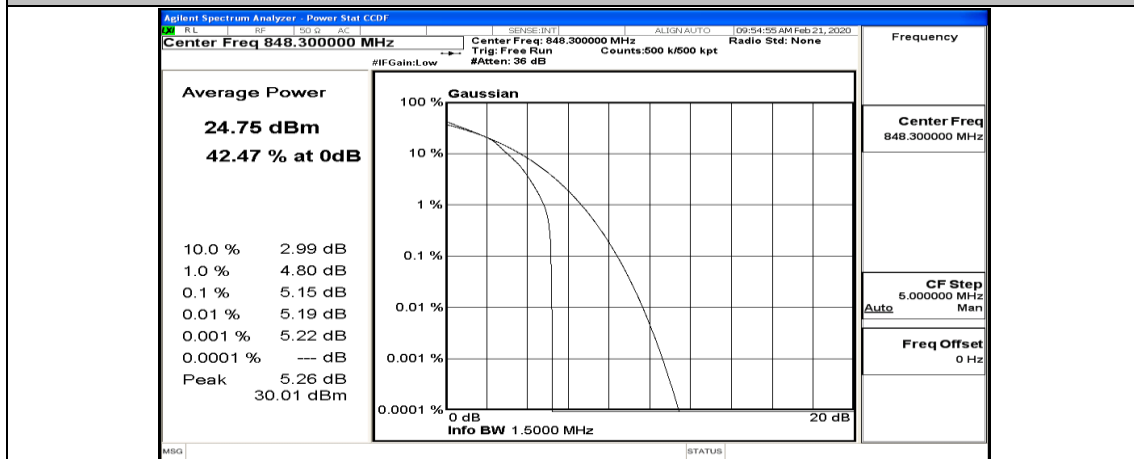
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#3



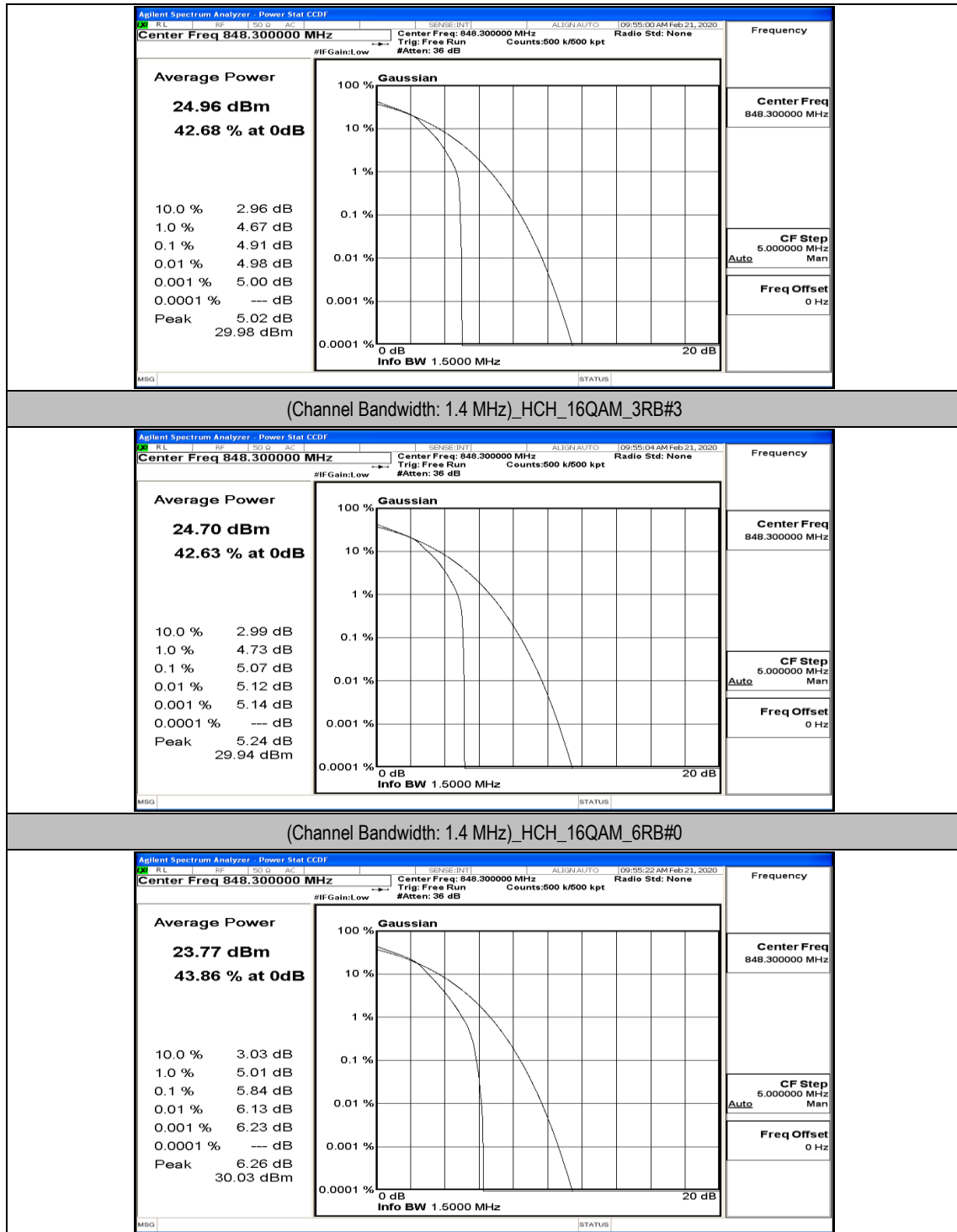
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_1RB#5



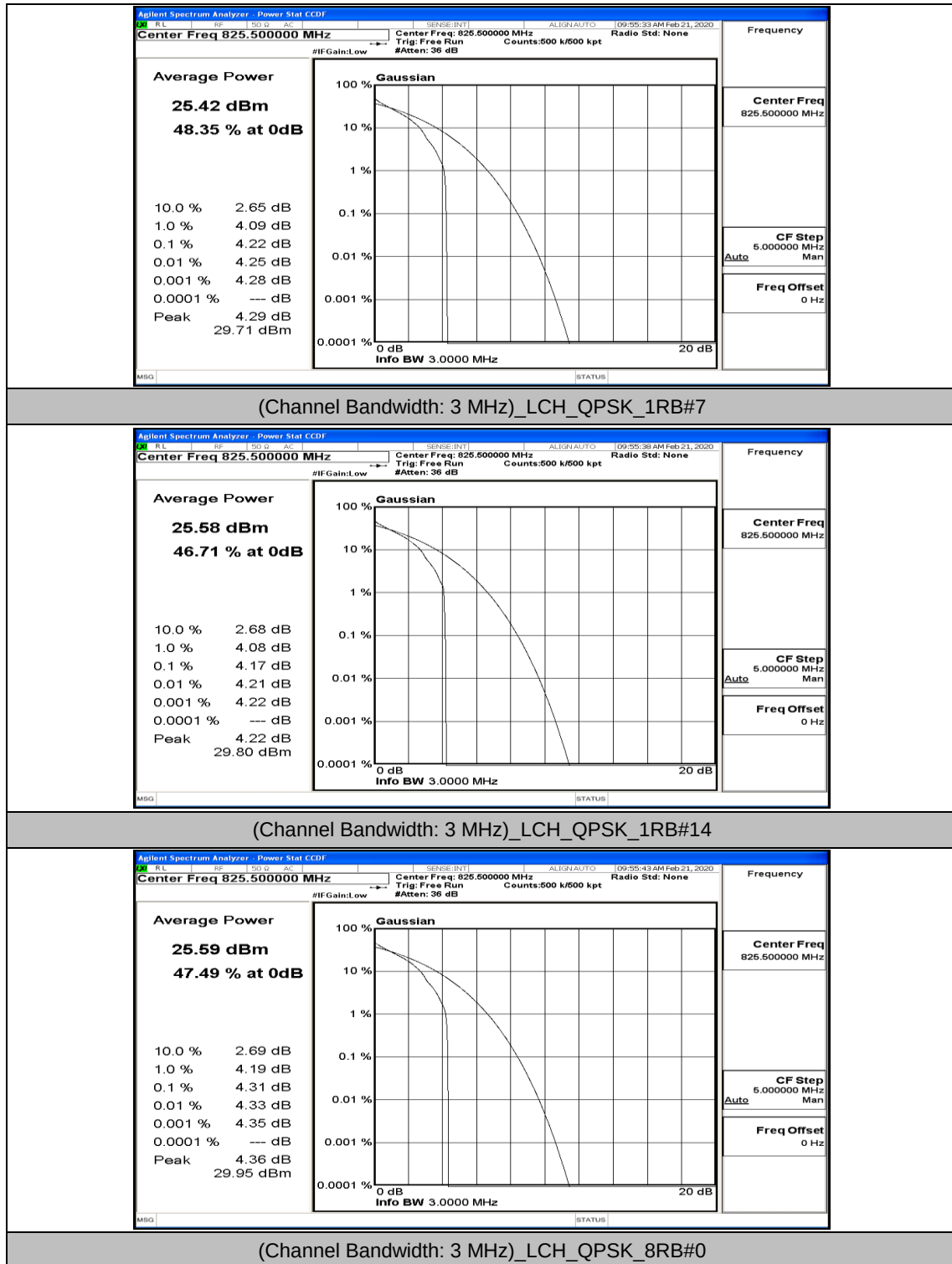
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_3RB#0

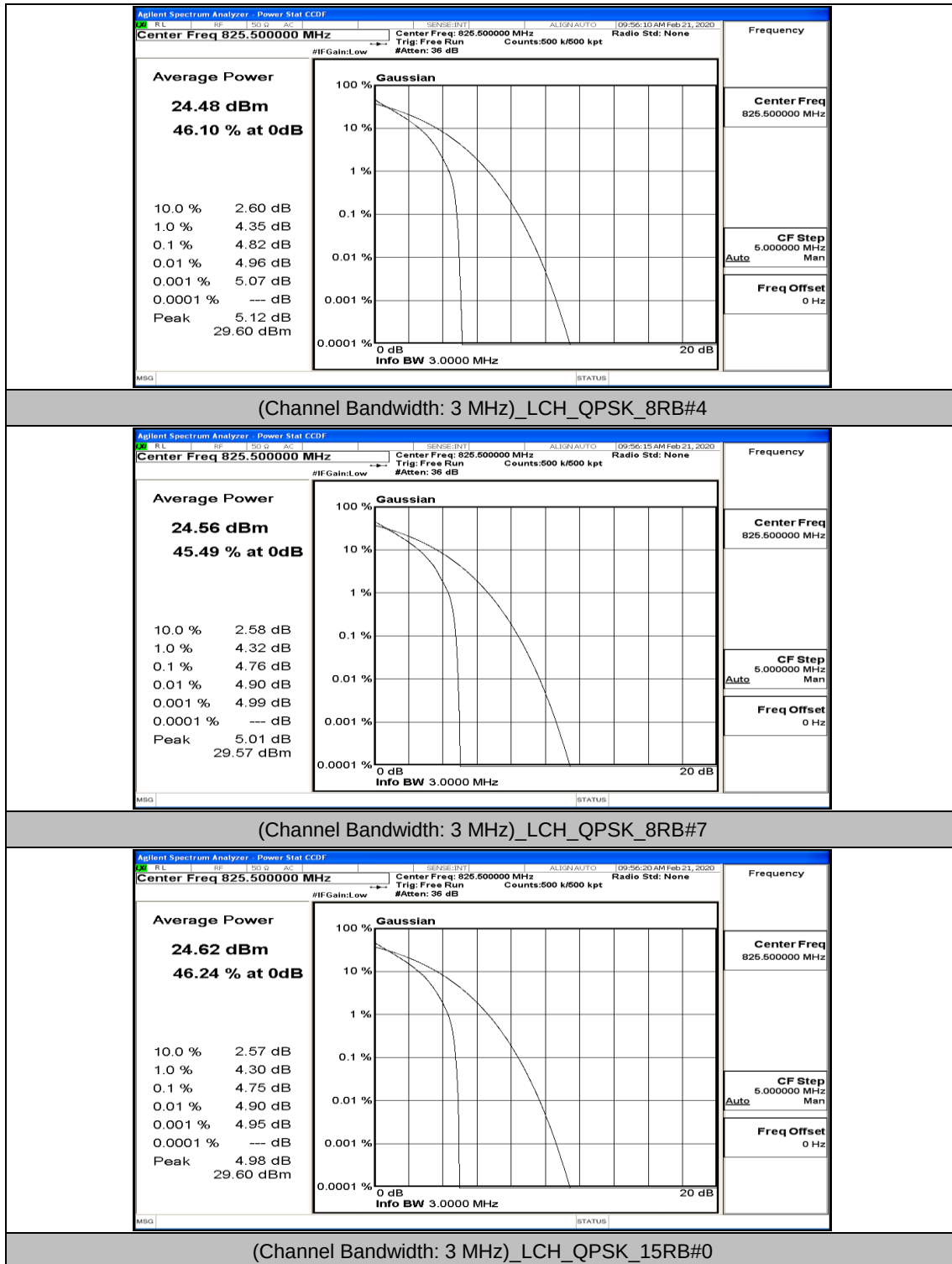


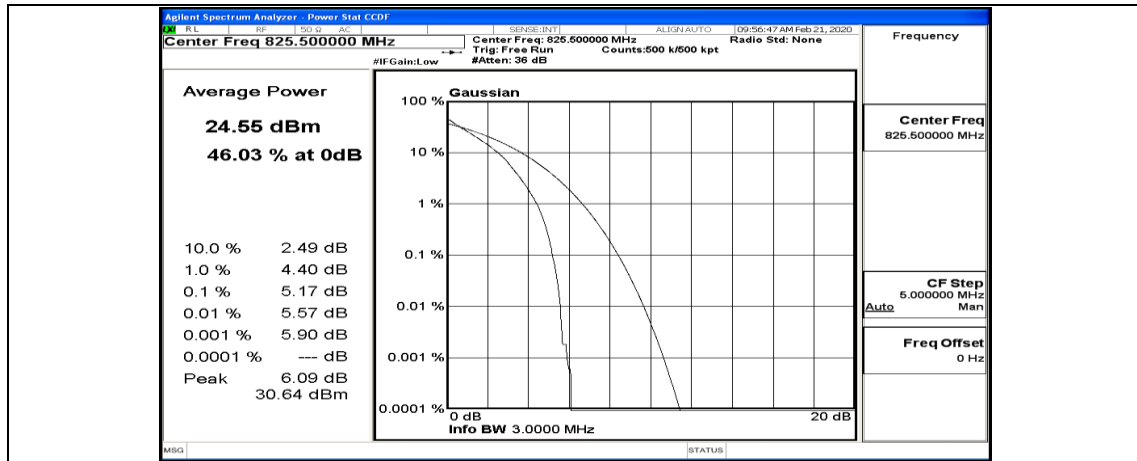
(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_3RB#2

**Channel Bandwidth: 3 MHz**

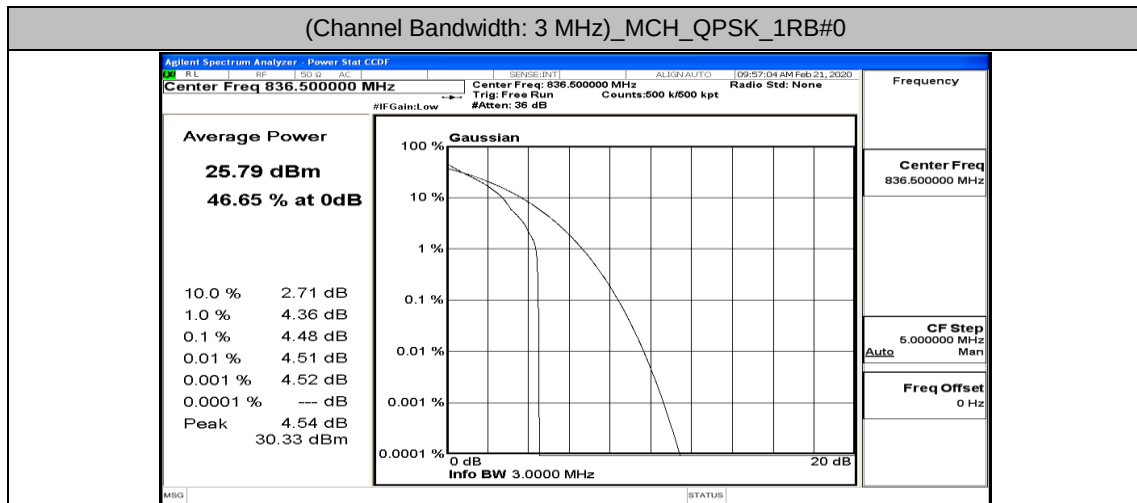
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#0



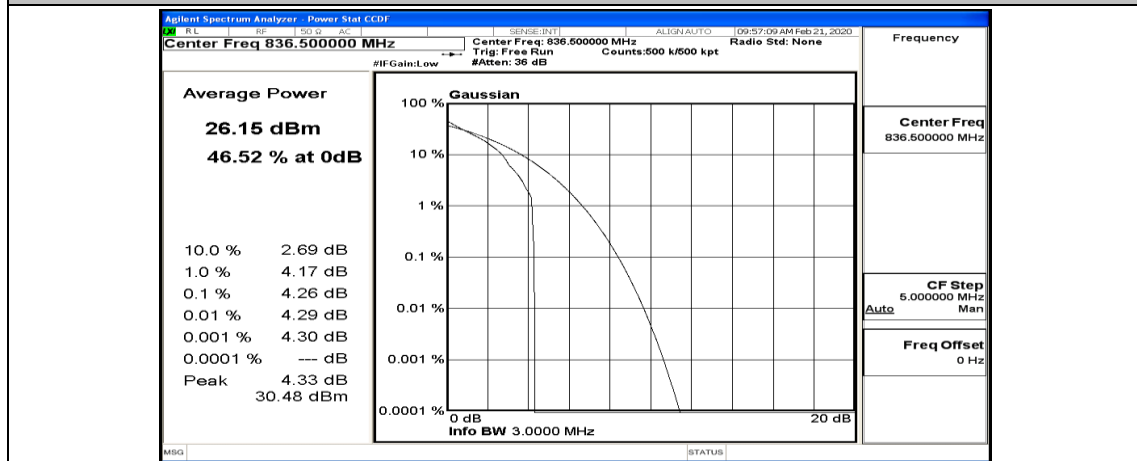




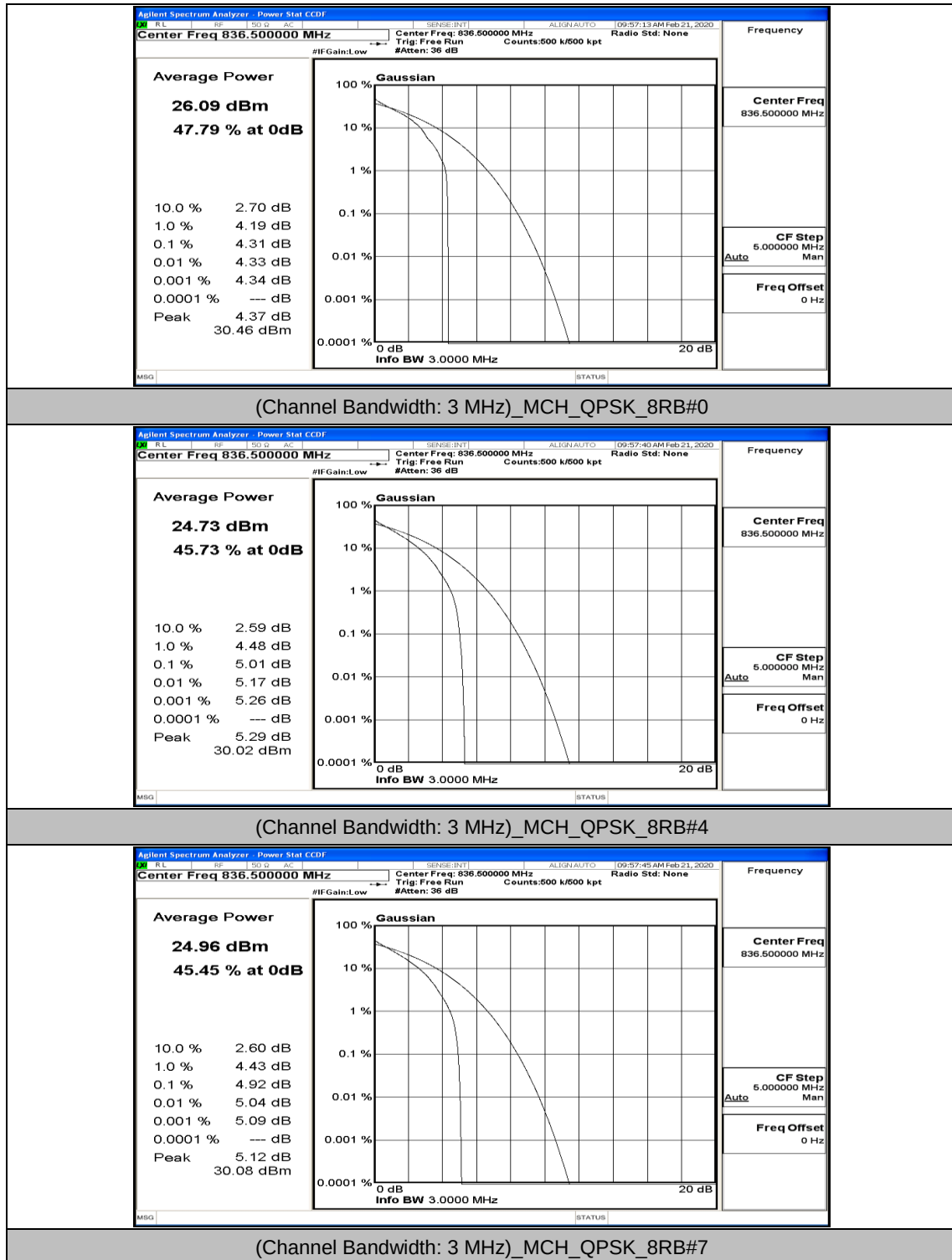
(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#0

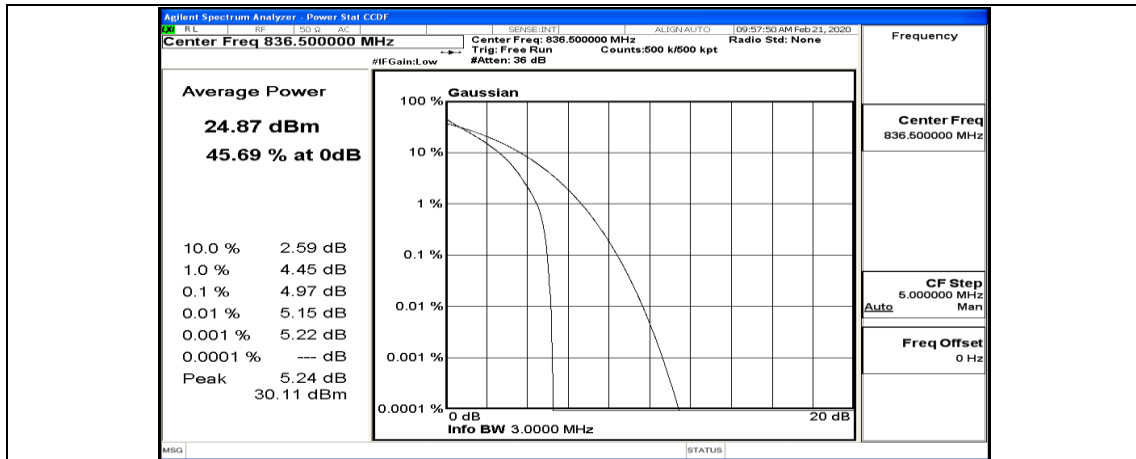


(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#7

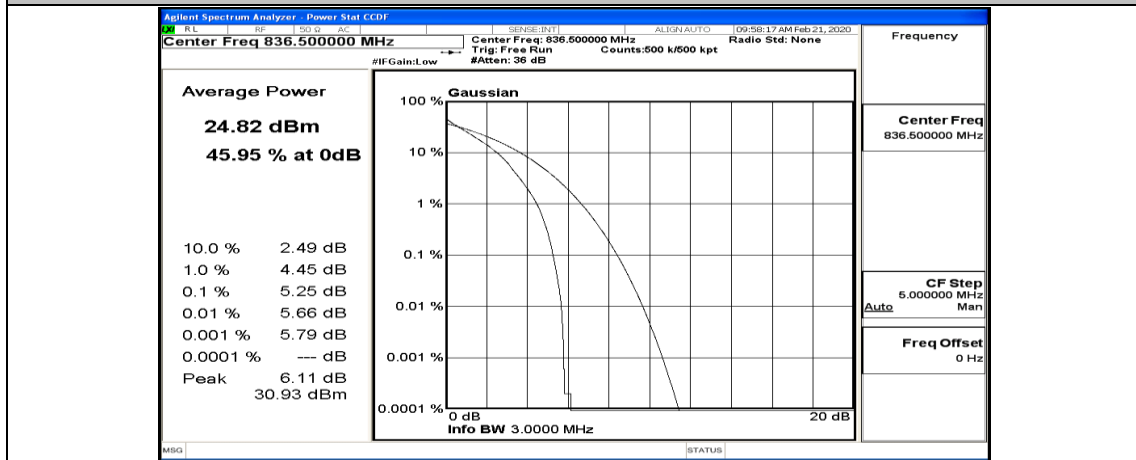


(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#14

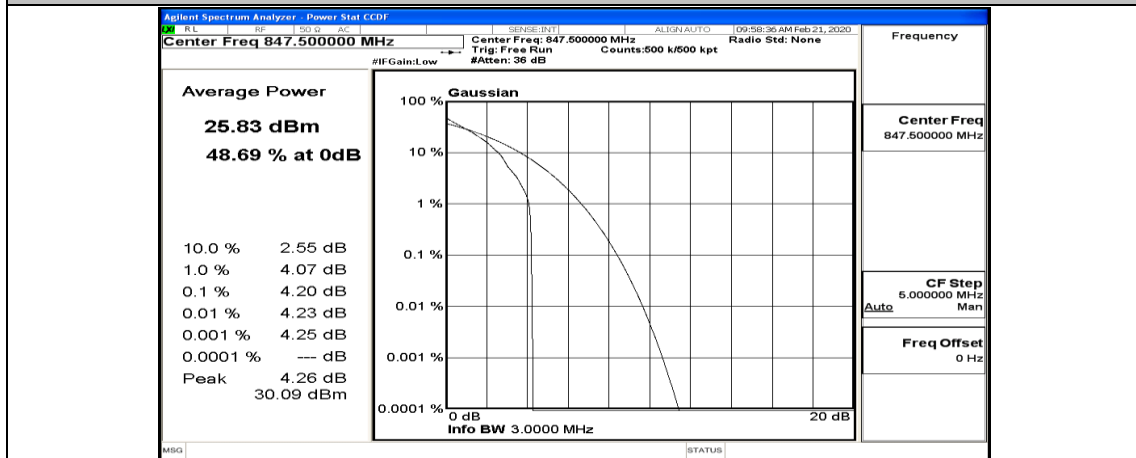




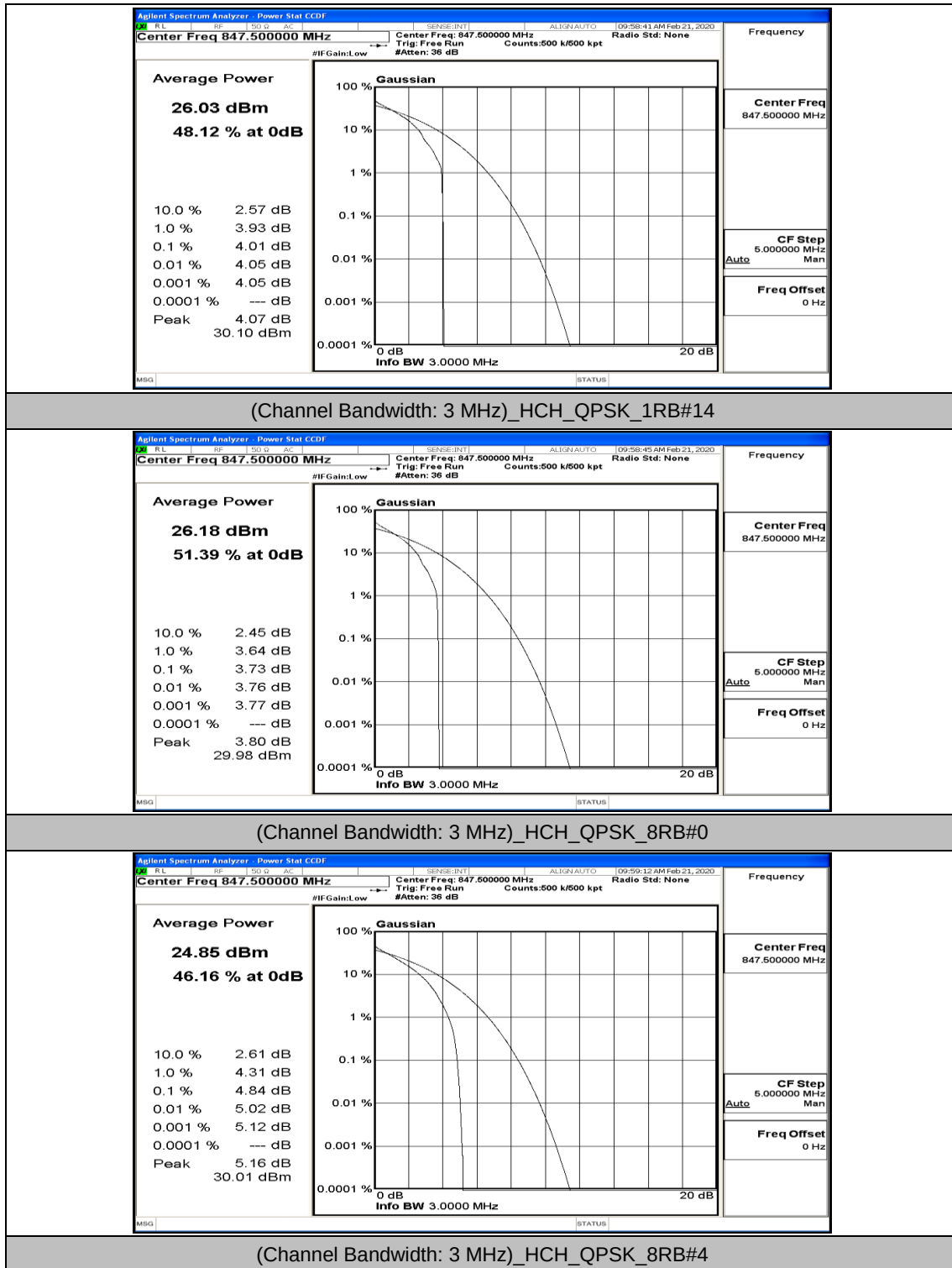
(Channel Bandwidth: 3 MHz)_MCH_QPSK_15RB#0

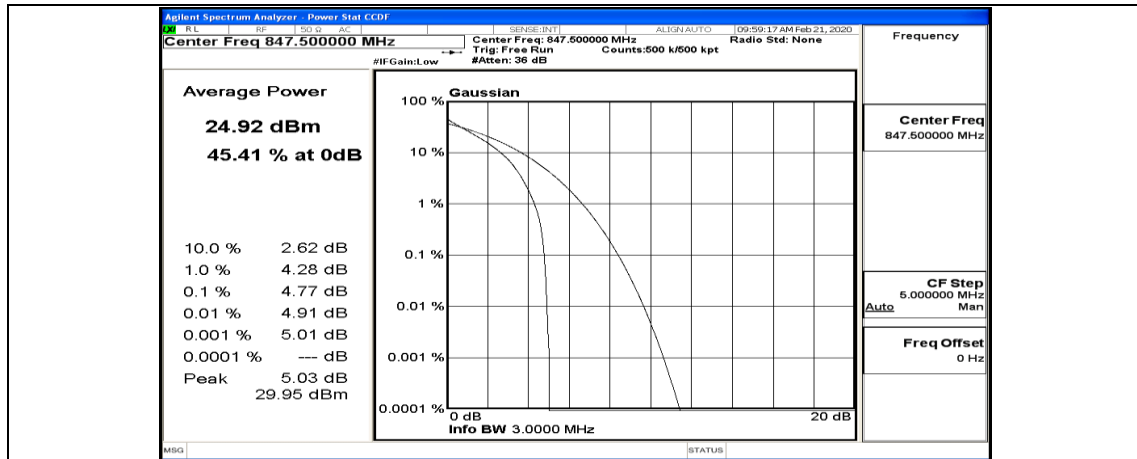


(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#0

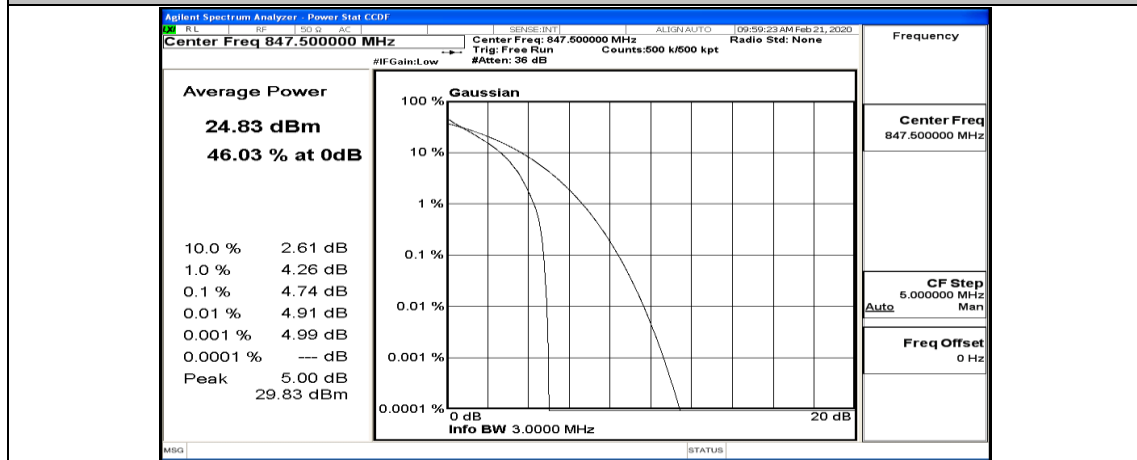


(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#7

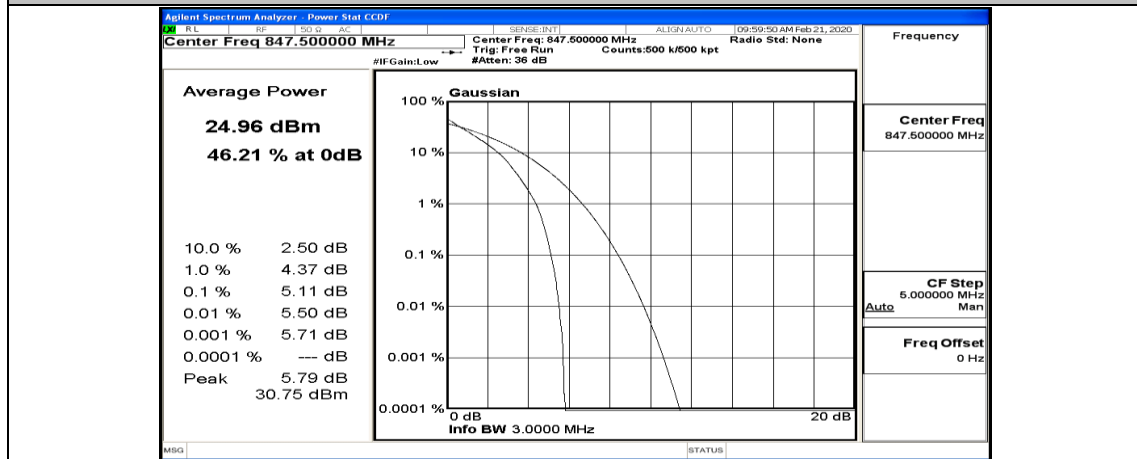




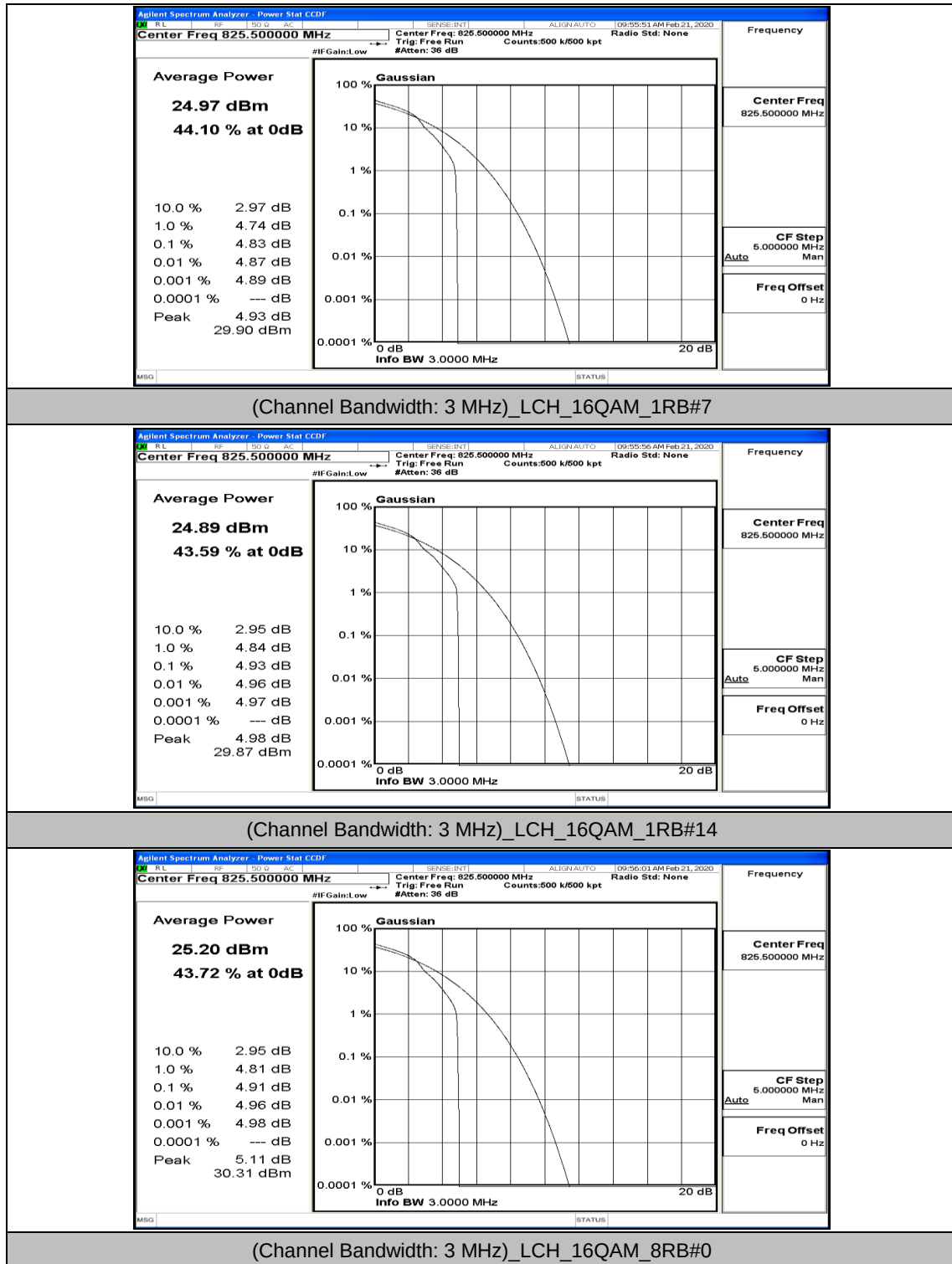
(Channel Bandwidth: 3 MHz)_HCH_QPSK_8RB#7

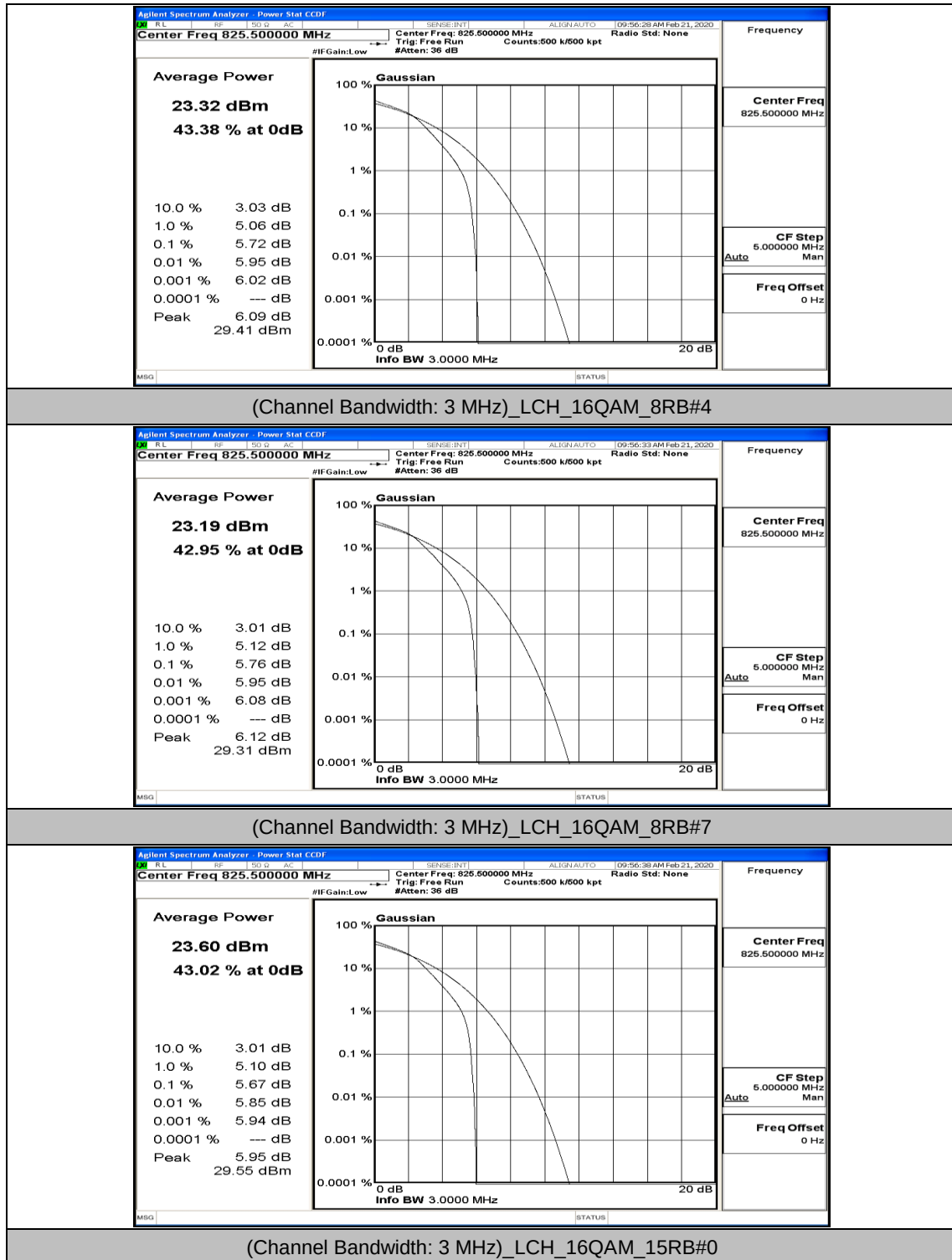


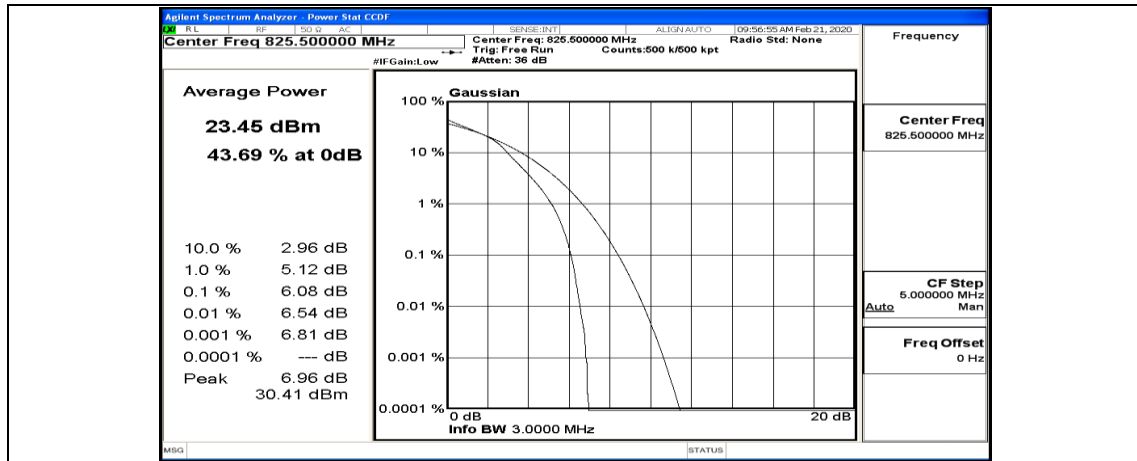
(Channel Bandwidth: 3 MHz)_HCH_QPSK_15RB#0



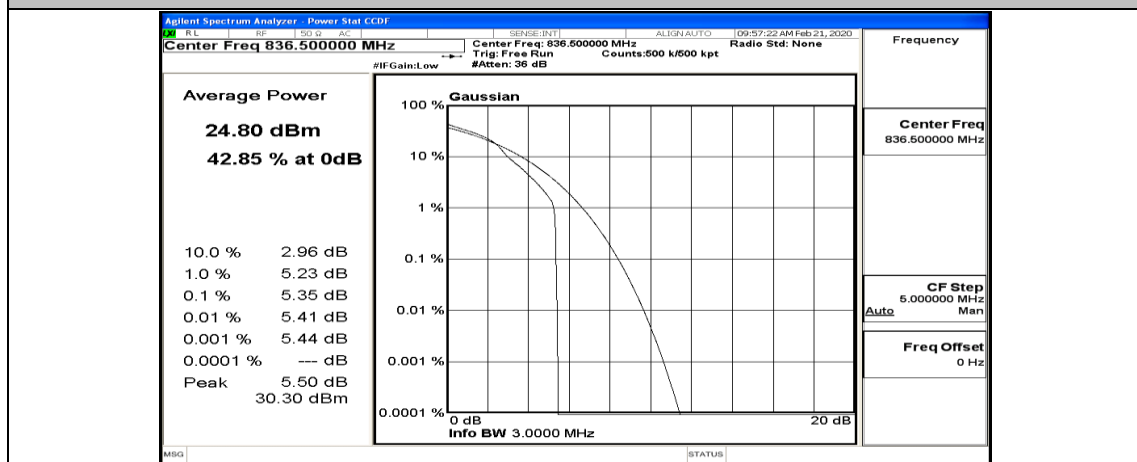
(Channel Bandwidth: 3 MHz)_LCH_16QAM_1RB#0



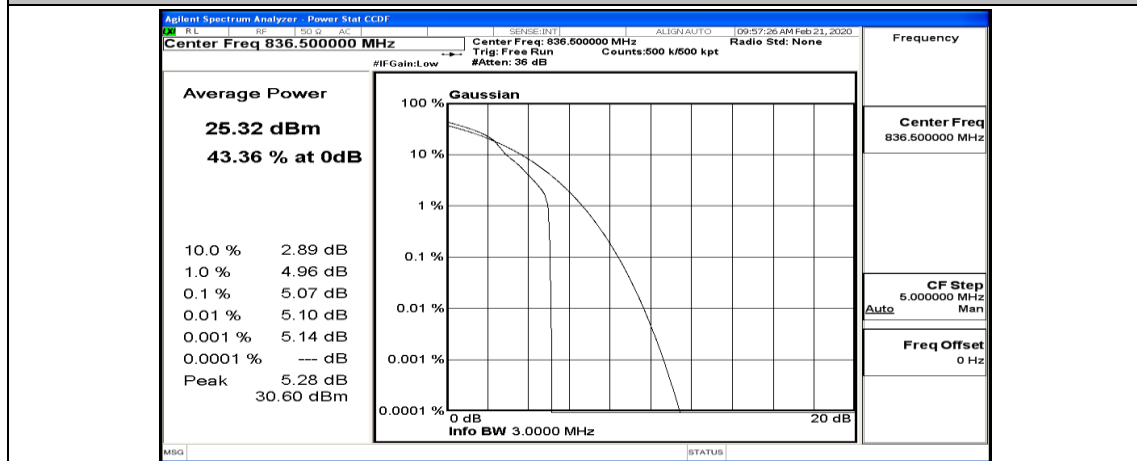




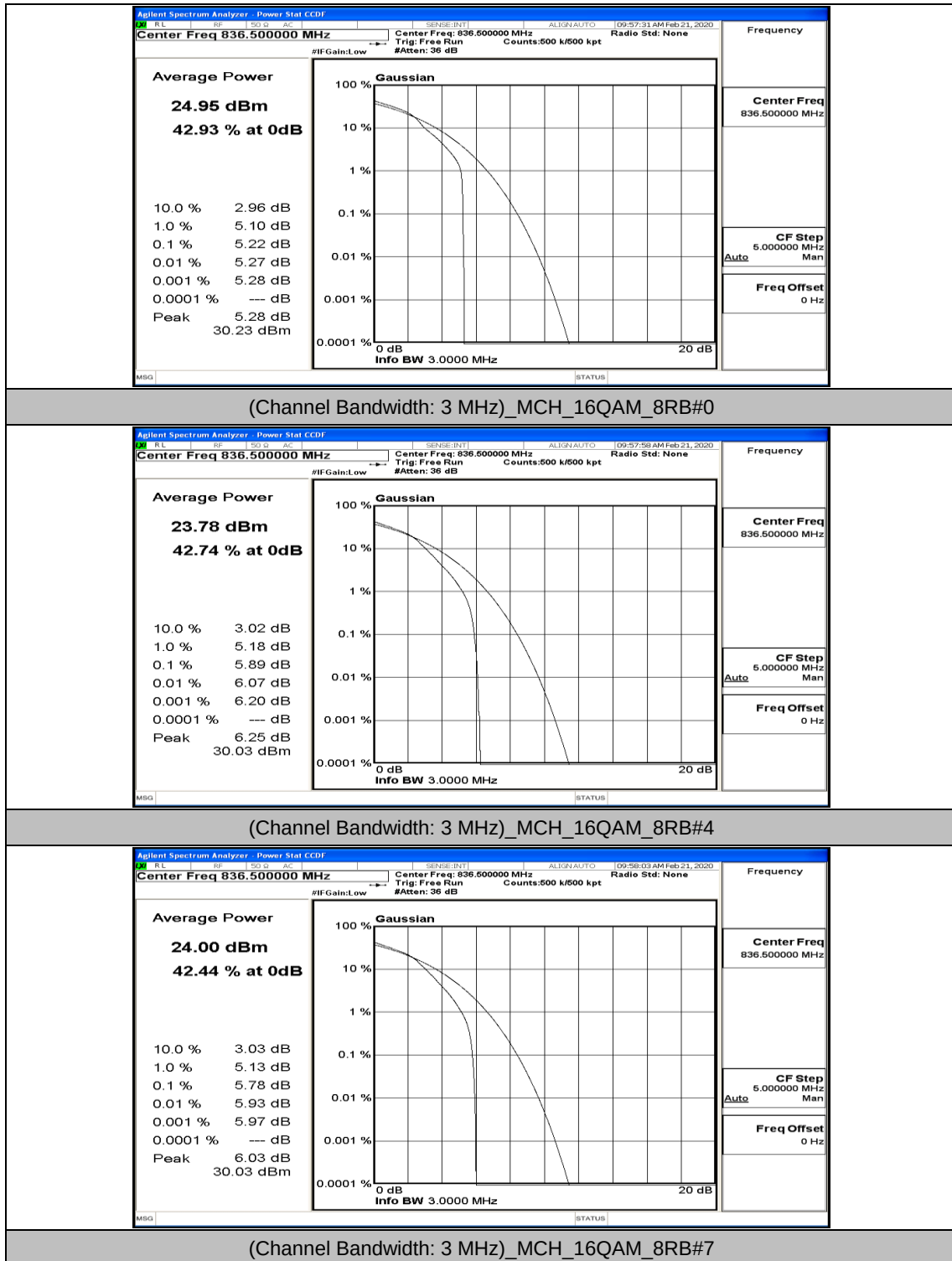
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#0

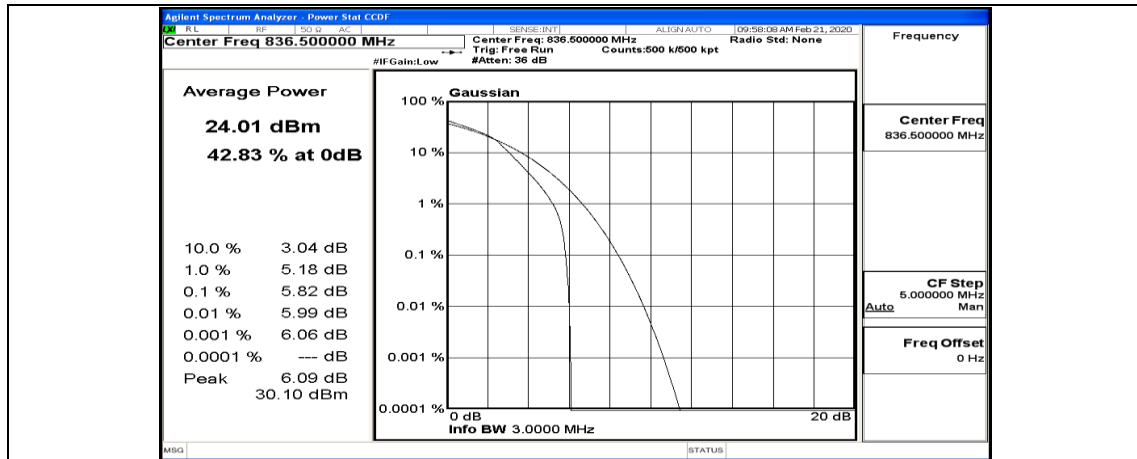


(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#7

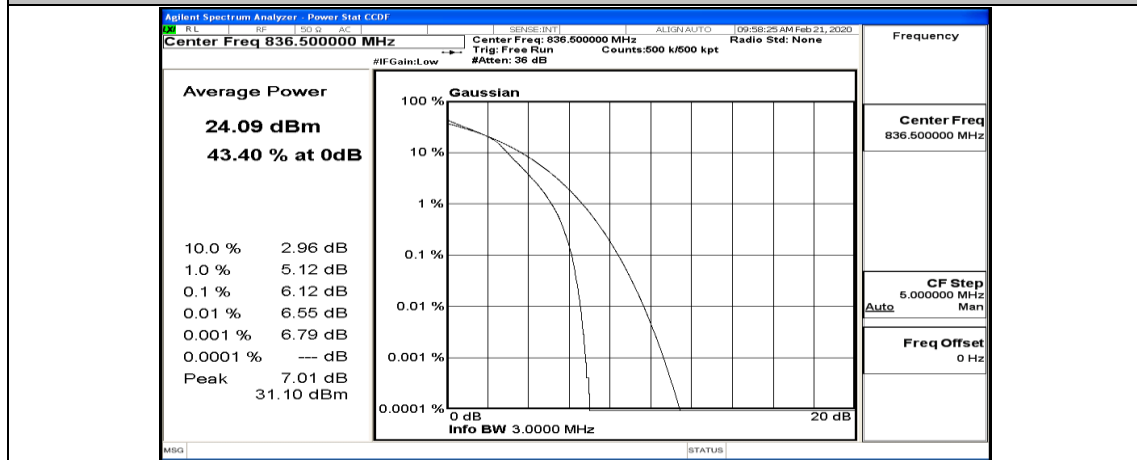


(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#14

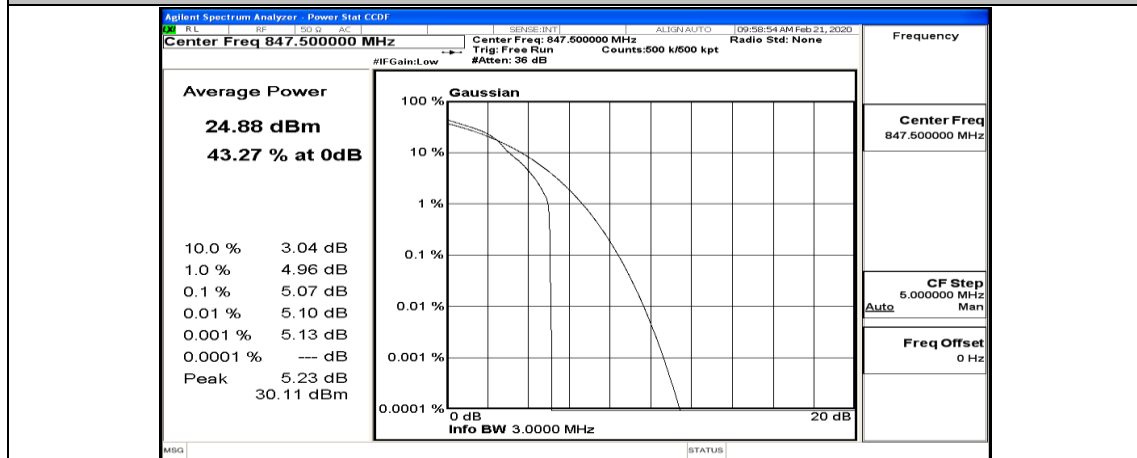




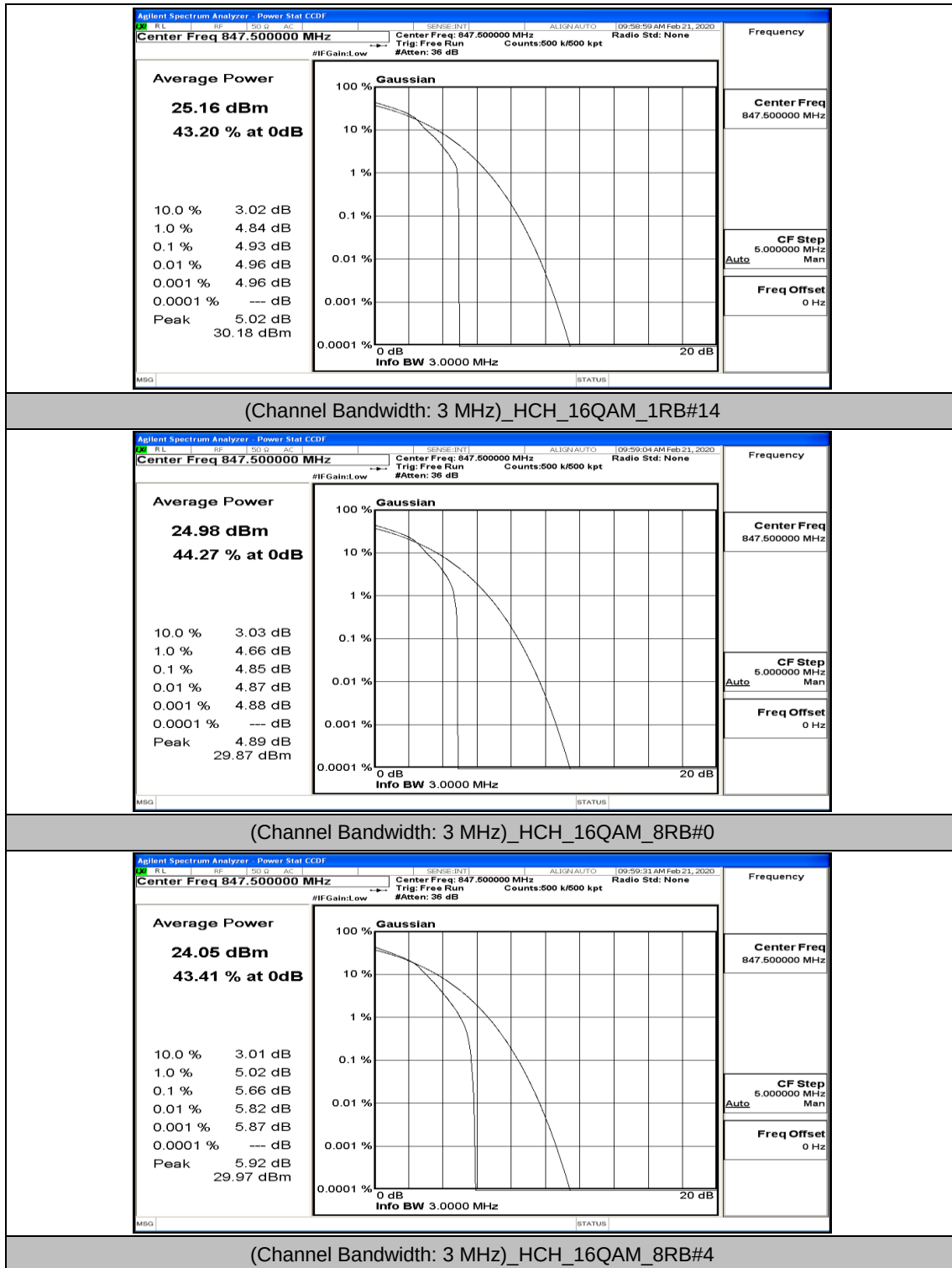
(Channel Bandwidth: 3 MHz)_MCH_16QAM_15RB#0

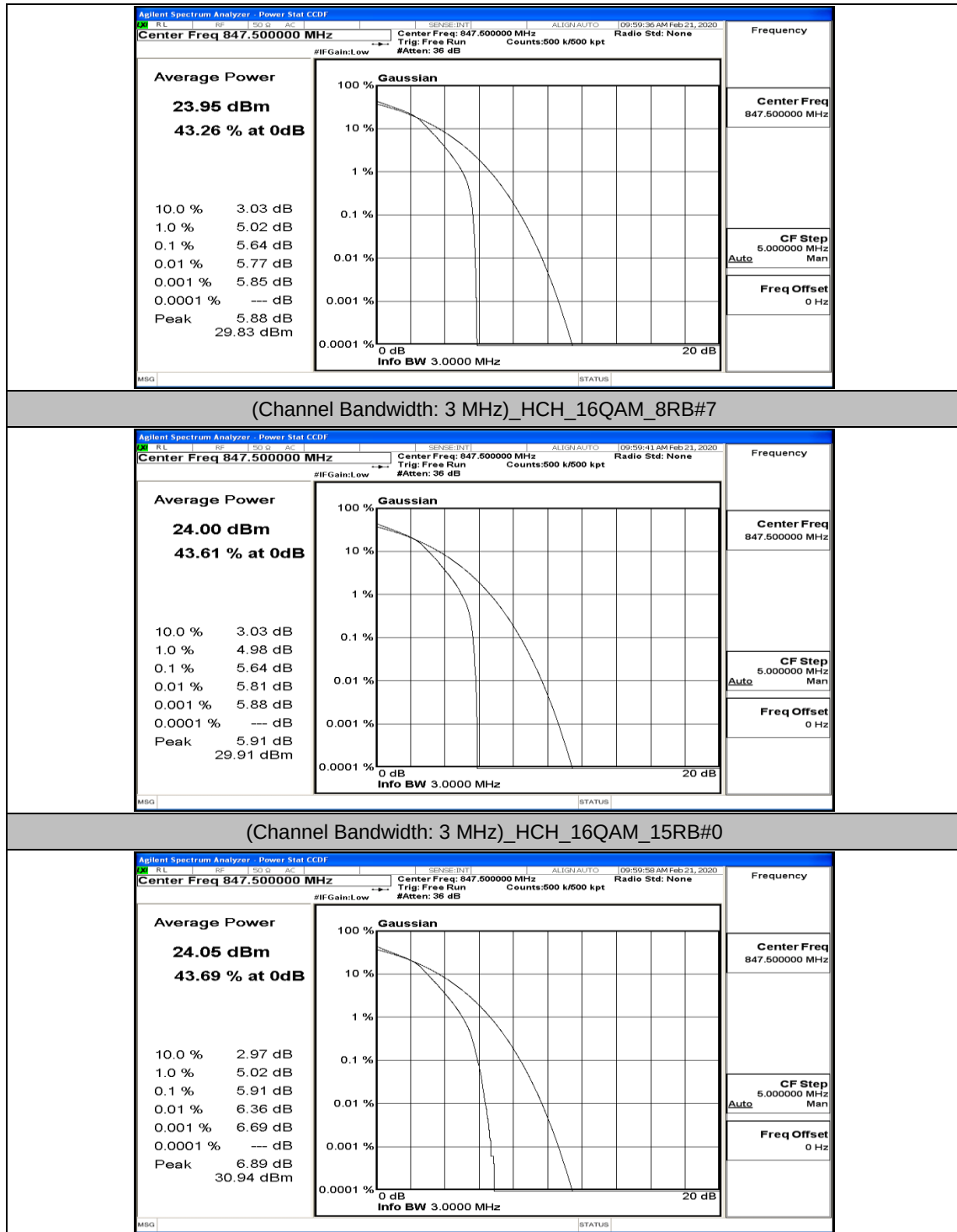


(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#0



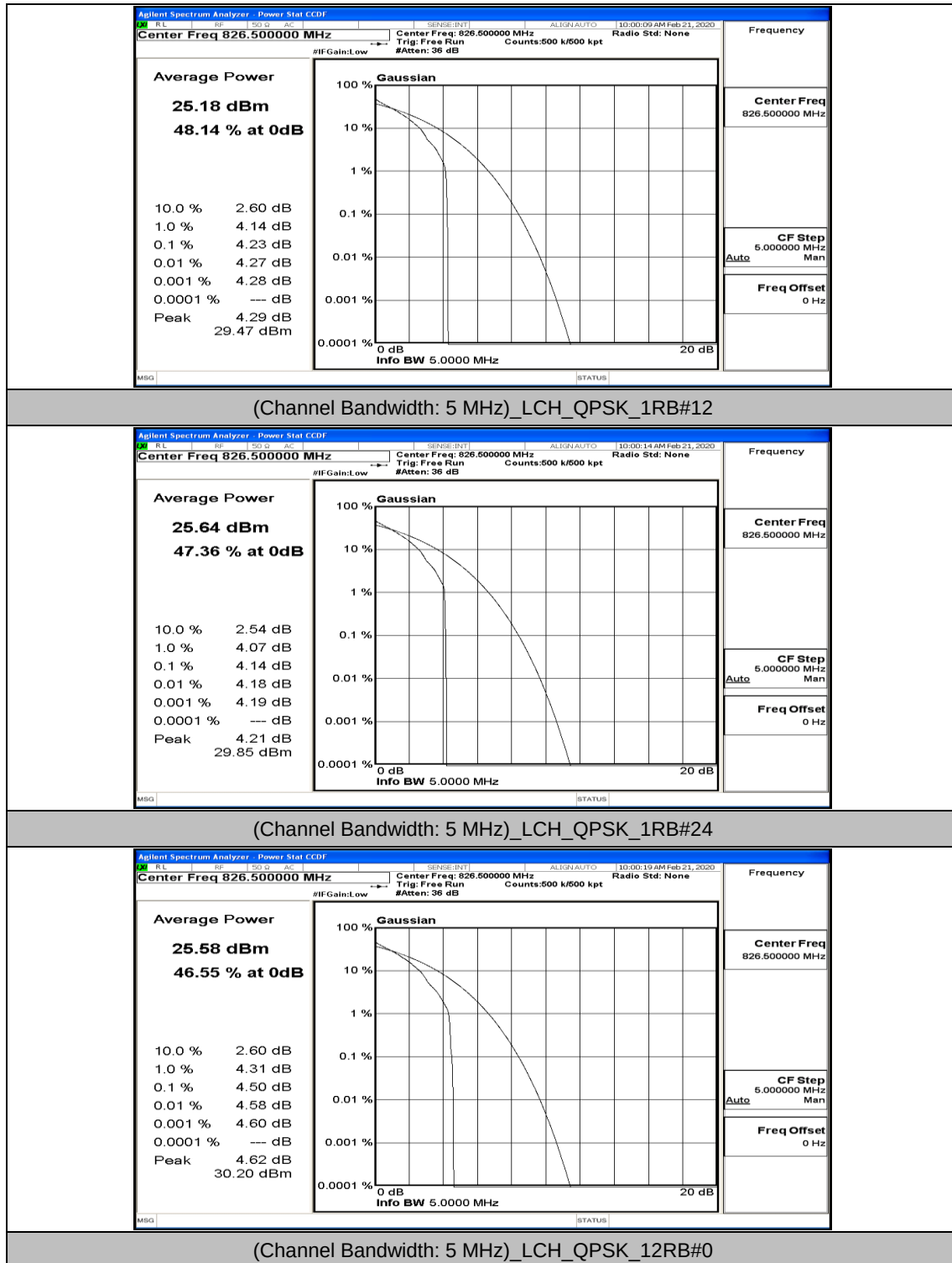
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#7

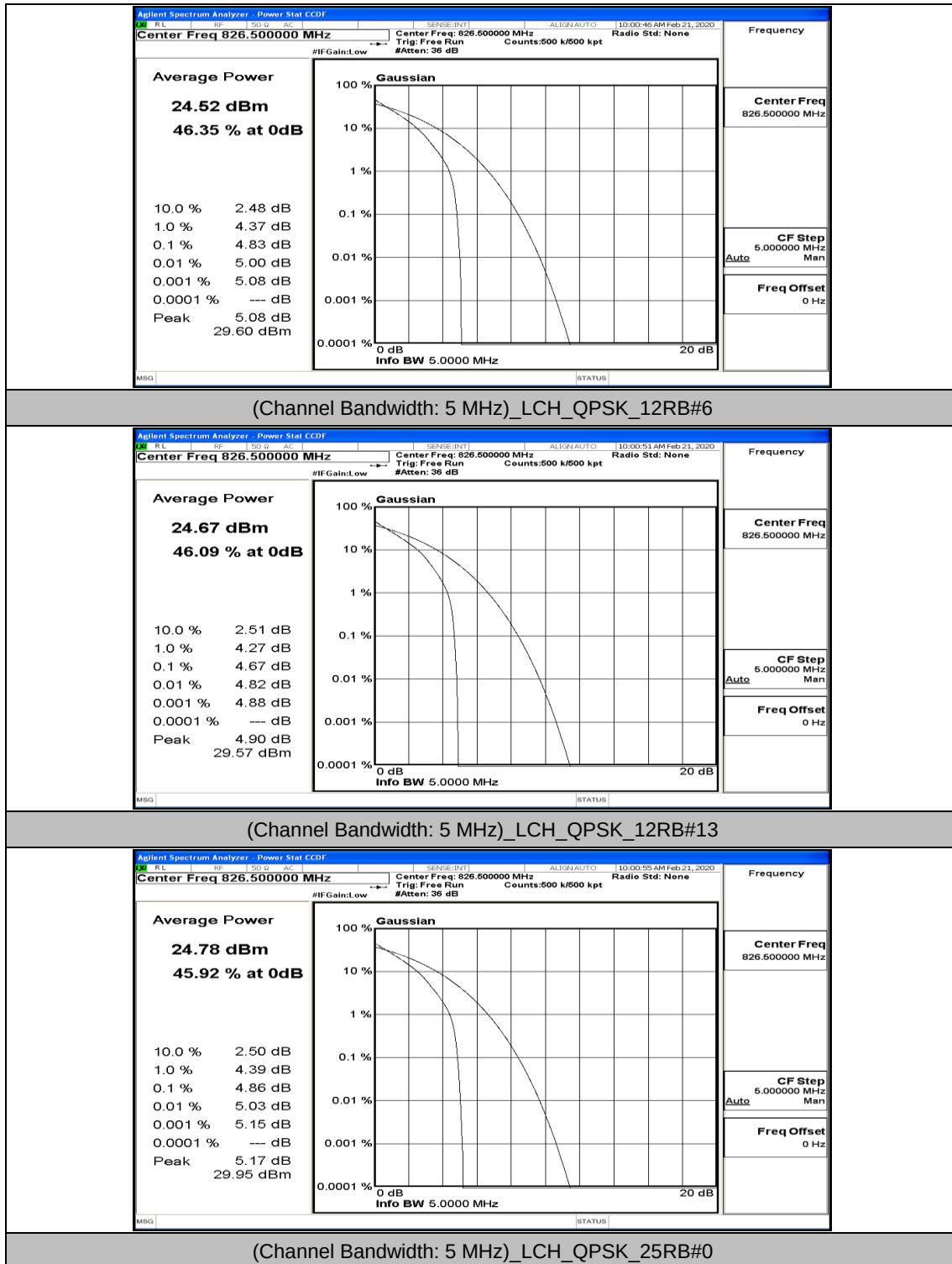


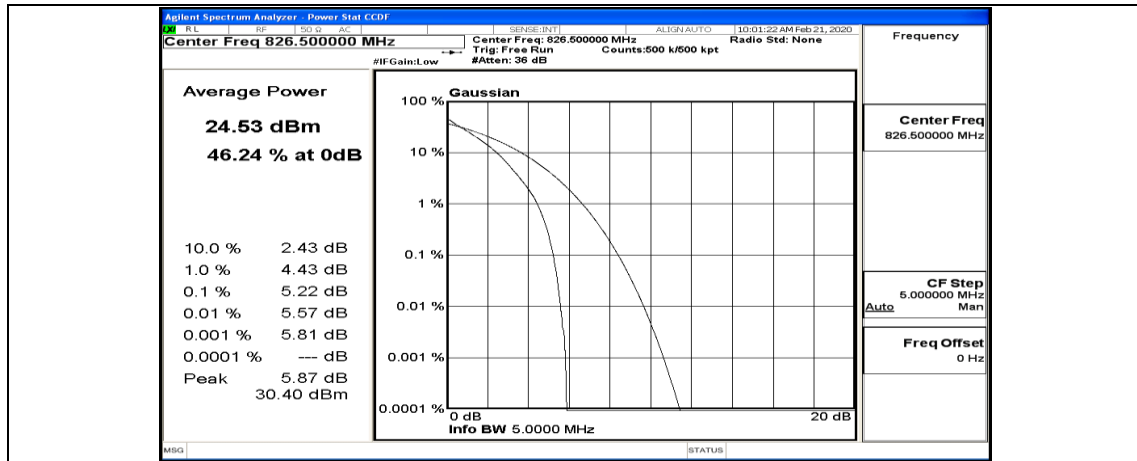


Channel Bandwidth: 5 MHz

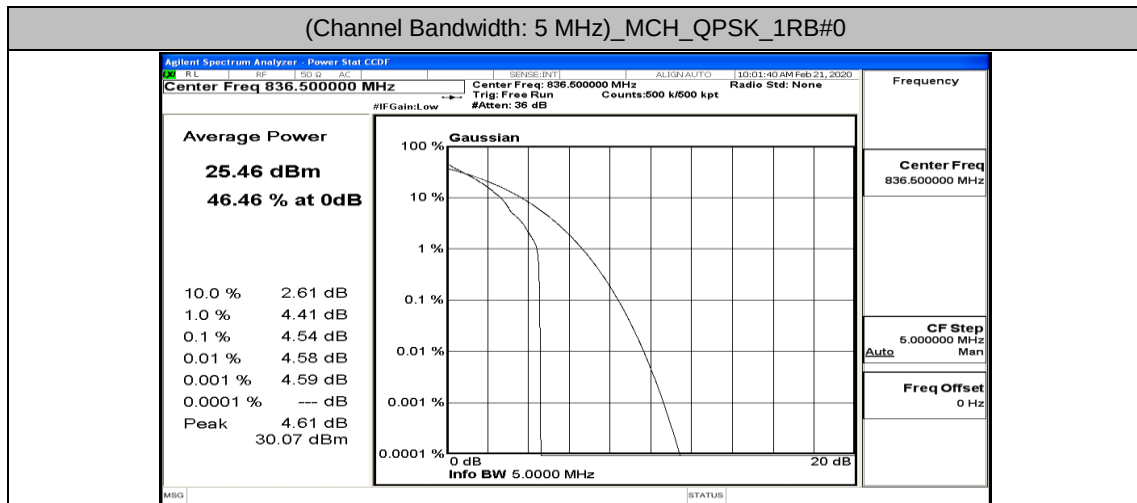
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



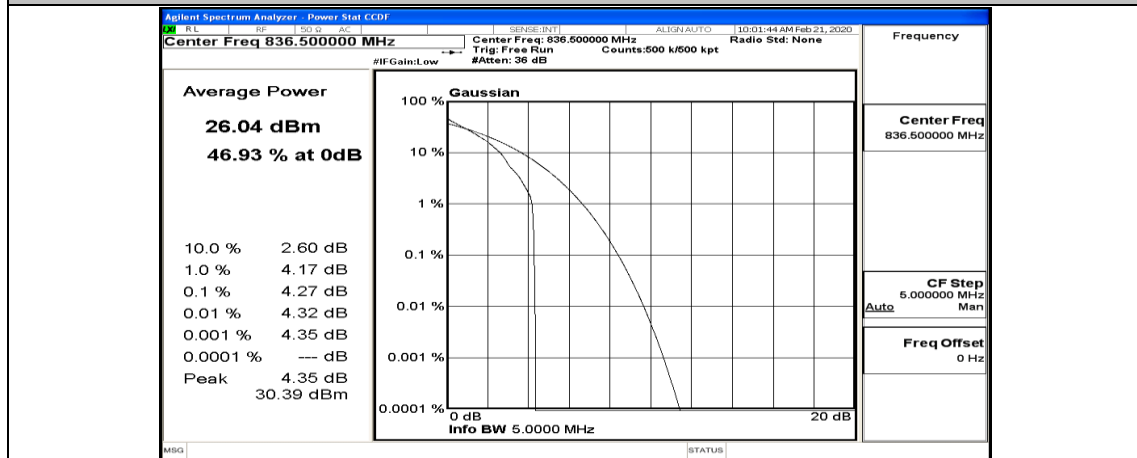




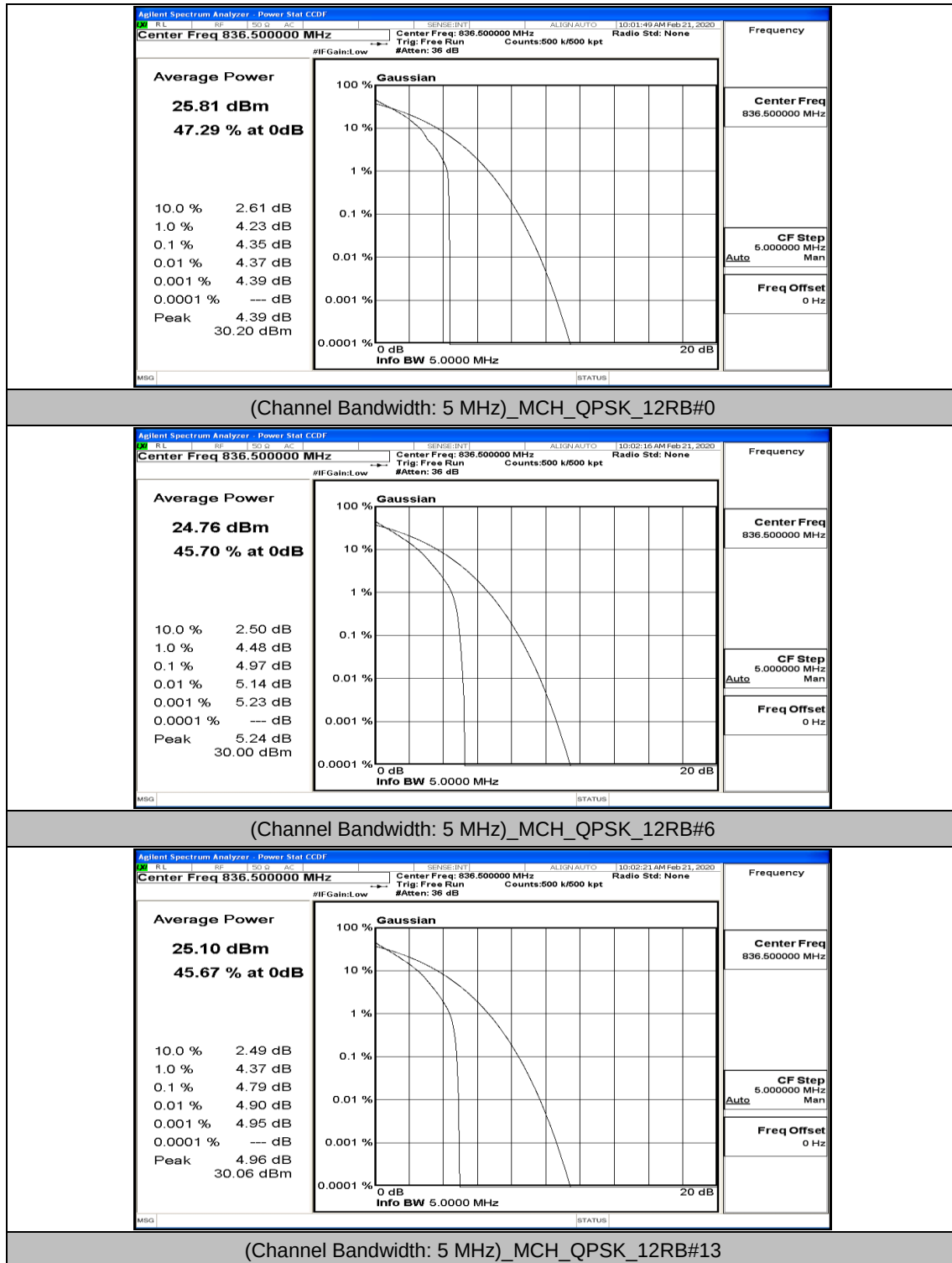
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0

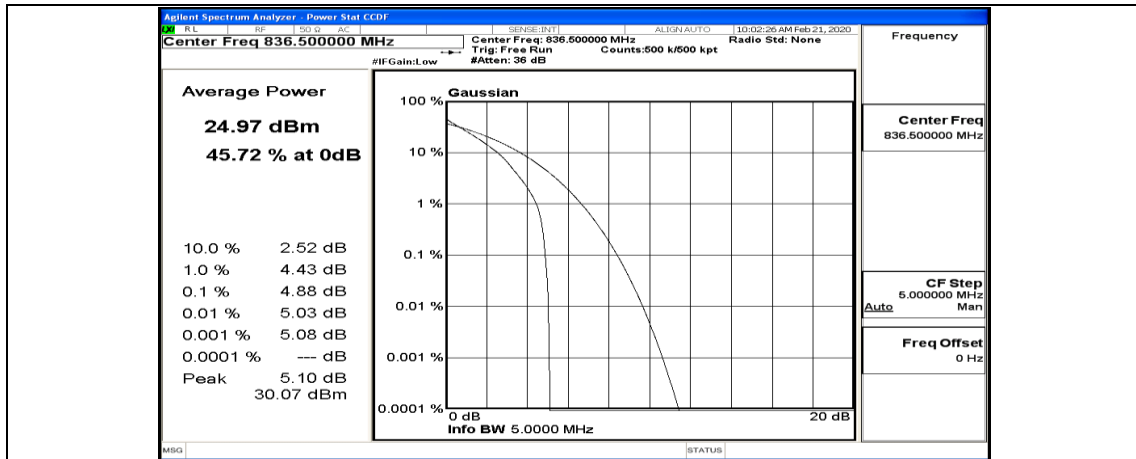


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12

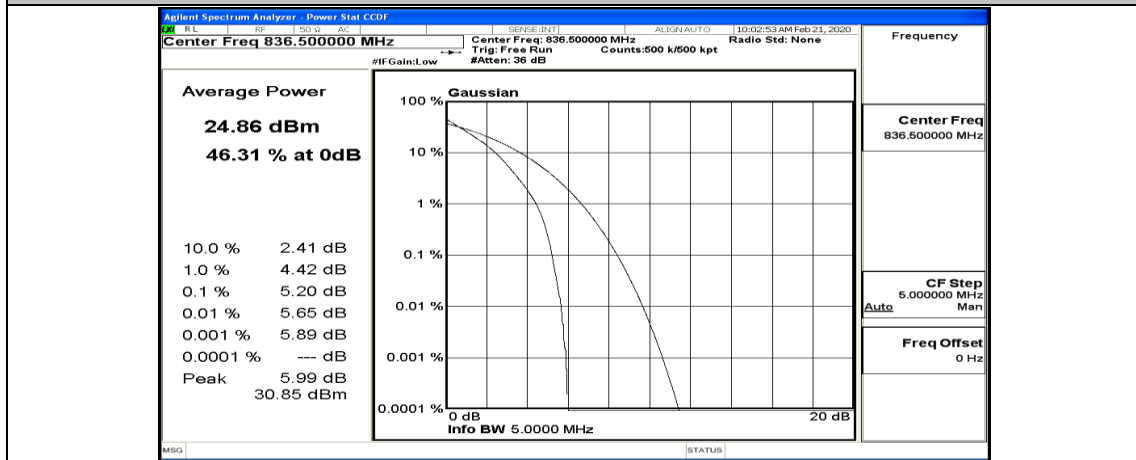


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24

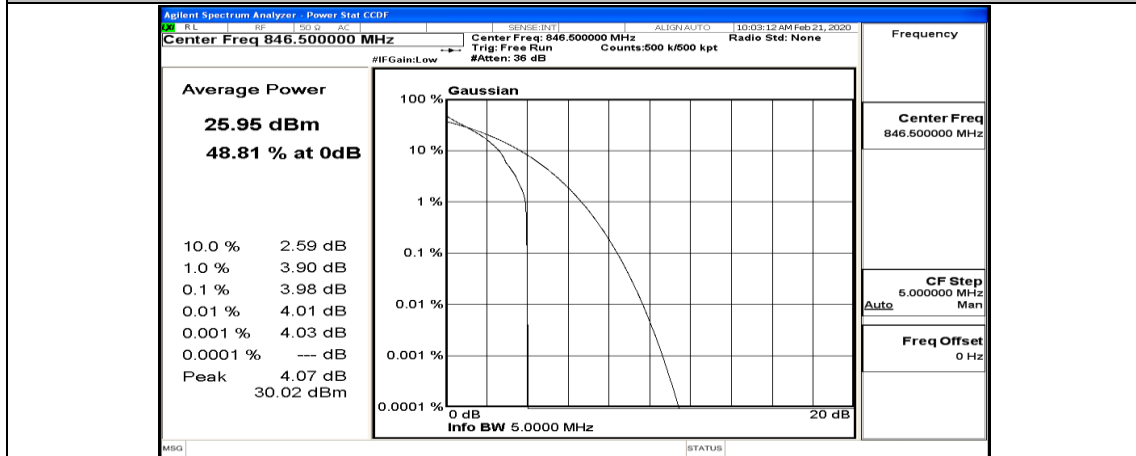




(Channel Bandwidth: 5 MHz)_MCH_QPSK_25RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12

