Appendix F: Test Data for E-UTRA Band 12

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

F.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	22.63	PASS
		1	3	22.57	PASS
		1	5	22.61	PASS
		3	0	22.60	PASS
		3	2	22.64	PASS
		3	3	22.72	PASS
		6	0	21.69	PASS
	MCH	1	0	23.36	PASS
		1	3	23.43	PASS
		1	5	23.51	PASS
		3	0	23.39	PASS
		3	2	23.50	PASS
		3	3	23.60	PASS
		6	0	22.58	PASS
	HCH	1	0	24.15	PASS
		1	3	24.12	PASS
		1	5	24.10	PASS

		3	0	24.19	PASS
		3	2	24.33	PASS
		3	3	24.28	PASS
		6	0	23.24	PASS
16QAM	LCH	1	0	22.12	PASS
		1	3	21.69	PASS
		1	5	21.50	PASS
		3	0	21.77	PASS
		3	2	21.68	PASS
		3	3	21.67	PASS
		6	0	20.74	PASS
	MCH	1	0	22.68	PASS
		1	3	22.68	PASS
		1	5	22.82	PASS
		3	0	22.55	PASS
		3	2	22.62	PASS
		3	3	22.52	PASS
		6	0	21.23	PASS
	HCH	1	0	23.00	PASS
		1	3	23.06	PASS
		1	5	22.95	PASS
		3	0	23.06	PASS
		3	2	23.15	PASS
		3	3	23.02	PASS
		6	0	22.41	PASS

Channel Bandwidth: 3 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.77	PASS
		1	7	22.85	PASS
		1	14	22.65	PASS
		8	0	21.83	PASS
		8	4	21.85	PASS
		8	7	21.80	PASS
		15	0	21.91	PASS
	MCH	1	0	23.62	PASS
		1	7	23.97	PASS
		1	14	23.55	PASS
		8	0	22.66	PASS
		8	4	22.75	PASS
		8	7	22.69	PASS

		15	0	22.66	PASS
	HCH	1	0	24.26	PASS
		1	7	24.59	PASS
		1	14	24.26	PASS
		8	0	23.55	PASS
		8	4	23.68	PASS
		8	7	23.45	PASS
		15	0	23.56	PASS
16QAM	LCH	1	0	22.44	PASS
		1	7	22.49	PASS
		1	14	21.88	PASS
		8	0	21.24	PASS
		8	4	20.94	PASS
		8	7	20.90	PASS
		15	0	20.98	PASS
	MCH	1	0	22.68	PASS
		1	7	23.14	PASS
		1	14	22.70	PASS
		8	0	21.82	PASS
		8	4	21.83	PASS
		8	7	21.70	PASS
		15	0	21.78	PASS
	HCH	1	0	23.54	PASS
		1	7	23.89	PASS
		1	14	23.66	PASS
		8	0	22.53	PASS
		8	4	22.82	PASS
		8	7	22.76	PASS
		15	0	22.49	PASS

Channel Bandwidth: 5 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.79	PASS
		1	12	21.97	PASS
		1	24	22.40	PASS
		12	0	22.01	PASS
		12	6	21.97	PASS
		12	13	22.08	PASS
		25	0	22.08	PASS
	MCH	1	0	23.18	PASS
		1	12	24.38	PASS
		1	24	23.70	PASS

		12	0	22.65	PASS
		12	6	22.88	PASS
		12	13	22.84	PASS
		25	0	22.80	PASS
	HCH	1	0	24.07	PASS
		1	12	**24.70**	PASS
		1	24	24.60	PASS
		12	0	23.30	PASS
		12	6	23.55	PASS
		12	13	23.58	PASS
		25	0	23.42	PASS
16QAM	LCH	1	0	22.13	PASS
		1	12	21.37	PASS
		1	24	21.79	PASS
		12	0	21.08	PASS
		12	6	21.12	PASS
		12	13	21.25	PASS
		25	0	21.09	PASS
	MCH	1	0	22.60	PASS
		1	12	23.82	PASS
		1	24	22.97	PASS
		12	0	21.66	PASS
		12	6	21.85	PASS
		12	13	21.88	PASS
		25	0	21.75	PASS
	HCH	1	0	22.62	PASS
		1	12	22.92	PASS
		1	24	22.90	PASS
		12	0	22.23	PASS
		12	6	22.64	PASS
		12	13	22.69	PASS
		25	0	22.37	PASS

Channel Bandwidth: 10 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	22.01	PASS
		1	24	22.59	PASS
		1	49	**23.61**	PASS
		25	0	22.01	PASS
		25	12	22.51	PASS
		25	25	22.74	PASS
		50	0	22.35	PASS

	MCH	1	0	22.75	PASS
		1	24	**24.39**	PASS
		1	49	23.43	PASS
		25	0	22.55	PASS
		25	12	22.86	PASS
		25	25	22.83	PASS
		50	0	22.83	PASS
	HCH	1	0	23.07	PASS
		1	24	24.17	PASS
		1	49	24.04	PASS
		25	0	22.95	PASS
		25	12	23.10	PASS
		25	25	23.41	PASS
		50	0	23.25	PASS
16QAM	LCH	1	0	21.28	PASS
		1	24	21.88	PASS
		1	49	22.90	PASS
		25	0	20.95	PASS
		25	12	21.45	PASS
		25	25	21.64	PASS
		50	0	21.38	PASS
	MCH	1	0	22.61	PASS
		1	24	23.70	PASS
		1	49	22.83	PASS
		25	0	21.54	PASS
		25	12	21.78	PASS
		25	25	21.82	PASS
		50	0	21.67	PASS
	HCH	1	0	22.49	PASS
		1	24	23.60	PASS
		1	49	23.53	PASS
		25	0	22.10	PASS
		25	12	22.03	PASS
		25	25	22.30	PASS
		50	0	22.05	PASS

F.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	4.88	<13	PASS
		1	3	4.79	<13	PASS
		1	5	5.1	<13	PASS
		3	0	5.06	<13	PASS
		3	2	5.17	<13	PASS
		3	3	4.94	<13	PASS
		6	0	5.29	<13	PASS
	MCH	1	0	4.82	<13	PASS
		1	3	4.62	<13	PASS
		1	5	4.77	<13	PASS
		3	0	5	<13	PASS
		3	2	4.86	<13	PASS
		3	3	4.93	<13	PASS
		6	0	5.38	<13	PASS
	HCH	1	0	3.93	<13	PASS
		1	3	3.76	<13	PASS
		1	5	3.87	<13	PASS
		3	0	4.04	<13	PASS
		3	2	3.78	<13	PASS
		3	3	3.89	<13	PASS
		6	0	4.79	<13	PASS
16QAM	LCH	1	0	5.39	<13	PASS
		1	3	5.55	<13	PASS
		1	5	5.8	<13	PASS
		3	0	5.73	<13	PASS
		3	2	5.82	<13	PASS
		3	3	6.01	<13	PASS
		6	0	6.18	<13	PASS
	MCH	1	0	5.6	<13	PASS
		1	3	5.48	<13	PASS
		1	5	5.53	<13	PASS
		3	0	5.9	<13	PASS
		3	2	5.83	<13	PASS

		3	3	5.92	<13	PASS
		6	0	6.31	<13	PASS
	HCH	1	0	4.89	<13	PASS
		1	3	4.76	<13	PASS
		1	5	4.87	<13	PASS
		3	0	4.78	<13	PASS
		3	2	4.71	<13	PASS
		3	3	4.9	<13	PASS
		6	0	5.61	<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	4.5	<13	PASS
		1	7	5.1	<13	PASS
		1	14	5.27	<13	PASS
		8	0	5.1	<13	PASS
		8	4	5.17	<13	PASS
		8	7	5.19	<13	PASS
		15	0	5.35	<13	PASS
	MCH	1	0	4.88	<13	PASS
		1	7	4.67	<13	PASS
		1	14	4.8	<13	PASS
		8	0	5.2	<13	PASS
		8	4	5.15	<13	PASS
		8	7	5.19	<13	PASS
		15	0	5.43	<13	PASS
	HCH	1	0	4.49	<13	PASS
		1	7	3.86	<13	PASS
		1	14	3.8	<13	PASS
		8	0	4.84	<13	PASS
		8	4	4.57	<13	PASS
		8	7	4.56	<13	PASS
		15	0	5.02	<13	PASS
16QAM	LCH	1	0	5.28	<13	PASS
		1	7	5.96	<13	PASS
		1	14	6.14	<13	PASS
		8	0	5.91	<13	PASS
		8	4	6	<13	PASS
		8	7	6.05	<13	PASS
		15	0	6.33	<13	PASS
	MCH	1	0	5.66	<13	PASS
		1	7	5.41	<13	PASS
		1	14	5.54	<13	PASS
		8	0	6.09	<13	PASS
		8	4	6.01	<13	PASS
		8	7	6.03	<13	PASS
		15	0	6.37	<13	PASS
	HCH	1	0	5.33	<13	PASS
		1	7	4.78	<13	PASS

		1	14	4.66	<13	PASS
		8	0	5.75	<13	PASS
		8	4	5.43	<13	PASS
		8	7	5.43	<13	PASS
		15	0	5.89	<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	4.56	<13	PASS
		1	12	5.6	<13	PASS
		1	24	5.33	<13	PASS
		12	0	5.09	<13	PASS
		12	6	5.3	<13	PASS
		12	13	5.63	<13	PASS
		25	0	5.68	<13	PASS
	MCH	1	0	5.01	<13	PASS
		1	12	4.82	<13	PASS
		1	24	4.72	<13	PASS
		12	0	5.15	<13	PASS
		12	6	5.07	<13	PASS
		12	13	5.11	<13	PASS
		25	0	5.34	<13	PASS
	HCH	1	0	4.96	<13	PASS
		1	12	4.07	<13	PASS
		1	24	3.8	<13	PASS
		12	0	5.12	<13	PASS
		12	6	4.86	<13	PASS
		12	13	4.55	<13	PASS
		25	0	5.13	<13	PASS
16QAM	LCH	1	0	5.64	<13	PASS
		1	12	6.39	<13	PASS
		1	24	6.01	<13	PASS
		12	0	6	<13	PASS
		12	6	6.06	<13	PASS
		12	13	6.13	<13	PASS
		25	0	6.38	<13	PASS
	MCH	1	0	5.71	<13	PASS
		1	12	5.49	<13	PASS
		1	24	5.56	<13	PASS
		12	0	6.06	<13	PASS
		12	6	5.95	<13	PASS
		12	13	6.01	<13	PASS
		25	0	6.22	<13	PASS
	HCH	1	0	5.51	<13	PASS
		1	12	5.09	<13	PASS

		1	24	4.67	<13	PASS
		12	0	6.06	<13	PASS
		12	6	5.74	<13	PASS
		12	13	5.48	<13	PASS
		25	0	6.02	<13	PASS

Channel Bandwidth: 10 MHz

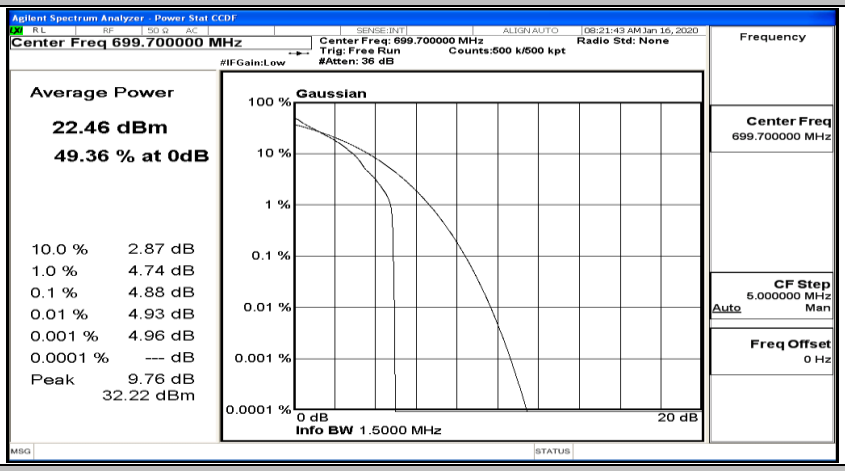
Channel Bandwidth: 10 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	8.94	<13	PASS
		1	24	5.89	<13	PASS
		1	49	4.76	<13	PASS
		25	0	5.42	<13	PASS
		25	12	5.54	<13	PASS
		25	25	5.17	<13	PASS
		50	0	5.5	<13	PASS
	MCH	1	0	5.51	<13	PASS
		1	24	4.6	<13	PASS
		1	49	5.43	<13	PASS
		25	0	5.19	<13	PASS
		25	12	5.06	<13	PASS
		25	25	5.18	<13	PASS
		50	0	5.21	<13	PASS
	HCH	1	0	5.07	<13	PASS
		1	24	4.74	<13	PASS
		1	49	4.04	<13	PASS
		25	0	5.1	<13	PASS
		25	12	5.16	<13	PASS
		25	25	4.94	<13	PASS
		50	0	5.35	<13	PASS
16QAM	LCH	1	0	6.51	<13	PASS
		1	24	6.05	<13	PASS
		1	49	5.54	<13	PASS
		25	0	6.42	<13	PASS
		25	12	6.15	<13	PASS
		25	25	6.1	<13	PASS
		50	0	6.31	<13	PASS
	MCH	1	0	6.7	<13	PASS
		1	24	5.37	<13	PASS
		1	49	5.93	<13	PASS
		25	0	6.13	<13	PASS
		25	12	6	<13	PASS
		25	25	6.07	<13	PASS
		50	0	6.11	<13	PASS
	HCH	1	0	6.06	<13	PASS
		1	24	5.81	<13	PASS

		1	49	4.83	<13	PASS
		25	0	6.02	<13	PASS
		25	12	6.04	<13	PASS
		25	25	5.9	<13	PASS
		50	0	6.16	<13	PASS

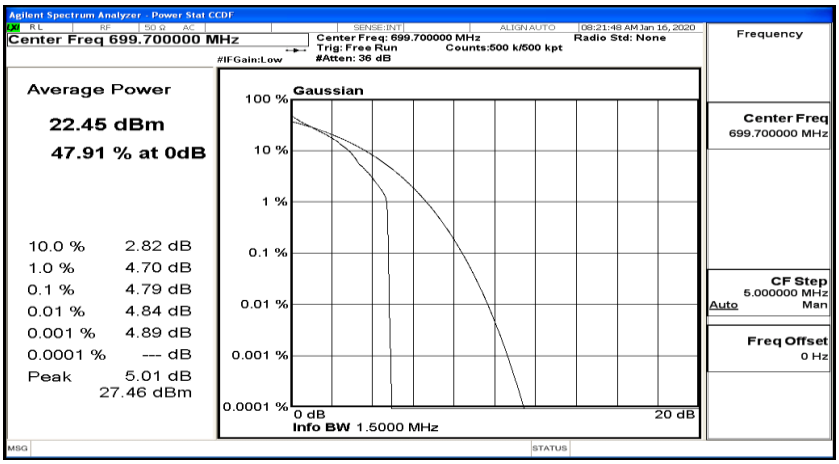
Test Graphs

Channel Bandwidth: 1.4 MHz

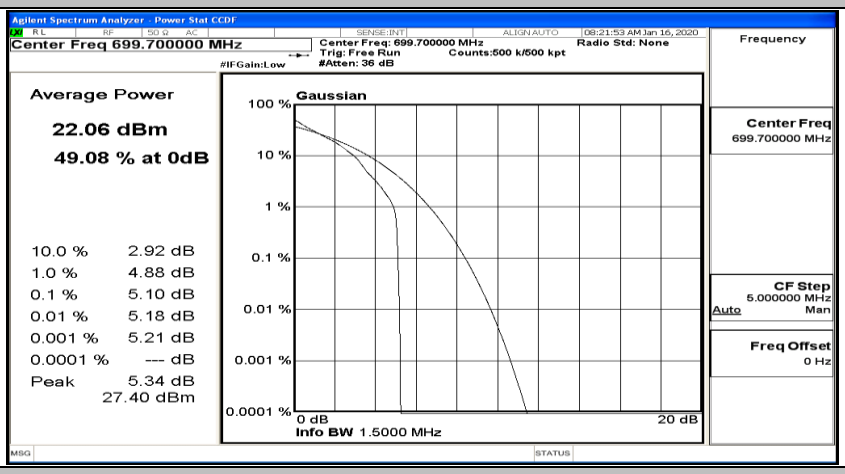
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#0



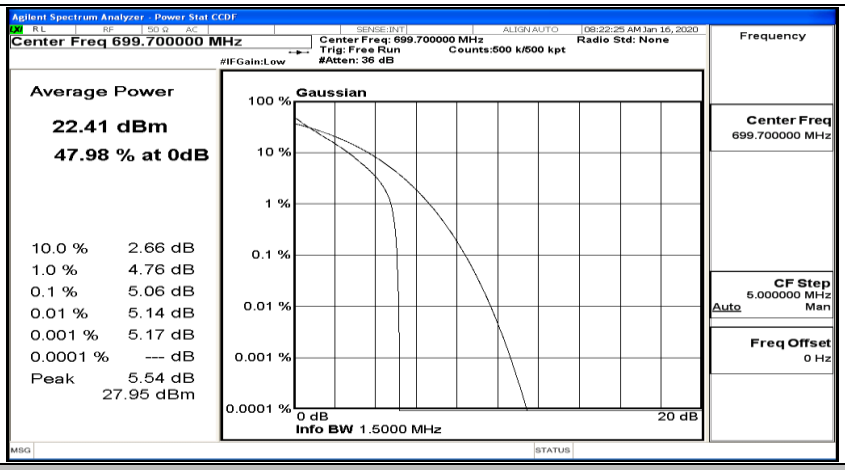
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#3



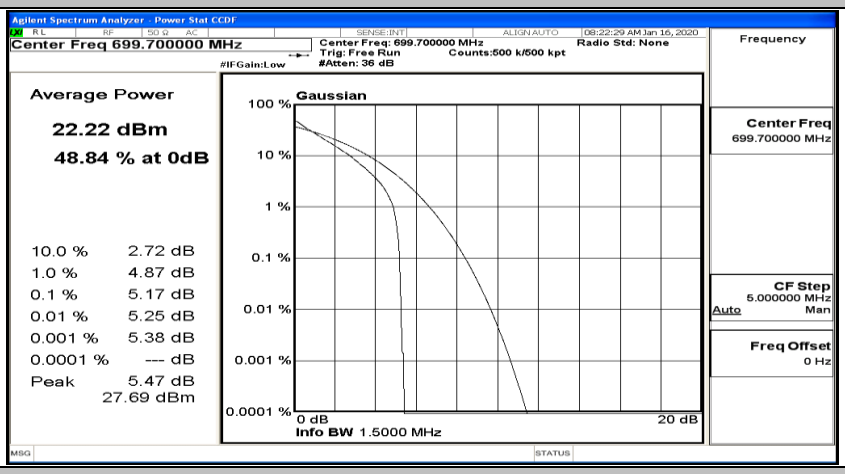
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_1RB#5



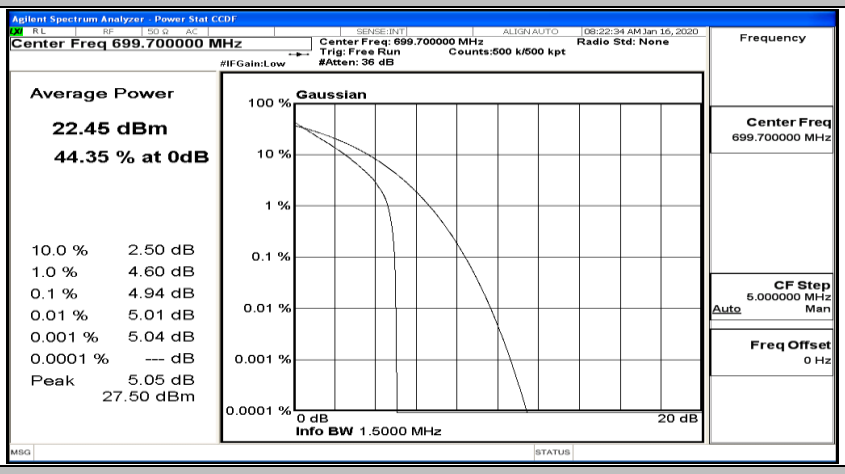
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_3RB#0



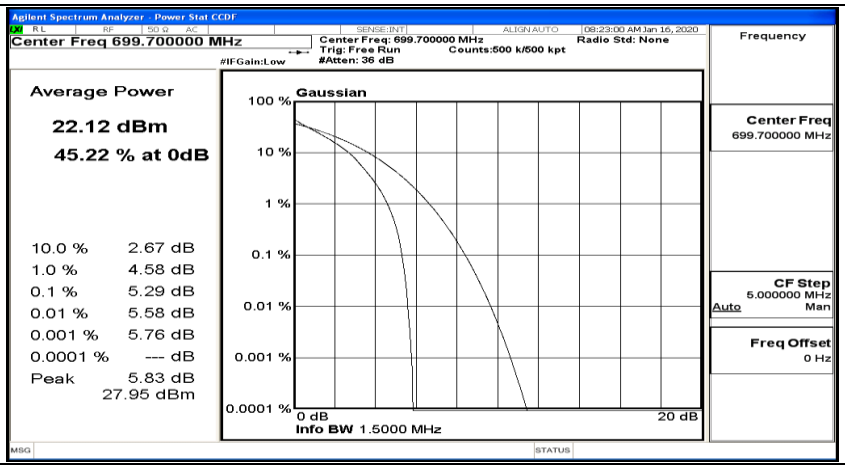
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_3RB#2



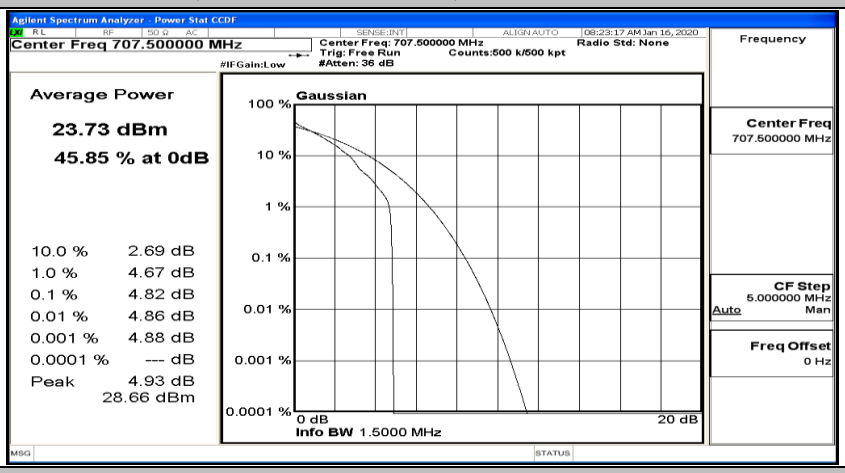
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_3RB#3



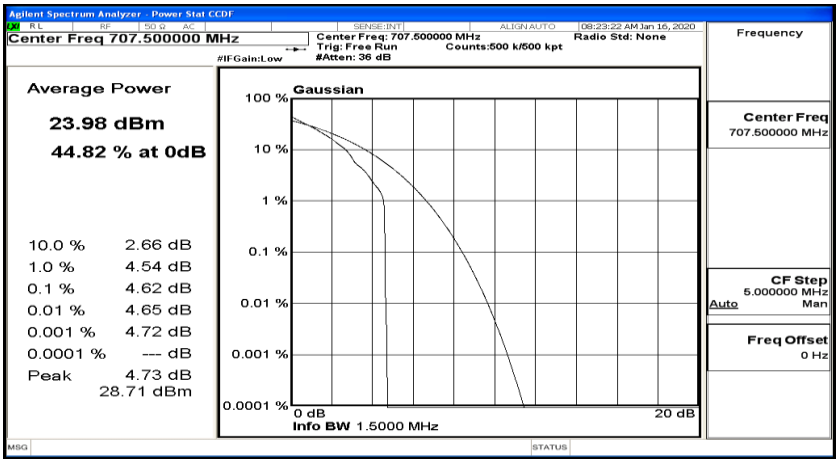
(Channel Bandwidth: 1.4 MHz)_LCH_QPSK_6RB#0



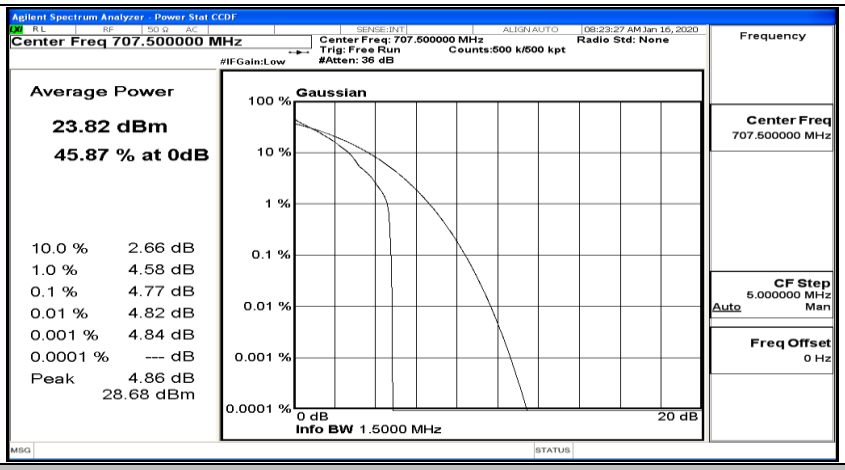
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#0



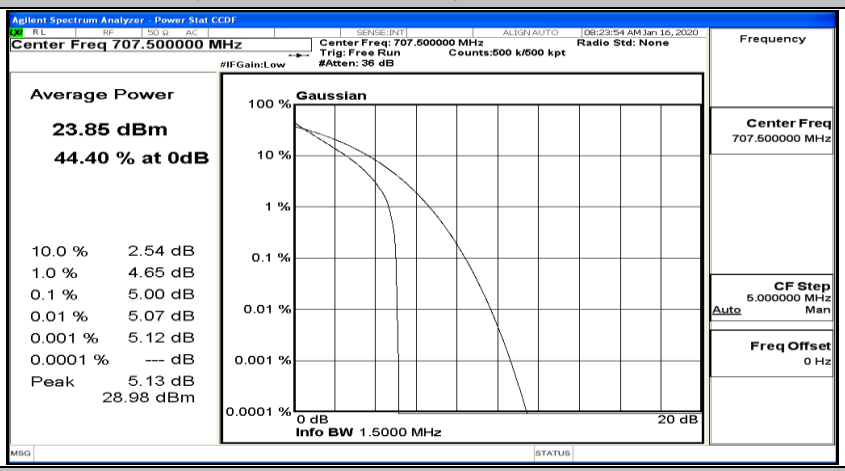
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#3



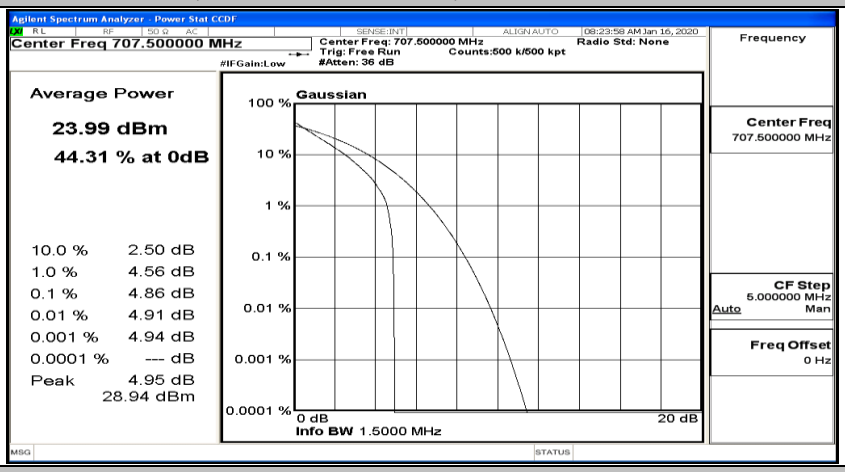
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_1RB#5



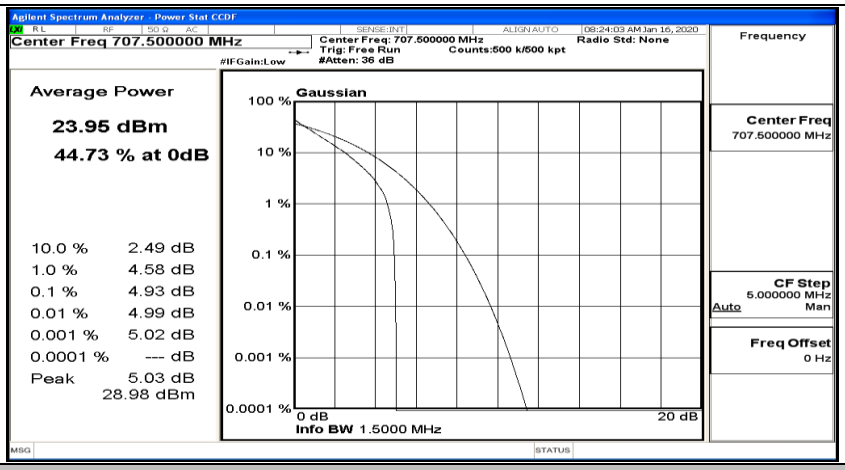
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_3RB#0



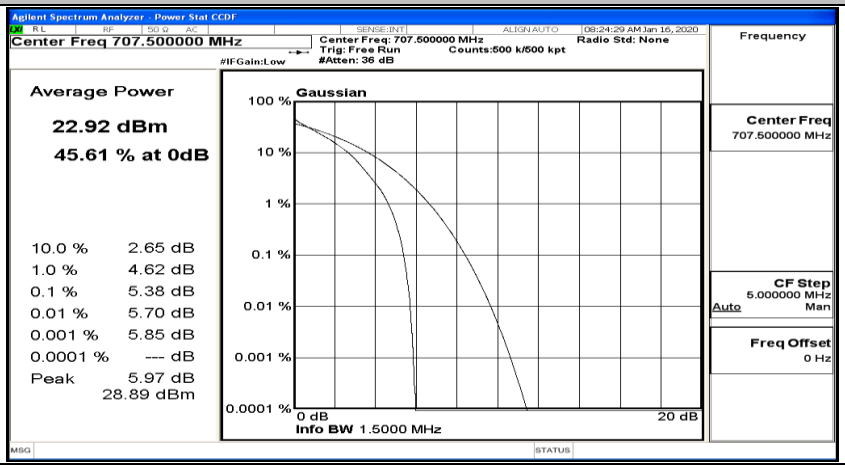
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_3RB#2



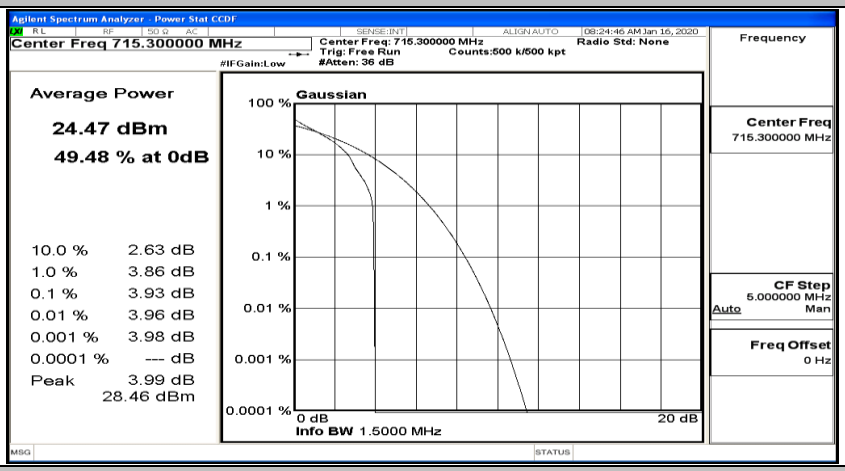
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_3RB#3



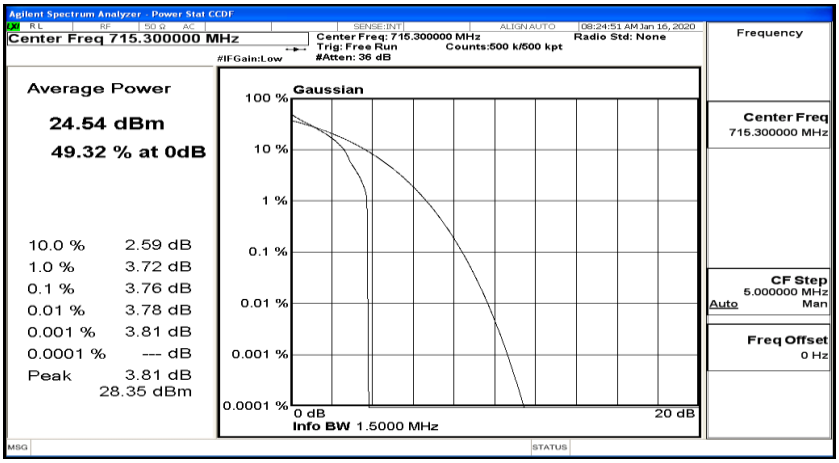
(Channel Bandwidth: 1.4 MHz)_MCH_QPSK_6RB#0



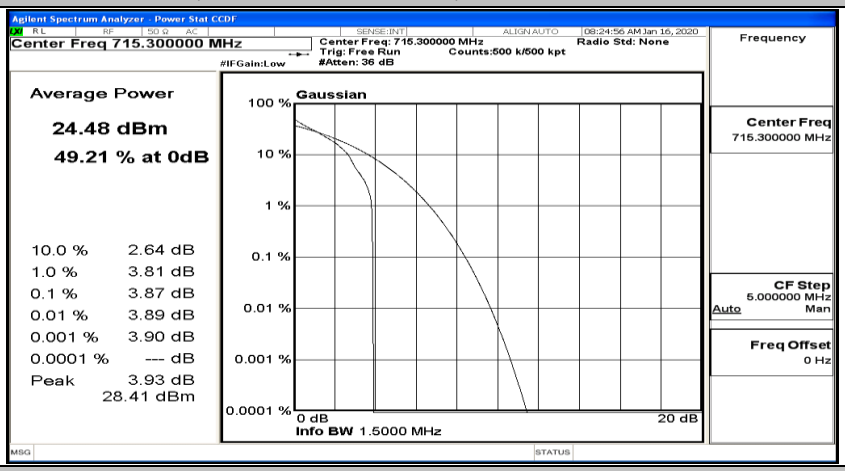
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#0



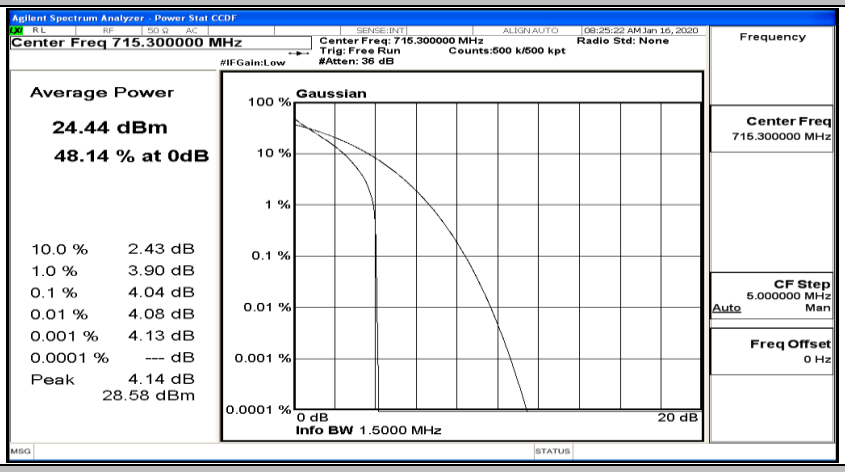
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#3



(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_1RB#5



(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_3RB#0



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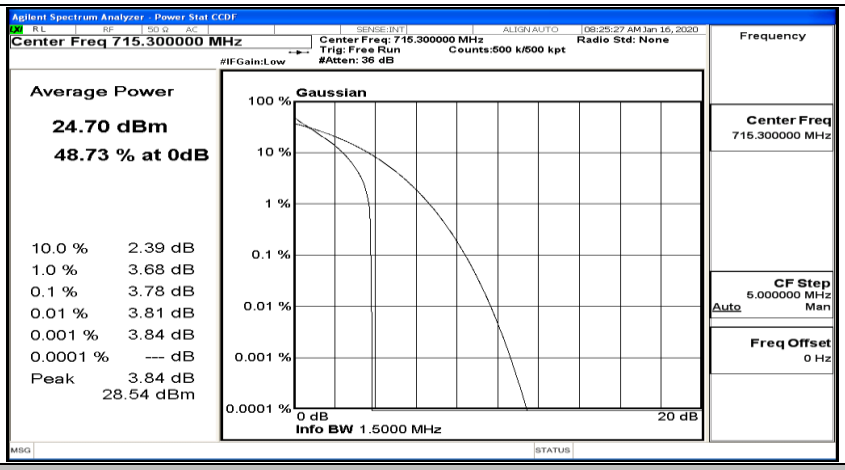
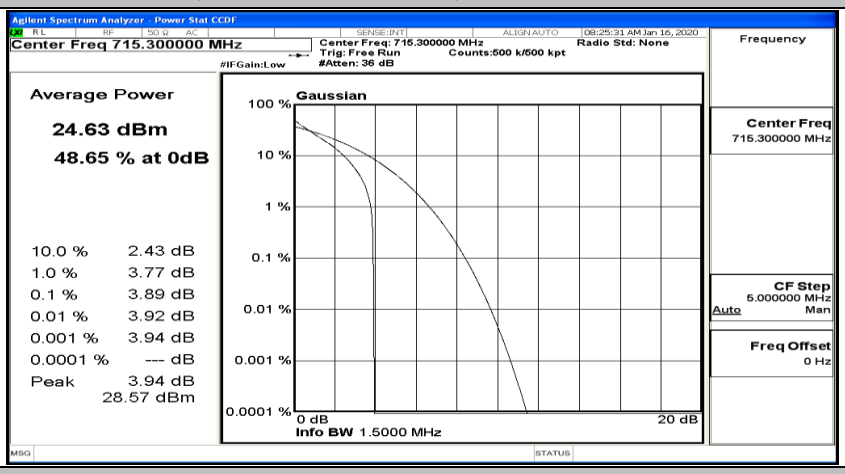
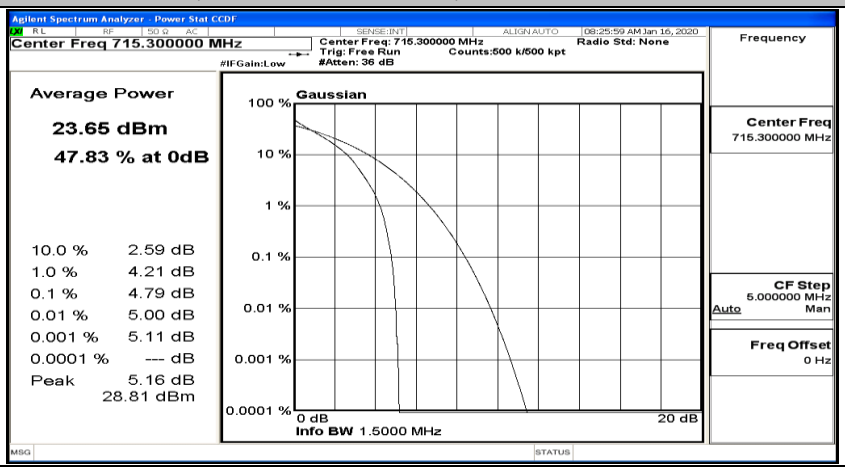


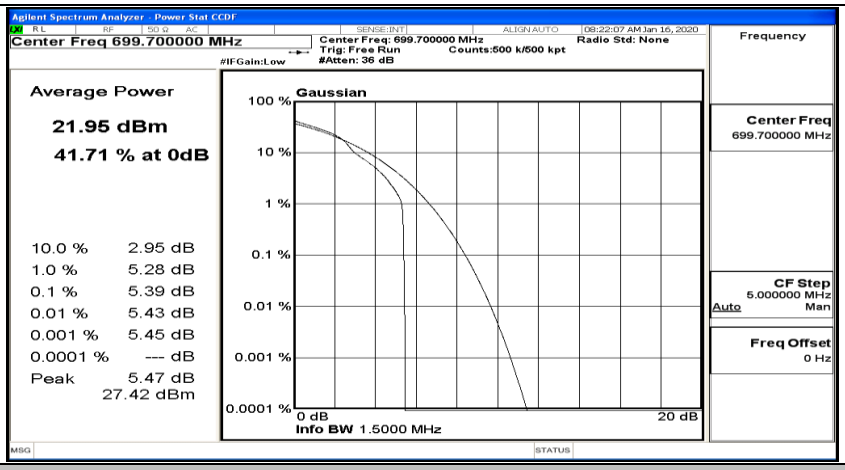
(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_3RB#3



(Channel Bandwidth: 1.4 MHz)_HCH_QPSK_6RB#0



(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_1RB#0



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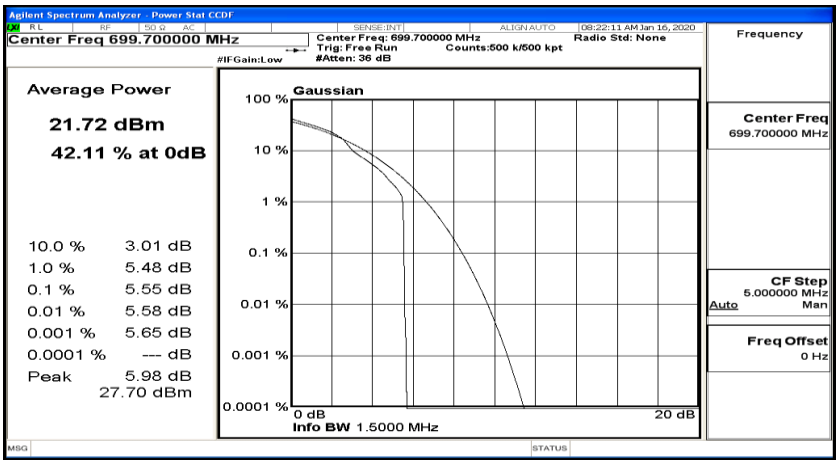

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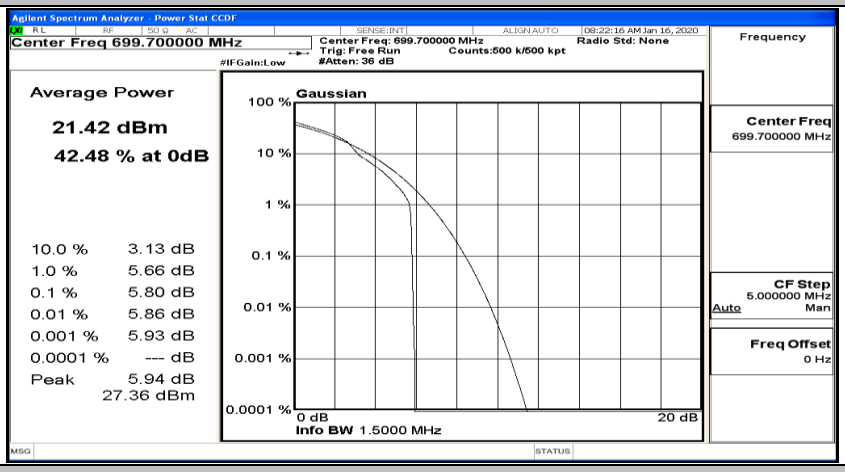
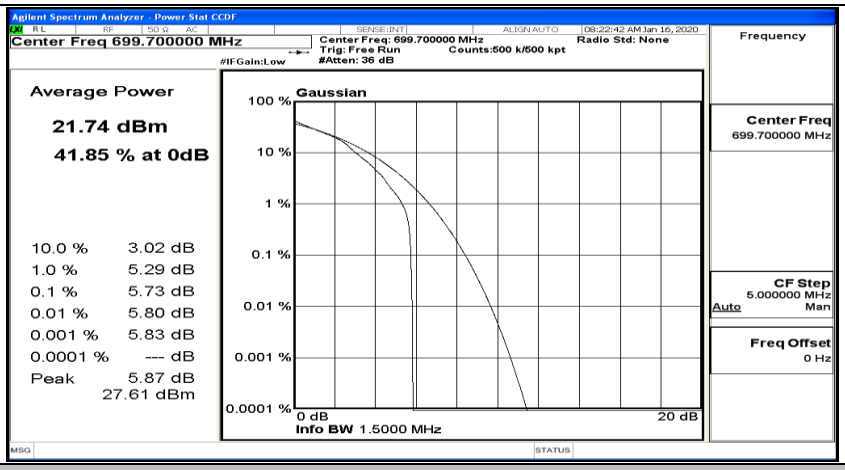


(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_3RB#0



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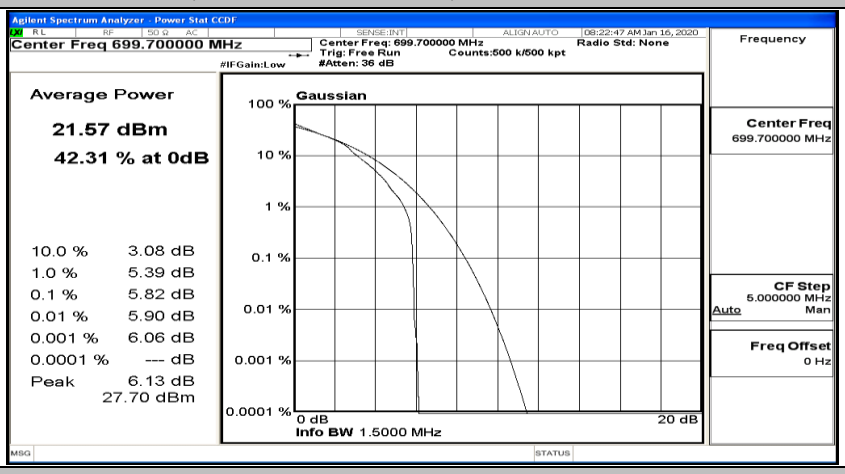
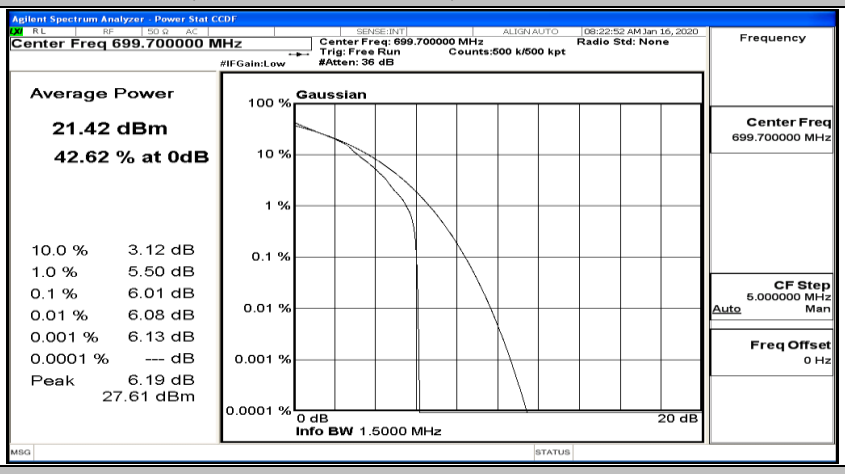


(Channel Bandwidth: 1.4 MHz)_LCH_16QAM_3RB#3



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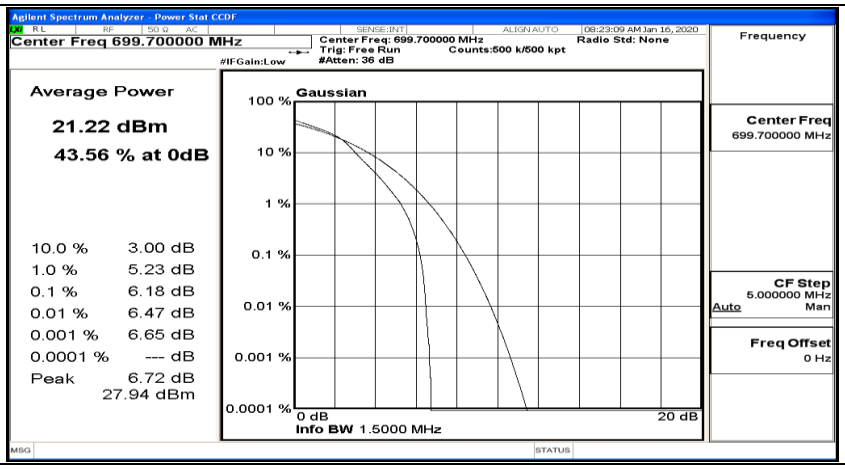

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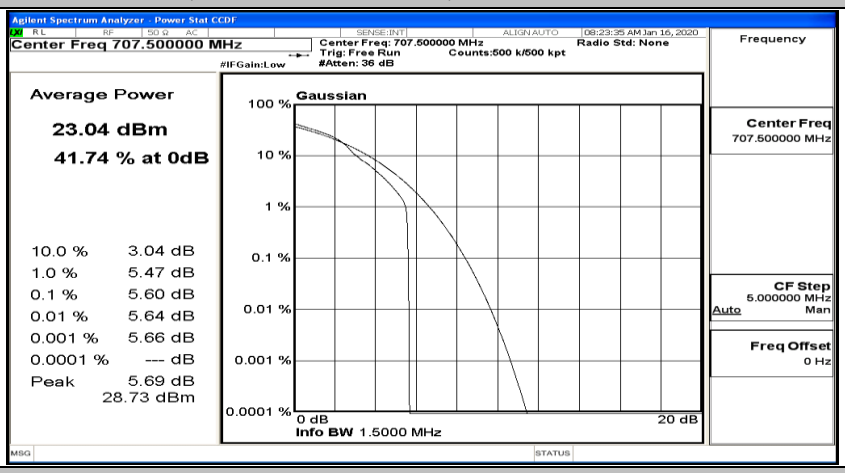
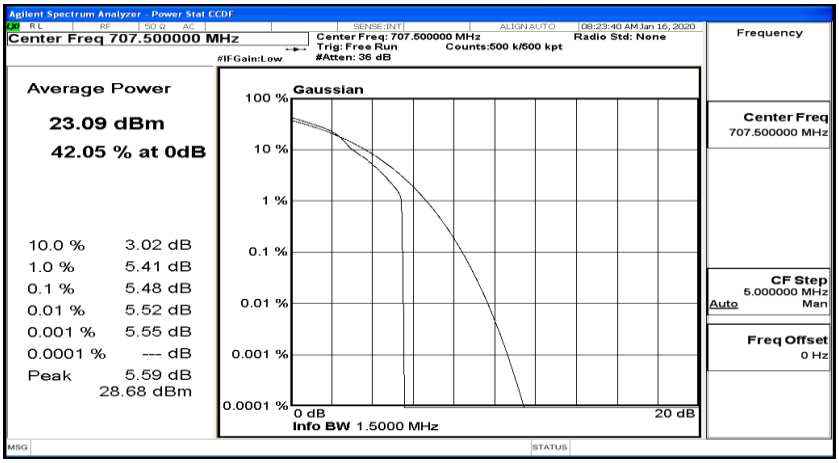
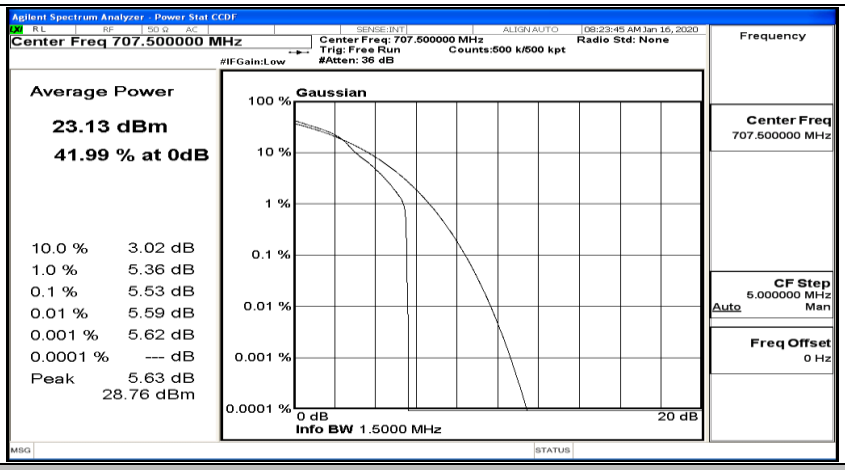


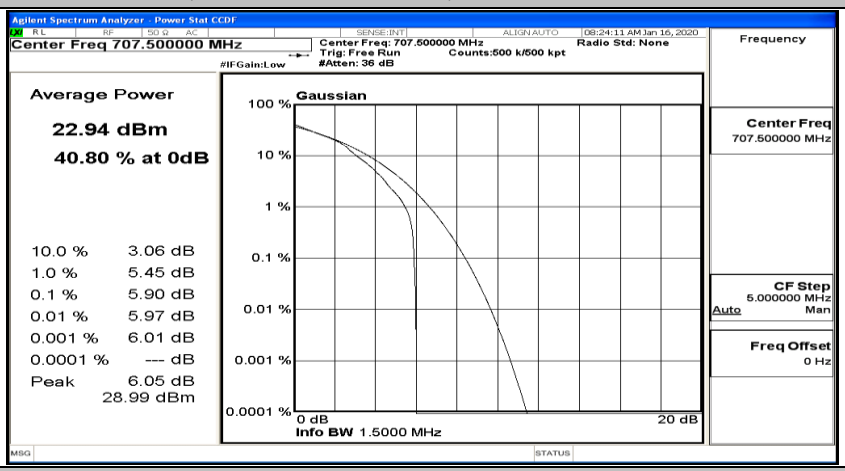
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#3



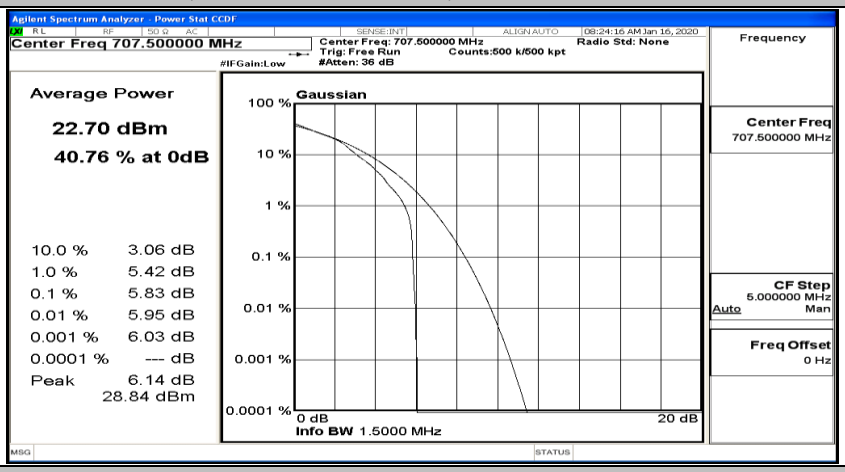
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_1RB#5



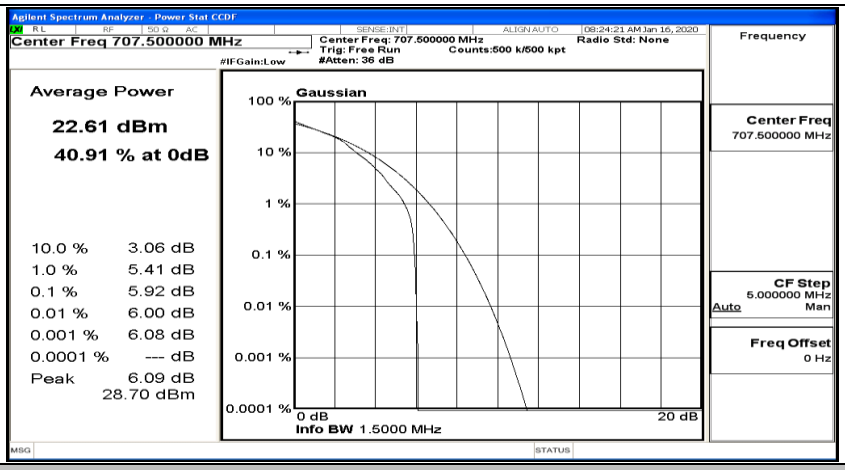
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_3RB#0



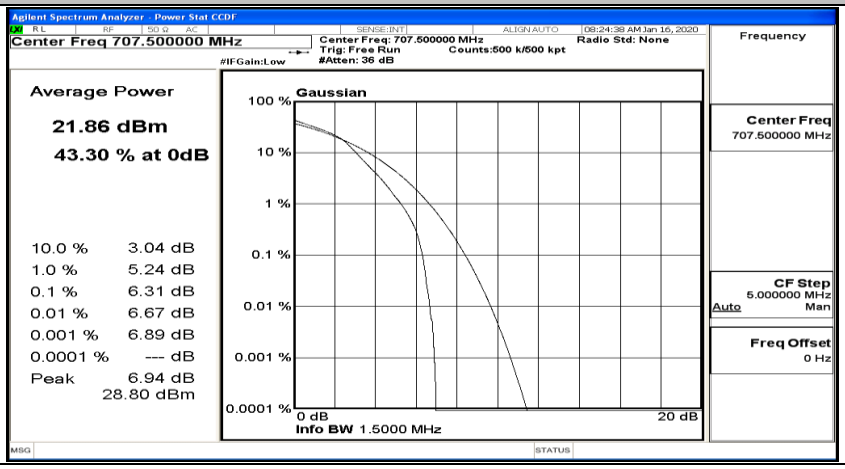
(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_3RB#2



(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_3RB#3



(Channel Bandwidth: 1.4 MHz)_MCH_16QAM_6RB#0



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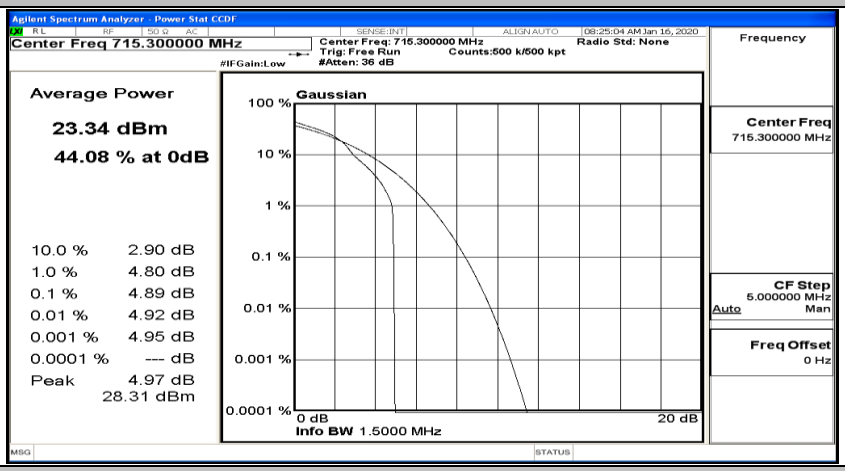

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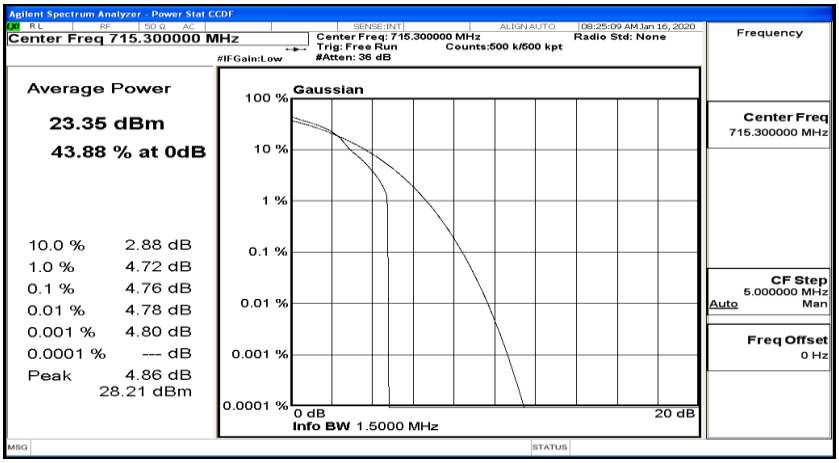

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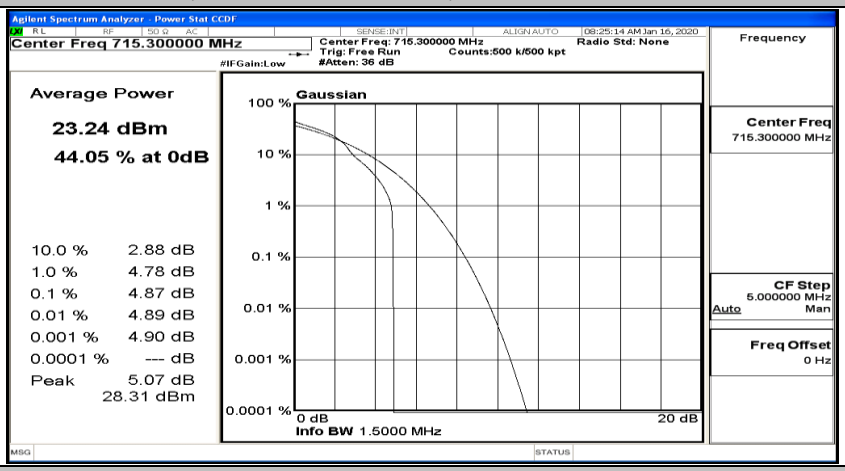

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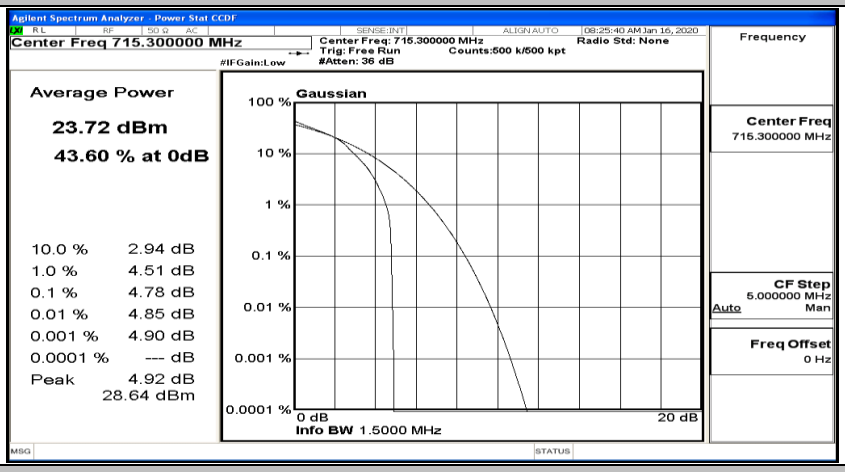

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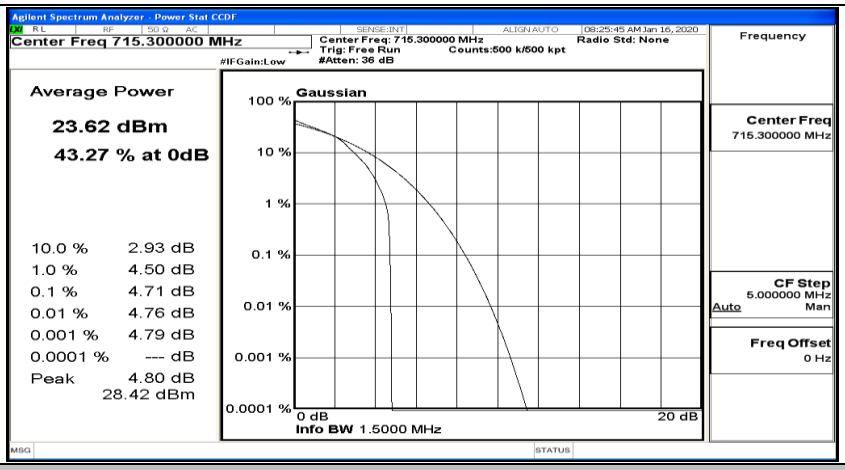
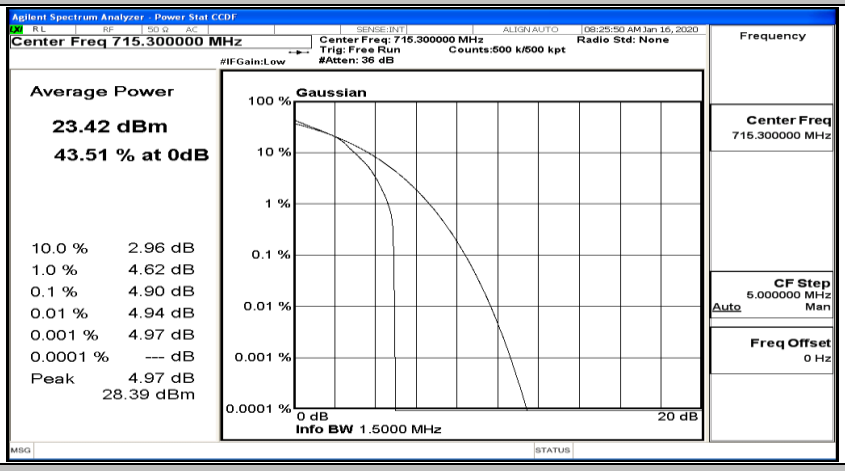


(Channel Bandwidth: 1.4 MHz)_HCH_16QAM_3RB#3



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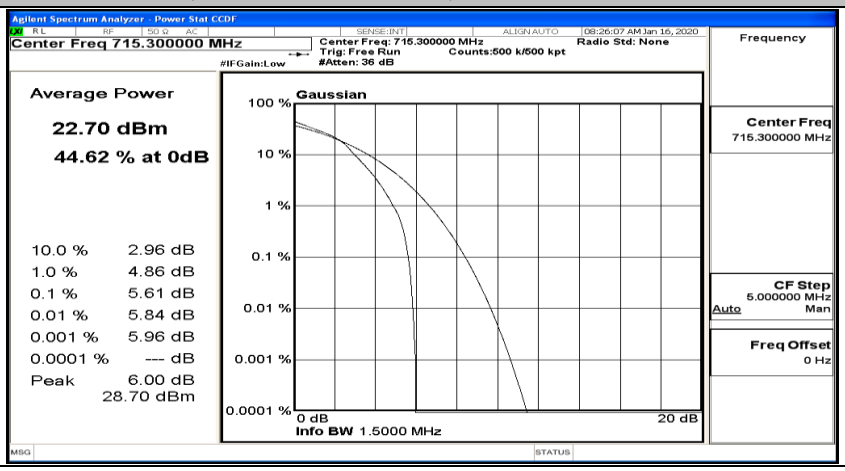
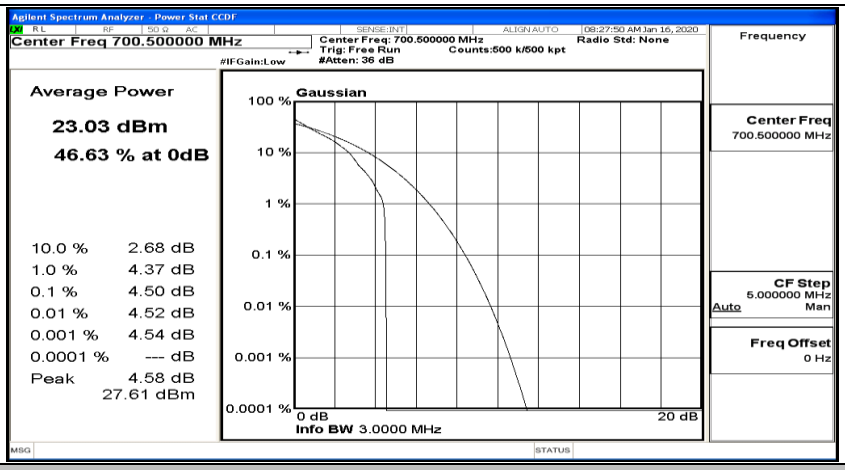
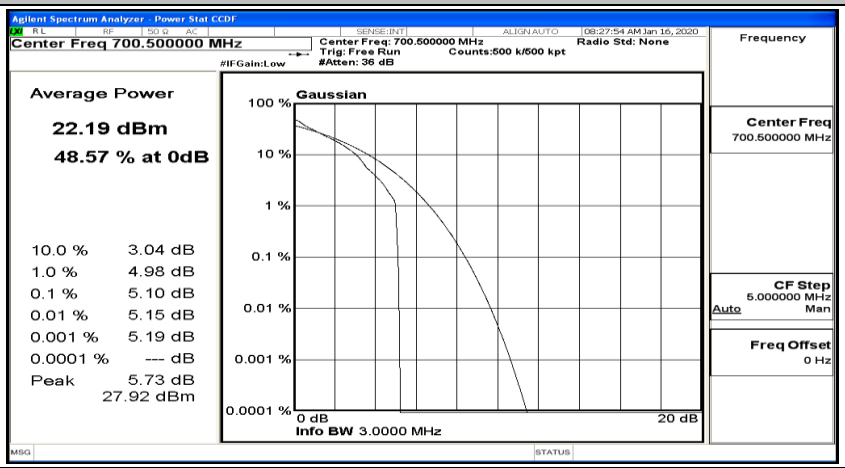


Channel Bandwidth: 3 MHz

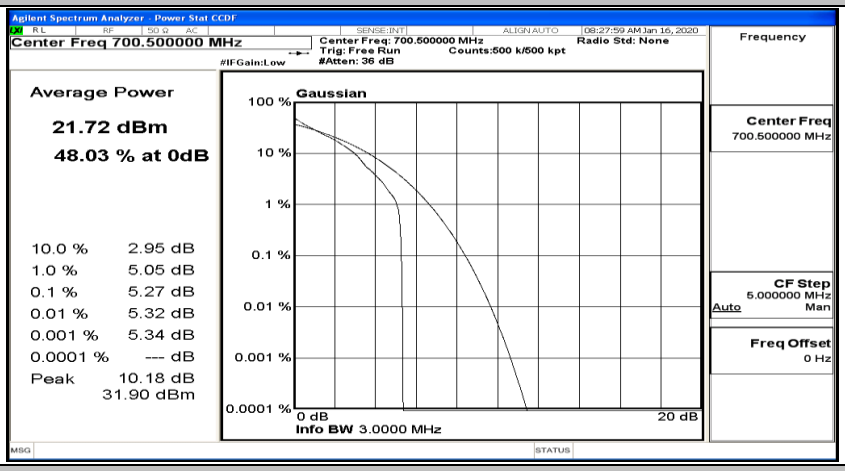
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#0



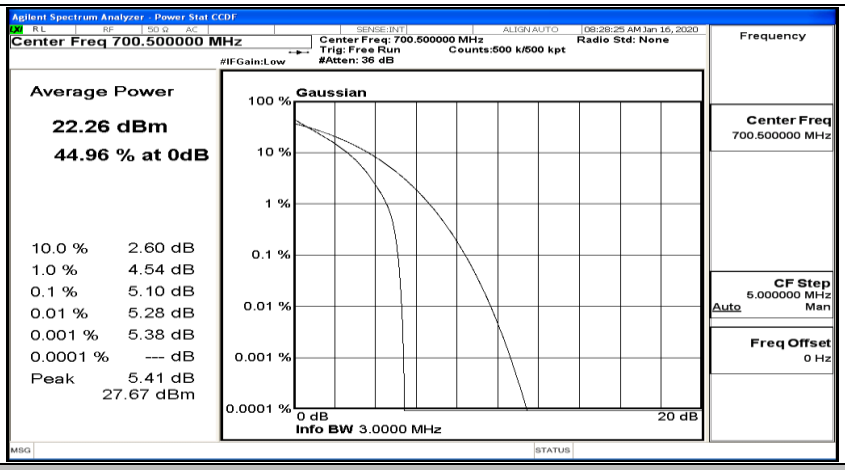
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#7



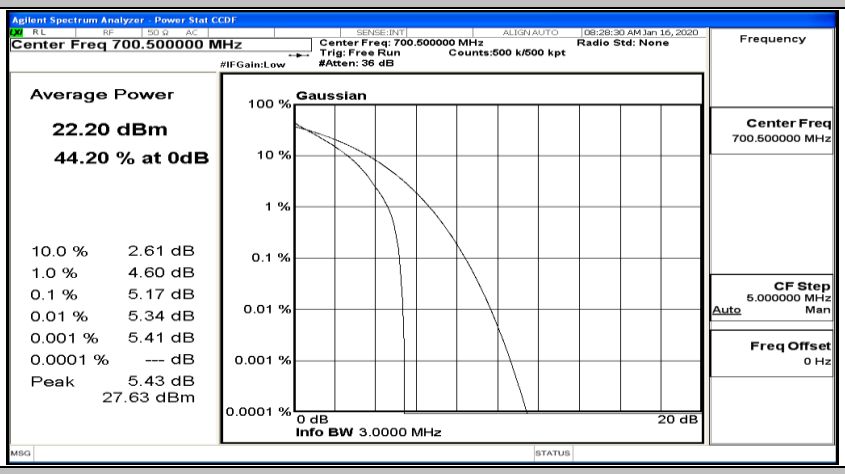
(Channel Bandwidth: 3 MHz)_LCH_QPSK_1RB#14



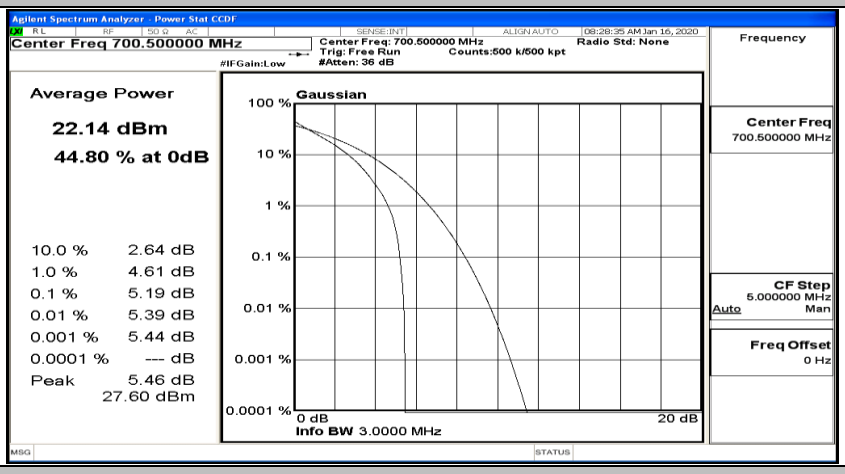
(Channel Bandwidth: 3 MHz)_LCH_QPSK_8RB#0



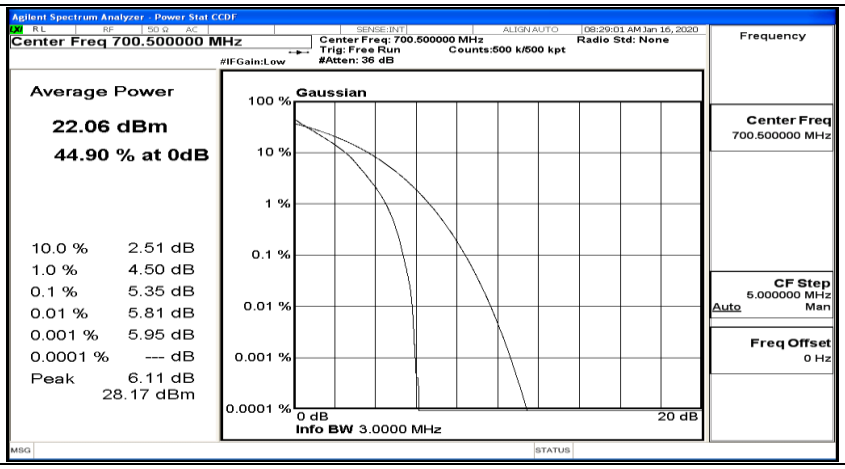
(Channel Bandwidth: 3 MHz)_LCH_QPSK_8RB#4



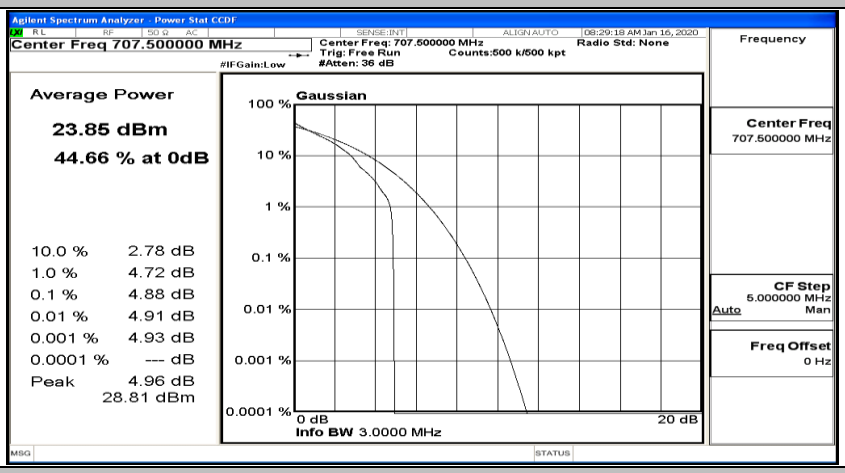
(Channel Bandwidth: 3 MHz)_LCH_QPSK_8RB#7



(Channel Bandwidth: 3 MHz)_LCH_QPSK_15RB#0



(Channel Bandwidth: 3 MHz)_MCH_QPSK_1RB#0



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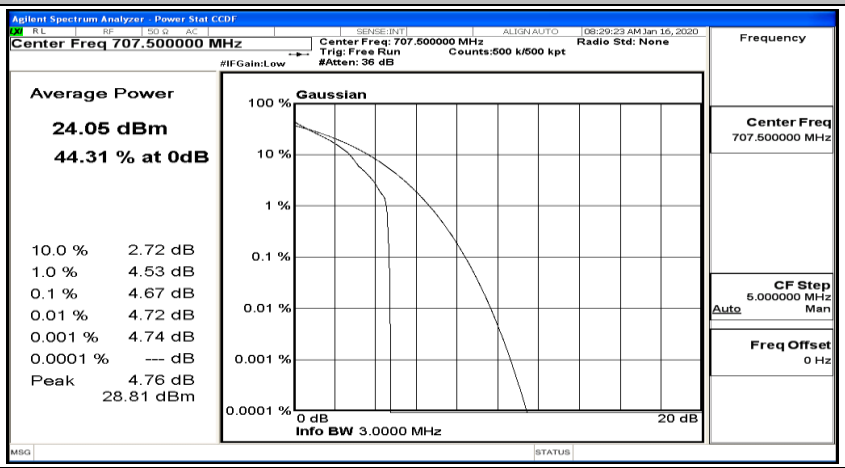

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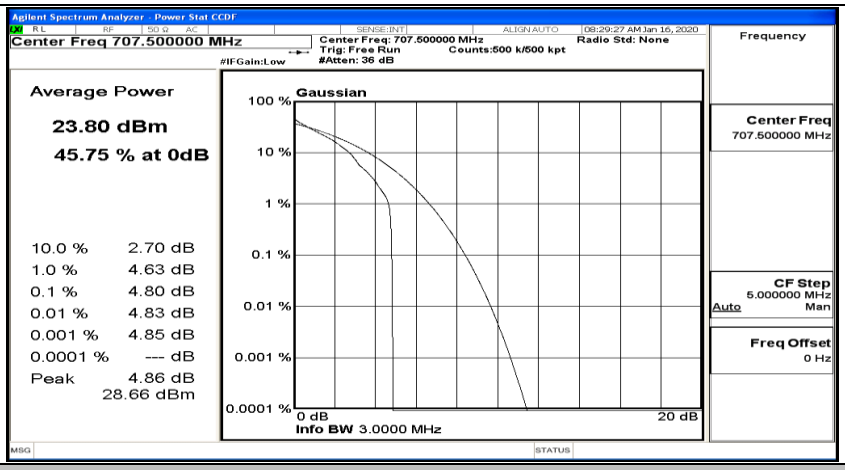

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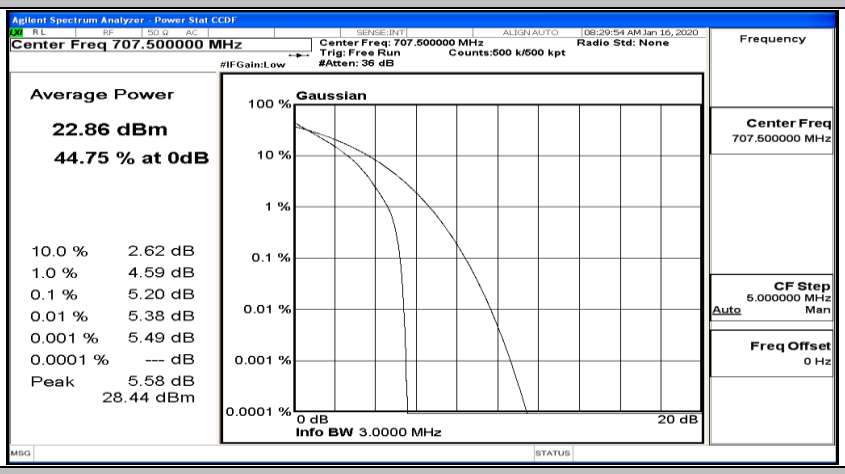

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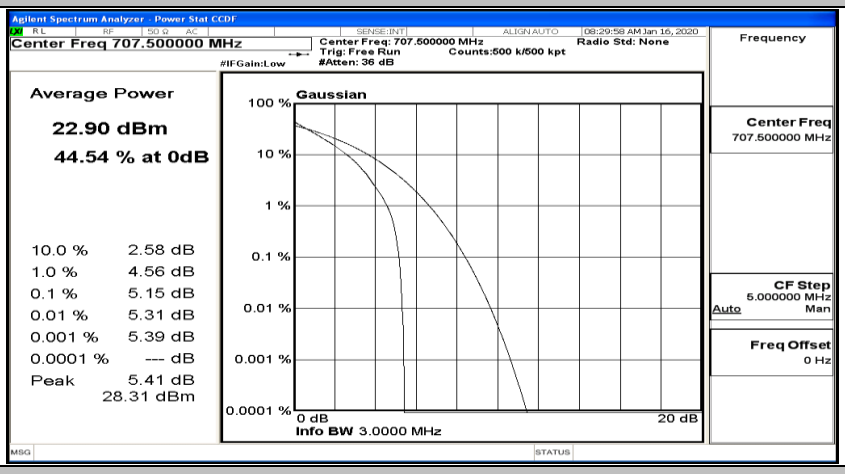

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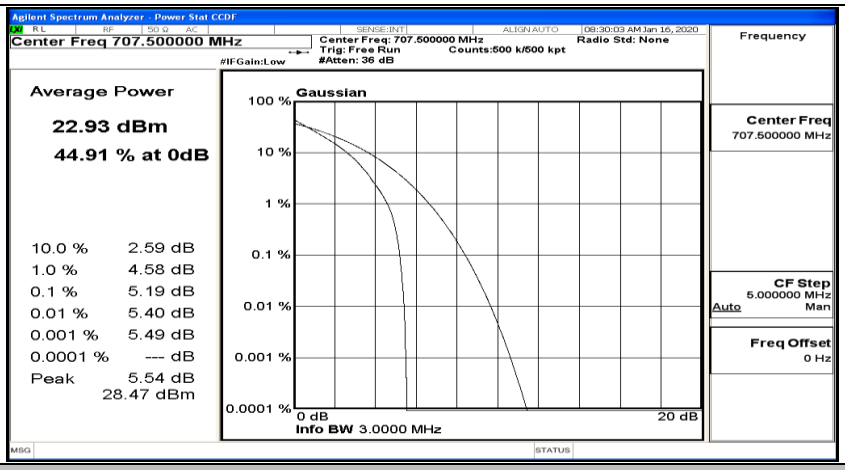

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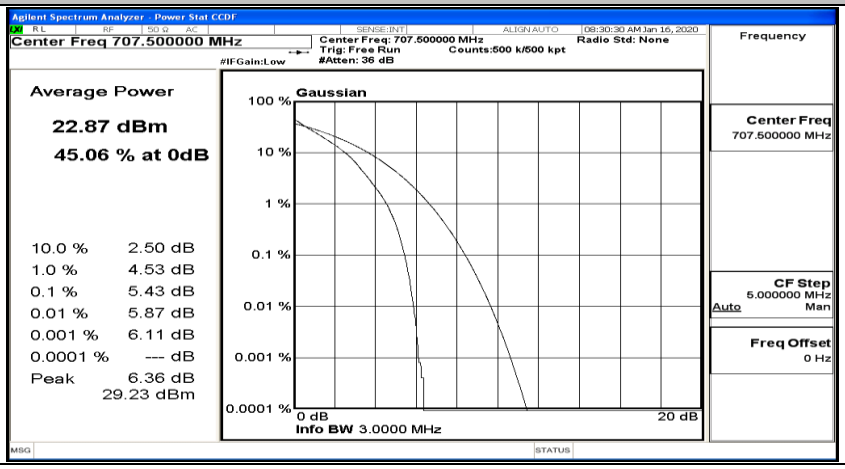

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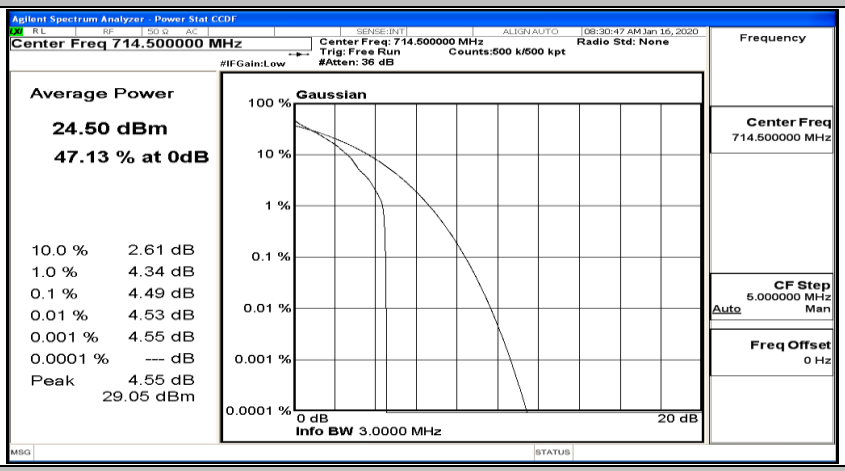
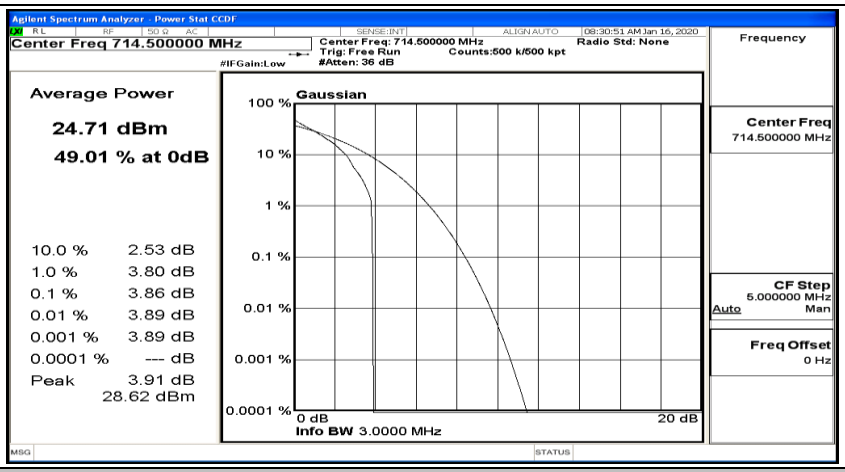
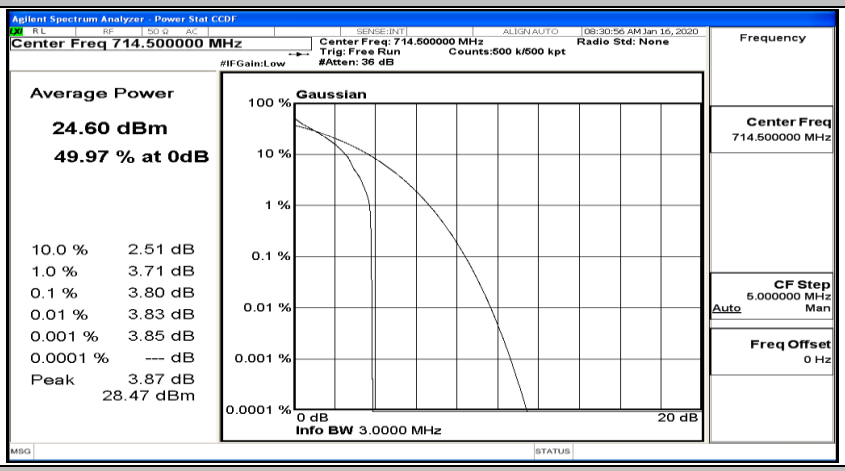


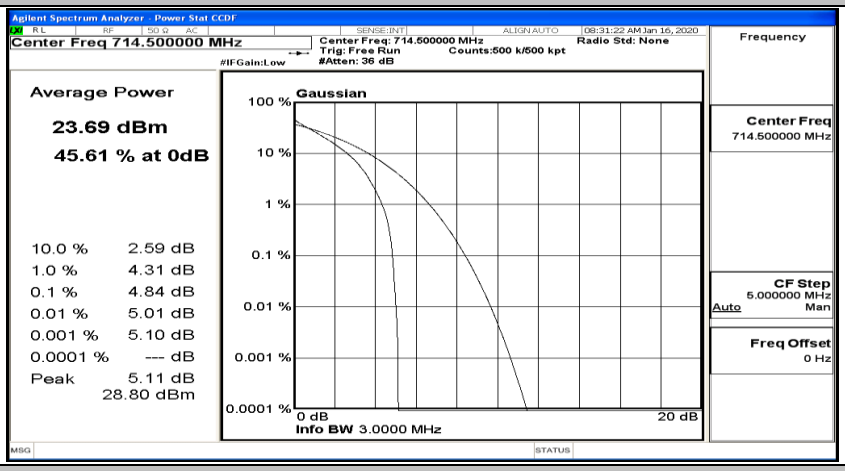
(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#7



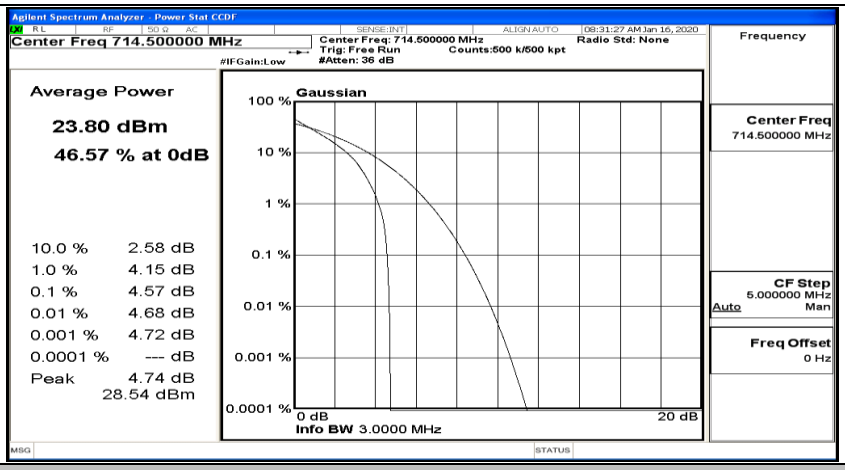
(Channel Bandwidth: 3 MHz)_HCH_QPSK_1RB#14



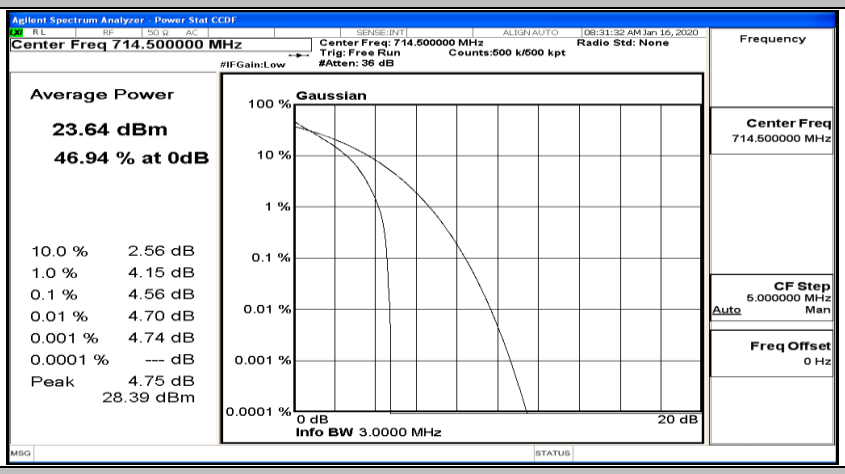
(Channel Bandwidth: 3 MHz)_HCH_QPSK_8RB#0



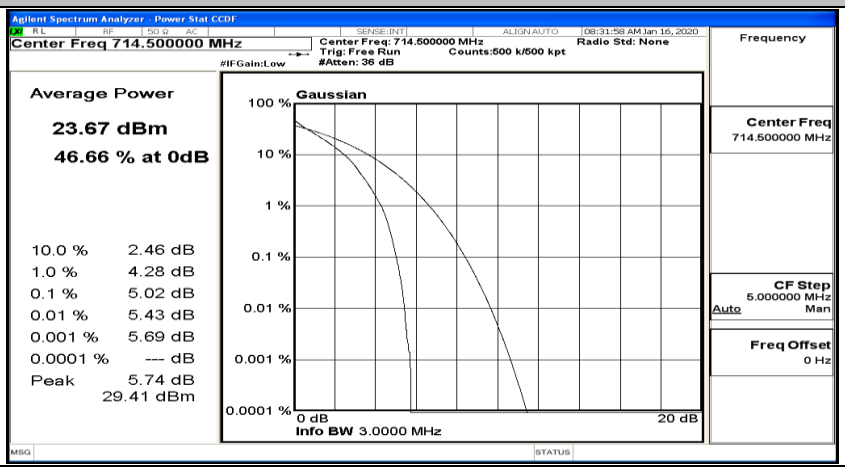
(Channel Bandwidth: 3 MHz)_HCH_QPSK_8RB#4



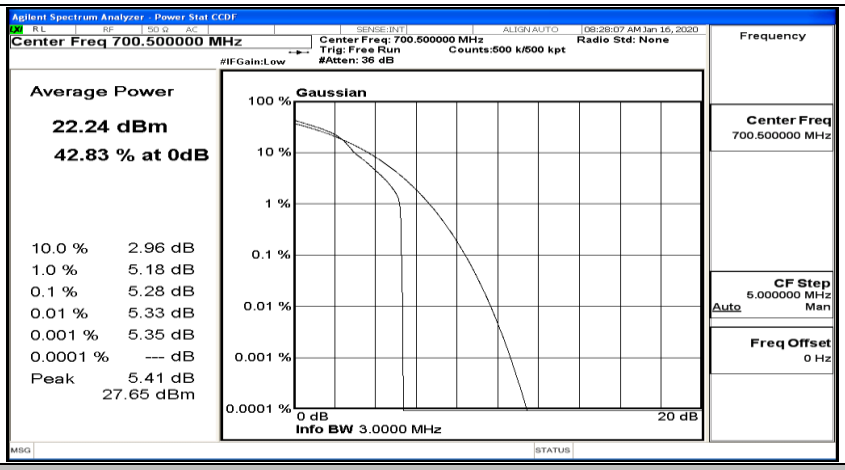
(Channel Bandwidth: 3 MHz)_HCH_QPSK_8RB#7



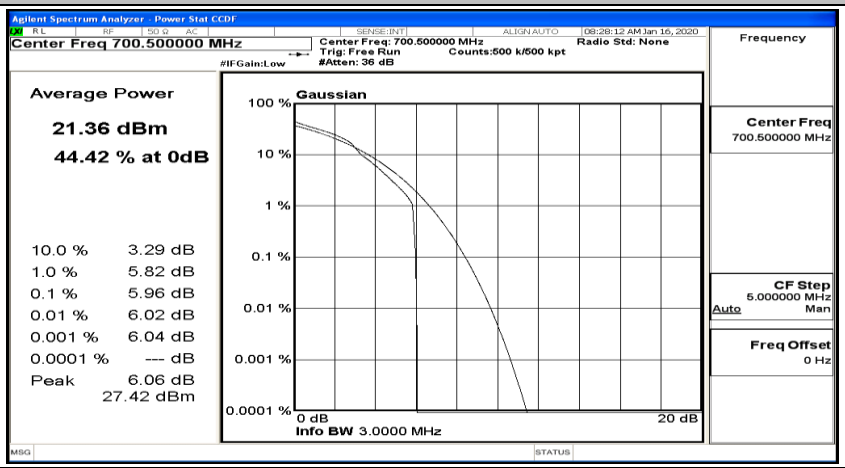
(Channel Bandwidth: 3 MHz)_HCH_QPSK_15RB#0



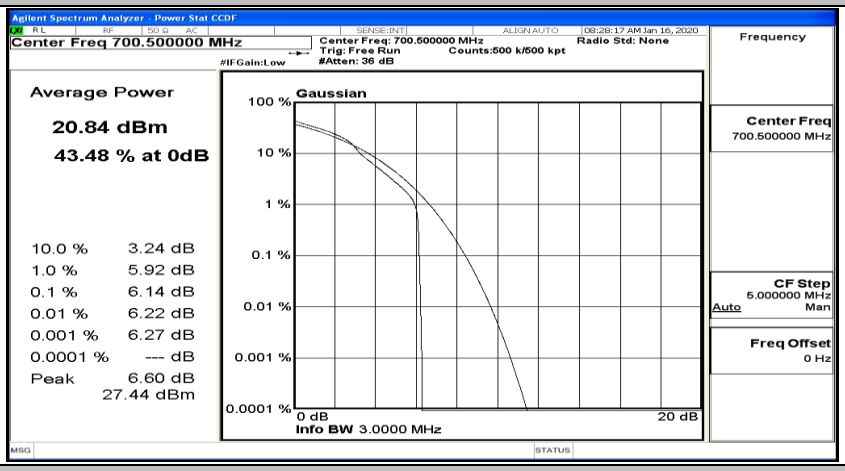
(Channel Bandwidth: 3 MHz)_LCH_16QAM_1RB#0



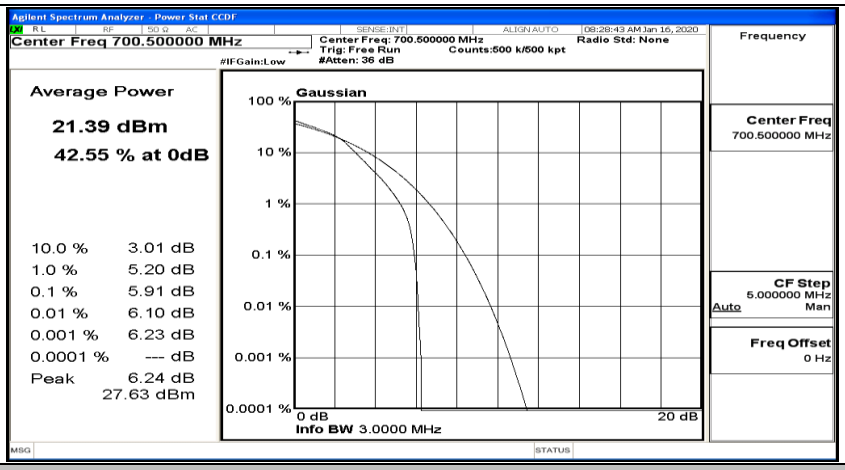
(Channel Bandwidth: 3 MHz)_LCH_16QAM_1RB#7



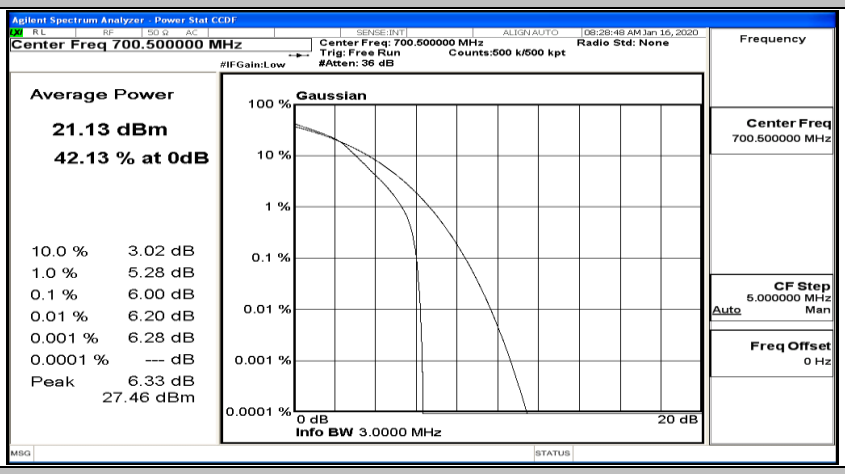
(Channel Bandwidth: 3 MHz)_LCH_16QAM_1RB#14



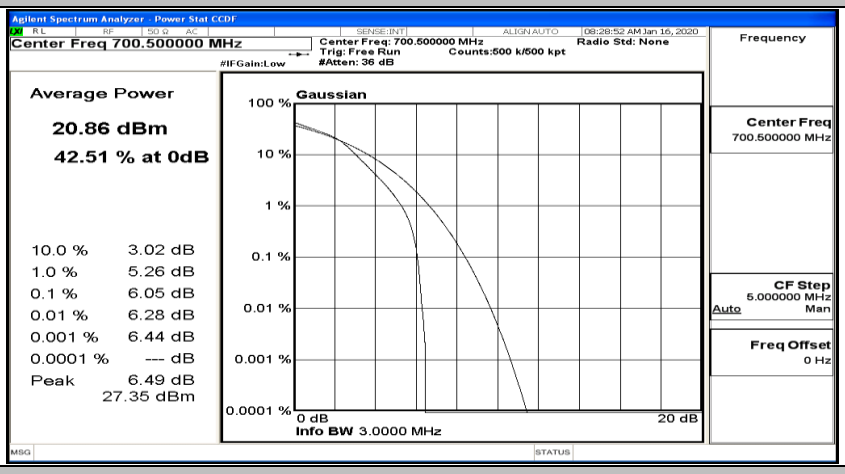
(Channel Bandwidth: 3 MHz)_LCH_16QAM_8RB#0



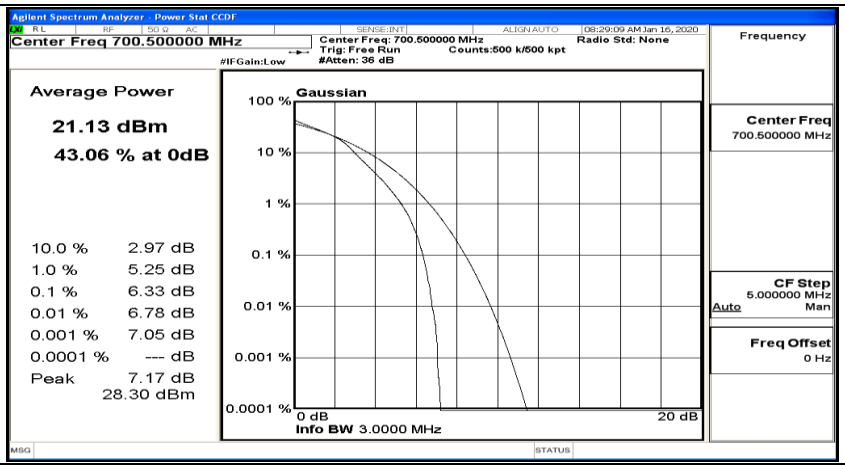
(Channel Bandwidth: 3 MHz)_LCH_16QAM_8RB#4



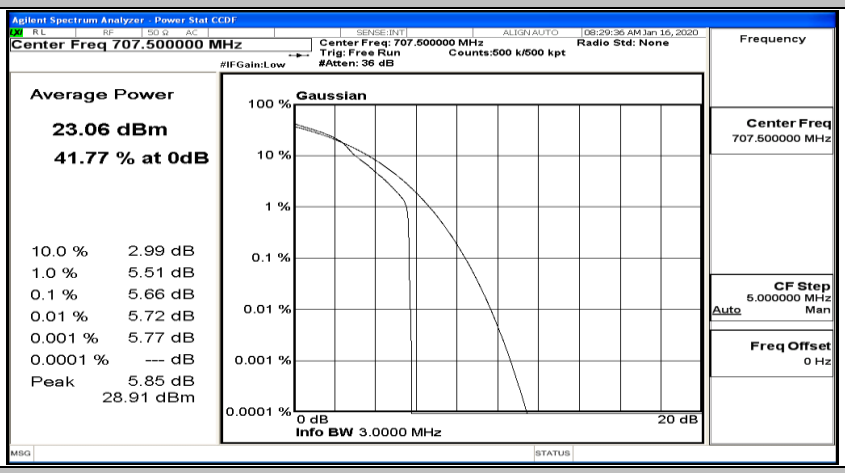
(Channel Bandwidth: 3 MHz)_LCH_16QAM_8RB#7



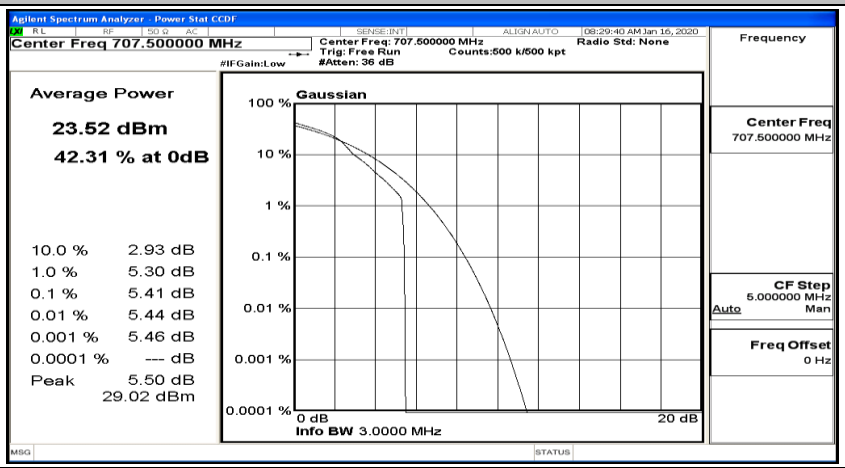
(Channel Bandwidth: 3 MHz)_LCH_16QAM_15RB#0



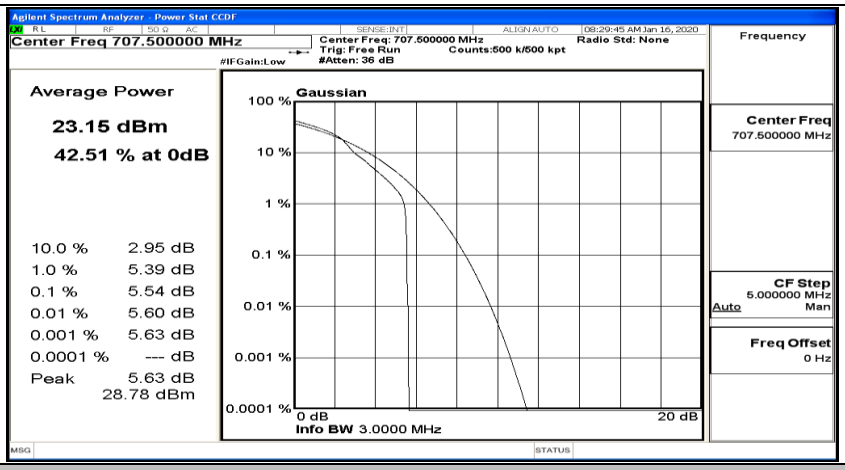
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#0



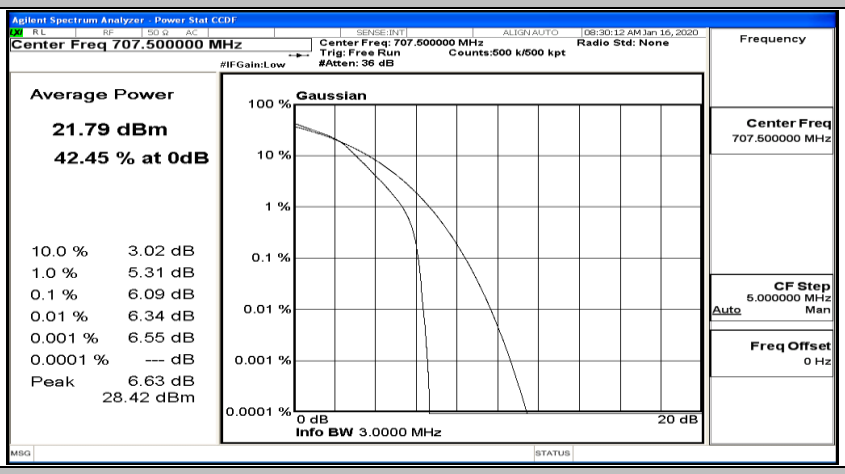
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#7



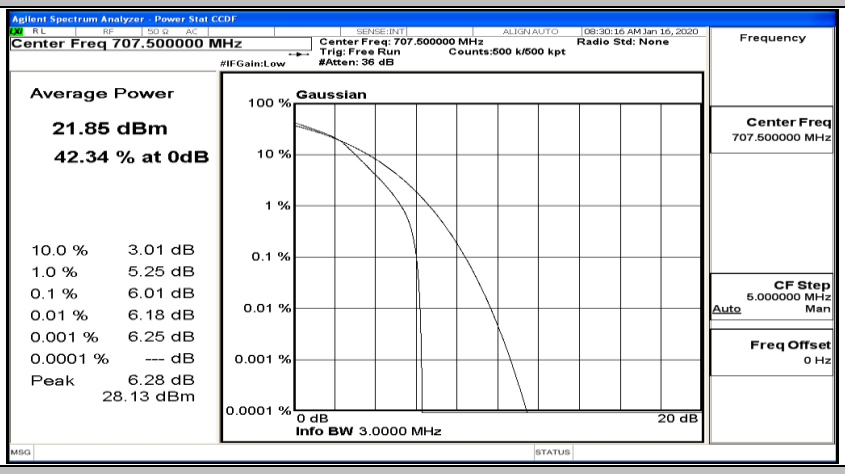
(Channel Bandwidth: 3 MHz)_MCH_16QAM_1RB#14



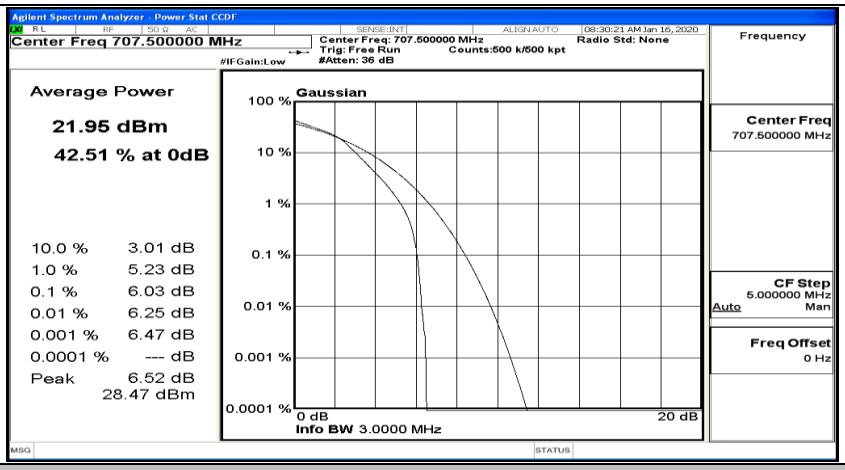
(Channel Bandwidth: 3 MHz)_MCH_16QAM_8RB#0



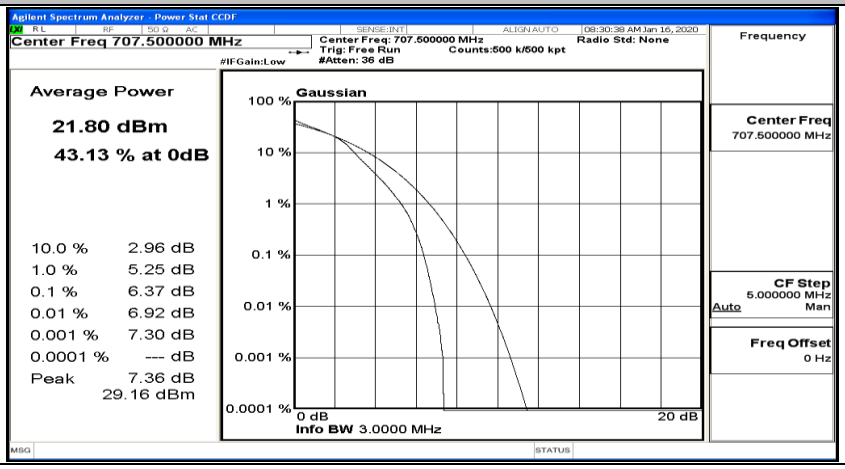
(Channel Bandwidth: 3 MHz)_MCH_16QAM_8RB#4



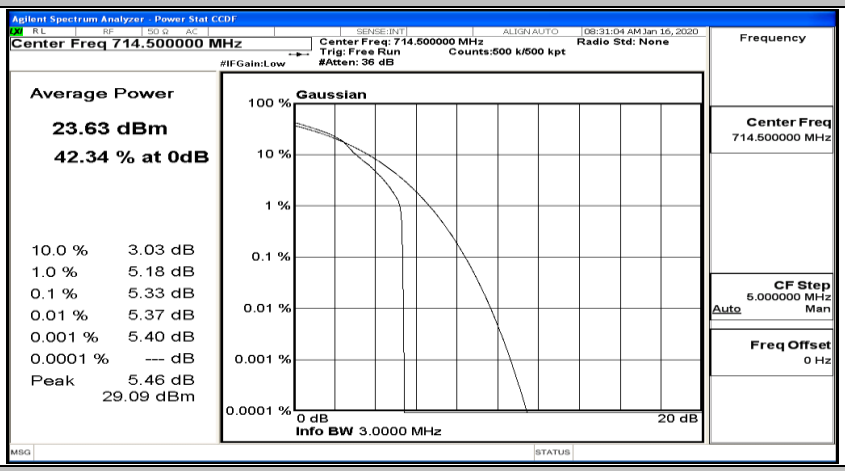
(Channel Bandwidth: 3 MHz)_MCH_16QAM_8RB#7



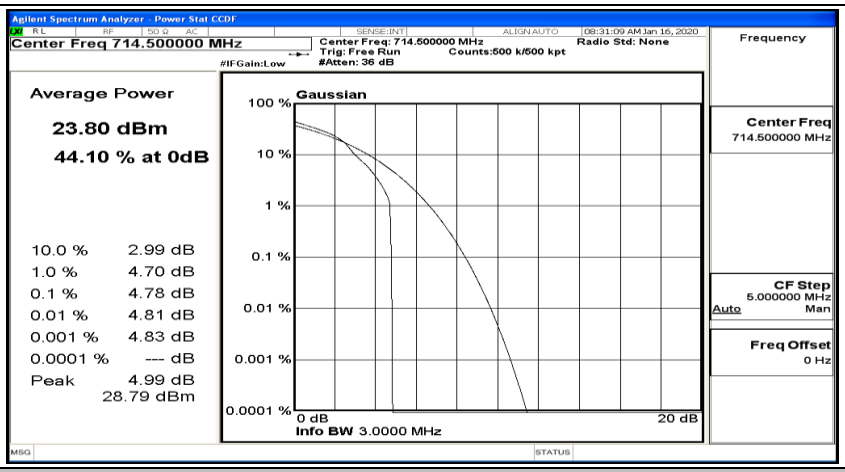
(Channel Bandwidth: 3 MHz)_MCH_16QAM_15RB#0



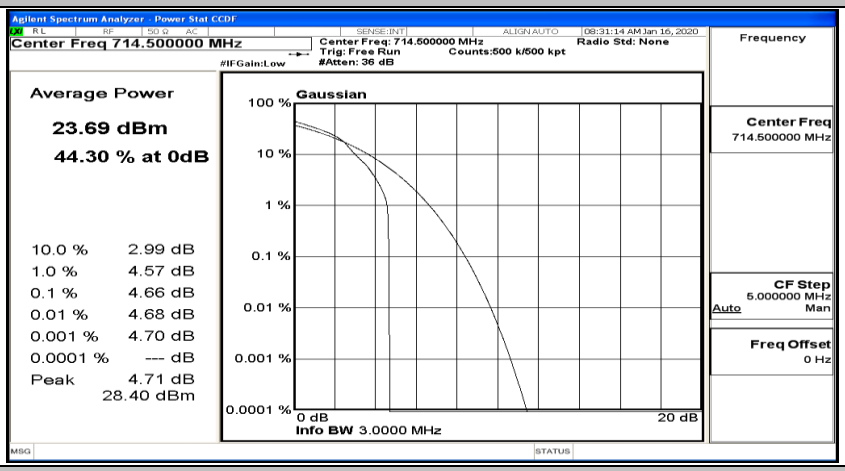
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#0



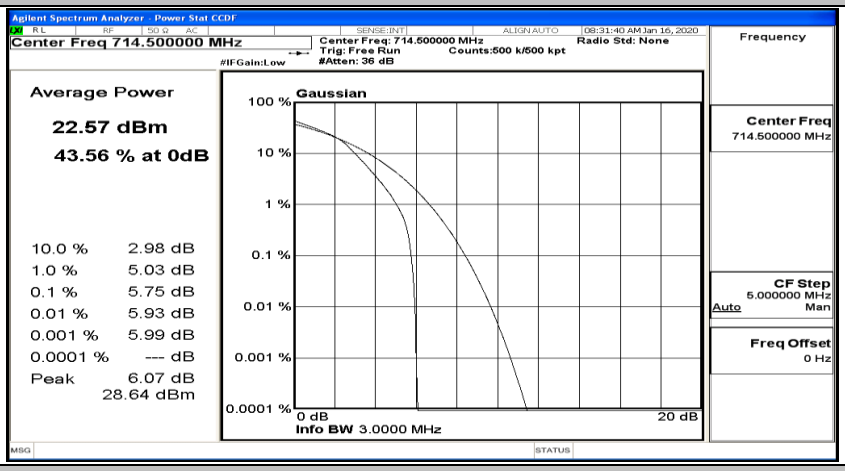
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#7



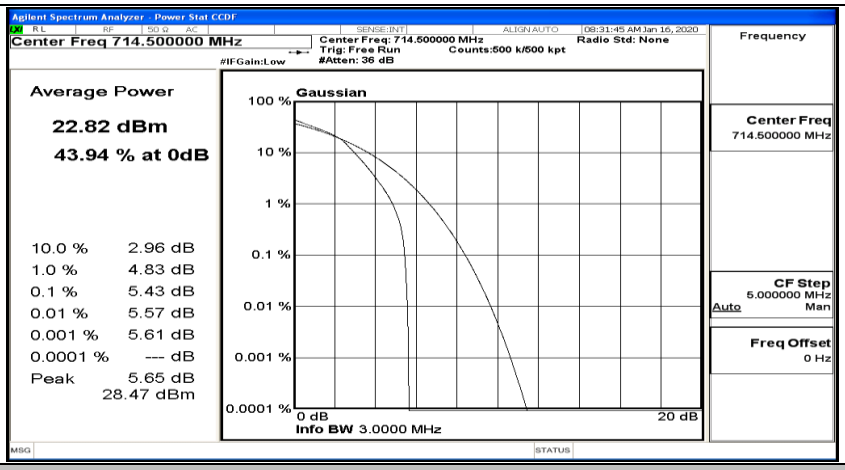
(Channel Bandwidth: 3 MHz)_HCH_16QAM_1RB#14



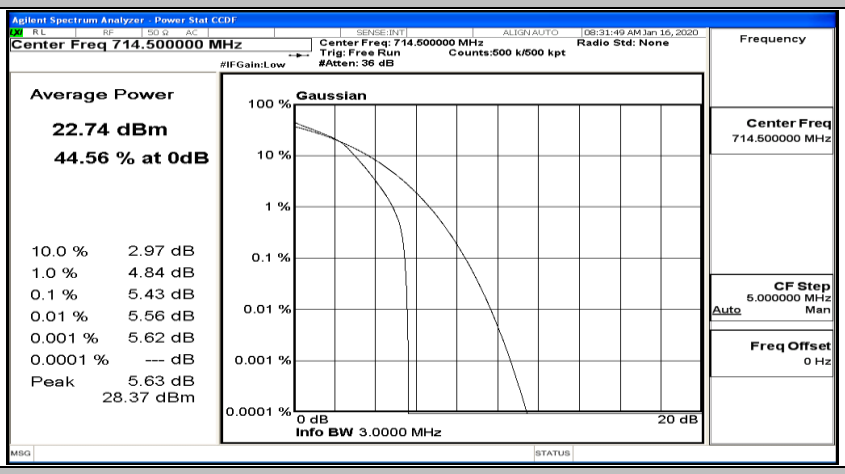
(Channel Bandwidth: 3 MHz)_HCH_16QAM_8RB#0



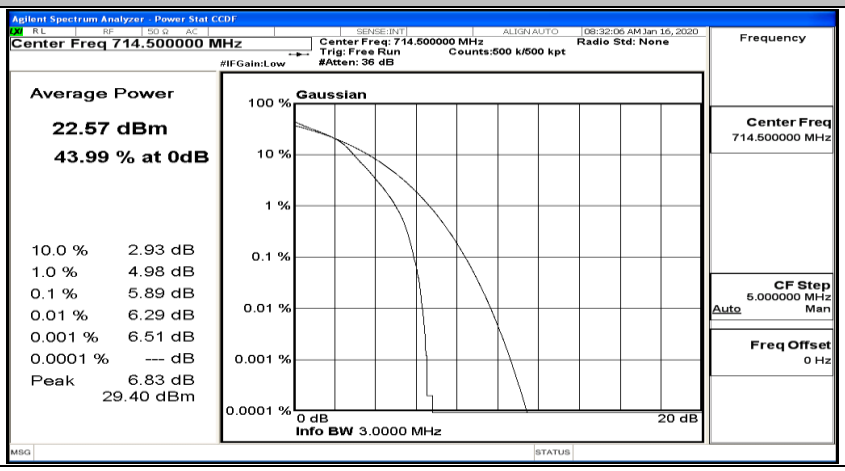
(Channel Bandwidth: 3 MHz)_HCH_16QAM_8RB#4



(Channel Bandwidth: 3 MHz)_HCH_16QAM_8RB#7

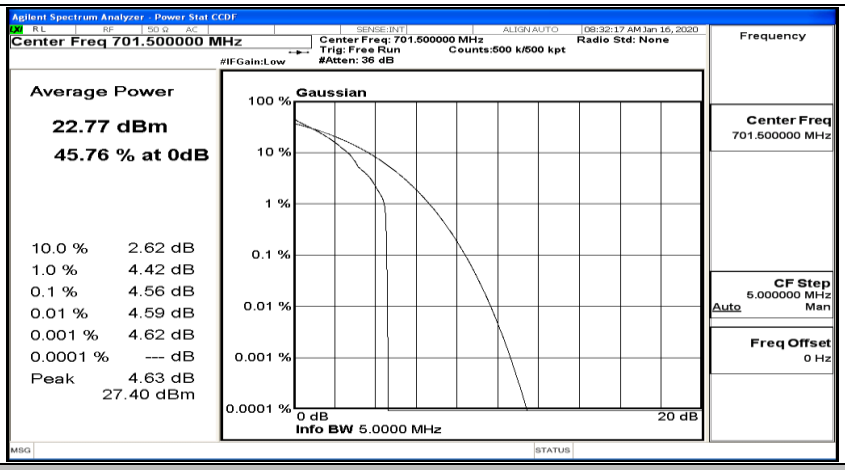


(Channel Bandwidth: 3 MHz)_HCH_16QAM_15RB#0

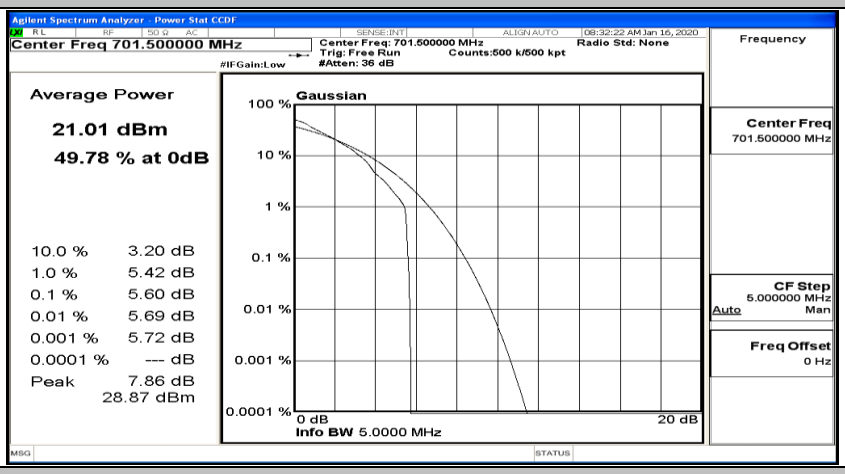


Channel Bandwidth: 5 MHz

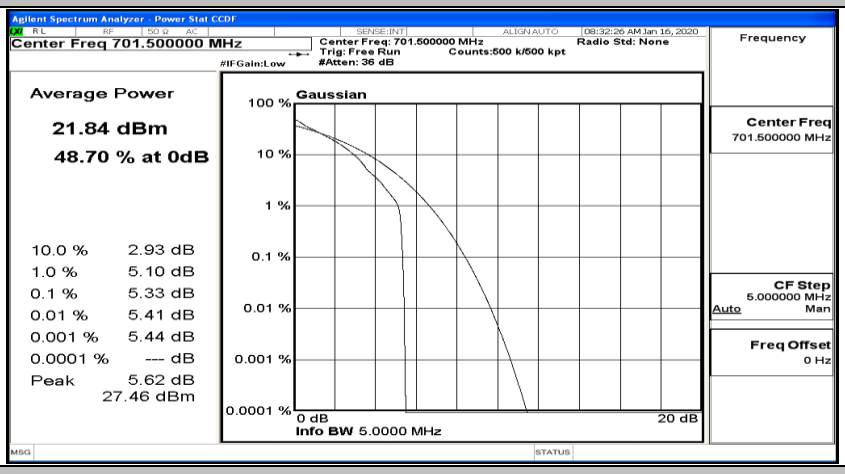
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



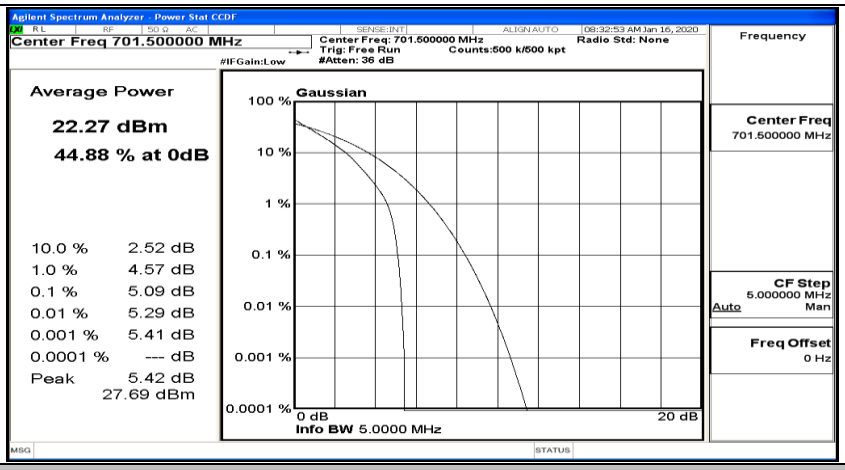
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12



(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#24



(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#0



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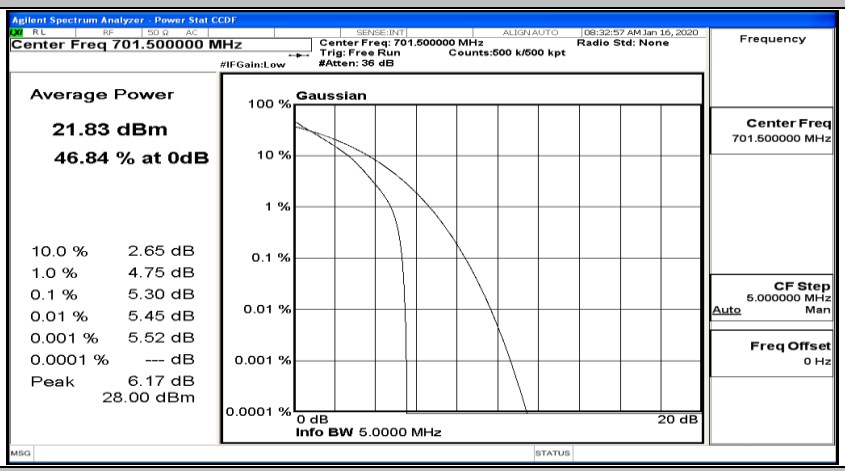

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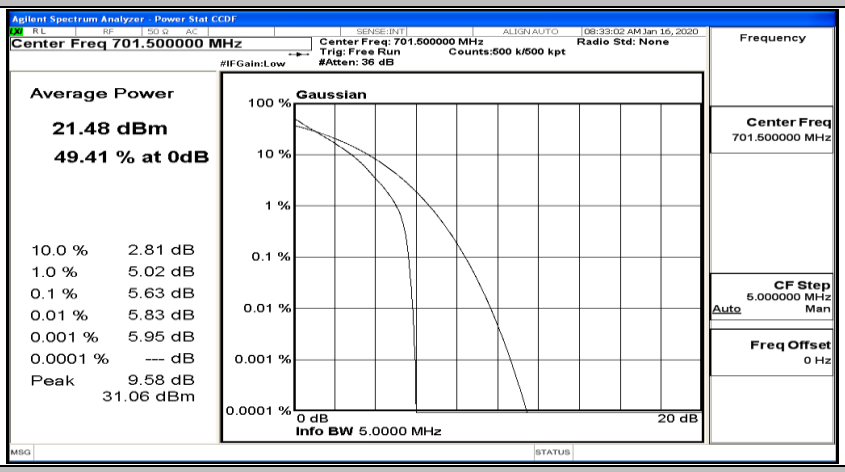
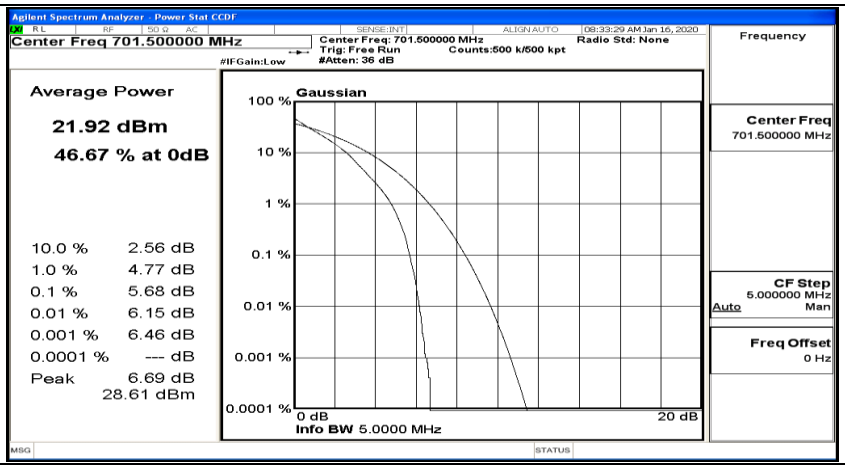
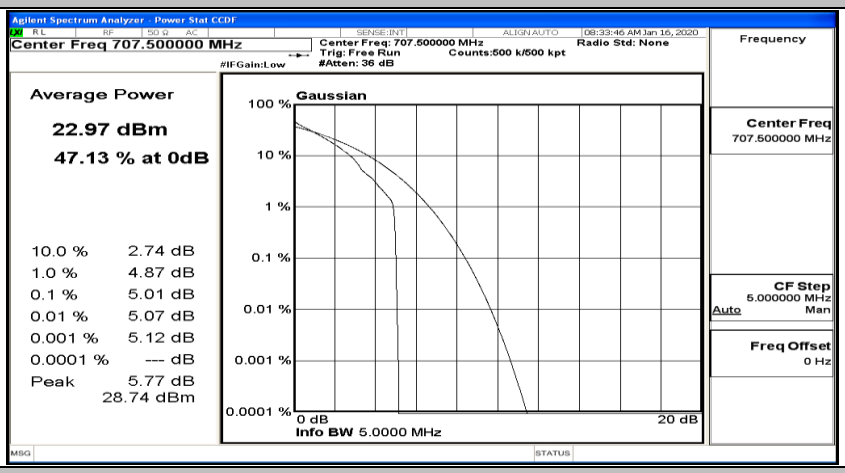


(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0



(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



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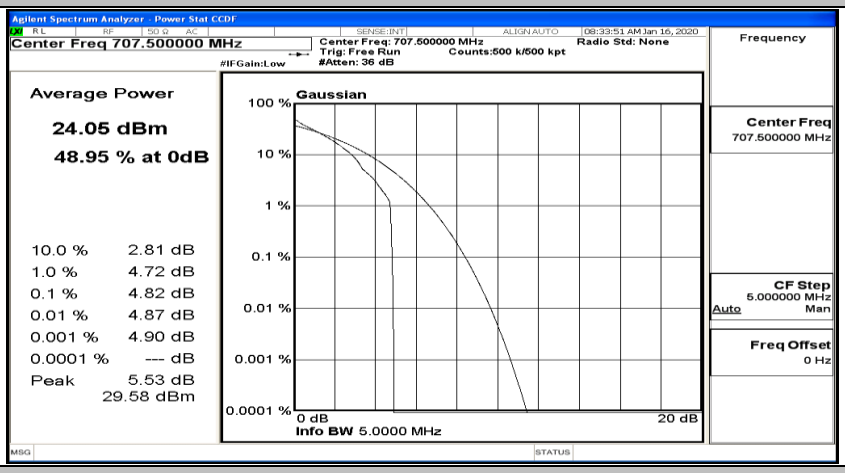
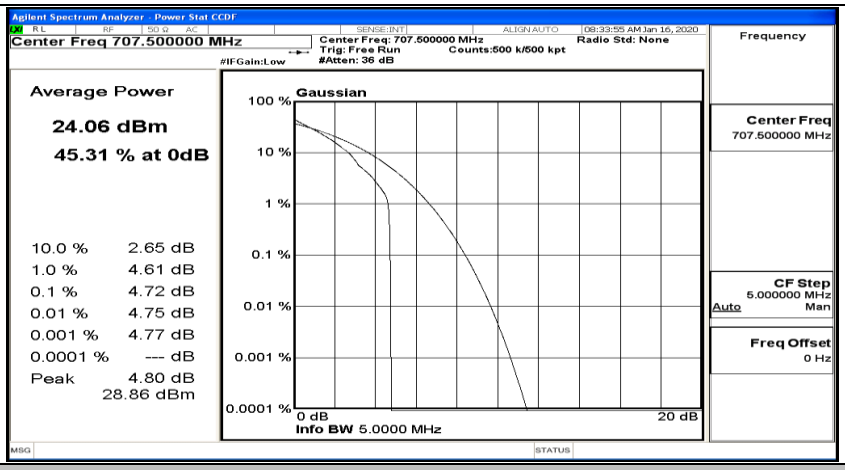


(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24



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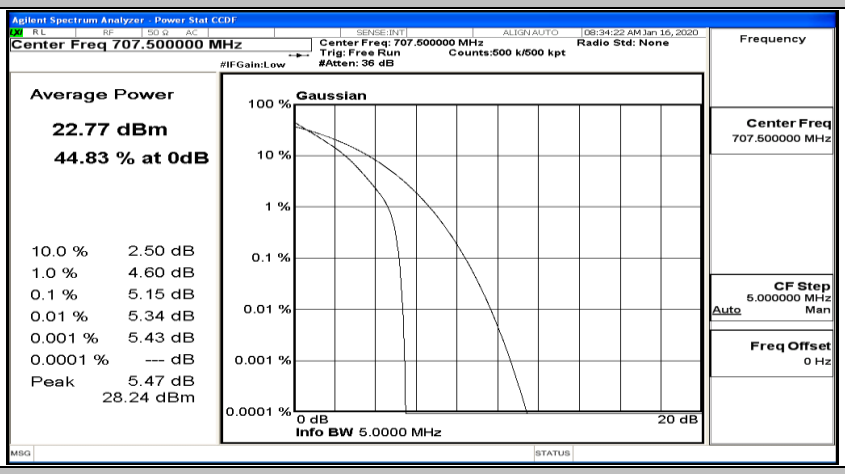
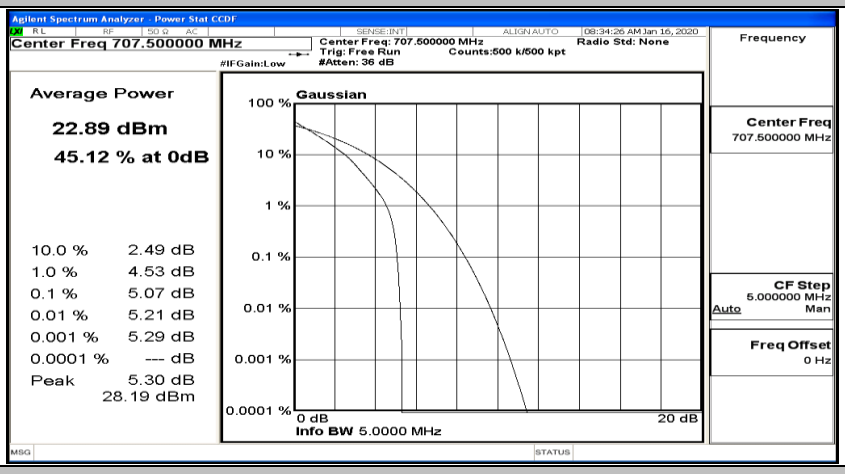
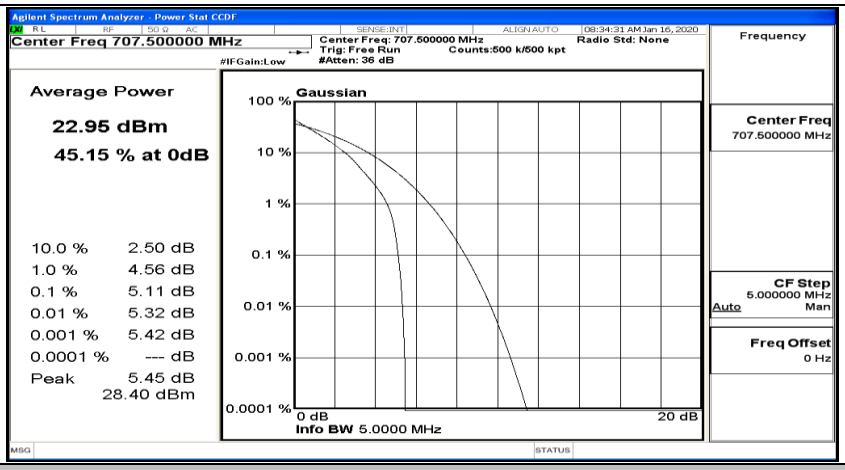


(Channel Bandwidth: 5 MHz)_MCH_QPSK_12RB#6



(Channel Bandwidth: 5 MHz)_MCH_QPSK_12RB#13



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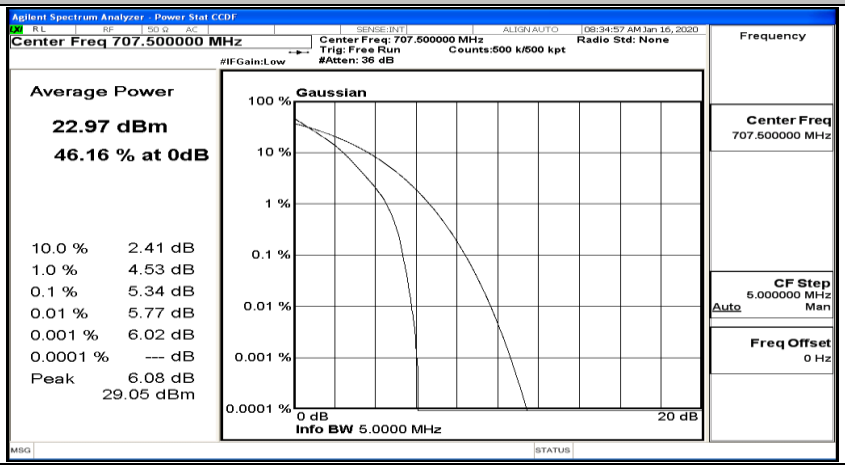
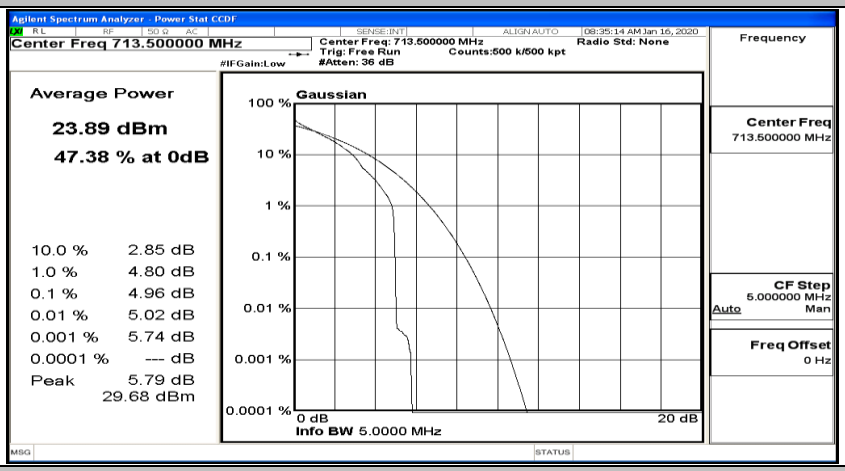
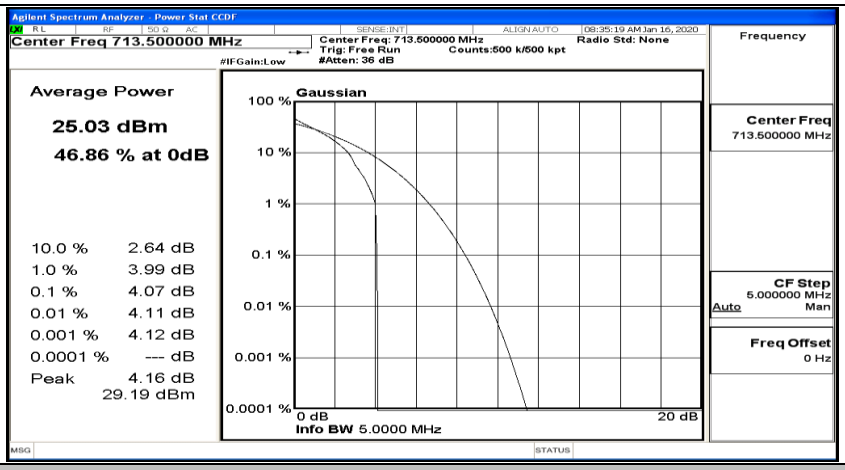


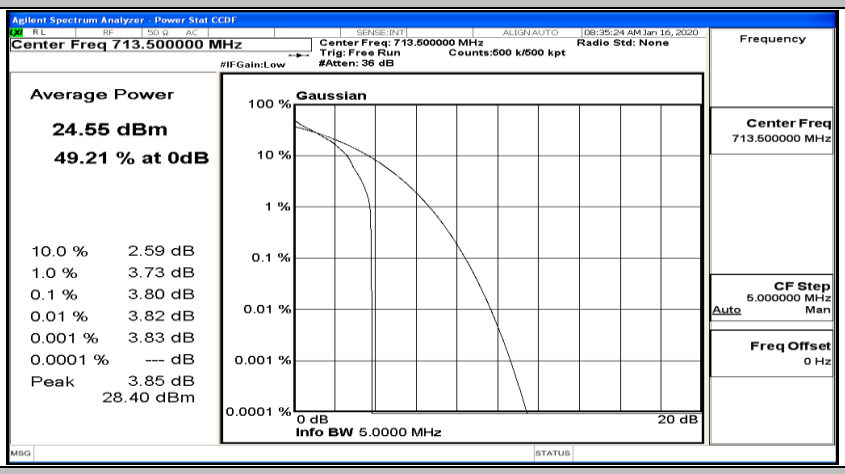
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



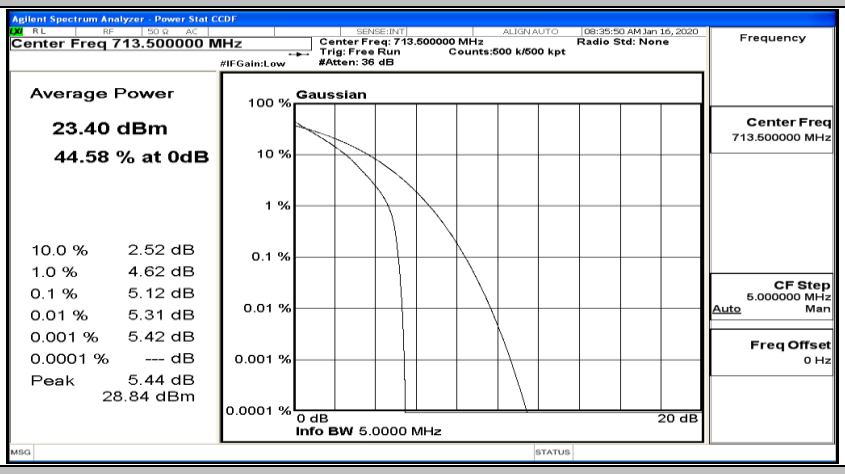
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24



(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#0



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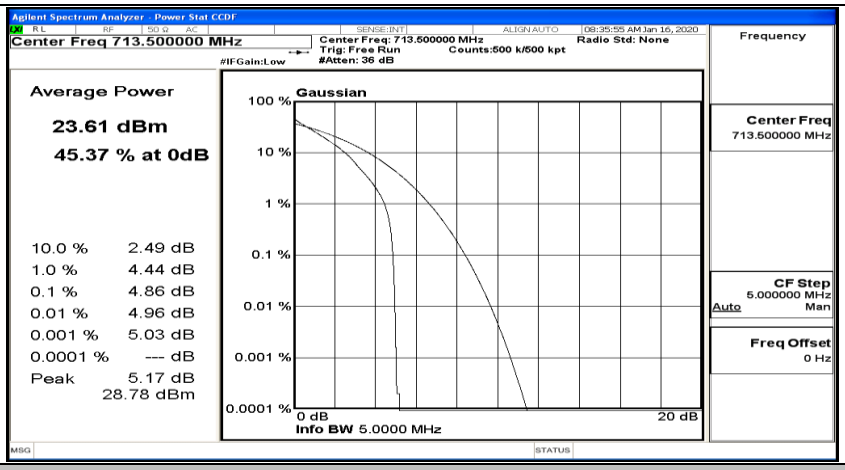
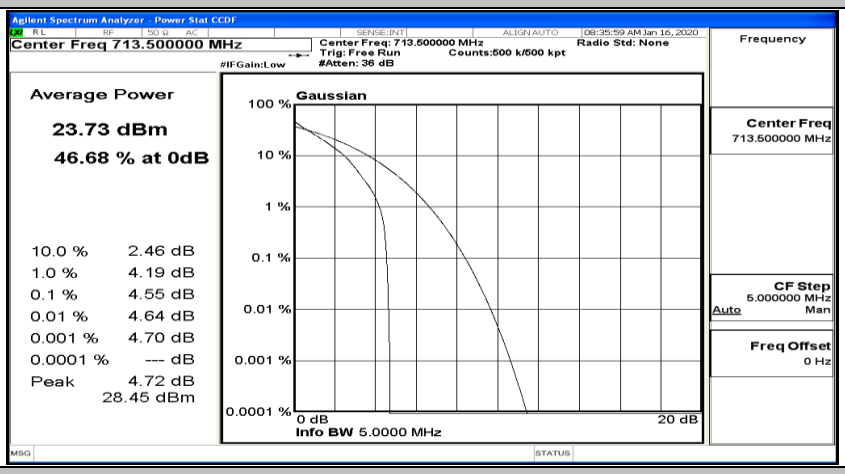
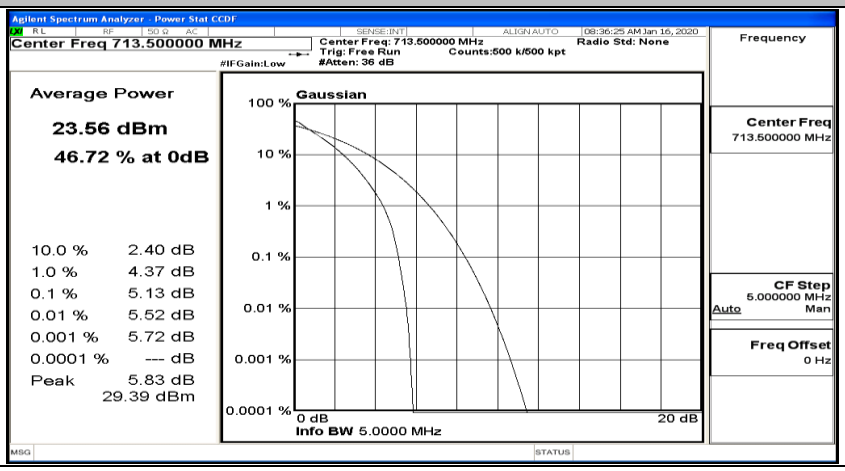


(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#13



(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0



(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0