



Appendix J: Test Data for E-UTRA Band 38

Product Name: Smart POS

Test Model: WIZARPOS Q3 min

Environmental Conditions

Temperature:	23.8°C
Relative Humidity:	52.6%
ATM Pressure:	100.0 kPa
Test Engineer:	Paddi Chen
Supervised by:	Nick Peng





J.1 Conducted Output Power Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band38	5MHz	QPSK	37775	1RB#0	21.41	PASS
Band38	5MHz	16QAM	37775	1RB#0	20.82	PASS
Band38	5MHz	QPSK	37775	1RB#12	21.32	PASS
Band38	5MHz	16QAM	37775	1RB#12	21.11	PASS
Band38	5MHz	QPSK	37775	1RB#24	21.30	PASS
Band38	5MHz	16QAM	37775	1RB#24	21.00	PASS
Band38	5MHz	QPSK	37775	12RB#0	20.43	PASS
Band38	5MHz	16QAM	37775	12RB#0	19.65	PASS
Band38	5MHz	QPSK	37775	12RB#6	20.43	PASS
Band38	5MHz	16QAM	37775	12RB#6	19.65	PASS
Band38	5MHz	QPSK	37775	12RB#13	20.37	PASS
Band38	5MHz	16QAM	37775	12RB#13	19.57	PASS
Band38	5MHz	QPSK	37775	25RB#0	20.42	PASS
Band38	5MHz	16QAM	37775	25RB#0	19.77	PASS
Band38	5MHz	QPSK	38000	1RB#0	20.73	PASS
Band38	5MHz	16QAM	38000	1RB#0	20.47	PASS
Band38	5MHz	QPSK	38000	1RB#12	20.73	PASS
Band38	5MHz	16QAM	38000	1RB#12	20.38	PASS
Band38	5MHz	QPSK	38000	1RB#24	20.77	PASS
Band38	5MHz	16QAM	38000	1RB#24	20.46	PASS
Band38	5MHz	QPSK	38000	12RB#0	19.96	PASS
Band38	5MHz	16QAM	38000	12RB#0	19.15	PASS
Band38	5MHz	QPSK	38000	12RB#6	19.92	PASS
Band38	5MHz	16QAM	38000	12RB#6	19.15	PASS
Band38	5MHz	QPSK	38000	12RB#13	19.86	PASS
Band38	5MHz	16QAM	38000	12RB#13	19.34	PASS
Band38	5MHz	QPSK	38000	25RB#0	20.11	PASS
Band38	5MHz	16QAM	38000	25RB#0	19.20	PASS
Band38	5MHz	QPSK	38225	1RB#0	22.00	PASS
Band38	5MHz	16QAM	38225	1RB#0	21.69	PASS
Band38	5MHz	QPSK	38225	1RB#12	21.96	PASS
Band38	5MHz	16QAM	38225	1RB#12	21.32	PASS
Band38	5MHz	QPSK	38225	1RB#24	21.99	PASS
Band38	5MHz	16QAM	38225	1RB#24	21.71	PASS
Band38	5MHz	QPSK	38225	12RB#0	20.94	PASS



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Scan code to check authenticity



Band38	5MHz	16QAM	38225	12RB#0	20.29	PASS
Band38	5MHz	QPSK	38225	12RB#6	20.94	PASS
Band38	5MHz	16QAM	38225	12RB#6	20.29	PASS
Band38	5MHz	QPSK	38225	12RB#13	21.03	PASS
Band38	5MHz	16QAM	38225	12RB#13	20.39	PASS
Band38	5MHz	QPSK	38225	25RB#0	21.17	PASS
Band38	5MHz	16QAM	38225	25RB#0	20.47	PASS
Band38	10MHz	QPSK	37800	1RB#0	22.65	PASS
Band38	10MHz	16QAM	37800	1RB#0	22.29	PASS
Band38	10MHz	QPSK	37800	1RB#24	22.55	PASS
Band38	10MHz	16QAM	37800	1RB#24	22.09	PASS
Band38	10MHz	QPSK	37800	1RB#49	22.48	PASS
Band38	10MHz	16QAM	37800	1RB#49	22.03	PASS
Band38	10MHz	QPSK	37800	25RB#0	21.60	PASS
Band38	10MHz	16QAM	37800	25RB#0	20.80	PASS
Band38	10MHz	QPSK	37800	25RB#12	21.61	PASS
Band38	10MHz	16QAM	37800	25RB#12	20.80	PASS
Band38	10MHz	QPSK	37800	25RB#25	21.39	PASS
Band38	10MHz	16QAM	37800	25RB#25	20.74	PASS
Band38	10MHz	QPSK	37800	50RB#0	21.49	PASS
Band38	10MHz	16QAM	37800	50RB#0	20.77	PASS
Band38	10MHz	QPSK	38000	1RB#0	22.06	PASS
Band38	10MHz	16QAM	38000	1RB#0	21.52	PASS
Band38	10MHz	QPSK	38000	1RB#24	22.12	PASS
Band38	10MHz	16QAM	38000	1RB#24	21.50	PASS
Band38	10MHz	QPSK	38000	1RB#49	22.07	PASS
Band38	10MHz	16QAM	38000	1RB#49	21.50	PASS
Band38	10MHz	QPSK	38000	25RB#0	21.28	PASS
Band38	10MHz	16QAM	38000	25RB#0	20.75	PASS
Band38	10MHz	QPSK	38000	25RB#12	21.14	PASS
Band38	10MHz	16QAM	38000	25RB#12	20.40	PASS
Band38	10MHz	QPSK	38000	25RB#25	21.14	PASS
Band38	10MHz	16QAM	38000	25RB#25	20.39	PASS
Band38	10MHz	QPSK	38000	50RB#0	21.05	PASS
Band38	10MHz	16QAM	38000	50RB#0	20.34	PASS
Band38	10MHz	QPSK	38200	1RB#0	22.18	PASS
Band38	10MHz	16QAM	38200	1RB#0	21.83	PASS
Band38	10MHz	QPSK	38200	1RB#24	22.13	PASS
Band38	10MHz	16QAM	38200	1RB#24	21.71	PASS
Band38	10MHz	QPSK	38200	1RB#49	22.20	PASS





Band38	10MHz	16QAM	38200	1RB#49	21.76	PASS
Band38	10MHz	QPSK	38200	25RB#0	21.16	PASS
Band38	10MHz	16QAM	38200	25RB#0	20.33	PASS
Band38	10MHz	QPSK	38200	25RB#12	21.16	PASS
Band38	10MHz	16QAM	38200	25RB#12	20.32	PASS
Band38	10MHz	QPSK	38200	25RB#25	21.23	PASS
Band38	10MHz	16QAM	38200	25RB#25	20.29	PASS
Band38	10MHz	QPSK	38200	50RB#0	21.23	PASS
Band38	10MHz	16QAM	38200	50RB#0	20.32	PASS
Band38	15MHz	QPSK	37825	1RB#0	22.66	PASS
Band38	15MHz	16QAM	37825	1RB#0	22.35	PASS
Band38	15MHz	QPSK	37825	1RB#38	22.49	PASS
Band38	15MHz	16QAM	37825	1RB#38	22.16	PASS
Band38	15MHz	QPSK	37825	1RB#74	22.38	PASS
Band38	15MHz	16QAM	37825	1RB#74	21.89	PASS
Band38	15MHz	QPSK	37825	38RB#0	21.48	PASS
Band38	15MHz	16QAM	37825	38RB#0	21.47	PASS
Band38	15MHz	QPSK	37825	38RB#18	21.51	PASS
Band38	15MHz	16QAM	37825	38RB#18	21.38	PASS
Band38	15MHz	QPSK	37825	38RB#37	21.46	PASS
Band38	15MHz	16QAM	37825	38RB#37	21.47	PASS
Band38	15MHz	QPSK	37825	75RB#0	21.43	PASS
Band38	15MHz	16QAM	37825	75RB#0	20.74	PASS
Band38	15MHz	QPSK	38000	1RB#0	22.48	PASS
Band38	15MHz	16QAM	38000	1RB#0	21.02	PASS
Band38	15MHz	QPSK	38000	1RB#38	22.57	PASS
Band38	15MHz	16QAM	38000	1RB#38	20.95	PASS
Band38	15MHz	QPSK	38000	1RB#74	22.57	PASS
Band38	15MHz	16QAM	38000	1RB#74	20.67	PASS
Band38	15MHz	QPSK	38000	38RB#0	21.35	PASS
Band38	15MHz	16QAM	38000	38RB#0	21.11	PASS
Band38	15MHz	QPSK	38000	38RB#18	21.11	PASS
Band38	15MHz	16QAM	38000	38RB#18	21.00	PASS
Band38	15MHz	QPSK	38000	38RB#37	21.00	PASS
Band38	15MHz	16QAM	38000	38RB#37	21.07	PASS
Band38	15MHz	QPSK	38000	75RB#0	21.03	PASS
Band38	15MHz	16QAM	38000	75RB#0	20.35	PASS
Band38	15MHz	QPSK	38175	1RB#0	22.34	PASS
Band38	15MHz	16QAM	38175	1RB#0	21.81	PASS
Band38	15MHz	QPSK	38175	1RB#38	22.19	PASS





Band38	15MHz	16QAM	38175	1RB#38	21.77	PASS
Band38	15MHz	QPSK	38175	1RB#74	22.17	PASS
Band38	15MHz	16QAM	38175	1RB#74	21.78	PASS
Band38	15MHz	QPSK	38175	38RB#0	21.18	PASS
Band38	15MHz	16QAM	38175	38RB#0	21.18	PASS
Band38	15MHz	QPSK	38175	38RB#18	21.18	PASS
Band38	15MHz	16QAM	38175	38RB#18	21.18	PASS
Band38	15MHz	QPSK	38175	38RB#37	21.18	PASS
Band38	15MHz	16QAM	38175	38RB#37	21.17	PASS
Band38	15MHz	QPSK	38175	75RB#0	20.93	PASS
Band38	15MHz	16QAM	38175	75RB#0	20.20	PASS
Band38	20MHz	QPSK	37850	1RB#0	22.25	PASS
Band38	20MHz	16QAM	37850	1RB#0	21.67	PASS
Band38	20MHz	QPSK	37850	1RB#49	22.11	PASS
Band38	20MHz	16QAM	37850	1RB#49	21.46	PASS
Band38	20MHz	QPSK	37850	1RB#99	22.19	PASS
Band38	20MHz	16QAM	37850	1RB#99	21.36	PASS
Band38	20MHz	QPSK	37850	50RB#0	21.55	PASS
Band38	20MHz	16QAM	37850	50RB#0	20.92	PASS
Band38	20MHz	QPSK	37850	50RB#25	21.56	PASS
Band38	20MHz	16QAM	37850	50RB#25	20.93	PASS
Band38	20MHz	QPSK	37850	50RB#50	21.32	PASS
Band38	20MHz	16QAM	37850	50RB#50	20.79	PASS
Band38	20MHz	QPSK	37850	100RB#0	21.42	PASS
Band38	20MHz	16QAM	37850	100RB#0	20.48	PASS
Band38	20MHz	QPSK	38000	1RB#0	22.38	PASS
Band38	20MHz	16QAM	38000	1RB#0	21.54	PASS
Band38	20MHz	QPSK	38000	1RB#49	22.39	PASS
Band38	20MHz	16QAM	38000	1RB#49	21.44	PASS
Band38	20MHz	QPSK	38000	1RB#99	22.41	PASS
Band38	20MHz	16QAM	38000	1RB#99	21.39	PASS
Band38	20MHz	QPSK	38000	50RB#0	21.31	PASS
Band38	20MHz	16QAM	38000	50RB#0	20.55	PASS
Band38	20MHz	QPSK	38000	50RB#25	21.35	PASS
Band38	20MHz	16QAM	38000	50RB#25	20.55	PASS
Band38	20MHz	QPSK	38000	50RB#50	21.39	PASS
Band38	20MHz	16QAM	38000	50RB#50	20.51	PASS
Band38	20MHz	QPSK	38000	100RB#0	21.32	PASS
Band38	20MHz	16QAM	38000	100RB#0	20.57	PASS
Band38	20MHz	QPSK	38150	1RB#0	21.99	PASS





Band38	20MHz	16QAM	38150	1RB#0	22.07	PASS
Band38	20MHz	QPSK	38150	1RB#49	22.02	PASS
Band38	20MHz	16QAM	38150	1RB#49	21.97	PASS
Band38	20MHz	QPSK	38150	1RB#99	21.93	PASS
Band38	20MHz	16QAM	38150	1RB#99	21.88	PASS
Band38	20MHz	QPSK	38150	50RB#0	21.13	PASS
Band38	20MHz	16QAM	38150	50RB#0	20.37	PASS
Band38	20MHz	QPSK	38150	50RB#25	21.04	PASS
Band38	20MHz	16QAM	38150	50RB#25	20.37	PASS
Band38	20MHz	QPSK	38150	50RB#50	21.01	PASS
Band38	20MHz	16QAM	38150	50RB#50	20.37	PASS
Band38	20MHz	QPSK	38150	100RB#0	20.97	PASS
Band38	20MHz	16QAM	38150	100RB#0	20.26	PASS





J.2 Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band38	5MHz	QPSK	37775	1RB#0	8.78	13	PASS
Band38	5MHz	16QAM	37775	1RB#0	8.93	13	PASS
Band38	5MHz	QPSK	37775	25RB#0	9.11	13	PASS
Band38	5MHz	16QAM	37775	25RB#0	9.70	13	PASS
Band38	5MHz	QPSK	38000	1RB#0	8.79	13	PASS
Band38	5MHz	16QAM	38000	1RB#0	8.97	13	PASS
Band38	5MHz	QPSK	38000	25RB#0	9.02	13	PASS
Band38	5MHz	16QAM	38000	25RB#0	9.77	13	PASS
Band38	5MHz	QPSK	38225	1RB#0	8.26	13	PASS
Band38	5MHz	16QAM	38225	1RB#0	8.57	13	PASS
Band38	5MHz	QPSK	38225	25RB#0	8.86	13	PASS
Band38	5MHz	16QAM	38225	25RB#0	9.44	13	PASS
Band38	10MHz	QPSK	37800	1RB#0	8.43	13	PASS
Band38	10MHz	16QAM	37800	1RB#0	9.04	13	PASS
Band38	10MHz	QPSK	37800	50RB#0	9.08	13	PASS
Band38	10MHz	16QAM	37800	50RB#0	9.96	13	PASS
Band38	10MHz	QPSK	38000	1RB#0	8.21	13	PASS
Band38	10MHz	16QAM	38000	1RB#0	9.08	13	PASS
Band38	10MHz	QPSK	38000	50RB#0	8.96	13	PASS
Band38	10MHz	16QAM	38000	50RB#0	9.55	13	PASS
Band38	10MHz	QPSK	38200	1RB#0	8.34	13	PASS
Band38	10MHz	16QAM	38200	1RB#0	8.85	13	PASS
Band38	10MHz	QPSK	38200	50RB#0	9.05	13	PASS
Band38	10MHz	16QAM	38200	50RB#0	9.46	13	PASS
Band38	15MHz	QPSK	37825	1RB#0	8.26	13	PASS
Band38	15MHz	16QAM	37825	1RB#0	8.79	13	PASS
Band38	15MHz	QPSK	37825	75RB#0	9.45	13	PASS
Band38	15MHz	16QAM	37825	75RB#0	10.11	13	PASS
Band38	15MHz	QPSK	38000	1RB#0	8.49	13	PASS
Band38	15MHz	16QAM	38000	1RB#0	9.02	13	PASS
Band38	15MHz	QPSK	38000	75RB#0	9.30	13	PASS
Band38	15MHz	16QAM	38000	75RB#0	9.72	13	PASS
Band38	15MHz	QPSK	38175	1RB#0	8.38	13	PASS
Band38	15MHz	16QAM	38175	1RB#0	9.65	13	PASS



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Scan code to check authenticity

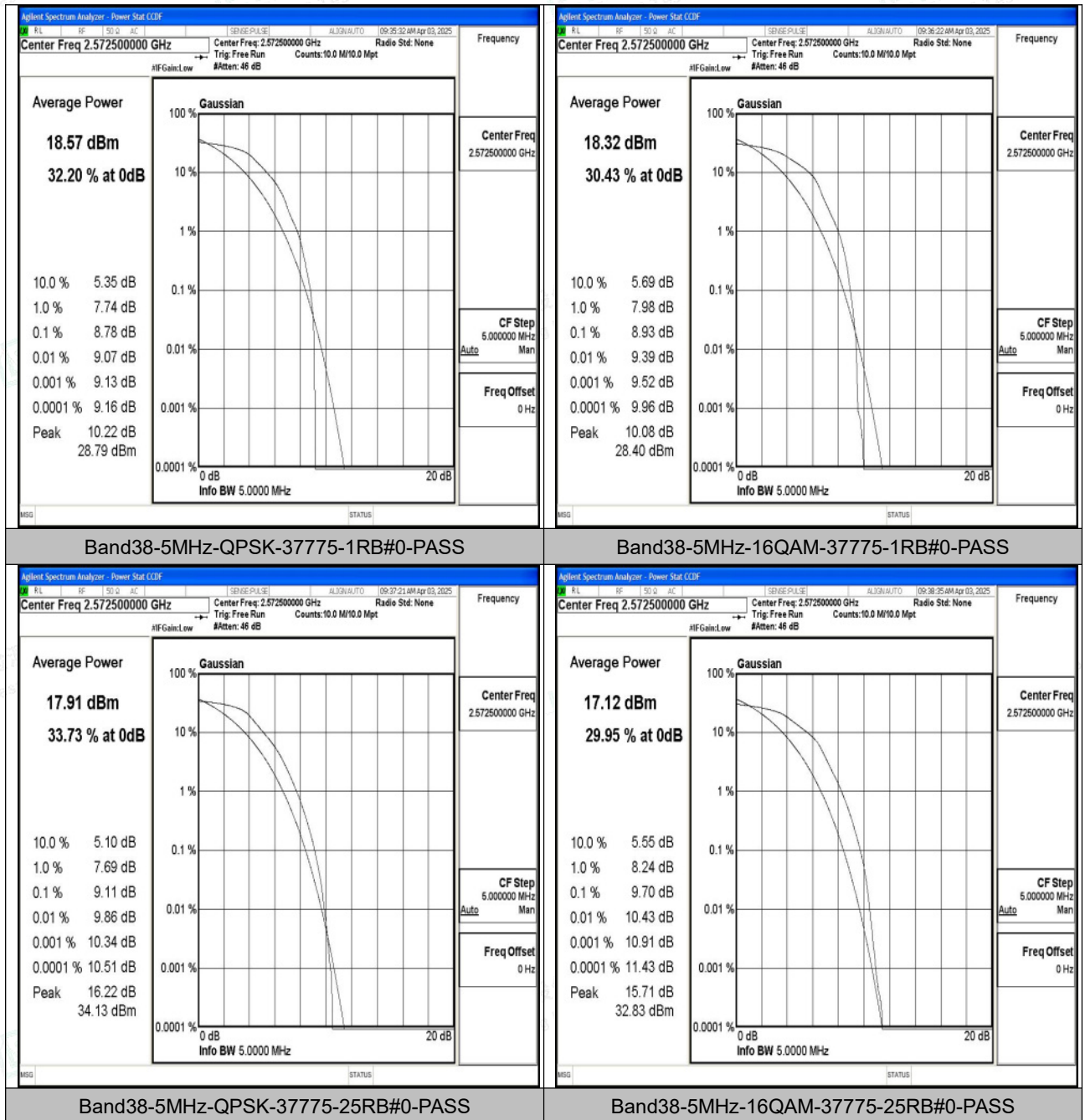


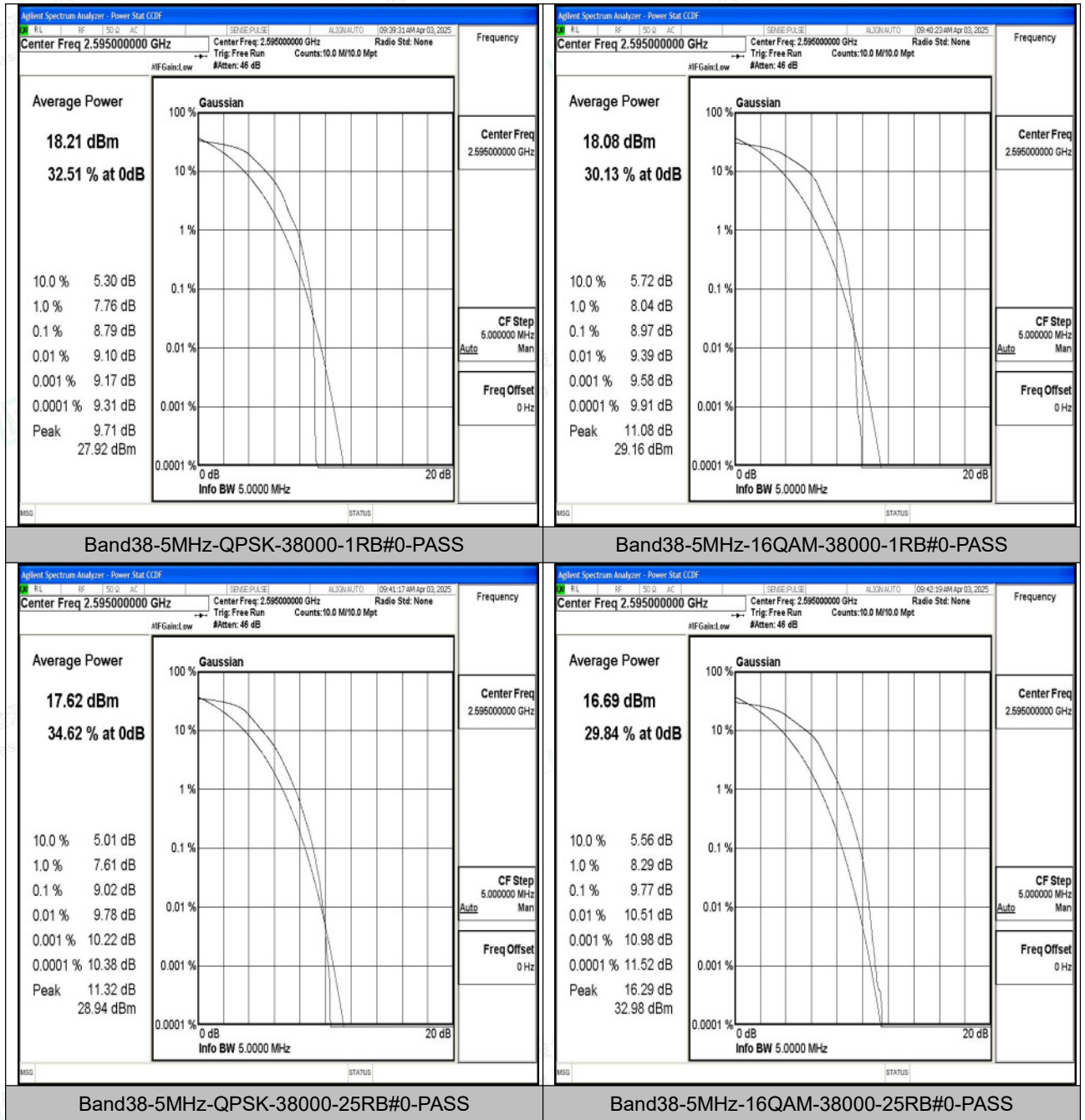
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Band38	15MHz	16QAM	38175	75RB#0	9.64	13	PASS
Band38	20MHz	QPSK	37850	1RB#0	8.33	13	PASS
Band38	20MHz	16QAM	37850	1RB#0	8.84	13	PASS
Band38	20MHz	QPSK	37850	100RB#0	9.27	13	PASS
Band38	20MHz	16QAM	37850	100RB#0	9.82	13	PASS
Band38	20MHz	QPSK	38000	1RB#0	8.62	13	PASS
Band38	20MHz	16QAM	38000	1RB#0	8.81	13	PASS
Band38	20MHz	QPSK	38000	100RB#0	8.95	13	PASS
Band38	20MHz	16QAM	38000	100RB#0	9.86	13	PASS
Band38	20MHz	QPSK	38150	1RB#0	8.49	13	PASS
Band38	20MHz	16QAM	38150	1RB#0	8.98	13	PASS
Band38	20MHz	QPSK	38150	100RB#0	9.24	13	PASS
Band38	20MHz	16QAM	38150	100RB#0	10.18	13	PASS

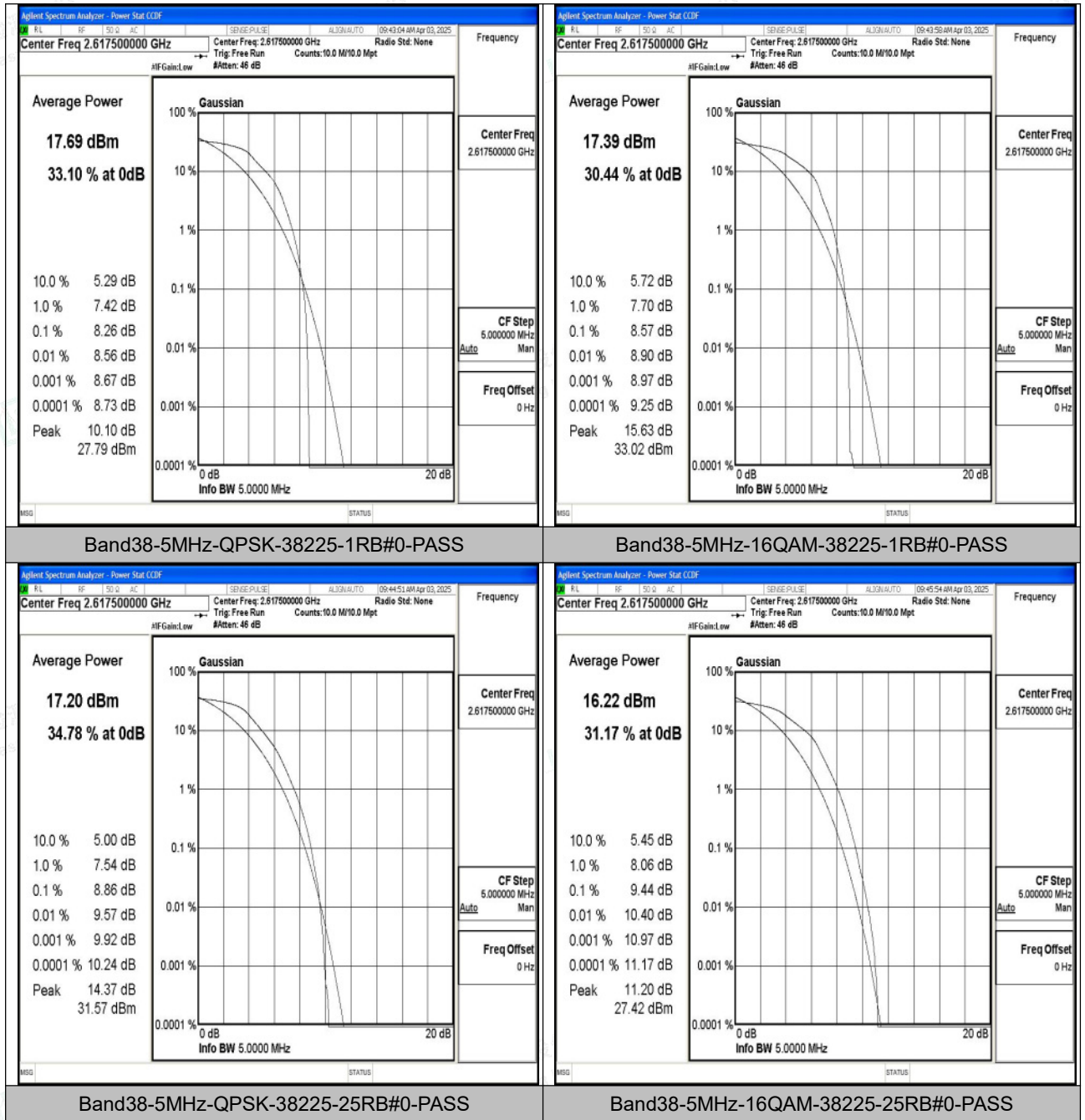


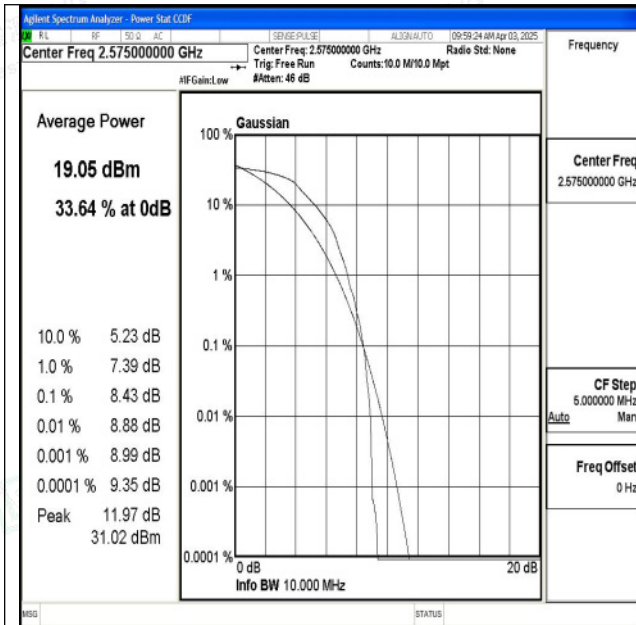


Test Graphs

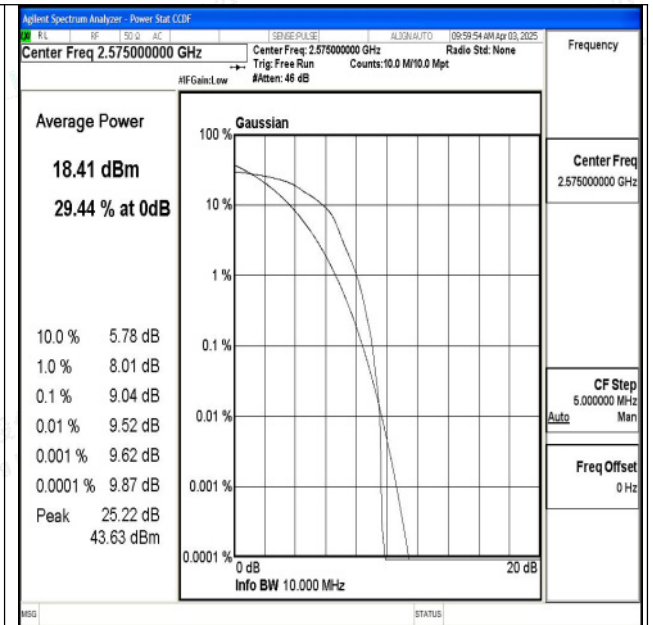




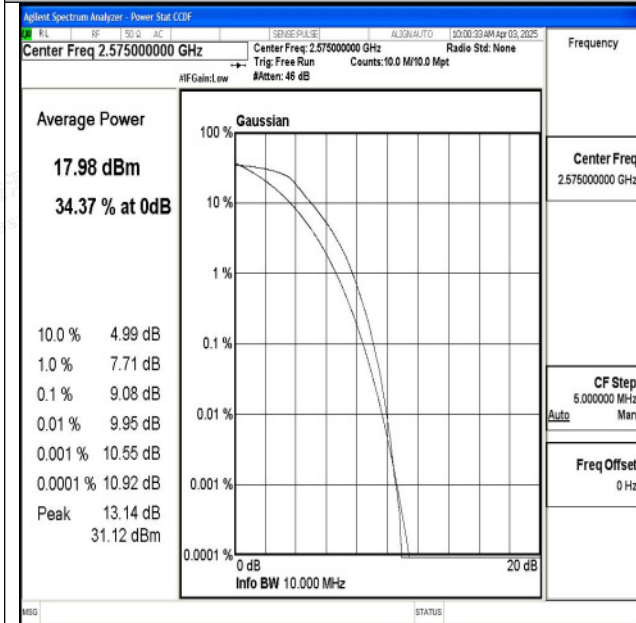




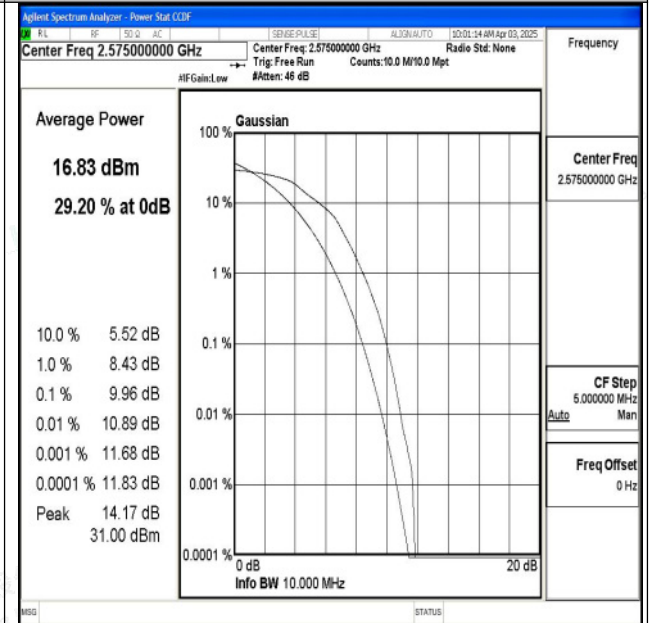
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Band38-10MHz-16QAM-37800-1RB#0-PASS

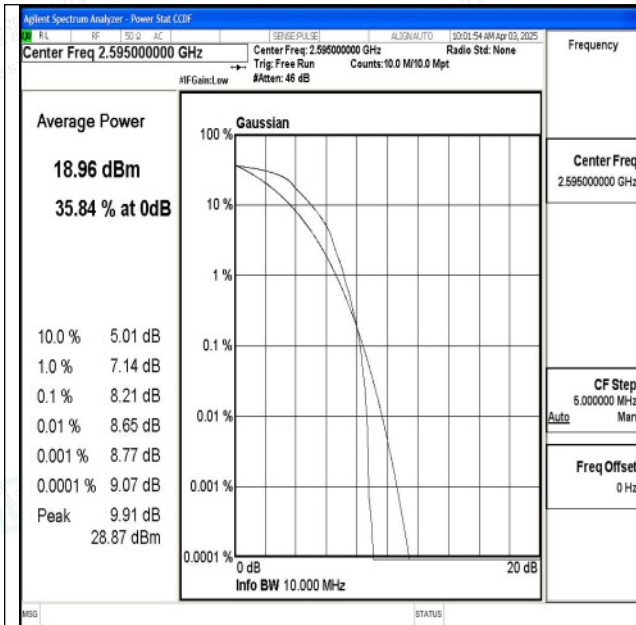


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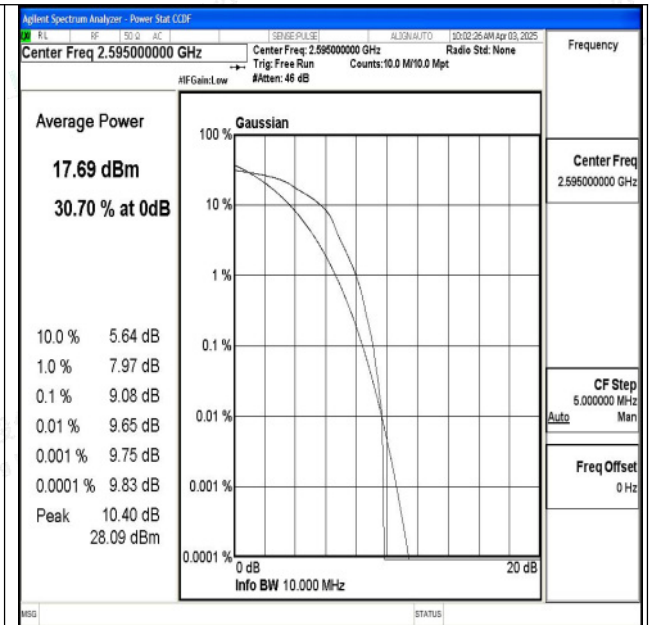


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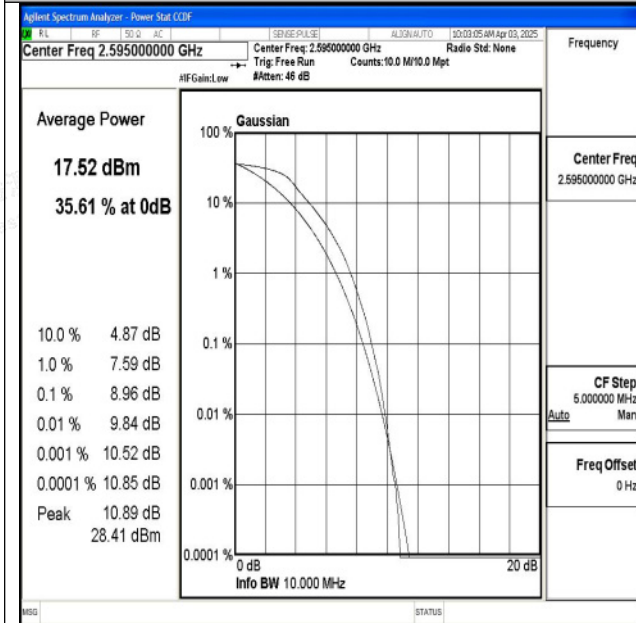




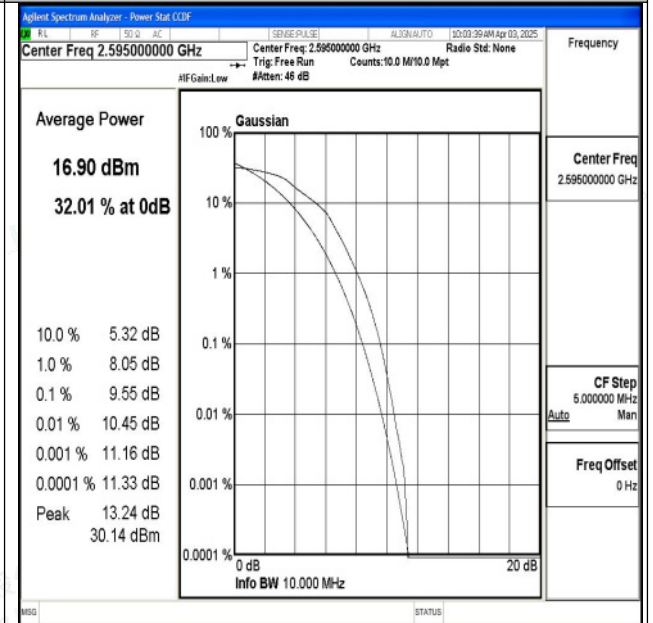
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Band38-10MHz-16QAM-38000-1RB#0-PASS

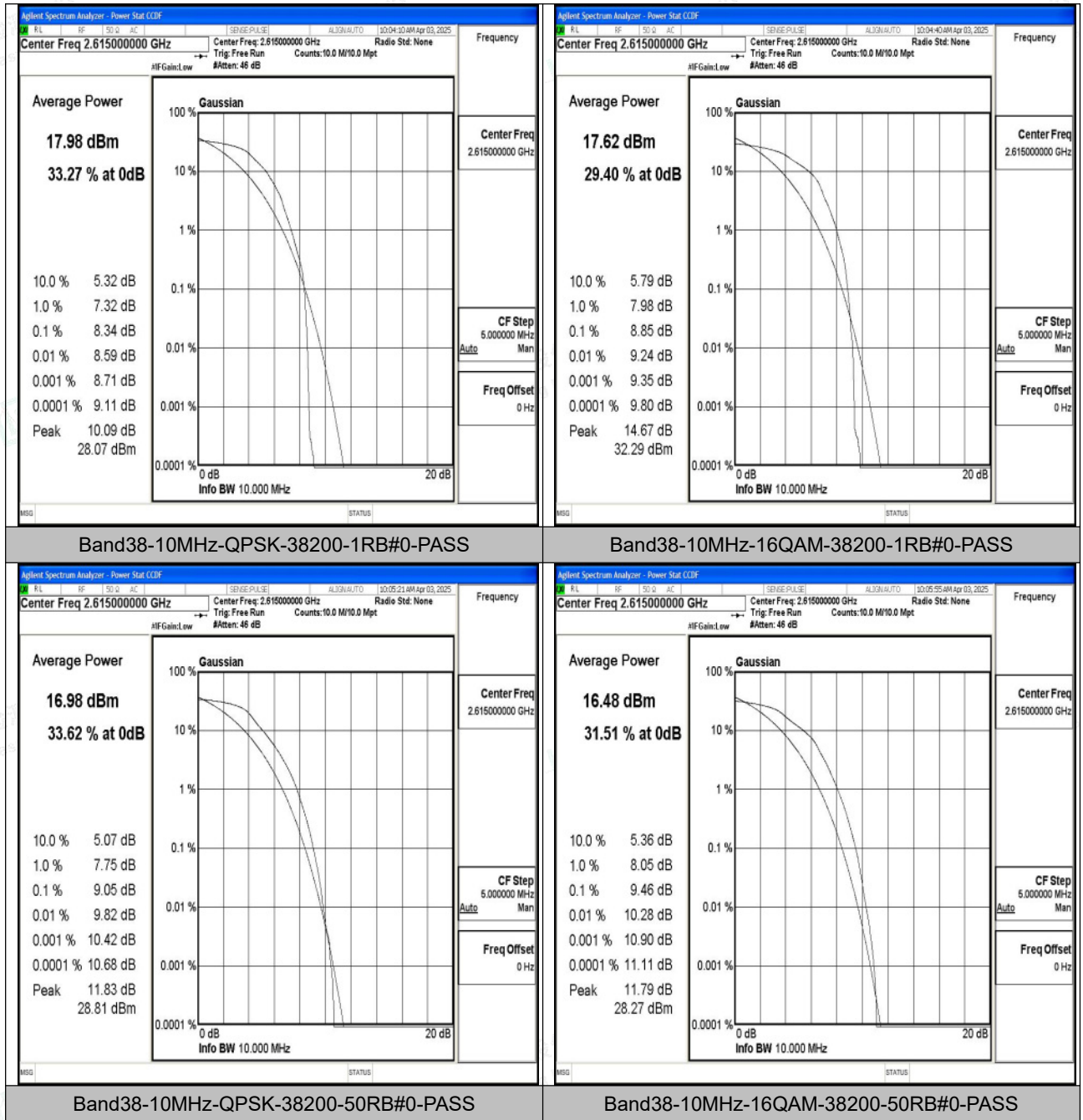


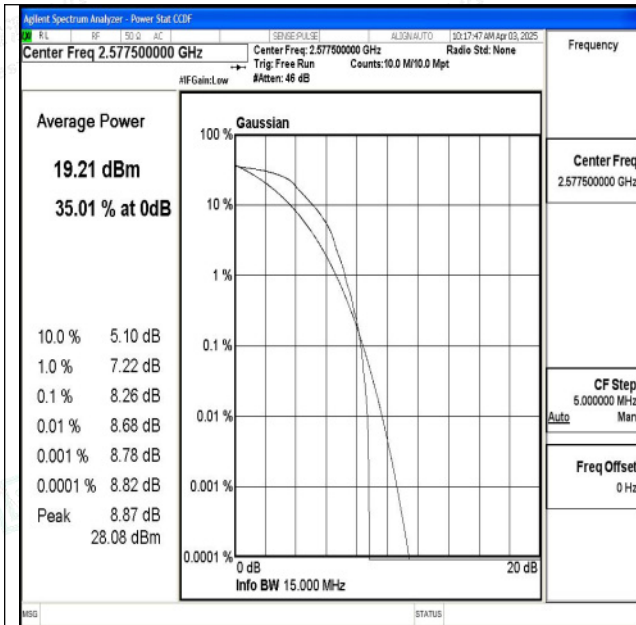
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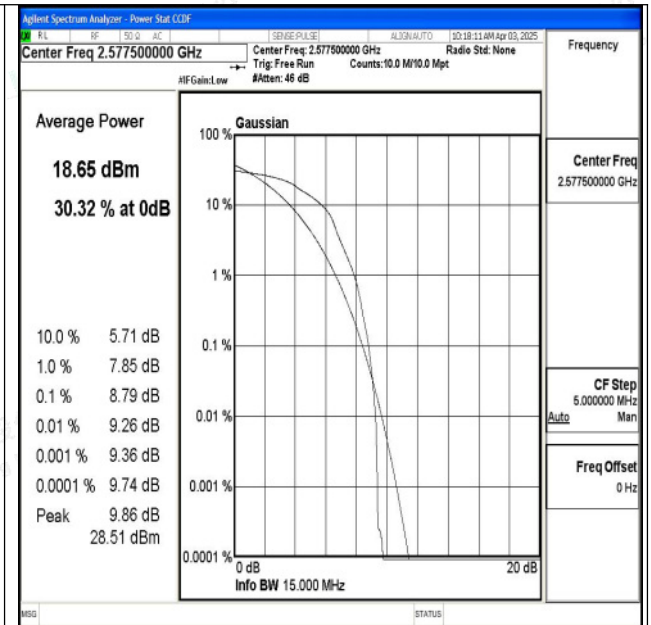
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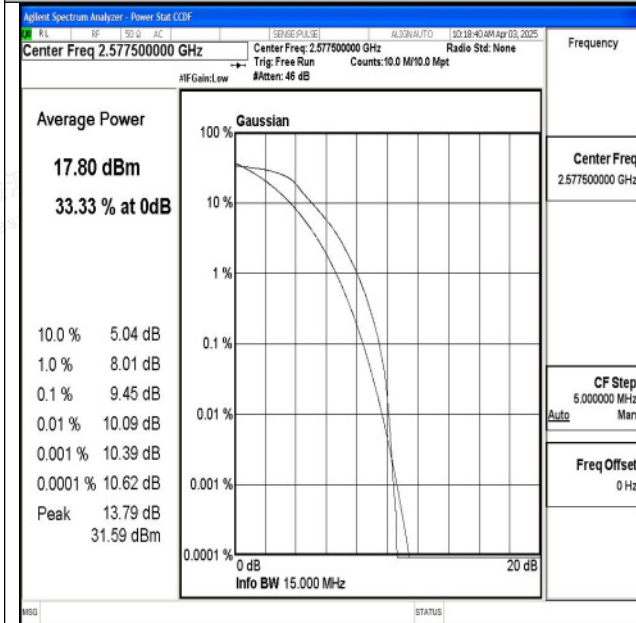




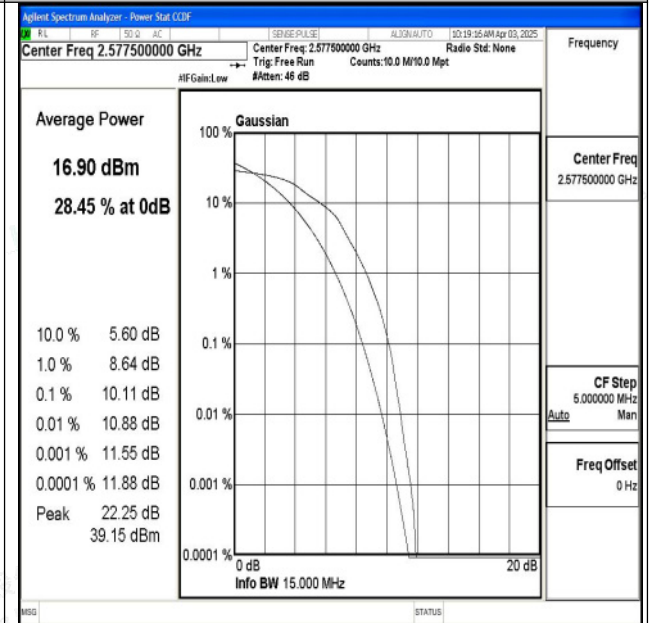
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Band38-15MHz-16QAM-37825-1RB#0-PASS

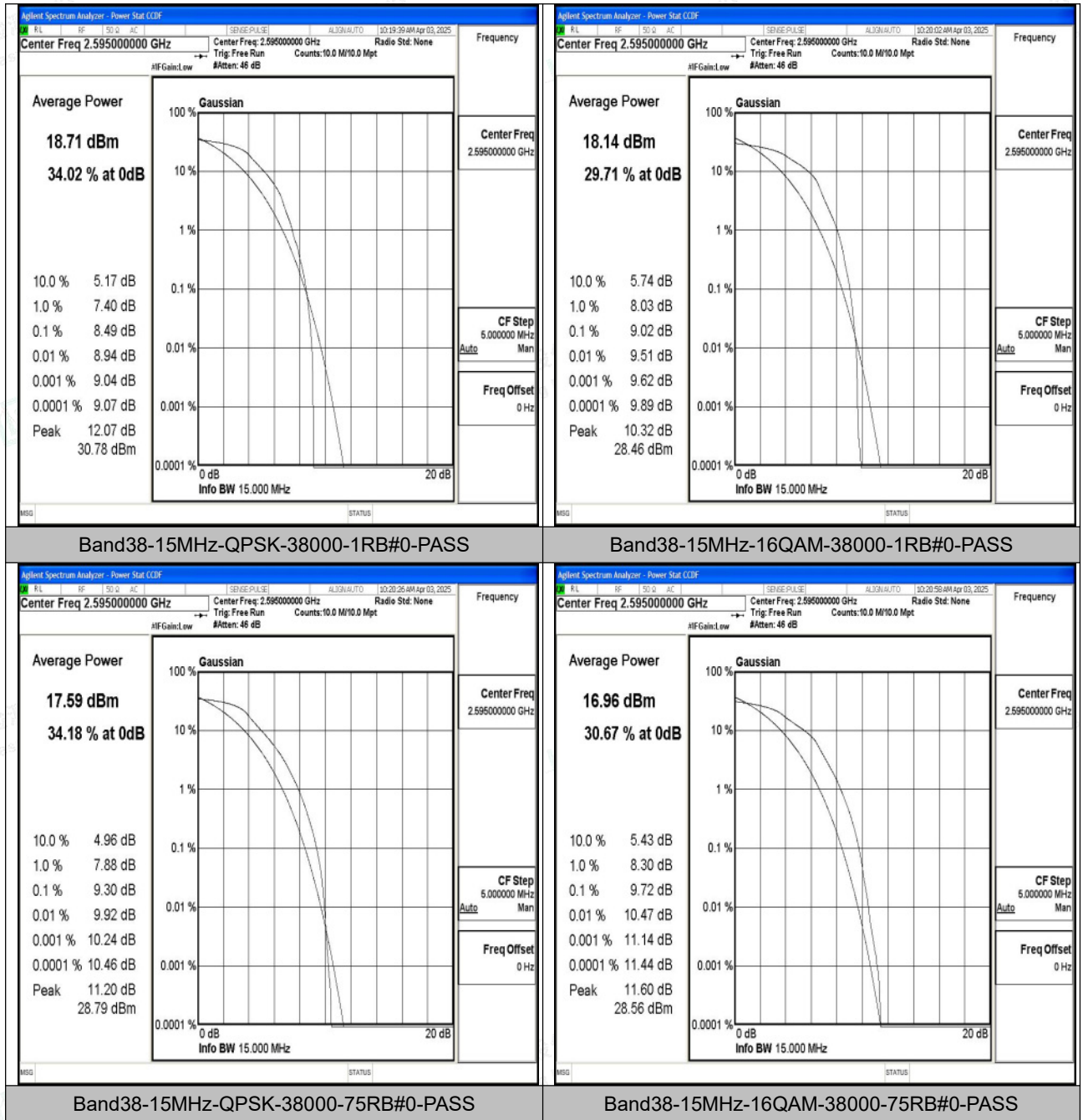


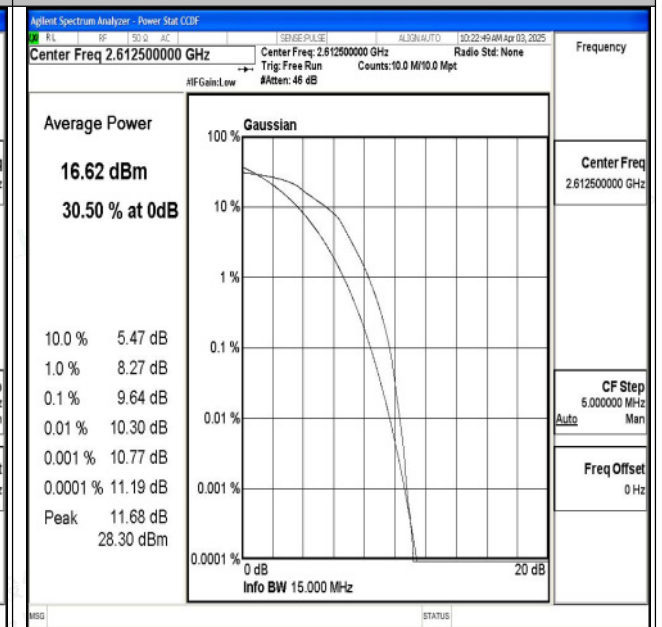
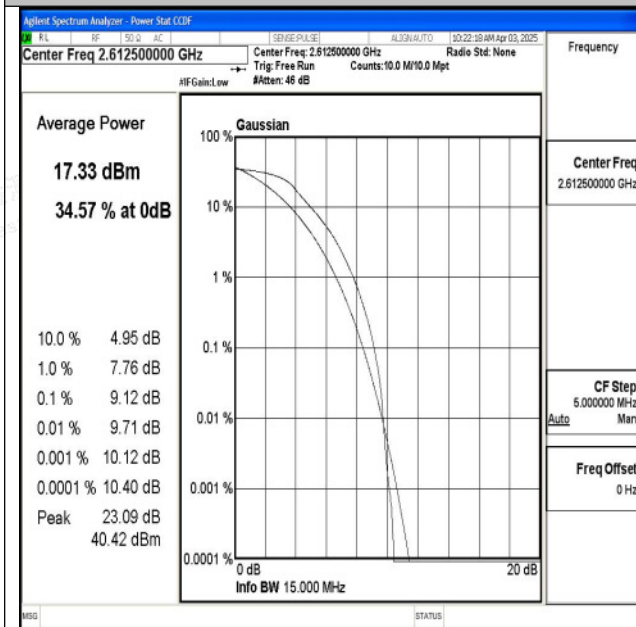
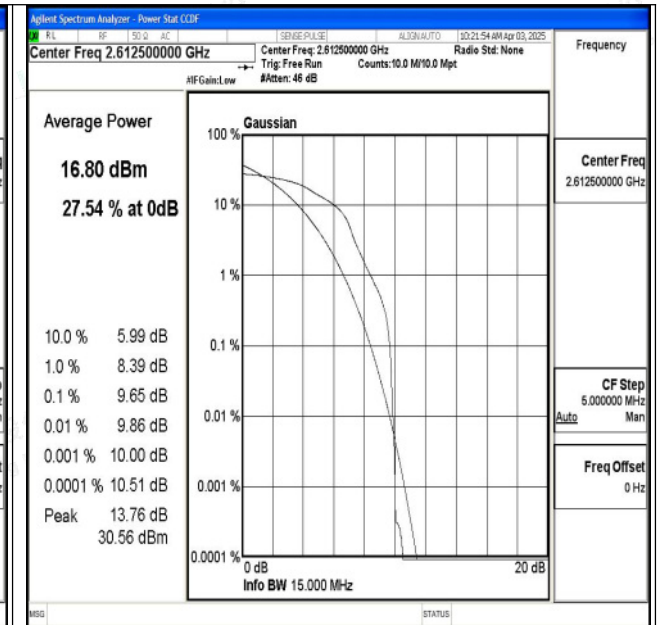
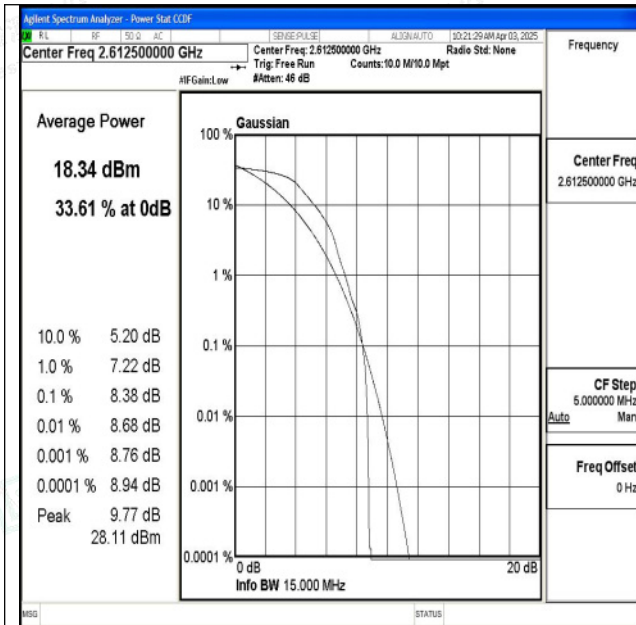
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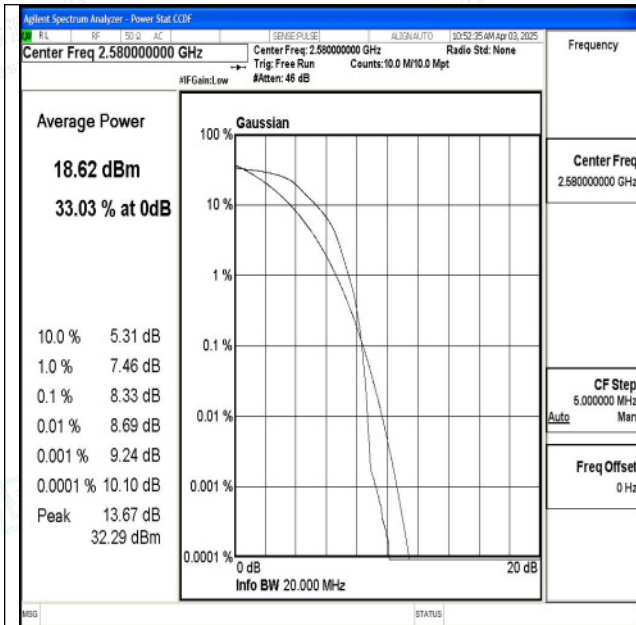


Band38-15MHz-16QAM-37825-75RB#0-PASS

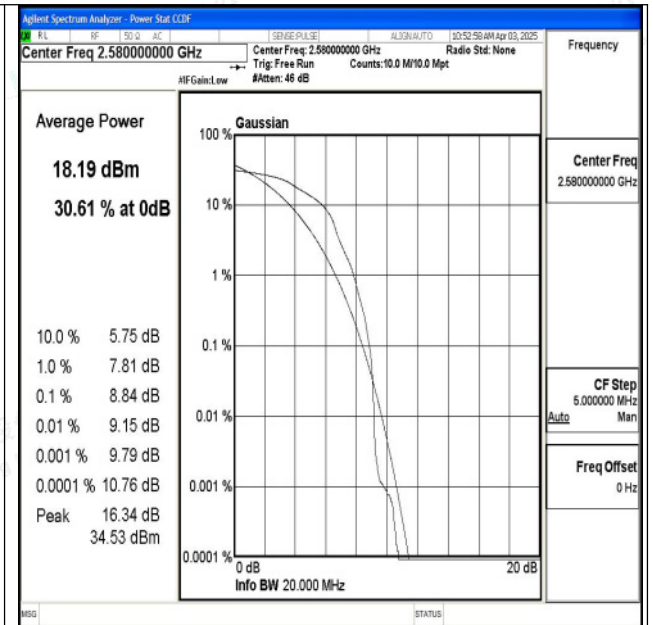




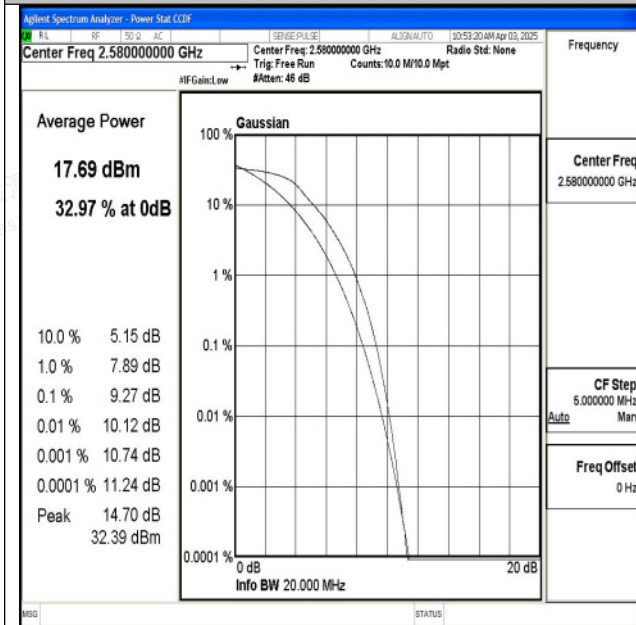




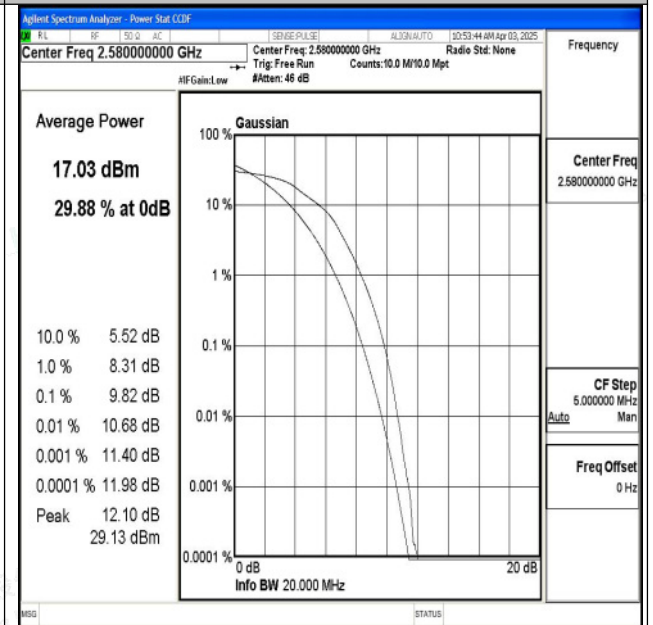
Band38-20MHz-QPSK-37850-1RB#0-PASS



Band38-20MHz-16QAM-37850-1RB#0-PASS

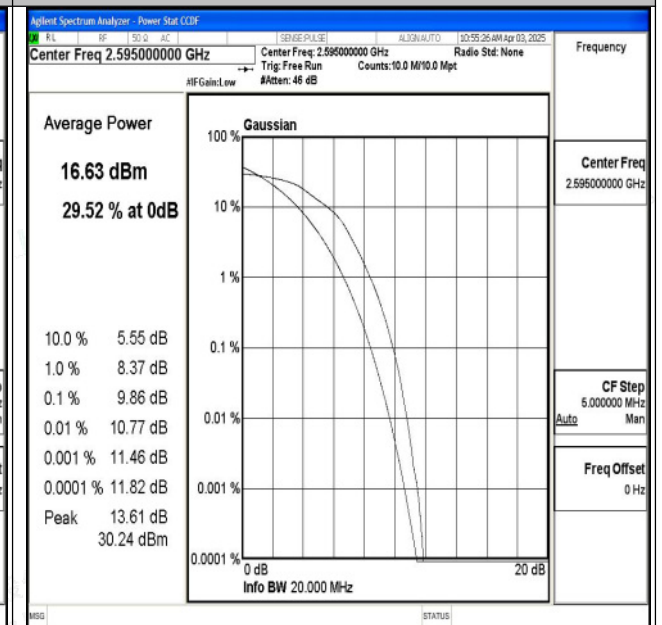
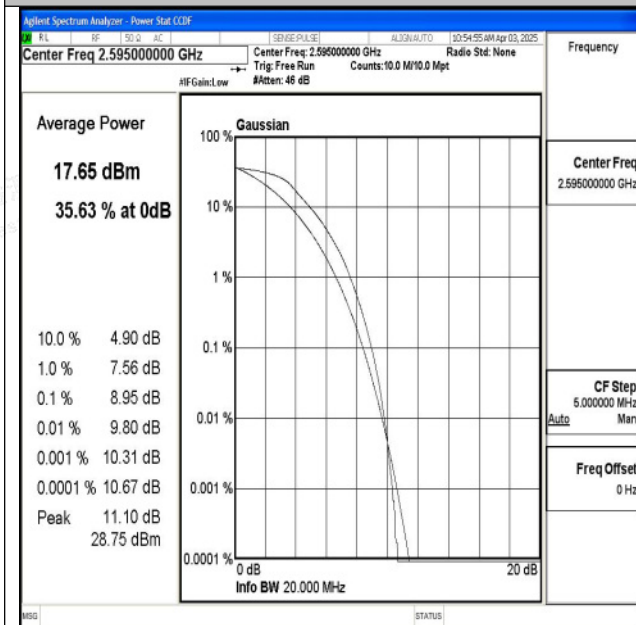
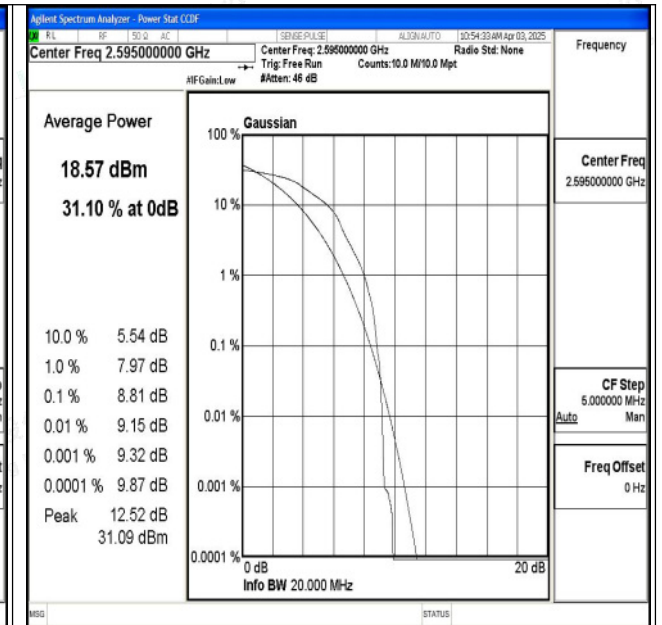
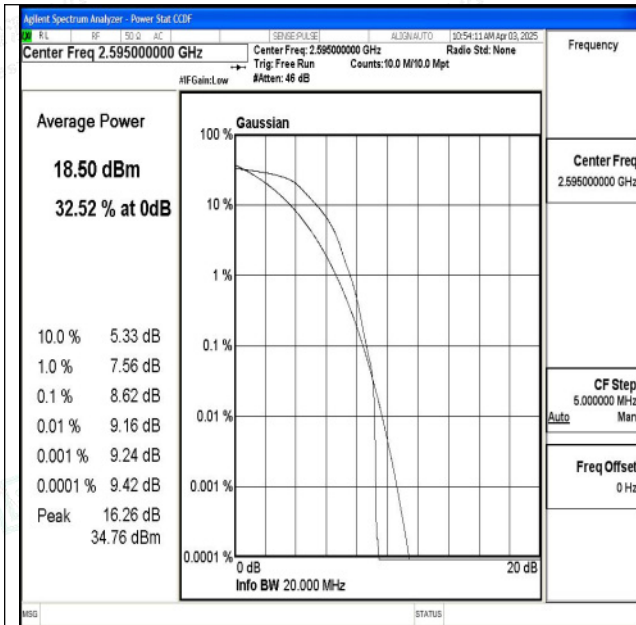


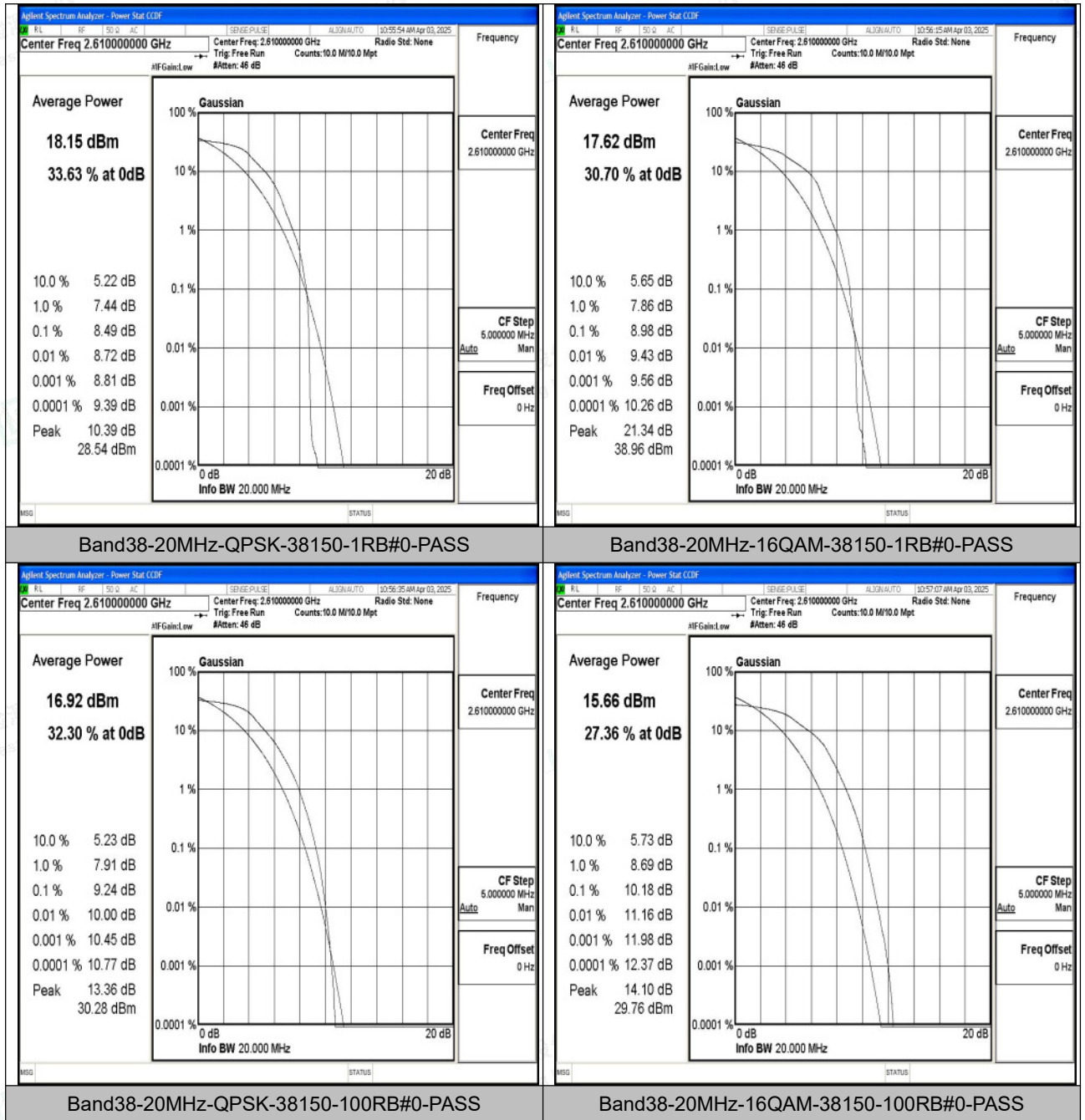
Band38-20MHz-QPSK-37850-100RB#0-PASS



Band38-20MHz-16QAM-37850-100RB#0-PASS









J.3 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band38	5MHz	QPSK	37775	25RB#0	4.5114	5.204	PASS
Band38	5MHz	16QAM	37775	25RB#0	4.5151	5.382	PASS
Band38	5MHz	QPSK	38000	25RB#0	4.5219	5.262	PASS
Band38	5MHz	16QAM	38000	25RB#0	4.5252	5.365	PASS
Band38	5MHz	QPSK	38225	25RB#0	4.4992	5.135	PASS
Band38	5MHz	16QAM	38225	25RB#0	4.5004	5.265	PASS
Band38	10MHz	QPSK	37800	50RB#0	8.9962	10.09	PASS
Band38	10MHz	16QAM	37800	50RB#0	8.9754	10.13	PASS
Band38	10MHz	QPSK	38000	50RB#0	8.9927	10.00	PASS
Band38	10MHz	16QAM	38000	50RB#0	8.9934	10.09	PASS
Band38	10MHz	QPSK	38200	50RB#0	9.0115	9.996	PASS
Band38	10MHz	16QAM	38200	50RB#0	8.9997	11.05	PASS
Band38	15MHz	QPSK	37825	75RB#0	13.510	15.29	PASS
Band38	15MHz	16QAM	37825	75RB#0	13.480	14.98	PASS
Band38	15MHz	QPSK	38000	75RB#0	13.484	15.77	PASS
Band38	15MHz	16QAM	38000	75RB#0	13.454	14.98	PASS
Band38	15MHz	QPSK	38175	75RB#0	13.468	16.06	PASS
Band38	15MHz	16QAM	38175	75RB#0	13.509	16.16	PASS
Band38	20MHz	QPSK	37850	100RB#0	17.950	20.46	PASS
Band38	20MHz	16QAM	37850	100RB#0	18.011	20.14	PASS
Band38	20MHz	QPSK	38000	100RB#0	18.055	20.58	PASS
Band38	20MHz	16QAM	38000	100RB#0	18.001	19.82	PASS
Band38	20MHz	QPSK	38150	100RB#0	17.941	19.50	PASS
Band38	20MHz	16QAM	38150	100RB#0	18.008	21.43	PASS





Test Graphs

