Appendix E: Test Data for E-UTRA Band 7

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

E.1: Conducted Output Power Data

Test Result

Channel Bandwidth: 5 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.28	PASS
		1	12	23.40	PASS
		1	24	23.25	PASS
		12	0	22.45	PASS
		12	6	22.50	PASS
		12	13	22.49	PASS
		25	0	22.46	PASS
	MCH	1	0	23.74	PASS
		1	12	23.82	PASS
		1	24	23.63	PASS
		12	0	22.88	PASS
		12	6	22.91	PASS
		12	13	22.87	PASS
		25	0	22.82	PASS
	HCH	1	0	23.74	PASS

		1	12	23.73	PASS
		1	24	23.68	PASS
		12	0	23.02	PASS
		12	6	23.02	PASS
		12	13	23.06	PASS
		25	0	22.94	PASS
16QAM	LCH	1	0	22.54	PASS
		1	12	22.84	PASS
		1	24	22.73	PASS
		12	0	21.35	PASS
		12	6	21.41	PASS
		12	13	21.26	PASS
		25	0	21.54	PASS
	MCH	1	0	23.05	PASS
		1	12	23.18	PASS
		1	24	22.99	PASS
		12	0	21.97	PASS
		12	6	22.02	PASS
		12	13	21.98	PASS
		25	0	21.96	PASS
	HCH	1	0	23.16	PASS
		1	12	23.20	PASS
		1	24	23.02	PASS
		12	0	22.16	PASS
		12	6	22.12	PASS
		12	13	22.04	PASS
		25	0	21.97	PASS

Channel Bandwidth: 10 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.31	PASS
		1	24	24.50	PASS
		1	49	23.48	PASS
		25	0	22.72	PASS
		25	12	22.77	PASS
		25	25	22.58	PASS
		50	0	22.77	PASS
	MCH	1	0	23.80	PASS
		1	24	**24.42**	PASS
		1	49	23.81	PASS
		25	0	23.06	PASS

		25	12	23.06	PASS
		25	25	22.97	PASS
		50	0	22.96	PASS
	HCH	1	0	23.41	PASS
		1	24	**23.90**	PASS
		1	49	23.04	PASS
		25	0	23.08	PASS
		25	12	23.22	PASS
		25	25	23.08	PASS
		50	0	23.16	PASS
16QAM	LCH	1	0	22.51	PASS
		1	24	23.31	PASS
		1	49	22.85	PASS
		25	0	21.69	PASS
		25	12	21.80	PASS
		25	25	21.57	PASS
		50	0	21.75	PASS
	MCH	1	0	22.93	PASS
		1	24	23.70	PASS
		1	49	23.18	PASS
		25	0	22.14	PASS
		25	12	22.06	PASS
		25	25	21.87	PASS
		50	0	22.06	PASS
	HCH	1	0	22.88	PASS
		1	24	23.39	PASS
		1	49	22.49	PASS
		25	0	22.19	PASS
		25	12	22.35	PASS
		25	25	22.06	PASS
		50	0	22.13	PASS

Channel Bandwidth: 15 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.36	PASS
		1	37	24.32	PASS
		1	74	23.96	PASS
		37	0	22.77	PASS
		37	18	22.76	PASS
		37	38	22.84	PASS
		75	0	22.87	PASS

	MCH	1	0	24.00	PASS
		1	37	24.32	PASS
		1	74	24.19	PASS
		37	0	23.10	PASS
		37	18	23.10	PASS
		37	38	23.05	PASS
		75	0	23.01	PASS
	HCH	1	0	23.31	PASS
		1	37	23.87	PASS
		1	74	23.11	PASS
		37	0	20.27	PASS
		37	18	20.74	PASS
		37	38	20.17	PASS
		75	0	21.18	PASS
16QAM	LCH	1	0	22.67	PASS
		1	37	23.88	PASS
		1	74	23.47	PASS
		37	0	21.68	PASS
		37	18	21.50	PASS
		37	38	21.77	PASS
		75	0	21.86	PASS
	MCH	1	0	23.31	PASS
		1	37	23.68	PASS
		1	74	23.54	PASS
		37	0	22.09	PASS
		37	18	22.02	PASS
		37	38	22.06	PASS
		75	0	22.02	PASS
	HCH	1	0	22.82	PASS
		1	37	22.02	PASS
		1	74	22.71	PASS
		37	0	22.15	PASS
		37	18	22.31	PASS
		37	38	22.03	PASS
		75	0	22.19	PASS

Channel Bandwidth: 20 MHz

Modulation	Channel	RB Configuration		Average Power [dBm]	Verdict
		Size	Offset		
QPSK	LCH	1	0	23.15	PASS
		1	49	**24.56**	PASS
		1	99	23.80	PASS
		50	0	22.76	PASS
		50	25	22.97	PASS
		50	50	23.08	PASS
		100	0	23.07	PASS
	MCH	1	0	24.08	PASS
		1	49	24.34	PASS
		1	99	24.12	PASS
		50	0	23.15	PASS
		50	25	23.12	PASS
		50	50	23.15	PASS
		100	0	22.51	PASS
	HCH	1	0	21.30	PASS
		1	49	21.75	PASS
		1	99	21.01	PASS
		50	0	23.23	PASS
		50	25	23.32	PASS
		50	50	23.15	PASS
		100	0	22.29	PASS
16QAM	LCH	1	0	22.32	PASS
		1	49	22.69	PASS
		1	99	22.32	PASS
		50	0	21.89	PASS
		50	25	21.93	PASS
		50	50	22.05	PASS
		100	0	21.96	PASS
	MCH	1	0	23.02	PASS
		1	49	22.99	PASS
		1	99	22.57	PASS
		50	0	22.19	PASS
		50	25	22.17	PASS
		50	50	22.15	PASS
		100	0	21.08	PASS
	HCH	1	0	22.16	PASS
		1	49	22.57	PASS
		1	99	21.79	PASS

		50	0	22.14	PASS
		50	25	22.49	PASS
		50	50	21.29	PASS
		100	0	21.67	PASS

E.2: 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	4.7	<13	PASS
		1	12	5.09	<13	PASS
		1	24	4.68	<13	PASS
		12	0	4.89	<13	PASS
		12	6	4.78	<13	PASS
		12	13	4.82	<13	PASS
		25	0	5.17	<13	PASS
	MCH	1	0	4.24	<13	PASS
		1	12	4.33	<13	PASS
		1	24	4.5	<13	PASS
		12	0	5.43	<13	PASS
		12	6	4.82	<13	PASS
		12	13	4.93	<13	PASS
		25	0	5.2	<13	PASS
	HCH	1	0	3.82	<13	PASS
		1	12	3.75	<13	PASS
		1	24	3.93	<13	PASS
		12	0	4.14	<13	PASS
		12	6	3.91	<13	PASS
		12	13	3.96	<13	PASS
		25	0	4.56	<13	PASS
16QAM	LCH	1	0	5.48	<13	PASS
		1	12	5.42	<13	PASS
		1	24	5.11	<13	PASS
		12	0	5.78	<13	PASS
		12	6	5.68	<13	PASS
		12	13	5.72	<13	PASS
		25	0	5.97	<13	PASS
	MCH	1	0	5.22	<13	PASS
		1	12	5.21	<13	PASS
		1	24	5.31	<13	PASS
		12	0	5.77	<13	PASS
		12	6	5.69	<13	PASS
		12	13	5.82	<13	PASS

		25	0	6.04	<13	PASS
	HCH	1	0	4.52	<13	PASS
		1	12	4.22	<13	PASS
		1	24	4.21	<13	PASS
		12	0	5.06	<13	PASS
		12	6	4.84	<13	PASS
		12	13	4.86	<13	PASS
		25	0	5.35	<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	8.37	<13	PASS
		1	24	6.74	<13	PASS
		1	49	3.54	<13	PASS
		25	0	4.87	<13	PASS
		25	12	4.68	<13	PASS
		25	25	4.6	<13	PASS
		50	0	5.05	<13	PASS
	MCH	1	0	4.32	<13	PASS
		1	24	4.36	<13	PASS
		1	49	4.77	<13	PASS
		25	0	4.85	<13	PASS
		25	12	4.87	<13	PASS
		25	25	5	<13	PASS
		50	0	5.21	<13	PASS
	HCH	1	0	4.69	<13	PASS
		1	24	3.54	<13	PASS
		1	49	4.86	<13	PASS
		25	0	4.39	<13	PASS
		25	12	4.23	<13	PASS
		25	25	4.25	<13	PASS
		50	0	4.75	<13	PASS
16QAM	LCH	1	0	5.59	<13	PASS
		1	24	4.51	<13	PASS
		1	49	4.41	<13	PASS
		25	0	5.8	<13	PASS
		25	12	5.63	<13	PASS
		25	25	5.54	<13	PASS
		50	0	6.23	<13	PASS
	MCH	1	0	4.95	<13	PASS
		1	24	5.03	<13	PASS
		1	49	5.42	<13	PASS
		25	0	5.72	<13	PASS
		25	12	5.74	<13	PASS
		25	25	5.89	<13	PASS
		50	0	5.98	<13	PASS
	HCH	1	0	5.39	<13	PASS
		1	24	4.72	<13	PASS

		1	49	5.27	<13	PASS
		25	0	5.28	<13	PASS
		25	12	5.09	<13	PASS
		25	25	5.14	<13	PASS
		50	0	5.54	<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	5.89	<13	PASS
		1	37	3.57	<13	PASS
		1	74	5.2	<13	PASS
		37	0	4.65	<13	PASS
		37	18	4.76	<13	PASS
		37	38	4.66	<13	PASS
		75	0	4.89	<13	PASS
	MCH	1	0	5.13	<13	PASS
		1	37	4.36	<13	PASS
		1	74	6.02	<13	PASS
		37	0	4.67	<13	PASS
		37	18	5.04	<13	PASS
		37	38	4.85	<13	PASS
		75	0	4.97	<13	PASS
	HCH	1	0	6.46	<13	PASS
		1	37	4.75	<13	PASS
		1	74	6.05	<13	PASS
		37	0	4.67	<13	PASS
		37	18	5.04	<13	PASS
		37	38	4.84	<13	PASS
		75	0	4.94	<13	PASS
16QAM	LCH	1	0	6.46	<13	PASS
		1	37	3.99	<13	PASS
		1	74	3.57	<13	PASS
		37	0	5.85	<13	PASS
		37	18	5.6	<13	PASS
		37	38	5.84	<13	PASS
		75	0	6.11	<13	PASS
	MCH	1	0	5.85	<13	PASS
		1	37	5.11	<13	PASS
		1	74	6.42	<13	PASS
		37	0	5.88	<13	PASS
		37	18	5.86	<13	PASS
		37	38	6.09	<13	PASS
		75	0	6.21	<13	PASS
	HCH	1	0	6.69	<13	PASS
		1	37	5.53	<13	PASS

		1	74	6.62	<13	PASS
		37	0	5.86	<13	PASS
		37	18	5.45	<13	PASS
		37	38	5.87	<13	PASS
		75	0	6.08	<13	PASS

Channel Bandwidth: 20 MHz

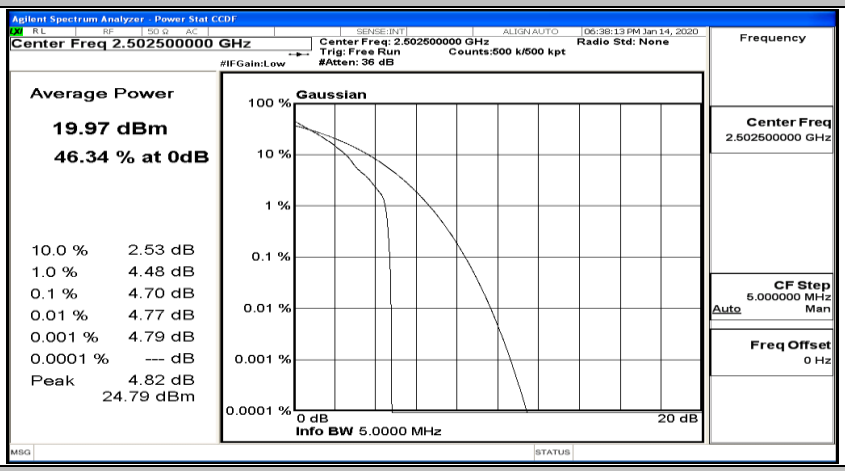
Channel Bandwidth: 20 MHz						
Modulation	Channel	RB Configuration		Peak-to-Average Ratio [dB]	Limit [dB]	Verdict
		Size	Offset			
QPSK	LCH	1	0	2.55	<13	PASS
		1	49	3.23	<13	PASS
		1	99	2.11	<13	PASS
		50	0	5.56	<13	PASS
		50	25	5.09	<13	PASS
		50	50	5.87	<13	PASS
		100	0	5.66	<13	PASS
	MCH	1	0	2.47	<13	PASS
		1	49	4.29	<13	PASS
		1	99	2.44	<13	PASS
		50	0	5.56	<13	PASS
		50	25	5.19	<13	PASS
		50	50	5.95	<13	PASS
		100	0	5.7	<13	PASS
	HCH	1	0	3.05	<13	PASS
		1	49	3.64	<13	PASS
		1	99	2.74	<13	PASS
		50	0	5.51	<13	PASS
		50	25	4.87	<13	PASS
		50	50	5.82	<13	PASS
		100	0	5.68	<13	PASS
16QAM	LCH	1	0	2.57	<13	PASS
		1	49	4.85	<13	PASS
		1	99	4.63	<13	PASS
		50	0	6.44	<13	PASS
		50	25	5.63	<13	PASS
		50	50	6.48	<13	PASS
		100	0	6.62	<13	PASS
	MCH	1	0	2.36	<13	PASS
		1	49	5.15	<13	PASS
		1	99	2.82	<13	PASS
		50	0	6.59	<13	PASS
		50	25	6	<13	PASS
		50	50	6.69	<13	PASS
		100	0	6.77	<13	PASS
	HCH	1	0	2.48	<13	PASS
		1	49	4.68	<13	PASS

		1	99	2.53	<13	PASS
		50	0	6.55	<13	PASS
		50	25	5.65	<13	PASS
		50	50	6.51	<13	PASS
		100	0	6.71	<13	PASS

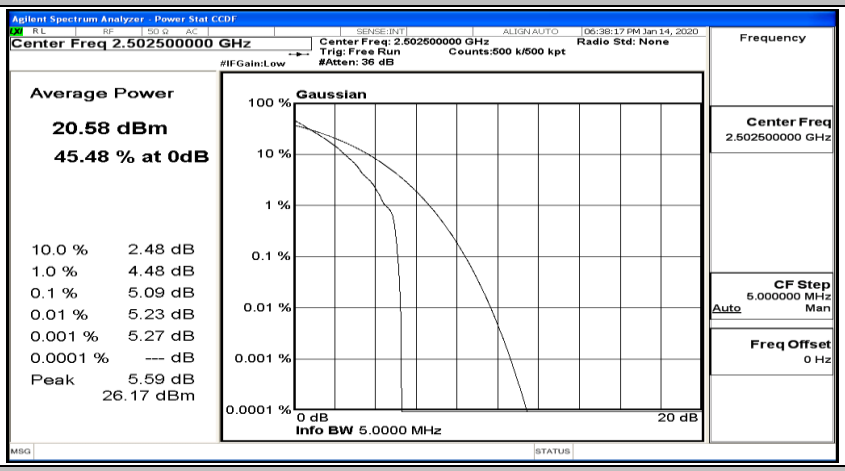
Test Graphs

Channel Bandwidth: 5 MHz

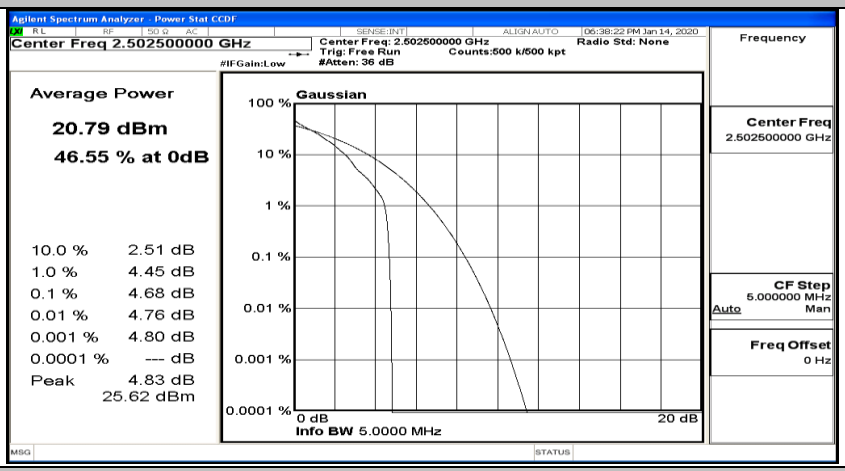
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#0



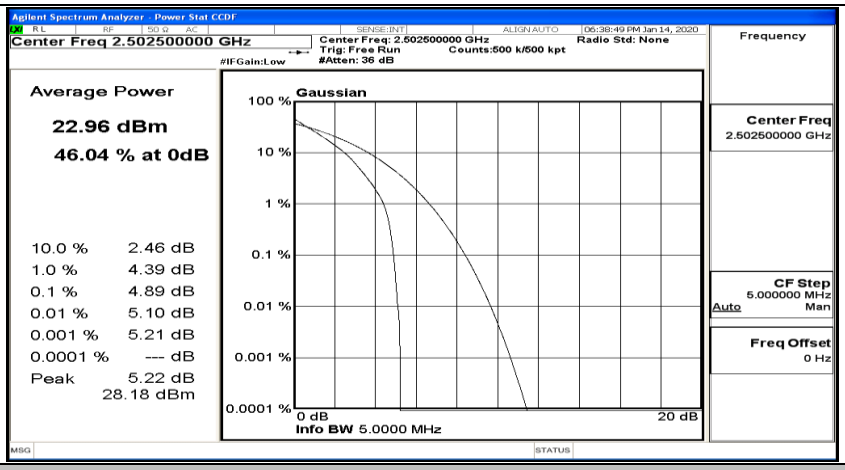
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#12



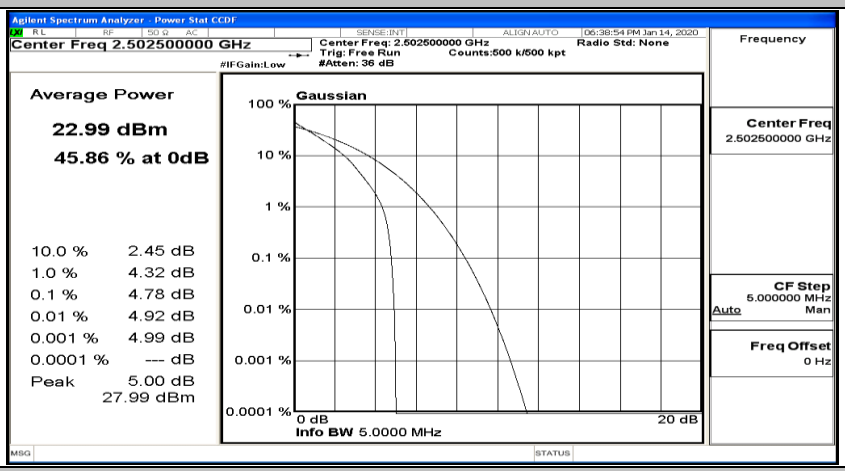
(Channel Bandwidth: 5 MHz)_LCH_QPSK_1RB#24



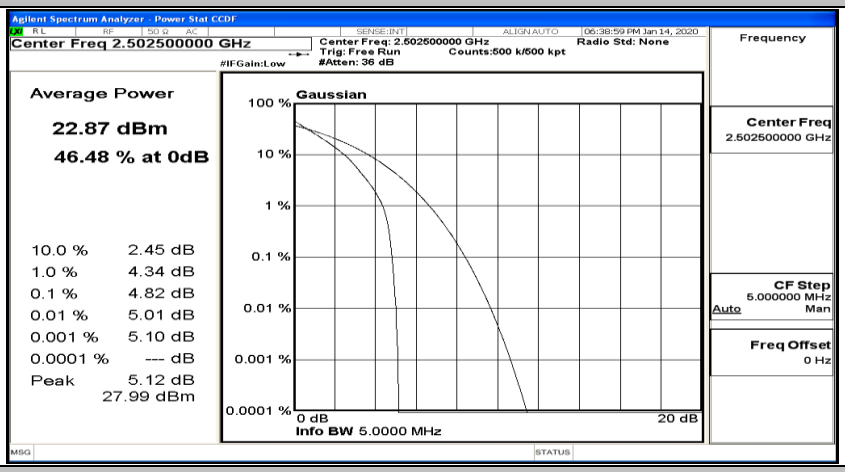
(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#0



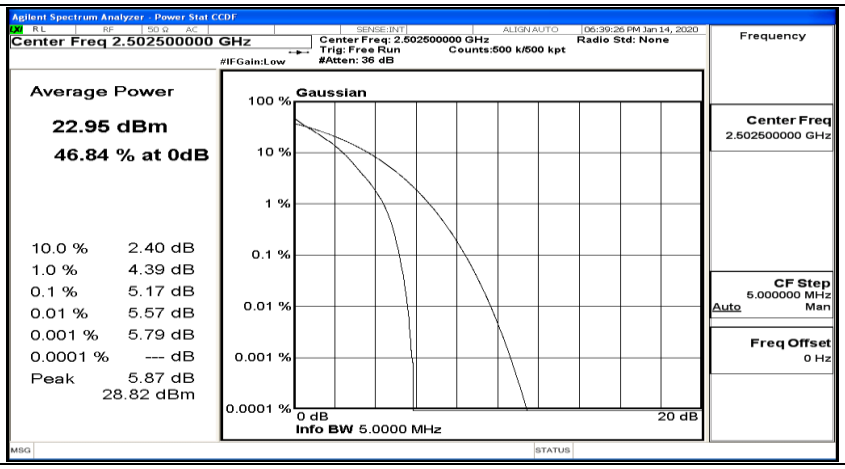
(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#6



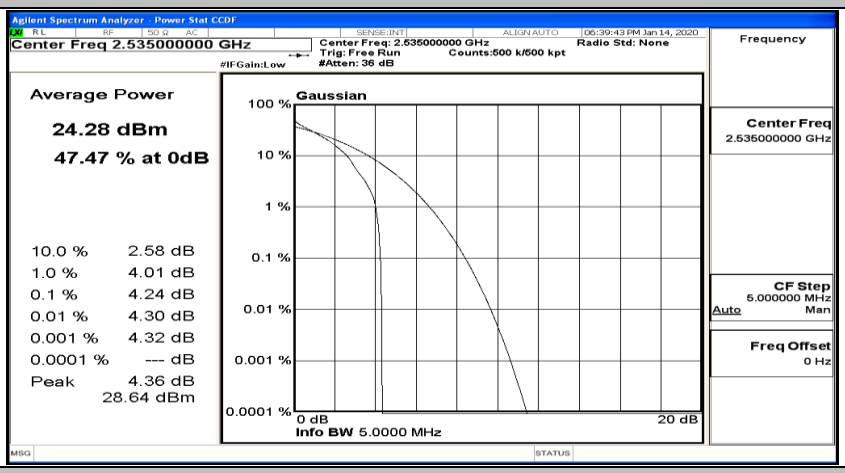
(Channel Bandwidth: 5 MHz)_LCH_QPSK_12RB#13



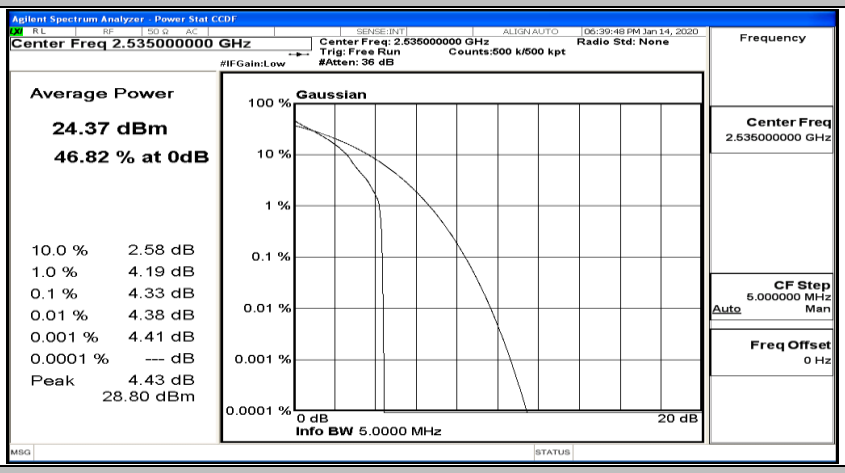
(Channel Bandwidth: 5 MHz)_LCH_QPSK_25RB#0



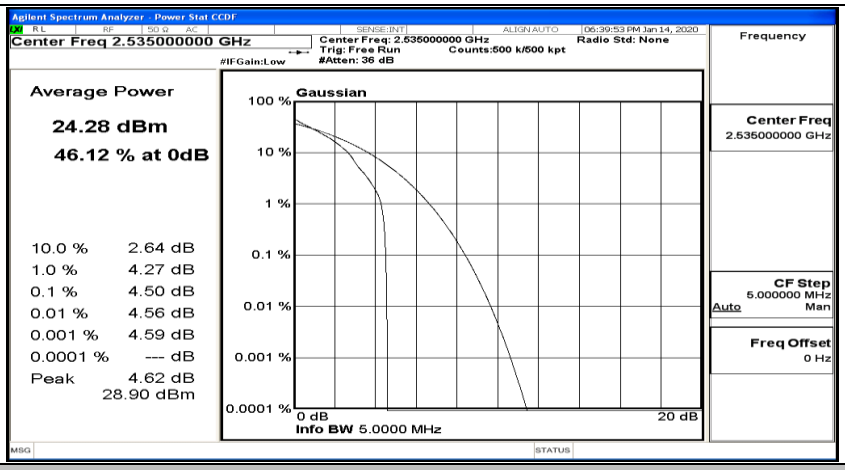
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#0



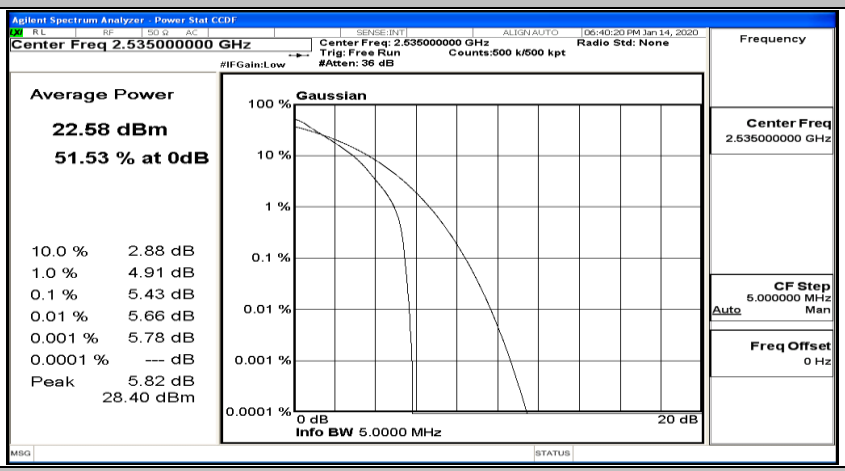
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#12



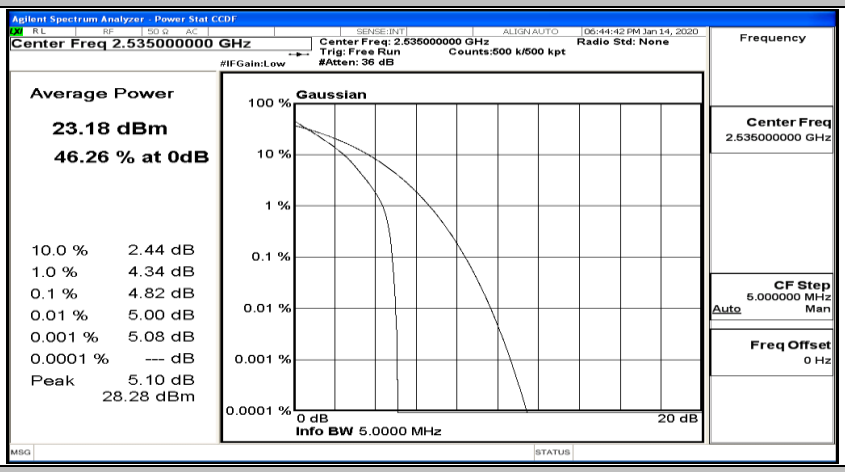
(Channel Bandwidth: 5 MHz)_MCH_QPSK_1RB#24



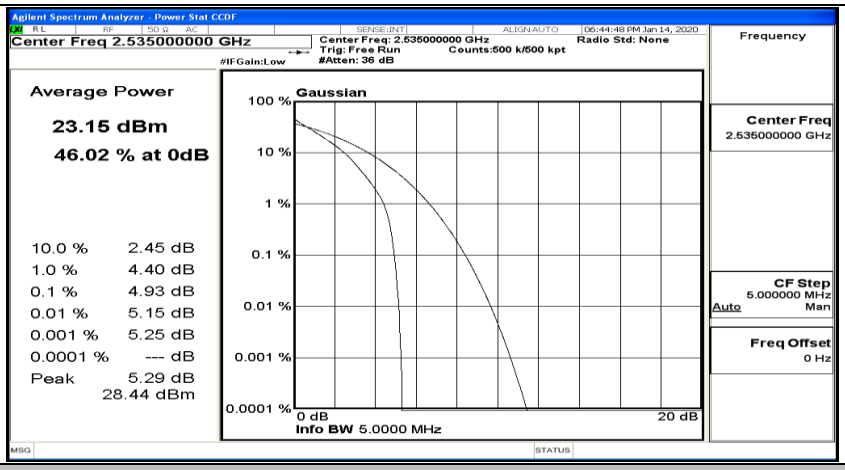
(Channel Bandwidth: 5 MHz)_MCH_QPSK_12RB#0



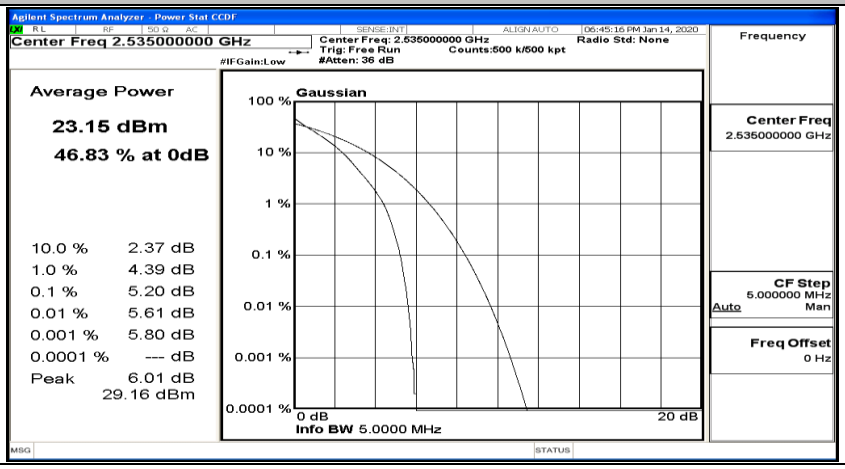
(Channel Bandwidth: 5 MHz)_MCH_QPSK_12RB#6



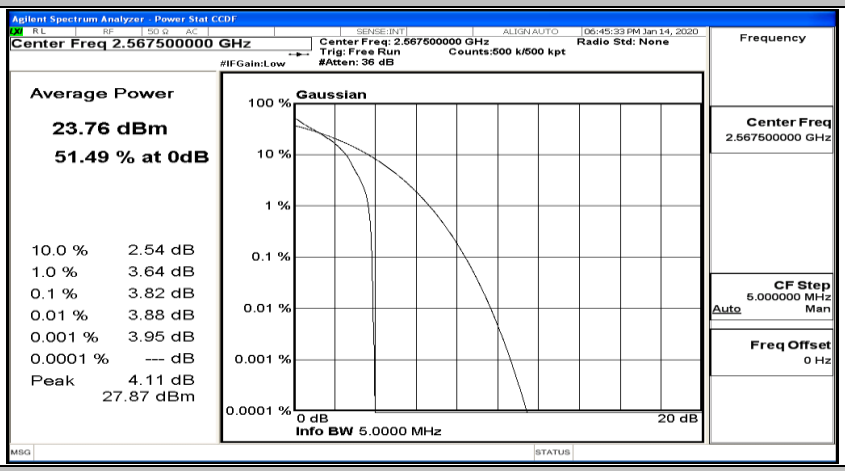
(Channel Bandwidth: 5 MHz)_MCH_QPSK_12RB#13



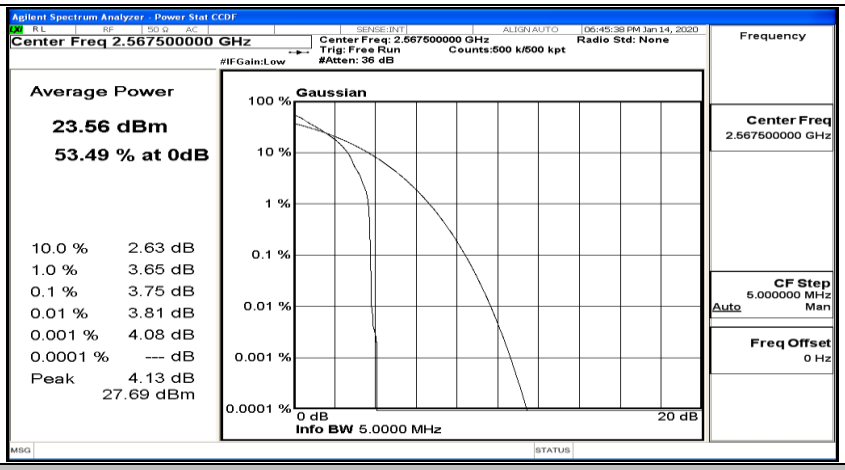
(Channel Bandwidth: 5 MHz)_MCH_QPSK_25RB#0



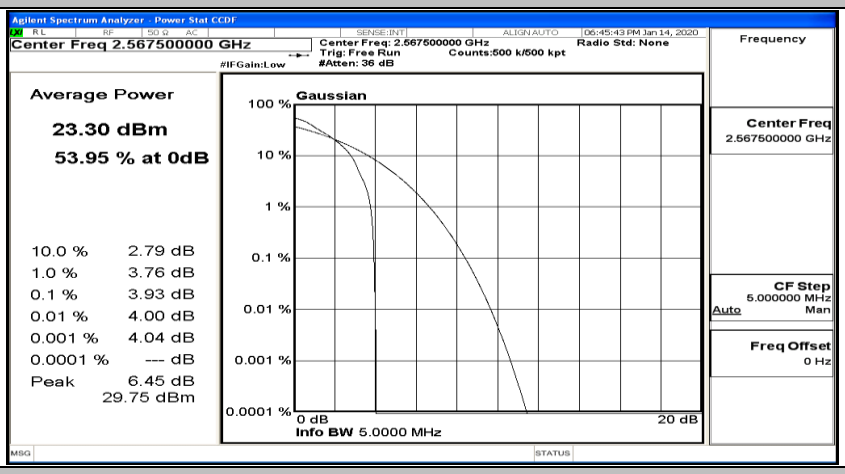
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#0



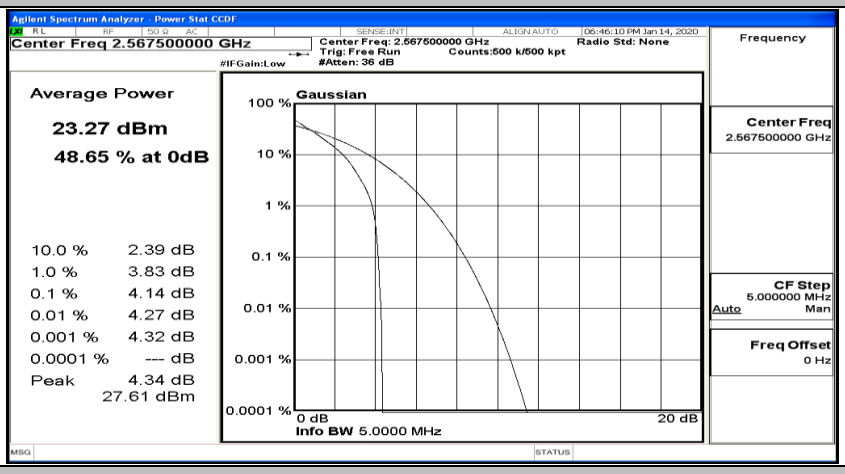
(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#12



(Channel Bandwidth: 5 MHz)_HCH_QPSK_1RB#24



(Channel Bandwidth: 5 MHz)_HCH_QPSK_12RB#0



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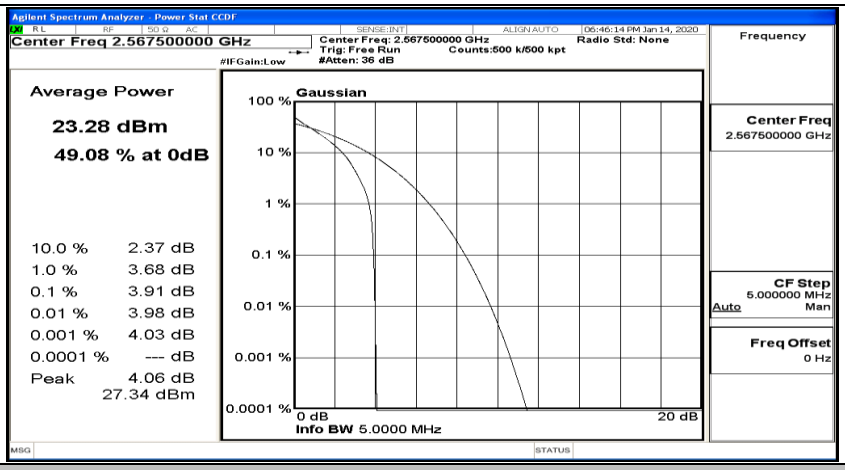

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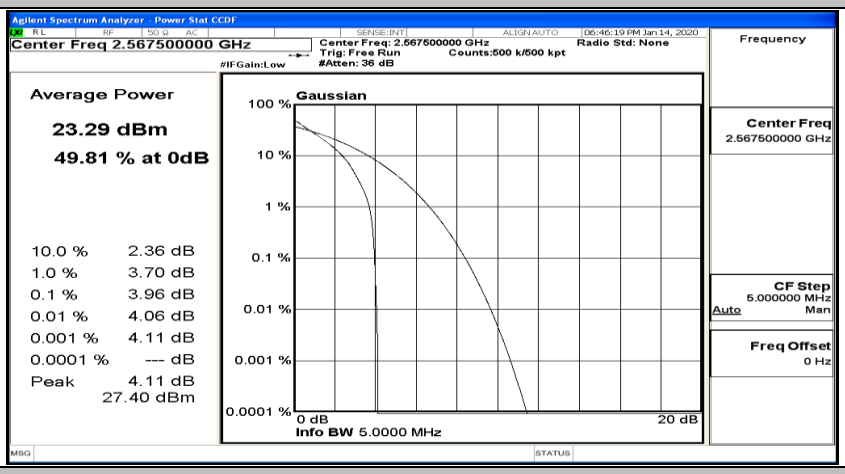
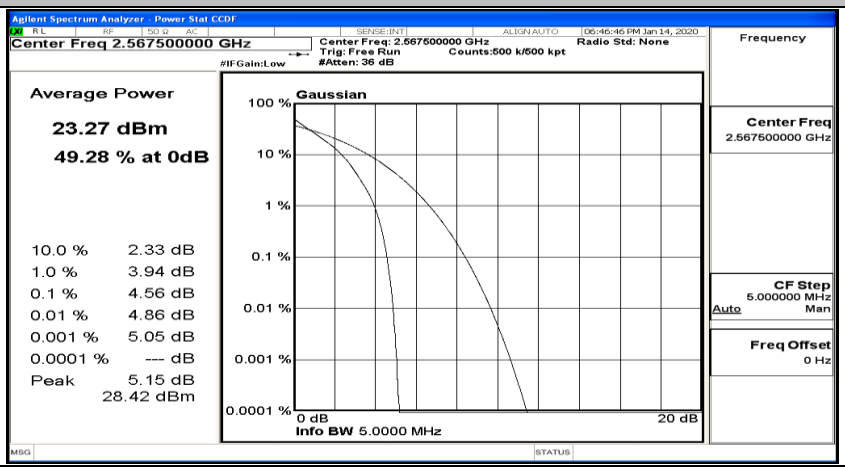
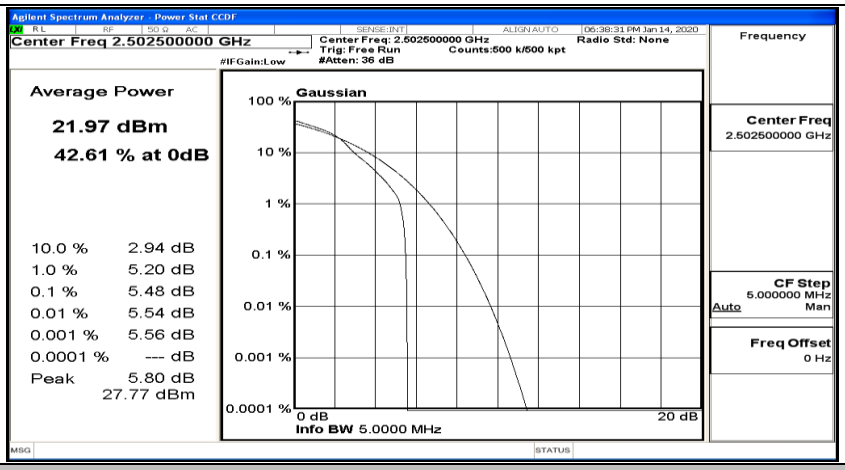


(Channel Bandwidth: 5 MHz)_HCH_QPSK_25RB#0



(Channel Bandwidth: 5 MHz)_LCH_16QAM_1RB#0



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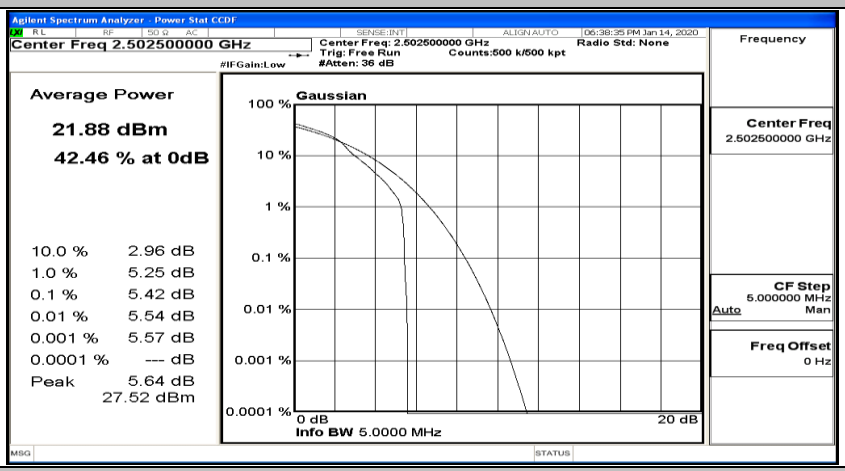

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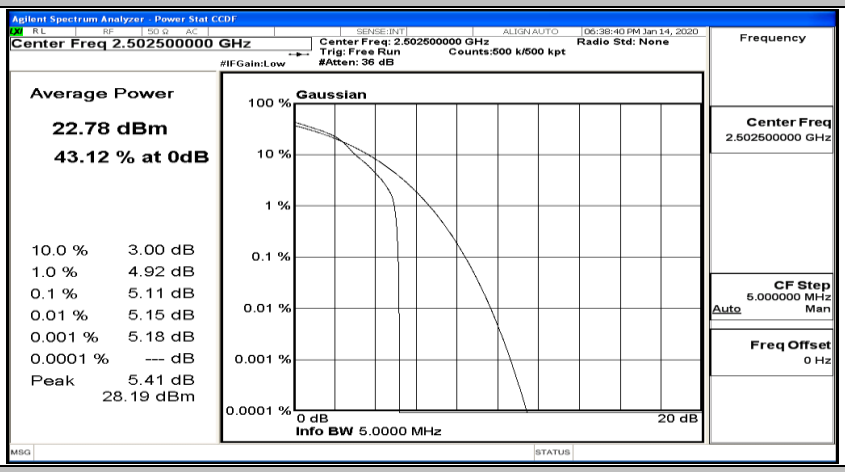

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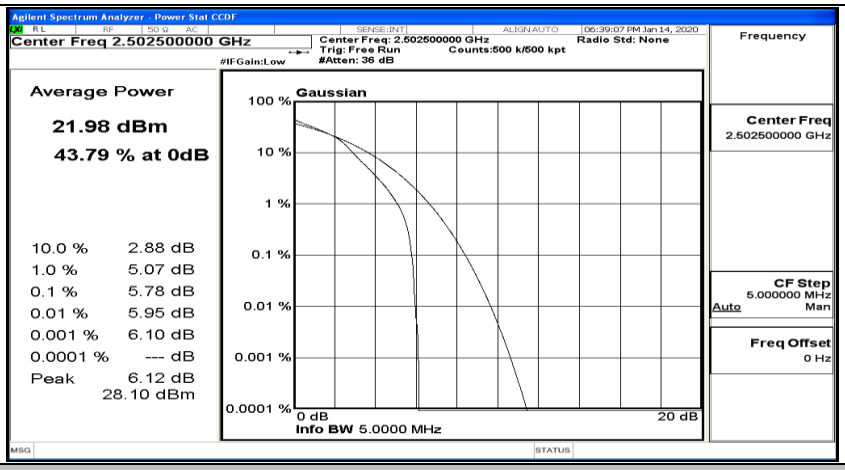

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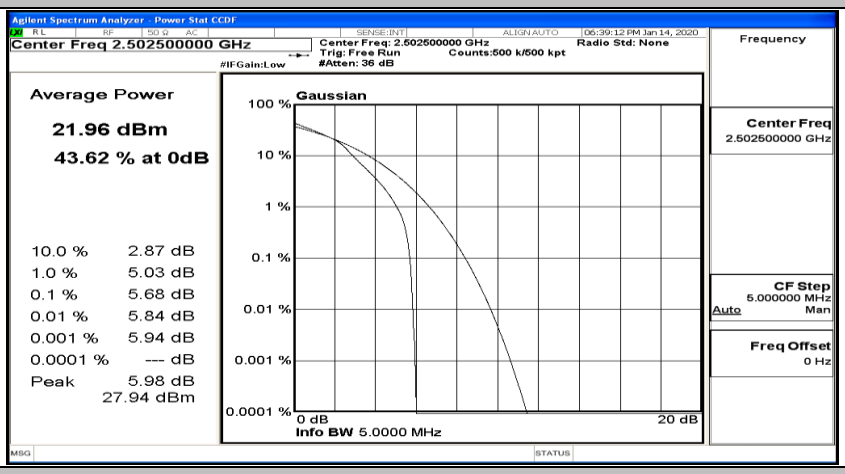

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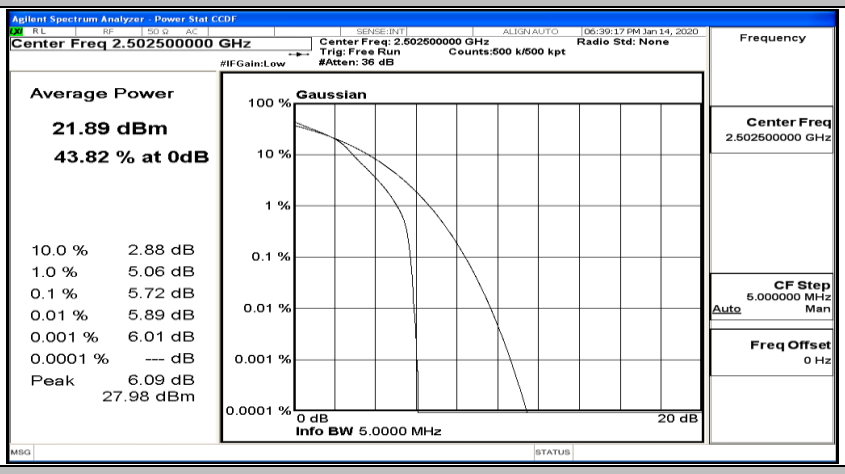

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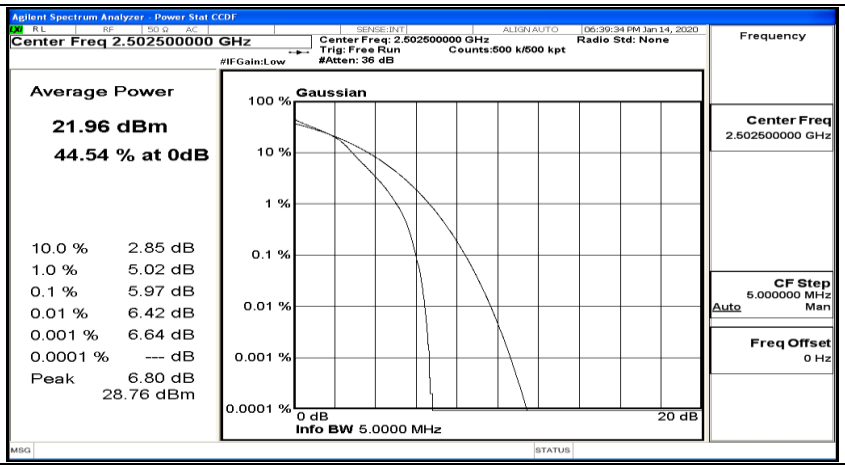

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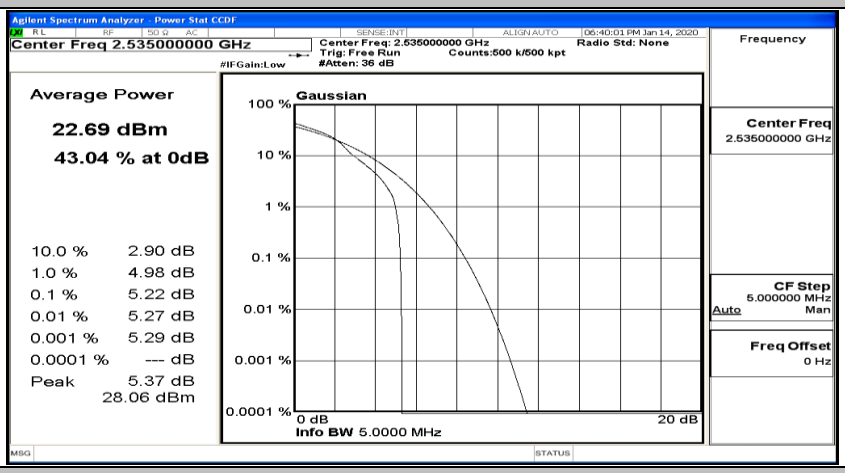
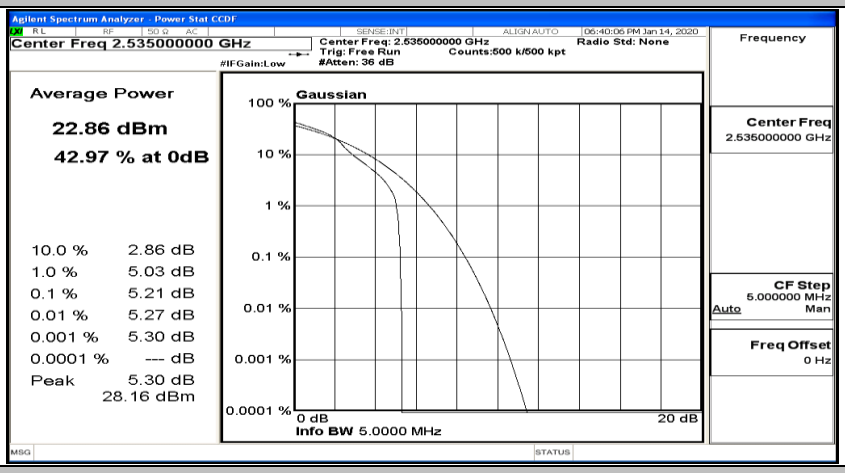
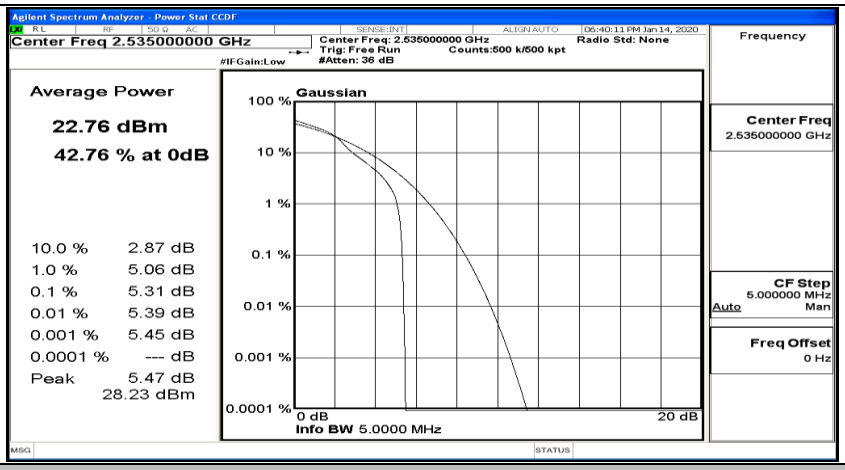


(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#12



(Channel Bandwidth: 5 MHz)_MCH_16QAM_1RB#24



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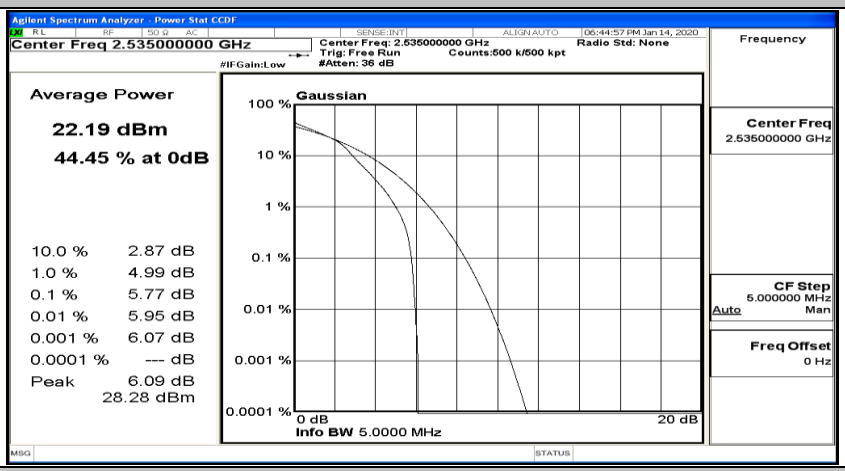
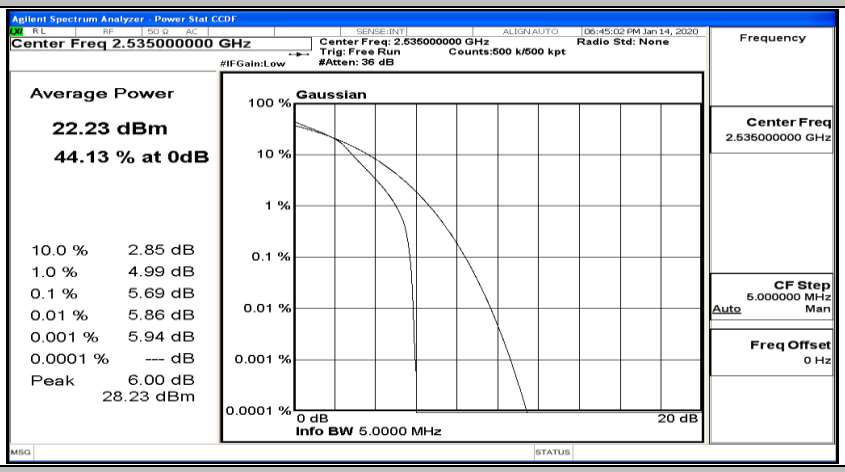


(Channel Bandwidth: 5 MHz)_MCH_16QAM_12RB#6



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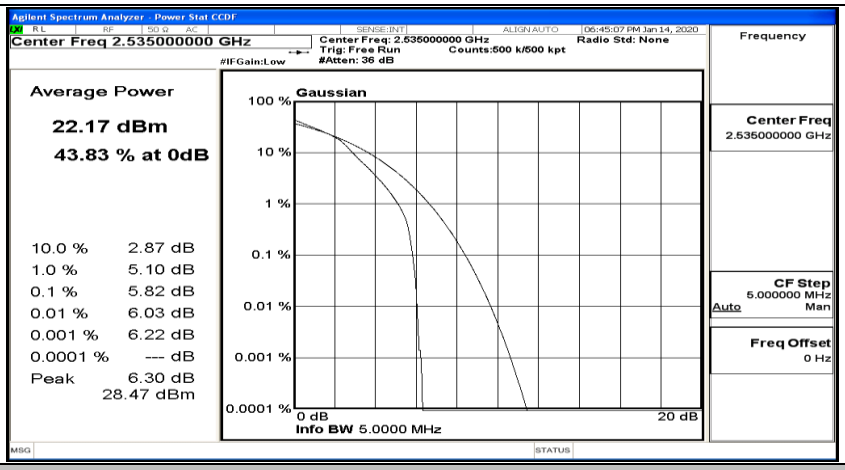

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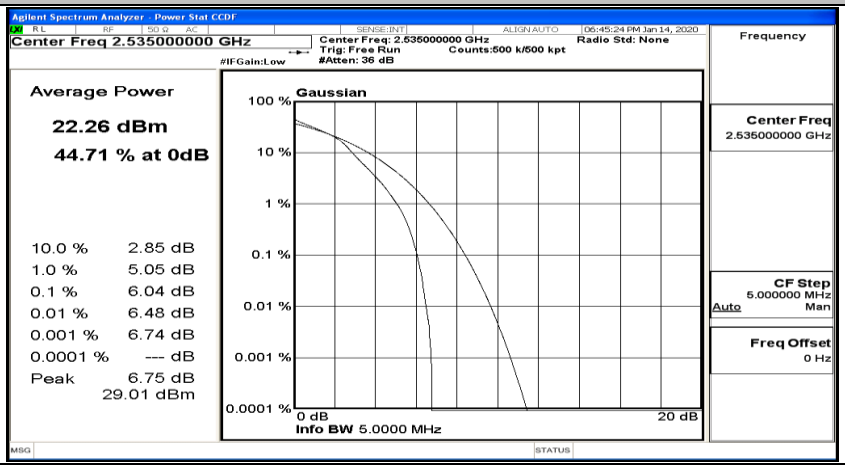

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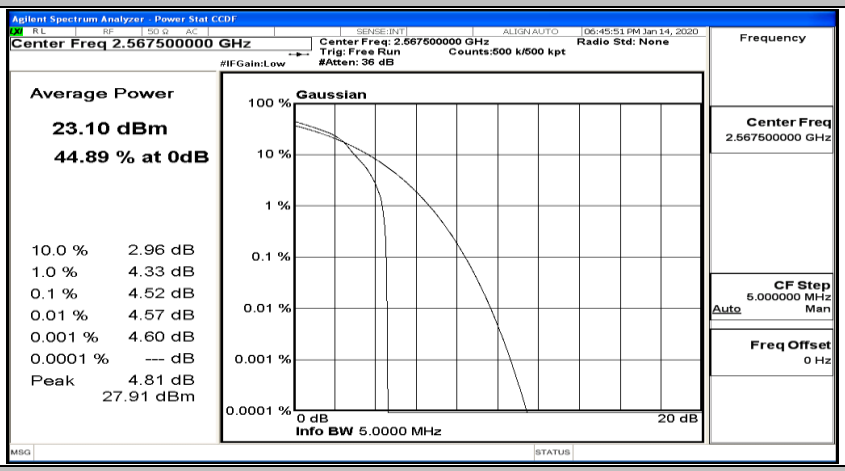

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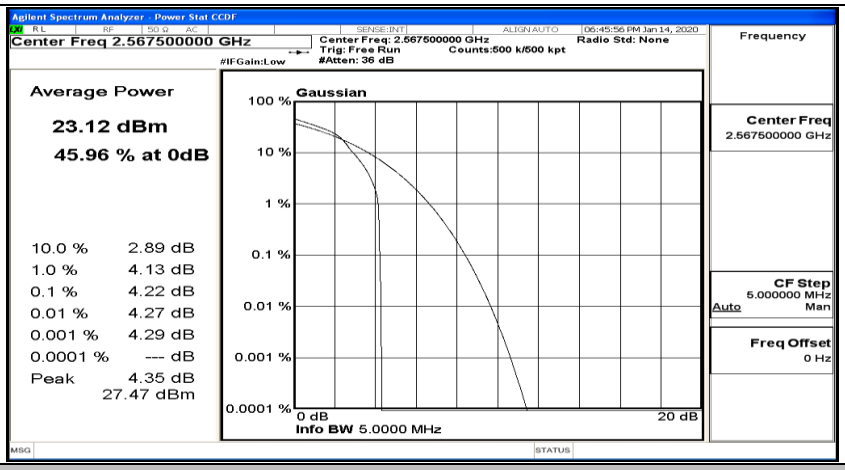
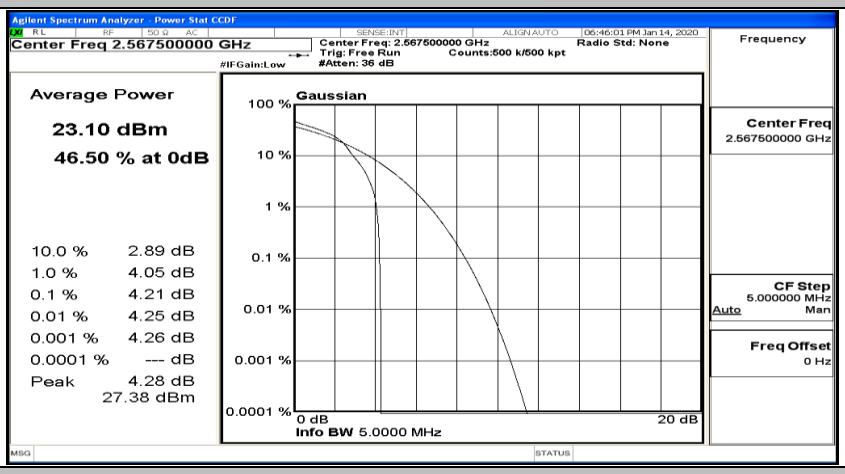


(Channel Bandwidth: 5 MHz)_HCH_16QAM_1RB#24



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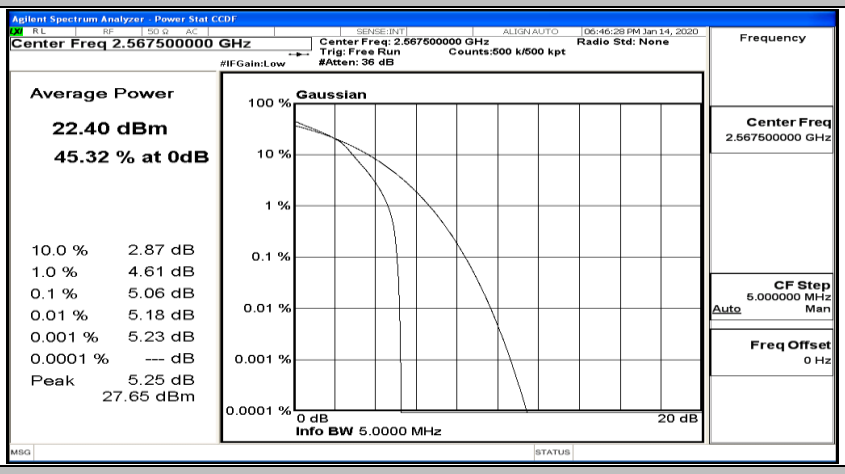

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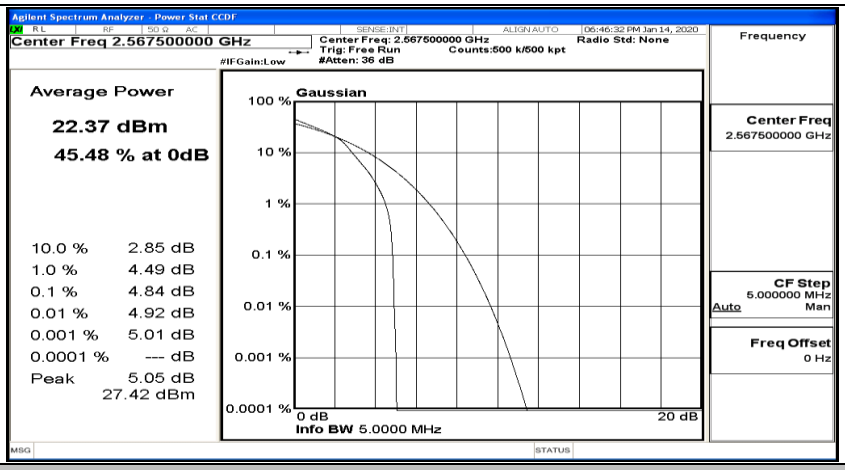

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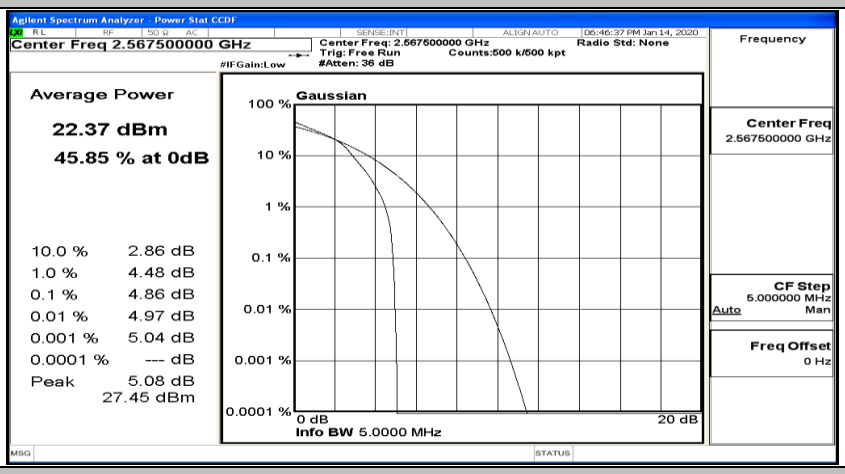
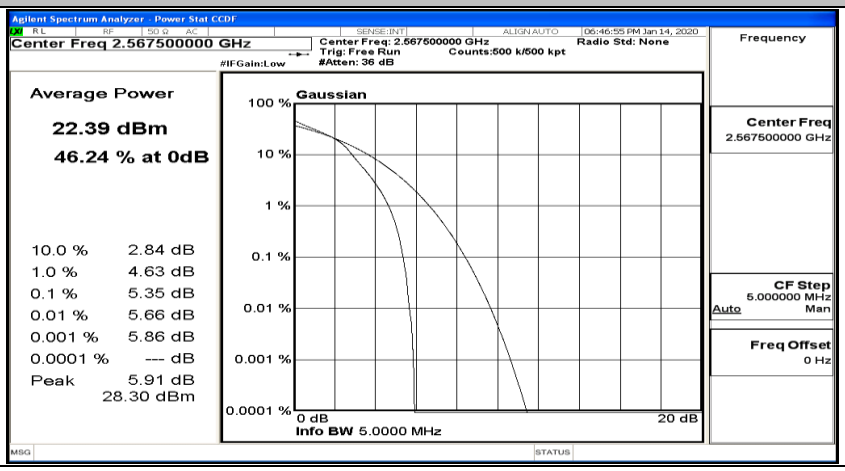
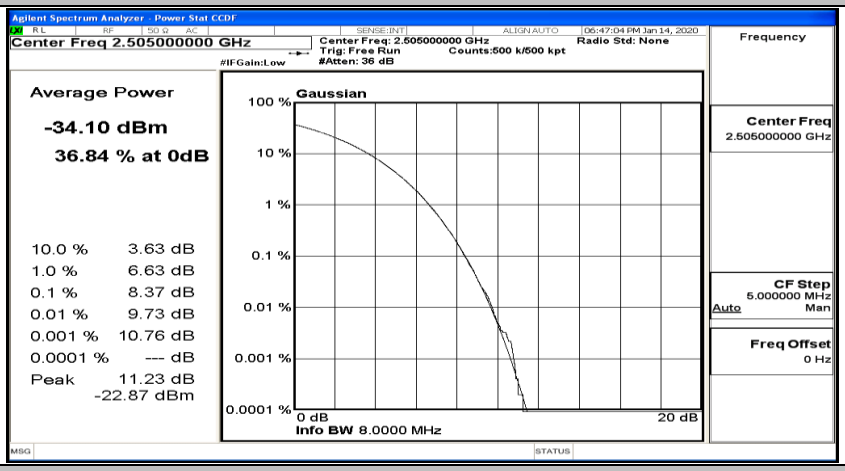


(Channel Bandwidth: 5 MHz)_HCH_16QAM_25RB#0



Channel Bandwidth: 10 MHz

Channel Bandwidth: 10 MHz_LCH_QPSK_1RB#0



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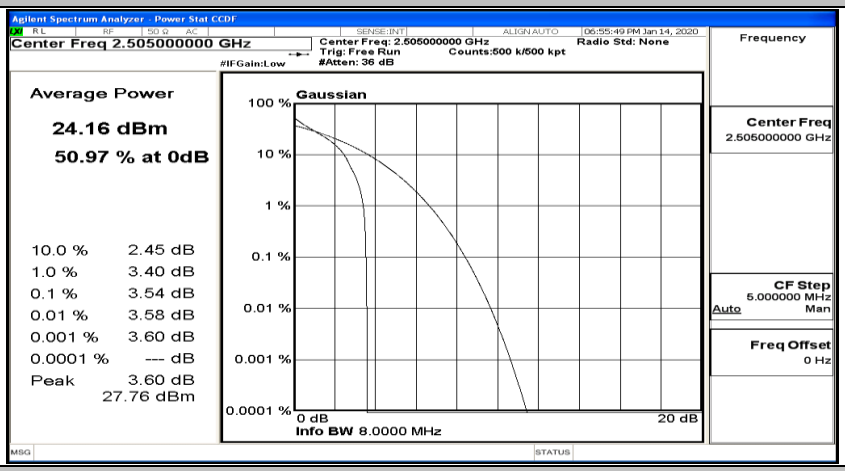

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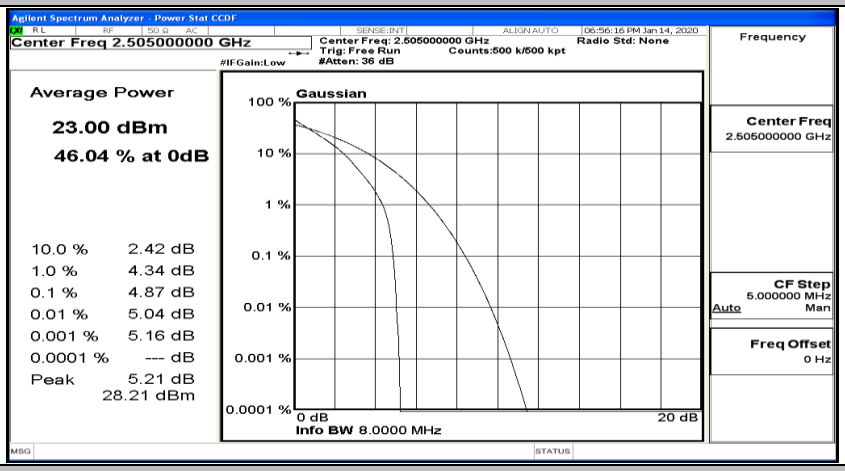

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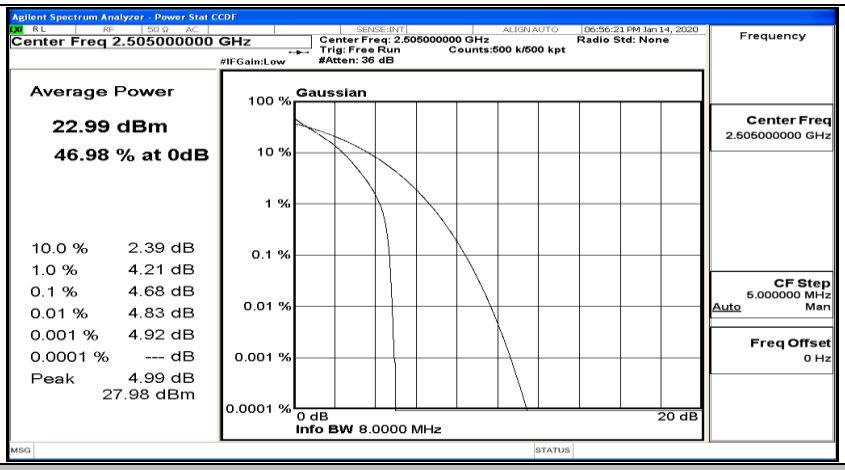

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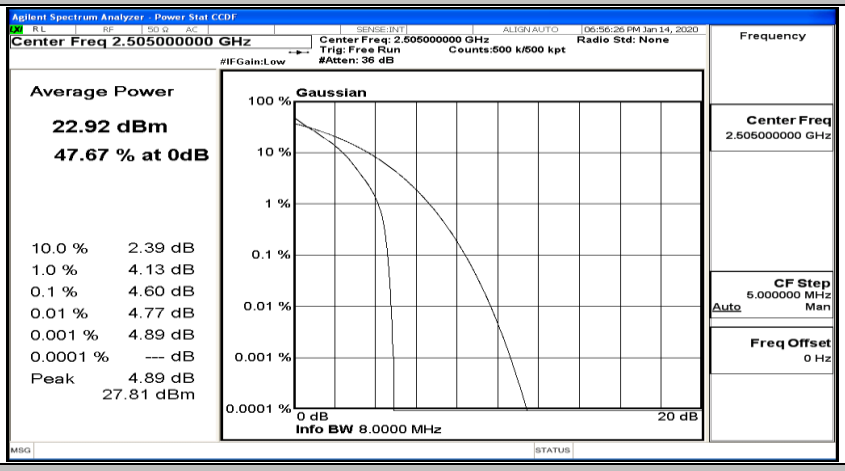

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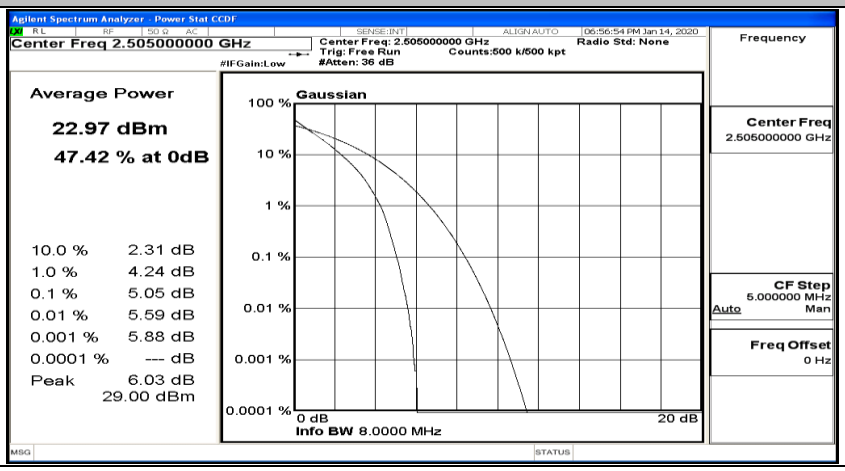

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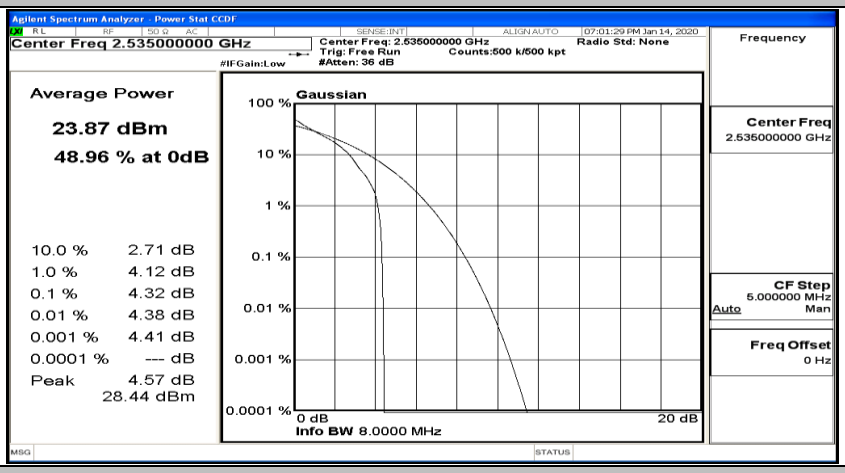
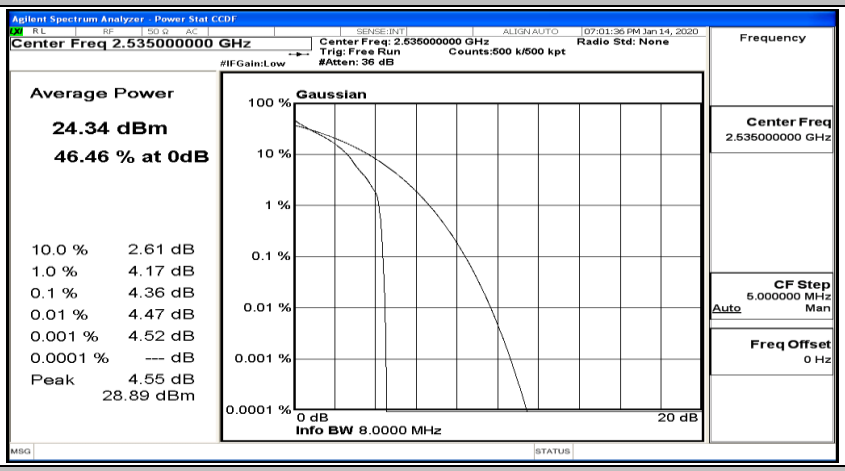


Channel Bandwidth: 10 MHz_MCH_QPSK_1RB#24



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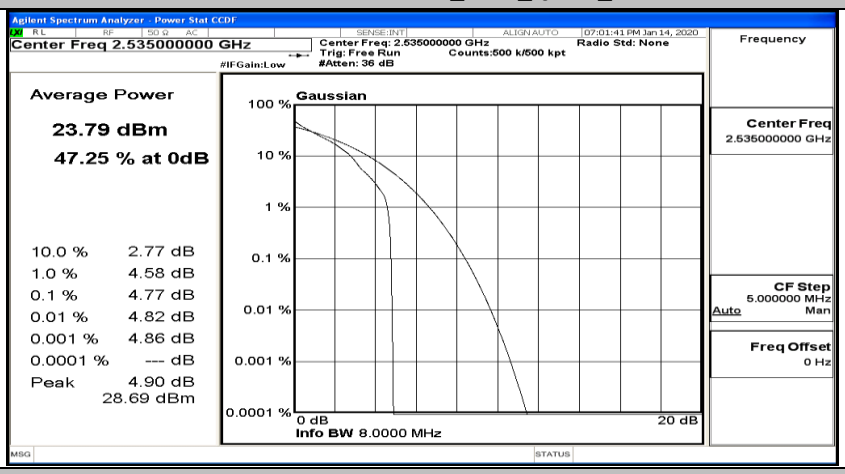

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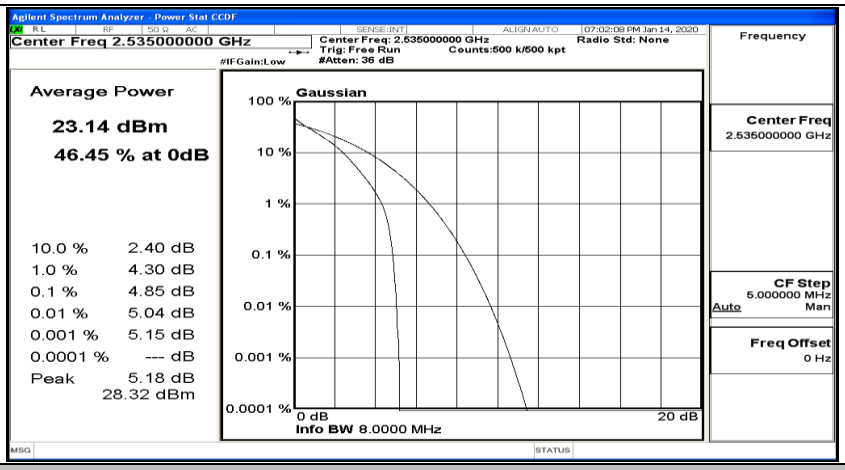

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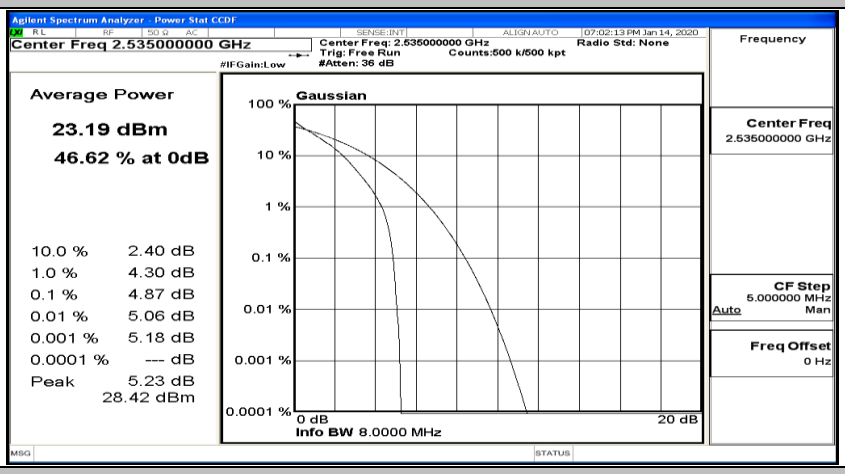

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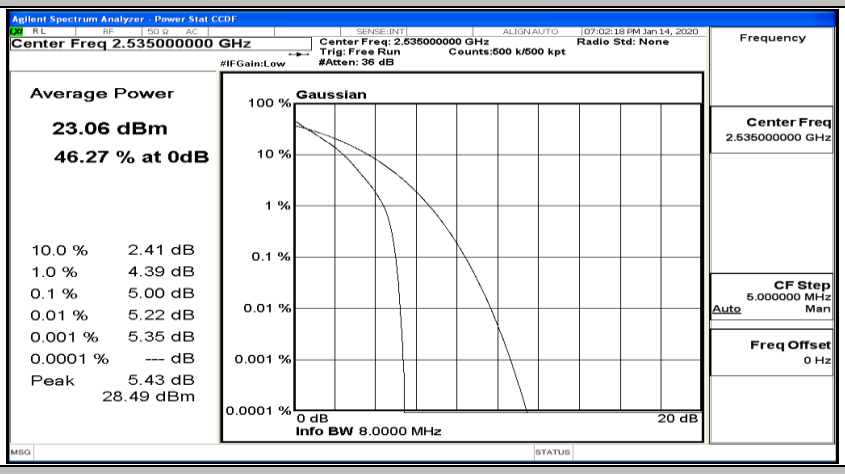
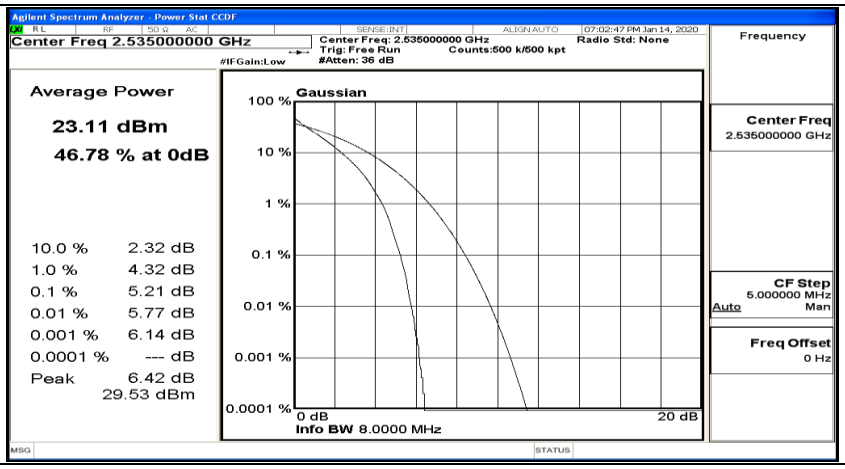


Channel Bandwidth: 10 MHz_MCH_QPSK_50RB#0



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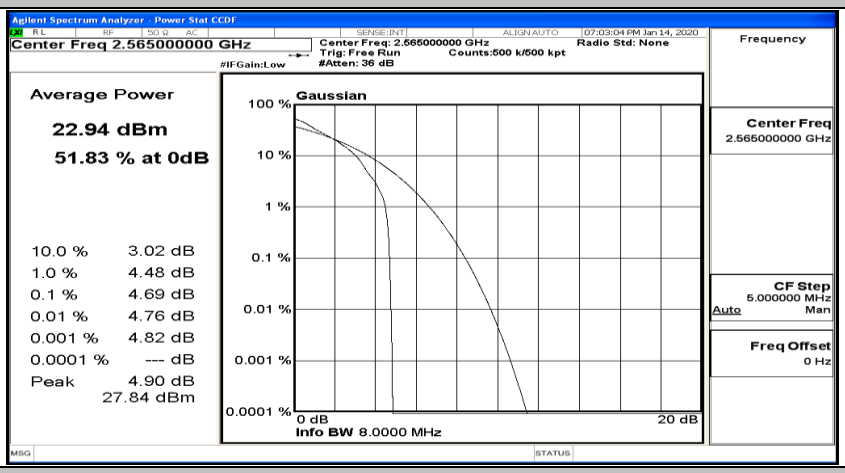

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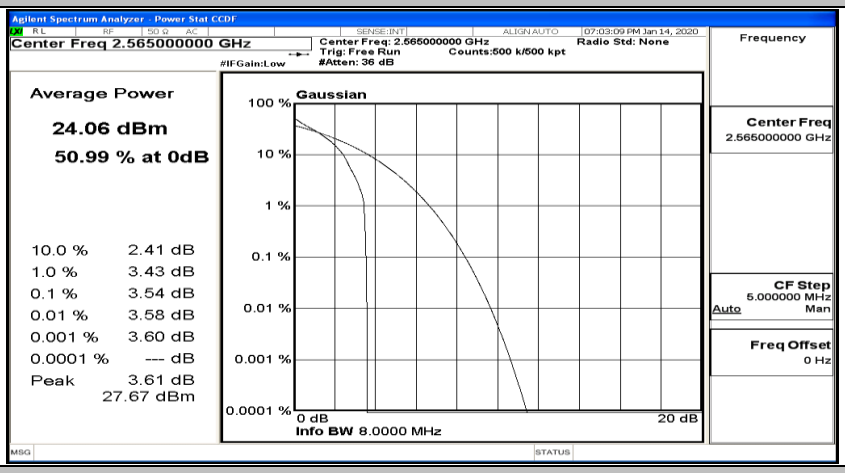

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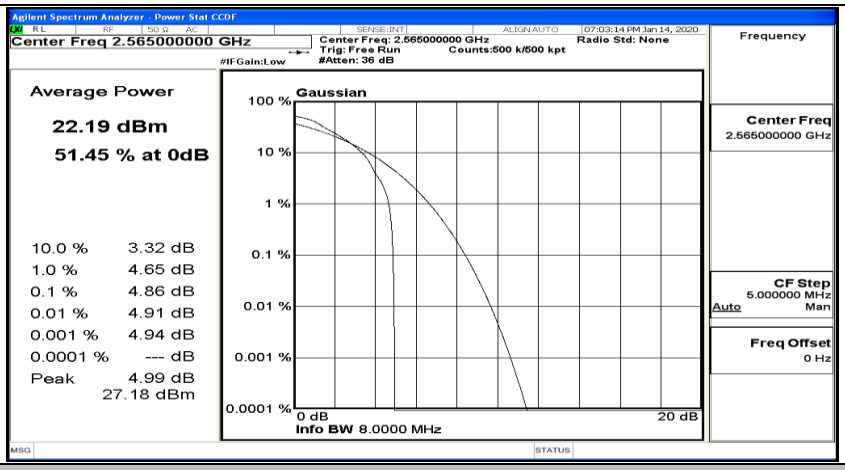

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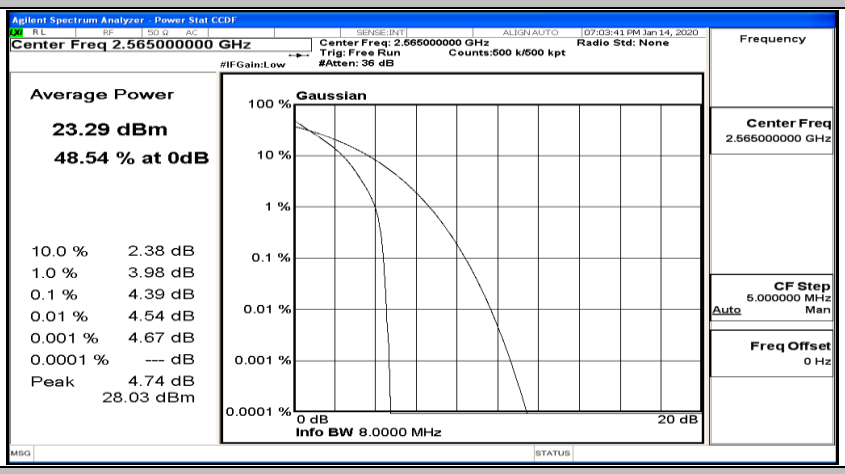
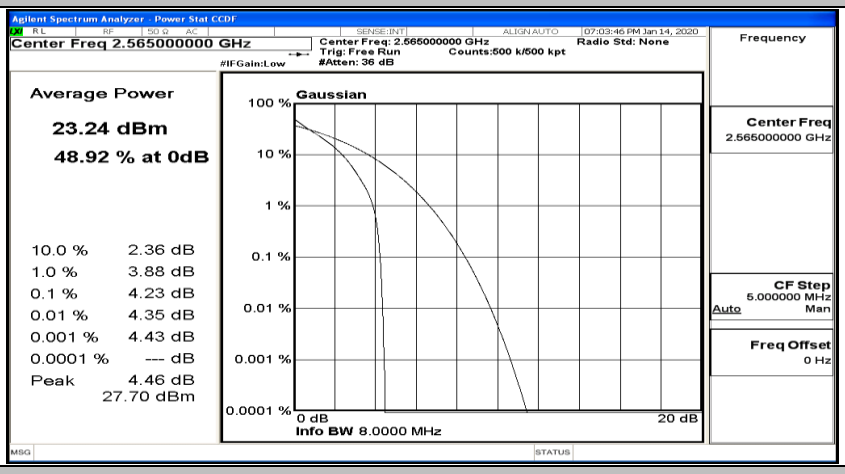


Channel Bandwidth: 10 MHz_HCH_QPSK_25RB#12



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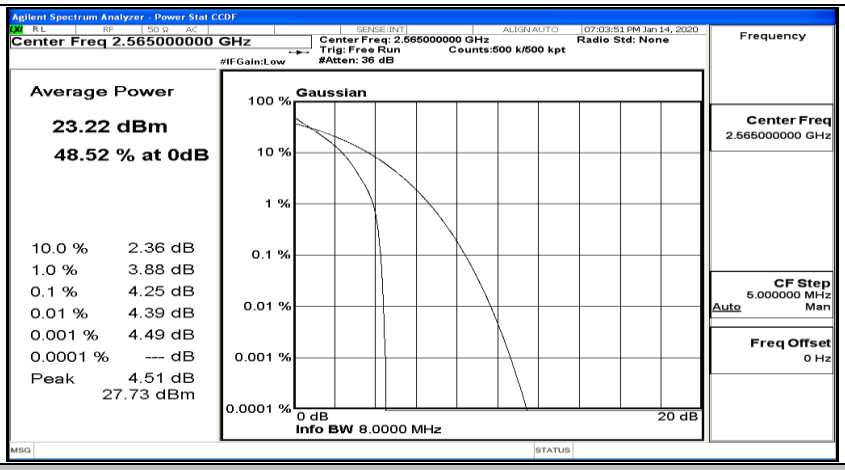
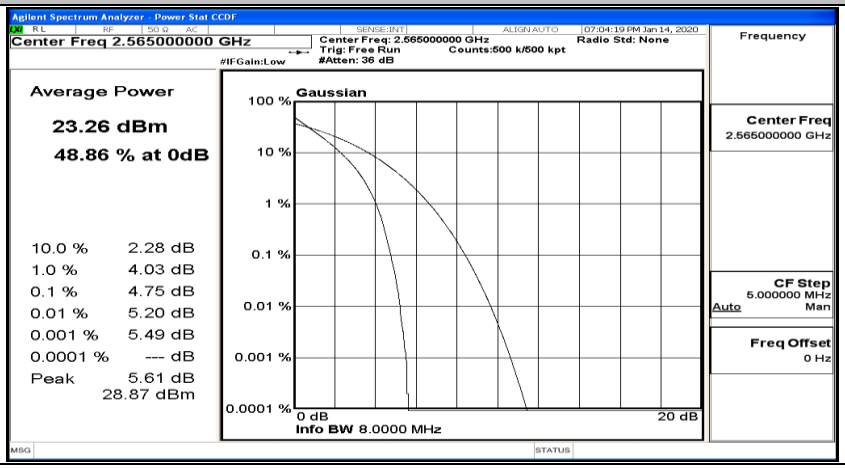
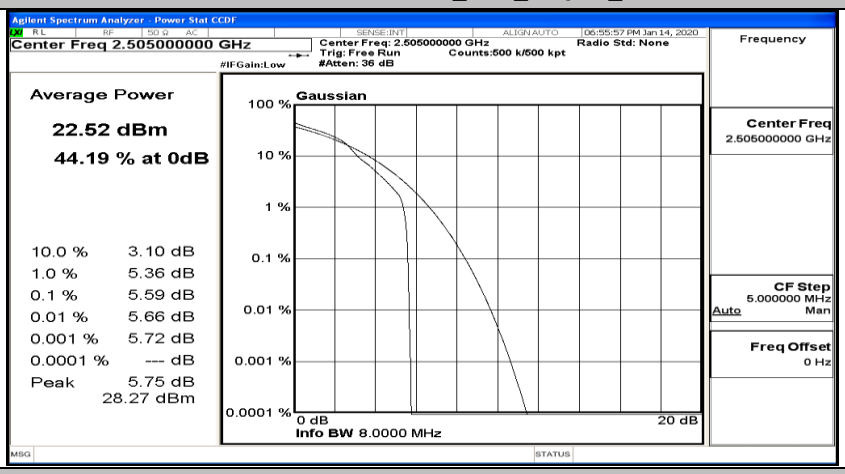


Channel Bandwidth: 10 MHz_HCH_QPSK_50RB#0



Channel Bandwidth: 10 MHz_LCH_16QAM_1RB#0



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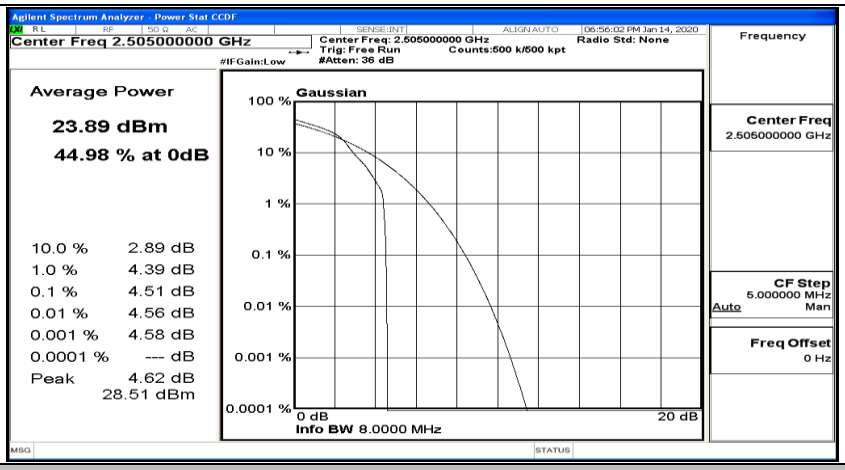

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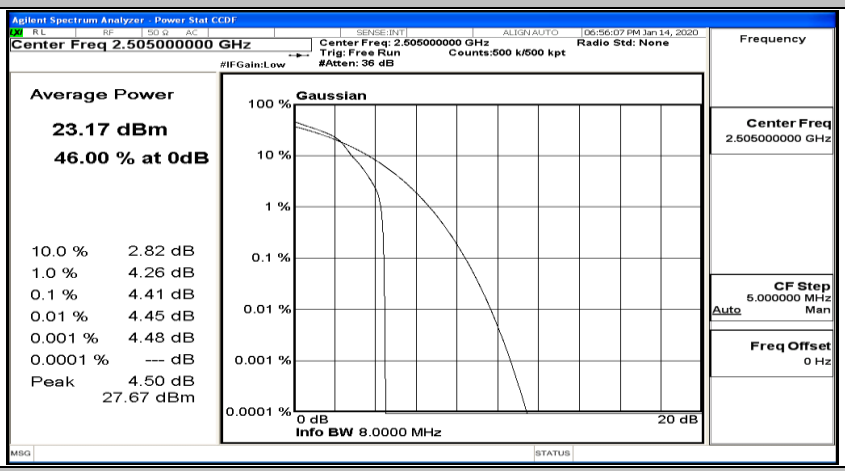
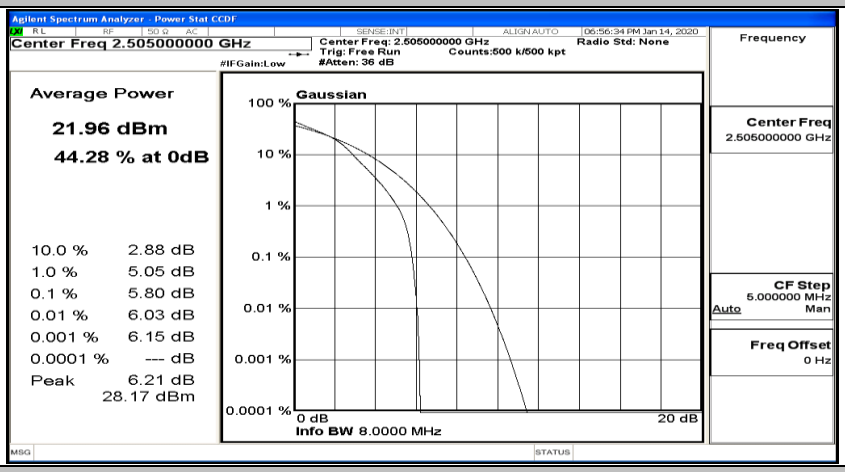
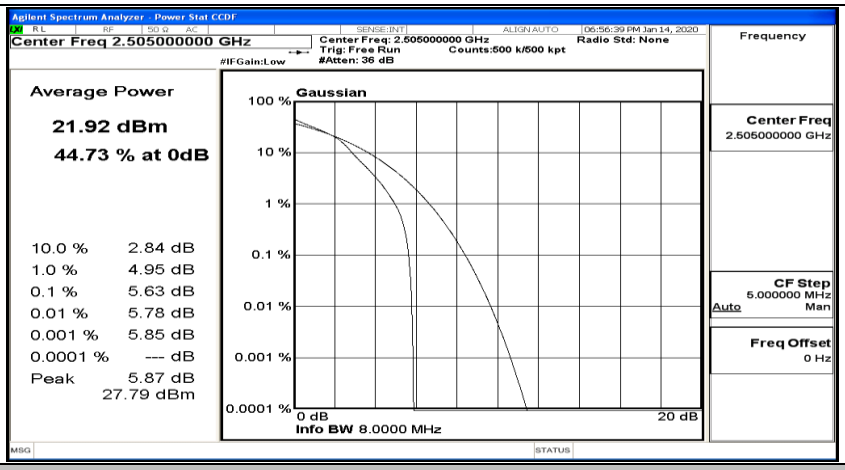


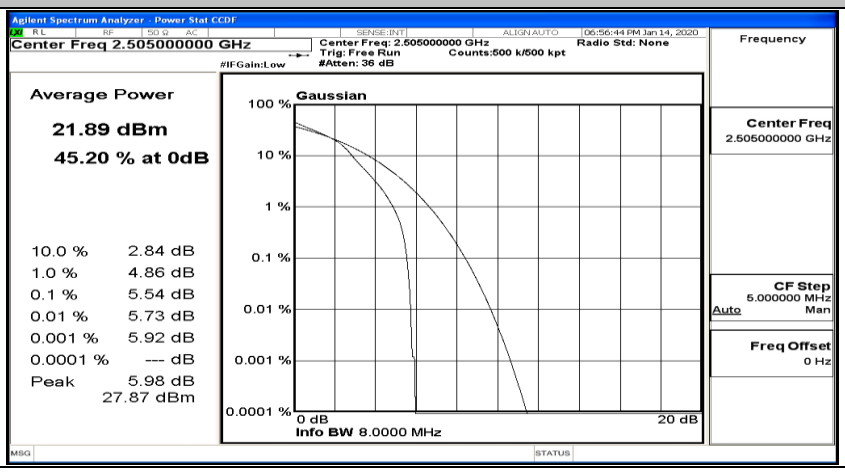
Channel Bandwidth: 10 MHz_LCH_16QAM_25RB#0



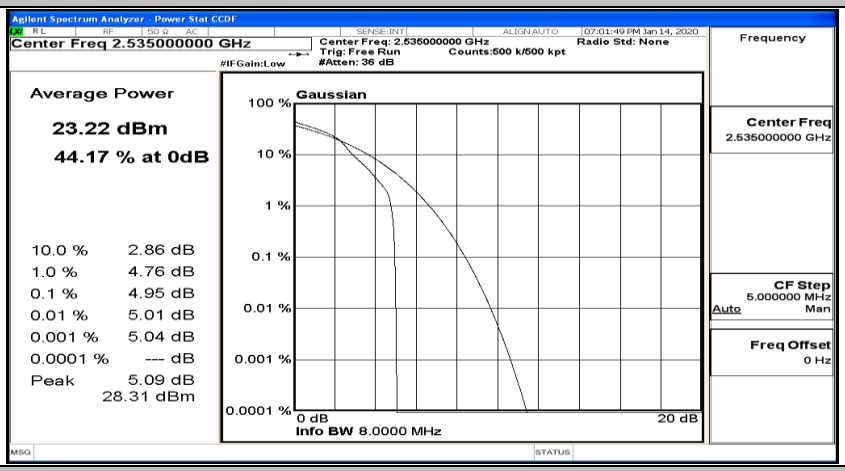
Channel Bandwidth: 10 MHz_LCH_16QAM_25RB#12



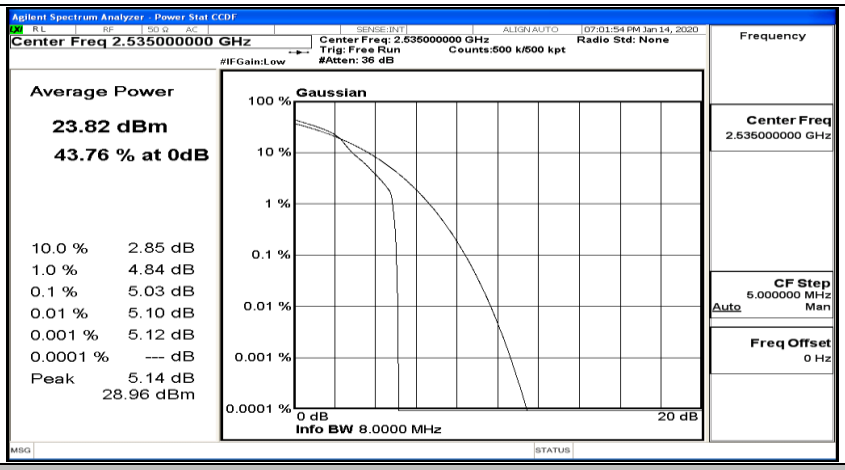
Channel Bandwidth: 10 MHz_LCH_16QAM_25RB#25



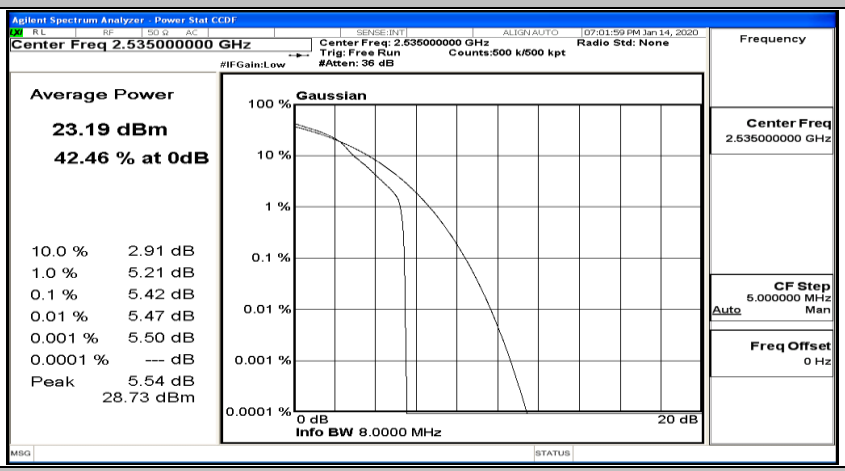
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#0



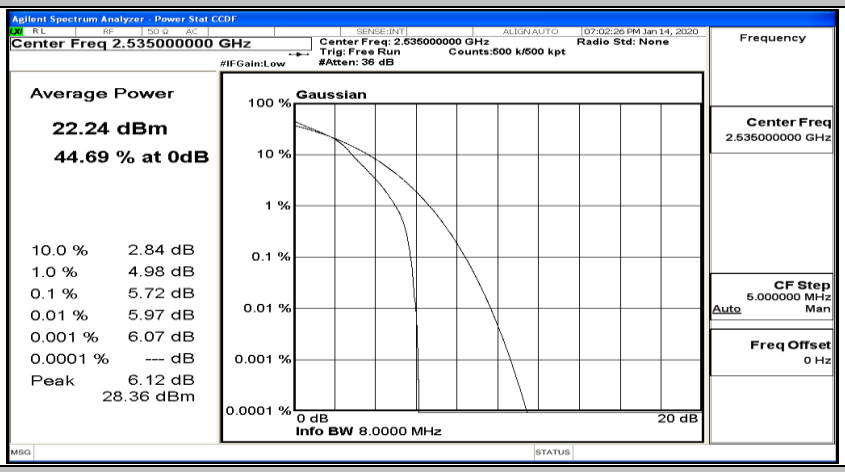
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#24



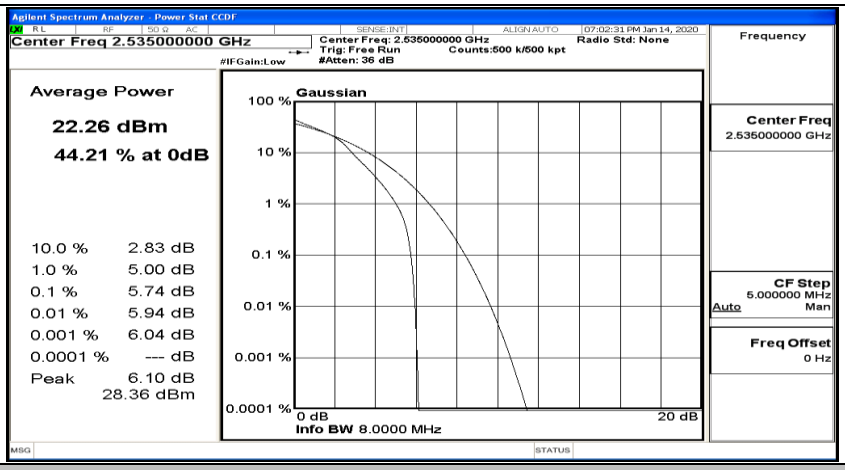
Channel Bandwidth: 10 MHz_MCH_16QAM_1RB#49



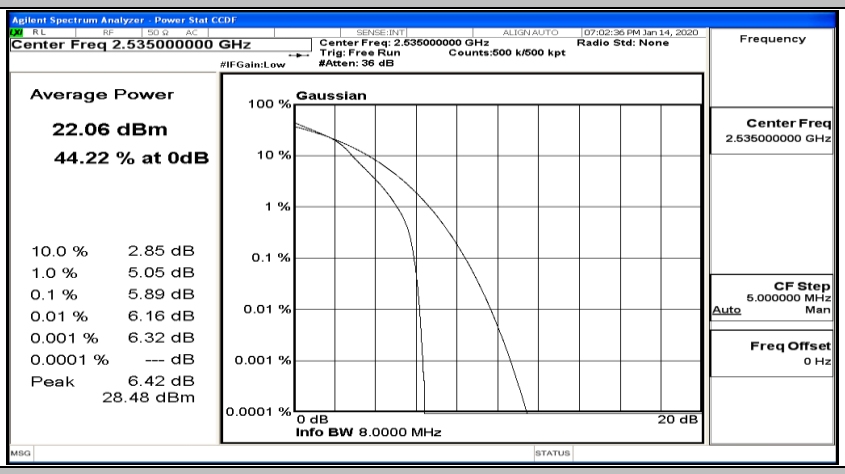
Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#0



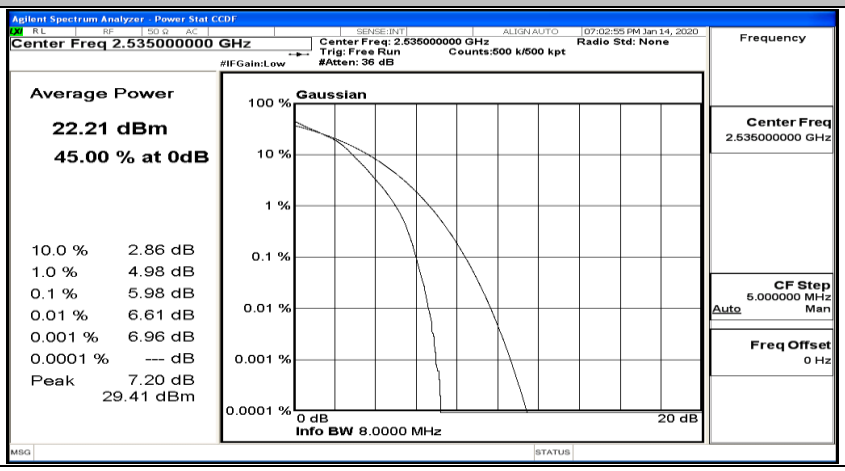
Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#12



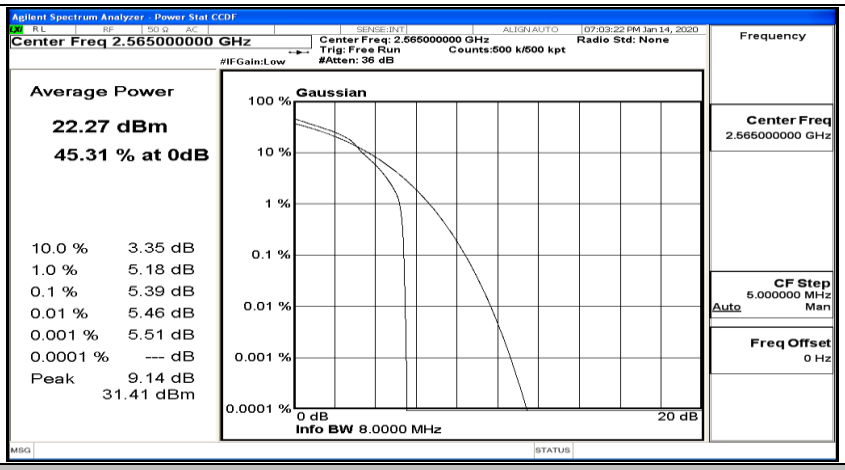
Channel Bandwidth: 10 MHz_MCH_16QAM_25RB#25



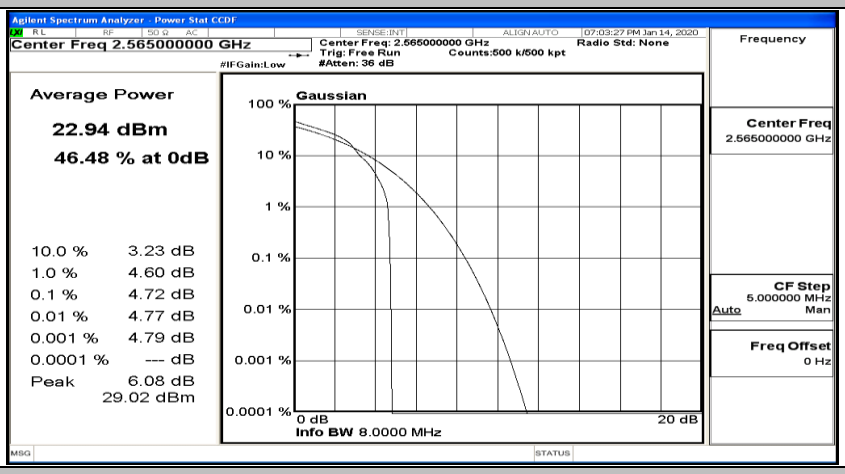
Channel Bandwidth: 10 MHz_MCH_16QAM_50RB#0



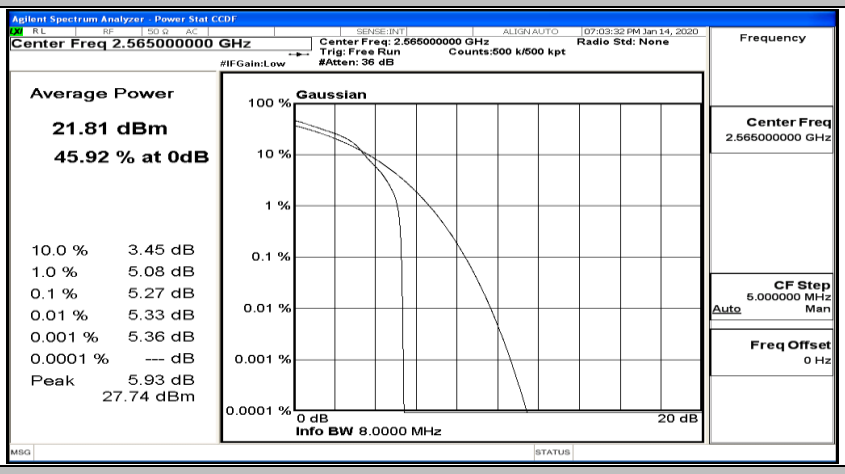
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#0



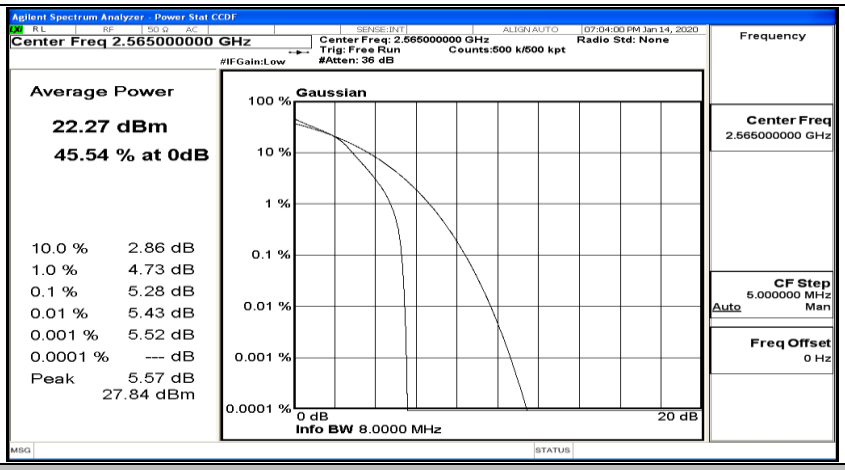
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#24



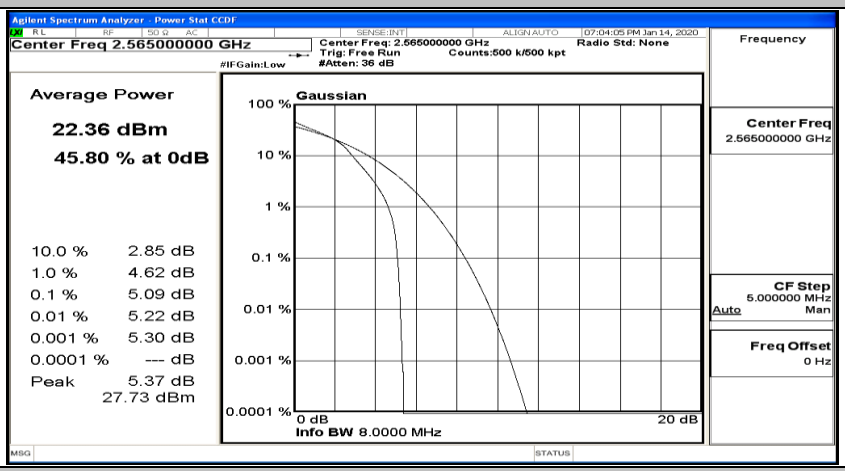
Channel Bandwidth: 10 MHz_HCH_16QAM_1RB#49



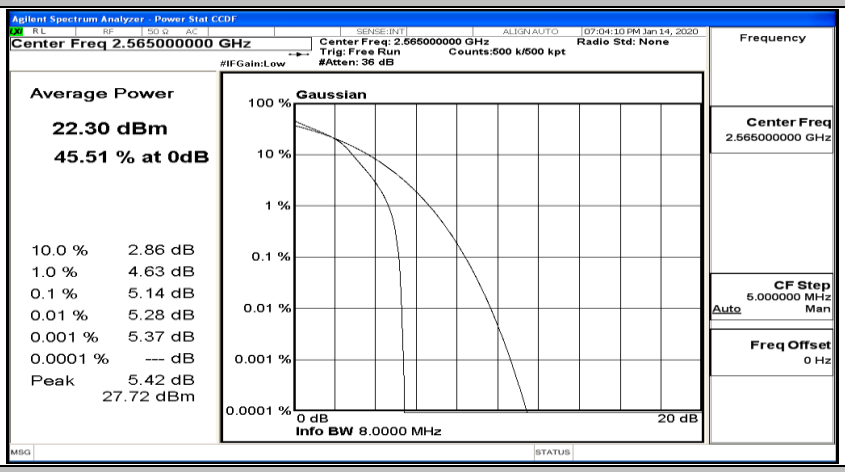
Channel Bandwidth: 10 MHz_HCH_16QAM_25RB#0



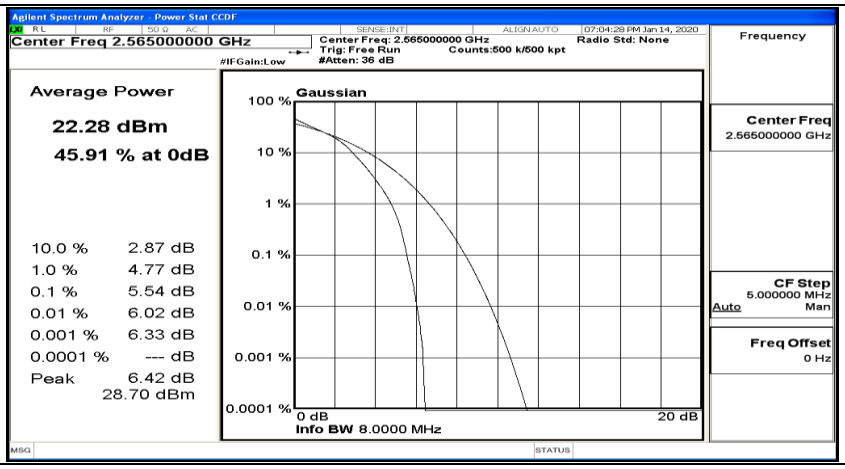
Channel Bandwidth: 10 MHz_HCH_16QAM_25RB#12



Channel Bandwidth: 10 MHz_HCH_16QAM_25RB#25

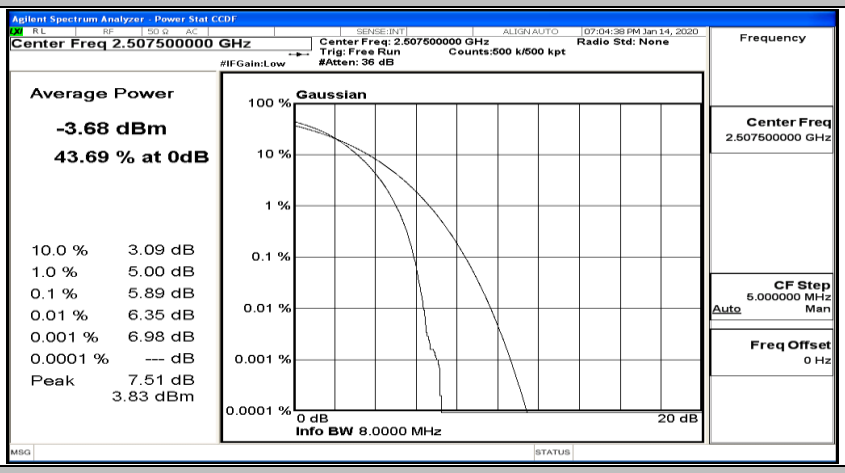


Channel Bandwidth: 10 MHz_HCH_16QAM_50RB#0

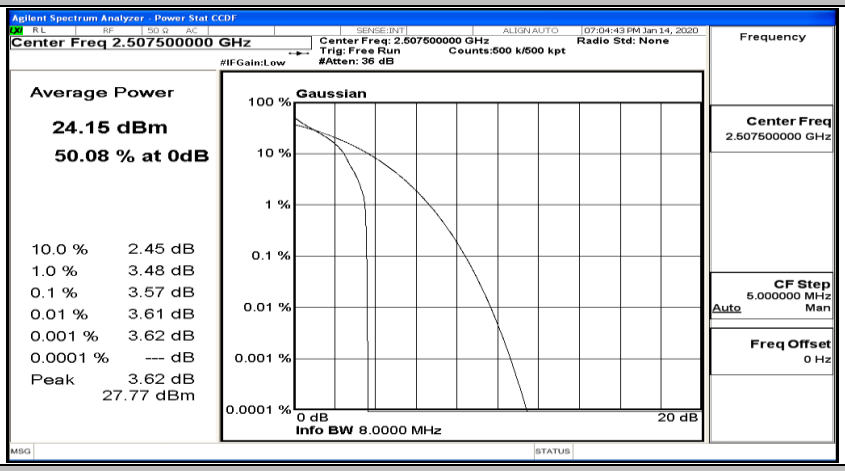


Channel Bandwidth: 15 MHz

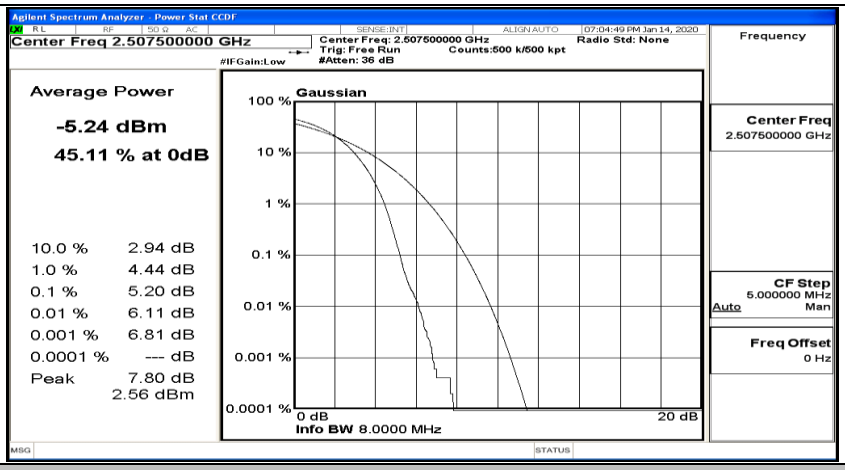
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#0



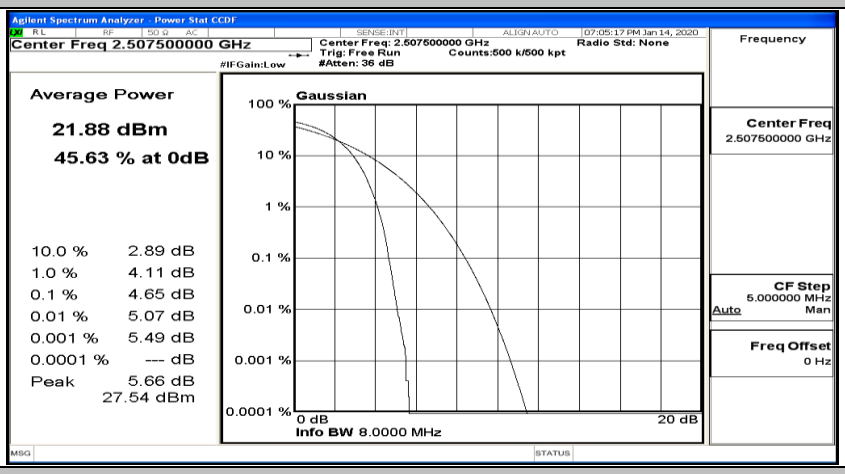
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#37



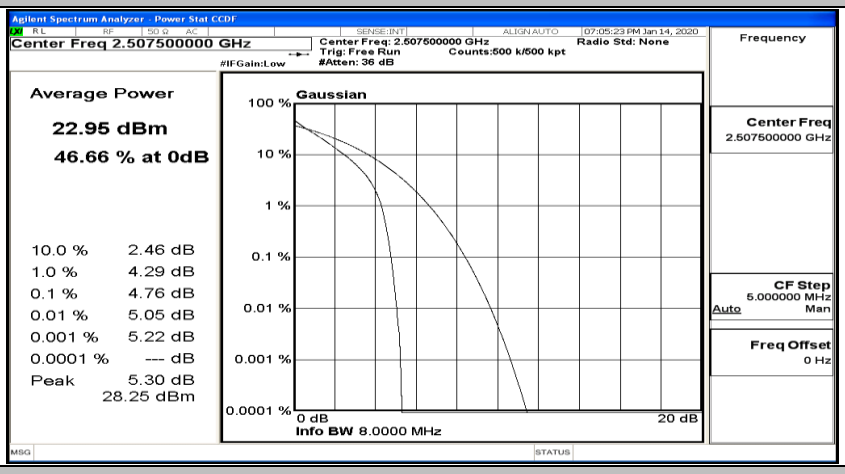
(Channel Bandwidth:15 MHz)_LCH_QPSK_1RB#74



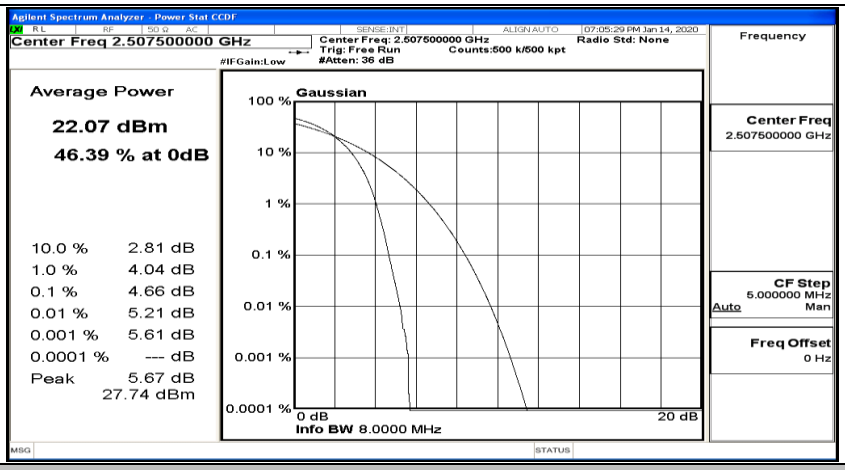
(Channel Bandwidth:15 MHz)_LCH_QPSK_37RB#0



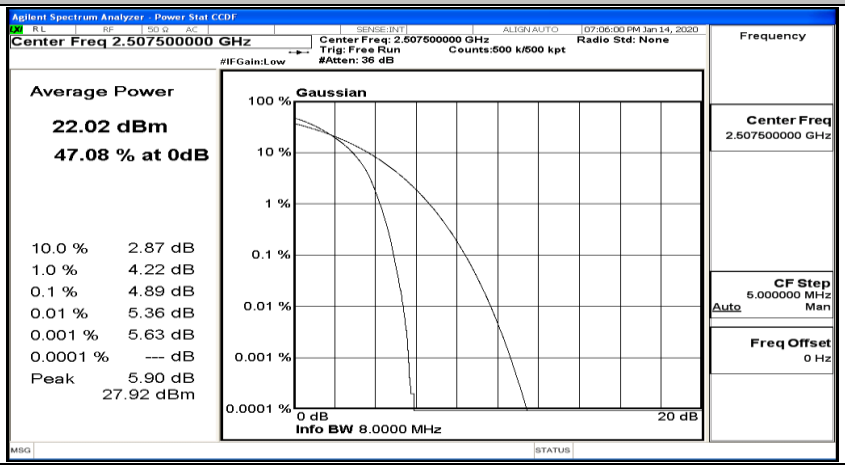
(Channel Bandwidth:15 MHz)_LCH_QPSK_37RB#18



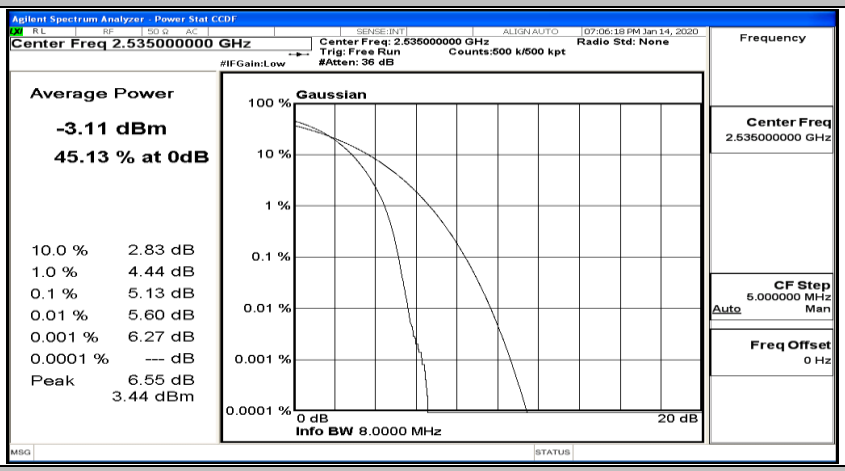
(Channel Bandwidth:15 MHz)_LCH_QPSK_37RB#38



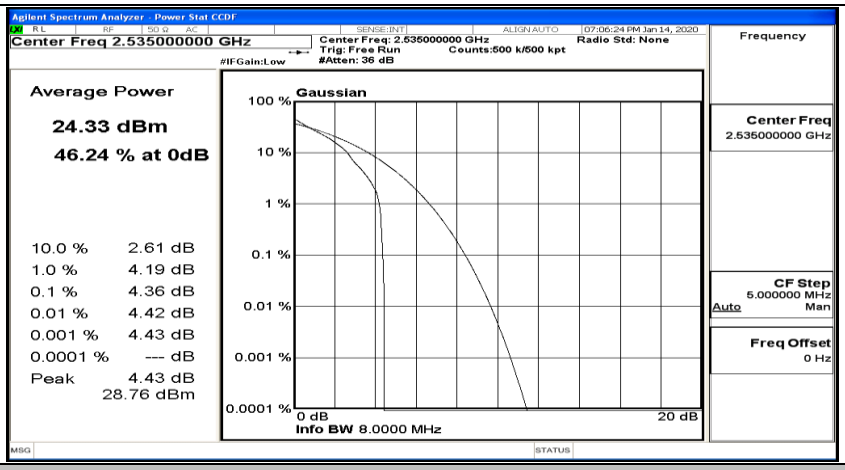
(Channel Bandwidth:15 MHz)_LCH_QPSK_75RB#0



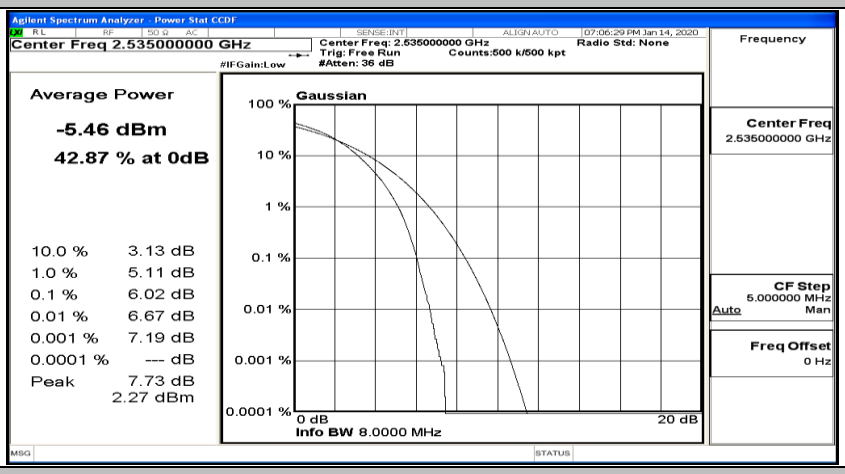
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#0



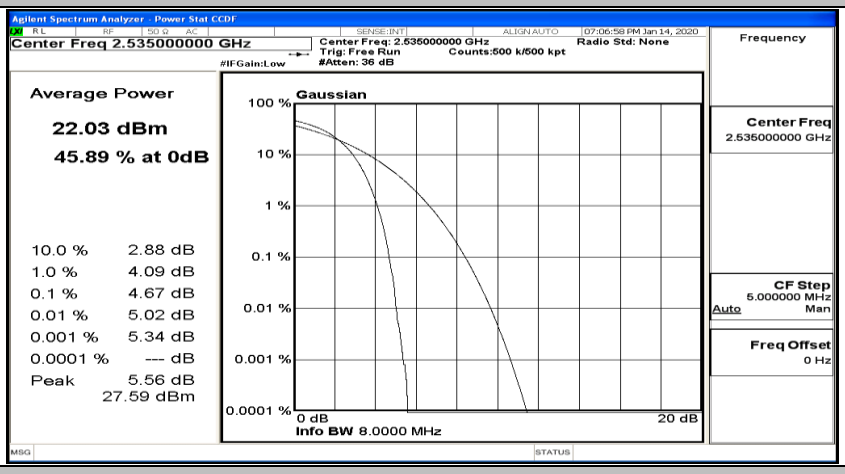
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#37



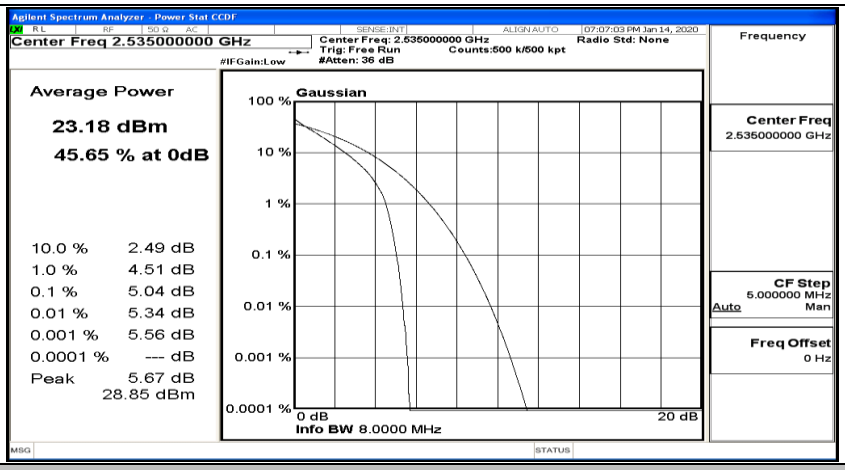
(Channel Bandwidth:15 MHz)_MCH_QPSK_1RB#74



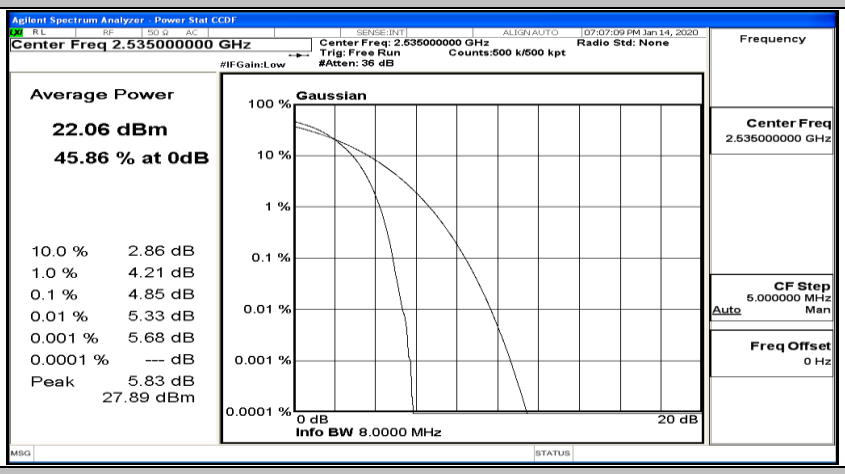
(Channel Bandwidth:15 MHz)_MCH_QPSK_37RB#0



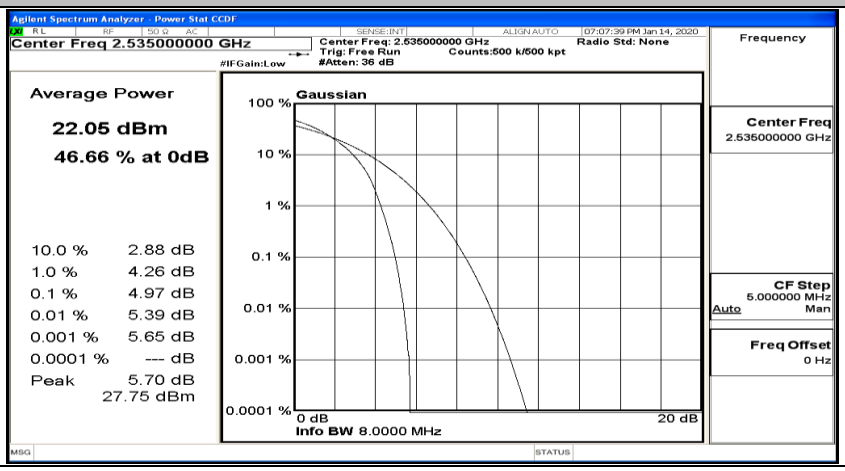
(Channel Bandwidth:15 MHz)_MCH_QPSK_37RB#18



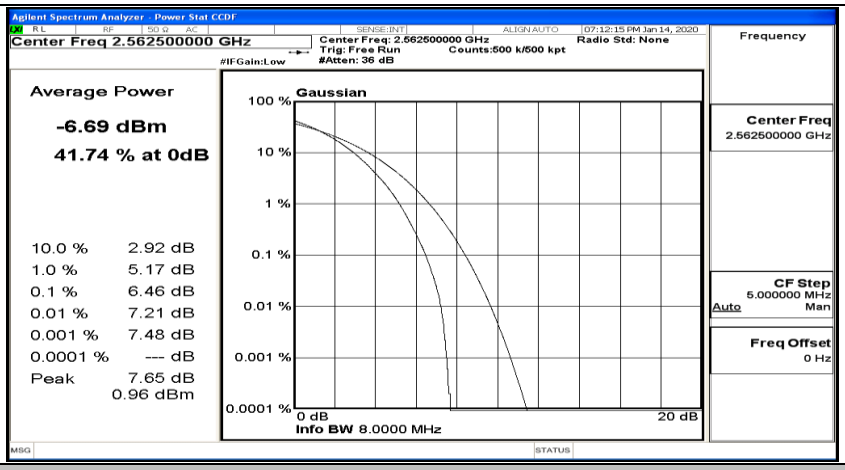
(Channel Bandwidth:15 MHz)_MCH_QPSK_37RB#38



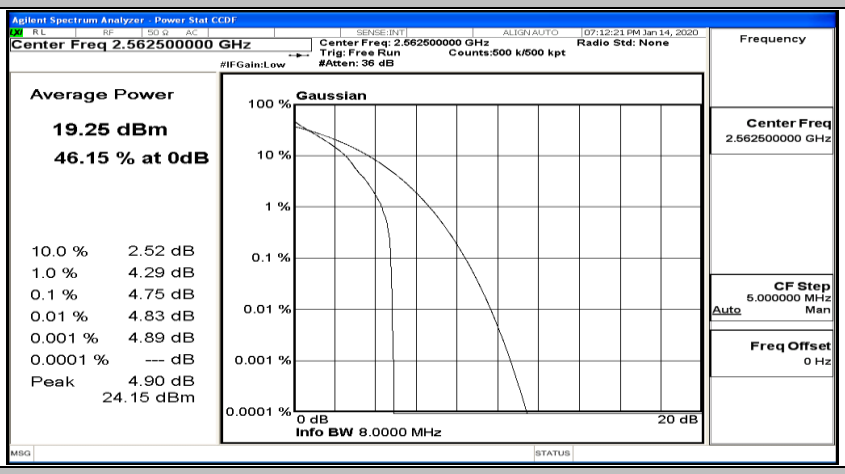
(Channel Bandwidth:15 MHz)_MCH_QPSK_75RB#0



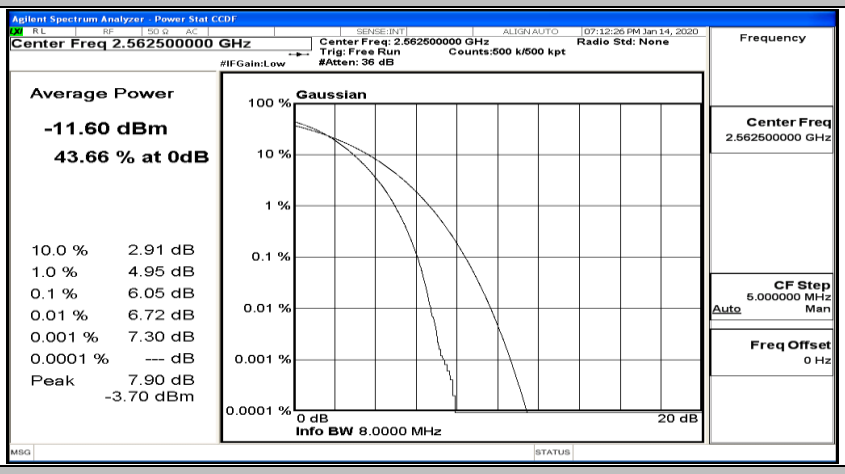
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#0



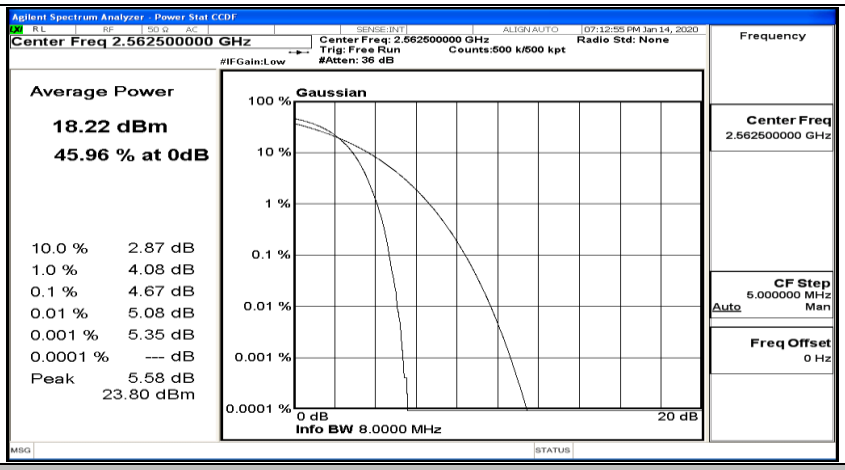
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#37



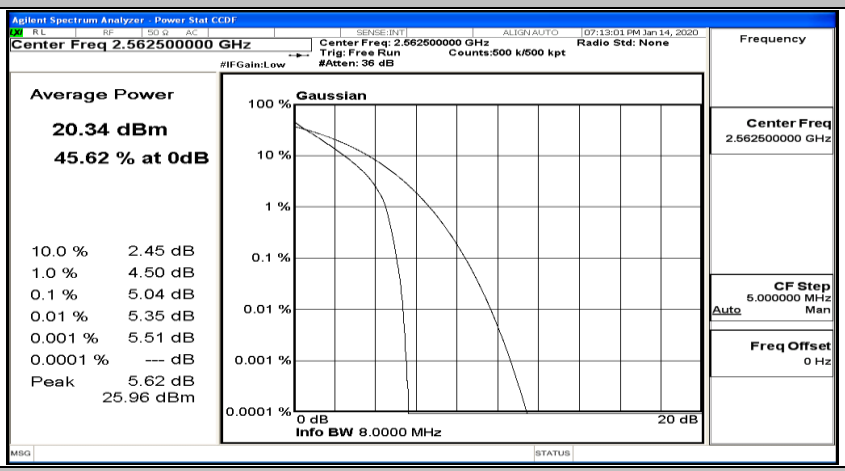
(Channel Bandwidth:15 MHz)_HCH_QPSK_1RB#74



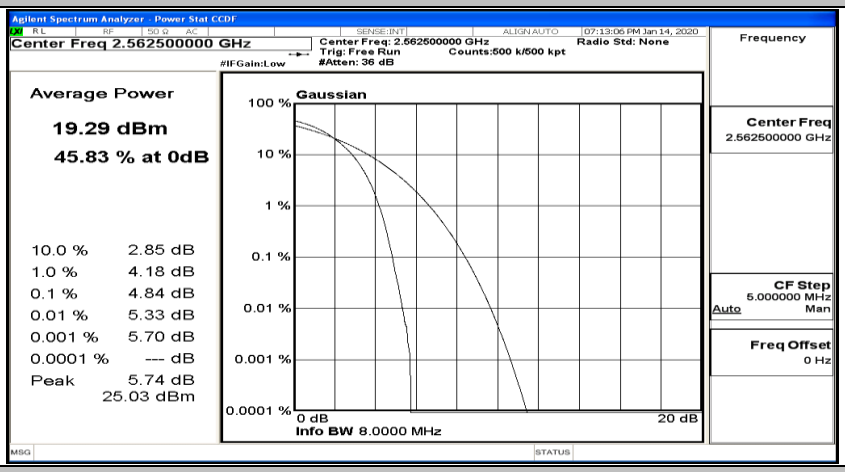
(Channel Bandwidth:15 MHz)_HCH_QPSK_37RB#0



(Channel Bandwidth:15 MHz)_HCH_QPSK_37RB#18



(Channel Bandwidth:15 MHz)_HCH_QPSK_37RB#38



(Channel Bandwidth:15 MHz)_HCH_QPSK_75RB#0