

Appendix for Band 7

Product Name: Intelligent Two Way Radio
Model No: T640A

Appendix A: Average Power Output Data

Test Result

Channel Bandwidth: 5 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.61	PASS
		1	12	23.99	PASS
		1	24	23.63	PASS
		12	0	23.58	PASS
		12	6	23.67	PASS
		12	13	23.67	PASS
		25	0	22.62	PASS
	MCH	1	0	24.56	PASS
		1	12	24.84	PASS
		1	24	24.65	PASS
		12	0	23.63	PASS
		12	6	23.68	PASS
		12	13	23.6	PASS
		25	0	23.64	PASS
	HCH	1	0	23.7	PASS
		1	12	23.96	PASS
		1	24	23.62	PASS
		12	0	23.68	PASS
		12	6	23.65	PASS
		12	13	23.64	PASS
		25	0	22.65	PASS
16QAM	LCH	1	0	22.77	PASS
		1	12	23.09	PASS
		1	24	22.76	PASS
		12	0	23.63	PASS
		12	6	23.69	PASS
		12	13	23.65	PASS
		25	0	21.6	PASS
	MCH	1	0	23.74	PASS
		1	12	24.08	PASS
		1	24	23.79	PASS
		12	0	22.7	PASS
		12	6	22.78	PASS
		12	13	22.7	PASS

	HCH	25	0	22.6	PASS
		1	0	22.78	PASS
		1	12	23.07	PASS
		1	24	22.72	PASS
		12	0	22.62	PASS
		12	6	22.65	PASS
		12	13	22.59	PASS
		25	0	21.61	PASS

Channel Bandwidth: 10 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.63	PASS
		1	24	23.81	PASS
		1	49	23.76	PASS
		25	0	22.65	PASS
		25	12	22.68	PASS
		25	25	22.81	PASS
		50	0	22.67	PASS
	MCH	1	0	24.56	PASS
		1	24	24.81	PASS
		1	49	24.7	PASS
		25	0	23.69	PASS
		25	12	23.66	PASS
		25	25	23.69	PASS
		50	0	23.64	PASS
	HCH	1	0	23.95	PASS
		1	24	23.88	PASS
		1	49	23.64	PASS
		25	0	22.89	PASS
		25	12	22.75	PASS
		25	25	22.7	PASS
		50	0	22.79	PASS
16QAM	LCH	1	0	22.81	PASS
		1	24	23.02	PASS
		1	49	22.92	PASS
		25	0	21.63	PASS
		25	12	21.71	PASS
		25	25	21.77	PASS
		50	0	21.66	PASS
	MCH	1	0	23.82	PASS

		1	24	24.09	PASS
		1	49	24.01	PASS
		25	0	22.68	PASS
		25	12	22.65	PASS
		25	25	22.65	PASS
		50	0	22.65	PASS
	HCH	1	0	23.1	PASS
		1	24	23.04	PASS
		1	49	22.85	PASS
		25	0	21.9	PASS
		25	12	21.69	PASS
		25	25	21.62	PASS
		50	0	21.76	PASS

Channel Bandwidth: 15 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.57	PASS
		1	37	23.85	PASS
		1	74	23.71	PASS
		37	0	22.67	PASS
		37	18	22.8	PASS
		37	38	22.86	PASS
		75	0	22.82	PASS
	MCH	1	0	24.39	PASS
		1	37	24.92	PASS
		1	74	24.6	PASS
		37	0	23.67	PASS
		37	18	23.71	PASS
		37	38	23.73	PASS
		75	0	23.77	PASS
	HCH	1	0	24.11	PASS
		1	37	24.05	PASS
		1	74	23.58	PASS
		37	0	23.13	PASS
		37	18	22.99	PASS
		37	38	22.77	PASS
		75	0	22.98	PASS
16QAM	LCH	1	0	22.73	PASS
		1	37	23.06	PASS
		1	74	22.91	PASS

		37	0	21.63	PASS
		37	18	21.72	PASS
		37	38	21.82	PASS
		75	0	21.71	PASS
	MCH	1	0	23.64	PASS
		1	37	24.09	PASS
		1	74	23.78	PASS
		37	0	22.62	PASS
		37	18	22.67	PASS
		37	38	22.73	PASS
		75	0	22.66	PASS
	HCH	1	0	23.26	PASS
		1	37	23.13	PASS
		1	74	22.75	PASS
		37	0	22.08	PASS
		37	18	21.89	PASS
		37	38	21.72	PASS
		75	0	21.94	PASS

Channel Bandwidth: 20 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.67	PASS
		1	49	23.98	PASS
		1	99	23.82	PASS
		50	0	22.61	PASS
		50	25	22.8	PASS
		50	50	22.82	PASS
		100	0	22.7	PASS
	MCH	1	0	24.14	PASS
		1	49	24.98	PASS
		1	99	24.46	PASS
		50	0	23.59	PASS
		50	25	23.6	PASS
		50	50	23.61	PASS
		100	0	23.59	PASS
	HCH	1	0	24.11	PASS
		1	49	24.02	PASS
		1	99	23.55	PASS
		50	0	23.12	PASS
		50	25	22.96	PASS

		50	50	22.68	PASS
		100	0	22.91	PASS
16QAM	LCH	1	0	22.58	PASS
		1	49	23.09	PASS
		1	99	22.91	PASS
		50	0	21.59	PASS
		50	25	21.72	PASS
		50	50	21.81	PASS
		100	0	21.65	PASS
	MCH	1	0	23.43	PASS
		1	49	24.14	PASS
		1	99	23.75	PASS
		50	0	22.58	PASS
		50	25	22.64	PASS
		50	50	22.61	PASS
		100	0	22.56	PASS
	HCH	1	0	23.34	PASS
		1	49	23.23	PASS
		1	99	22.53	PASS
		50	0	22.09	PASS
		50	25	21.93	PASS
		50	50	21.64	PASS
		100	0	21.87	PASS

Appendix B: Peak-to-Average Ratio

Test Result

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	3.88	<13	PASS
		1	12	3.82	<13	PASS
		1	24	4.07	<13	PASS
		12	0	4.61	<13	PASS
		12	6	4.65	<13	PASS
		12	13	4.71	<13	PASS
		25	0	4.67	<13	PASS
	MCH	1	0	4.08	<13	PASS
		1	12	3.88	<13	PASS
		1	24	4.23	<13	PASS
		12	0	4.76	<13	PASS
		12	6	4.73	<13	PASS
		12	13	4.8	<13	PASS
		25	0	4.87	<13	PASS
	HCH	1	0	3.68	<13	PASS
		1	12	3.28	<13	PASS
		1	24	3.66	<13	PASS
		12	0	4.59	<13	PASS
		12	6	4.45	<13	PASS
		12	13	4.49	<13	PASS
		25	0	4.55	<13	PASS
16QAM	LCH	1	0	4.77	<13	PASS
		1	12	4.71	<13	PASS
		1	24	5.05	<13	PASS
		12	0	5.6	<13	PASS
		12	6	5.56	<13	PASS
		12	13	5.65	<13	PASS
		25	0	5.52	<13	PASS
	MCH	1	0	5	<13	PASS
		1	12	4.96	<13	PASS
		1	24	5.1	<13	PASS
		12	0	5.64	<13	PASS

		12	6	5.68	<13	PASS
		12	13	5.68	<13	PASS
		25	0	5.8	<13	PASS
	HCH	1	0	4.72	<13	PASS
		1	12	4.34	<13	PASS
		1	24	4.65	<13	PASS
		12	0	5.41	<13	PASS
		12	6	5.46	<13	PASS
		12	13	5.41	<13	PASS
		25	0	5.44	<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	3.69	<13	PASS
		1	24	3.88	<13	PASS
		1	49	3.93	<13	PASS
		25	0	4.61	<13	PASS
		25	12	4.72	<13	PASS
		25	25	4.74	<13	PASS
		50	0	4.74	<13	PASS
	MCH	1	0	3.79	<13	PASS
		1	24	3.82	<13	PASS
		1	49	4.05	<13	PASS
		25	0	4.78	<13	PASS
		25	12	4.88	<13	PASS
		25	25	4.88	<13	PASS
		50	0	4.87	<13	PASS
	HCH	1	0	3.65	<13	PASS
		1	24	3.48	<13	PASS
		1	49	3.43	<13	PASS
		25	0	4.44	<13	PASS
		25	12	4.47	<13	PASS
		25	25	4.45	<13	PASS
		50	0	4.57	<13	PASS
16QAM	LCH	1	0	4.7	<13	PASS
		1	24	4.79	<13	PASS
		1	49	5	<13	PASS
		25	0	5.59	<13	PASS
		25	12	5.71	<13	PASS

		25	25	5.65	<13	PASS
		50	0	5.61	<13	PASS
	MCH	1	0	4.94	<13	PASS
		1	24	4.87	<13	PASS
		1	49	4.99	<13	PASS
		25	0	5.75	<13	PASS
		25	12	5.79	<13	PASS
		25	25	5.89	<13	PASS
		50	0	5.79	<13	PASS
	HCH	1	0	4.72	<13	PASS
		1	24	4.59	<13	PASS
		1	49	4.46	<13	PASS
		25	0	5.45	<13	PASS
		25	12	5.47	<13	PASS
		25	25	5.45	<13	PASS
		50	0	5.48	<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	3.78	<13	PASS
		1	37	3.87	<13	PASS
		1	74	3.95	<13	PASS
		37	0	4.66	<13	PASS
		37	18	4.7	<13	PASS
		37	38	4.71	<13	PASS
		75	0	5.04	<13	PASS
	MCH	1	0	3.89	<13	PASS
		1	37	4.03	<13	PASS
		1	74	4.24	<13	PASS
		37	0	4.7	<13	PASS
		37	18	4.81	<13	PASS
		37	38	4.89	<13	PASS
		75	0	5.17	<13	PASS
	HCH	1	0	3.75	<13	PASS
		1	37	3.45	<13	PASS
		1	74	3.49	<13	PASS
		37	0	4.48	<13	PASS
		37	18	4.46	<13	PASS
		37	38	4.49	<13	PASS

		75	0	4.89	<13	PASS
16QAM	LCH	1	0	4.52	<13	PASS
		1	37	4.82	<13	PASS
		1	74	4.89	<13	PASS
		37	0	5.59	<13	PASS
		37	18	5.62	<13	PASS
		37	38	5.65	<13	PASS
		75	0	5.85	<13	PASS
	MCH	1	0	4.9	<13	PASS
		1	37	4.91	<13	PASS
		1	74	5.28	<13	PASS
		37	0	5.67	<13	PASS
		37	18	5.74	<13	PASS
		37	38	5.86	<13	PASS
		75	0	5.96	<13	PASS
	HCH	1	0	4.87	<13	PASS
		1	37	4.46	<13	PASS
		1	74	4.59	<13	PASS
		37	0	5.46	<13	PASS
		37	18	5.43	<13	PASS
		37	38	5.45	<13	PASS
		75	0	5.66	<13	PASS

Channel Bandwidth: 20 MHz

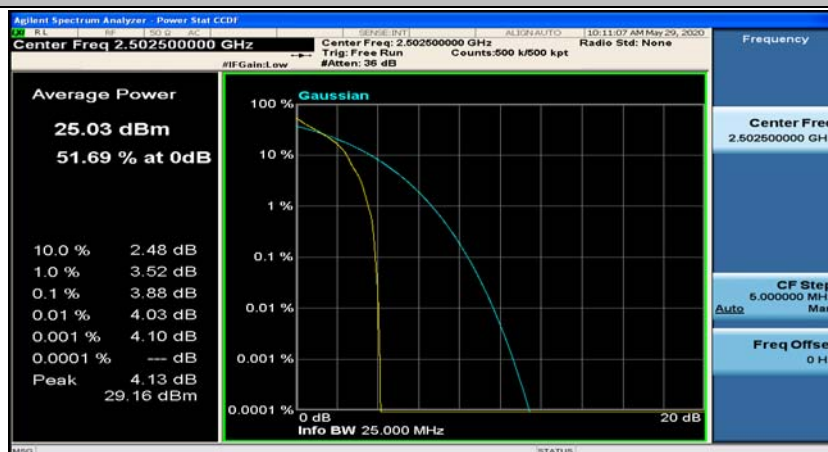
Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	3.88	<13	PASS
		1	49	3.79	<13	PASS
		1	99	3.98	<13	PASS
		50	0	4.83	<13	PASS
		50	25	4.76	<13	PASS
		50	50	4.78	<13	PASS
		100	0	5.11	<13	PASS
	MCH	1	0	4.14	<13	PASS
		1	49	3.99	<13	PASS
		1	99	4.39	<13	PASS
		50	0	4.87	<13	PASS
		50	25	4.91	<13	PASS
		50	50	5.02	<13	PASS
		100	0	5.18	<13	PASS

	HCH	1	0	4.17	<13	PASS
		1	49	3.63	<13	PASS
		1	99	3.77	<13	PASS
		50	0	4.79	<13	PASS
		50	25	4.62	<13	PASS
		50	50	4.7	<13	PASS
		100	0	4.99	<13	PASS
16QAM	LCH	1	0	4.75	<13	PASS
		1	49	4.83	<13	PASS
		1	99	5.02	<13	PASS
		50	0	5.67	<13	PASS
		50	25	5.68	<13	PASS
		50	50	5.69	<13	PASS
		100	0	5.89	<13	PASS
	MCH	1	0	4.87	<13	PASS
		1	49	4.86	<13	PASS
		1	99	5.17	<13	PASS
		50	0	5.71	<13	PASS
		50	25	5.78	<13	PASS
		50	50	5.92	<13	PASS
		100	0	6	<13	PASS
	HCH	1	0	5.25	<13	PASS
		1	49	4.59	<13	PASS
		1	99	4.78	<13	PASS
		50	0	5.69	<13	PASS
		50	25	5.58	<13	PASS
		50	50	5.64	<13	PASS
		100	0	5.87	<13	PASS

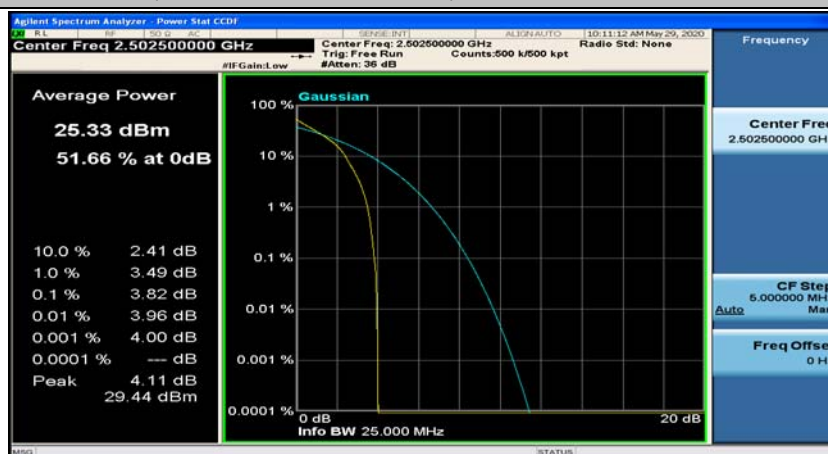
Test Graphs

Channel Bandwidth: 5 MHz

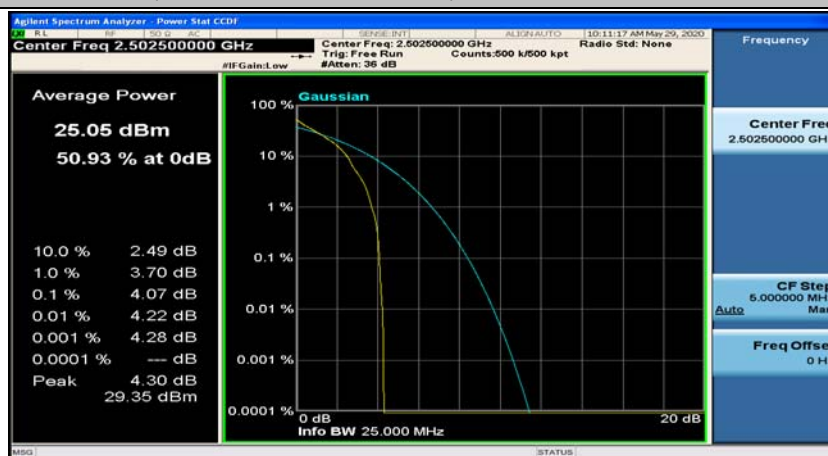
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



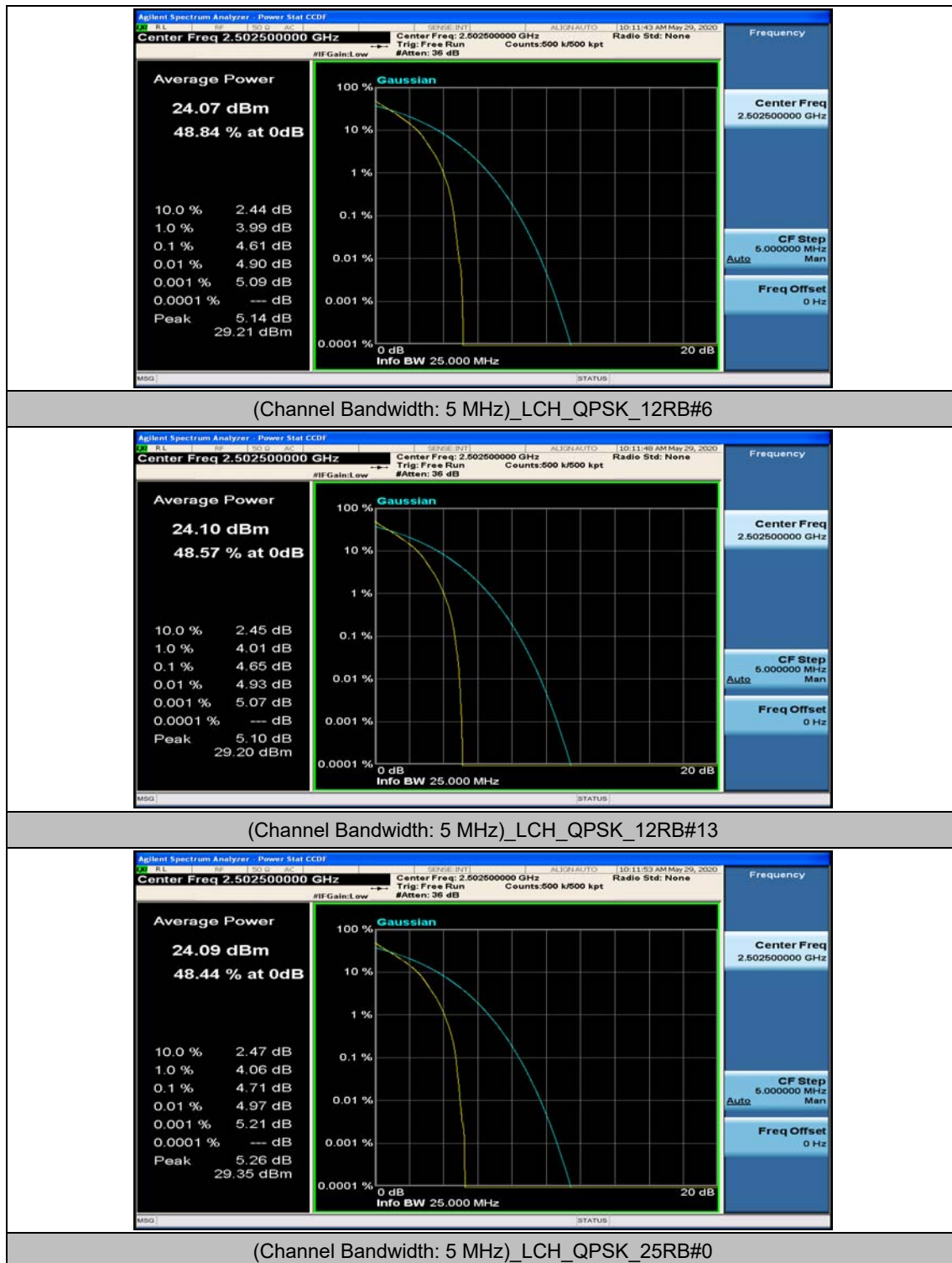
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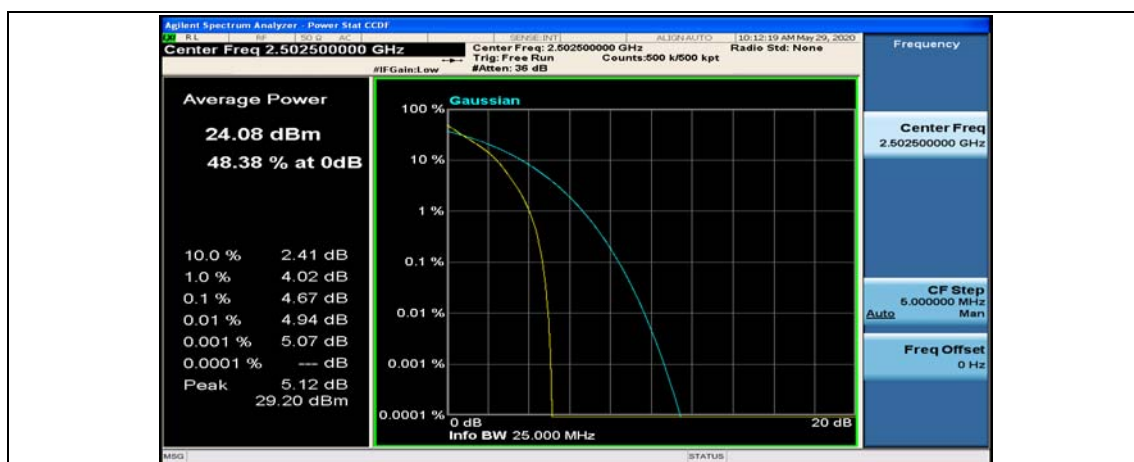


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(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#0

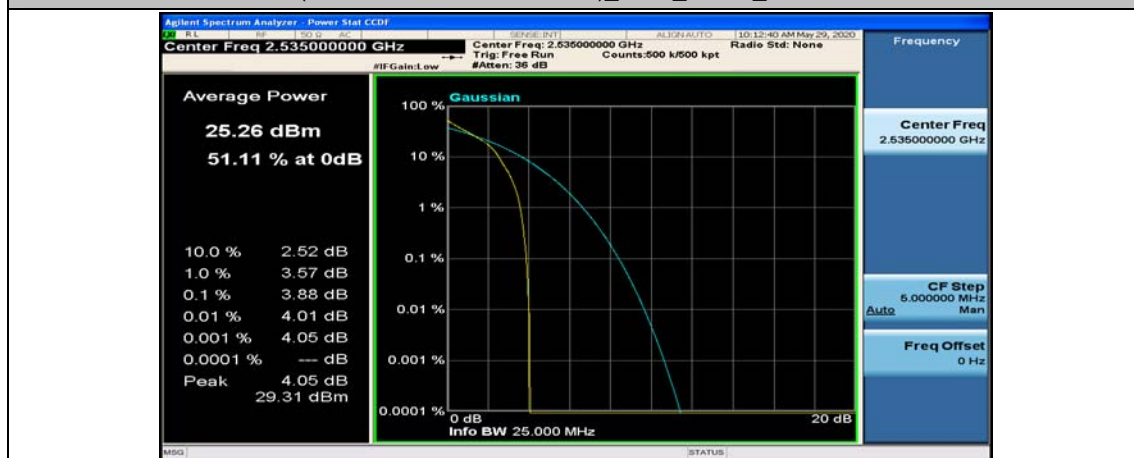




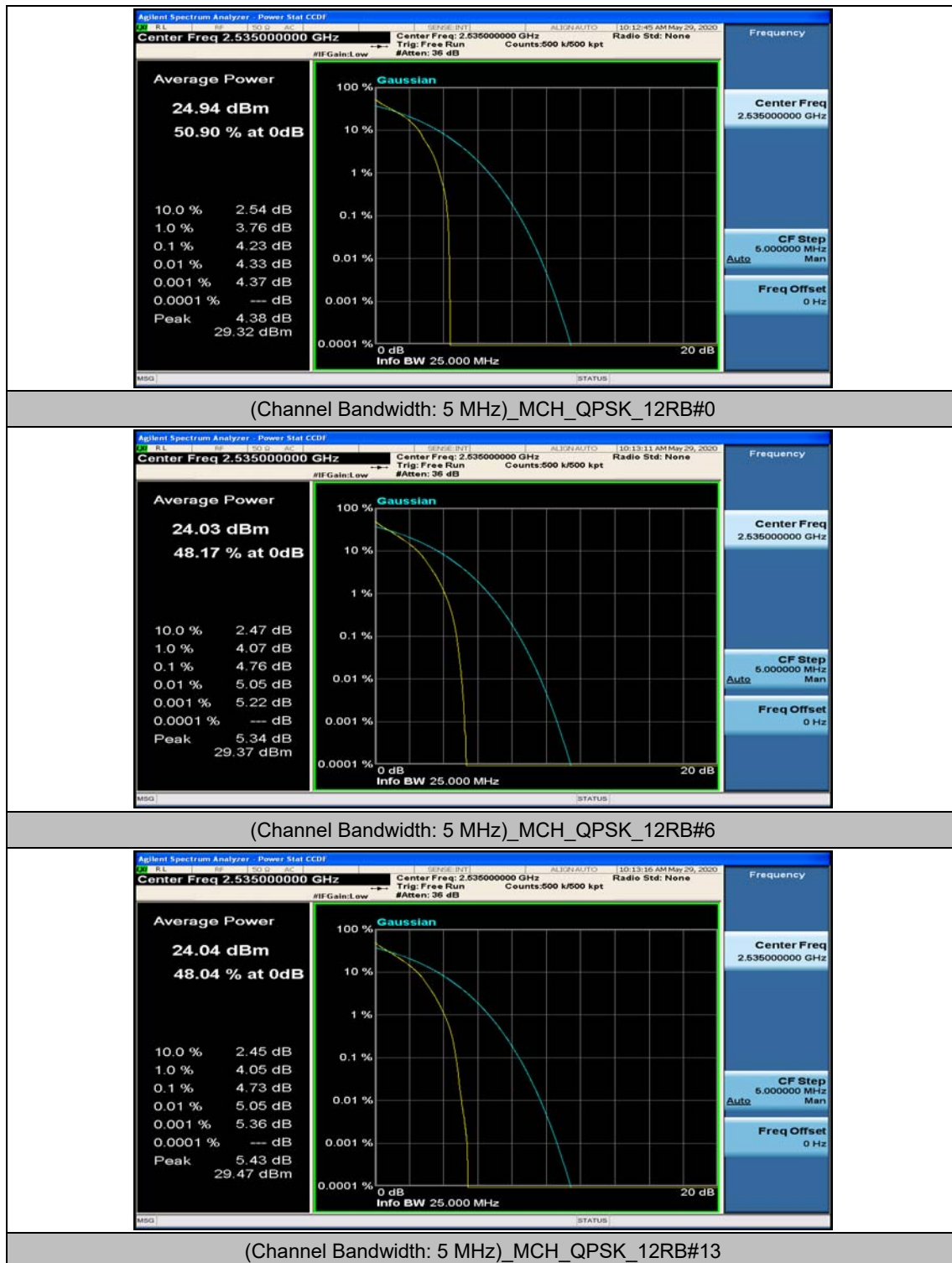
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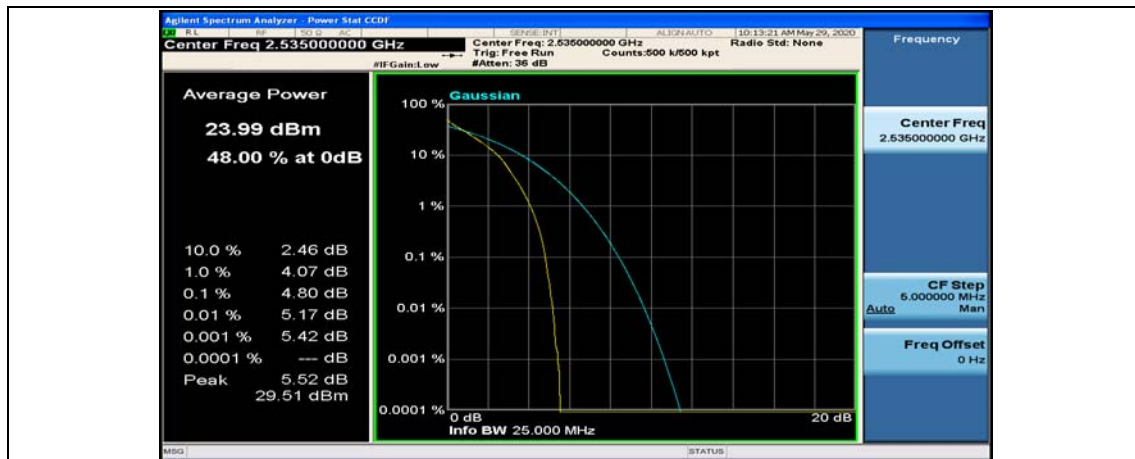


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12

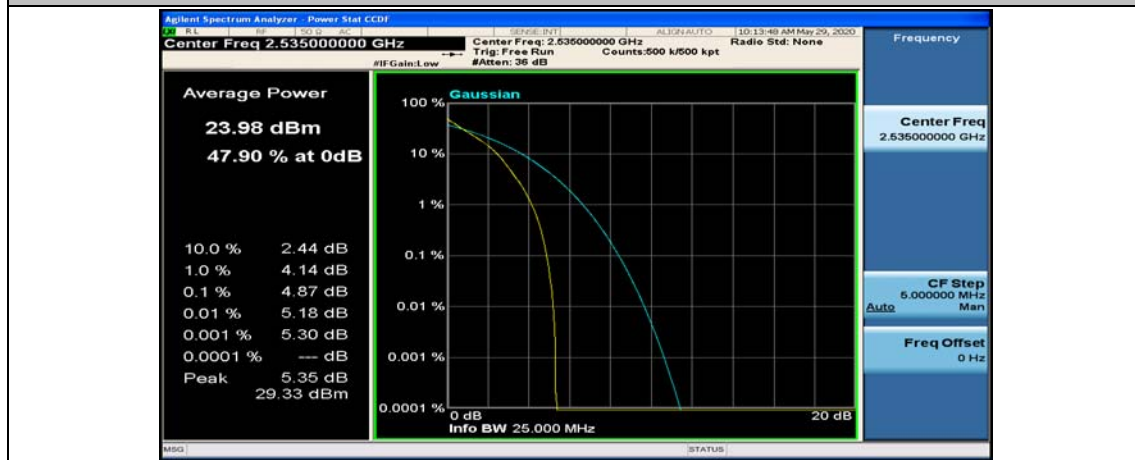


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24

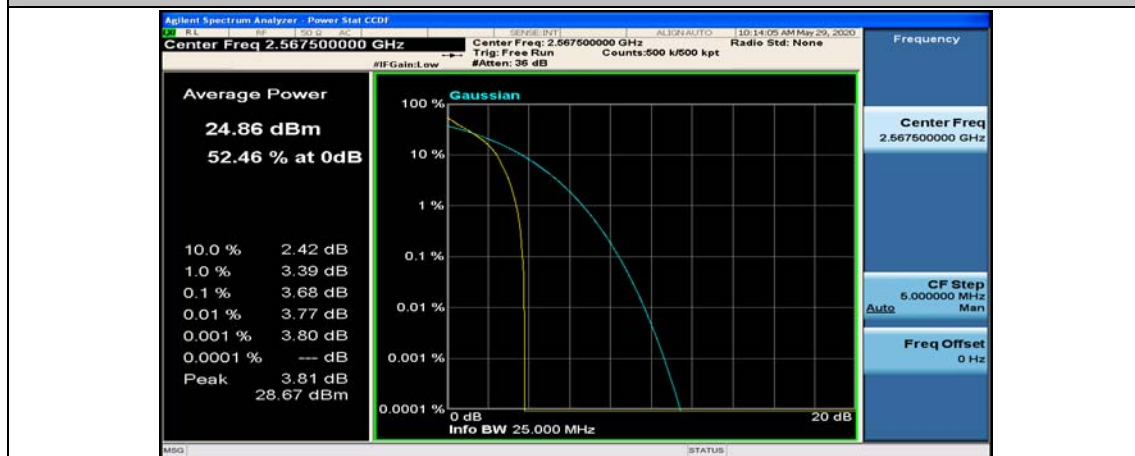




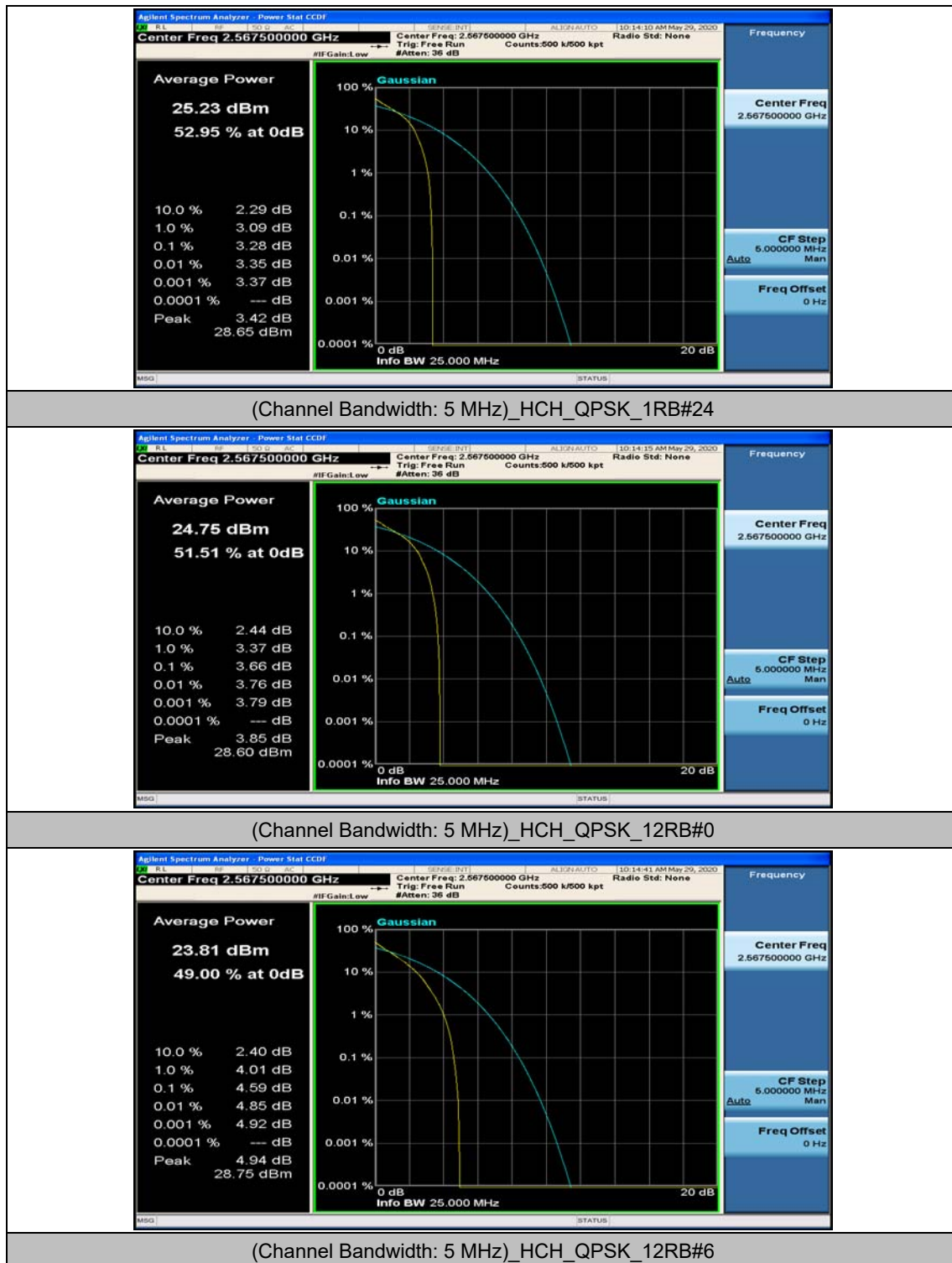
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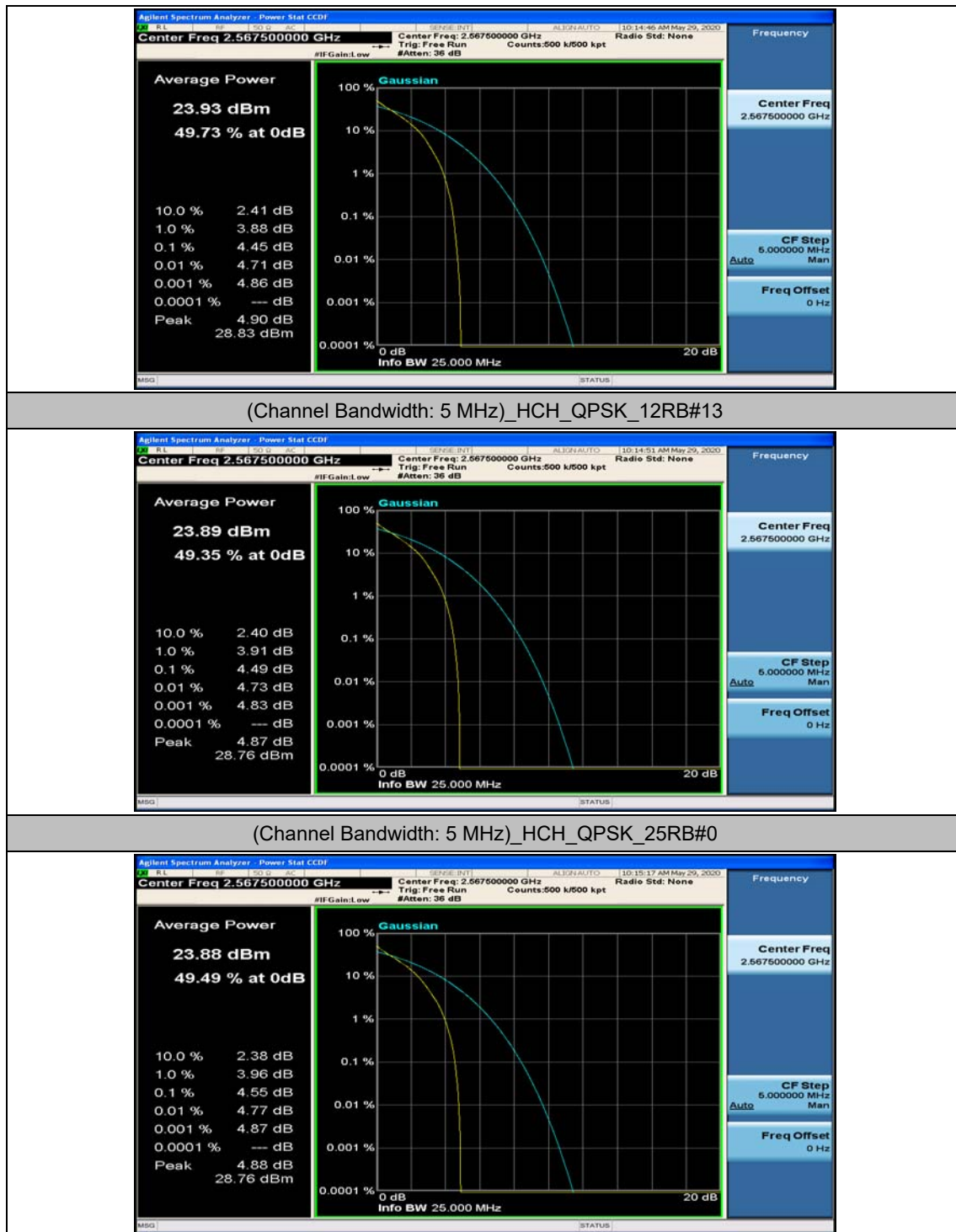


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0

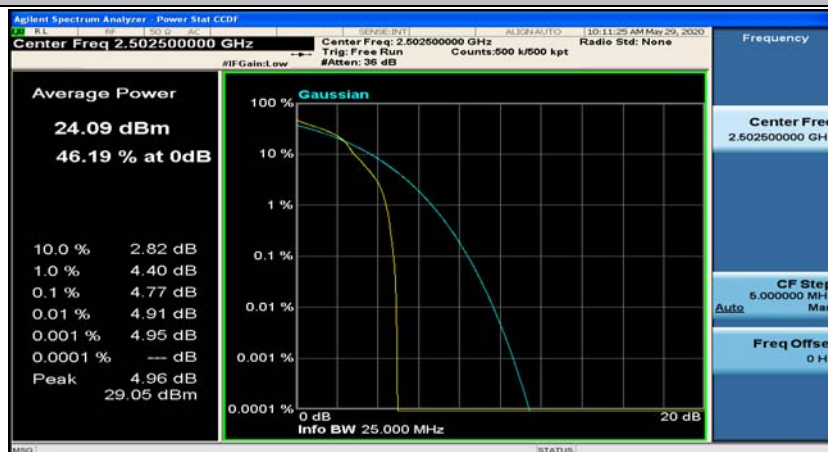


(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12





(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



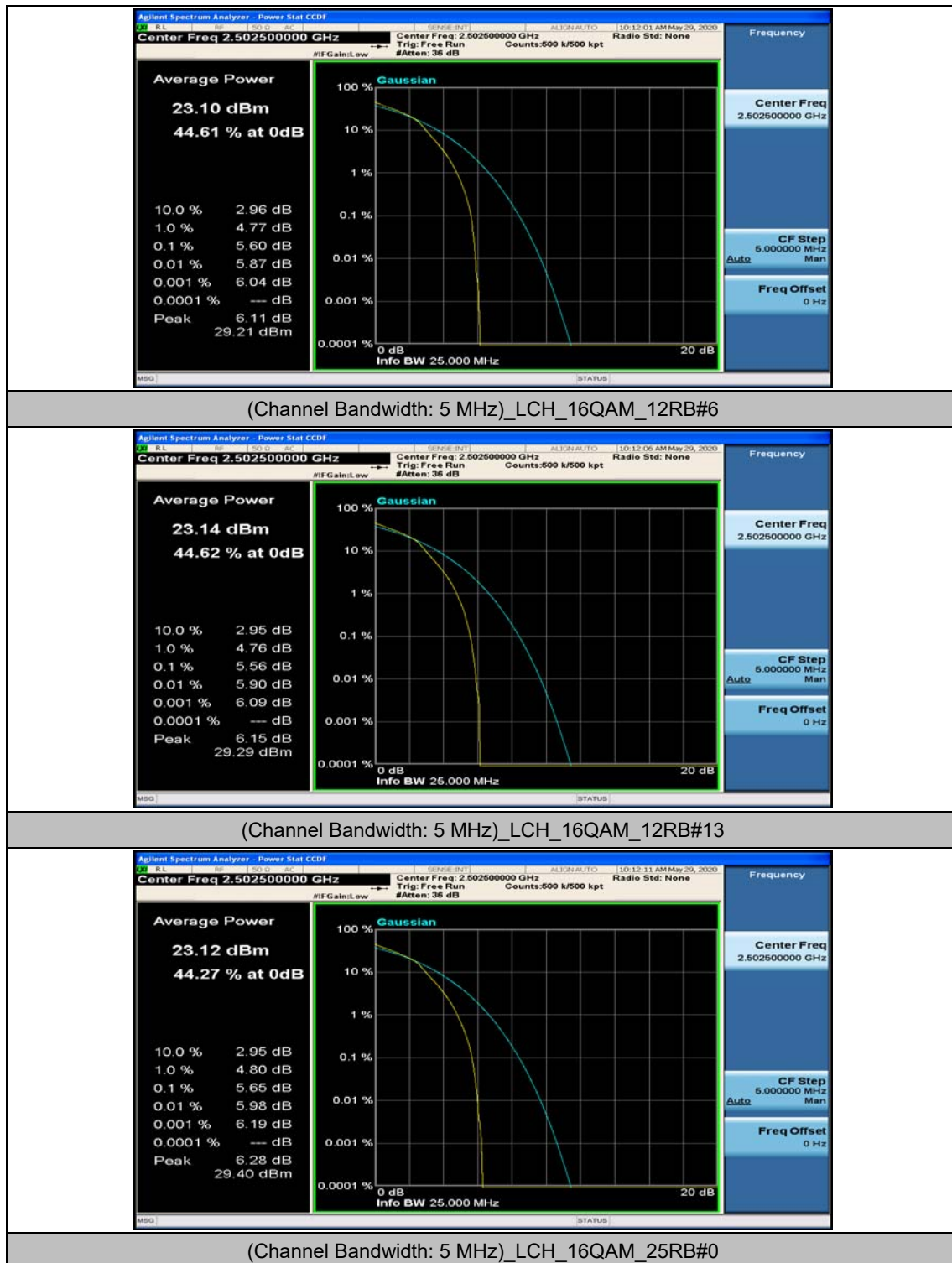
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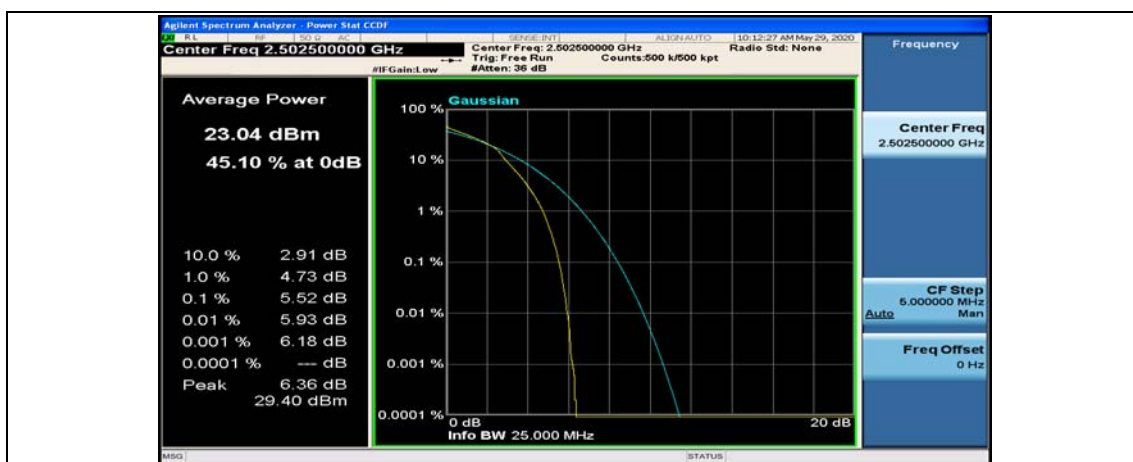


(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#24



(Channel Bandwidth: 5 MHz)_LCH_16QAM_12RB#0





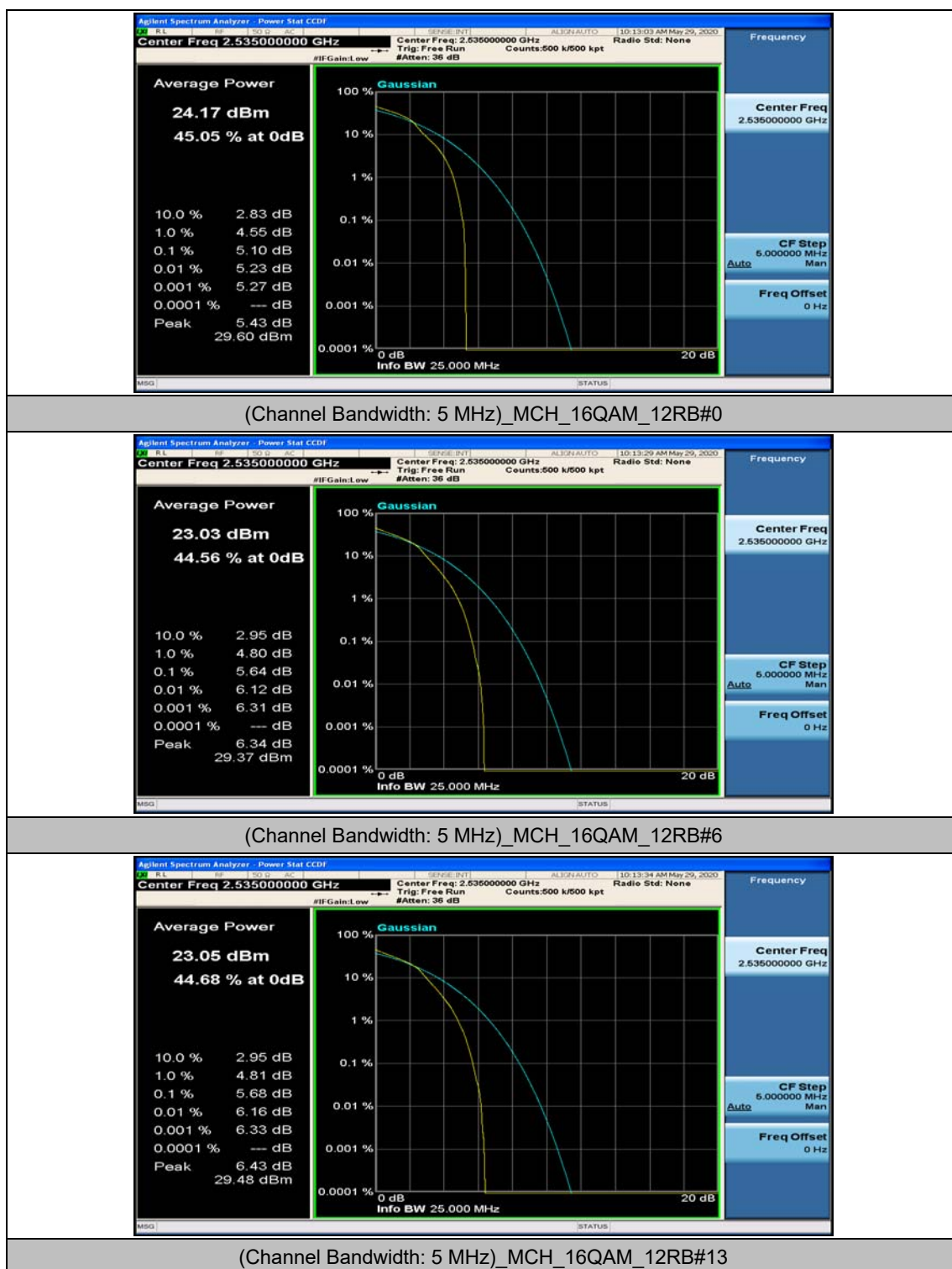
(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12



(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24





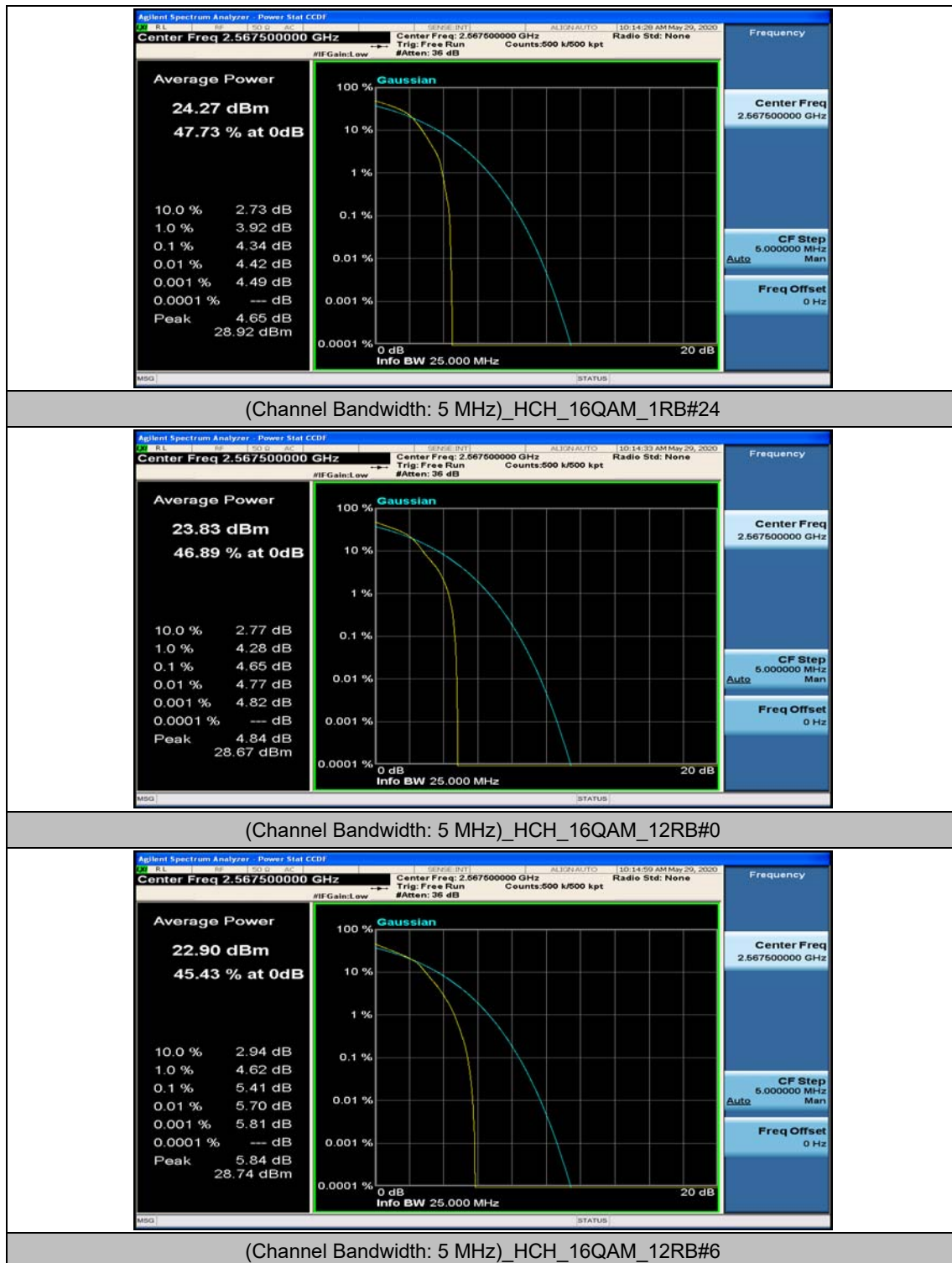
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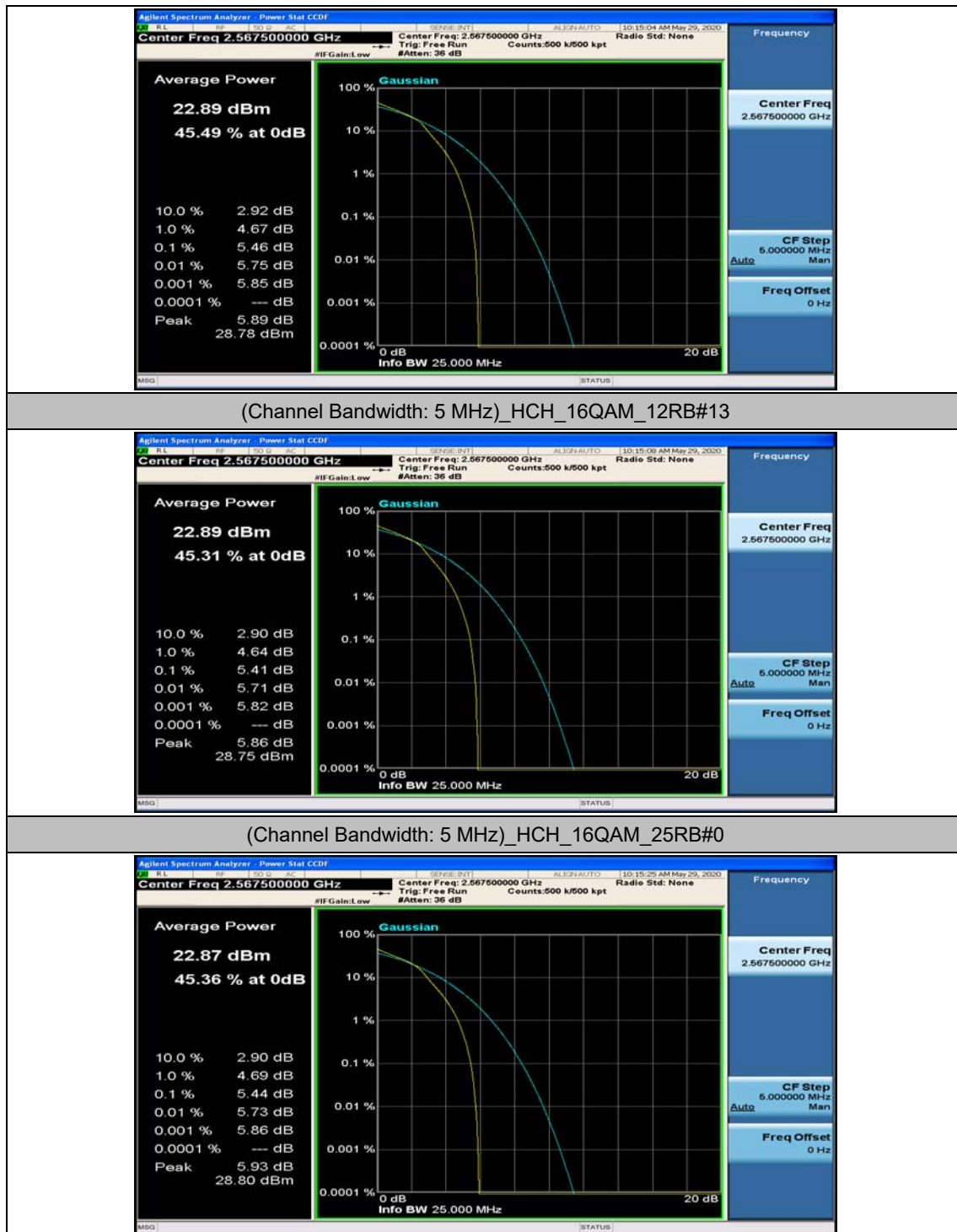


(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#0



(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#12



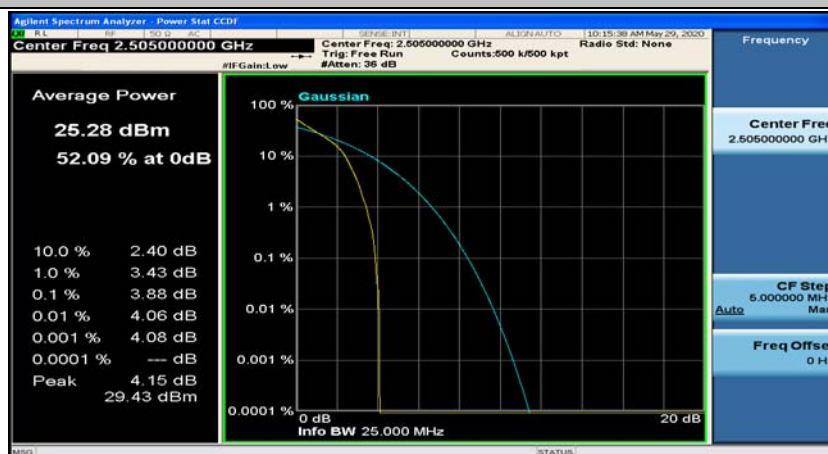


Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#0



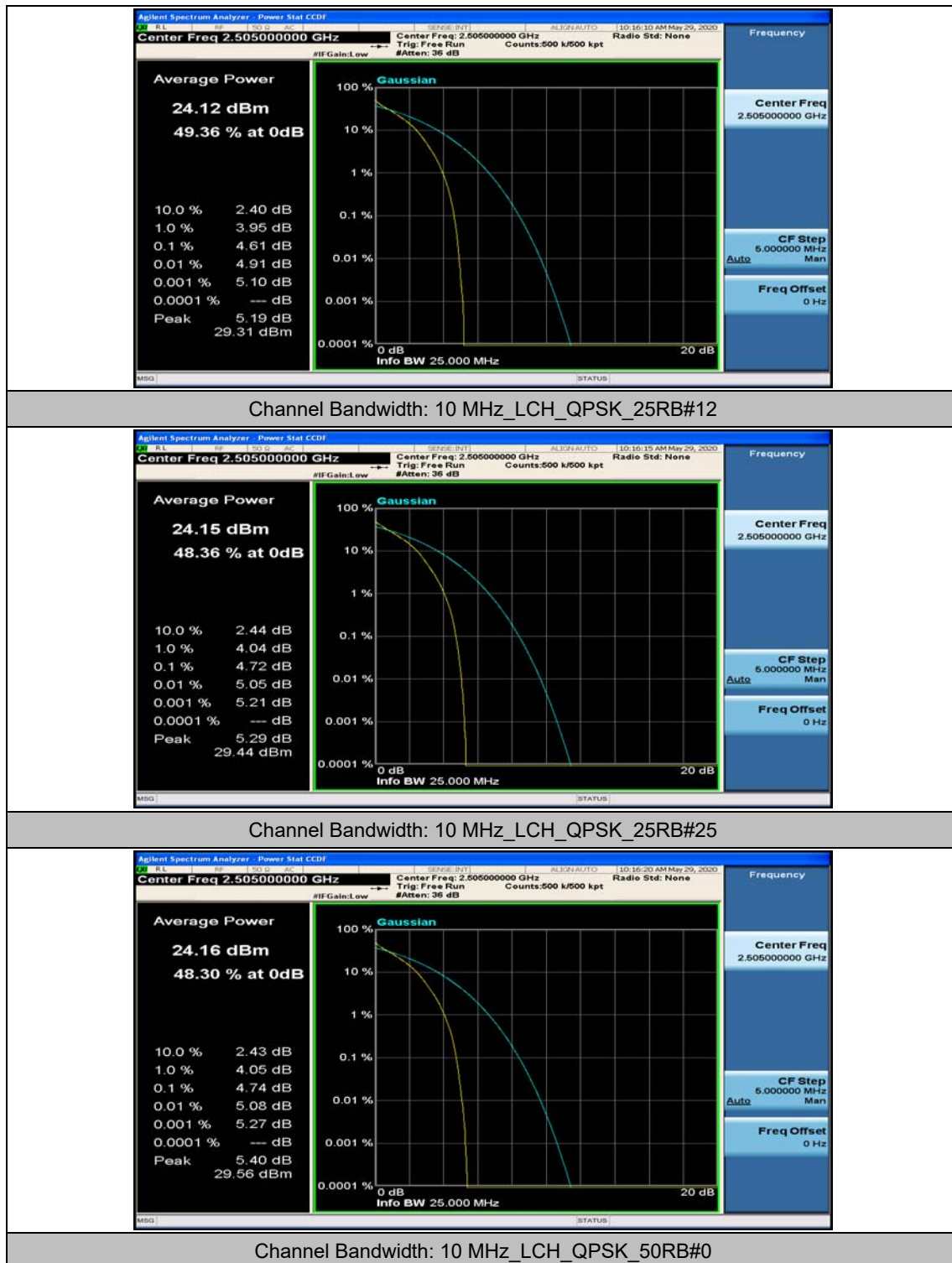
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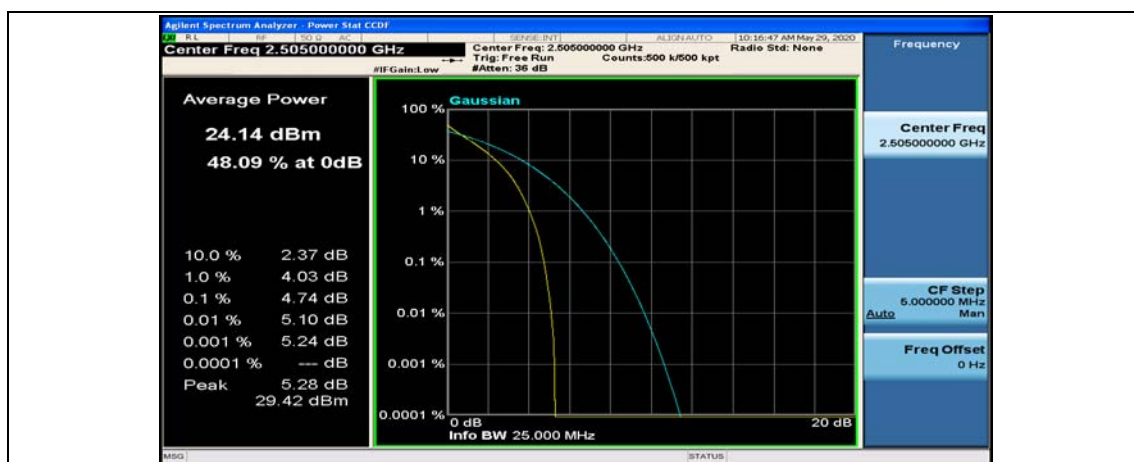


Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#49



Channel Bandwidth: 10 MHz_LCH_QPSK_25RB#0

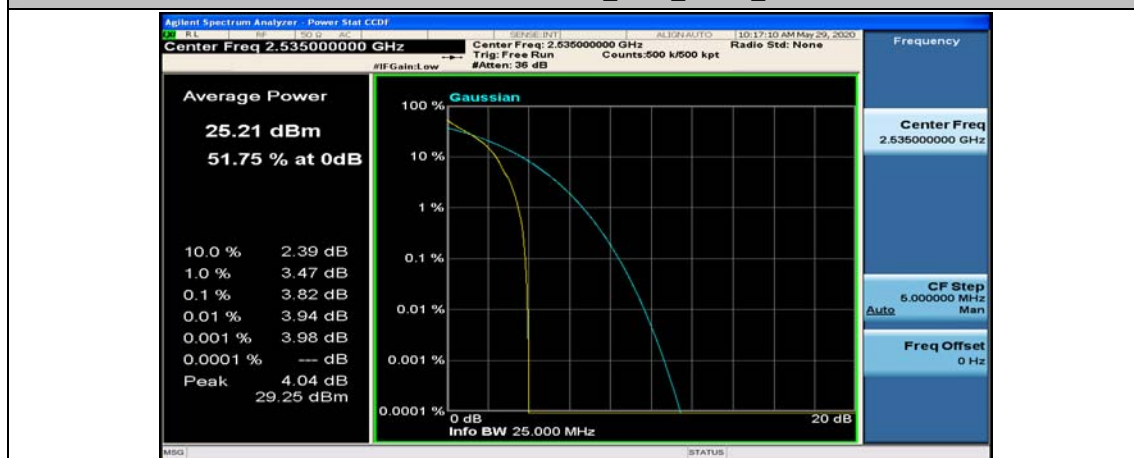




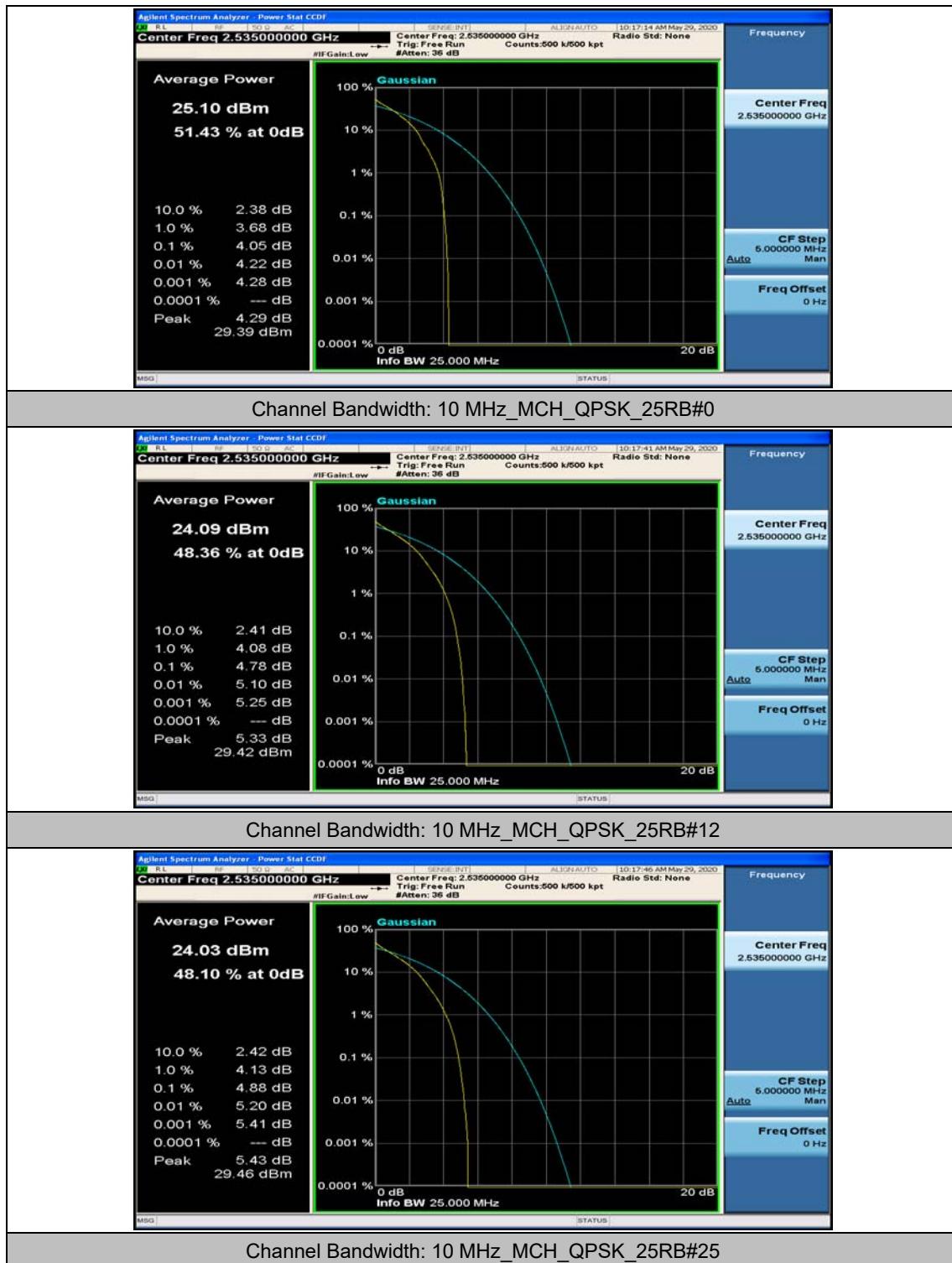
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#0

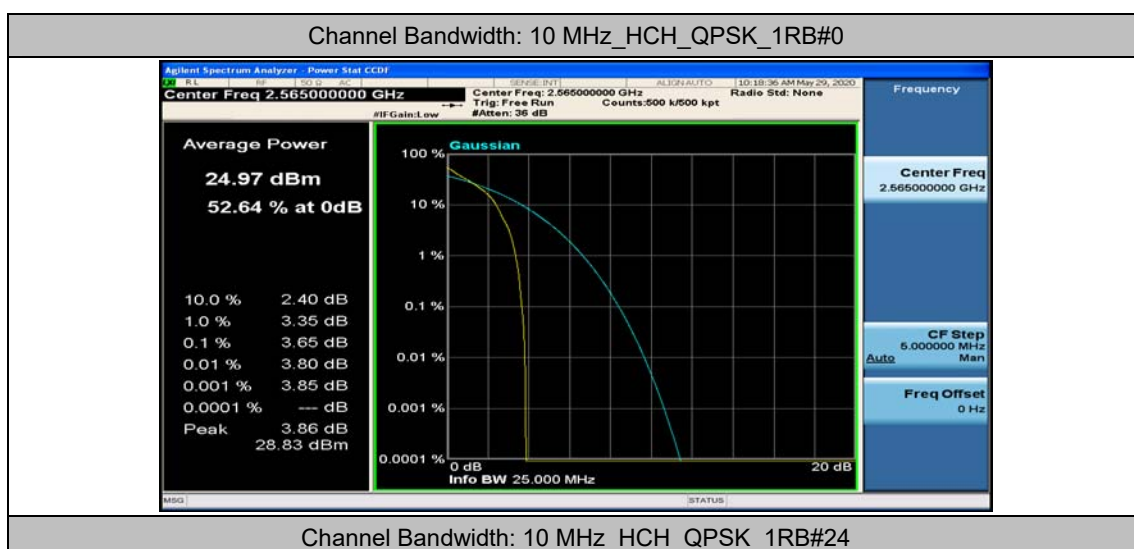
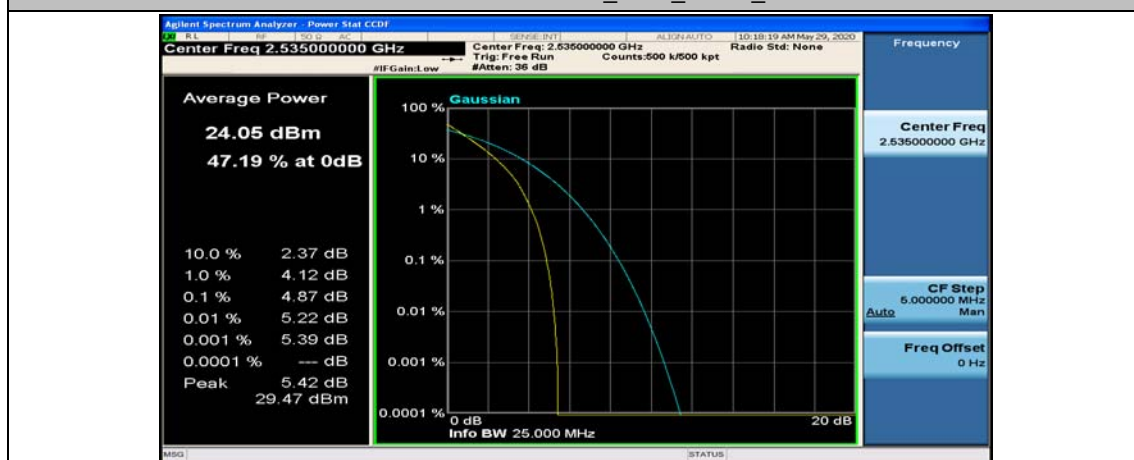
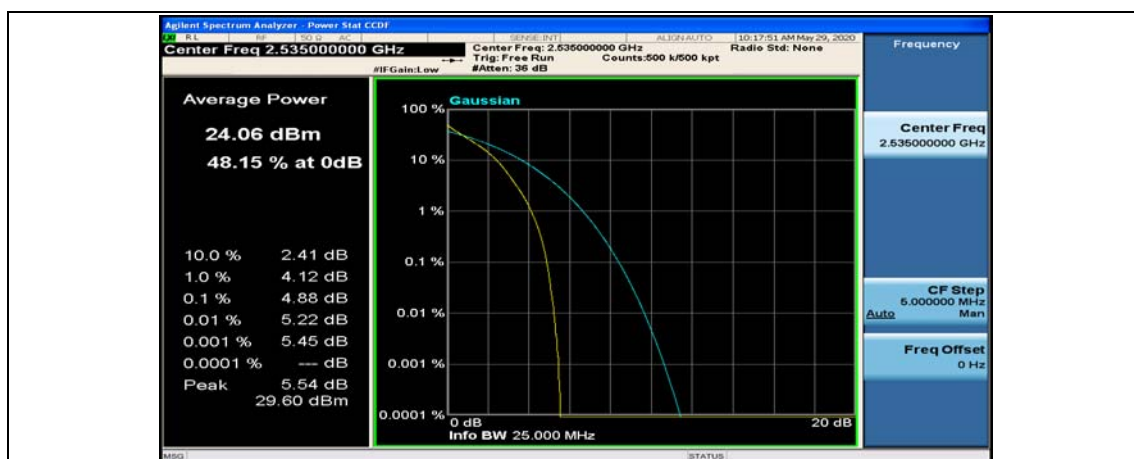


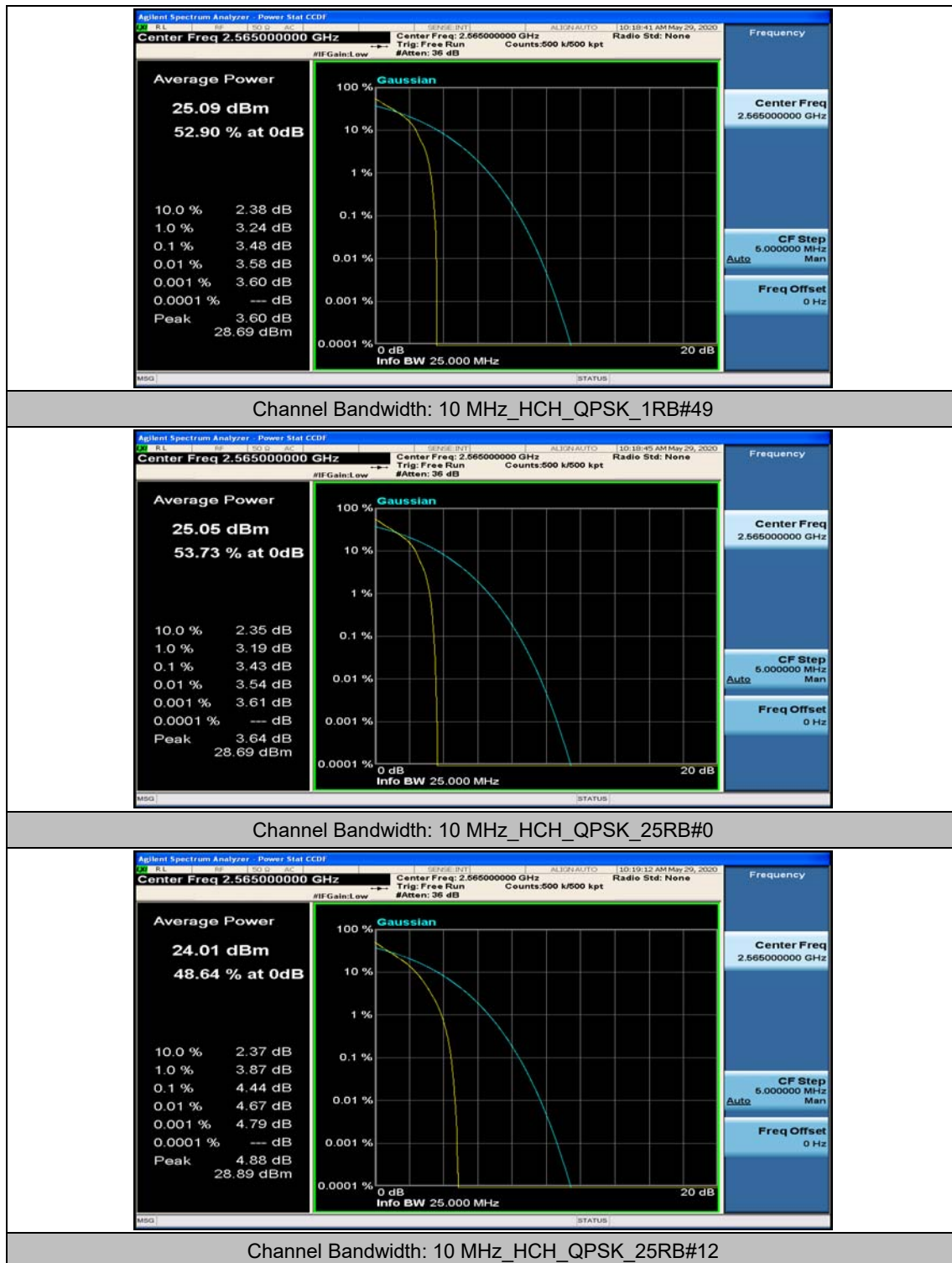
Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24

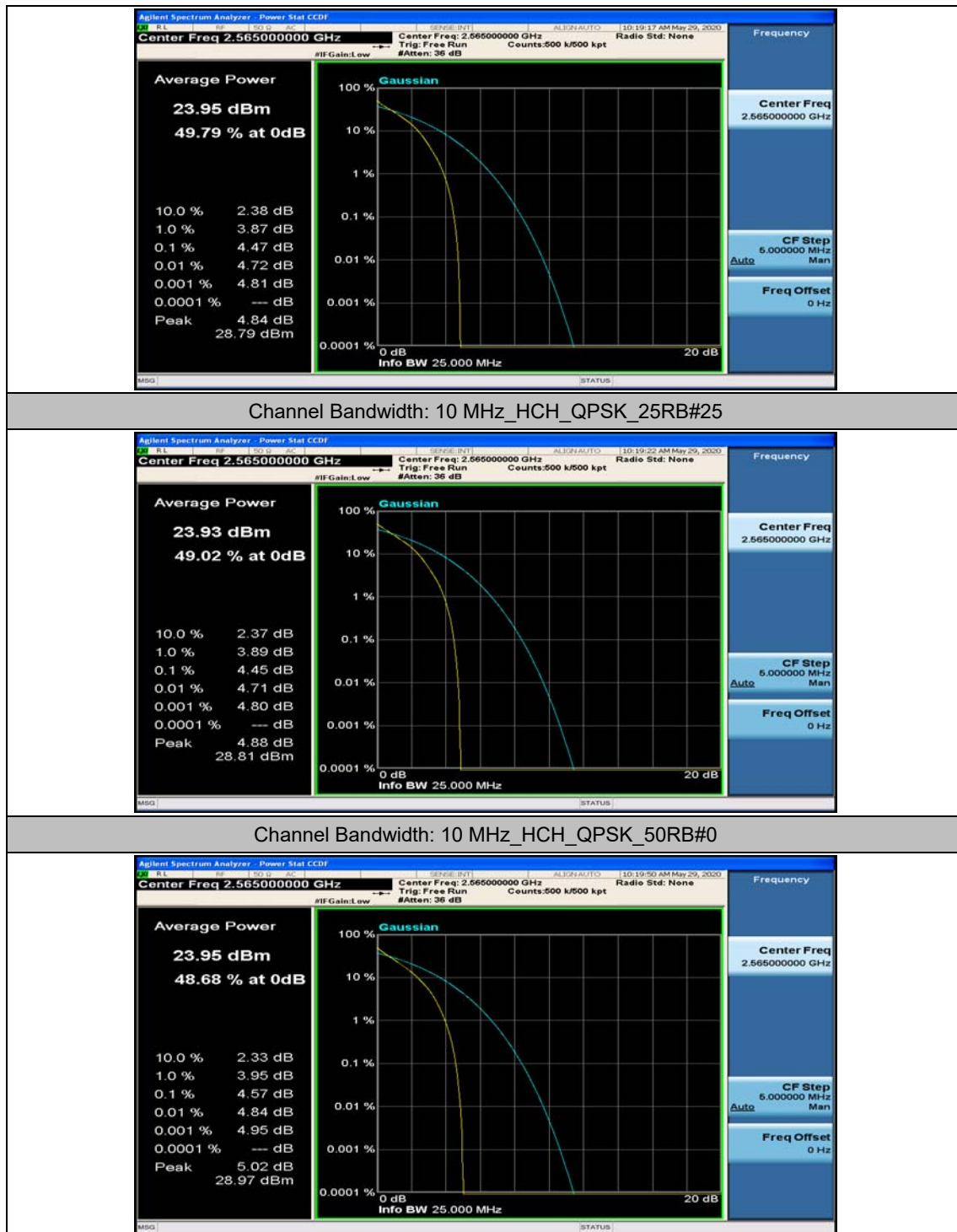


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#49

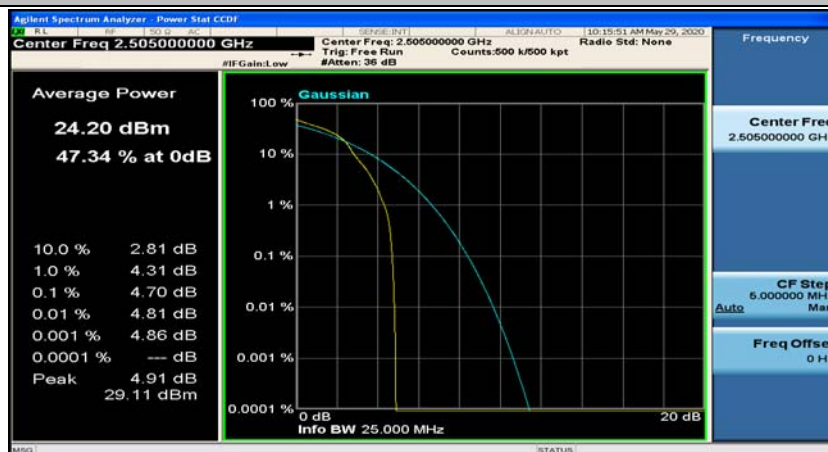








Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0



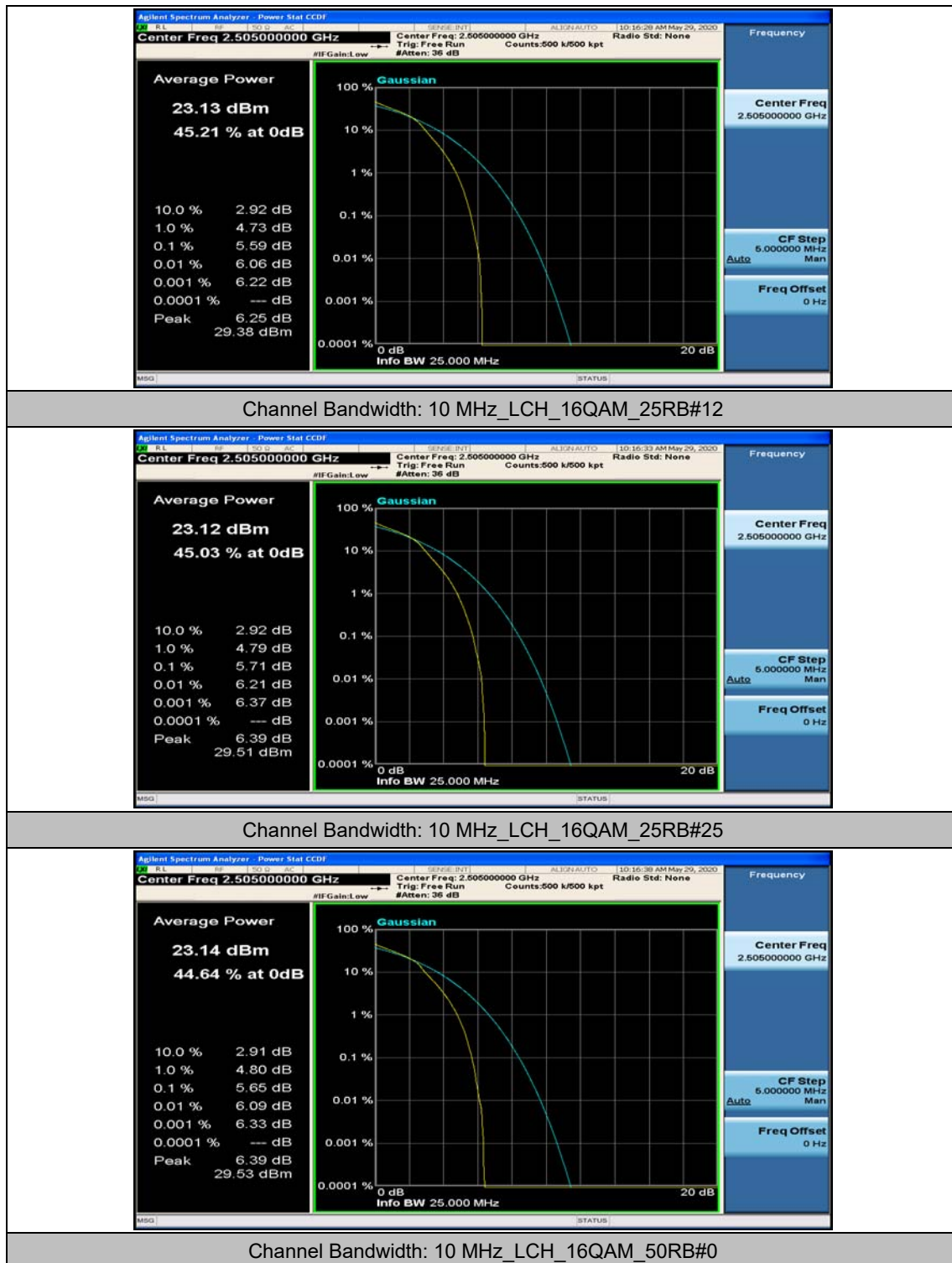
Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#24

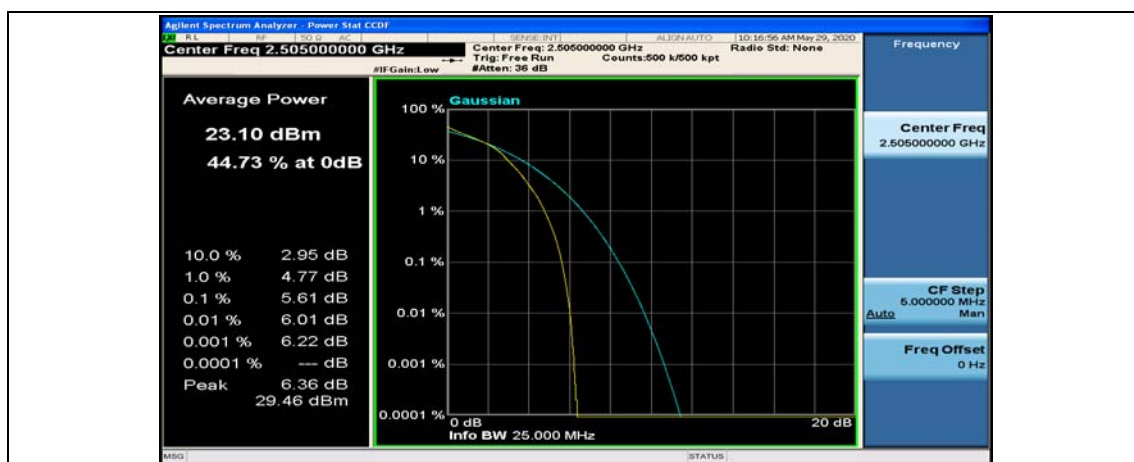


Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#49



Channel Bandwidth: 10 MHz_LCH_16QAM_25RB#0





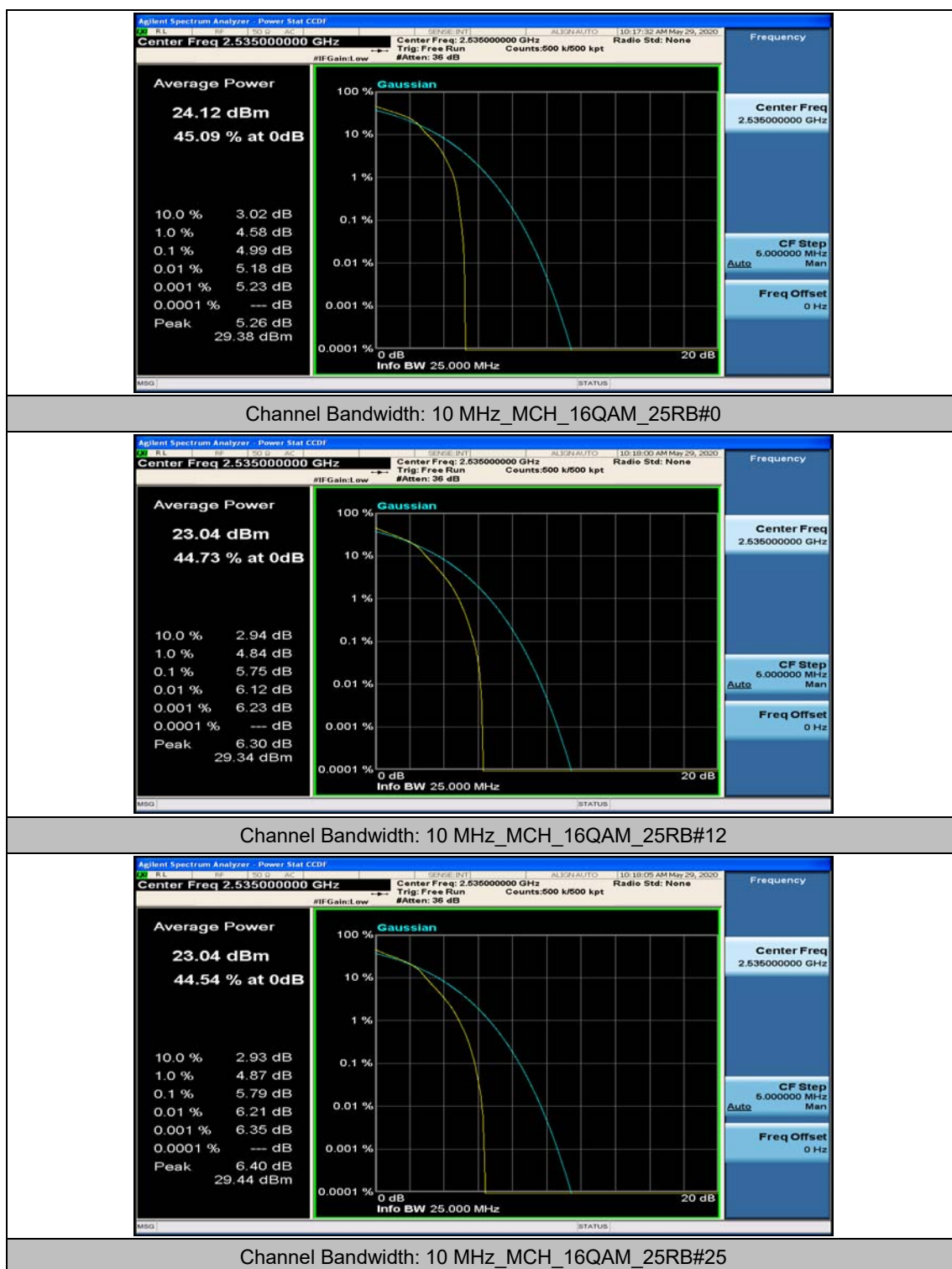
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0

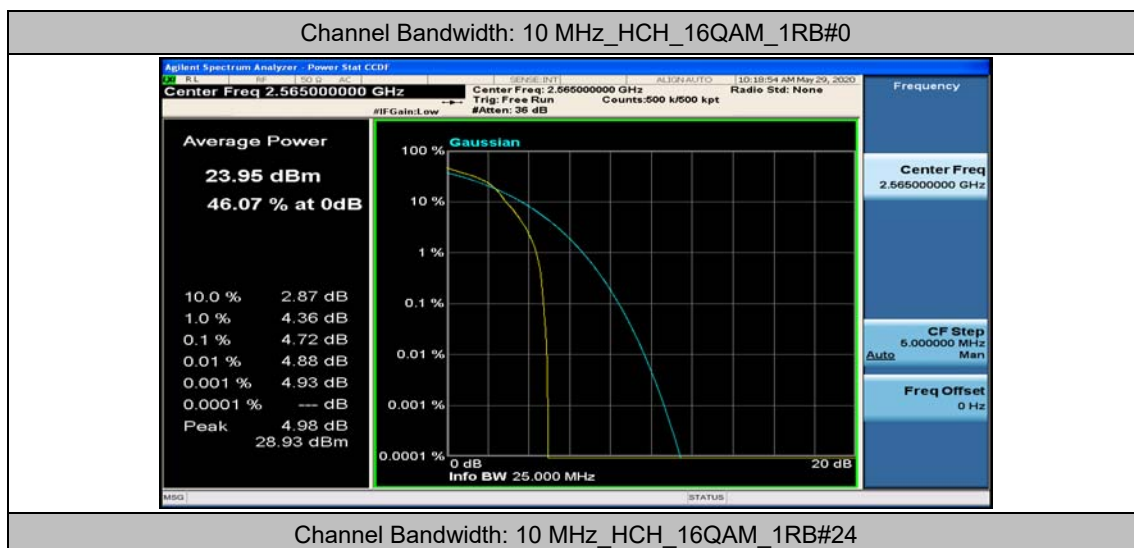


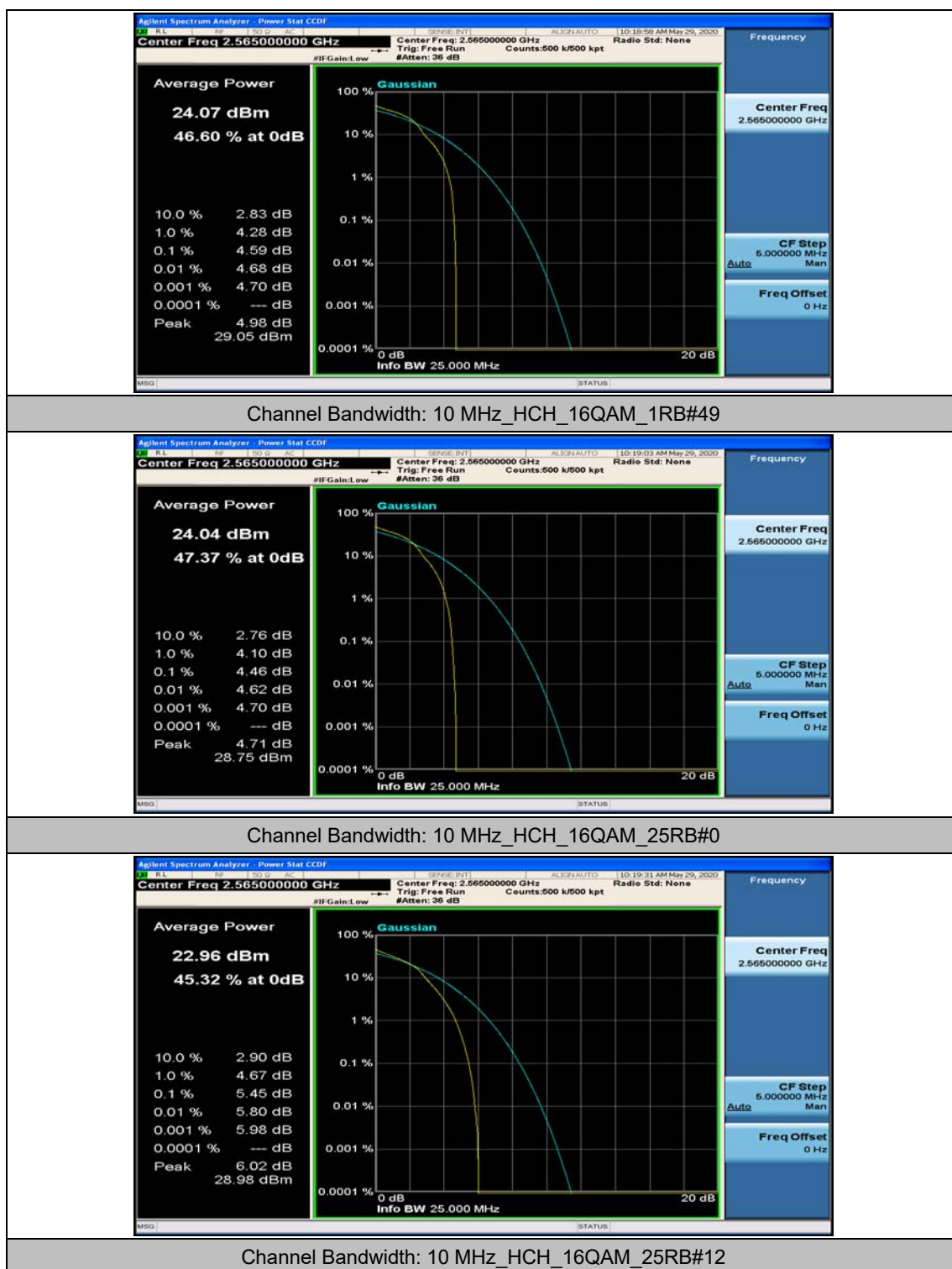
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24

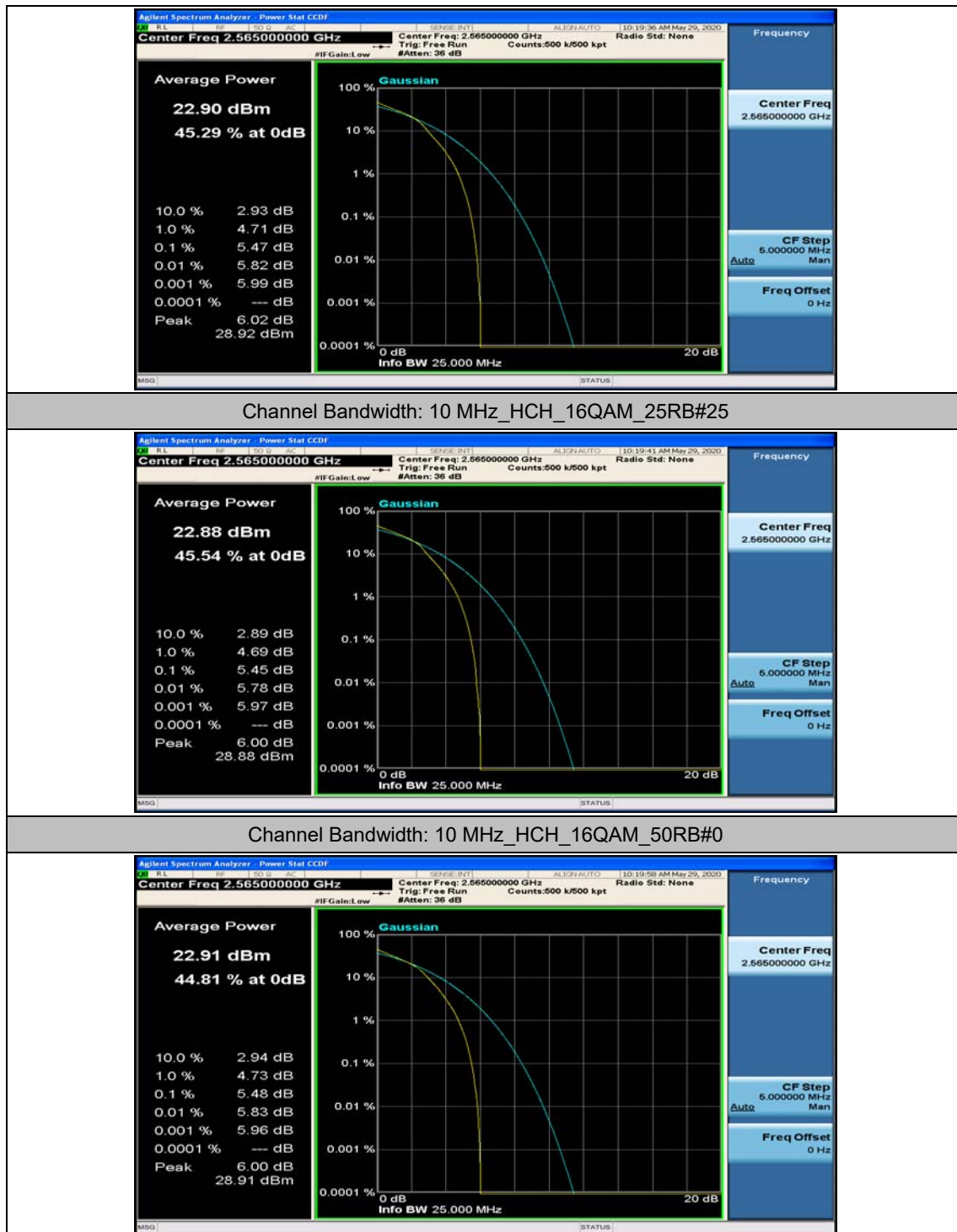


Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49







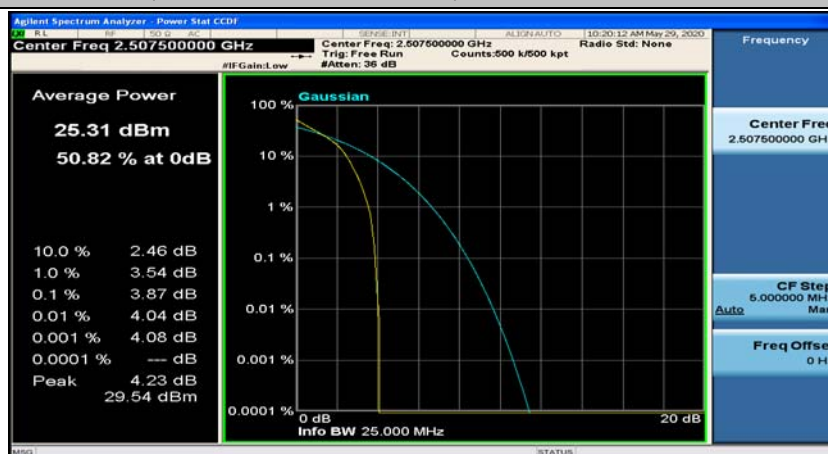


Channel Bandwidth: 15 MHz

(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#0



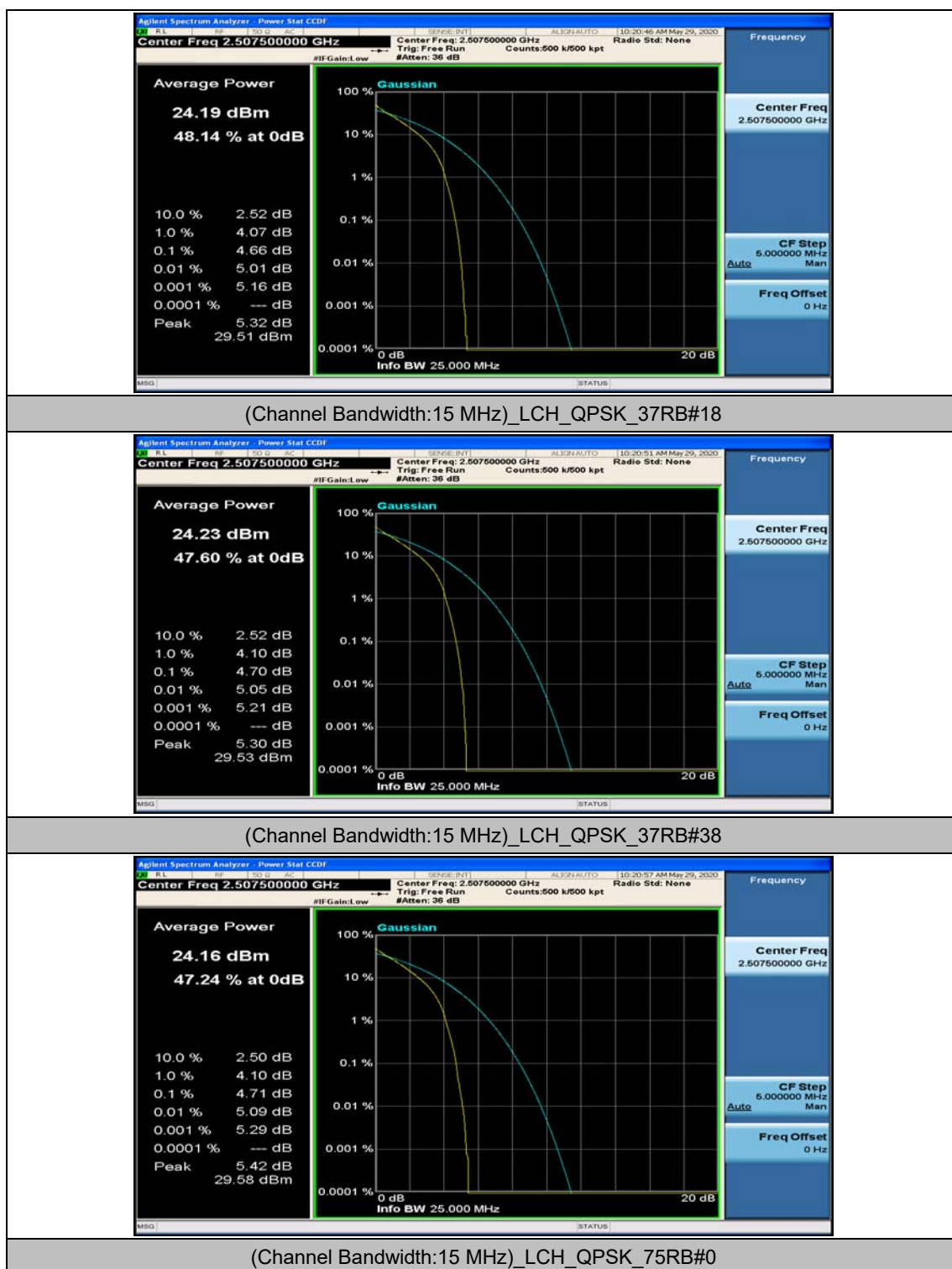
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#37

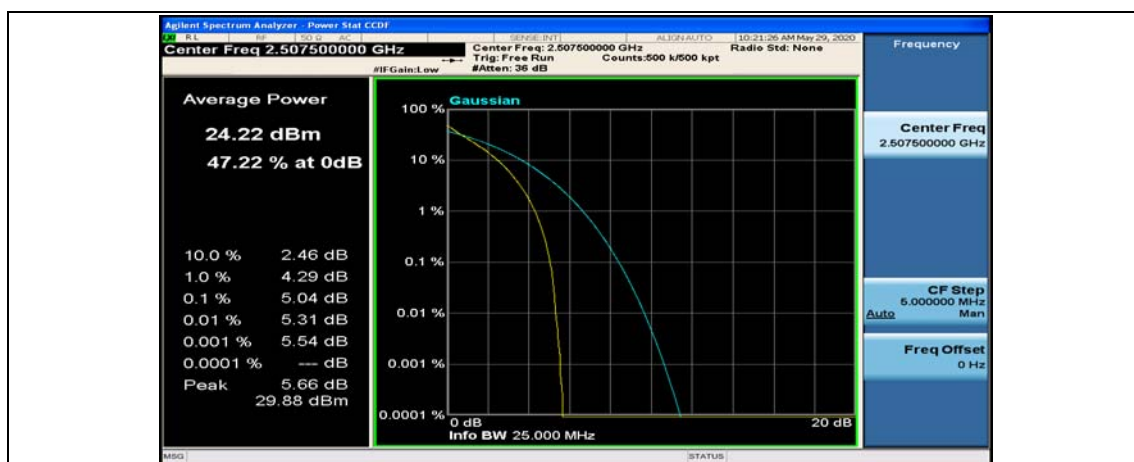


(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#74



(Channel Bandwidth:15 MHz)_LCH_QPSK_37RB#0

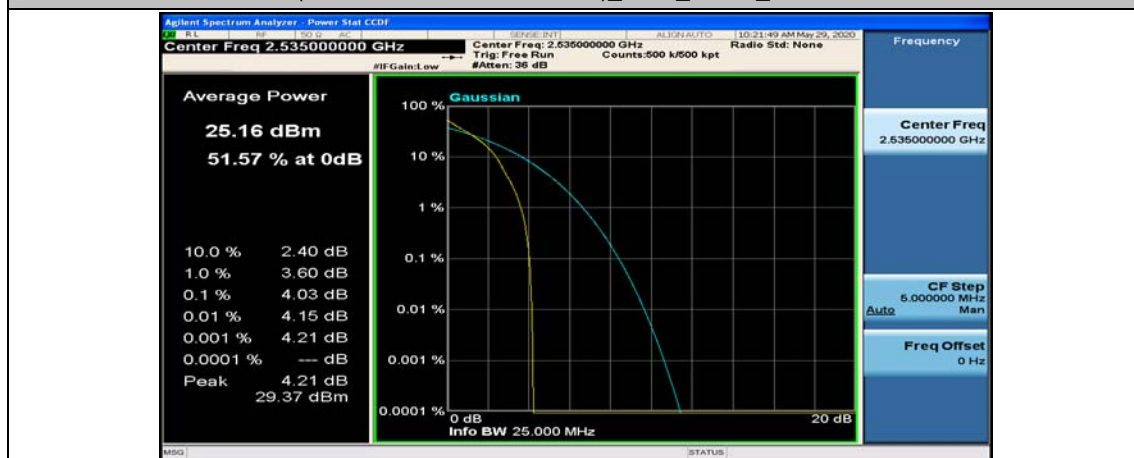




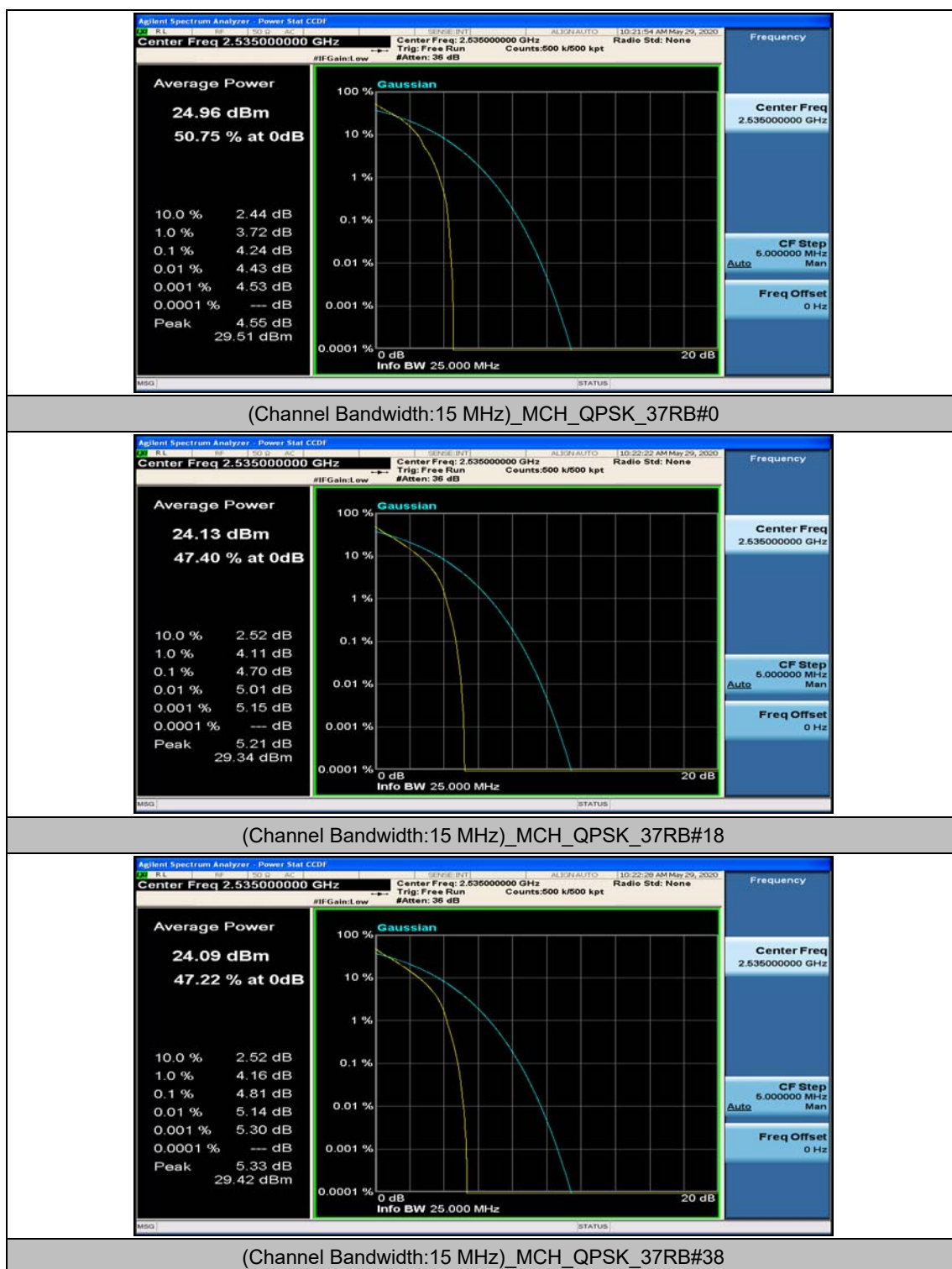
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0

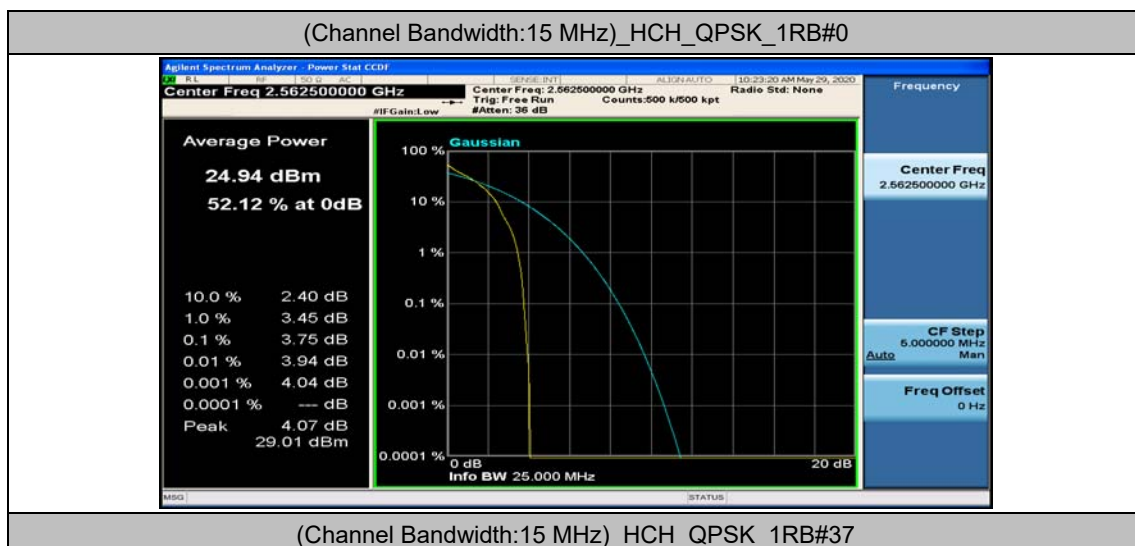
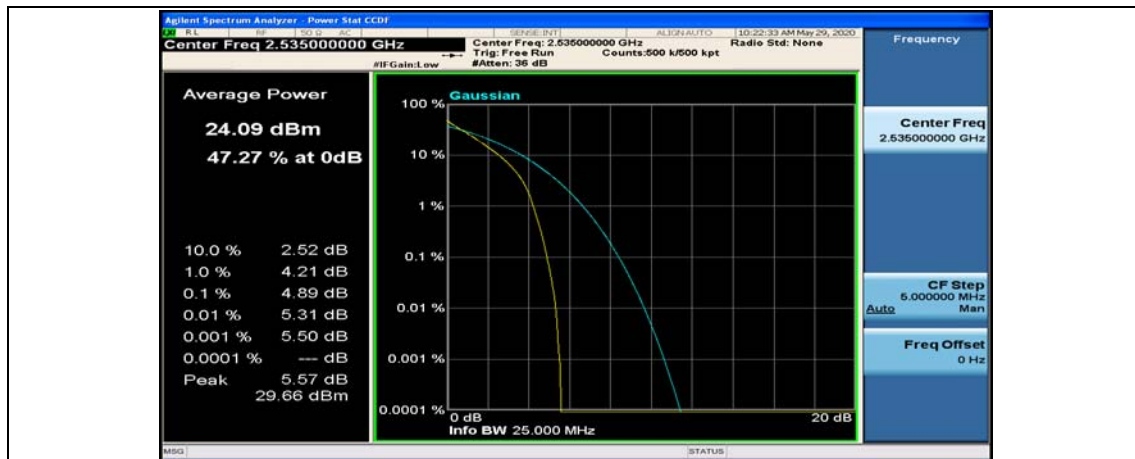


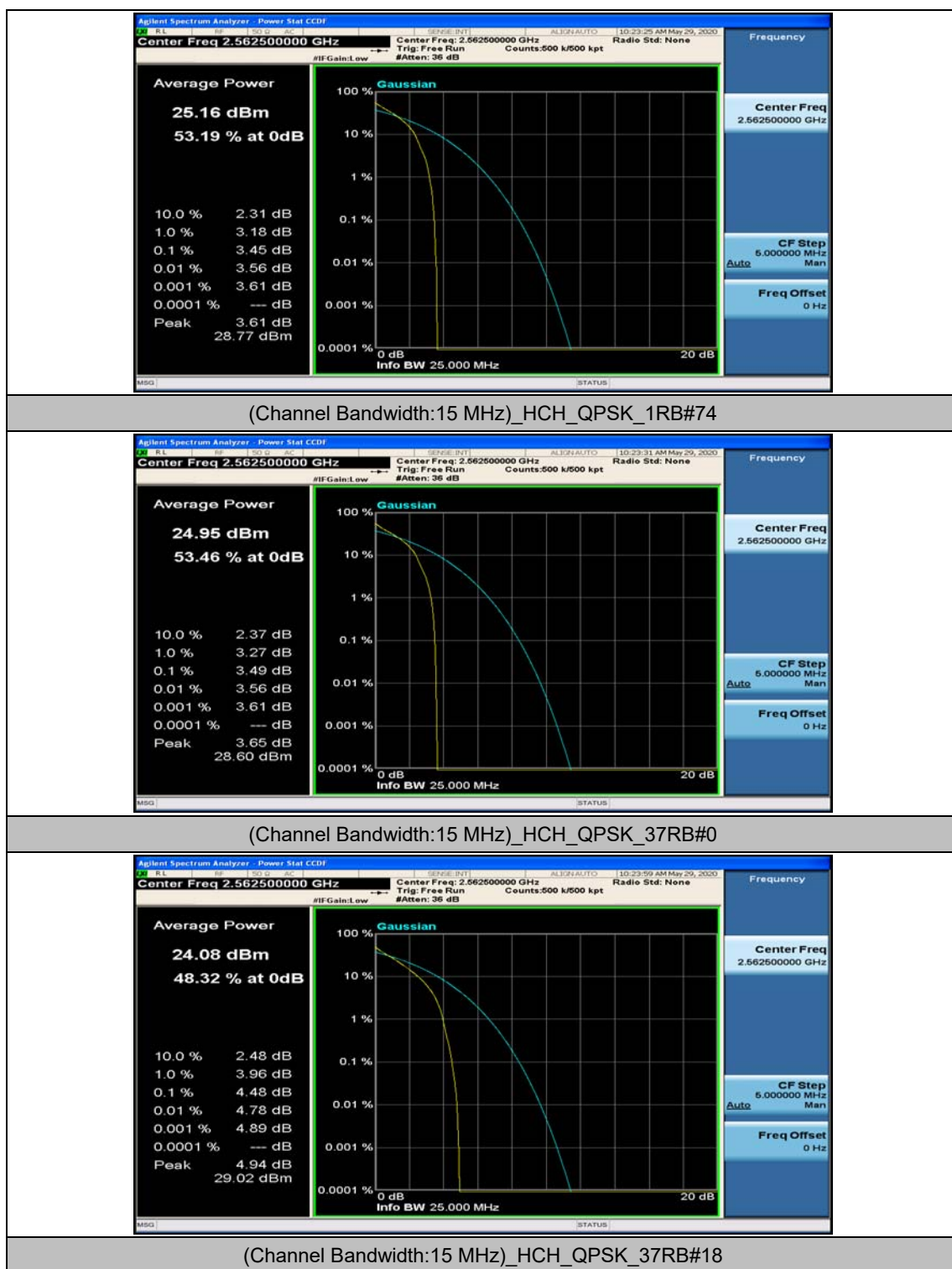
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#37

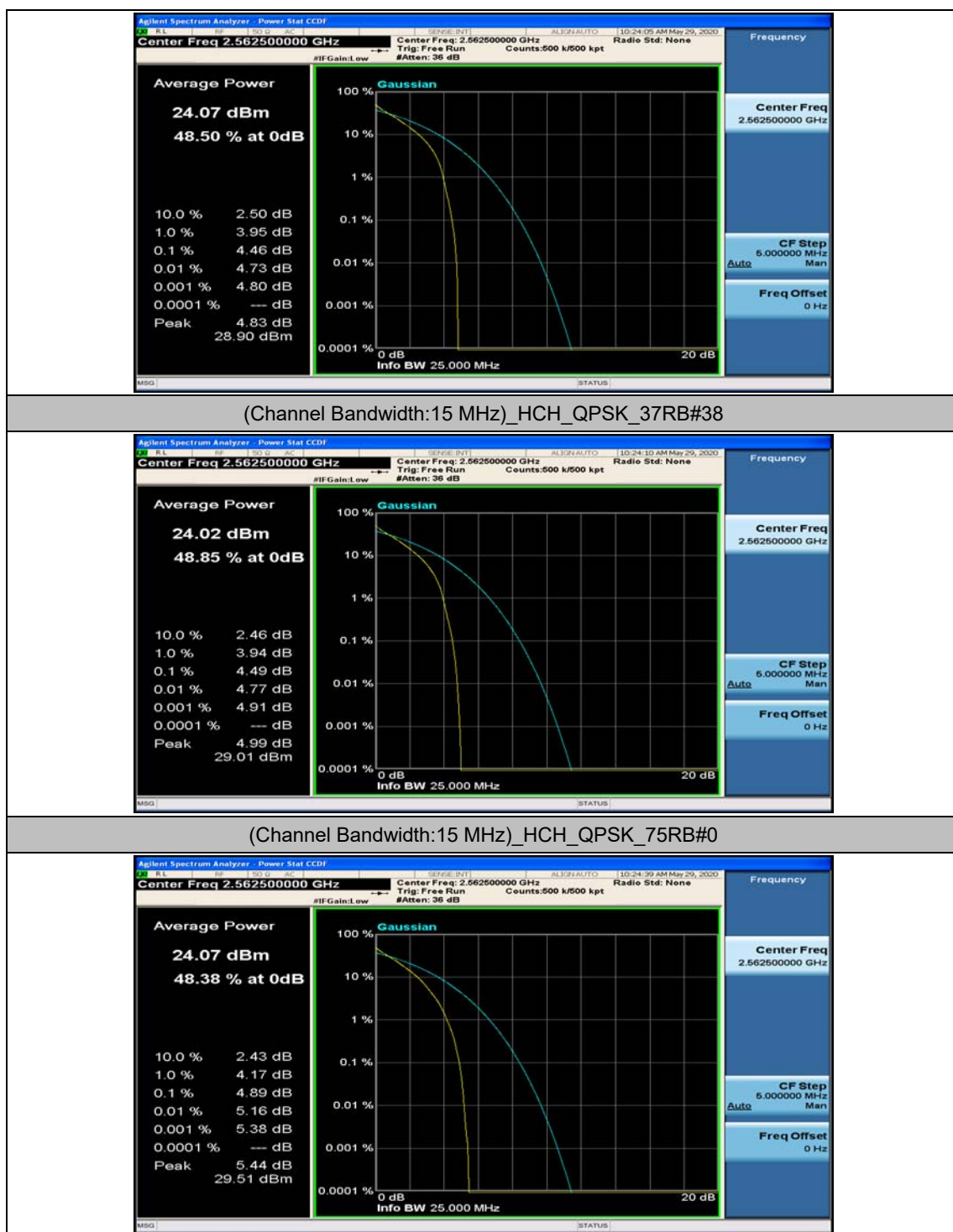


(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#74

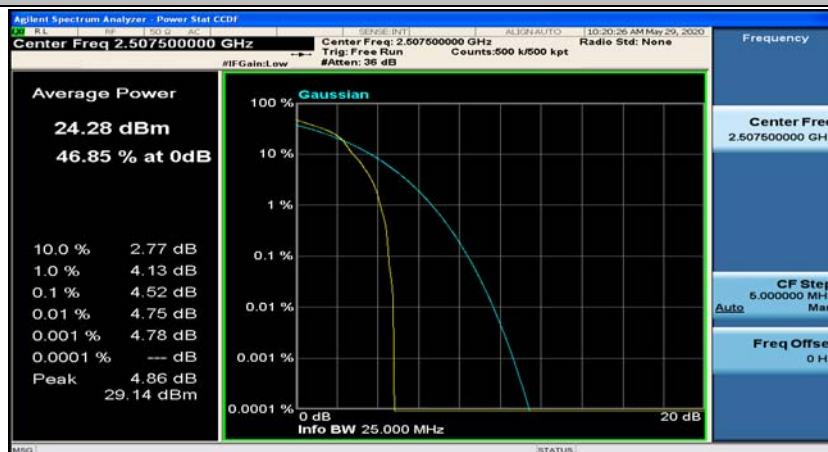








(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#0



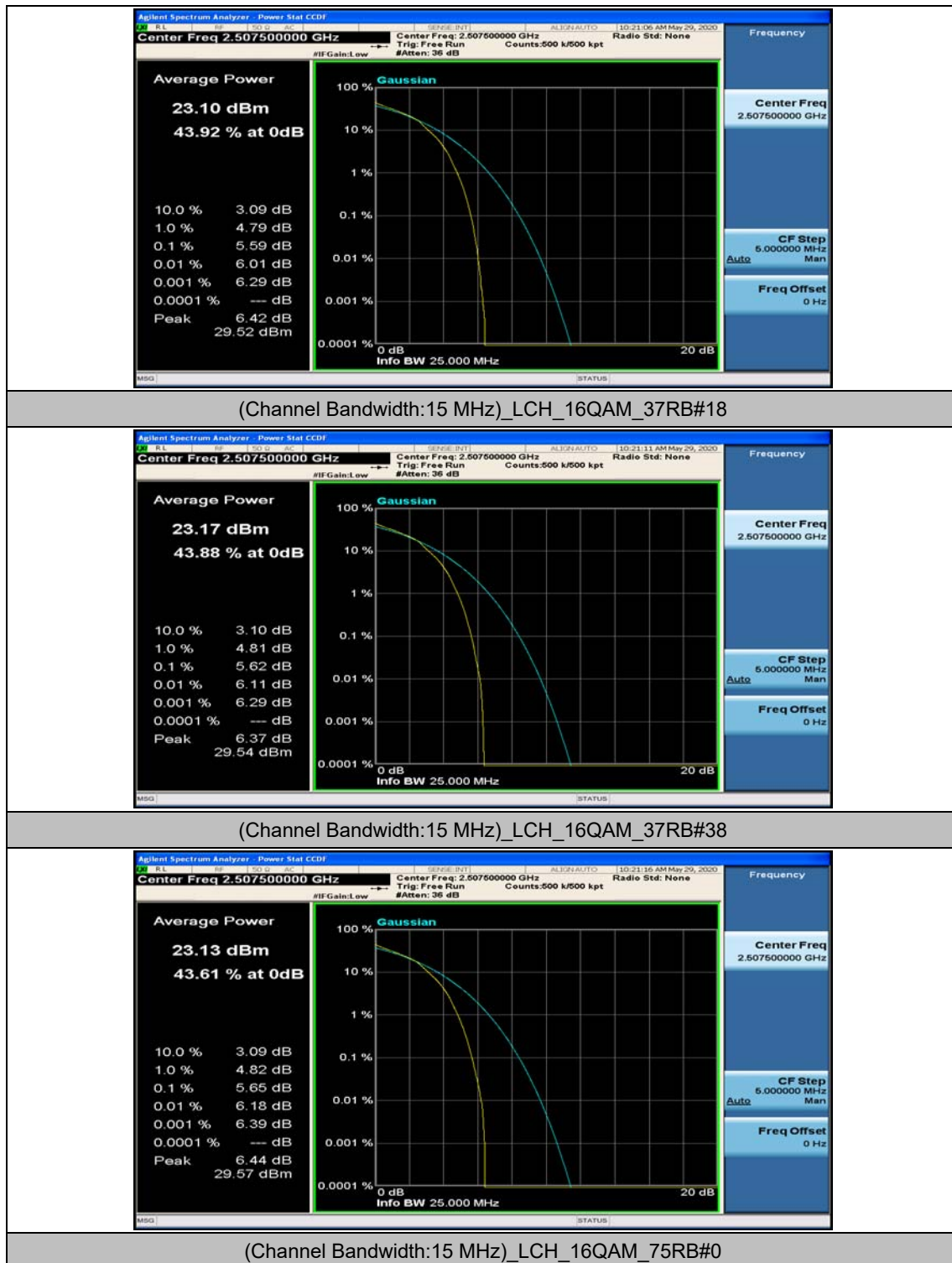
(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#37

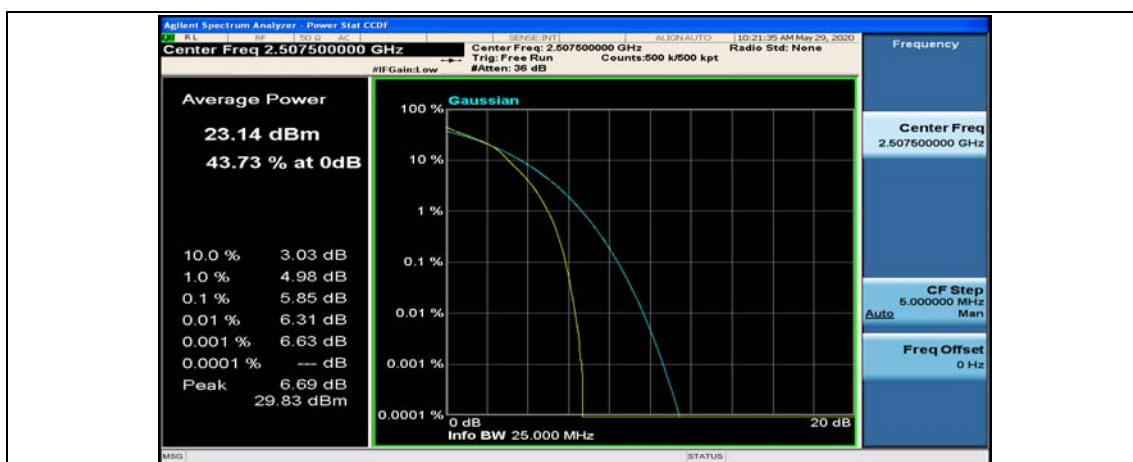


(Channel Bandwidth:15 MHz)_LCH_16QAM_1RB#74



(Channel Bandwidth:15 MHz)_LCH_16QAM_37RB#0





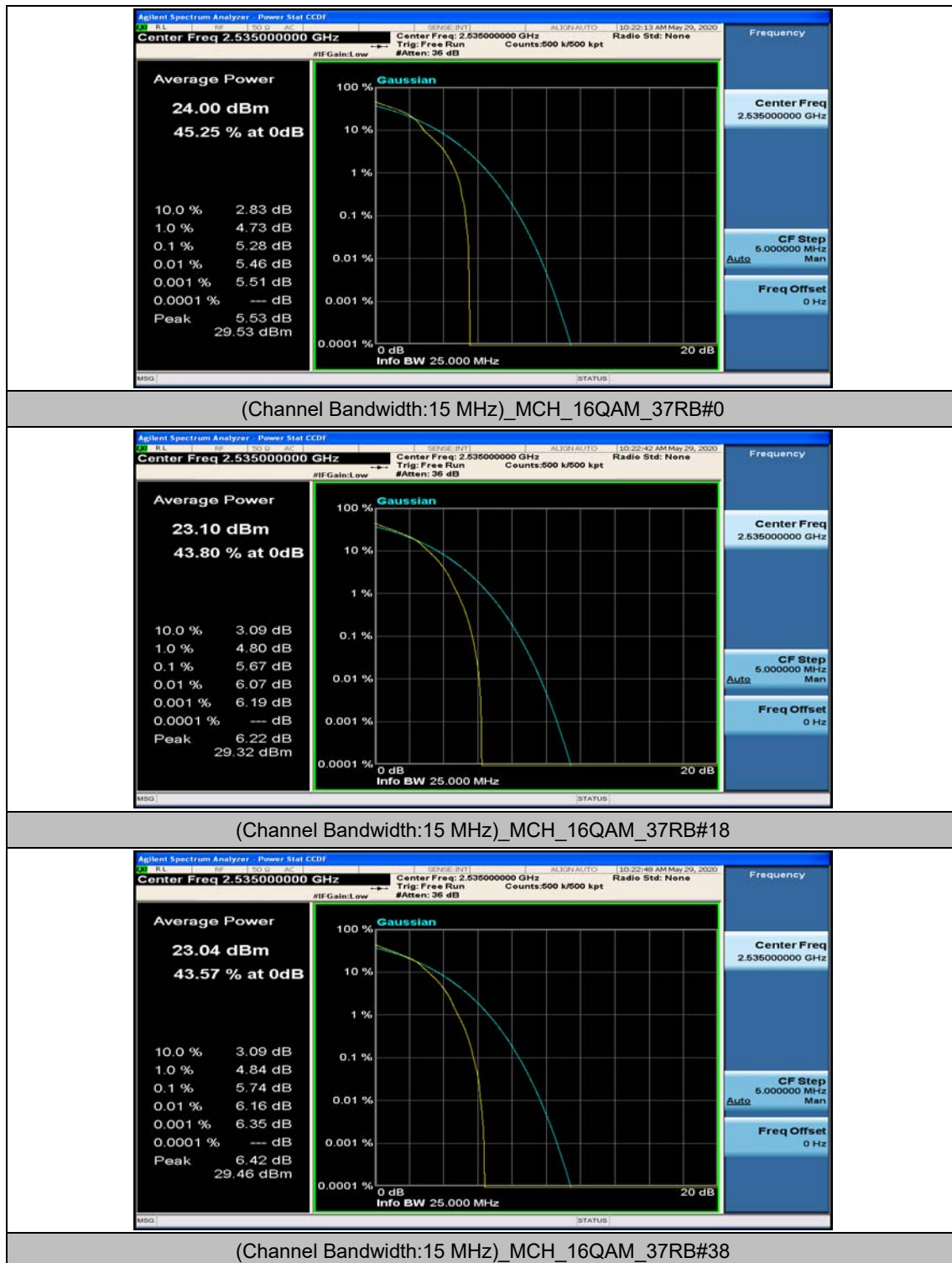
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#0

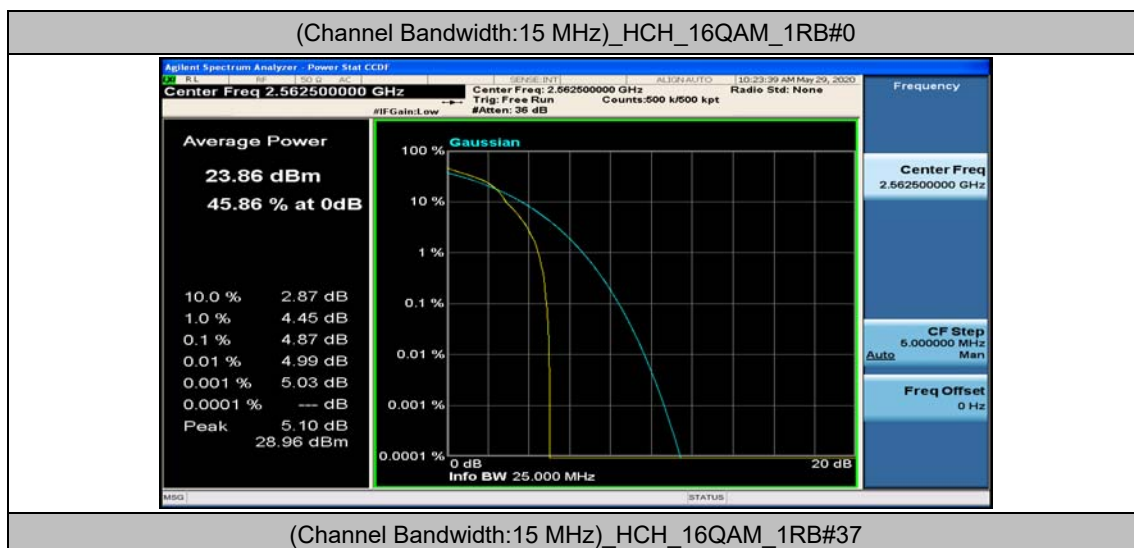


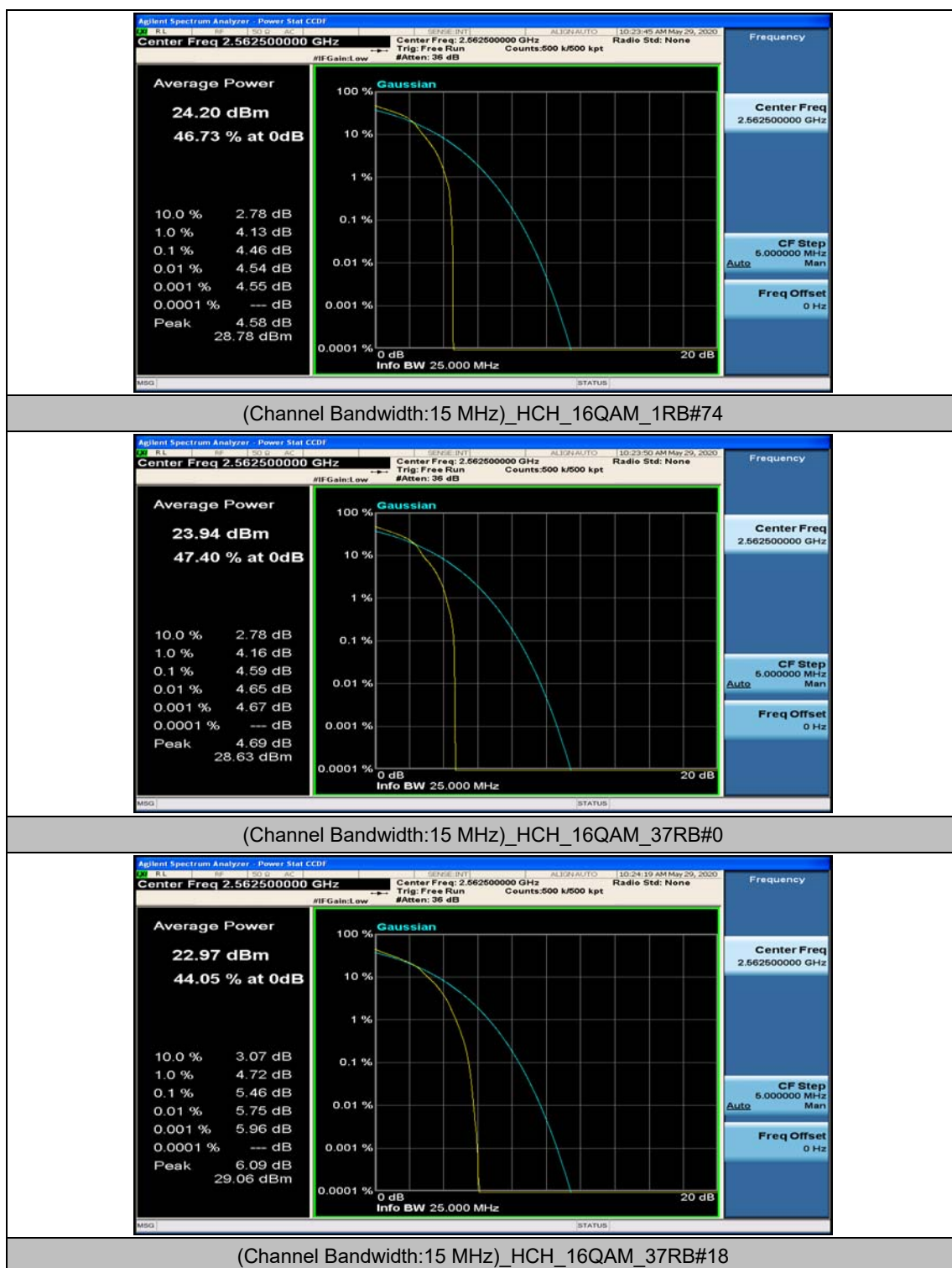
(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#37

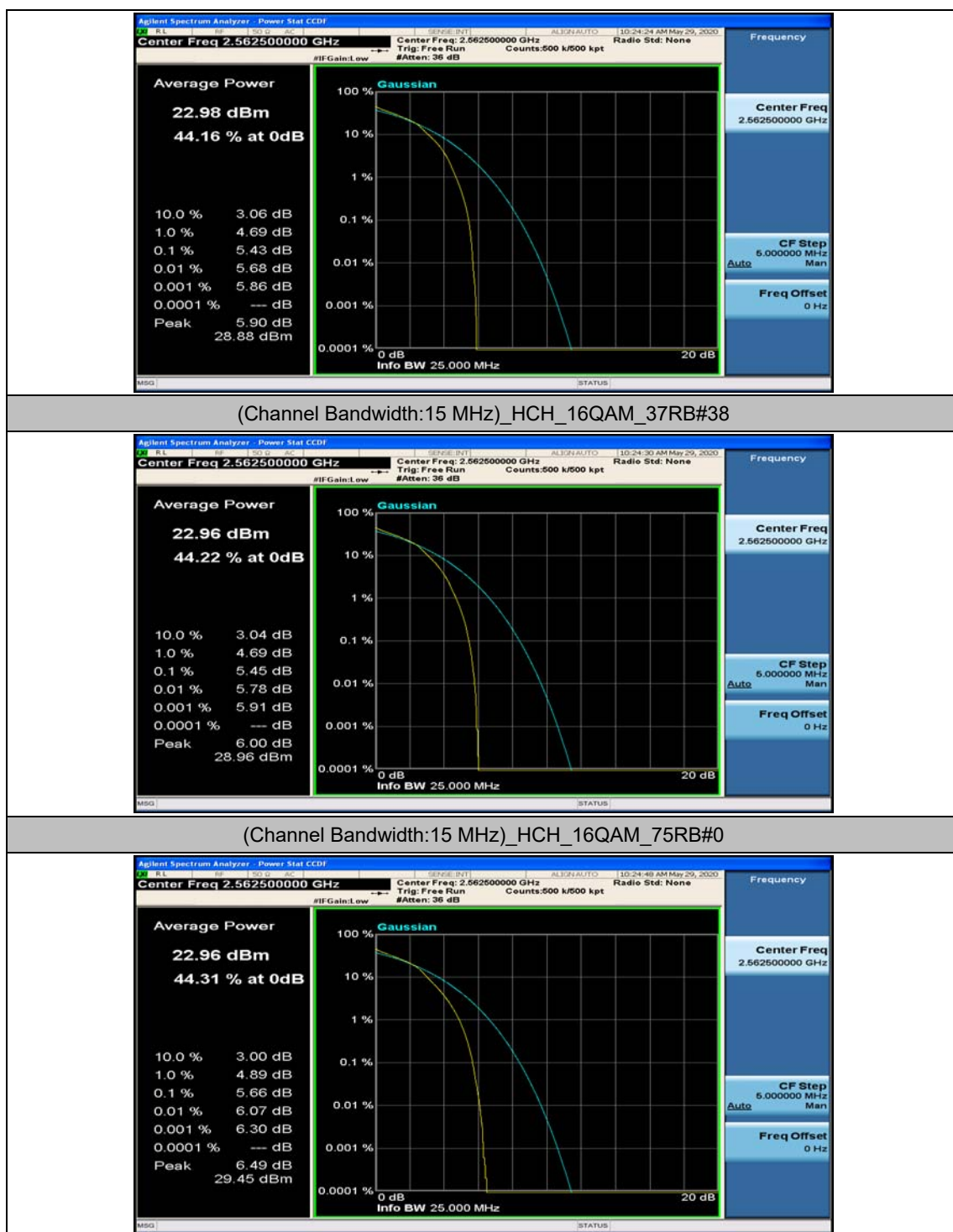


(Channel Bandwidth:15 MHz)_MCH_16QAM_1RB#74







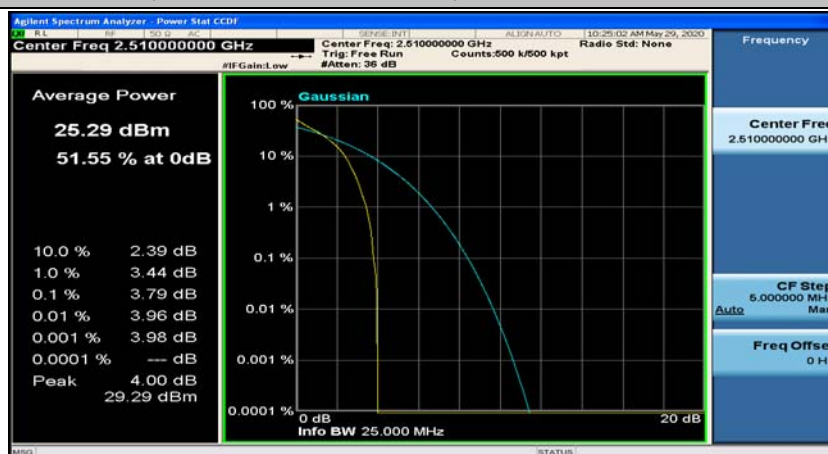


Channel Bandwidth: 20 MHz

(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#0



(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#49



(Channel Bandwidth:20 MHz)_LCH_QPSK_1RB#99



(Channel Bandwidth:20 MHz)_LCH_QPSK_50RB#0

