

Appendix for Band 12

Product Name: 4G Vehicle GPS Tracker

Model No: JM-VL01

Appendix A: Average Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	23.48	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	23.45	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	23.36	PASS
Band12	1.4MHz	QPSK	23017	3RB#0	23.54	PASS
Band12	1.4MHz	QPSK	23017	3RB#1	23.41	PASS
Band12	1.4MHz	QPSK	23017	3RB#3	23.50	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	22.60	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	23.44	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	23.52	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	23.50	PASS
Band12	1.4MHz	QPSK	23095	3RB#0	23.42	PASS
Band12	1.4MHz	QPSK	23095	3RB#1	23.43	PASS
Band12	1.4MHz	QPSK	23095	3RB#3	23.43	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	22.47	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	23.33	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	23.30	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	23.36	PASS
Band12	1.4MHz	QPSK	23173	3RB#0	23.41	PASS
Band12	1.4MHz	QPSK	23173	3RB#1	23.48	PASS
Band12	1.4MHz	QPSK	23173	3RB#3	23.41	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	22.41	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	22.91	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	23.00	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	22.98	PASS
Band12	1.4MHz	16QAM	23017	3RB#0	22.31	PASS
Band12	1.4MHz	16QAM	23017	3RB#1	22.28	PASS

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Band12	1.4MHz	16QAM	23017	3RB#3	22.27	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	21.57	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	22.17	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	22.10	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	22.06	PASS
Band12	1.4MHz	16QAM	23095	3RB#0	22.36	PASS
Band12	1.4MHz	16QAM	23095	3RB#1	22.35	PASS
Band12	1.4MHz	16QAM	23095	3RB#3	22.33	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	21.61	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	22.74	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	22.92	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	22.93	PASS
Band12	1.4MHz	16QAM	23173	3RB#0	22.02	PASS
Band12	1.4MHz	16QAM	23173	3RB#1	22.02	PASS
Band12	1.4MHz	16QAM	23173	3RB#3	22.11	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	21.28	PASS
Band12	3MHz	QPSK	23025	1RB#0	23.60	PASS
Band12	3MHz	QPSK	23025	1RB#8	23.53	PASS
Band12	3MHz	QPSK	23025	1RB#14	23.62	PASS
Band12	3MHz	QPSK	23025	8RB#0	22.48	PASS
Band12	3MHz	QPSK	23025	8RB#4	22.55	PASS
Band12	3MHz	QPSK	23025	8RB#7	22.48	PASS
Band12	3MHz	QPSK	23025	15RB#0	22.49	PASS
Band12	3MHz	QPSK	23095	1RB#0	23.55	PASS
Band12	3MHz	QPSK	23095	1RB#8	23.47	PASS
Band12	3MHz	QPSK	23095	1RB#14	23.43	PASS
Band12	3MHz	QPSK	23095	8RB#0	22.47	PASS
Band12	3MHz	QPSK	23095	8RB#4	22.45	PASS
Band12	3MHz	QPSK	23095	8RB#7	22.37	PASS
Band12	3MHz	QPSK	23095	15RB#0	22.42	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.39	PASS
Band12	3MHz	QPSK	23165	1RB#8	23.34	PASS
Band12	3MHz	QPSK	23165	1RB#14	23.26	PASS
Band12	3MHz	QPSK	23165	8RB#0	22.37	PASS
Band12	3MHz	QPSK	23165	8RB#4	22.37	PASS
Band12	3MHz	QPSK	23165	8RB#7	22.42	PASS
Band12	3MHz	QPSK	23165	15RB#0	22.29	PASS

Band12	3MHz	16QAM	23025	1RB#0	22.30	PASS
Band12	3MHz	16QAM	23025	1RB#8	22.22	PASS
Band12	3MHz	16QAM	23025	1RB#14	22.14	PASS
Band12	3MHz	16QAM	23025	8RB#0	21.60	PASS
Band12	3MHz	16QAM	23025	8RB#4	21.60	PASS
Band12	3MHz	16QAM	23025	8RB#7	21.63	PASS
Band12	3MHz	16QAM	23025	15RB#0	21.23	PASS
Band12	3MHz	16QAM	23095	1RB#0	22.93	PASS
Band12	3MHz	16QAM	23095	1RB#8	22.87	PASS
Band12	3MHz	16QAM	23095	1RB#14	22.91	PASS
Band12	3MHz	16QAM	23095	8RB#0	21.61	PASS
Band12	3MHz	16QAM	23095	8RB#4	21.65	PASS
Band12	3MHz	16QAM	23095	8RB#7	21.57	PASS
Band12	3MHz	16QAM	23095	15RB#0	21.54	PASS
Band12	3MHz	16QAM	23165	1RB#0	22.40	PASS
Band12	3MHz	16QAM	23165	1RB#8	22.29	PASS
Band12	3MHz	16QAM	23165	1RB#14	22.44	PASS
Band12	3MHz	16QAM	23165	8RB#0	21.62	PASS
Band12	3MHz	16QAM	23165	8RB#4	21.59	PASS
Band12	3MHz	16QAM	23165	8RB#7	21.58	PASS
Band12	3MHz	16QAM	23165	15RB#0	21.33	PASS
Band12	5MHz	QPSK	23035	1RB#0	23.61	PASS
Band12	5MHz	QPSK	23035	1RB#12	23.59	PASS
Band12	5MHz	QPSK	23035	1RB#24	23.66	PASS
Band12	5MHz	QPSK	23035	12RB#0	22.57	PASS
Band12	5MHz	QPSK	23035	12RB#6	22.55	PASS
Band12	5MHz	QPSK	23035	12RB#13	22.38	PASS
Band12	5MHz	QPSK	23035	25RB#0	22.39	PASS
Band12	5MHz	QPSK	23095	1RB#0	23.57	PASS
Band12	5MHz	QPSK	23095	1RB#12	23.53	PASS
Band12	5MHz	QPSK	23095	1RB#24	23.47	PASS
Band12	5MHz	QPSK	23095	12RB#0	22.56	PASS
Band12	5MHz	QPSK	23095	12RB#6	22.58	PASS
Band12	5MHz	QPSK	23095	12RB#13	22.45	PASS
Band12	5MHz	QPSK	23095	25RB#0	22.29	PASS
Band12	5MHz	QPSK	23155	1RB#0	23.67	PASS
Band12	5MHz	QPSK	23155	1RB#12	23.59	PASS

Band12	5MHz	QPSK	23155	1RB#24	23.53	PASS
Band12	5MHz	QPSK	23155	12RB#0	22.35	PASS
Band12	5MHz	QPSK	23155	12RB#6	22.30	PASS
Band12	5MHz	QPSK	23155	12RB#13	22.36	PASS
Band12	5MHz	QPSK	23155	25RB#0	22.33	PASS
Band12	5MHz	16QAM	23035	1RB#0	22.19	PASS
Band12	5MHz	16QAM	23035	1RB#12	22.06	PASS
Band12	5MHz	16QAM	23035	1RB#24	22.15	PASS
Band12	5MHz	16QAM	23035	12RB#0	21.31	PASS
Band12	5MHz	16QAM	23035	12RB#6	21.34	PASS
Band12	5MHz	16QAM	23035	12RB#13	21.42	PASS
Band12	5MHz	16QAM	23035	25RB#0	21.38	PASS
Band12	5MHz	16QAM	23095	1RB#0	22.17	PASS
Band12	5MHz	16QAM	23095	1RB#12	22.06	PASS
Band12	5MHz	16QAM	23095	1RB#24	22.02	PASS
Band12	5MHz	16QAM	23095	12RB#0	21.56	PASS
Band12	5MHz	16QAM	23095	12RB#6	21.54	PASS
Band12	5MHz	16QAM	23095	12RB#13	21.52	PASS
Band12	5MHz	16QAM	23095	25RB#0	21.40	PASS
Band12	5MHz	16QAM	23155	1RB#0	21.73	PASS
Band12	5MHz	16QAM	23155	1RB#12	21.75	PASS
Band12	5MHz	16QAM	23155	1RB#24	21.78	PASS
Band12	5MHz	16QAM	23155	12RB#0	21.36	PASS
Band12	5MHz	16QAM	23155	12RB#6	21.32	PASS
Band12	5MHz	16QAM	23155	12RB#13	21.26	PASS
Band12	5MHz	16QAM	23155	25RB#0	21.41	PASS
Band12	10MHz	QPSK	23060	1RB#0	23.57	PASS
Band12	10MHz	QPSK	23060	1RB#24	23.76	PASS
Band12	10MHz	QPSK	23060	1RB#49	23.59	PASS
Band12	10MHz	QPSK	23060	25RB#0	22.57	PASS
Band12	10MHz	QPSK	23060	25RB#12	22.51	PASS
Band12	10MHz	QPSK	23060	25RB#25	22.53	PASS
Band12	10MHz	QPSK	23060	50RB#0	22.41	PASS
Band12	10MHz	QPSK	23095	1RB#0	23.51	PASS
Band12	10MHz	QPSK	23095	1RB#24	23.44	PASS
Band12	10MHz	QPSK	23095	1RB#49	23.55	PASS
Band12	10MHz	QPSK	23095	25RB#0	22.55	PASS

Band12	10MHz	QPSK	23095	25RB#12	22.51	PASS
Band12	10MHz	QPSK	23095	25RB#25	22.35	PASS
Band12	10MHz	QPSK	23095	50RB#0	22.54	PASS
Band12	10MHz	QPSK	23130	1RB#0	23.49	PASS
Band12	10MHz	QPSK	23130	1RB#24	23.30	PASS
Band12	10MHz	QPSK	23130	1RB#49	23.35	PASS
Band12	10MHz	QPSK	23130	25RB#0	22.43	PASS
Band12	10MHz	QPSK	23130	25RB#12	22.43	PASS
Band12	10MHz	QPSK	23130	25RB#25	22.39	PASS
Band12	10MHz	QPSK	23130	50RB#0	22.35	PASS
Band12	10MHz	16QAM	23060	1RB#0	22.01	PASS
Band12	10MHz	16QAM	23060	1RB#24	21.89	PASS
Band12	10MHz	16QAM	23060	1RB#49	21.75	PASS
Band12	10MHz	16QAM	23060	25RB#0	21.55	PASS
Band12	10MHz	16QAM	23060	25RB#12	21.56	PASS
Band12	10MHz	16QAM	23060	25RB#25	21.59	PASS
Band12	10MHz	16QAM	23060	50RB#0	21.45	PASS
Band12	10MHz	16QAM	23095	1RB#0	22.45	PASS
Band12	10MHz	16QAM	23095	1RB#24	22.48	PASS
Band12	10MHz	16QAM	23095	1RB#49	22.37	PASS
Band12	10MHz	16QAM	23095	25RB#0	21.75	PASS
Band12	10MHz	16QAM	23095	25RB#12	21.70	PASS
Band12	10MHz	16QAM	23095	25RB#25	21.70	PASS
Band12	10MHz	16QAM	23095	50RB#0	21.45	PASS
Band12	10MHz	16QAM	23130	1RB#0	22.08	PASS
Band12	10MHz	16QAM	23130	1RB#24	21.86	PASS
Band12	10MHz	16QAM	23130	1RB#49	22.01	PASS
Band12	10MHz	16QAM	23130	25RB#0	21.35	PASS
Band12	10MHz	16QAM	23130	25RB#12	21.35	PASS
Band12	10MHz	16QAM	23130	25RB#25	21.27	PASS
Band12	10MHz	16QAM	23130	50RB#0	21.52	PASS

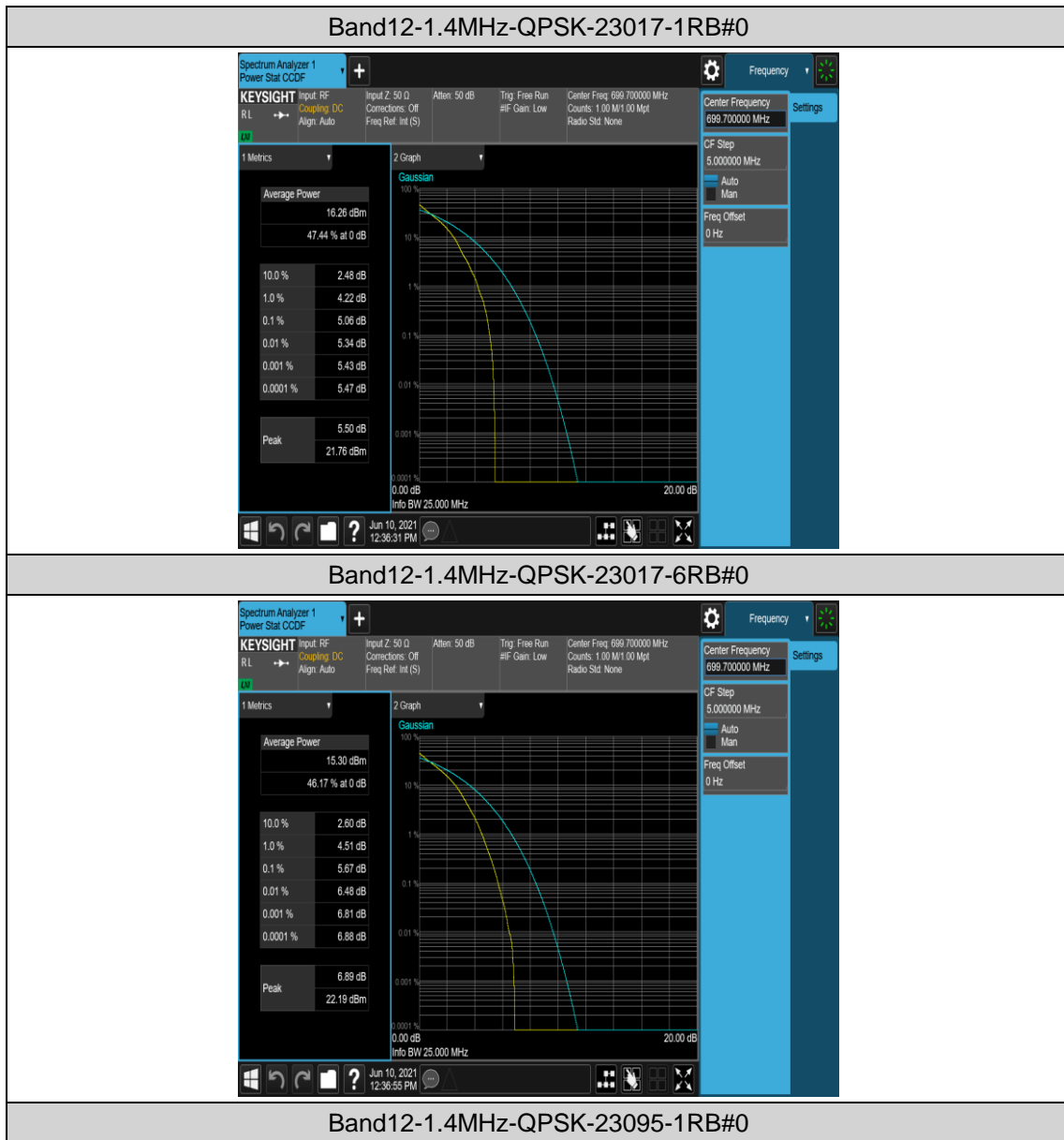
Appendix B: Peak-to-Average Ratio(CCDF)

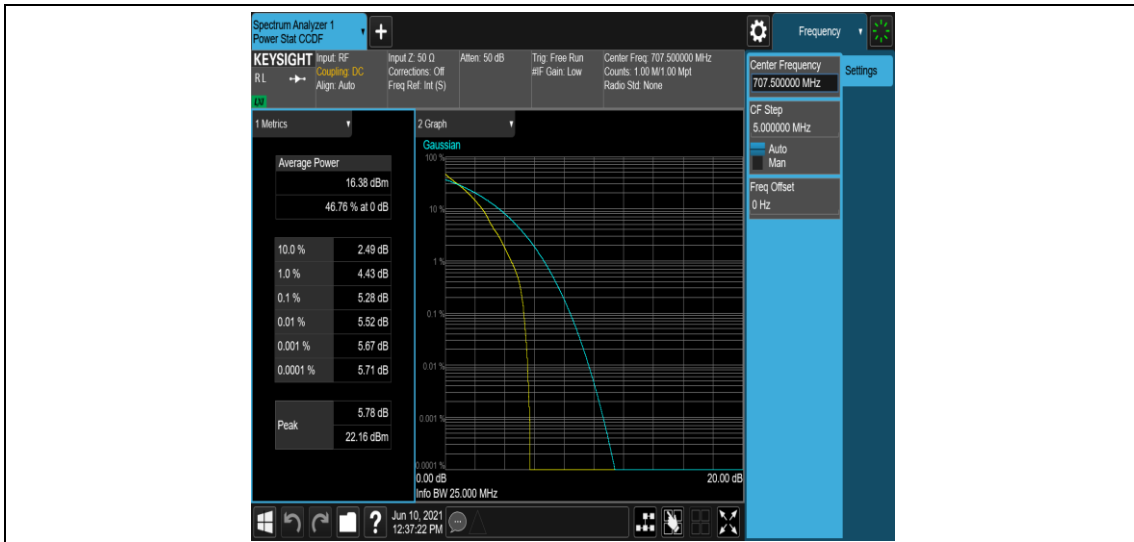
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	5.06	13	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	5.67	13	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	5.28	13	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	5.80	13	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	4.69	13	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	5.30	13	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	6.00	13	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	6.44	13	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	6.28	13	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	6.62	13	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	5.79	13	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	6.13	13	PASS
Band12	3MHz	QPSK	23025	1RB#0	5.18	13	PASS
Band12	3MHz	QPSK	23025	15RB#0	5.68	13	PASS
Band12	3MHz	QPSK	23095	1RB#0	5.34	13	PASS
Band12	3MHz	QPSK	23095	15RB#0	5.86	13	PASS
Band12	3MHz	QPSK	23165	1RB#0	5.06	13	PASS
Band12	3MHz	QPSK	23165	15RB#0	5.42	13	PASS
Band12	3MHz	16QAM	23025	1RB#0	6.22	13	PASS
Band12	3MHz	16QAM	23025	15RB#0	6.52	13	PASS
Band12	3MHz	16QAM	23095	1RB#0	6.21	13	PASS
Band12	3MHz	16QAM	23095	15RB#0	6.56	13	PASS
Band12	3MHz	16QAM	23165	1RB#0	6.07	13	PASS
Band12	3MHz	16QAM	23165	15RB#0	6.39	13	PASS
Band12	5MHz	QPSK	23035	1RB#0	5.20	13	PASS
Band12	5MHz	QPSK	23035	25RB#0	5.71	13	PASS
Band12	5MHz	QPSK	23095	1RB#0	5.56	13	PASS
Band12	5MHz	QPSK	23095	25RB#0	5.82	13	PASS
Band12	5MHz	QPSK	23155	1RB#0	5.25	13	PASS
Band12	5MHz	QPSK	23155	25RB#0	5.56	13	PASS
Band12	5MHz	16QAM	23035	1RB#0	6.05	13	PASS
Band12	5MHz	16QAM	23035	25RB#0	6.42	13	PASS
Band12	5MHz	16QAM	23095	1RB#0	6.37	13	PASS
Band12	5MHz	16QAM	23095	25RB#0	6.51	13	PASS
Band12	5MHz	16QAM	23155	1RB#0	6.17	13	PASS

Band12	5MHz	16QAM	23155	25RB#0	6.29	13	PASS
Band12	10MHz	QPSK	23060	1RB#0	5.22	13	PASS
Band12	10MHz	QPSK	23060	50RB#0	5.87	13	PASS
Band12	10MHz	QPSK	23095	1RB#0	5.29	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.88	13	PASS
Band12	10MHz	QPSK	23130	1RB#0	5.34	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.73	13	PASS
Band12	10MHz	16QAM	23060	1RB#0	6.05	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	6.58	13	PASS
Band12	10MHz	16QAM	23095	1RB#0	6.20	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	6.67	13	PASS
Band12	10MHz	16QAM	23130	1RB#0	6.22	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	6.44	13	PASS

Test Graphs

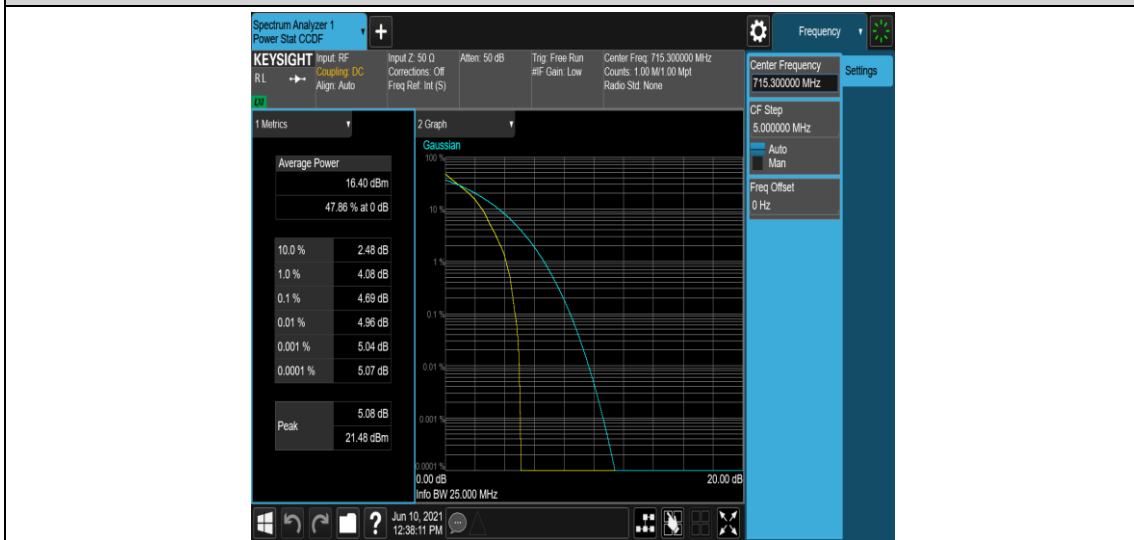




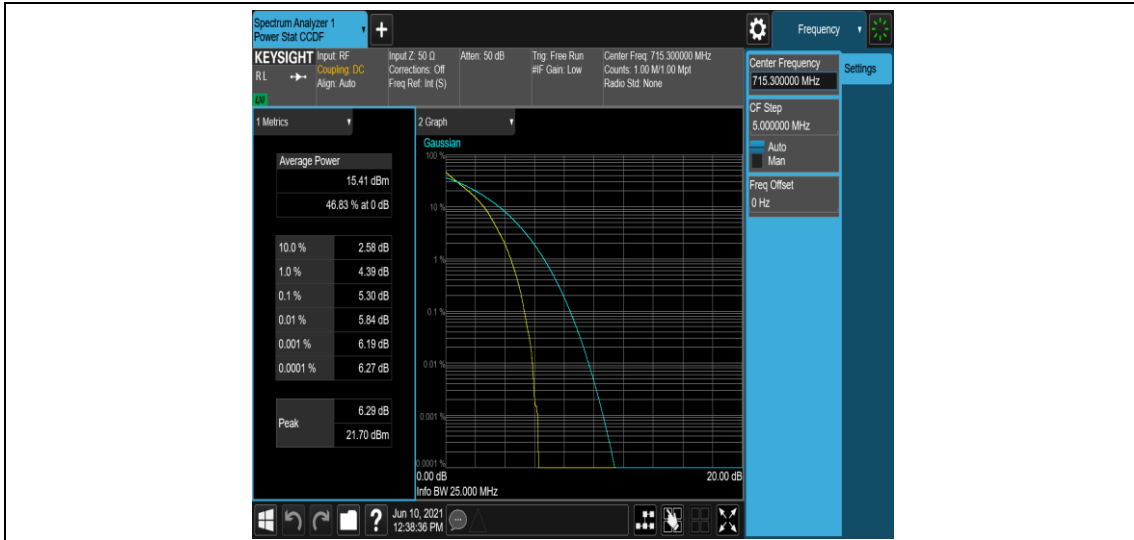
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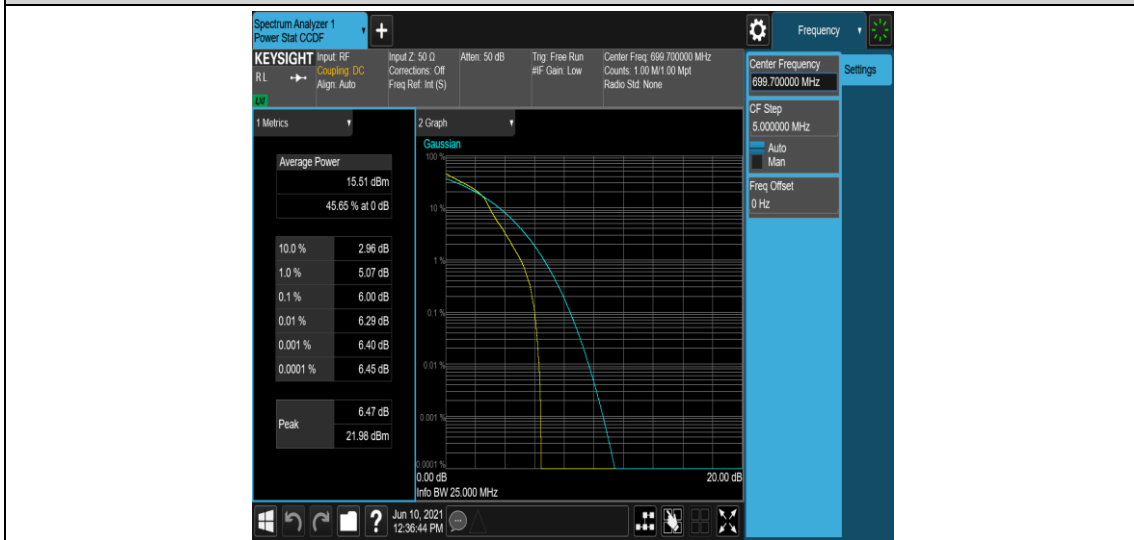
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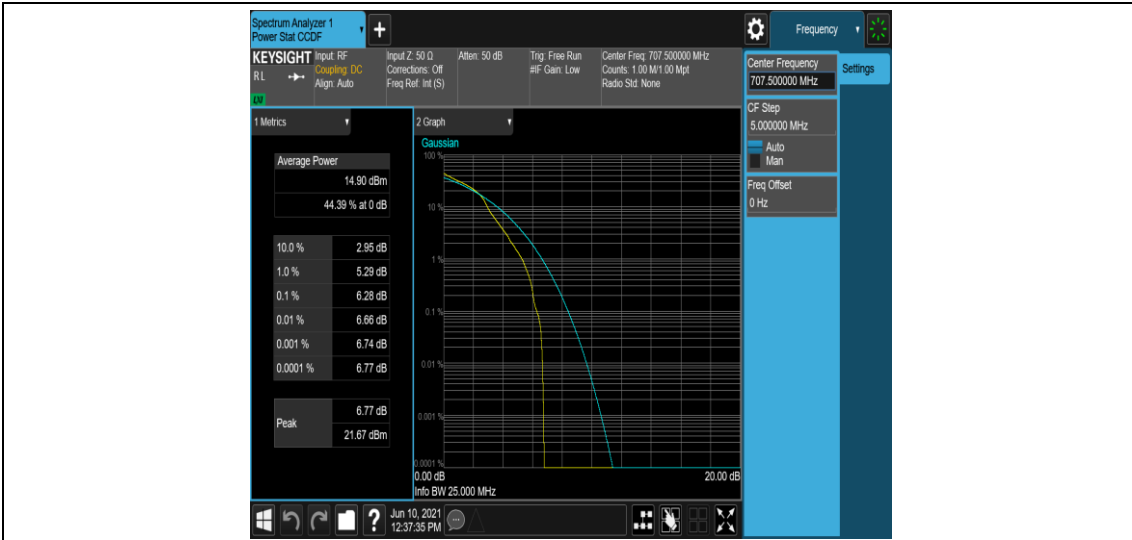
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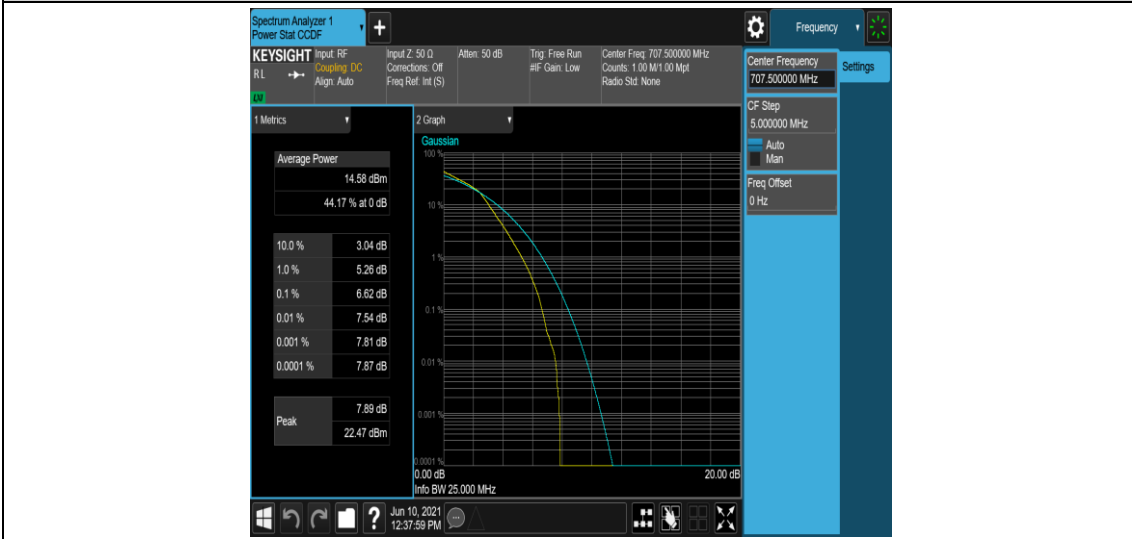
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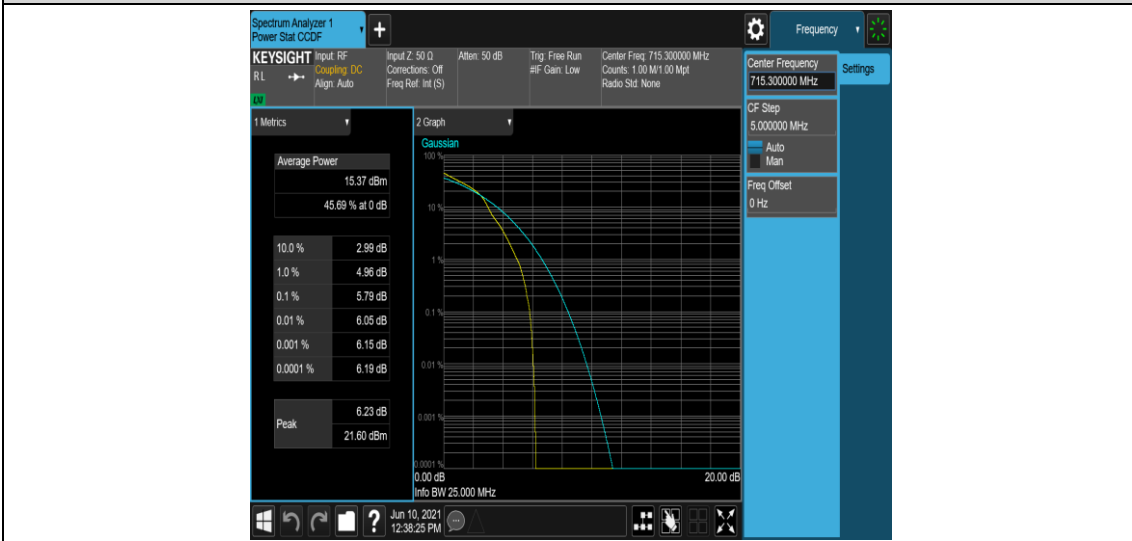
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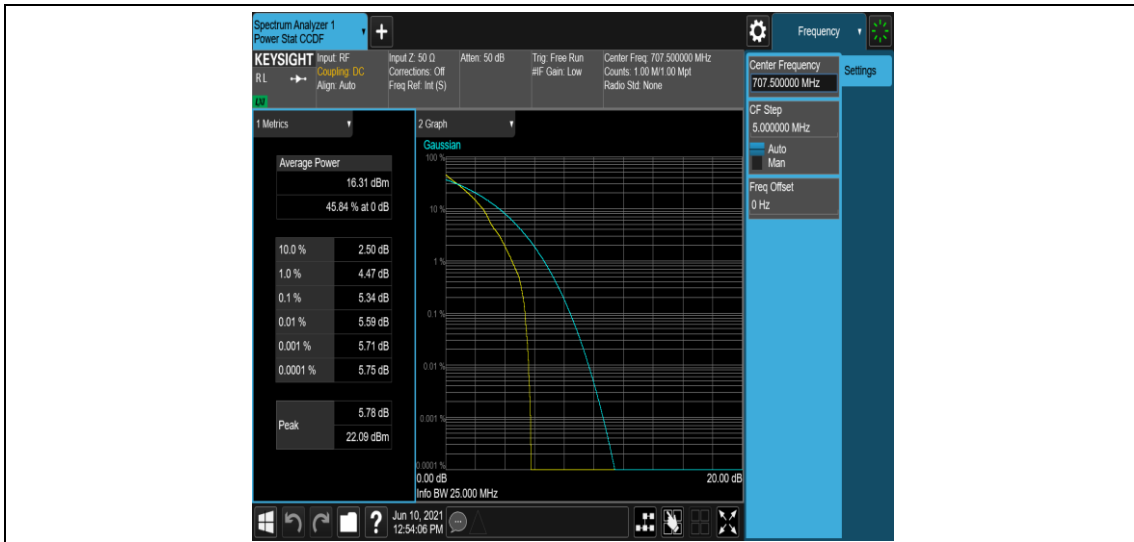
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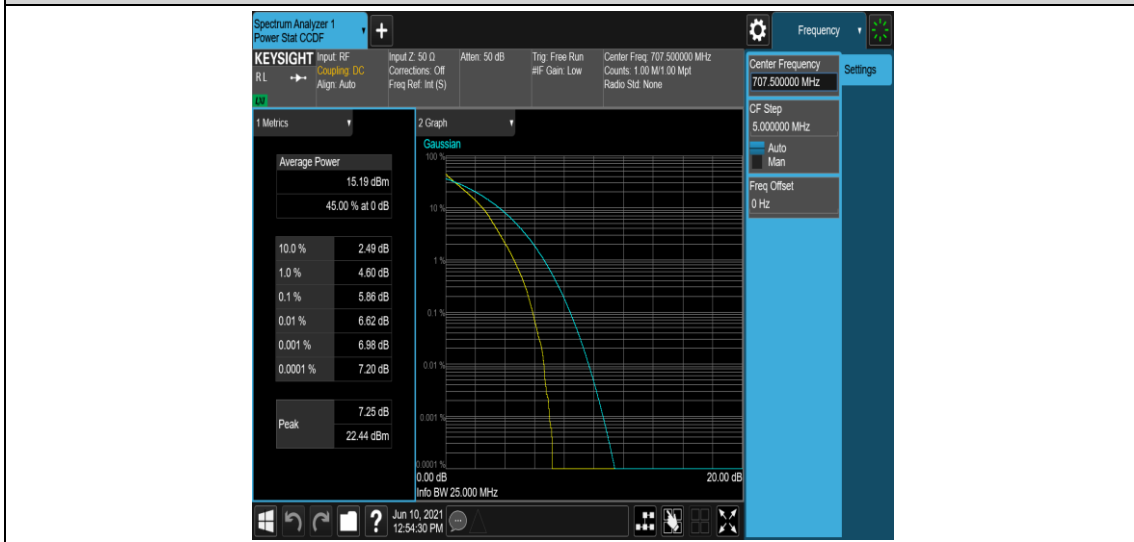
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Band12-3MHz-QPSK-23095-1RB#0



Band12-3MHz-QPSK-23095-15RB#0



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



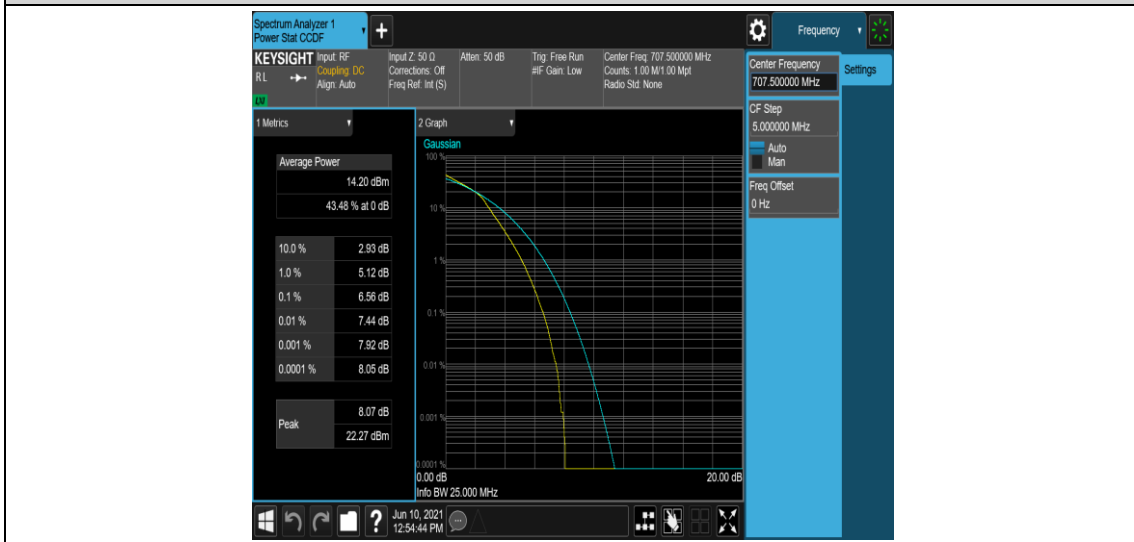
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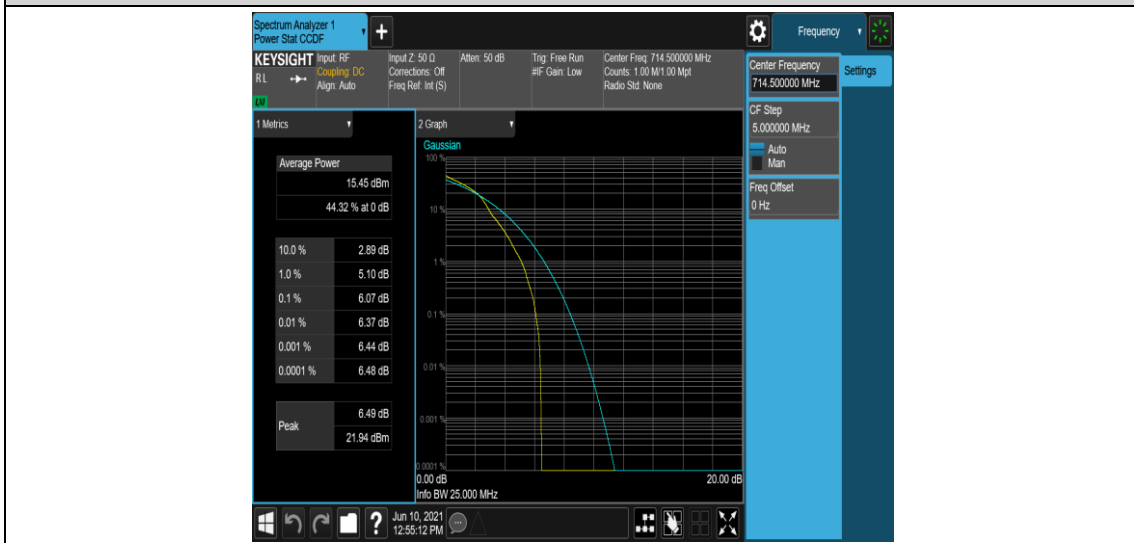
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Band12-3MHz-16QAM-23095-15RB#0



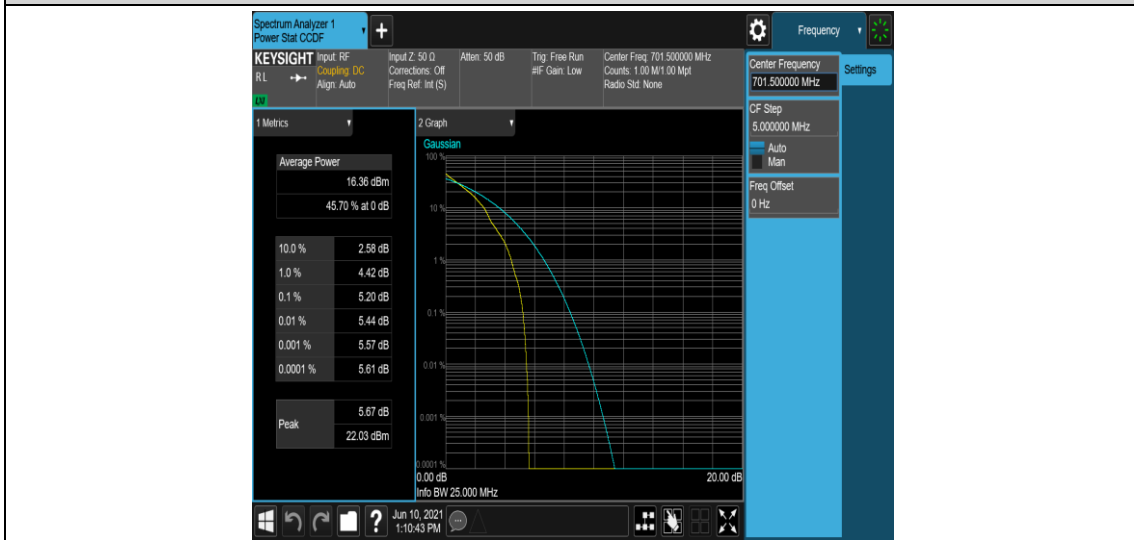
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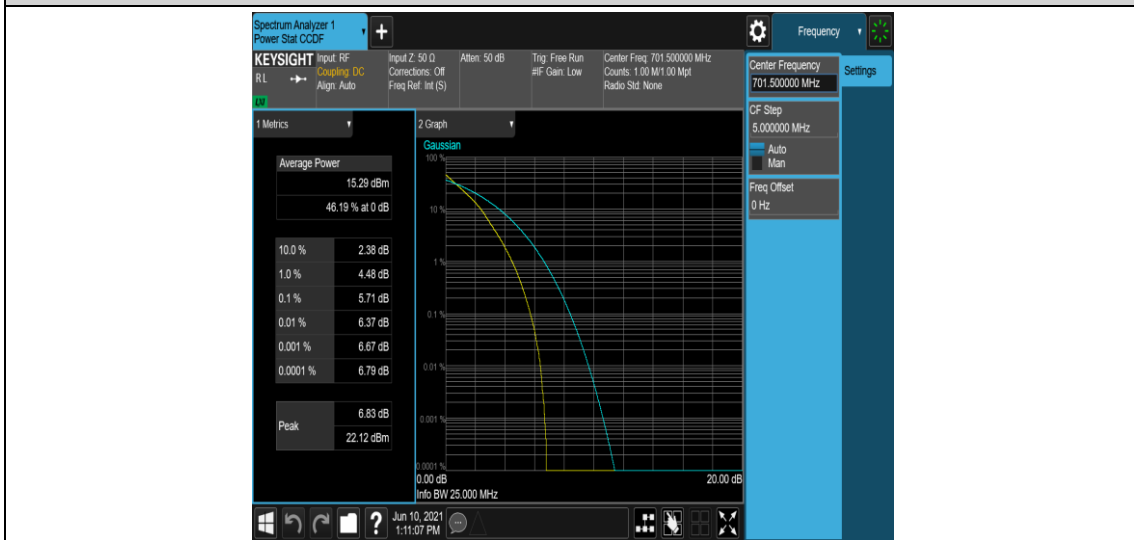
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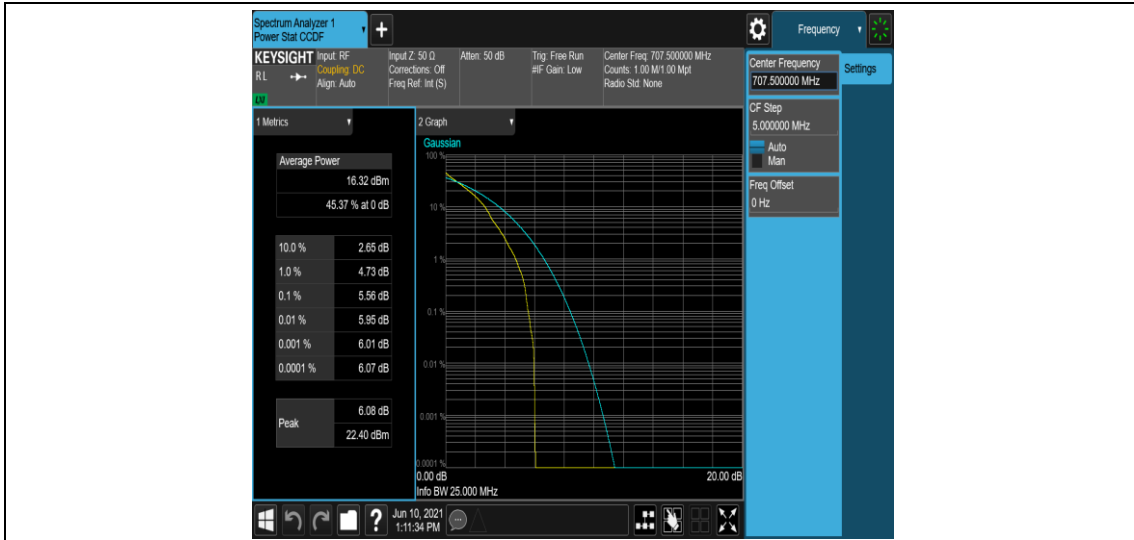
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Band12-5MHz-QPSK-23035-25RB#0



Band12-5MHz-QPSK-23095-1RB#0



Band12-5MHz-QPSK-23095-25RB#0



Band12-5MHz-QPSK-23155-1RB#0



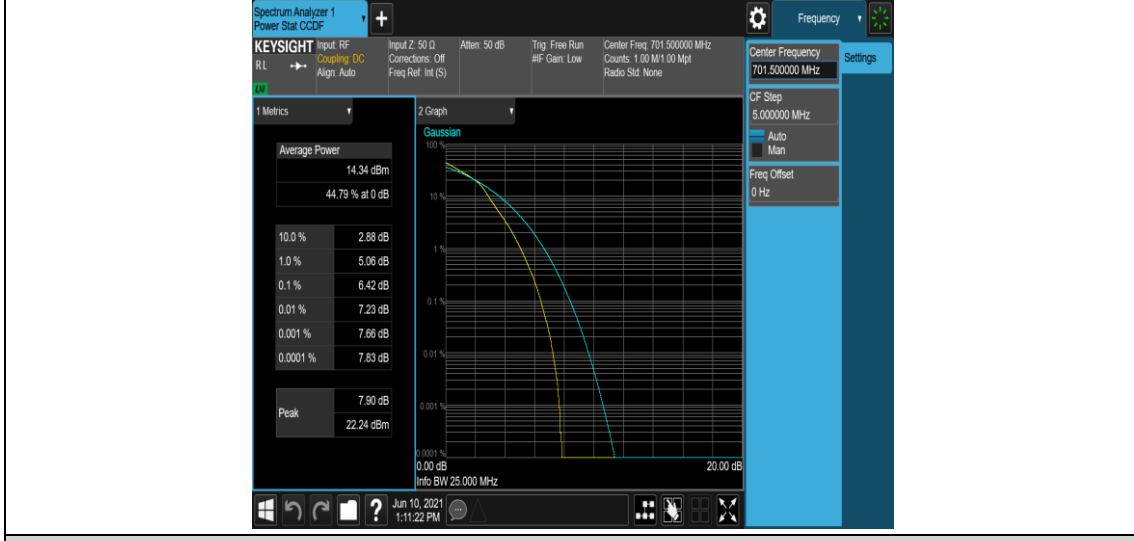
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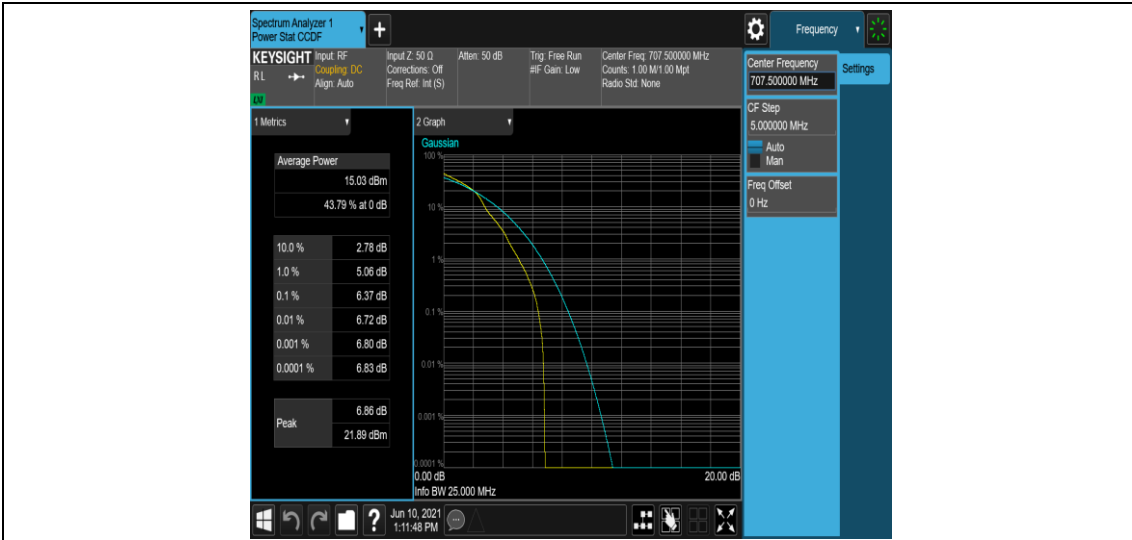
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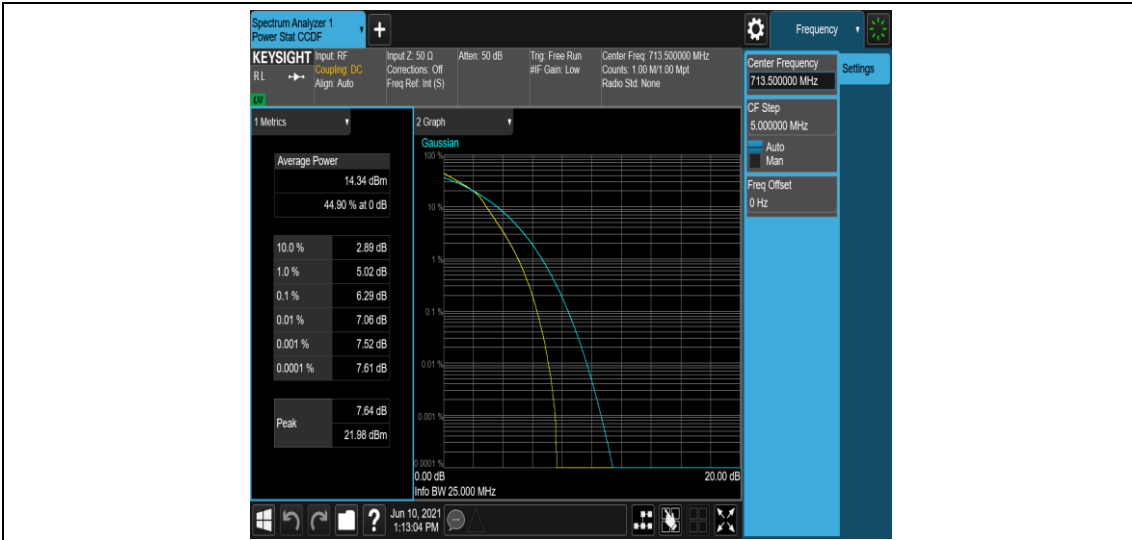
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Band12-5MHz-16QAM-23155-25RB#0



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



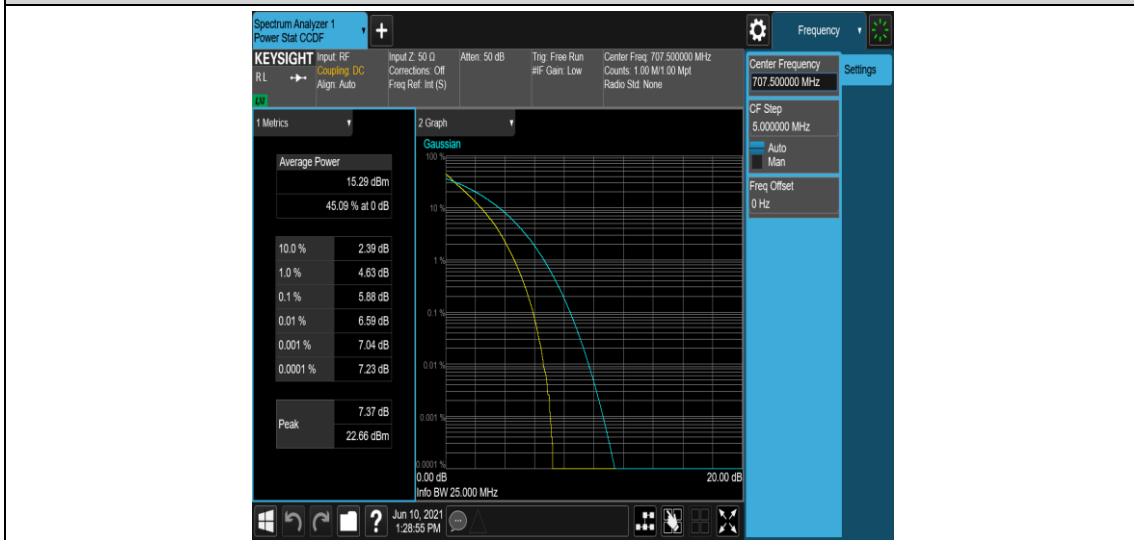
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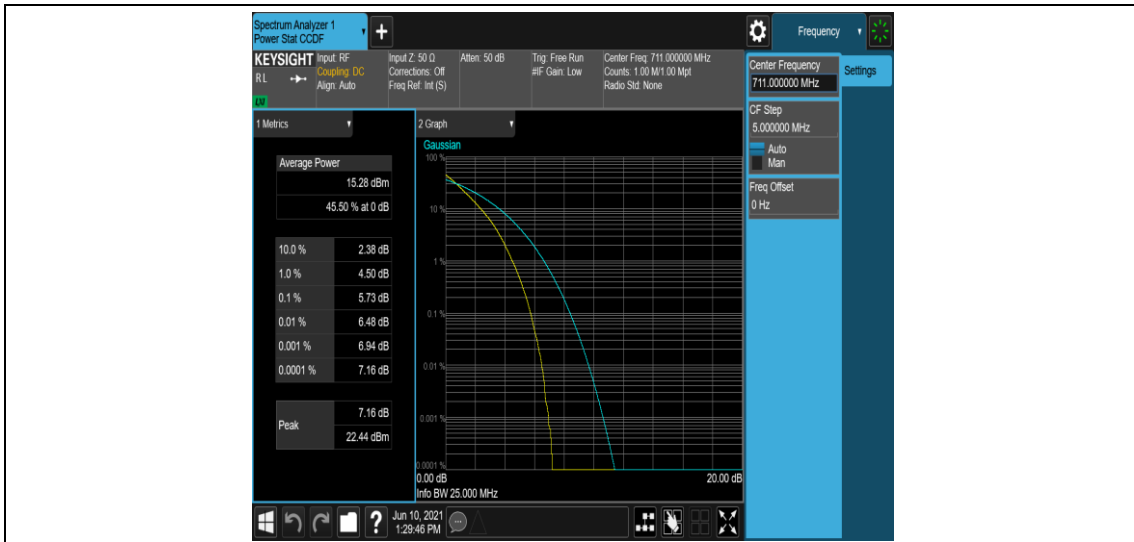
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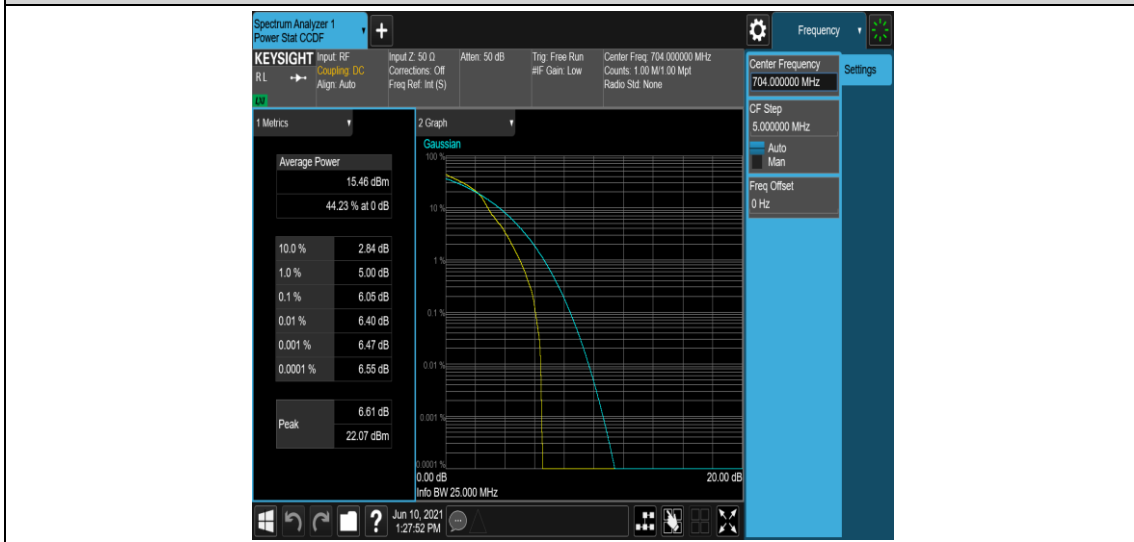
Band12-10MHz-QPSK-23130-1RB#0



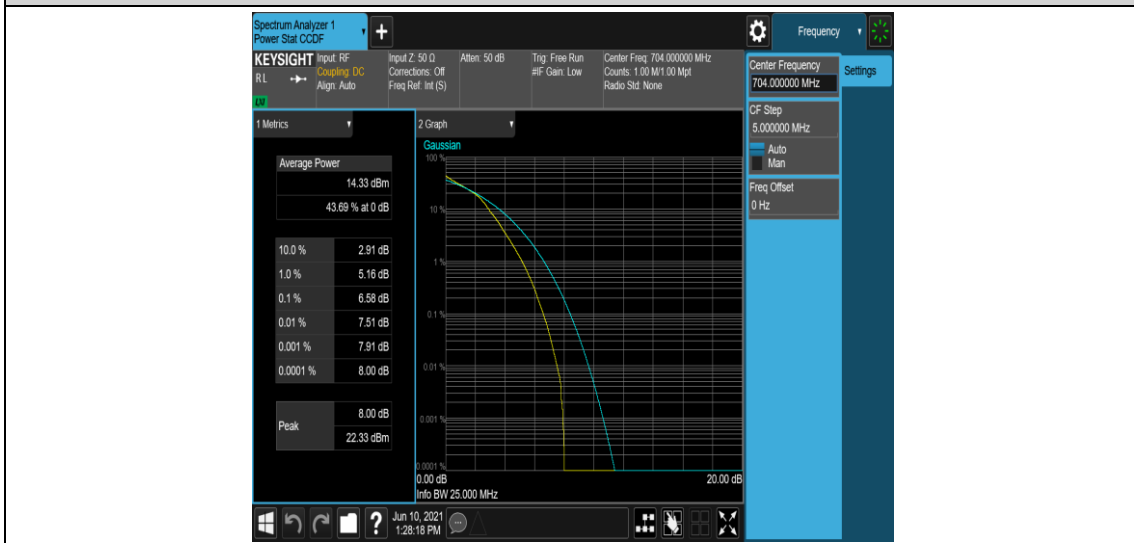
Band12-10MHz-QPSK-23130-50RB#0



Band12-10MHz-16QAM-23060-1RB#0



Band12-10MHz-16QAM-23060-50RB#0



Band12-10MHz-16QAM-23095-1RB#0



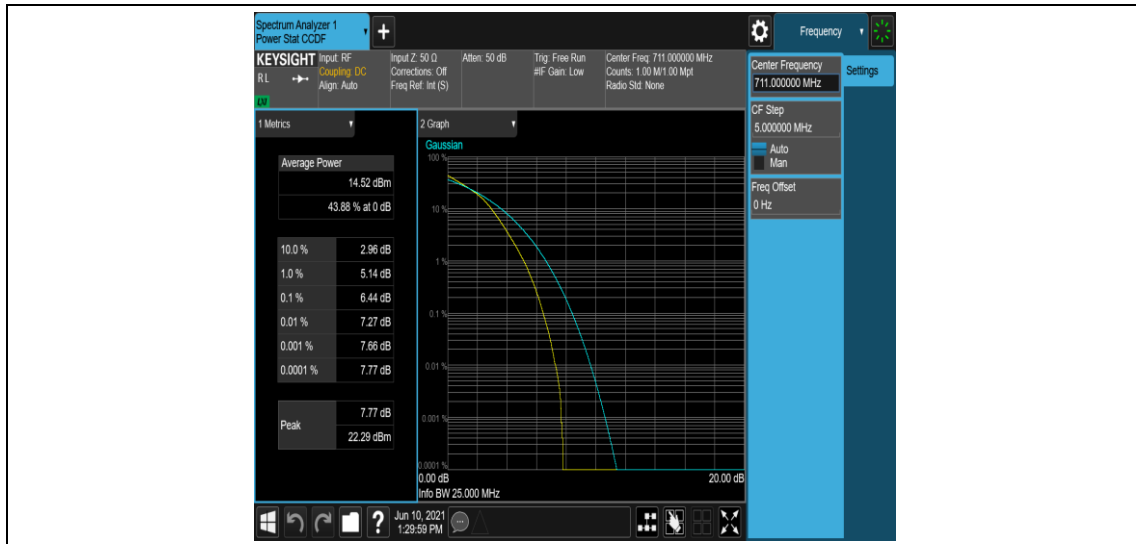
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Band12-10MHz-16QAM-23130-1RB#0



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

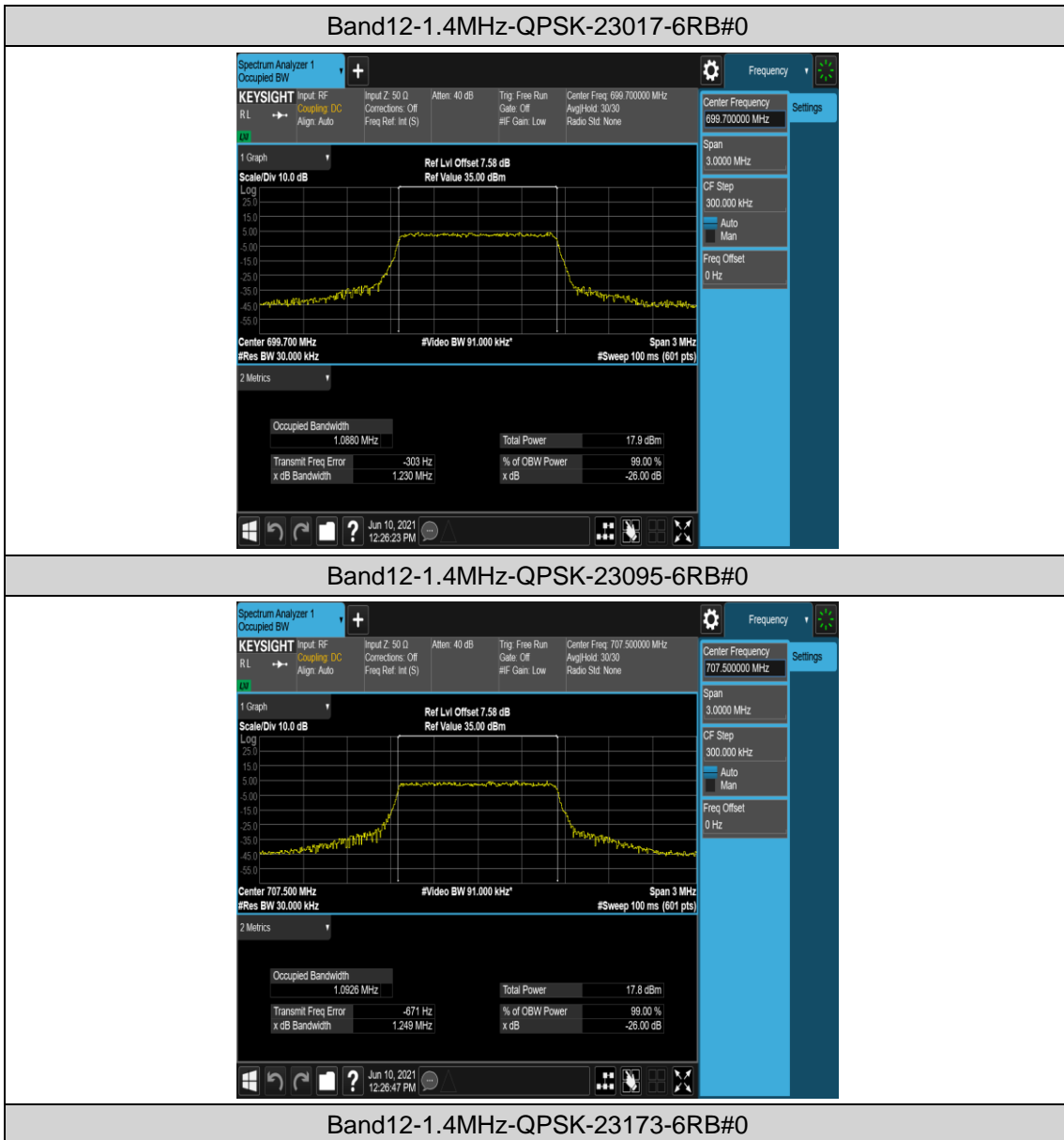


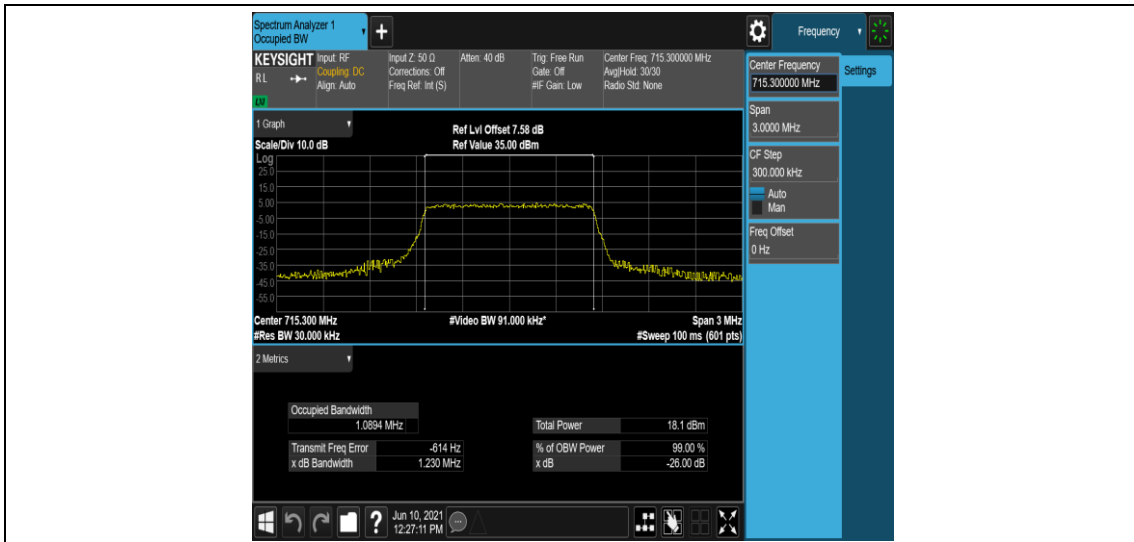
Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

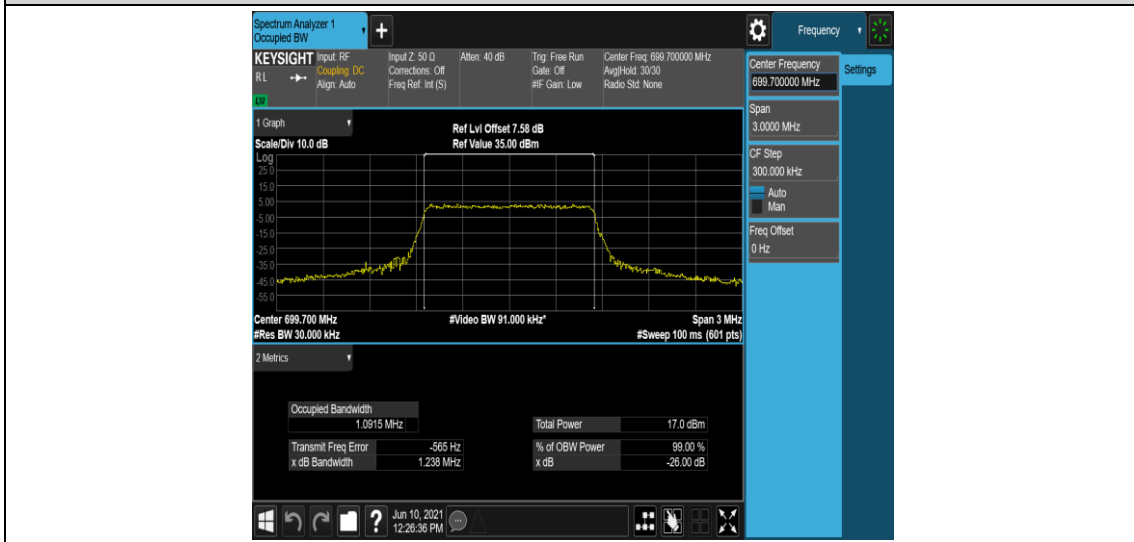
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.0880	1.230	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.0926	1.249	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.0894	1.230	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.0915	1.238	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.0897	1.264	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.0912	1.236	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.6933	2.943	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.6978	2.970	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.7004	2.948	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.6904	2.956	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.6966	3.001	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.6902	2.948	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.5031	4.936	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.4992	4.956	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.5009	4.921	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.5024	4.913	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.4988	4.992	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.4981	4.910	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.9981	9.570	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.9988	9.573	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.9833	9.567	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.9804	9.611	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.9968	9.644	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.9708	9.584	PASS

Test Graphs

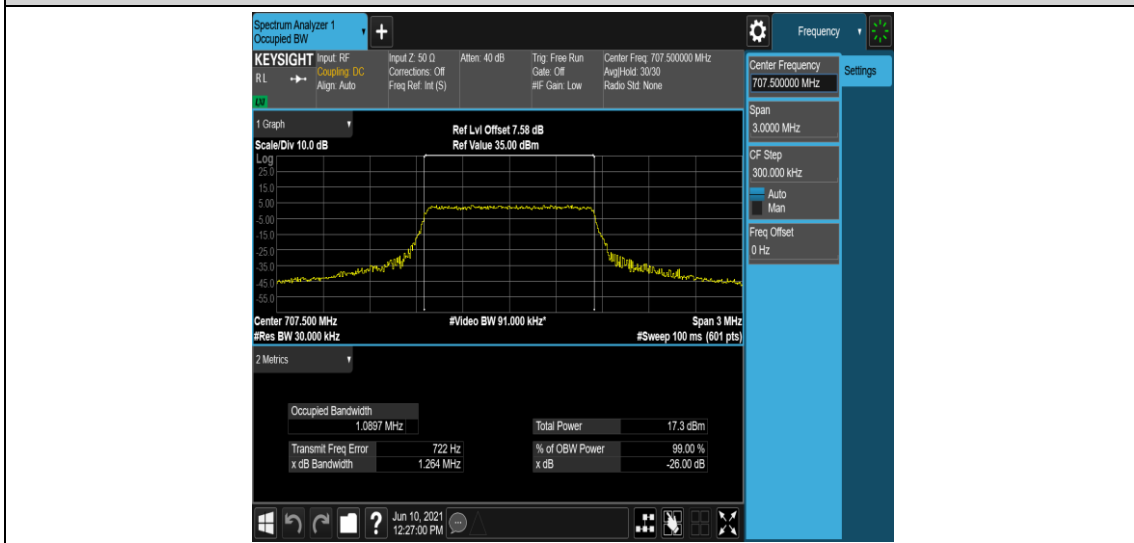




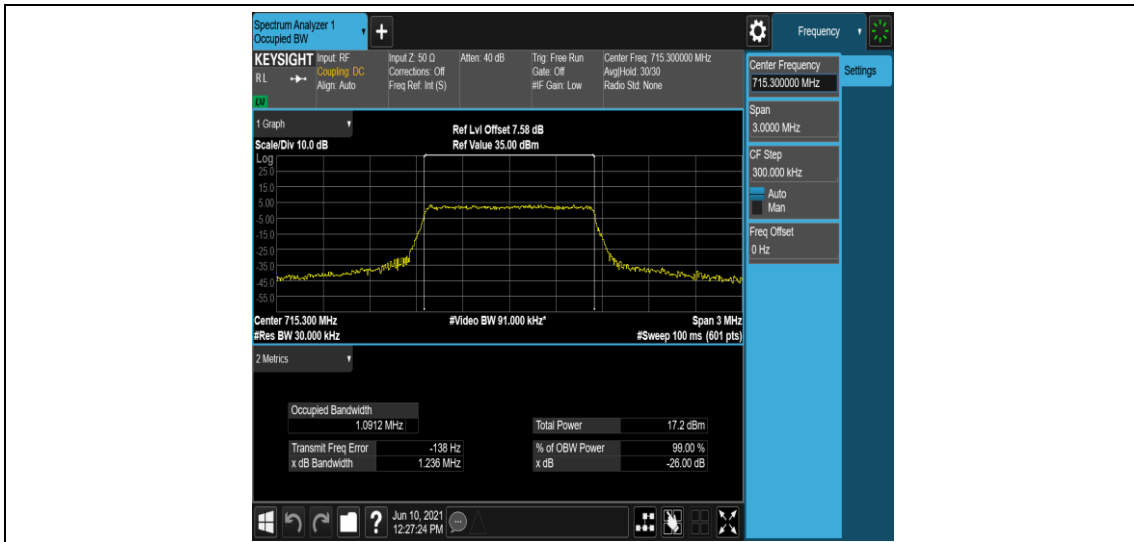
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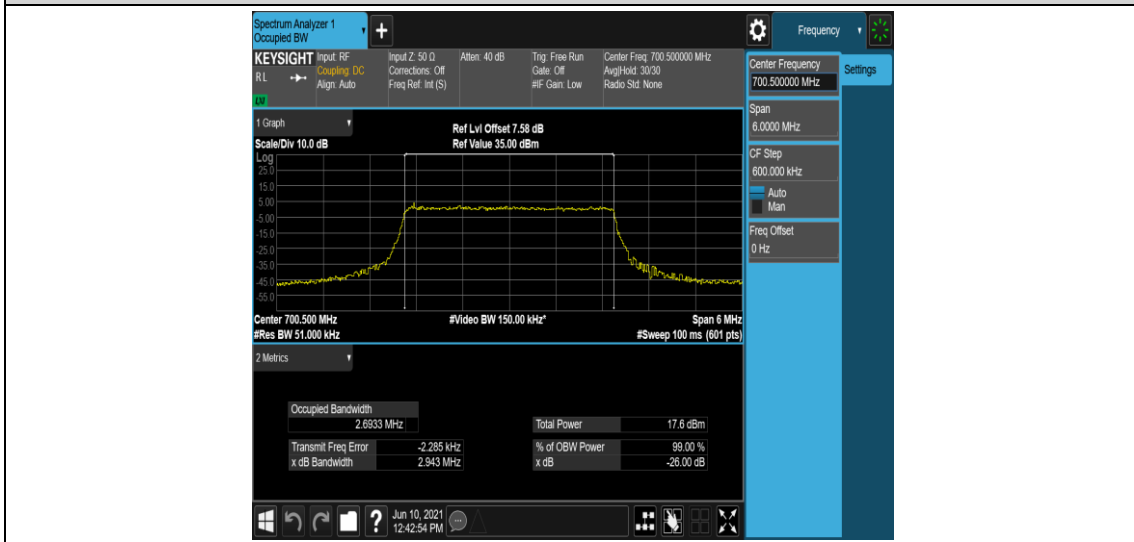
Band12-1.4MHz-16QAM-23095-6RB#0



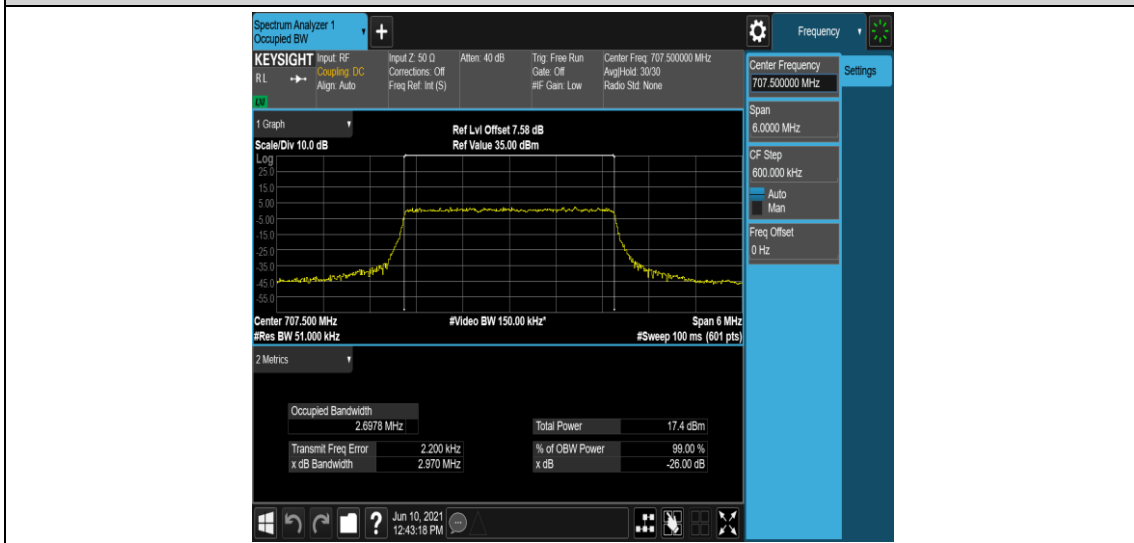
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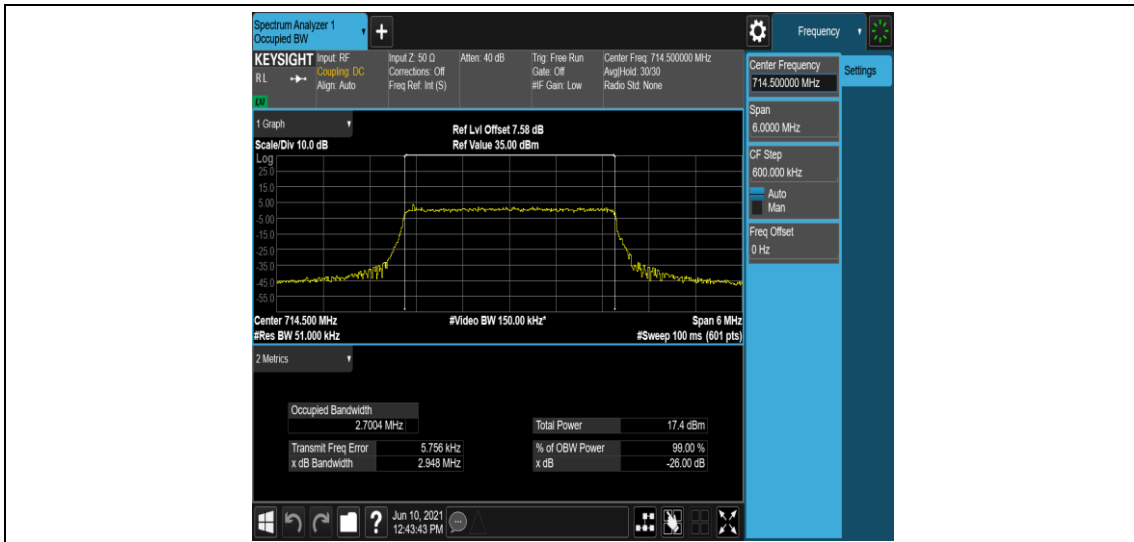
Band12-3MHz-QPSK-23025-15RB#0



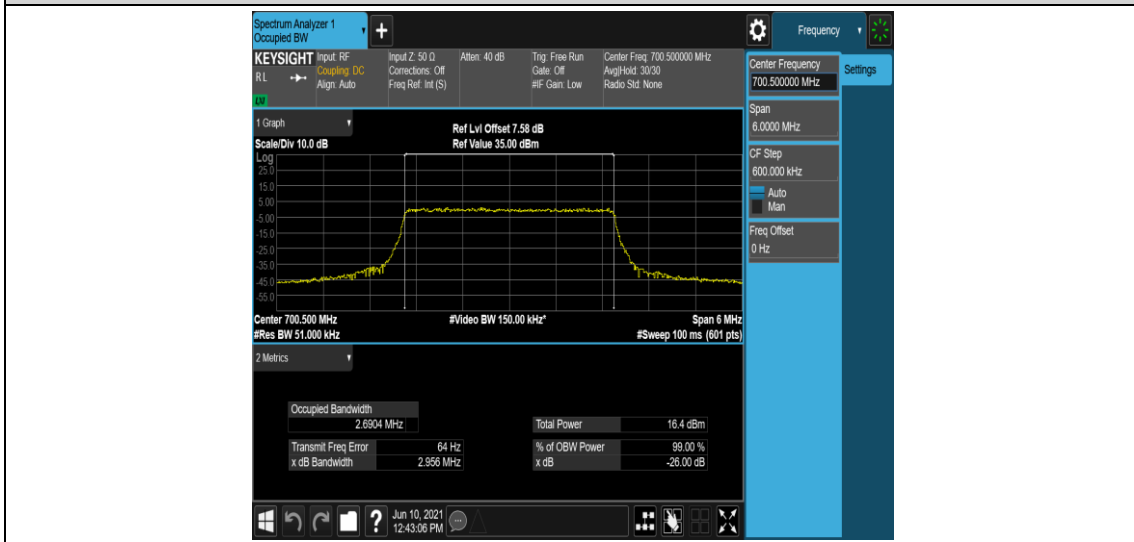
Band12-3MHz-QPSK-23095-15RB#0



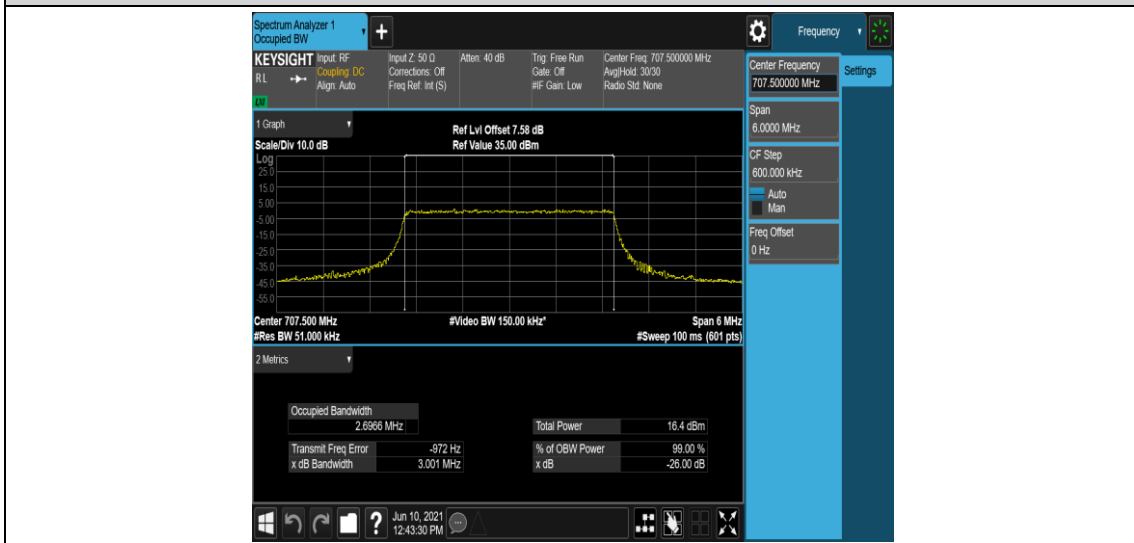
Band12-3MHz-QPSK-23165-15RB#0



Band12-3MHz-16QAM-23025-15RB#0



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



Band12-3MHz-16QAM-23165-15RB#0