

## **Appendix for Band 26(814-824MHz)**

Product Name: Rugged Phone  
Model No: CM17XA

## 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	22.81	PASS
		1	3	22.88	PASS
		1	5	22.75	PASS
		3	0	22.81	PASS
		3	2	22.85	PASS
		3	3	22.77	PASS
		6	0	21.78	PASS
	MCH	1	0	22.87	PASS
		1	3	23.02	PASS
		1	5	22.92	PASS
		3	0	22.90	PASS
		3	2	22.94	PASS
		3	3	22.88	PASS
		6	0	21.98	PASS
	HCH	1	0	23.04	PASS
		1	3	23.25	PASS
		1	5	23.04	PASS
		3	0	23.10	PASS
		3	2	23.20	PASS
		3	3	23.14	PASS
		6	0	22.10	PASS
16QAM	LCH	1	0	22.00	PASS
		1	3	22.21	PASS
		1	5	21.93	PASS
		3	0	21.94	PASS
		3	2	21.94	PASS
		3	3	21.90	PASS
		6	0	20.78	PASS
	MCH	1	0	22.06	PASS
		1	3	22.21	PASS
		1	5	22.09	PASS
		3	0	21.81	PASS
		3	2	21.84	PASS

		3	3	21.81	PASS
		6	0	20.86	PASS
	HCH	1	0	22.17	PASS
		1	3	22.41	PASS
		1	5	22.24	PASS
		3	0	22.14	PASS
		3	2	22.19	PASS
		3	3	22.20	PASS
		6	0	21.22	PASS

**Channel Bandwidth: 3 MHz**

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.75	PASS
		1	7	23.07	PASS
		1	14	22.78	PASS
		8	0	21.73	PASS
		8	4	21.85	PASS
		8	7	21.79	PASS
		15	0	21.76	PASS
	MCH	1	0	22.87	PASS
		1	7	23.24	PASS
		1	14	22.99	PASS
		8	0	21.93	PASS
		8	4	22.00	PASS
		8	7	21.95	PASS
		15	0	21.90	PASS
	HCH	1	0	23.06	PASS
		1	7	23.37	PASS
		1	14	23.14	PASS
		8	0	22.08	PASS
		8	4	22.09	PASS
		8	7	22.09	PASS
		15	0	22.04	PASS
16QAM	LCH	1	0	22.08	PASS
		1	7	22.27	PASS
		1	14	21.99	PASS
		8	0	20.83	PASS
		8	4	20.96	PASS
		8	7	20.86	PASS
		15	0	20.83	PASS

	MCH	1	0	22.12	PASS
		1	7	22.36	PASS
		1	14	22.19	PASS
		8	0	20.91	PASS
		8	4	20.94	PASS
		8	7	20.95	PASS
		15	0	20.91	PASS
	HCH	1	0	22.17	PASS
		1	7	22.45	PASS
		1	14	22.31	PASS
		8	0	21.00	PASS
		8	4	21.13	PASS
		8	7	21.06	PASS
		15	0	21.09	PASS

**Channel Bandwidth: 5 MHz**

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.75	PASS
		1	12	23.15	PASS
		1	24	22.88	PASS
		12	0	21.55	PASS
		12	6	21.79	PASS
		12	13	21.67	PASS
		25	0	21.67	PASS
	MCH	1	0	22.76	PASS
		1	12	23.20	PASS
		1	24	22.99	PASS
		12	0	21.92	PASS
		12	6	21.93	PASS
		12	13	21.78	PASS
		25	0	21.86	PASS
	HCH	1	0	22.97	PASS
		1	12	23.47	PASS
		1	24	23.15	PASS
		12	0	22.05	PASS
		12	6	22.08	PASS
		12	13	22.06	PASS
		25	0	22.03	PASS
16QAM	LCH	1	0	22.02	PASS
		1	12	22.31	PASS

		1	24	21.98	PASS
		12	0	20.72	PASS
		12	6	20.92	PASS
		12	13	20.78	PASS
		25	0	20.72	PASS
	MCH	1	0	21.91	PASS
		1	12	22.32	PASS
		1	24	22.05	PASS
		12	0	21.08	PASS
		12	6	21.06	PASS
		12	13	20.91	PASS
		25	0	20.91	PASS
	HCH	1	0	21.96	PASS
		1	12	22.39	PASS
		1	24	22.23	PASS
		12	0	21.07	PASS
		12	6	21.08	PASS
		12	13	21.13	PASS
		25	0	21.12	PASS

**Channel Bandwidth: 10 MHz**

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	MCH	1	0	23.81	PASS
		1	24	23.05	PASS
		1	49	23.06	PASS
		25	0	21.81	PASS
		25	12	21.90	PASS
		25	25	21.93	PASS
		50	0	21.86	PASS
16QAM	MCH	1	0	22.07	PASS
		1	24	22.17	PASS
		1	49	22.26	PASS
		25	0	20.84	PASS
		25	12	20.95	PASS
		25	25	20.97	PASS
		50	0	20.85	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	4.93	<13	PASS
		1	3	5.11	<13	PASS
		1	5	5.17	<13	PASS
		3	0	5.05	<13	PASS
		3	2	5.1	<13	PASS
		3	3	5.1	<13	PASS
		6	0	5.5	<13	PASS
	MCH	1	0	3.77	<13	PASS
		1	3	3.74	<13	PASS
		1	5	3.8	<13	PASS
		3	0	3.99	<13	PASS
		3	2	3.94	<13	PASS
		3	3	3.96	<13	PASS
		6	0	4.56	<13	PASS
	HCH	1	0	4.11	<13	PASS
		1	3	3.97	<13	PASS
		1	5	4.3	<13	PASS
		3	0	4.26	<13	PASS
		3	2	4.31	<13	PASS
		3	3	4.3	<13	PASS
		6	0	4.79	<13	PASS
16QAM	LCH	1	0	5.96	<13	PASS
		1	3	6.12	<13	PASS
		1	5	6.08	<13	PASS
		3	0	6.1	<13	PASS
		3	2	6.18	<13	PASS
		3	3	6.03	<13	PASS
		6	0	6.41	<13	PASS
	MCH	1	0	4.91	<13	PASS
		1	3	4.67	<13	PASS
		1	5	4.81	<13	PASS
		3	0	5	<13	PASS

		3	2	5.02	<13	PASS
		3	3	4.96	<13	PASS
		6	0	5.55	<13	PASS
	HCH	1	0	5.11	<13	PASS
		1	3	4.98	<13	PASS
		1	5	5.24	<13	PASS
		3	0	5.07	<13	PASS
		3	2	5.01	<13	PASS
		3	3	5.13	<13	PASS
		6	0	5.62	<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	4.84	<13	PASS
		1	7	4.83	<13	PASS
		1	14	4.57	<13	PASS
		8	0	5.49	<13	PASS
		8	4	5.48	<13	PASS
		8	7	5.35	<13	PASS
		15	0	5.37	<13	PASS
	MCH	1	0	4.02	<13	PASS
		1	7	3.68	<13	PASS
		1	14	3.57	<13	PASS
		8	0	4.72	<13	PASS
		8	4	4.57	<13	PASS
		8	7	4.59	<13	PASS
		15	0	4.67	<13	PASS
	HCH	1	0	3.88	<13	PASS
		1	7	3.97	<13	PASS
		1	14	4.14	<13	PASS
		8	0	4.66	<13	PASS
		8	4	4.73	<13	PASS
		8	7	4.78	<13	PASS
		15	0	4.7	<13	PASS
16QAM	LCH	1	0	5.64	<13	PASS
		1	7	5.86	<13	PASS
		1	14	5.34	<13	PASS
		8	0	6.33	<13	PASS
		8	4	6.15	<13	PASS

		8	7	6.11	<13	PASS
		15	0	6.33	<13	PASS
	MCH	1	0	5.09	<13	PASS
		1	7	4.76	<13	PASS
		1	14	4.59	<13	PASS
		8	0	5.51	<13	PASS
		8	4	5.25	<13	PASS
		8	7	5.29	<13	PASS
		15	0	5.49	<13	PASS
		HCH	1	0	4.73	<13
	1		7	4.87	<13	PASS
	1		14	5.17	<13	PASS
	8		0	5.64	<13	PASS
	8		4	5.7	<13	PASS
	8		7	5.76	<13	PASS
	15		0	5.59	<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	5.08	<13	PASS
		1	12	4.71	<13	PASS
		1	24	4.26	<13	PASS
		12	0	5.59	<13	PASS
		12	6	5.27	<13	PASS
		12	13	5	<13	PASS
		25	0	5.24	<13	PASS
	MCH	1	0	4.48	<13	PASS
		1	12	3.81	<13	PASS
		1	24	3.92	<13	PASS
		12	0	4.78	<13	PASS
		12	6	4.56	<13	PASS
		12	13	4.57	<13	PASS
		25	0	4.84	<13	PASS
	HCH	1	0	3.85	<13	PASS
		1	12	3.73	<13	PASS
		1	24	4.21	<13	PASS
		12	0	4.53	<13	PASS
		12	6	4.56	<13	PASS
		12	13	4.78	<13	PASS



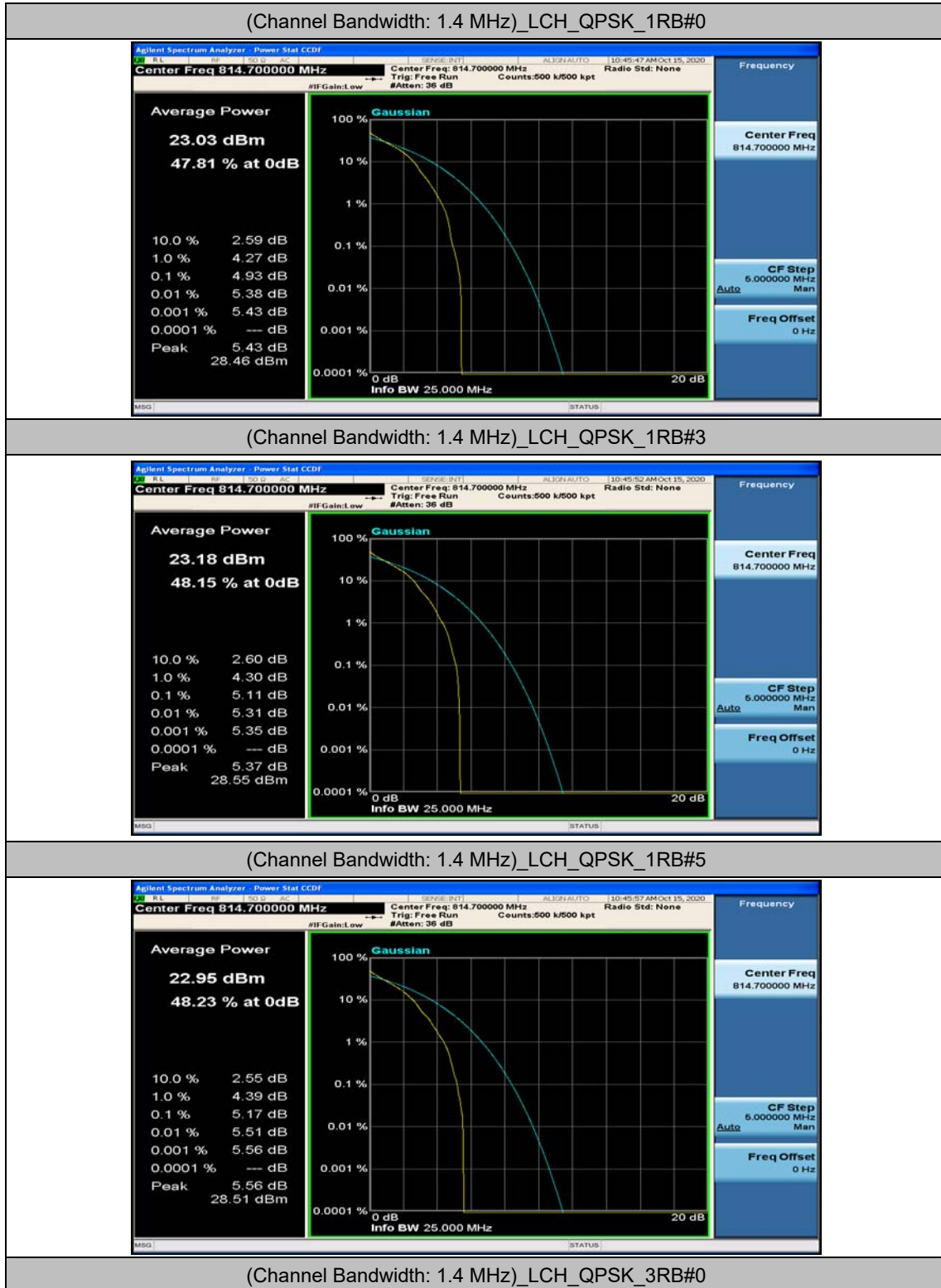
		25	0	4.67	<13	PASS
16QAM	LCH	1	0	5.78	<13	PASS
		1	12	5.45	<13	PASS
		1	24	5.01	<13	PASS
		12	0	6.53	<13	PASS
		12	6	6.26	<13	PASS
		12	13	5.87	<13	PASS
		25	0	6.04	<13	PASS
	MCH	1	0	5.52	<13	PASS
		1	12	4.61	<13	PASS
		1	24	4.95	<13	PASS
		12	0	5.67	<13	PASS
		12	6	5.38	<13	PASS
		12	13	5.4	<13	PASS
		25	0	5.72	<13	PASS
	HCH	1	0	4.63	<13	PASS
		1	12	4.56	<13	PASS
		1	24	5.21	<13	PASS
		12	0	5.35	<13	PASS
		12	6	5.39	<13	PASS
		12	13	5.59	<13	PASS
		25	0	5.47	<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	MCH	1	0	5.02	<13	PASS
		1	24	3.92	<13	PASS
		1	49	4.12	<13	PASS
		25	0	5.23	<13	PASS
		25	12	4.87	<13	PASS
		25	25	4.76	<13	PASS
		50	0	5.19	<13	PASS
16QAM	MCH	1	0	5.96	<13	PASS
		1	24	4.83	<13	PASS
		1	49	4.97	<13	PASS
		25	0	6.11	<13	PASS
		25	12	5.66	<13	PASS
		25	25	5.57	<13	PASS
		50	0	5.98	<13	PASS

## Test Graphs

### Channel Bandwidth: 1.4 MHz





(Channel Bandwidth: 1.4 MHz)\_LCH\_QPSK\_3RB#2



(Channel Bandwidth: 1.4 MHz)\_LCH\_QPSK\_3RB#3



(Channel Bandwidth: 1.4 MHz)\_LCH\_QPSK\_6RB#0



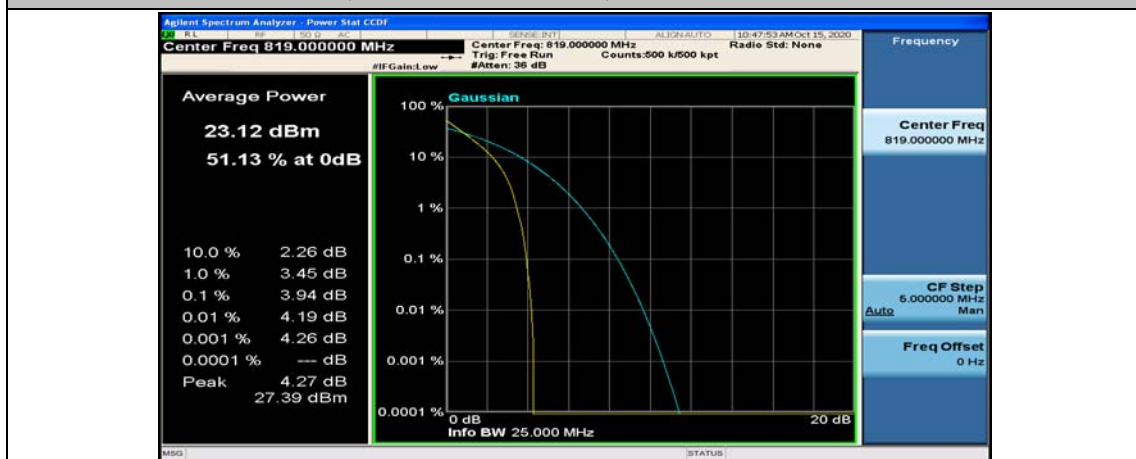
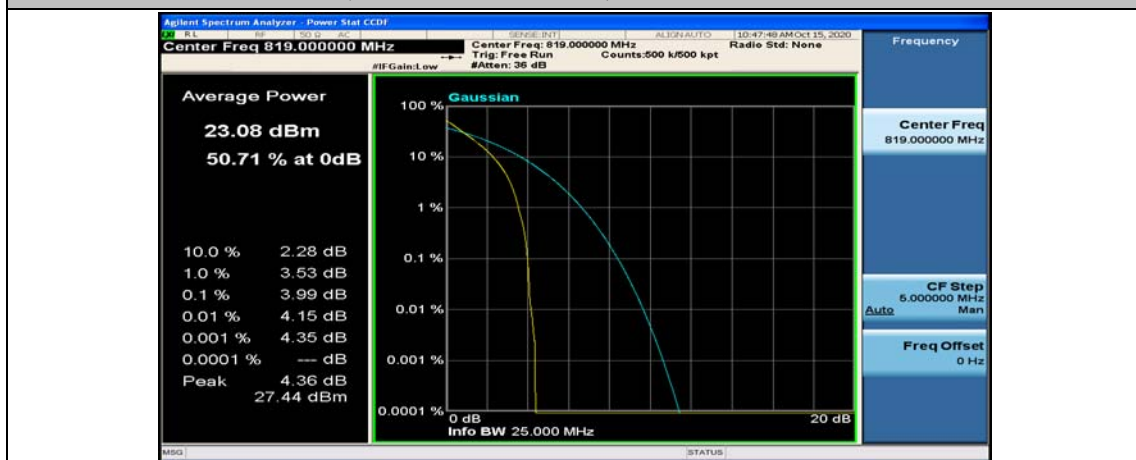
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(Channel Bandwidth: 1.4 MHz)\_MCH\_QPSK\_1RB#3



(Channel Bandwidth: 1.4 MHz)\_MCH\_QPSK\_1RB#5

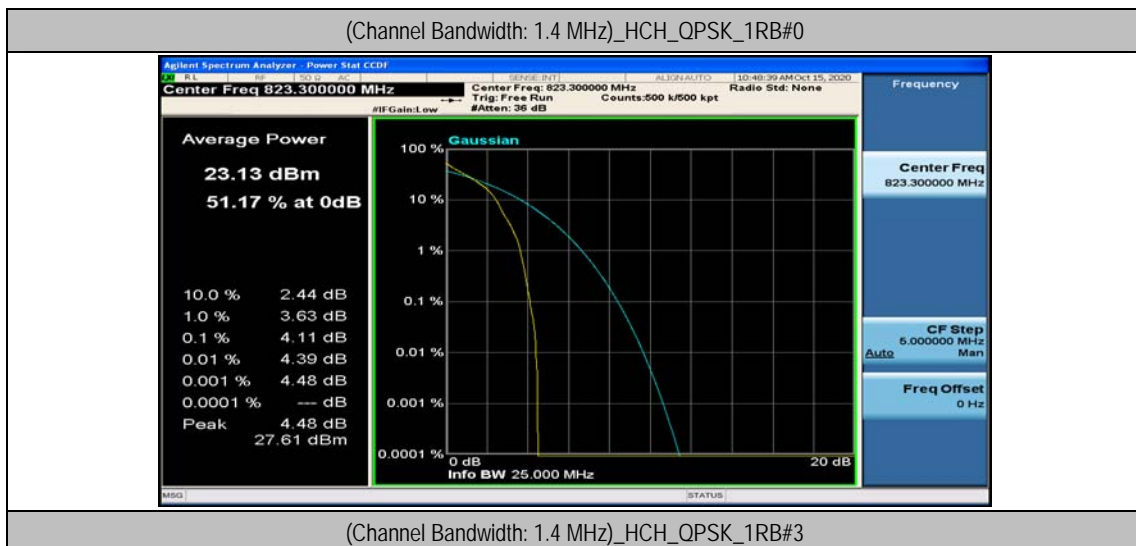




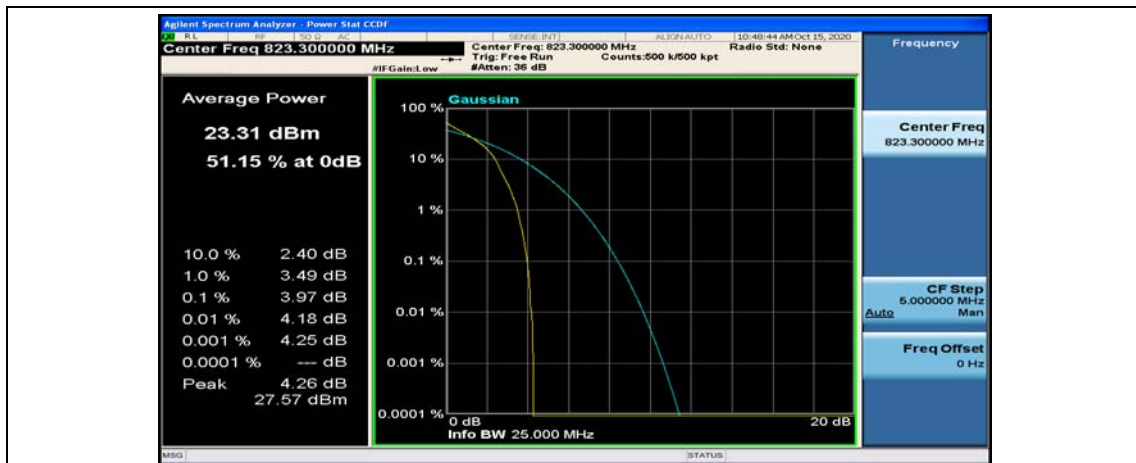
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(Channel Bandwidth: 1.4 MHz)\_HCH\_QPSK\_1RB#0



(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

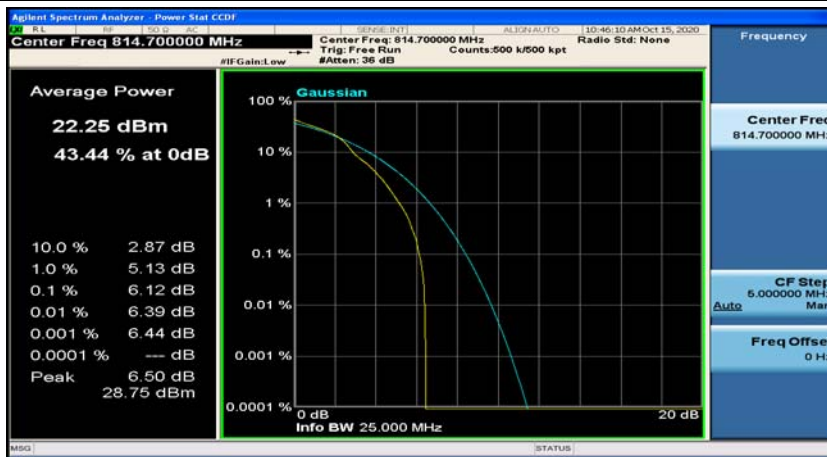




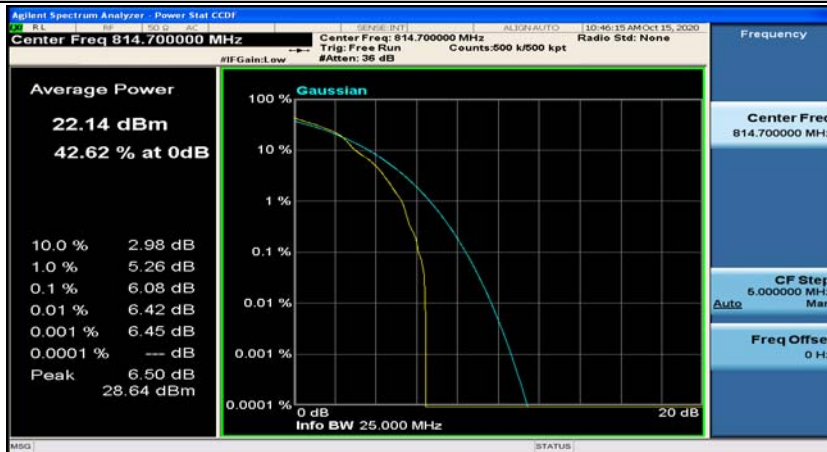
(Channel Bandwidth: 1.4 MHz)\_LCH\_16QAM\_1RB#0



(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

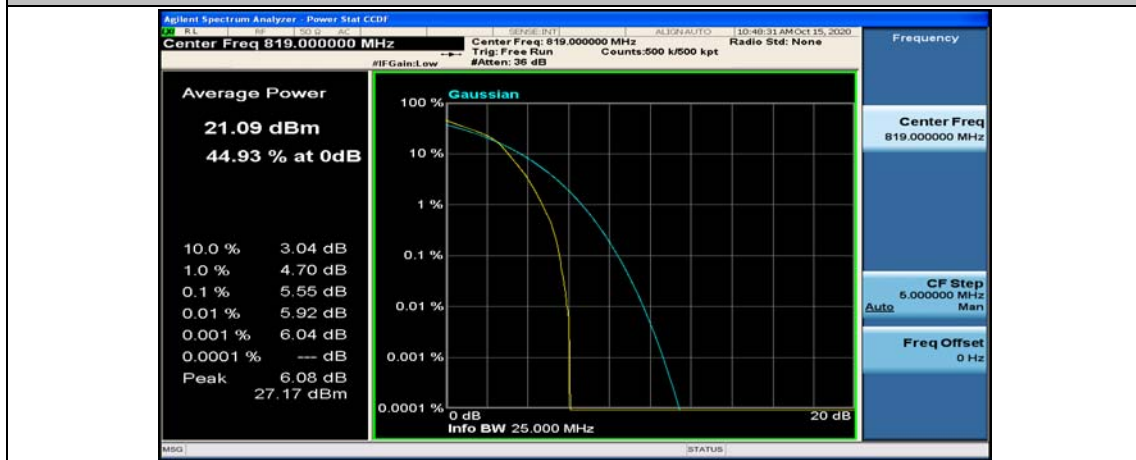


(Channel Bandwidth: 1.4 MHz)\_MCH\_16QAM\_1RB#5

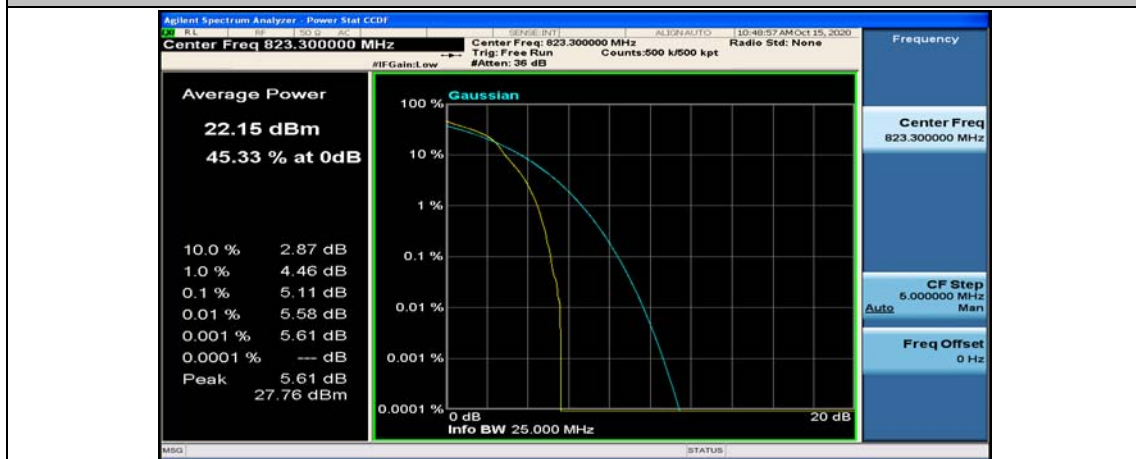




(Channel Bandwidth: 1.4 MHz)\_MCH\_16QAM\_6RB#0



(Channel Bandwidth: 1.4 MHz)\_HCH\_16QAM\_1RB#0



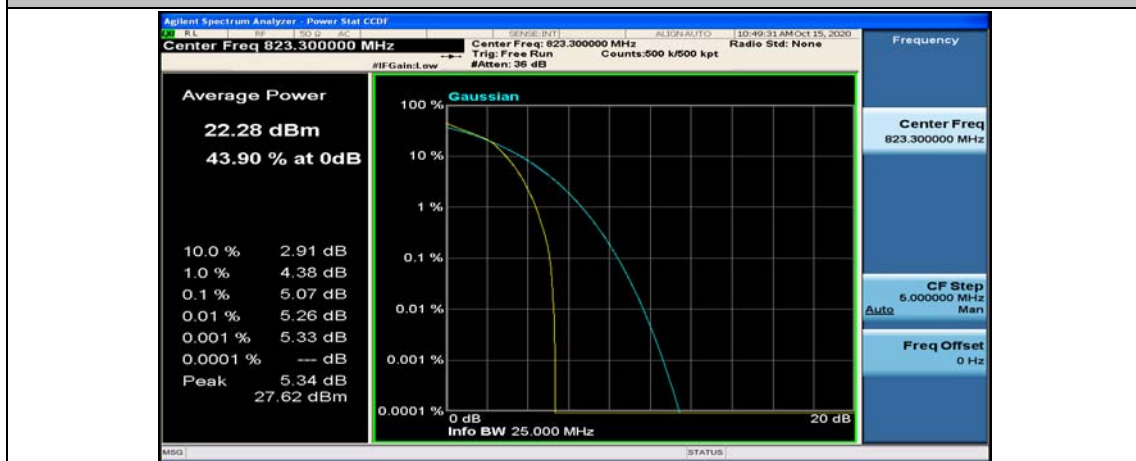
(Channel Bandwidth: 1.4 MHz)\_HCH\_16QAM\_1RB#3



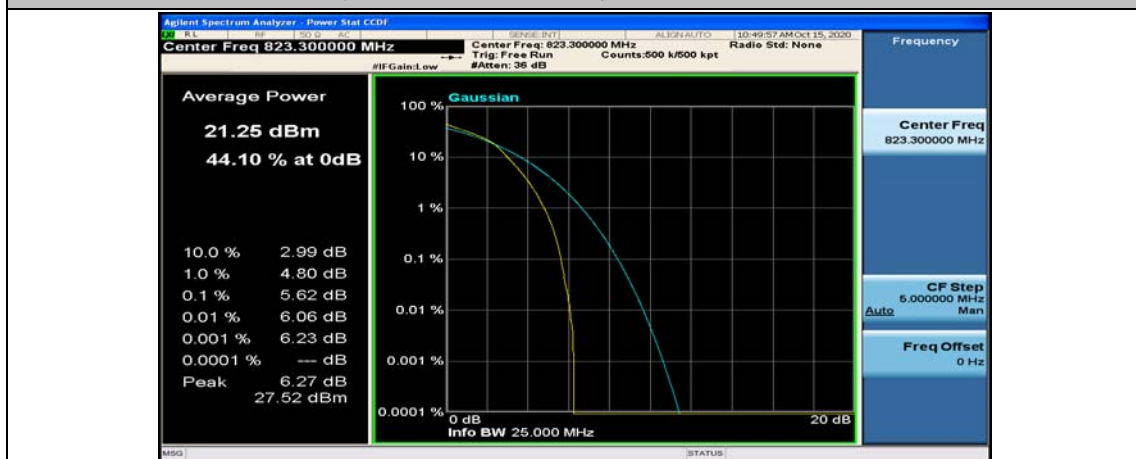
(Channel Bandwidth: 1.4 MHz)\_HCH\_16QAM\_1RB#5



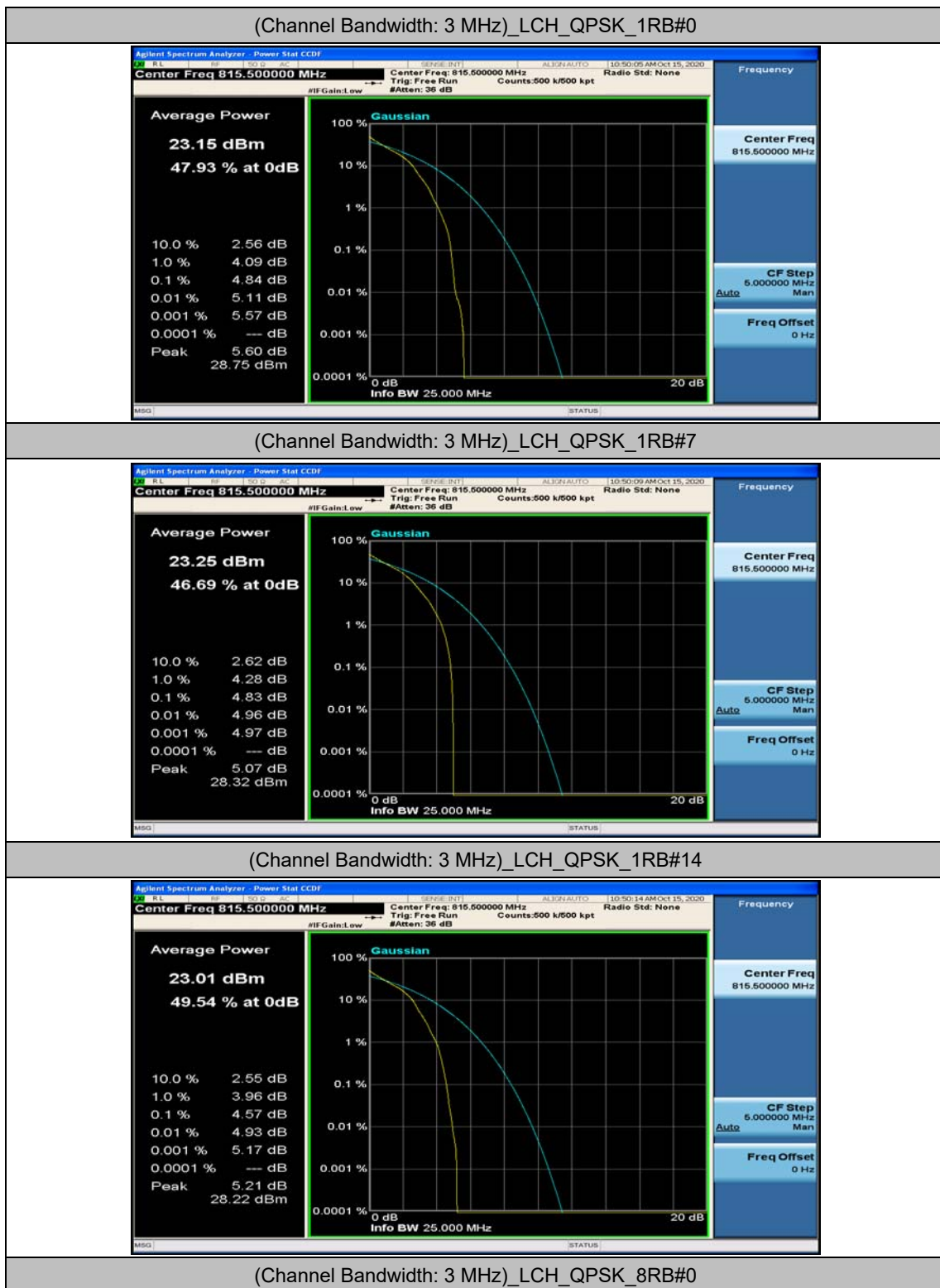
(Channel Bandwidth: 1.4 MHz)\_HCH\_16QAM\_3RB#0



(Channel Bandwidth: 1.4 MHz)\_HCH\_16QAM\_3RB#2



### Channel Bandwidth: 3 MHz







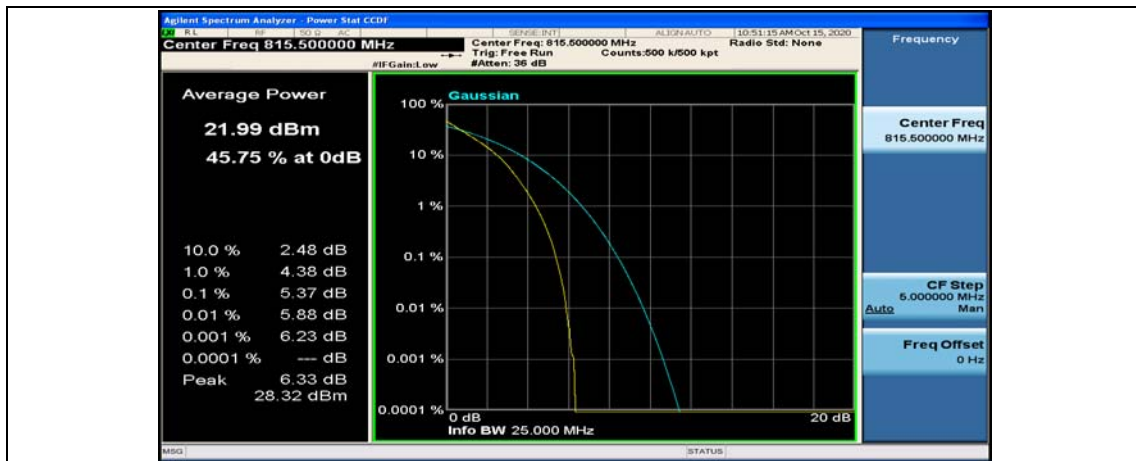
(Channel Bandwidth: 3 MHz)\_LCH\_QPSK\_8RB#4



(Channel Bandwidth: 3 MHz)\_LCH\_QPSK\_8RB#7



(Channel Bandwidth: 3 MHz)\_LCH\_QPSK\_15RB#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\_8RB#0



(Channel Bandwidth: 3 MHz)\_MCH\_QPSK\_8RB#4



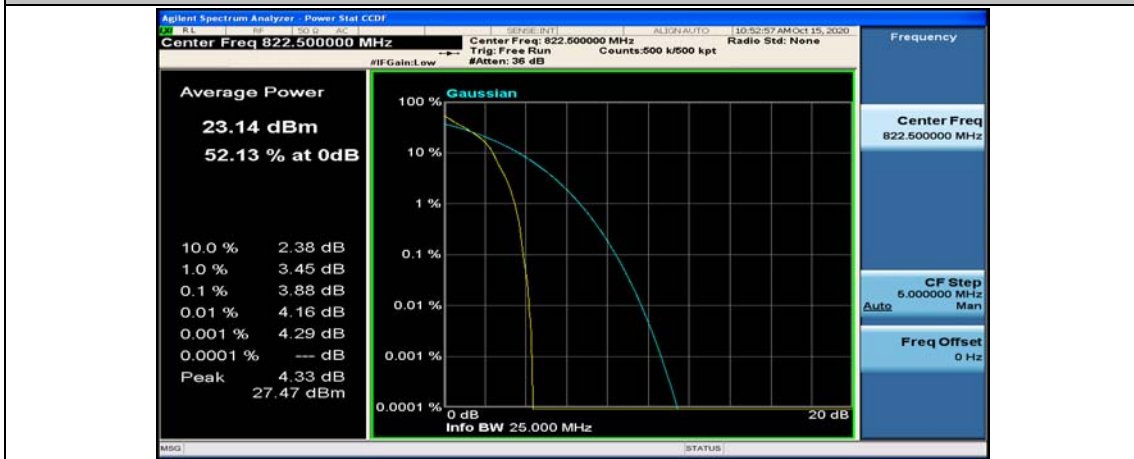
(Channel Bandwidth: 3 MHz)\_MCH\_QPSK\_8RB#7



(Channel Bandwidth: 3 MHz)\_MCH\_QPSK\_15RB#0



(Channel Bandwidth: 3 MHz)\_HCH\_QPSK\_1RB#0



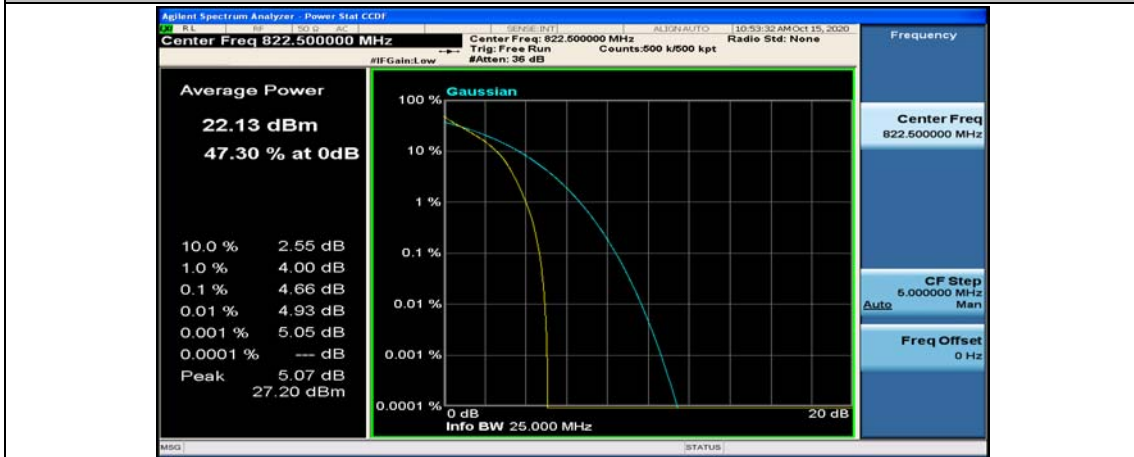
(Channel Bandwidth: 3 MHz)\_HCH\_QPSK\_1RB#7



(Channel Bandwidth: 3 MHz)\_HCH\_QPSK\_1RB#14



(Channel Bandwidth: 3 MHz)\_HCH\_QPSK\_8RB#0



(Channel Bandwidth: 3 MHz)\_HCH\_QPSK\_8RB#4



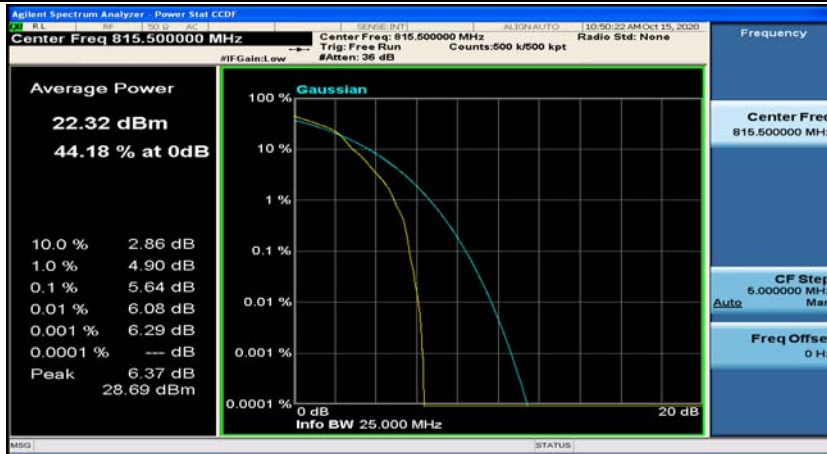
(Channel Bandwidth: 3 MHz)\_HCH\_QPSK\_8RB#7



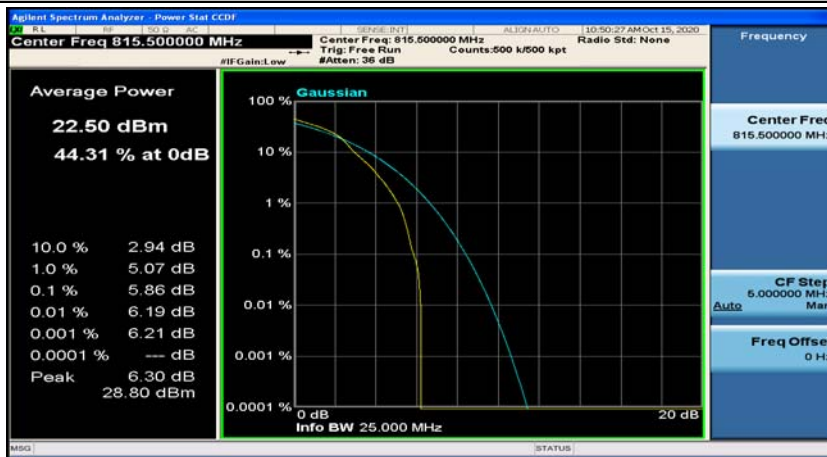
(Channel Bandwidth: 3 MHz)\_HCH\_QPSK\_15RB#0



(Channel Bandwidth: 3 MHz)\_LCH\_16QAM\_1RB#0



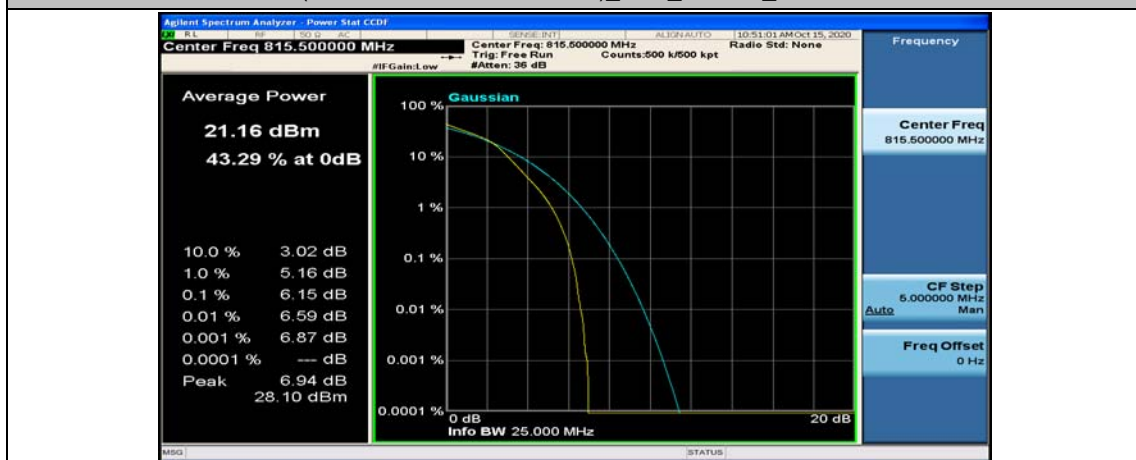
(Channel Bandwidth: 3 MHz)\_LCH\_16QAM\_1RB#7



(Channel Bandwidth: 3 MHz)\_LCH\_16QAM\_1RB#14



(Channel Bandwidth: 3 MHz)\_LCH\_16QAM\_8RB#0







(Channel Bandwidth: 3 MHz)\_MCH\_16QAM\_1RB#0

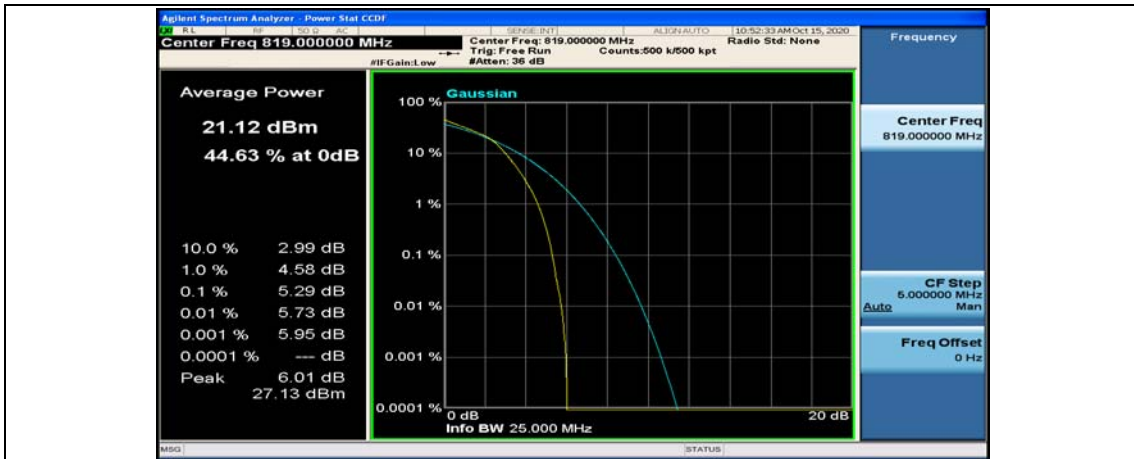


(Channel Bandwidth: 3 MHz)\_MCH\_16QAM\_1RB#7



(Channel Bandwidth: 3 MHz)\_MCH\_16QAM\_1RB#14





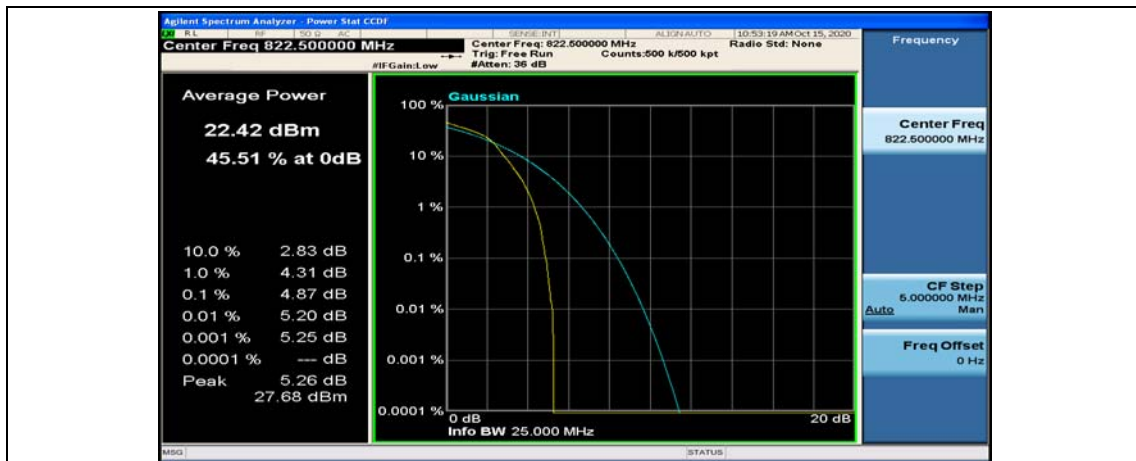
(Channel Bandwidth: 3 MHz)\_MCH\_16QAM\_15RB#0



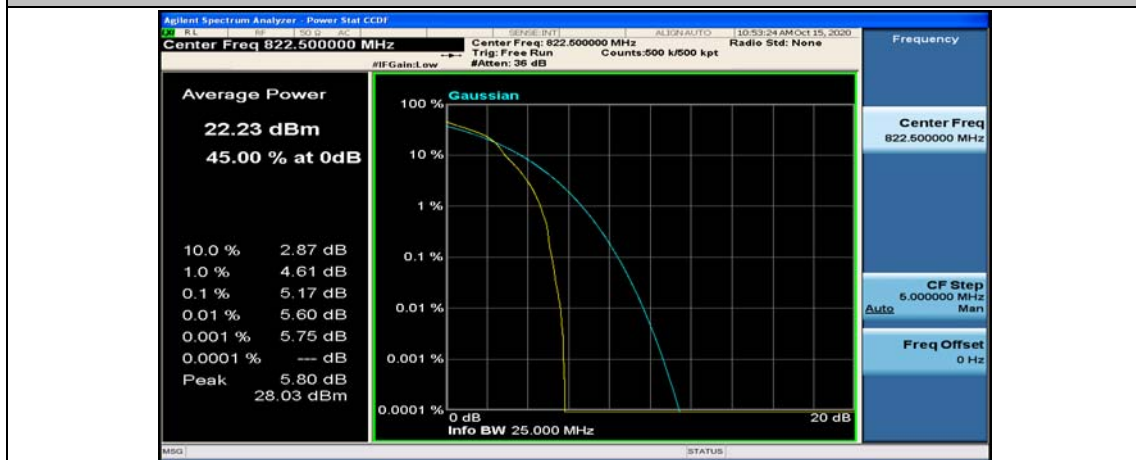
(Channel Bandwidth: 3 MHz)\_HCH\_16QAM\_1RB#0



(Channel Bandwidth: 3 MHz)\_HCH\_16QAM\_1RB#7



(Channel Bandwidth: 3 MHz)\_HCH\_16QAM\_1RB#14



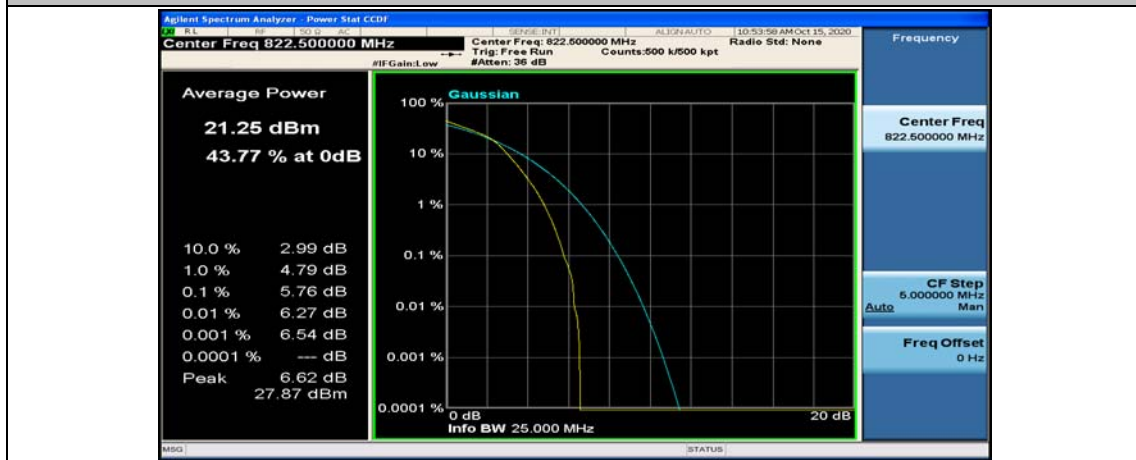
(Channel Bandwidth: 3 MHz)\_HCH\_16QAM\_8RB#0



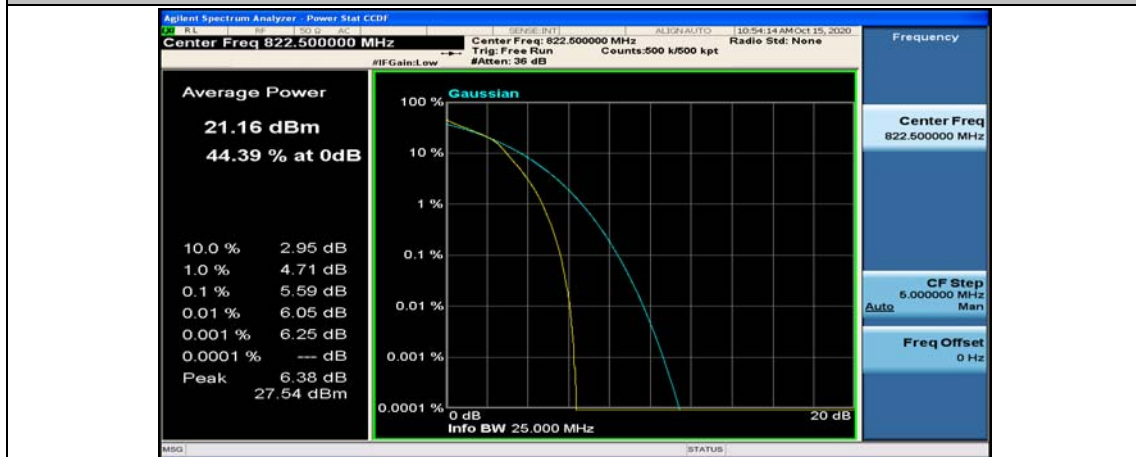
(Channel Bandwidth: 3 MHz)\_HCH\_16QAM\_8RB#4



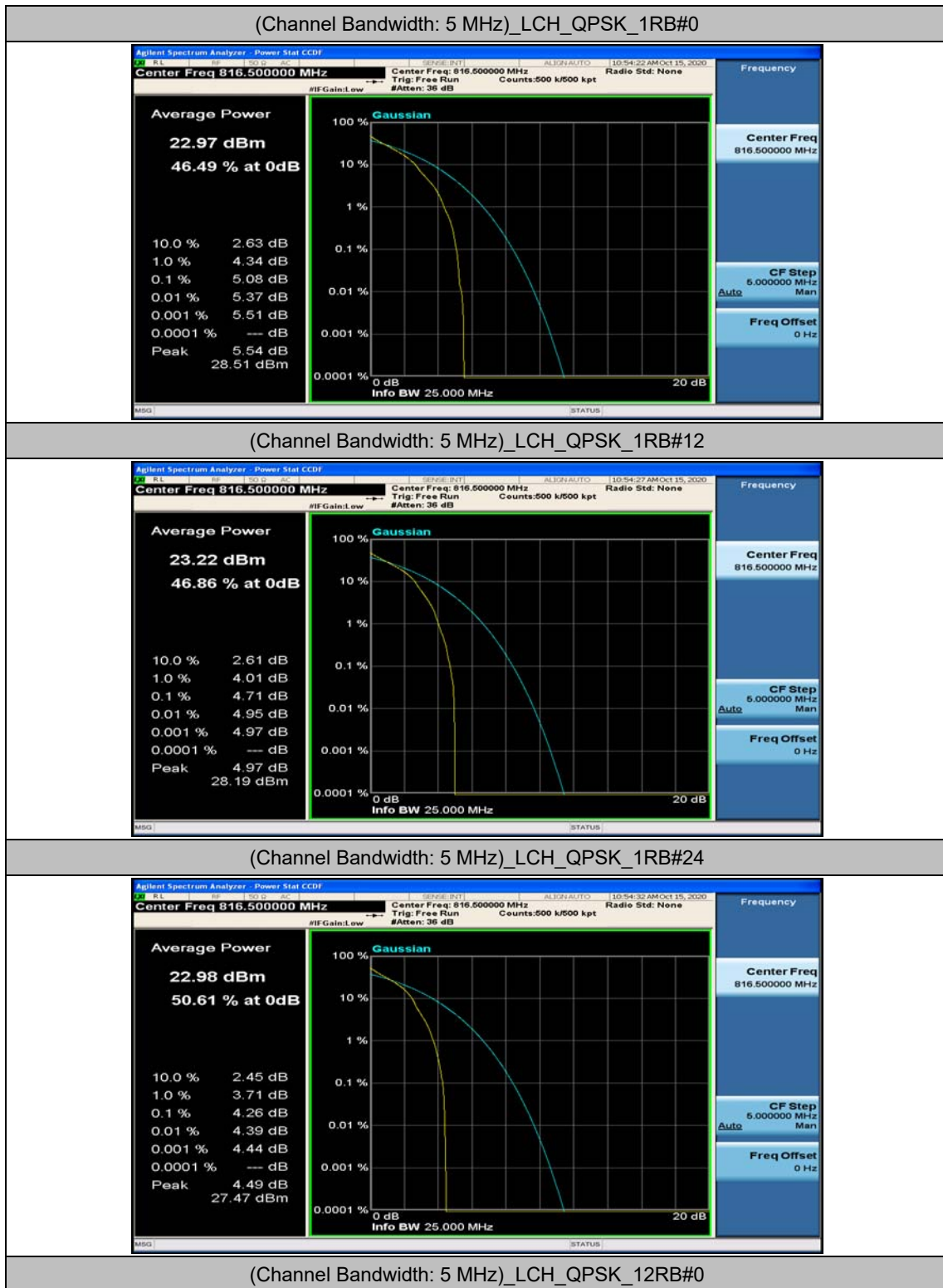
(Channel Bandwidth: 3 MHz)\_HCH\_16QAM\_8RB#7



(Channel Bandwidth: 3 MHz)\_HCH\_16QAM\_15RB#0



### Channel Bandwidth: 5 MHz





(Channel Bandwidth: 5 MHz)\_LCH\_QPSK\_12RB#6



(Channel Bandwidth: 5 MHz)\_LCH\_QPSK\_12RB#13



(Channel Bandwidth: 5 MHz)\_LCH\_QPSK\_25RB#0



(Channel Bandwidth: 5 MHz)\_MCH\_QPSK\_1RB#0

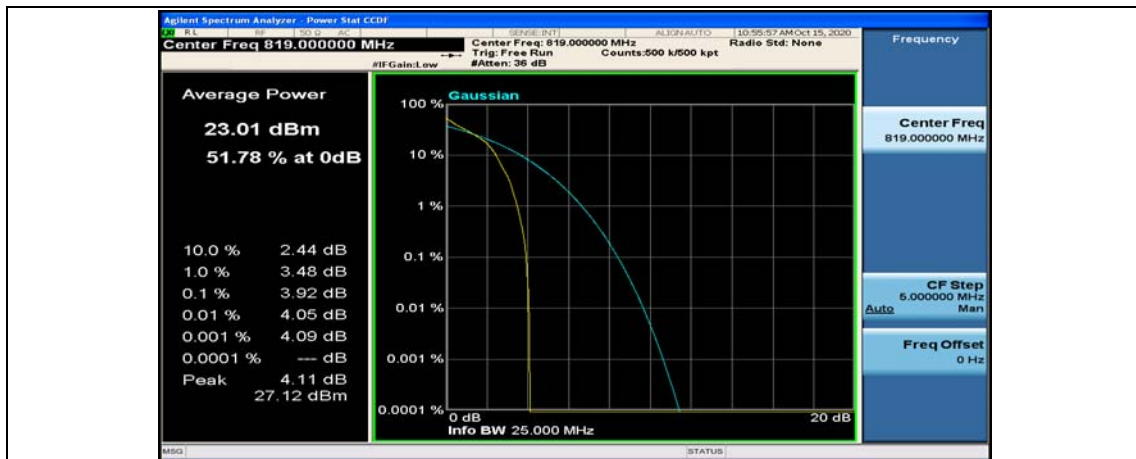


(Channel Bandwidth: 5 MHz)\_MCH\_QPSK\_1RB#12



(Channel Bandwidth: 5 MHz)\_MCH\_QPSK\_1RB#24





(Channel Bandwidth: 5 MHz)\_MCH\_QPSK\_12RB#0



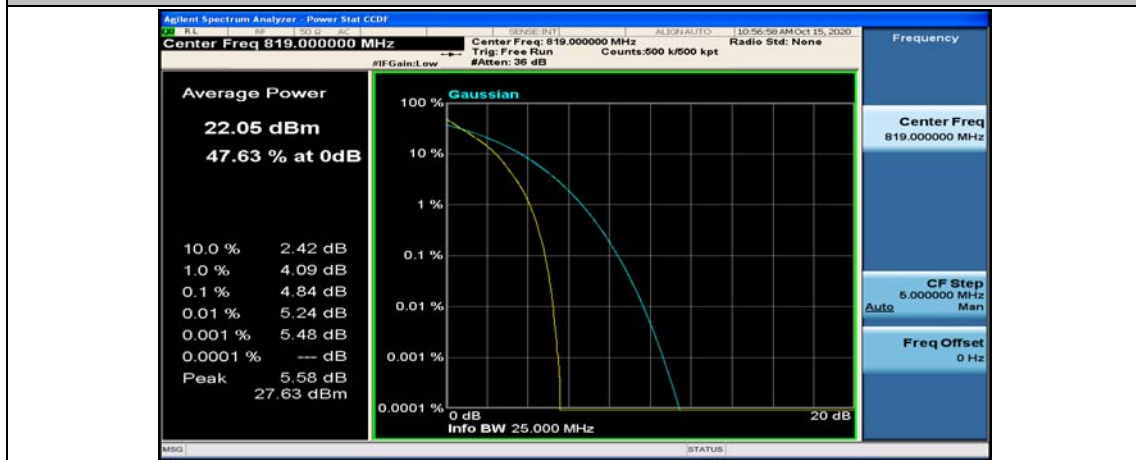
(Channel Bandwidth: 5 MHz)\_MCH\_QPSK\_12RB#6



(Channel Bandwidth: 5 MHz)\_MCH\_QPSK\_12RB#13



(Channel Bandwidth: 5 MHz)\_MCH\_QPSK\_25RB#0



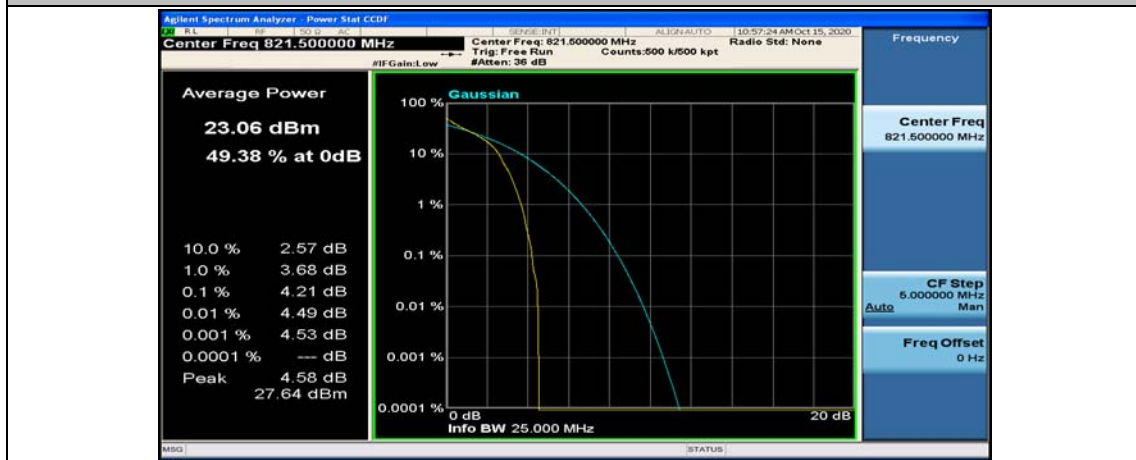
(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_1RB#0



(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_1RB#12



(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_1RB#24



(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_12RB#0



(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_12RB#6



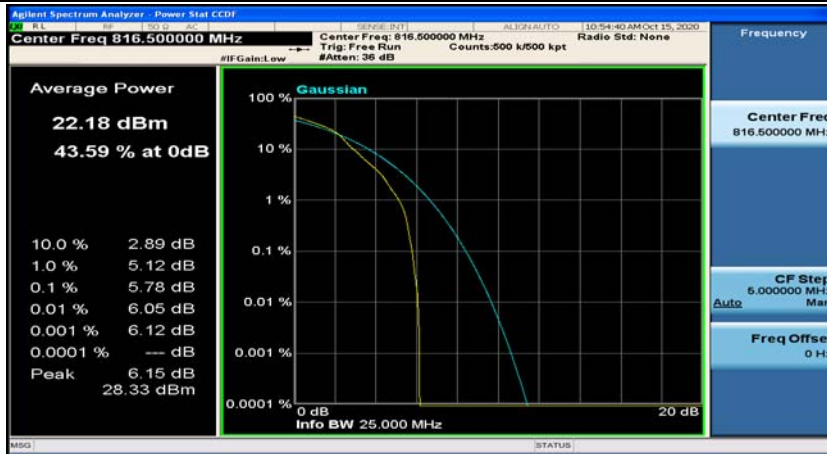
(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_12RB#13



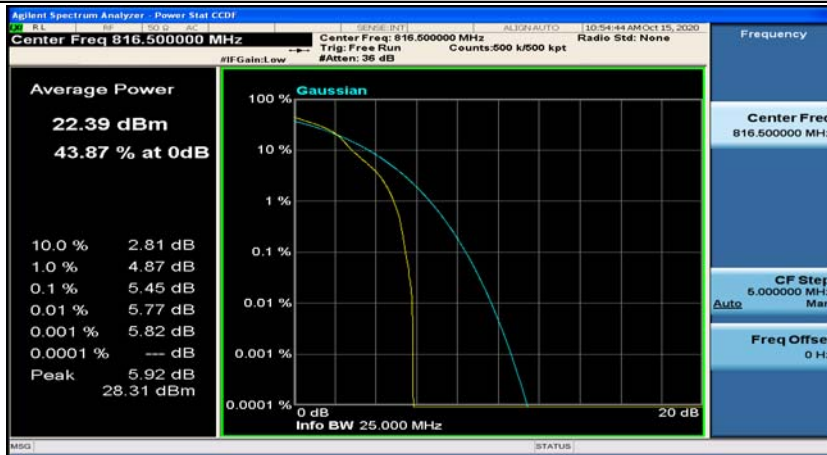
(Channel Bandwidth: 5 MHz)\_HCH\_QPSK\_25RB#0



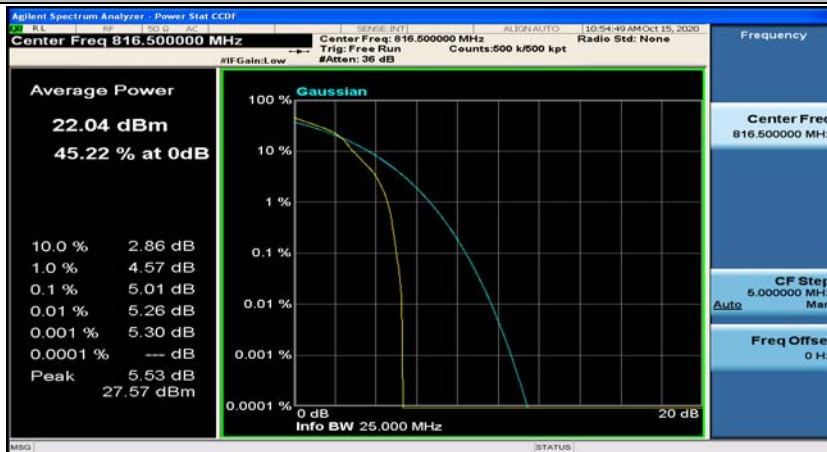
(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_1RB#0



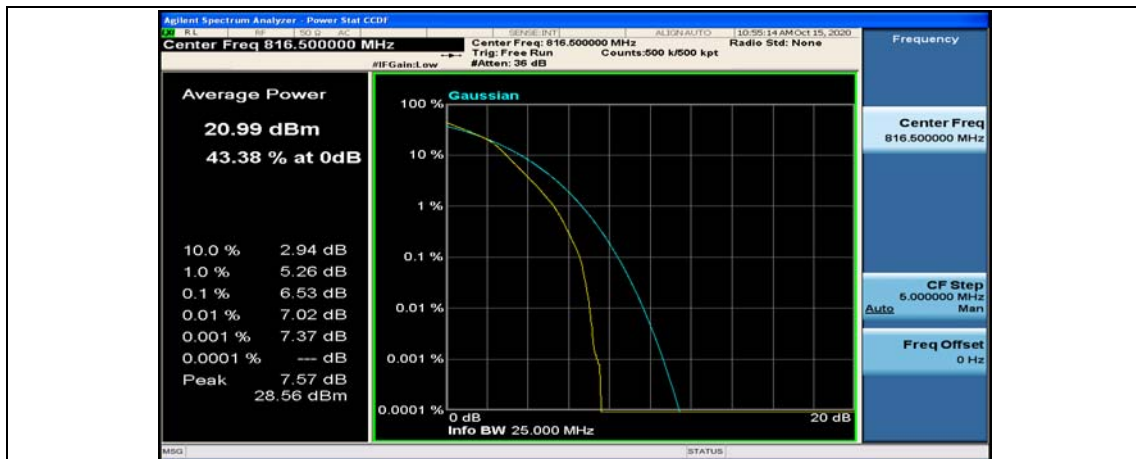
(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_1RB#12



(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_1RB#24



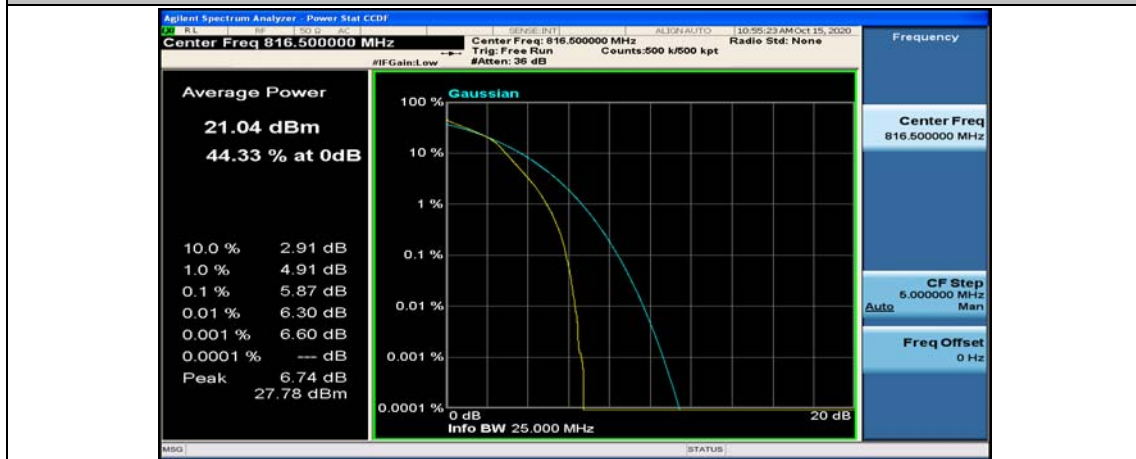
(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_12RB#0



(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_12RB#6



(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_12RB#13



(Channel Bandwidth: 5 MHz)\_LCH\_16QAM\_25RB#0



(Channel Bandwidth: 5 MHz)\_MCH\_16QAM\_1RB#0



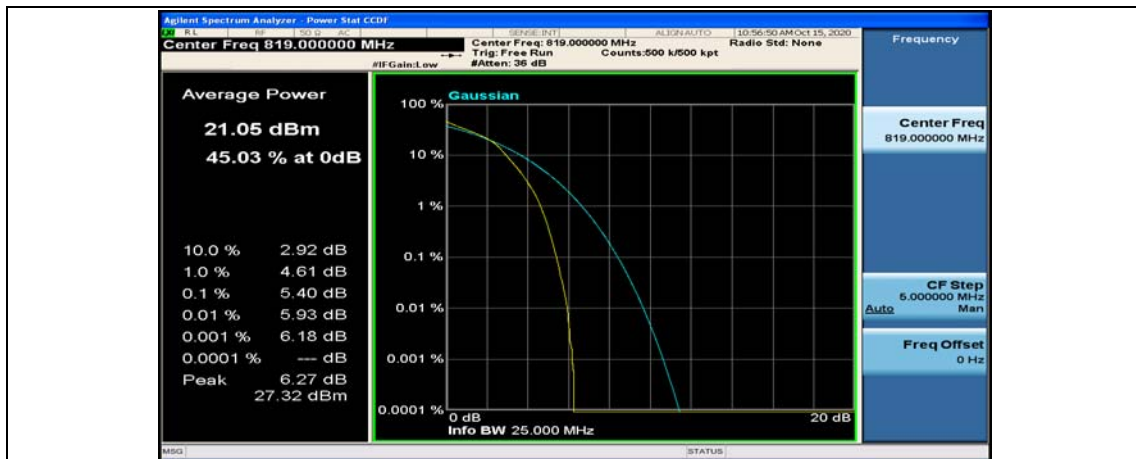
(Channel Bandwidth: 5 MHz)\_MCH\_16QAM\_1RB#12



(Channel Bandwidth: 5 MHz)\_MCH\_16QAM\_1RB#24



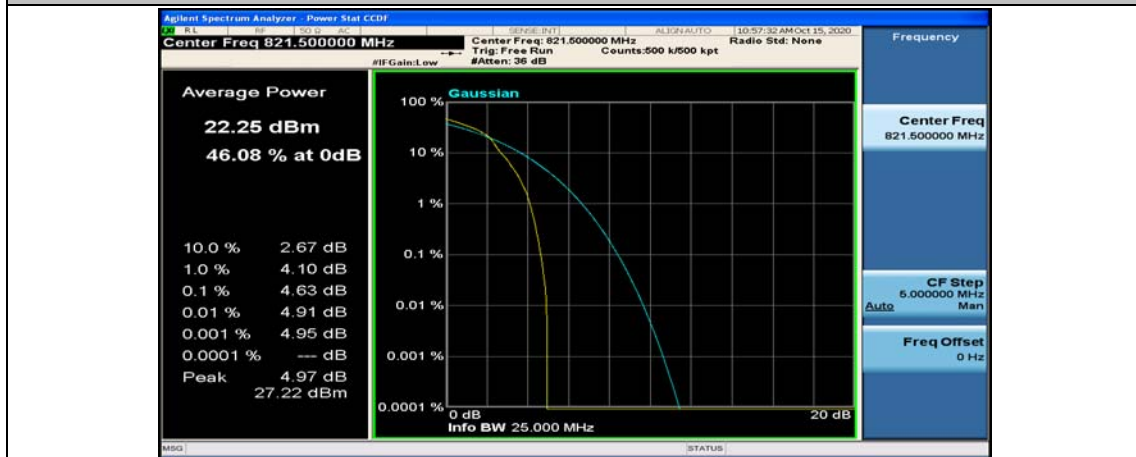




(Channel Bandwidth: 5 MHz)\_MCH\_16QAM\_25RB#0



(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_1RB#0



(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_1RB#12



(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_1RB#24



(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_12RB#0



(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_12RB#6



(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_12RB#13



(Channel Bandwidth: 5 MHz)\_HCH\_16QAM\_25RB#0



### Channel Bandwidth: 10 MHz

