Appendix D: Test Data for E-UTRA Band 12

Product Name: 4G Battery Camera

Test Model: SP1-4G

Environmental Conditions

Temperature:	24.1°C
Relative Humidity:	53.8%
ATM Pressure:	100.0 kPa
Test Engineer:	Sean Huang
Supervised by:	Nick Peng

D.1 Conducted Output Power Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	23.53	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	22.24	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	23.44	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	22.35	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	23.51	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	22.25	PASS
Band12	1.4MHz	QPSK	23017	3RB#0	23.47	PASS
Band12	1.4MHz	16QAM	23017	3RB#0	22.41	PASS
Band12	1.4MHz	QPSK	23017	3RB#1	23.48	PASS
Band12	1.4MHz	16QAM	23017	3RB#1	22.70	PASS
Band12	1.4MHz	QPSK	23017	3RB#3	23.45	PASS
Band12	1.4MHz	16QAM	23017	3RB#3	22.63	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	22.67	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	21.94	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	23.33	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	22.60	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	23.16	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	22.61	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	23.10	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	22.84	PASS
Band12	1.4MHz	QPSK	23095	3RB#0	23.27	PASS
Band12	1.4MHz	16QAM	23095	3RB#0	22.34	PASS
Band12	1.4MHz	QPSK	23095	3RB#1	23.19	PASS
Band12	1.4MHz	16QAM	23095	3RB#1	22.34	PASS
Band12	1.4MHz	QPSK	23095	3RB#3	23.41	PASS
Band12	1.4MHz	16QAM	23095	3RB#3	22.32	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	22.52	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	21.80	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	22.80	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	22.64	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	23.01	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	22.64	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	22.99	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	22.88	PASS
Band12	1.4MHz	QPSK	23173	3RB#0	23.11	PASS

Band12	1.4MHz	16QAM	23173	3RB#0	22.08	PASS
Band12	1.4MHz	QPSK	23173	3RB#1	23.11	PASS
Band12	1.4MHz	16QAM	23173	3RB#1	22.10	PASS
Band12	1.4MHz	QPSK	23173	3RB#3	23.18	PASS
Band12	1.4MHz	16QAM	23173	3RB#3	22.18	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	22.47	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	21.64	PASS
Band12	3MHz	QPSK	23025	1RB#0	23.21	PASS
Band12	3MHz	16QAM	23025	1RB#0	22.25	PASS
Band12	3MHz	QPSK	23025	1RB#8	23.13	PASS
Band12	3MHz	16QAM	23025	1RB#8	22.14	PASS
Band12	3MHz	QPSK	23025	1RB#14	23.12	PASS
Band12	3MHz	16QAM	23025	1RB#14	22.19	PASS
Band12	3MHz	QPSK	23025	8RB#0	22.50	PASS
Band12	3MHz	16QAM	23025	8RB#0	21.63	PASS
Band12	3MHz	QPSK	23025	8RB#4	22.50	PASS
Band12	3MHz	16QAM	23025	8RB#4	21.79	PASS
Band12	3MHz	QPSK	23025	8RB#7	22.48	PASS
Band12	3MHz	16QAM	23025	8RB#7	21.76	PASS
Band12	3MHz	QPSK	23025	15RB#0	22.33	PASS
Band12	3MHz	16QAM	23025	15RB#0	21.55	PASS
Band12	3MHz	QPSK	23095	1RB#0	23.21	PASS
Band12	3MHz	16QAM	23095	1RB#0	21.99	PASS
Band12	3MHz	QPSK	23095	1RB#8	23.18	PASS
Band12	3MHz	16QAM	23095	1RB#8	21.95	PASS
Band12	3MHz	QPSK	23095	1RB#14	23.43	PASS
Band12	3MHz	16QAM	23095	1RB#14	22.24	PASS
Band12	3MHz	QPSK	23095	8RB#0	22.21	PASS
Band12	3MHz	16QAM	23095	8RB#0	21.51	PASS
Band12	3MHz	QPSK	23095	8RB#4	22.22	PASS
Band12	3MHz	16QAM	23095	8RB#4	21.52	PASS
Band12	3MHz	QPSK	23095	8RB#7	22.20	PASS
Band12	3MHz	16QAM	23095	8RB#7	21.73	PASS
Band12	3MHz	QPSK	23095	15RB#0	22.22	PASS
Band12	3MHz	16QAM	23095	15RB#0	21.30	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.21	PASS
Band12	3MHz	16QAM	23165	1RB#0	22.63	PASS
Band12	3MHz	QPSK	23165	1RB#8	23.08	PASS
Band12	3MHz	16QAM	23165	1RB#8	22.52	PASS
Band12	3MHz	QPSK	23165	1RB#14	22.93	PASS
Band12	3MHz	16QAM	23165	1RB#14	22.89	PASS

Band12	3MHz	QPSK	23165	8RB#0	22.16	PASS
Band12	3MHz	16QAM	23165	8RB#0	21.49	PASS
Band12	3MHz	QPSK	23165	8RB#4	22.16	PASS
Band12	3MHz	16QAM	23165	8RB#4	21.49	PASS
Band12	3MHz	QPSK	23165	8RB#7	22.19	PASS
Band12	3MHz	16QAM	23165	8RB#7	21.53	PASS
Band12	3MHz	QPSK	23165	15RB#0	22.18	PASS
Band12	3MHz	16QAM	23165	15RB#0	21.28	PASS
Band12	5MHz	QPSK	23035	1RB#0	23.16	PASS
Band12	5MHz	16QAM	23035	1RB#0	21.89	PASS
Band12	5MHz	QPSK	23035	1RB#12	23.14	PASS
Band12	5MHz	16QAM	23035	1RB#12	21.78	PASS
Band12	5MHz	QPSK	23035	1RB#24	23.20	PASS
Band12	5MHz	16QAM	23035	1RB#24	21.61	PASS
Band12	5MHz	QPSK	23035	12RB#0	22.36	PASS
Band12	5MHz	16QAM	23035	12RB#0	21.42	PASS
Band12	5MHz	QPSK	23035	12RB#6	22.36	PASS
Band12	5MHz	16QAM	23035	12RB#6	21.49	PASS
Band12	5MHz	QPSK	23035	12RB#13	22.20	PASS
Band12	5MHz	16QAM	23035	12RB#13	21.38	PASS
Band12	5MHz	QPSK	23035	25RB#0	22.31	PASS
Band12	5MHz	16QAM	23035	25RB#0	21.55	PASS
Band12	5MHz	QPSK	23095	1RB#0	22.88	PASS
Band12	5MHz	16QAM	23095	1RB#0	22.45	PASS
Band12	5MHz	QPSK	23095	1RB#12	22.84	PASS
Band12	5MHz	16QAM	23095	1RB#12	22.33	PASS
Band12	5MHz	QPSK	23095	1RB#24	22.87	PASS
Band12	5MHz	16QAM	23095	1RB#24	22.30	PASS
Band12	5MHz	QPSK	23095	12RB#0	22.10	PASS
Band12	5MHz	16QAM	23095	12RB#0	21.37	PASS
Band12	5MHz	QPSK	23095	12RB#6	22.26	PASS
Band12	5MHz	16QAM	23095	12RB#6	21.53	PASS
Band12	5MHz	QPSK	23095	12RB#13	22.09	PASS
Band12	5MHz	16QAM	23095	12RB#13	21.36	PASS
Band12	5MHz	QPSK	23095	25RB#0	22.13	PASS
Band12	5MHz	16QAM	23095	25RB#0	21.34	PASS
Band12	5MHz	QPSK	23155	1RB#0	22.80	PASS
Band12	5MHz	16QAM	23155	1RB#0	21.86	PASS
Band12	5MHz	QPSK	23155	1RB#12	22.75	PASS
Band12	5MHz	16QAM	23155	1RB#12	21.78	PASS
Band12	5MHz	QPSK	23155	1RB#24	23.13	PASS

Band12	5MHz	16QAM	23155	1RB#24	21.90	PASS
Band12	5MHz	QPSK	23155	12RB#0	22.09	PASS
Band12	5MHz	16QAM	23155	12RB#0	21.26	PASS
Band12	5MHz	QPSK	23155	12RB#6	22.04	PASS
Band12	5MHz	16QAM	23155	12RB#6	21.26	PASS
Band12	5MHz	QPSK	23155	12RB#13	22.03	PASS
Band12	5MHz	16QAM	23155	12RB#13	21.28	PASS
Band12	5MHz	QPSK	23155	25RB#0	21.99	PASS
Band12	5MHz	16QAM	23155	25RB#0	21.24	PASS
Band12	10MHz	QPSK	23060	1RB#0	23.13	PASS
Band12	10MHz	16QAM	23060	1RB#0	22.12	PASS
Band12	10MHz	QPSK	23060	1RB#24	23.04	PASS
Band12	10MHz	16QAM	23060	1RB#24	22.44	PASS
Band12	10MHz	QPSK	23060	1RB#49	22.86	PASS
Band12	10MHz	16QAM	23060	1RB#49	22.38	PASS
Band12	10MHz	QPSK	23060	25RB#0	22.24	PASS
Band12	10MHz	16QAM	23060	25RB#0	21.45	PASS
Band12	10MHz	QPSK	23060	25RB#12	22.24	PASS
Band12	10MHz	16QAM	23060	25RB#12	21.45	PASS
Band12	10MHz	QPSK	23060	25RB#25	22.16	PASS
Band12	10MHz	16QAM	23060	25RB#25	21.35	PASS
Band12	10MHz	QPSK	23060	50RB#0	22.20	PASS
Band12	10MHz	16QAM	23060	50RB#0	21.42	PASS
Band12	10MHz	QPSK	23095	1RB#0	23.34	PASS
Band12	10MHz	16QAM	23095	1RB#0	22.27	PASS
Band12	10MHz	QPSK	23095	1RB#24	23.14	PASS
Band12	10MHz	16QAM	23095	1RB#24	22.18	PASS
Band12	10MHz	QPSK	23095	1RB#49	23.05	PASS
Band12	10MHz	16QAM	23095	1RB#49	21.58	PASS
Band12	10MHz	QPSK	23095	25RB#0	22.38	PASS
Band12	10MHz	16QAM	23095	25RB#0	21.45	PASS
Band12	10MHz	QPSK	23095	25RB#12	22.38	PASS
Band12	10MHz	16QAM	23095	25RB#12	21.45	PASS
Band12	10MHz	QPSK	23095	25RB#25	22.03	PASS
Band12	10MHz	16QAM	23095	25RB#25	21.39	PASS
Band12	10MHz	QPSK	23095	50RB#0	22.32	PASS
Band12	10MHz	16QAM	23095	50RB#0	21.33	PASS
Band12	10MHz	QPSK	23130	1RB#0	23.10	PASS
Band12	10MHz	16QAM	23130	1RB#0	22.85	PASS
Band12	10MHz	QPSK	23130	1RB#24	22.85	PASS
Band12	10MHz	16QAM	23130	1RB#24	22.90	PASS

Band12	10MHz	QPSK	23130	1RB#49	22.80	PASS
Band12	10MHz	16QAM	23130	1RB#49	22.80	PASS
Band12	10MHz	QPSK	23130	25RB#0	22.23	PASS
Band12	10MHz	16QAM	23130	25RB#0	21.33	PASS
Band12	10MHz	QPSK	23130	25RB#12	22.18	PASS
Band12	10MHz	16QAM	23130	25RB#12	21.34	PASS
Band12	10MHz	QPSK	23130	25RB#25	22.02	PASS
Band12	10MHz	16QAM	23130	25RB#25	21.51	PASS
Band12	10MHz	QPSK	23130	50RB#0	22.02	PASS
Band12	10MHz	16QAM	23130	50RB#0	21.32	PASS

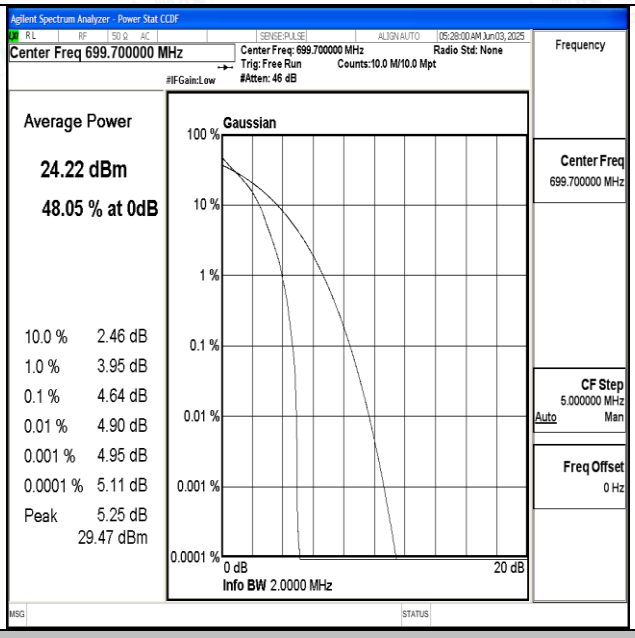
D.2 Peak-to-Average Ratio(CCDF)

Test Result

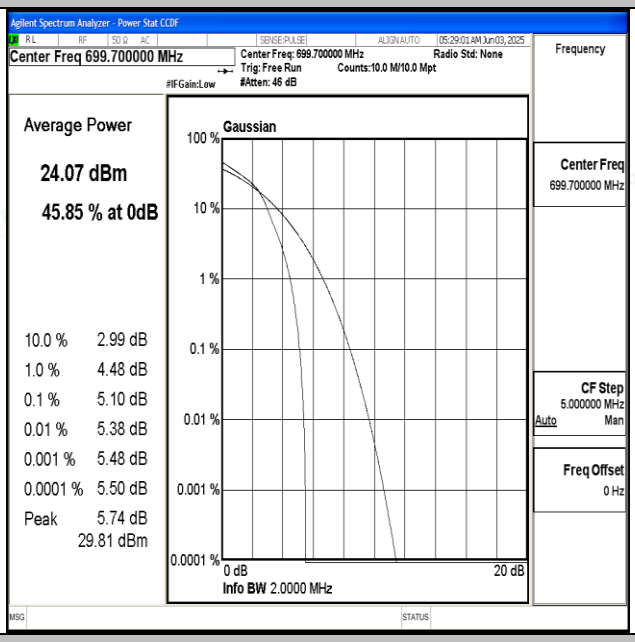
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	4.64	13	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	5.10	13	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	5.32	13	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	6.05	13	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	4.60	13	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	5.09	13	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	5.25	13	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	5.97	13	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	4.10	13	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	4.71	13	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	4.77	13	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	5.44	13	PASS
Band12	3MHz	QPSK	23025	1RB#0	4.79	13	PASS
Band12	3MHz	16QAM	23025	1RB#0	5.58	13	PASS
Band12	3MHz	QPSK	23025	15RB#0	5.37	13	PASS
Band12	3MHz	16QAM	23025	15RB#0	6.13	13	PASS
Band12	3MHz	QPSK	23095	1RB#0	4.70	13	PASS
Band12	3MHz	16QAM	23095	1RB#0	5.51	13	PASS
Band12	3MHz	QPSK	23095	15RB#0	5.28	13	PASS
Band12	3MHz	16QAM	23095	15RB#0	6.04	13	PASS
Band12	3MHz	QPSK	23165	1RB#0	4.51	13	PASS
Band12	3MHz	16QAM	23165	1RB#0	5.25	13	PASS
Band12	3MHz	QPSK	23165	15RB#0	4.95	13	PASS
Band12	3MHz	16QAM	23165	15RB#0	5.69	13	PASS
Band12	5MHz	QPSK	23035	1RB#0	4.83	13	PASS
Band12	5MHz	16QAM	23035	1RB#0	5.60	13	PASS
Band12	5MHz	QPSK	23035	25RB#0	5.53	13	PASS
Band12	5MHz	16QAM	23035	25RB#0	6.16	13	PASS
Band12	5MHz	QPSK	23095	1RB#0	4.80	13	PASS
Band12	5MHz	16QAM	23095	1RB#0	5.56	13	PASS
Band12	5MHz	QPSK	23095	25RB#0	5.47	13	PASS
Band12	5MHz	16QAM	23095	25RB#0	6.10	13	PASS
Band12	5MHz	QPSK	23155	1RB#0	4.73	13	PASS
Band12	5MHz	16QAM	23155	1RB#0	5.48	13	PASS
Band12	5MHz	QPSK	23155	25RB#0	5.27	13	PASS

Band12	5MHz	16QAM	23155	25RB#0	5.93	13	PASS
Band12	10MHz	QPSK	23060	1RB#0	4.73	13	PASS
Band12	10MHz	16QAM	23060	1RB#0	5.49	13	PASS
Band12	10MHz	QPSK	23060	50RB#0	5.46	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	6.18	13	PASS
Band12	10MHz	QPSK	23095	1RB#0	4.96	13	PASS
Band12	10MHz	16QAM	23095	1RB#0	5.77	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.53	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	6.18	13	PASS
Band12	10MHz	QPSK	23130	1RB#0	4.76	13	PASS
Band12	10MHz	16QAM	23130	1RB#0	5.57	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.43	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	6.12	13	PASS

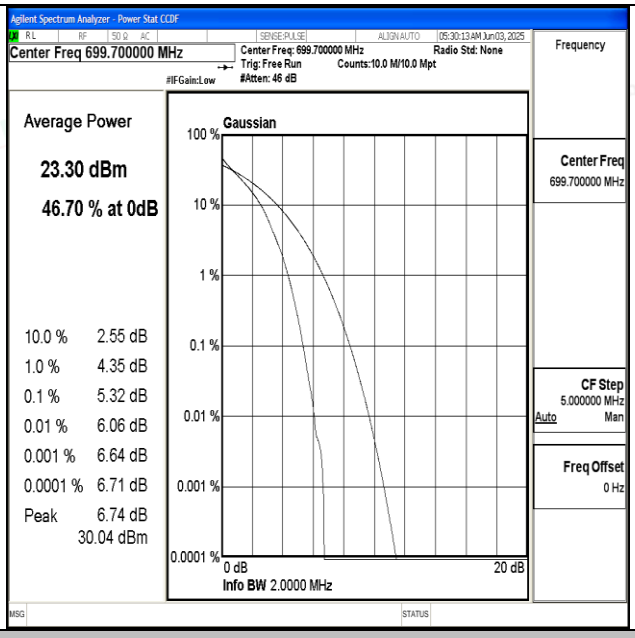
Test Graphs



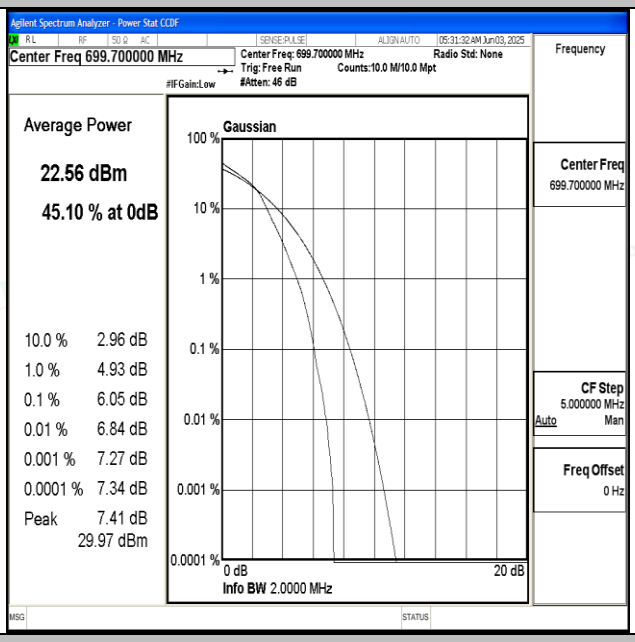
Band12-1.4MHz-QPSK-23017-1RB#0-PASS



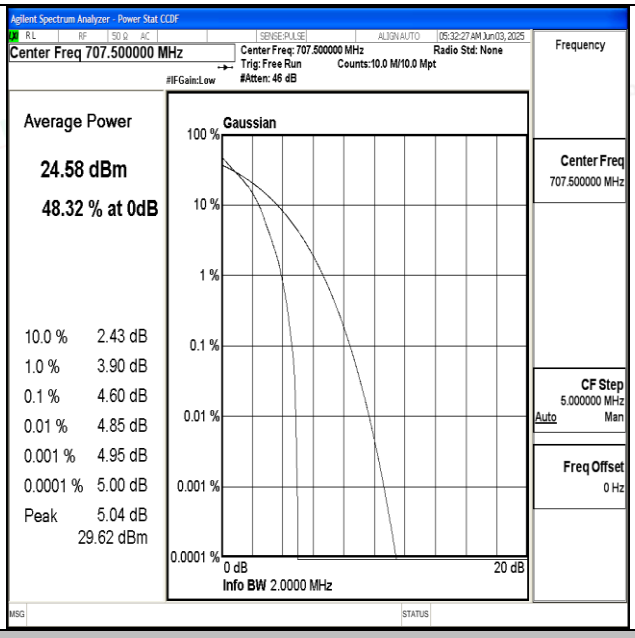
Band12-1.4MHz-16QAM-23017-1RB#0-PASS



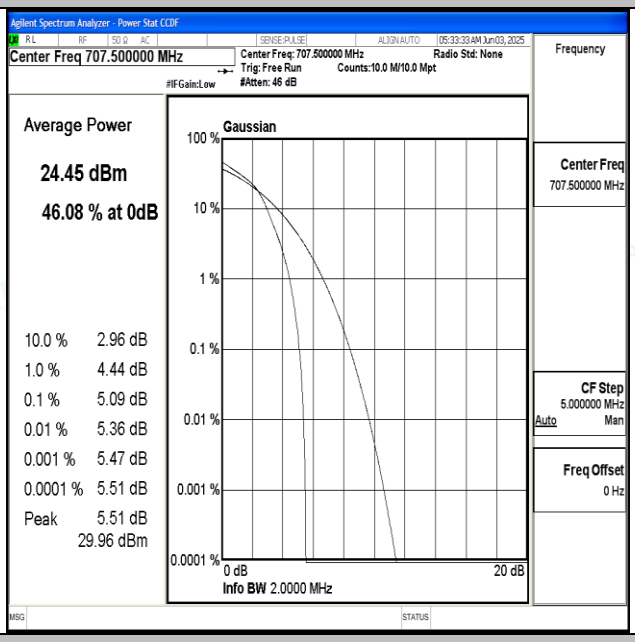
Band12-1.4MHz-QPSK-23017-6RB#0-PASS



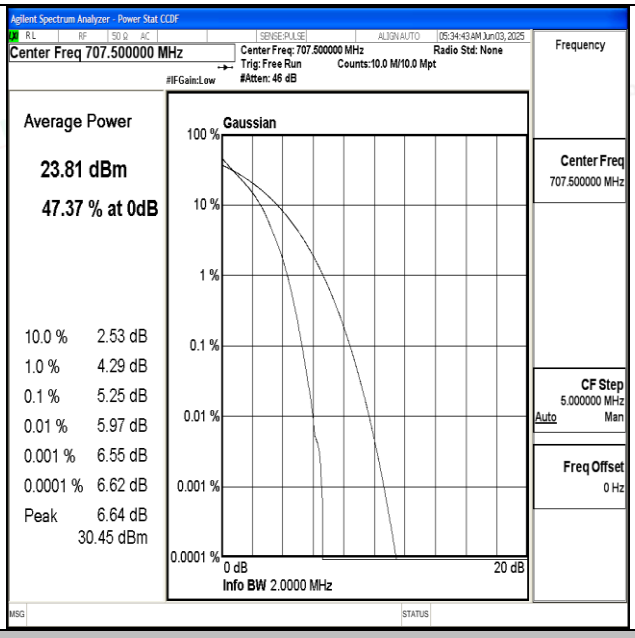
Band12-1.4MHz-16QAM-23017-6RB#0-PASS



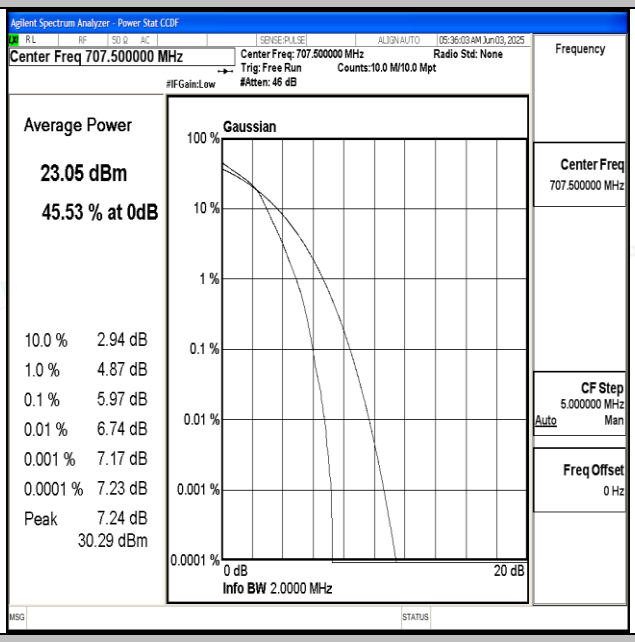
Band12-1.4MHz-QPSK-23095-1RB#0-PASS



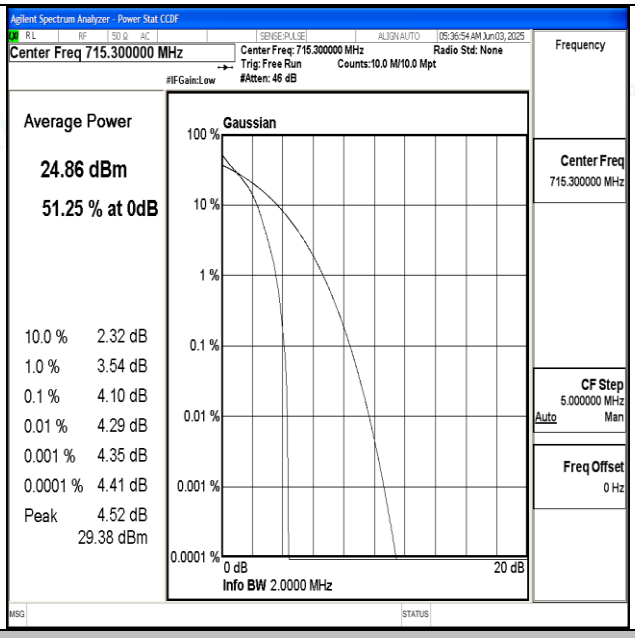
Band12-1.4MHz-16QAM-23095-1RB#0-PASS



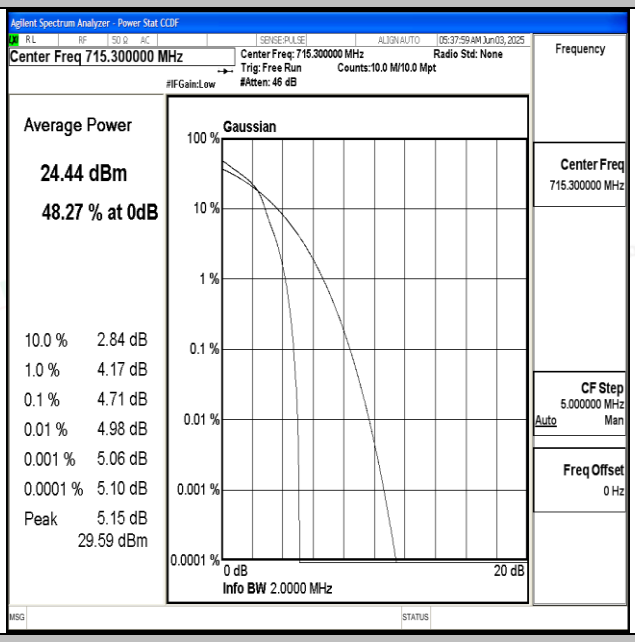
Band12-1.4MHz-QPSK-23095-6RB#0-PASS



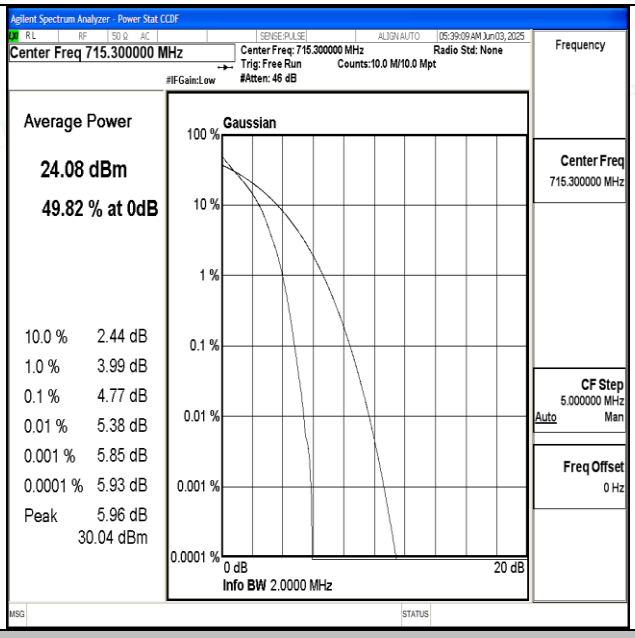
Band12-1.4MHz-16QAM-23095-6RB#0-PASS



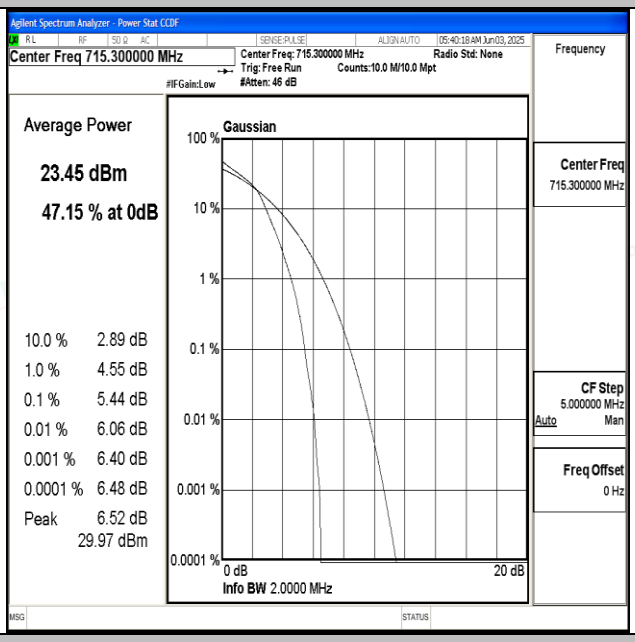
Band12-1.4MHz-QPSK-23173-1RB#0-PASS



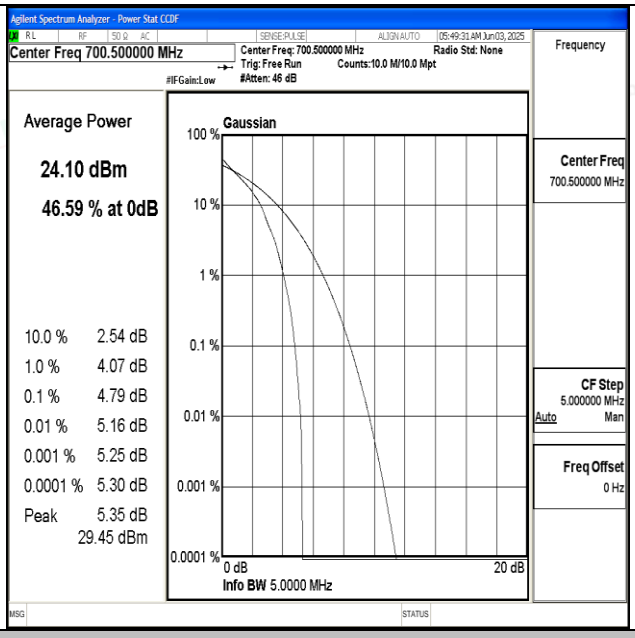
Band12-1.4MHz-16QAM-23173-1RB#0-PASS



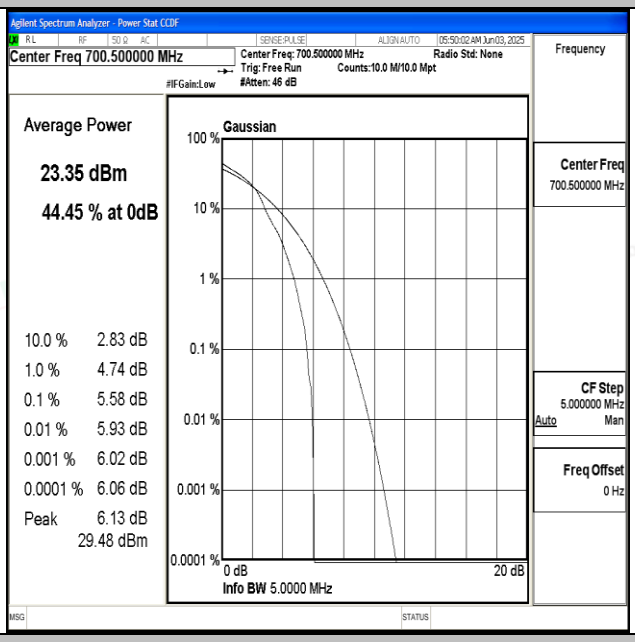
Band12-1.4MHz-QPSK-23173-6RB#0-PASS



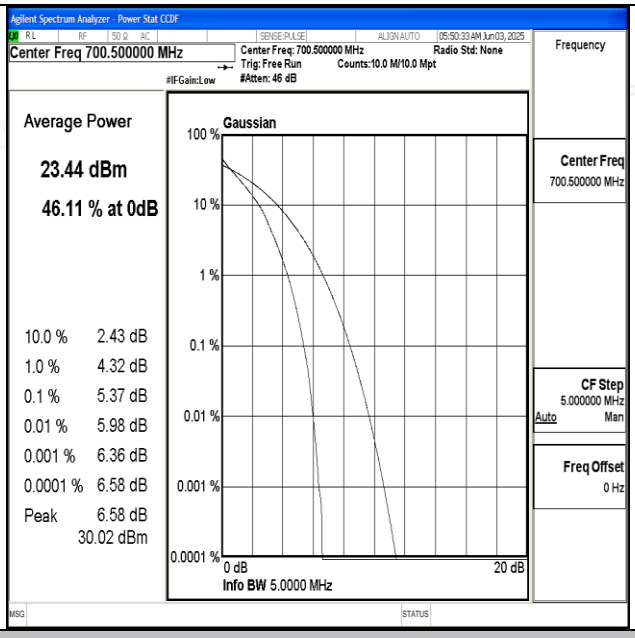
Band12-1.4MHz-16QAM-23173-6RB#0-PASS



Band12-3MHz-QPSK-23025-1RB#0-PASS



Band12-3MHz-16QAM-23025-1RB#0-PASS



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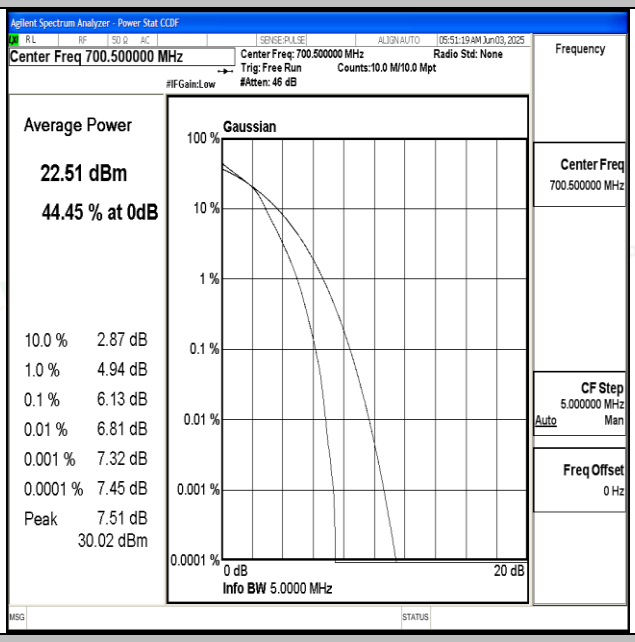

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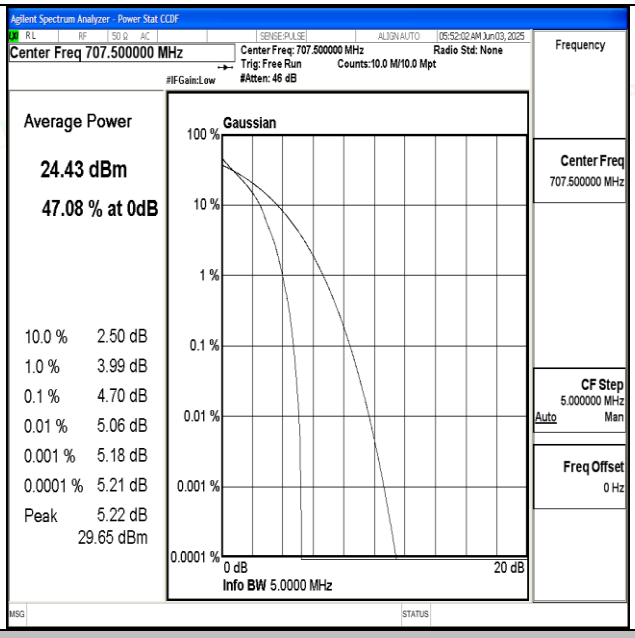

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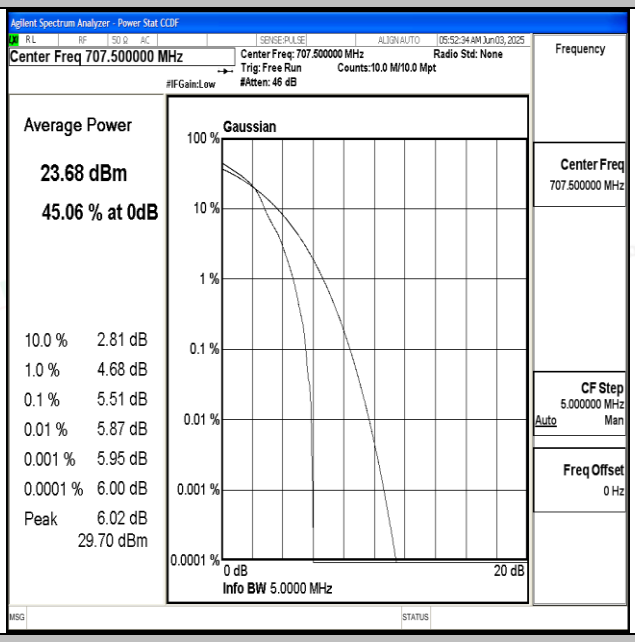

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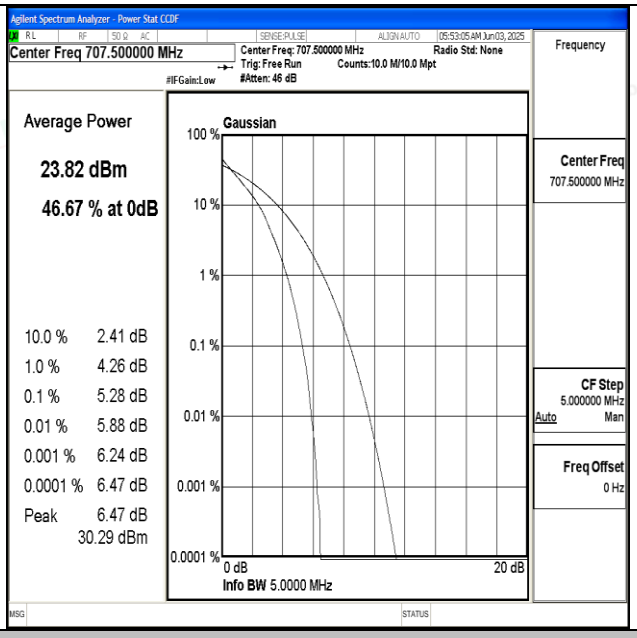

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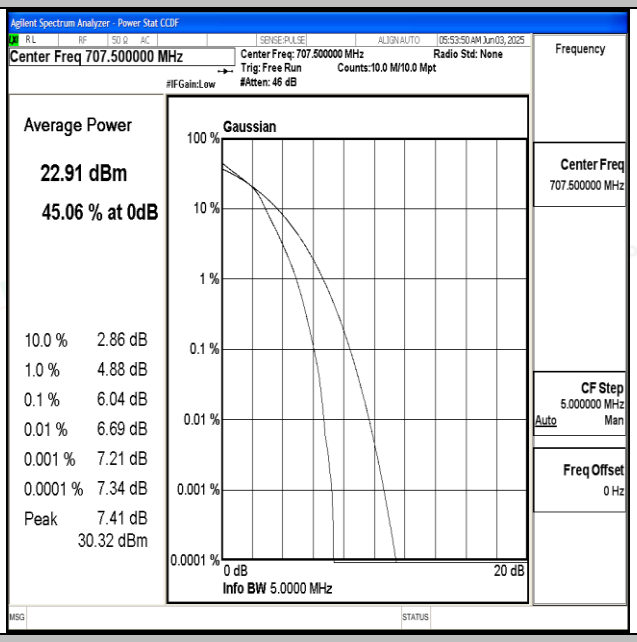
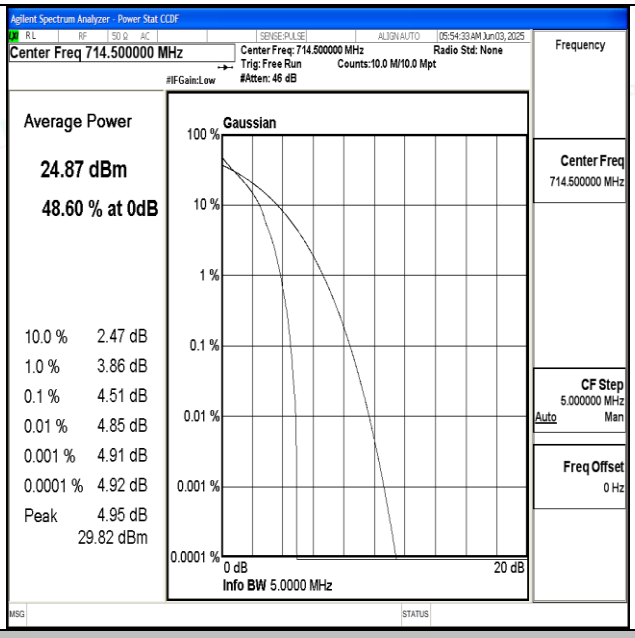
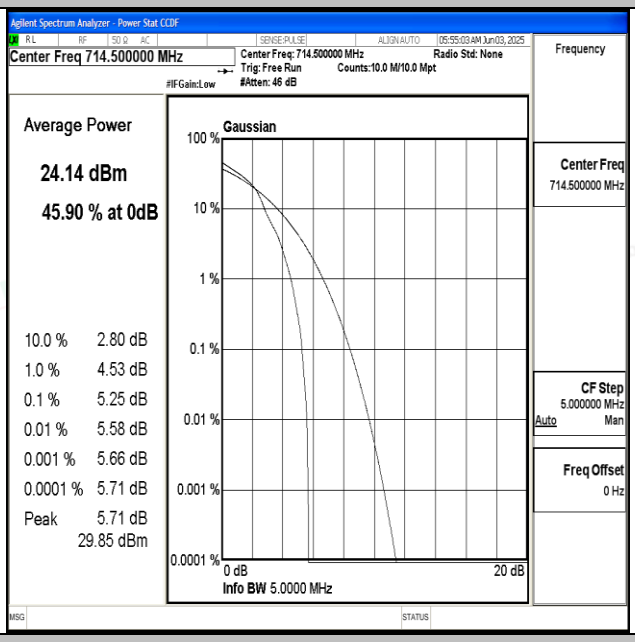


Band12-3MHz-16QAM-23095-15RB#0-PASS



Band12-3MHz-QPSK-23165-1RB#0-PASS



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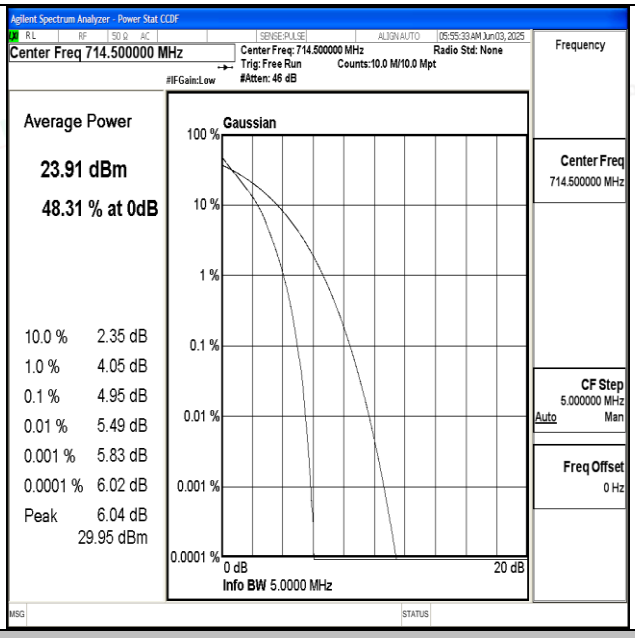

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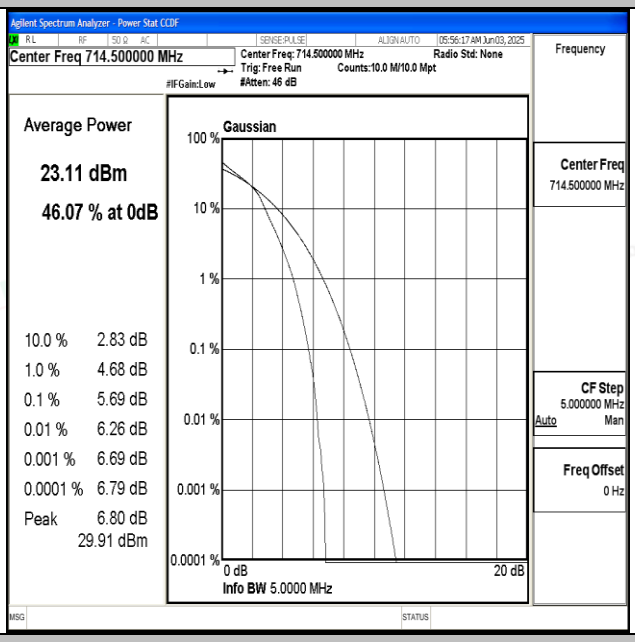

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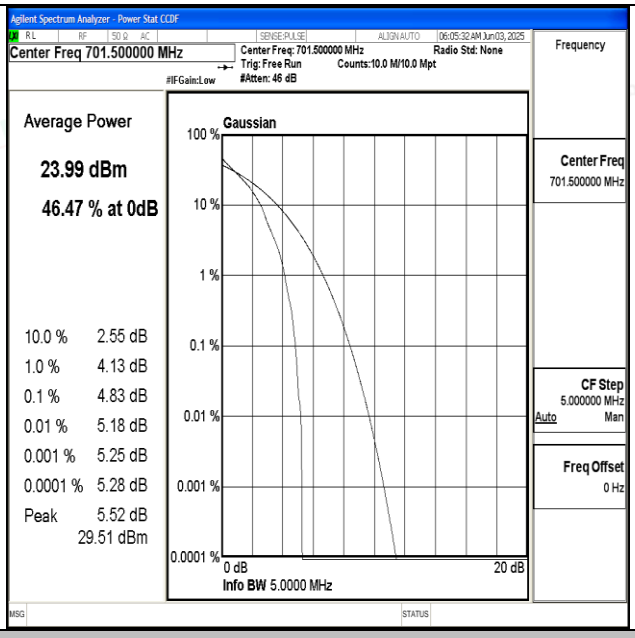

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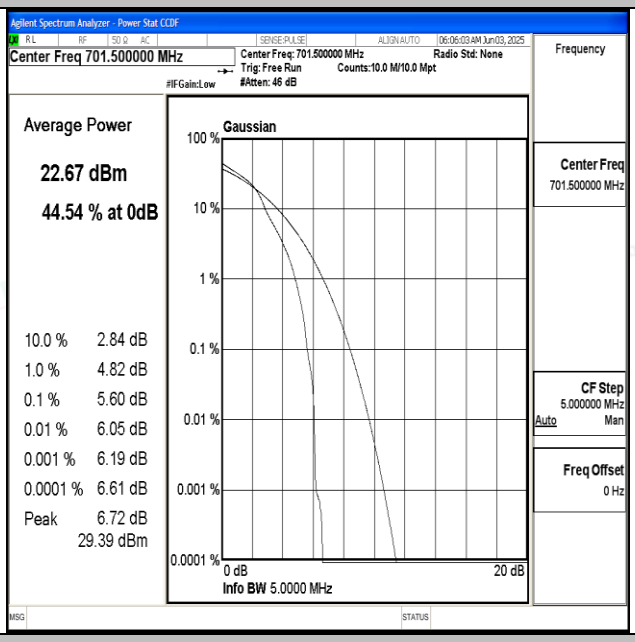

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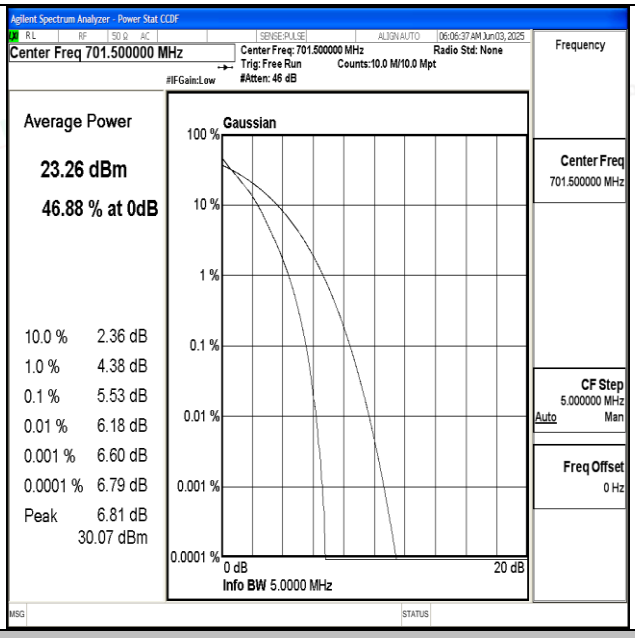

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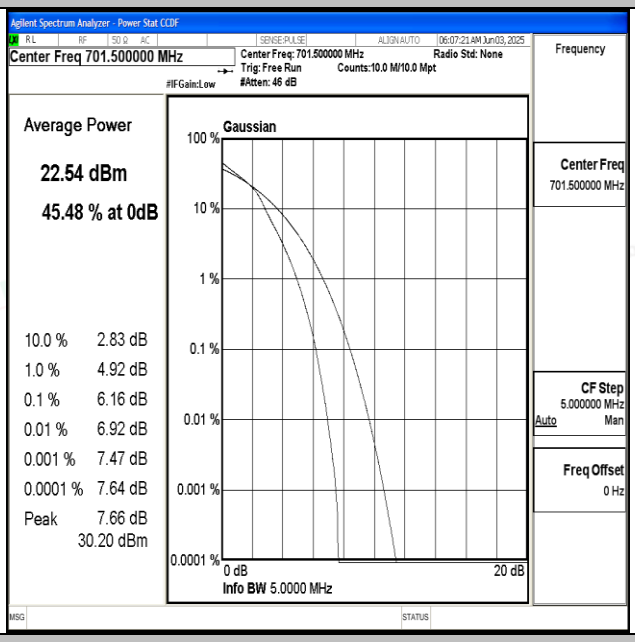

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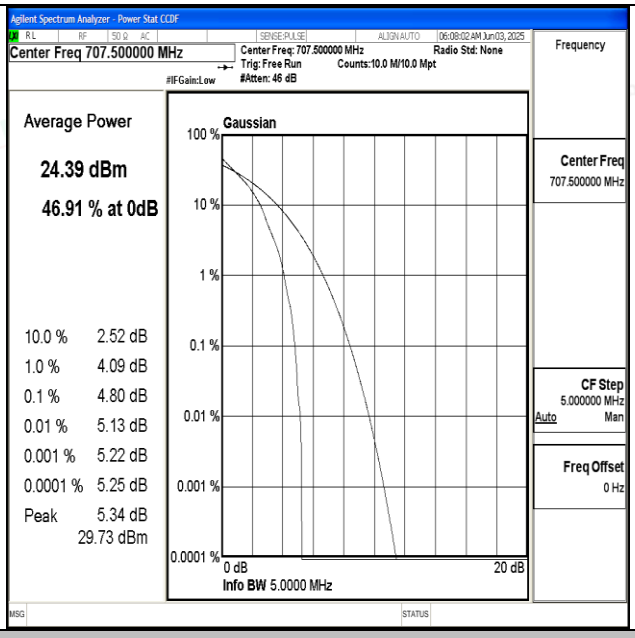

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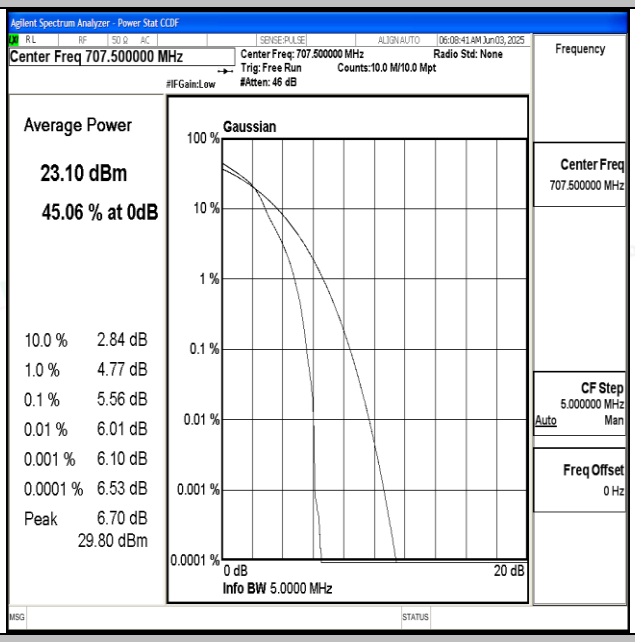

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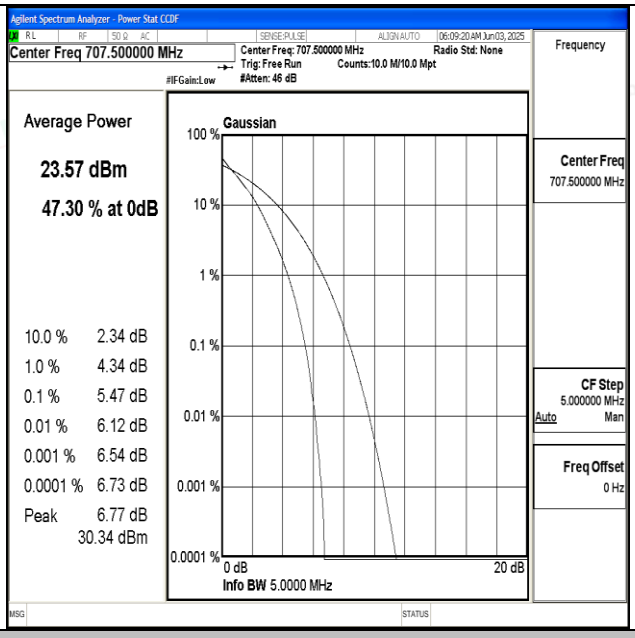

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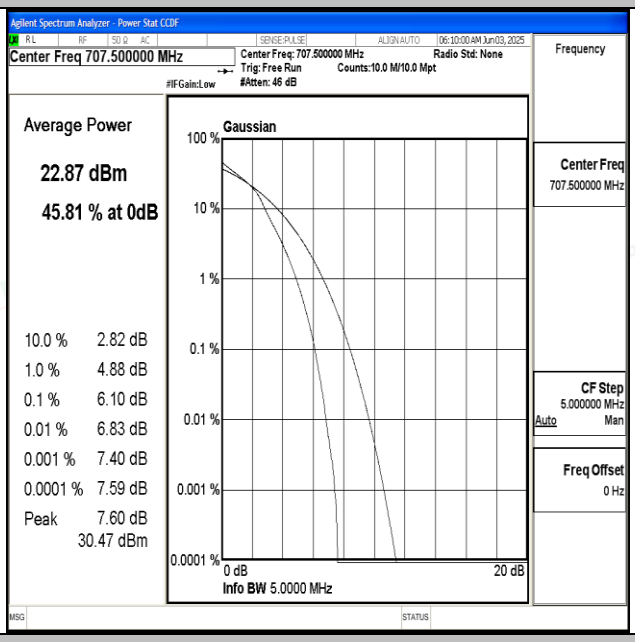

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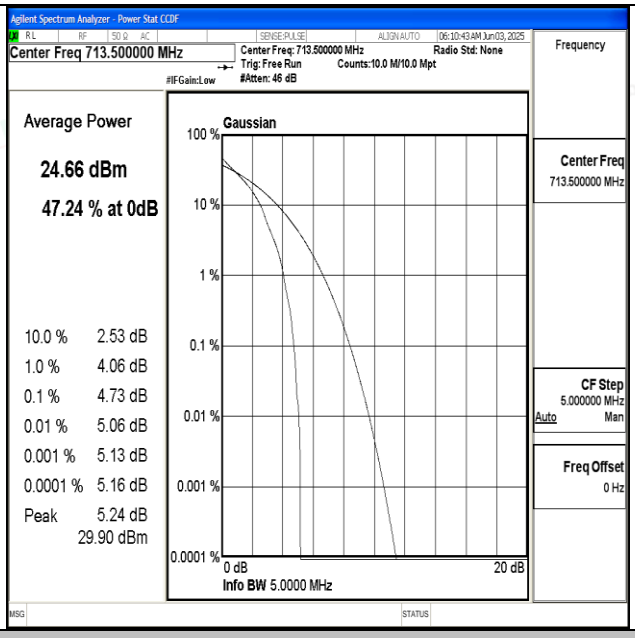

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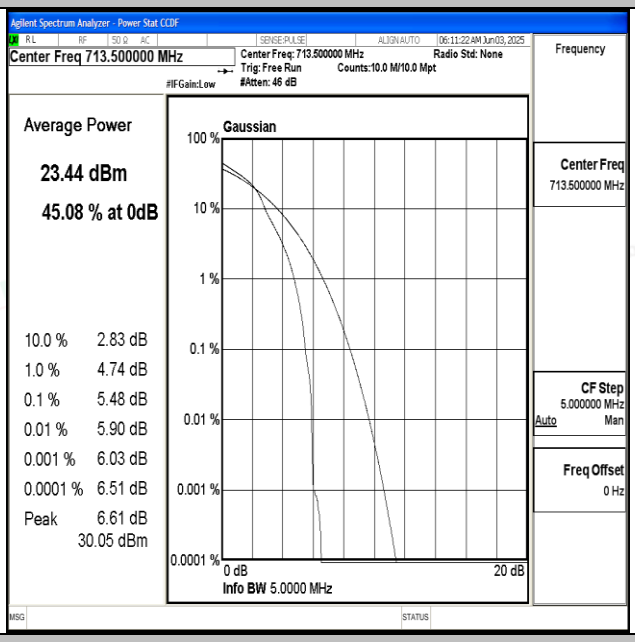

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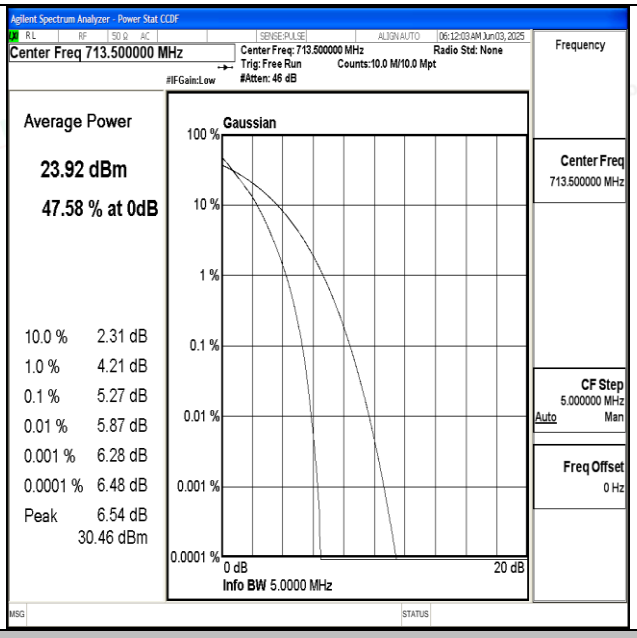

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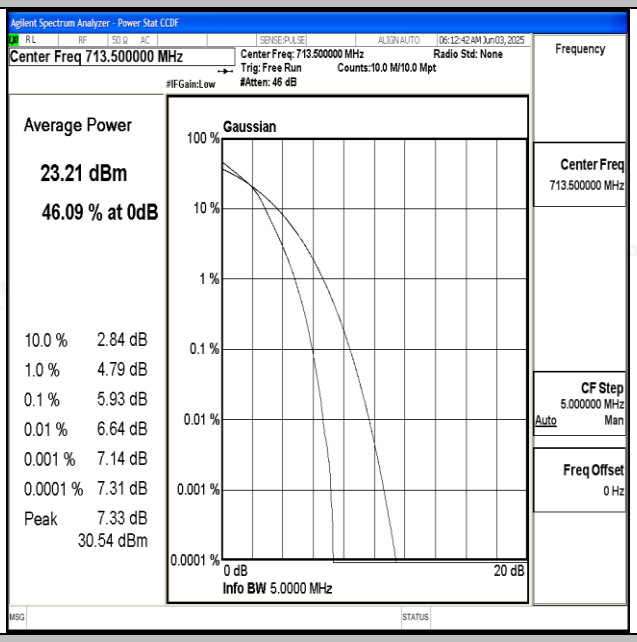

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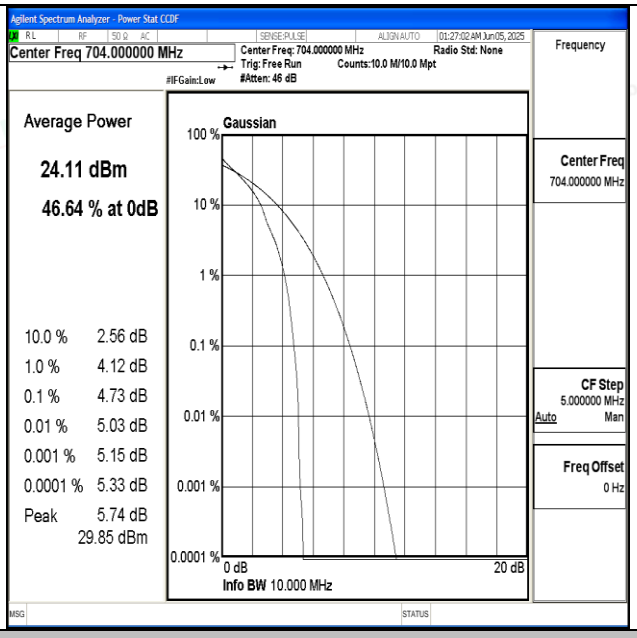
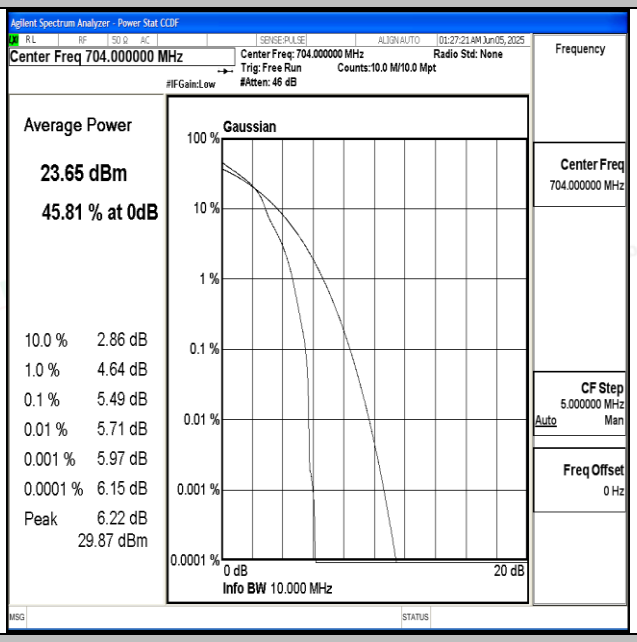


Band12-10MHz-QPSK-23060-1RB#0-PASS



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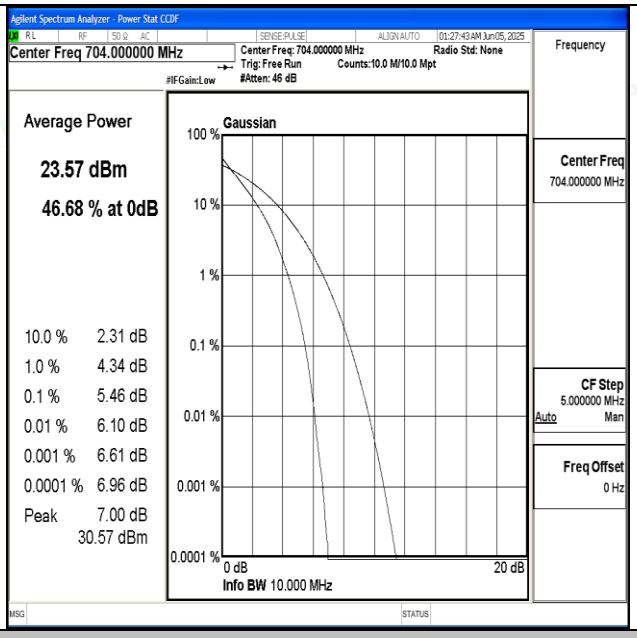

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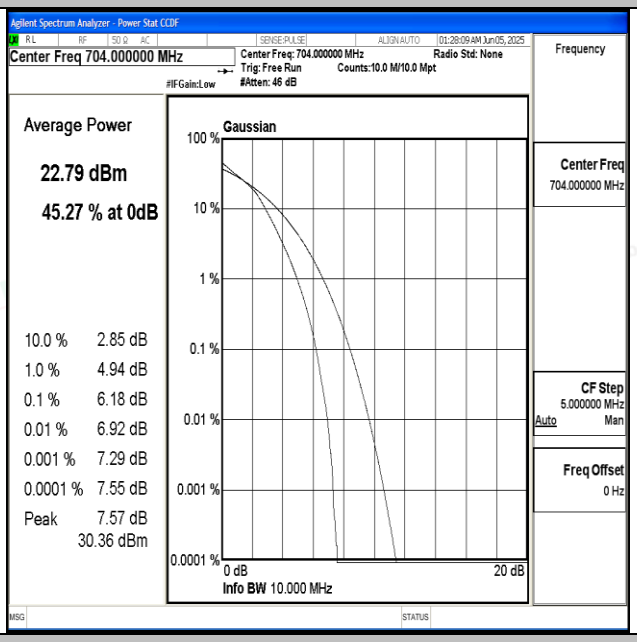

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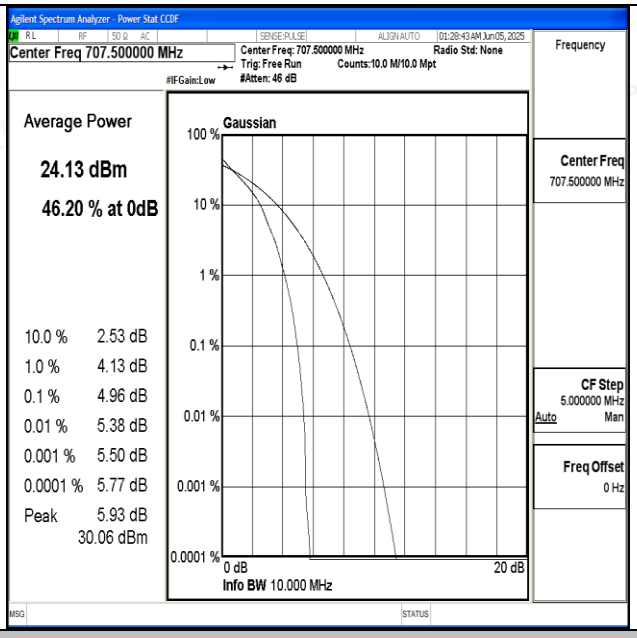

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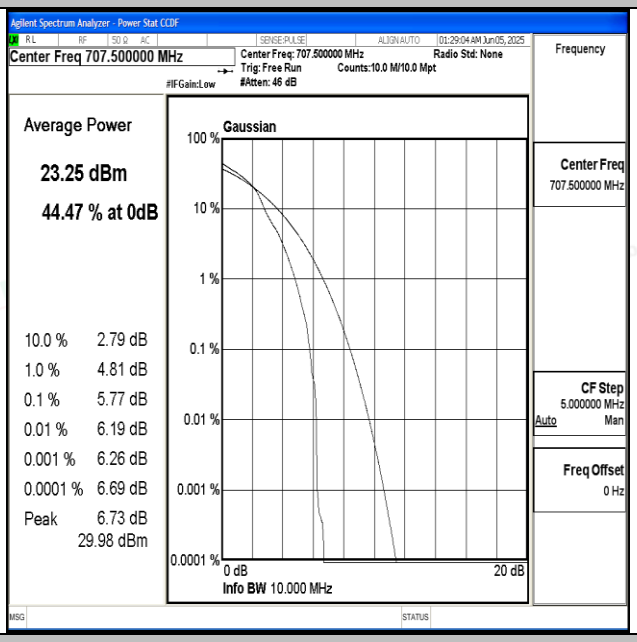

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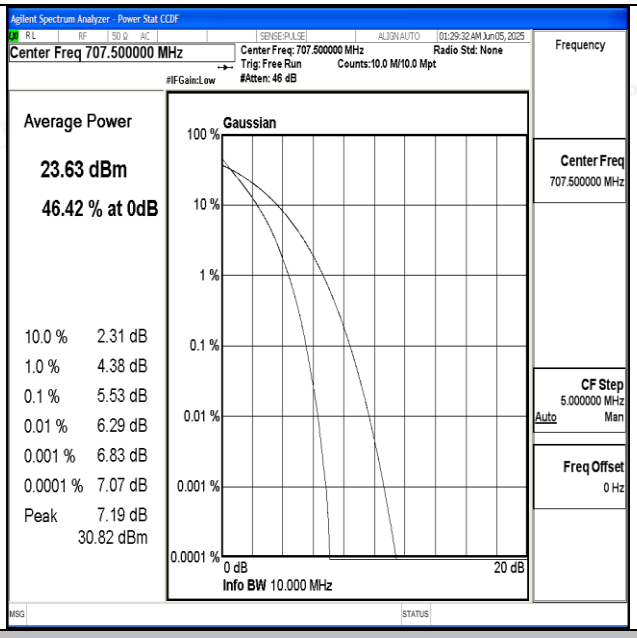

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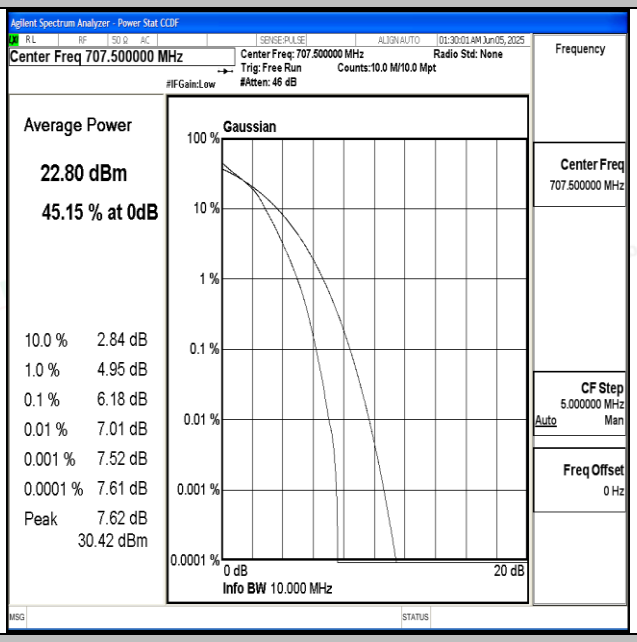

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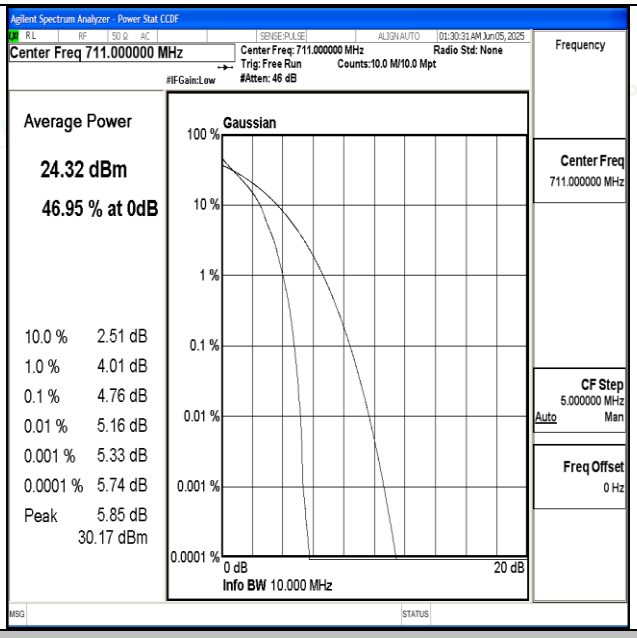
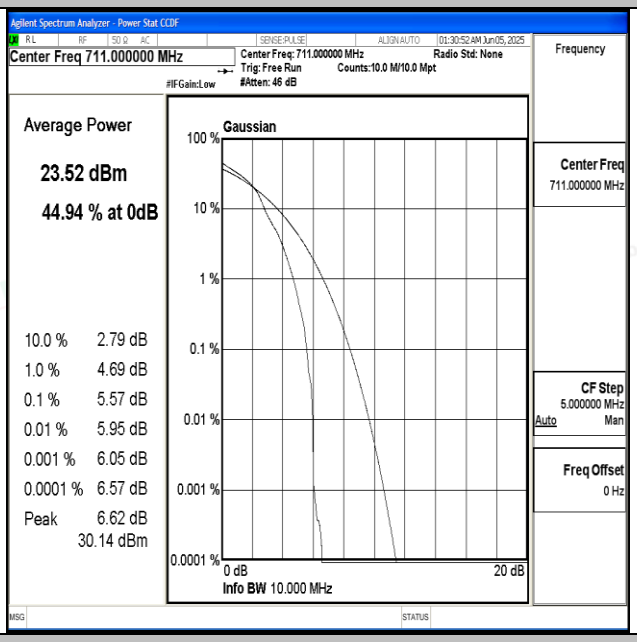
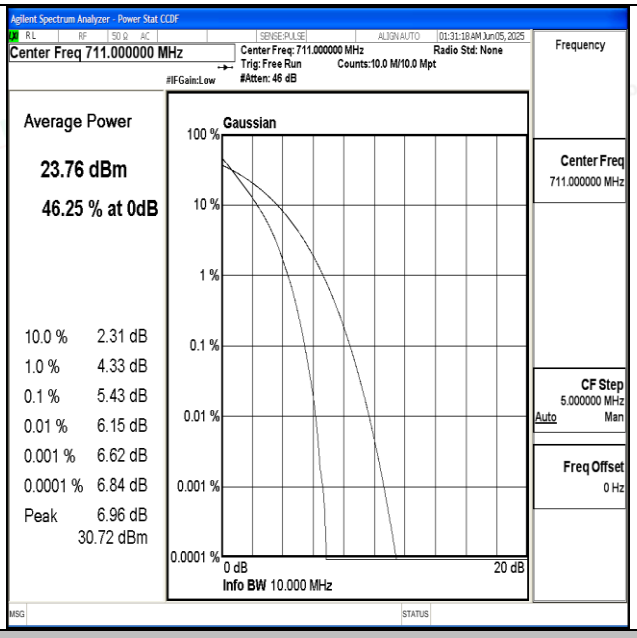


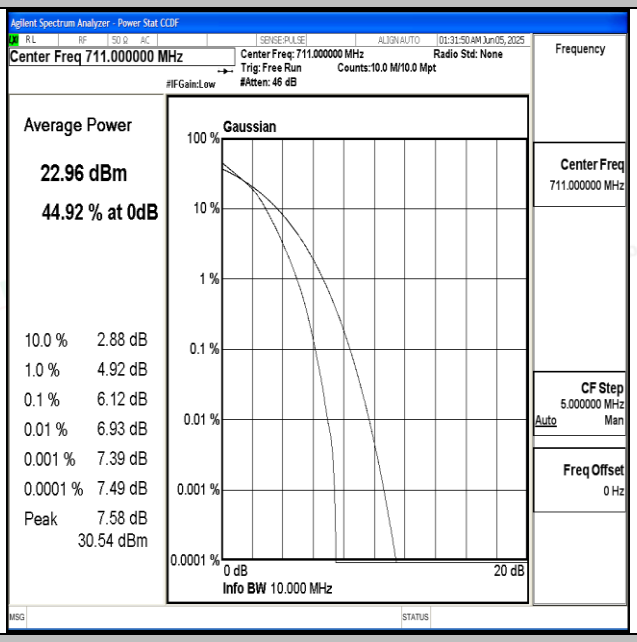
Band12-10MHz-QPSK-23130-1RB#0-PASS



Band12-10MHz-16QAM-23130-1RB#0-PASS



Band12-10MHz-QPSK-23130-50RB#0-PASS



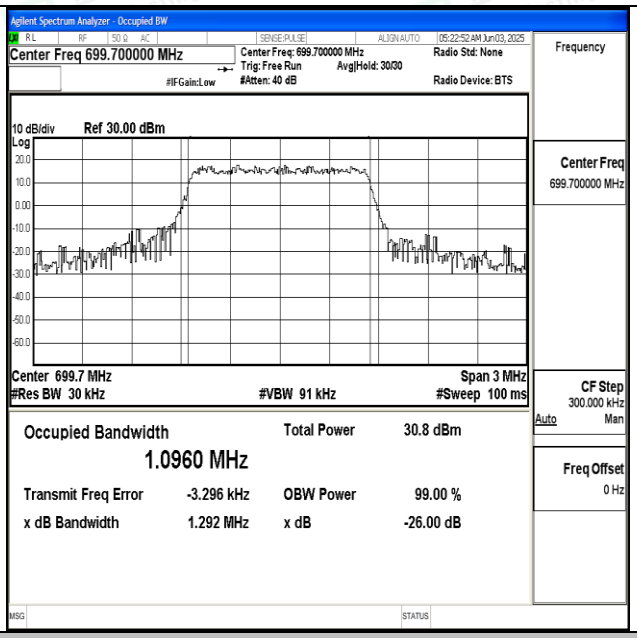
Band12-10MHz-16QAM-23130-50RB#0-PASS

D.3 26dB Bandwidth and Occupied Bandwidth

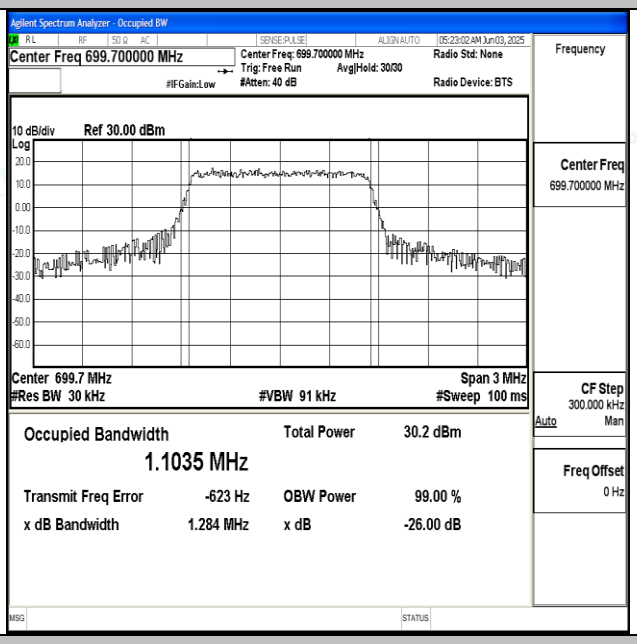
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.0960	1.292	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.1035	1.284	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.0974	1.300	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.1073	1.300	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.0971	1.295	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.1036	1.291	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.7823	3.427	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.7497	3.325	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.7681	3.391	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.7572	3.262	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.7685	3.376	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.7518	3.314	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.5285	5.285	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.5214	5.324	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.5324	5.337	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.5294	5.243	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.5195	5.294	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.5226	5.259	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.9894	10.04	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.9708	10.14	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.9914	10.17	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.9987	9.933	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.9968	9.933	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.9825	10.05	PASS

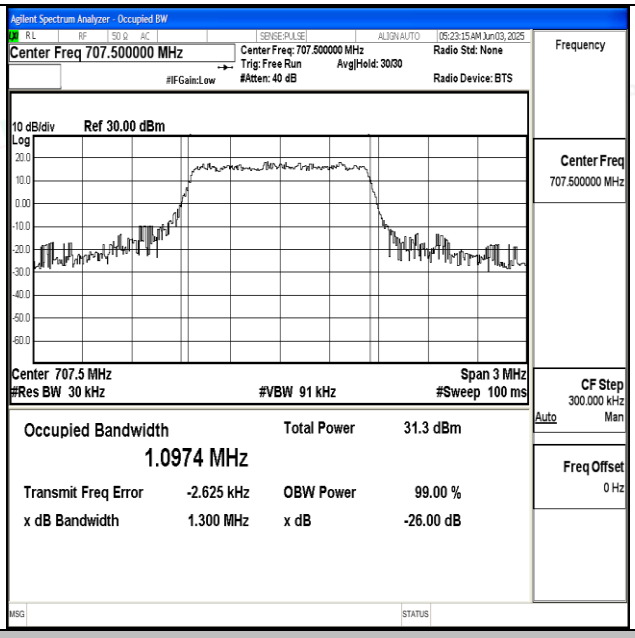
Test Graphs



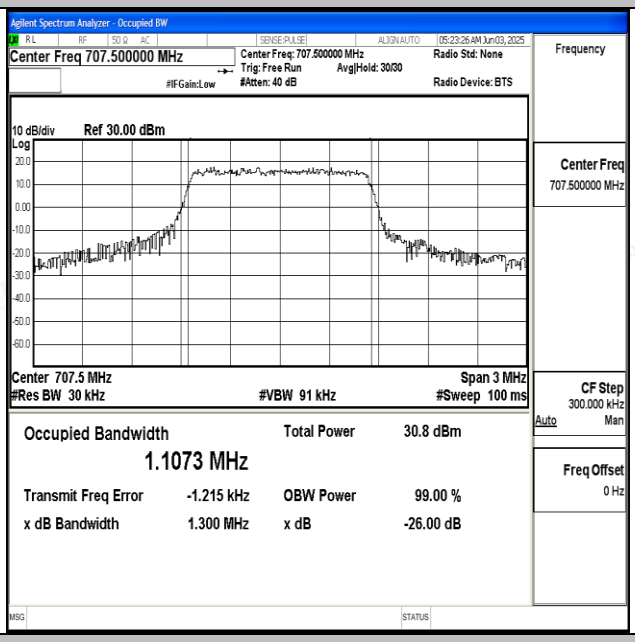
Band12-1.4MHz-QPSK-23017-6RB#0-PASS



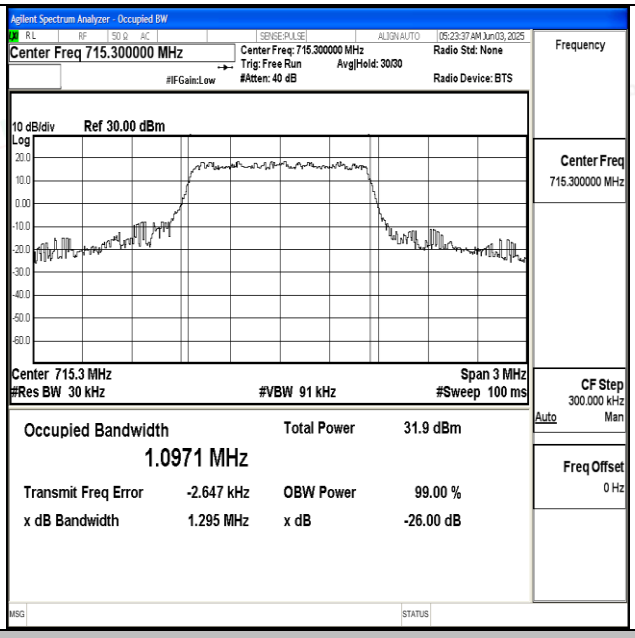
Band12-1.4MHz-16QAM-23017-6RB#0-PASS



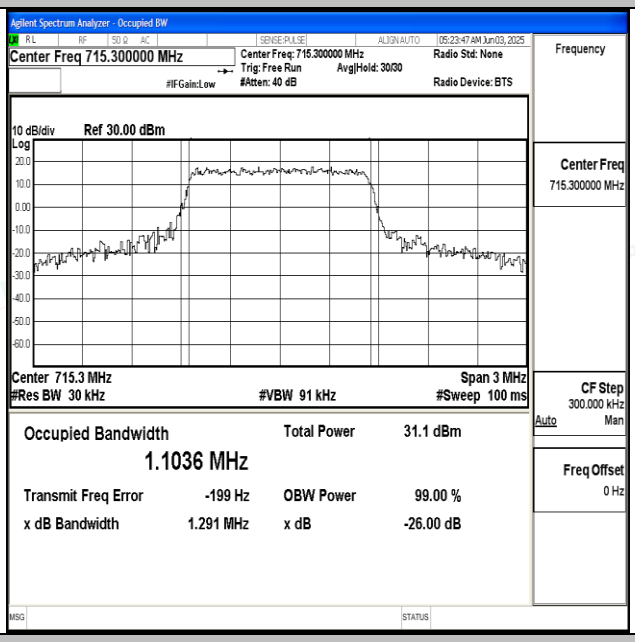
Band12-1.4MHz-QPSK-23095-6RB#0-PASS



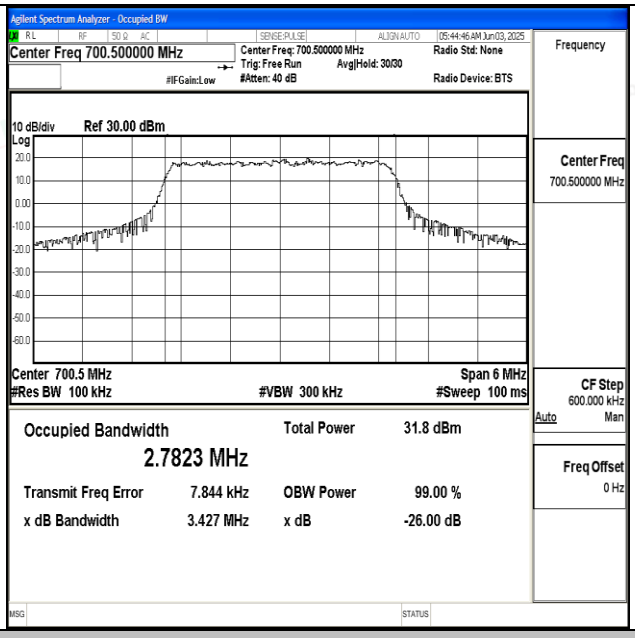
Band12-1.4MHz-16QAM-23095-6RB#0-PASS



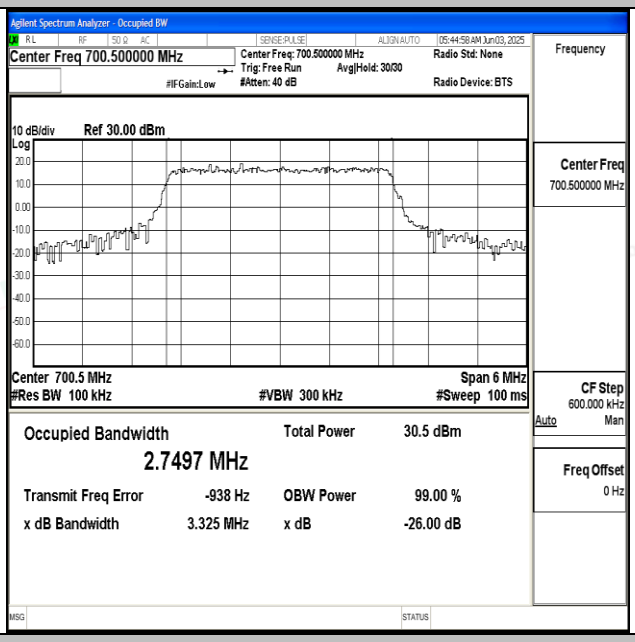
Band12-1.4MHz-QPSK-23173-6RB#0-PASS



Band12-1.4MHz-16QAM-23173-6RB#0-PASS



Band12-3MHz-QPSK-23025-15RB#0-PASS



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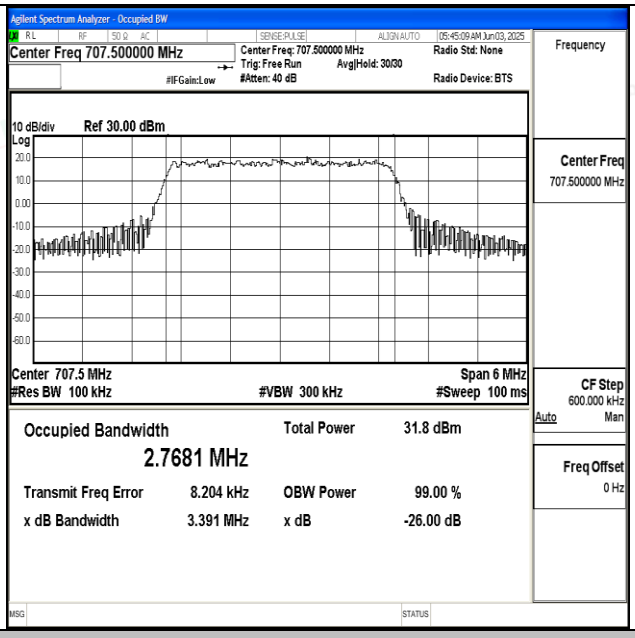

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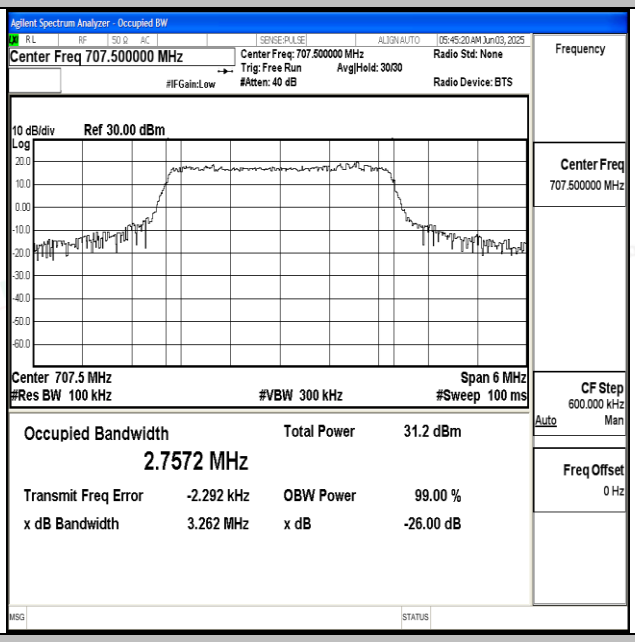
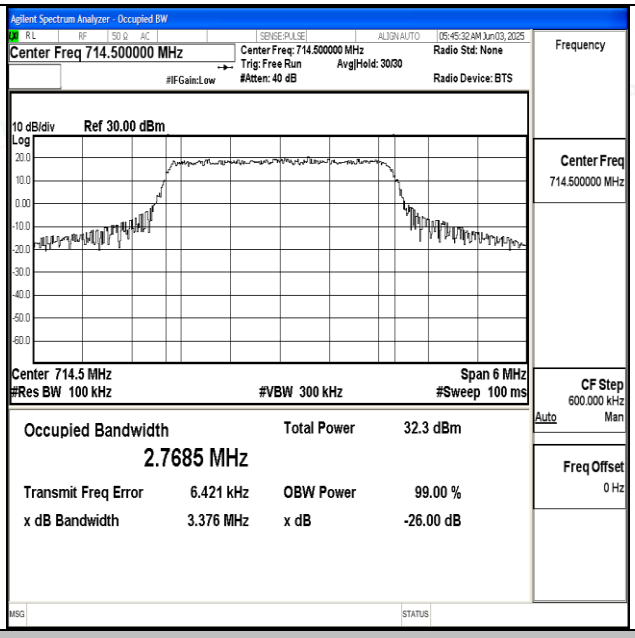
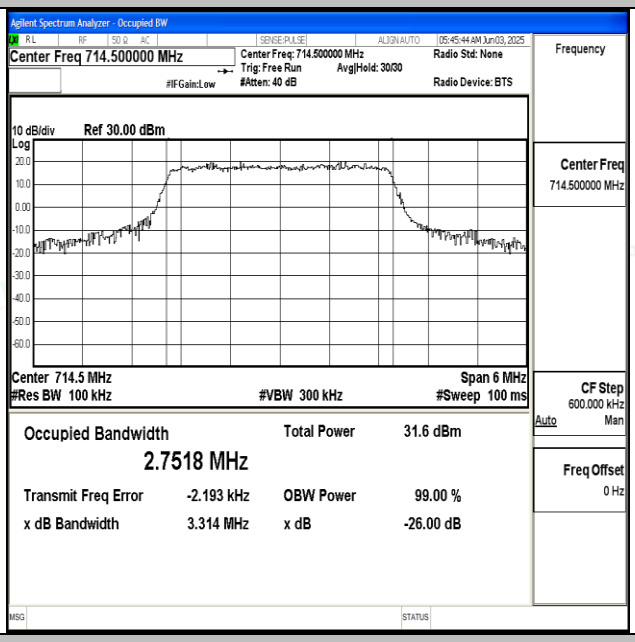


Band12-3MHz-16QAM-23095-15RB#0-PASS



Band12-3MHz-QPSK-23165-15RB#0-PASS



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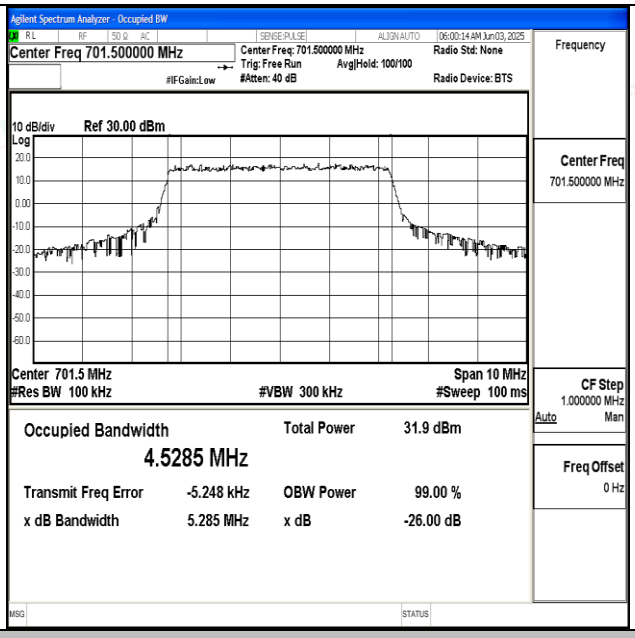

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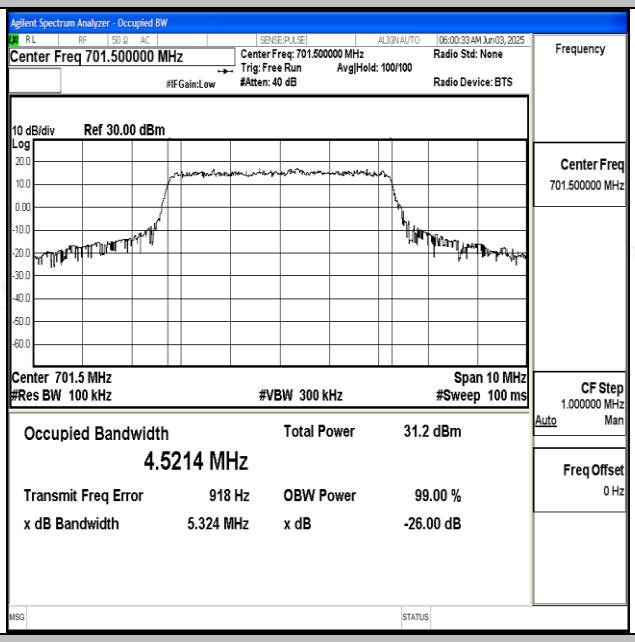

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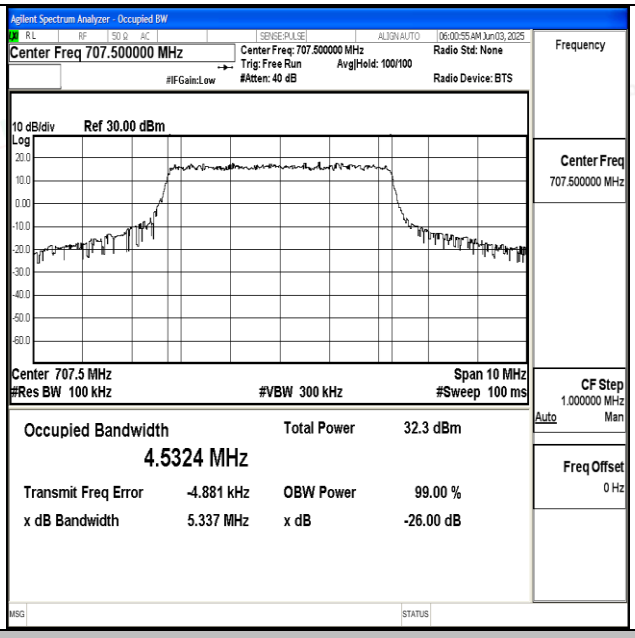

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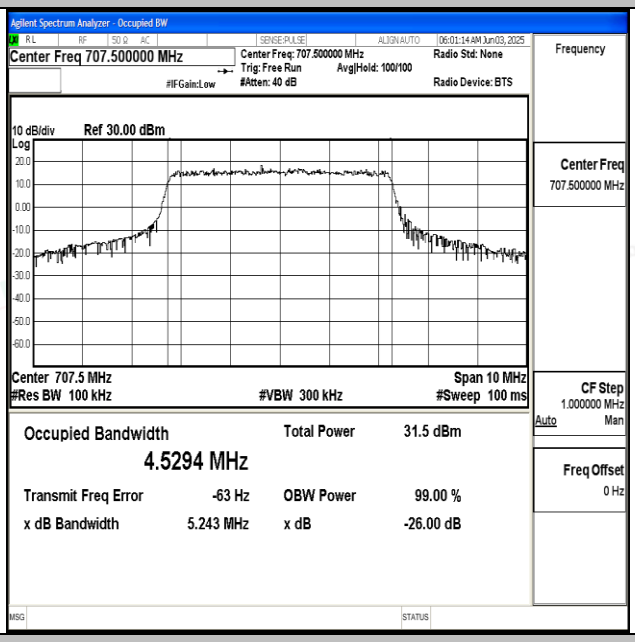

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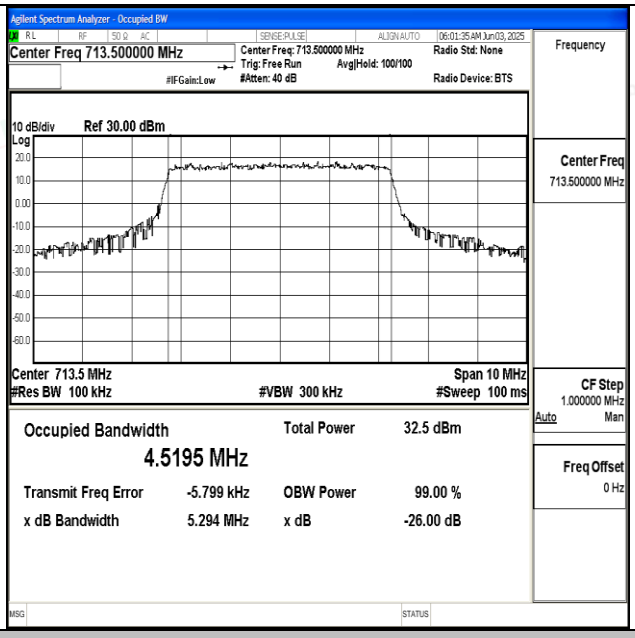

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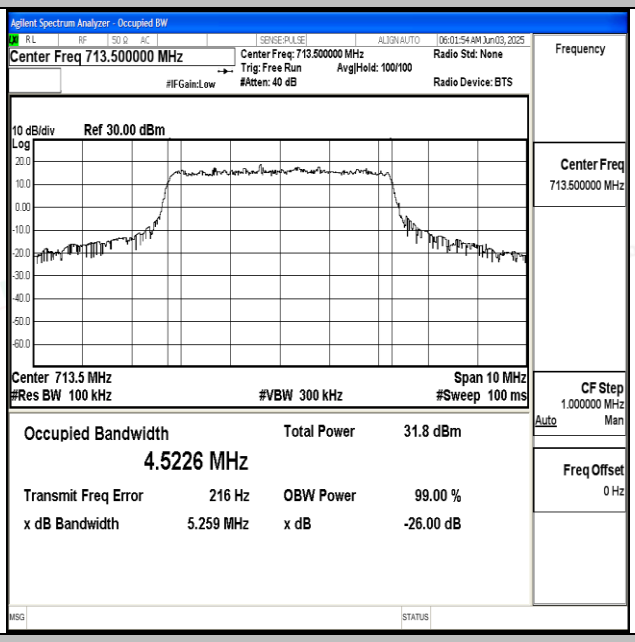

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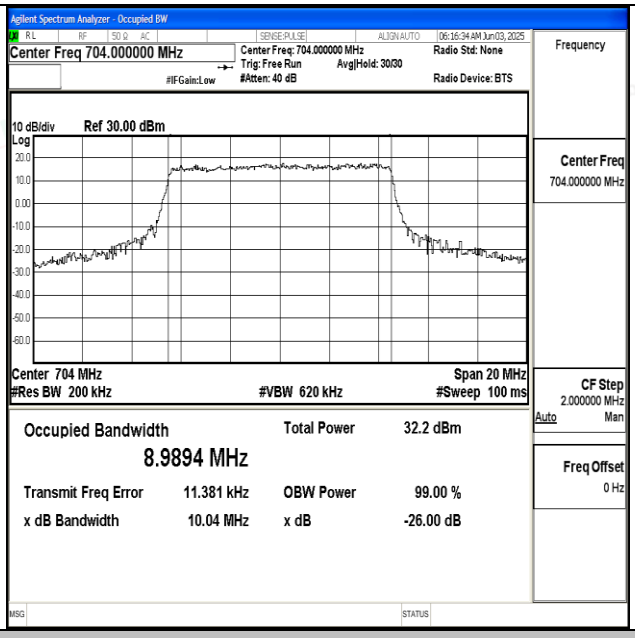
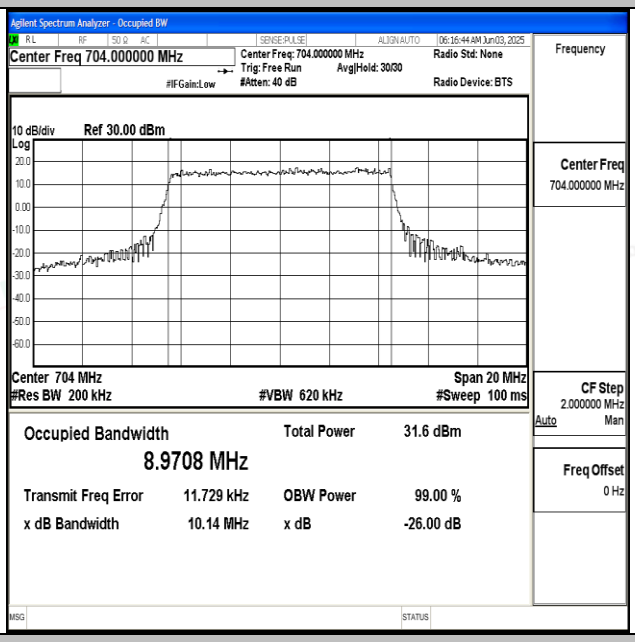


Band12-10MHz-QPSK-23060-50RB#0-PASS



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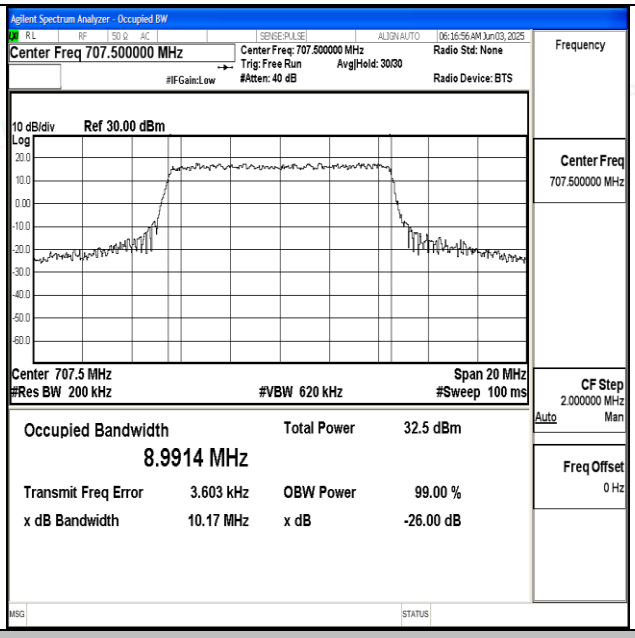

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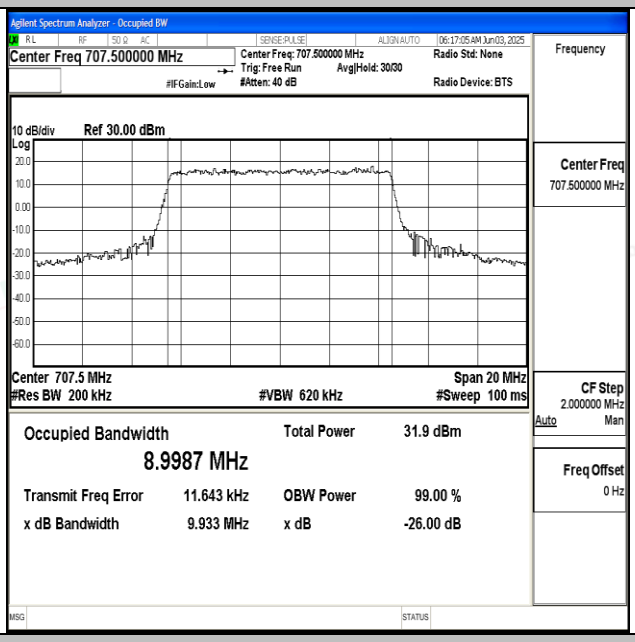

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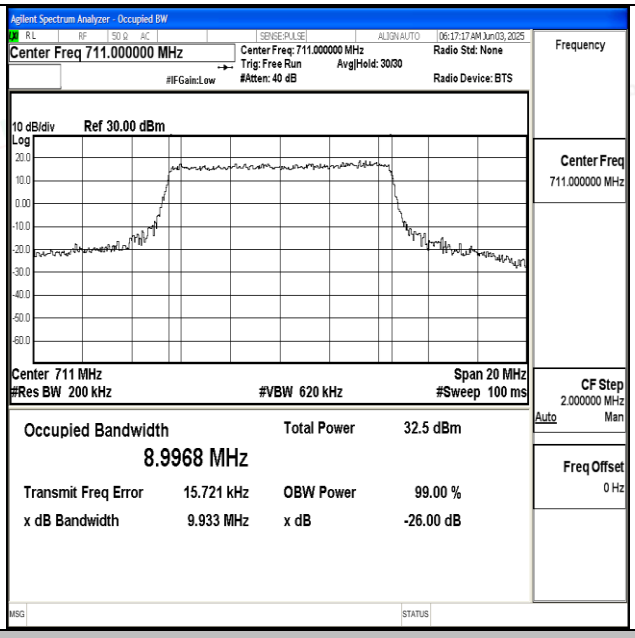
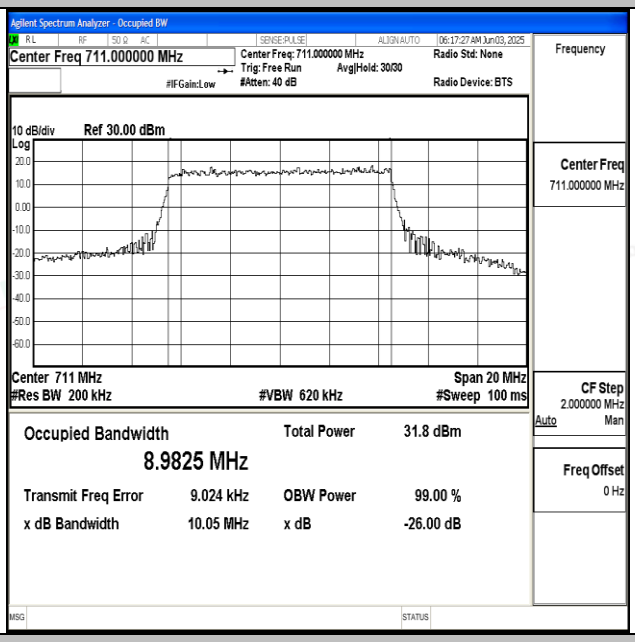


Band12-10MHz-QPSK-23130-50RB#0-PASS



Band12-10MHz-16QAM-23130-50RB#0-PASS