

FCC LTE Band Test Data

FCC ID : 2BF3H-HF-X05

Company: : CHONGQING HUIFAN TECHNOLOGY CO.,LTD

EUT : HF-X05 Biometric Time Attendance and Access Control Terminal

Model Number : HF-X05

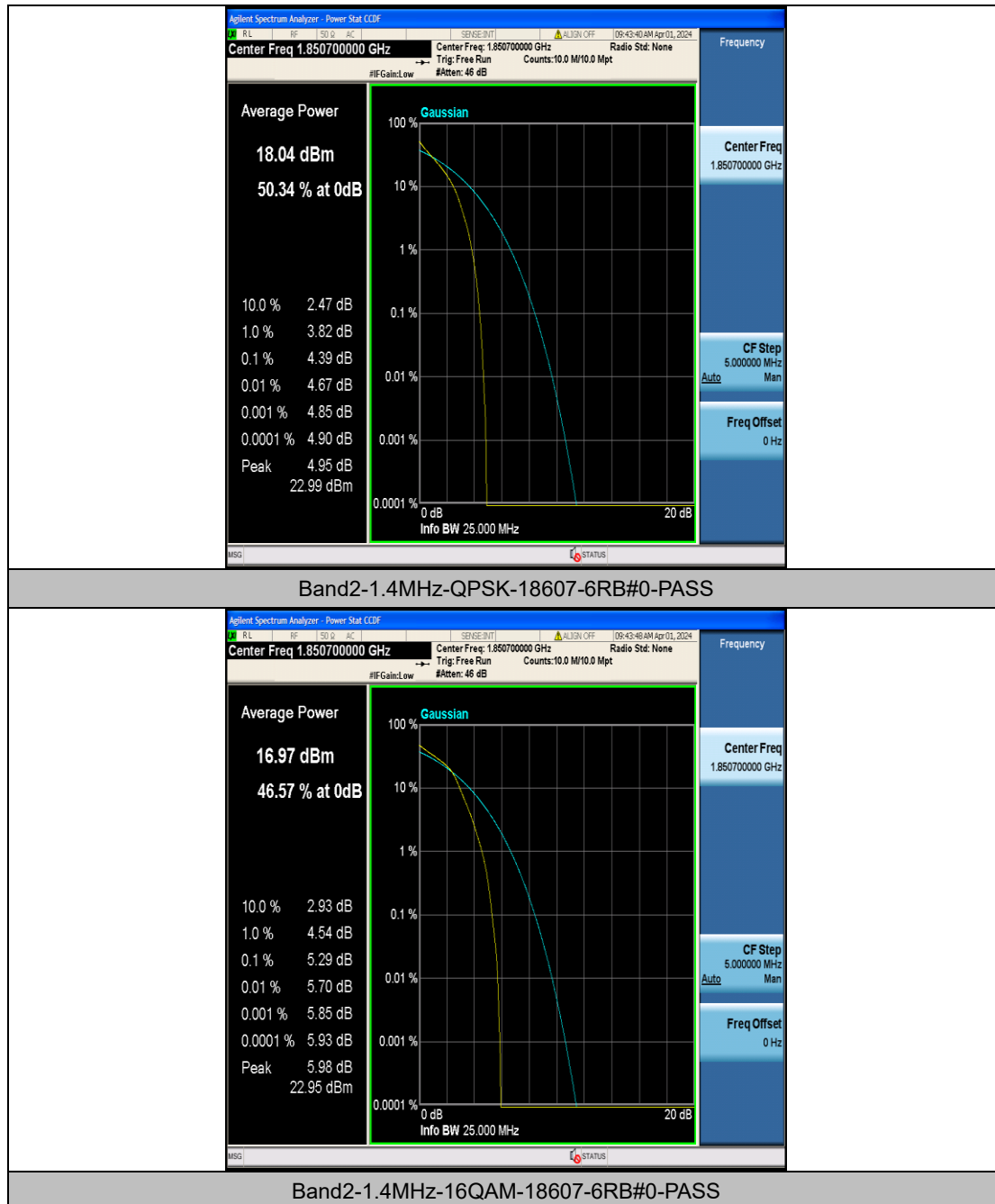
Reviewed By : Eric Wang

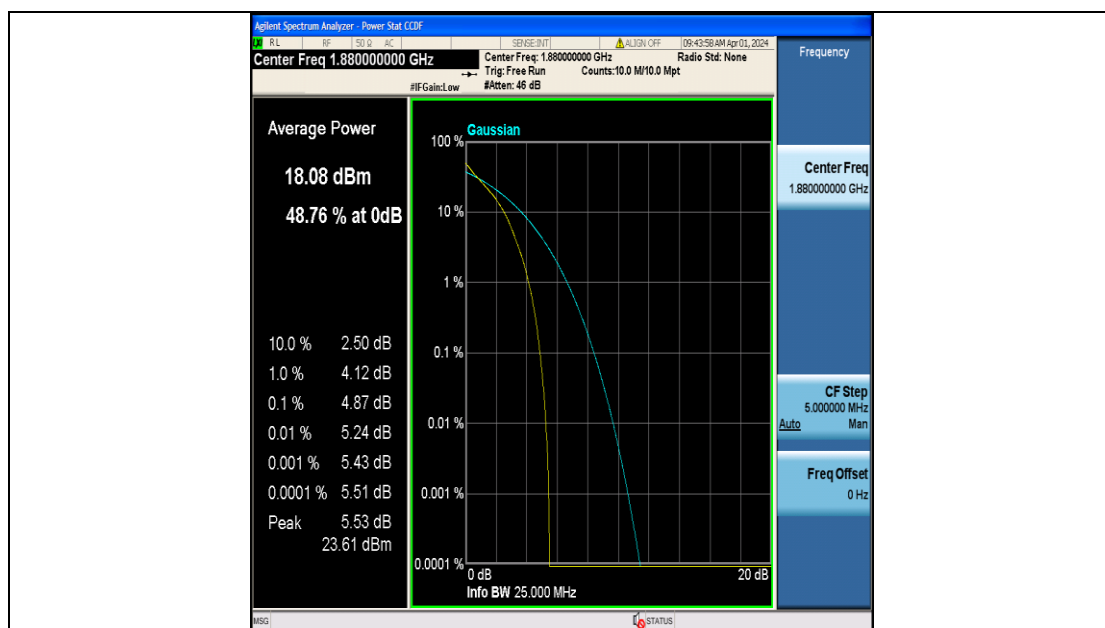
Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

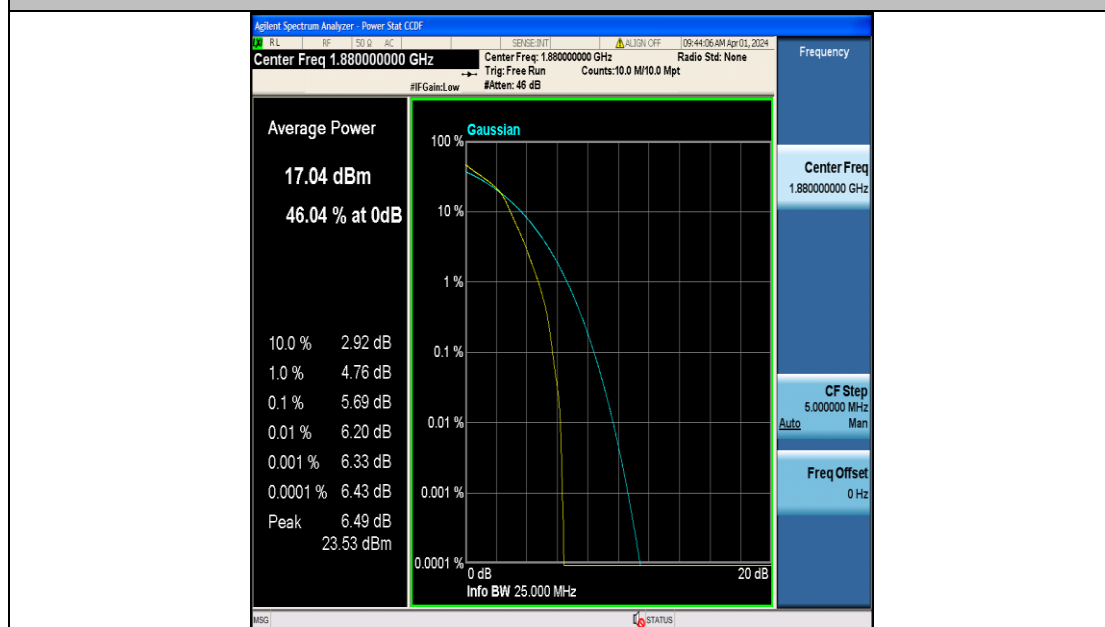
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band2	1.4MHz	QPSK	18607	6RB#0	4.39	13	PASS
Band2	1.4MHz	16QAM	18607	6RB#0	5.29	13	PASS
Band2	1.4MHz	QPSK	18900	6RB#0	4.87	13	PASS
Band2	1.4MHz	16QAM	18900	6RB#0	5.69	13	PASS
Band2	1.4MHz	QPSK	19193	6RB#0	3.82	13	PASS
Band2	1.4MHz	16QAM	19193	6RB#0	4.83	13	PASS
Band2	3MHz	QPSK	18615	15RB#0	4.49	13	PASS
Band2	3MHz	16QAM	18615	15RB#0	5.40	13	PASS
Band2	3MHz	QPSK	18900	15RB#0	4.98	13	PASS
Band2	3MHz	16QAM	18900	15RB#0	5.84	13	PASS
Band2	3MHz	QPSK	19185	15RB#0	4.31	13	PASS
Band2	3MHz	16QAM	19185	15RB#0	5.27	13	PASS
Band2	5MHz	QPSK	18625	25RB#0	4.46	13	PASS
Band2	5MHz	16QAM	18625	25RB#0	5.32	13	PASS
Band2	5MHz	QPSK	18900	25RB#0	5.03	13	PASS
Band2	5MHz	16QAM	18900	25RB#0	5.82	13	PASS
Band2	5MHz	QPSK	19175	25RB#0	4.61	13	PASS
Band2	5MHz	16QAM	19175	25RB#0	5.47	13	PASS
Band2	10MHz	QPSK	18650	50RB#0	4.42	13	PASS
Band2	10MHz	16QAM	18650	50RB#0	5.29	13	PASS
Band2	10MHz	QPSK	18900	50RB#0	5.01	13	PASS
Band2	10MHz	16QAM	18900	50RB#0	5.82	13	PASS
Band2	10MHz	QPSK	19150	50RB#0	4.84	13	PASS
Band2	10MHz	16QAM	19150	50RB#0	5.68	13	PASS
Band2	15MHz	QPSK	18675	75RB#0	4.64	13	PASS
Band2	15MHz	16QAM	18675	75RB#0	5.43	13	PASS
Band2	15MHz	QPSK	18900	75RB#0	5.35	13	PASS
Band2	15MHz	16QAM	18900	75RB#0	6.00	13	PASS
Band2	15MHz	QPSK	19125	75RB#0	5.15	13	PASS
Band2	15MHz	16QAM	19125	75RB#0	5.85	13	PASS
Band2	20MHz	QPSK	18700	100RB#0	4.82	13	PASS
Band2	20MHz	16QAM	18700	100RB#0	5.60	13	PASS
Band2	20MHz	QPSK	18900	100RB#0	5.24	13	PASS
Band2	20MHz	16QAM	18900	100RB#0	5.99	13	PASS
Band2	20MHz	QPSK	19100	100RB#0	5.20	13	PASS
Band2	20MHz	16QAM	19100	100RB#0	5.92	13	PASS

Test Graphs

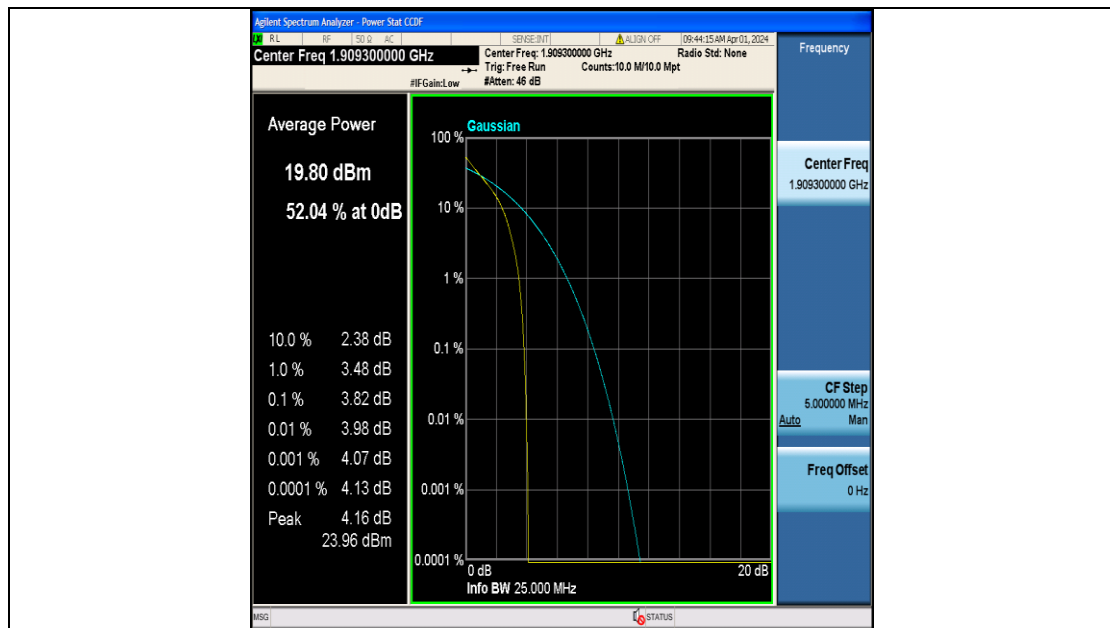




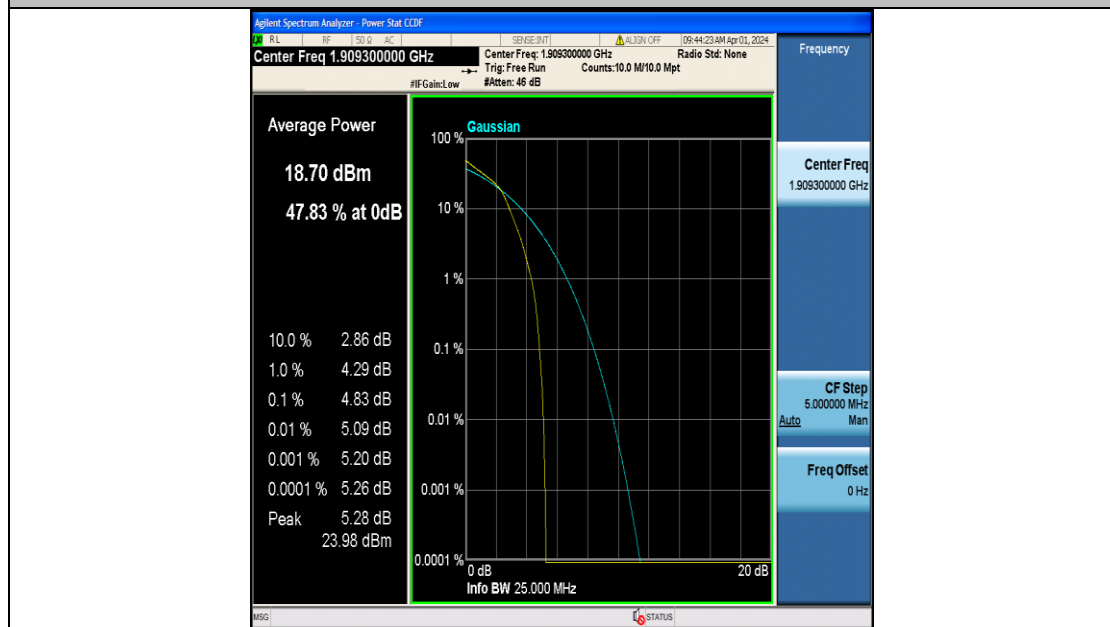
Band2-1.4MHz-QPSK-18900-6RB#0-PASS



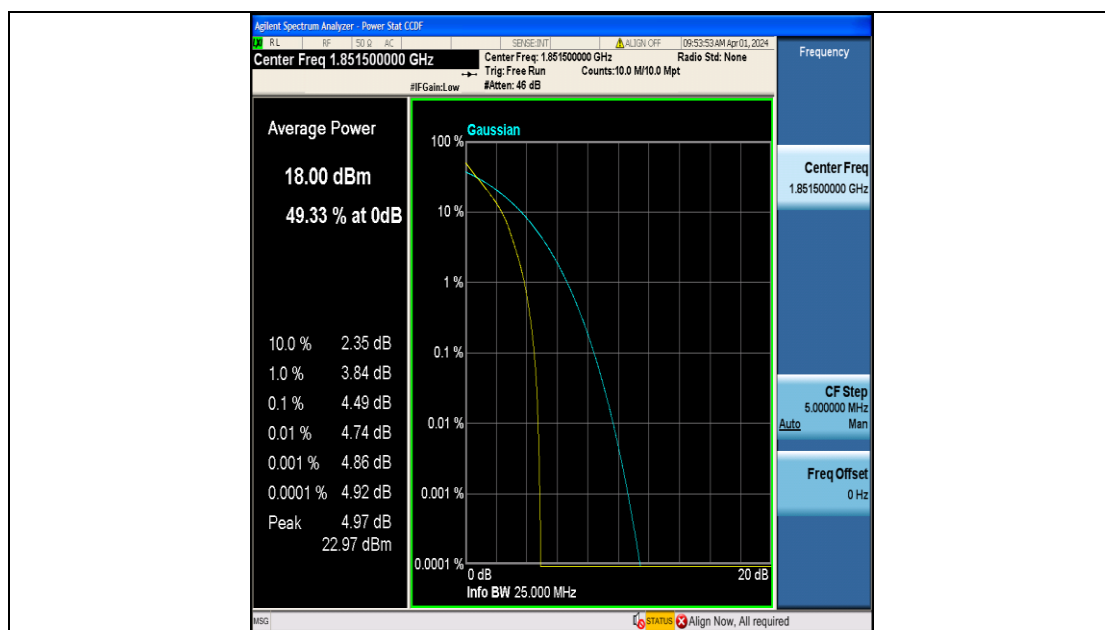
Band2-1.4MHz-16QAM-18900-6RB#0-PASS



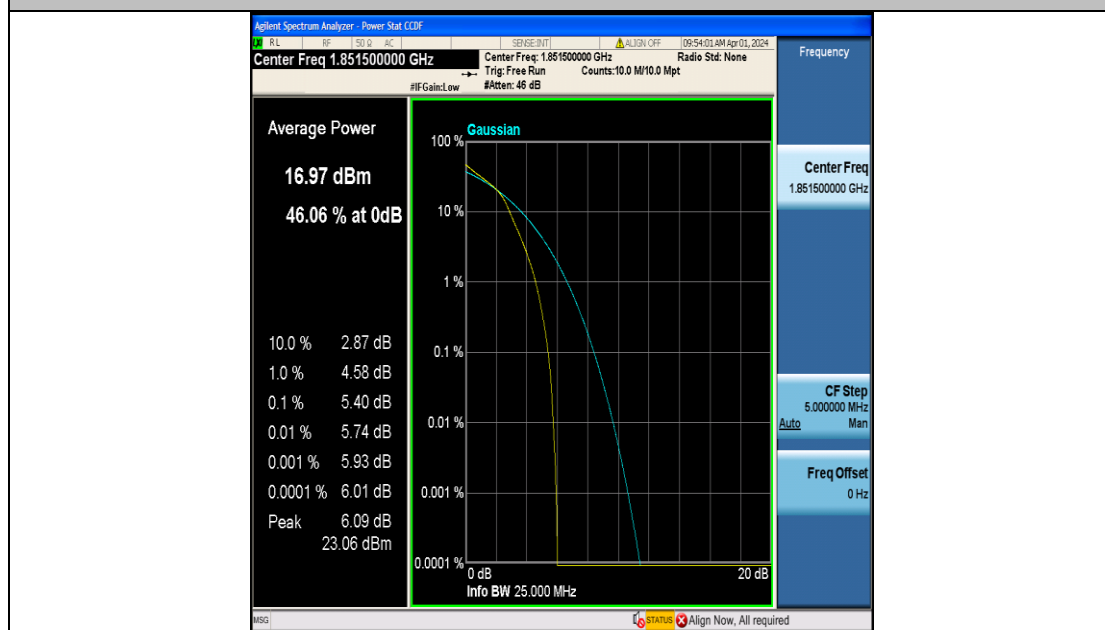
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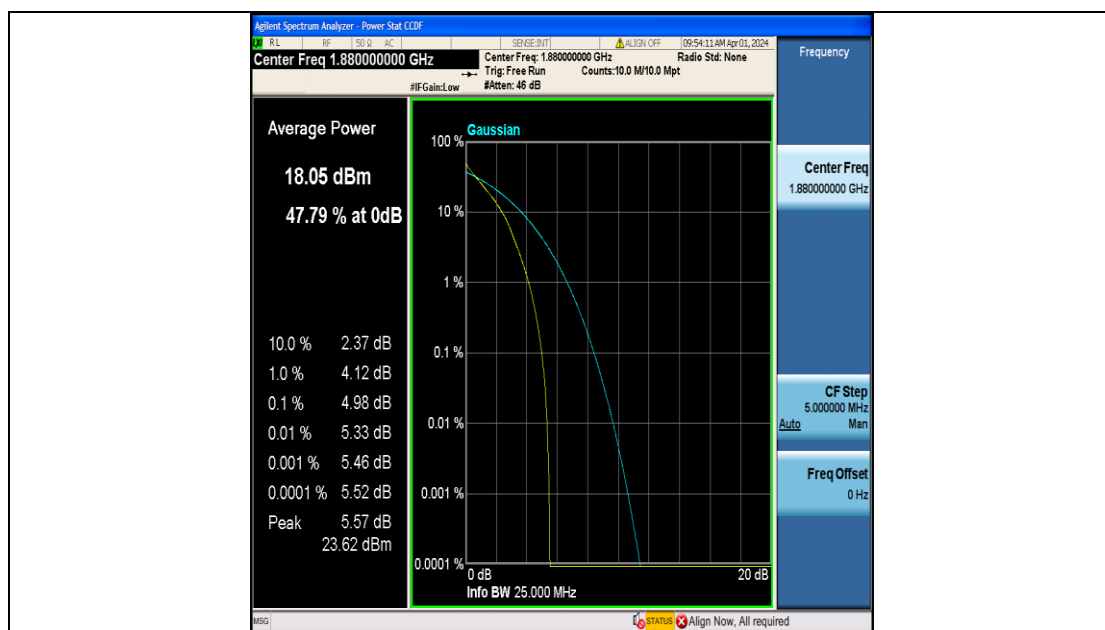
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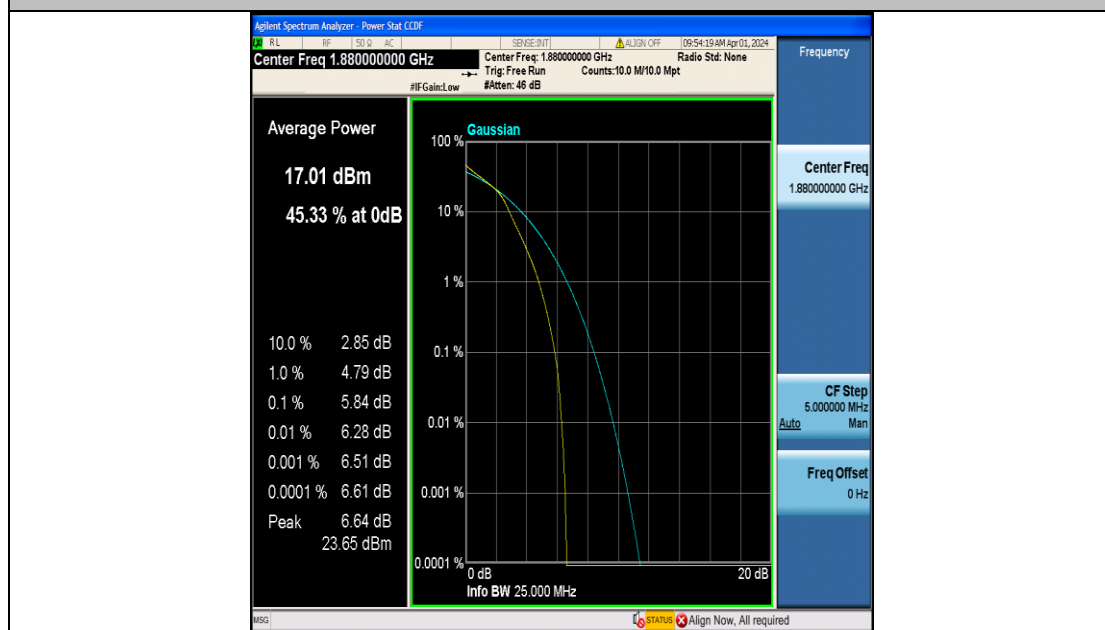
Band2-3MHz-QPSK-18615-15RB#0-PASS



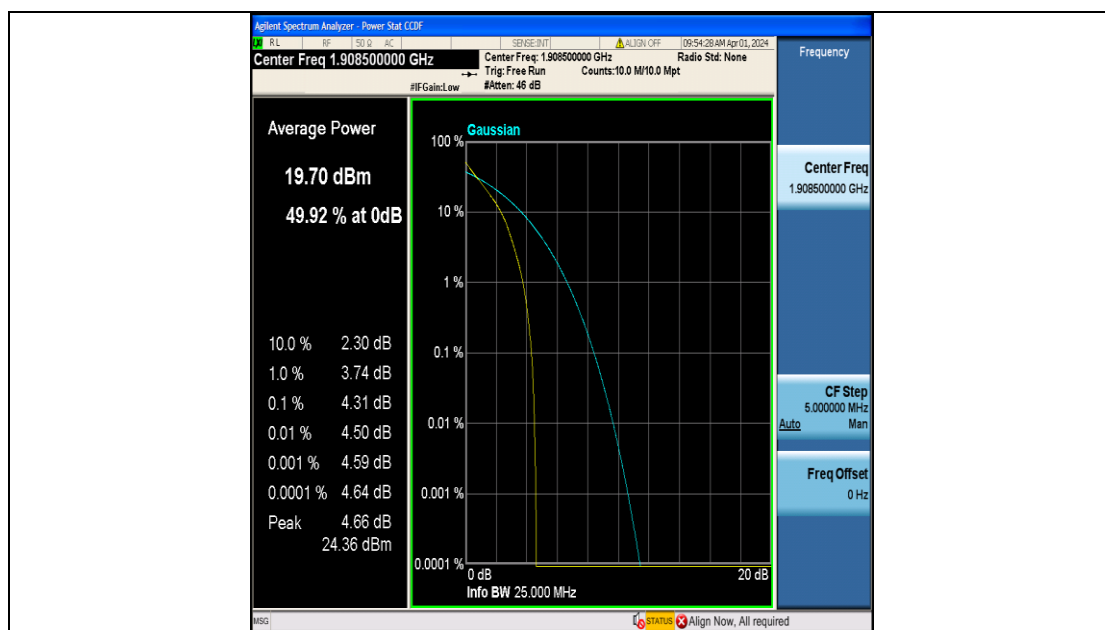
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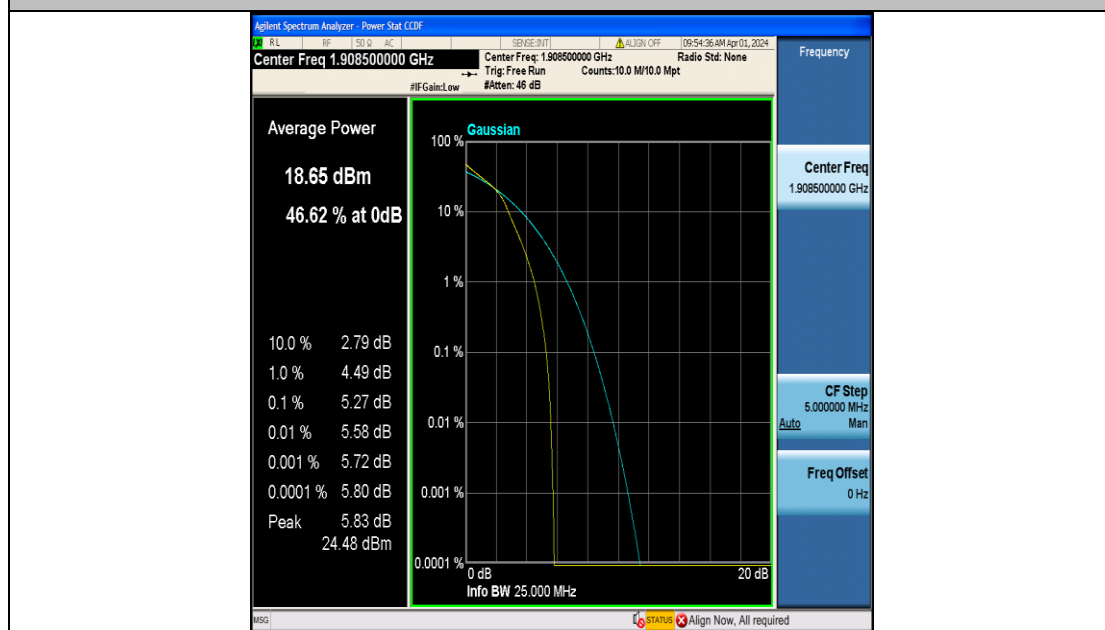
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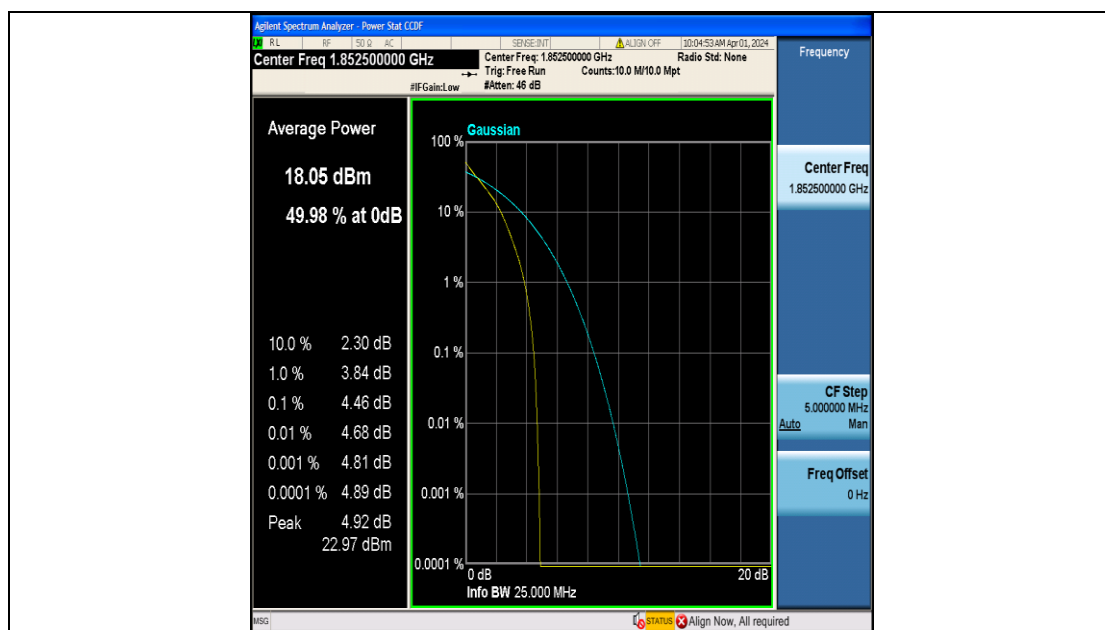
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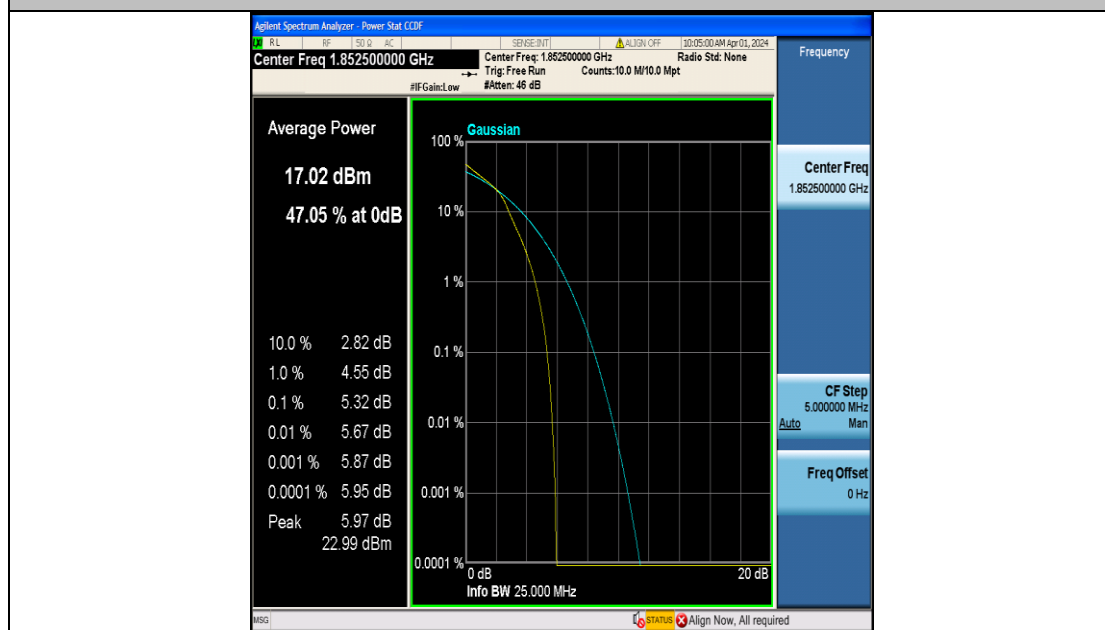
Band2-3MHz-QPSK-19185-15RB#0-PASS



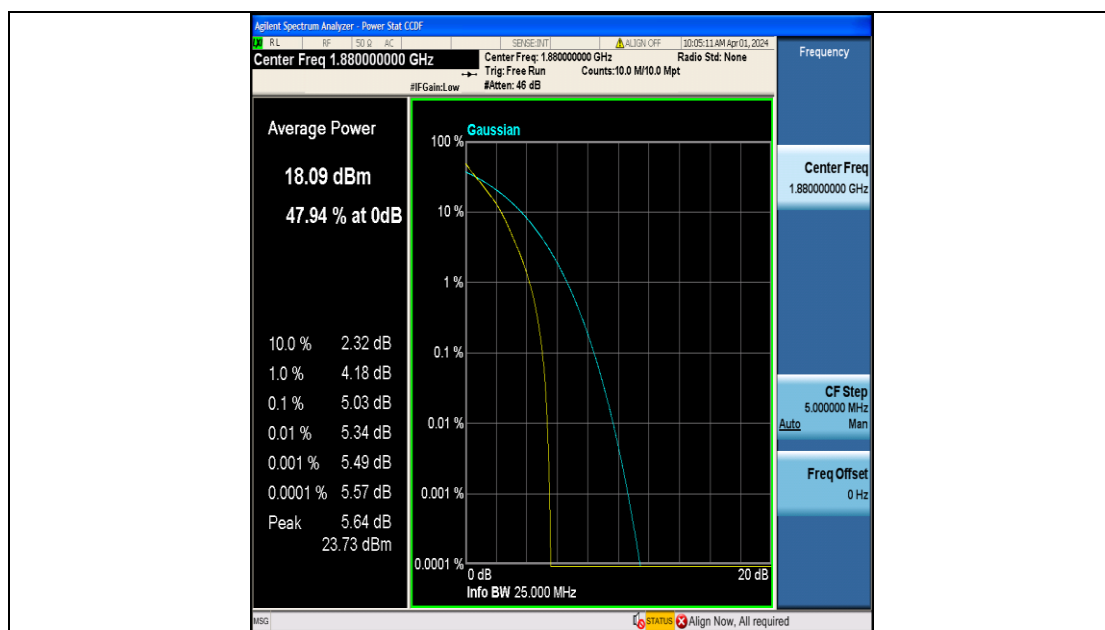
Band2-3MHz-16QAM-19185-15RB#0-PASS



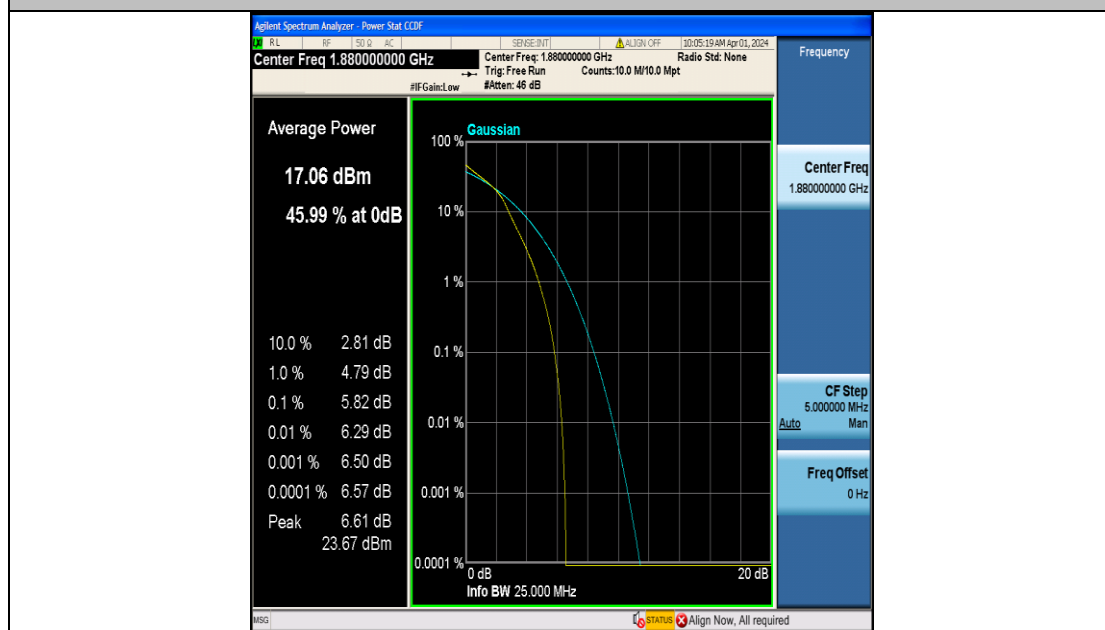
Band2-5MHz-QPSK-18625-25RB#0-PASS



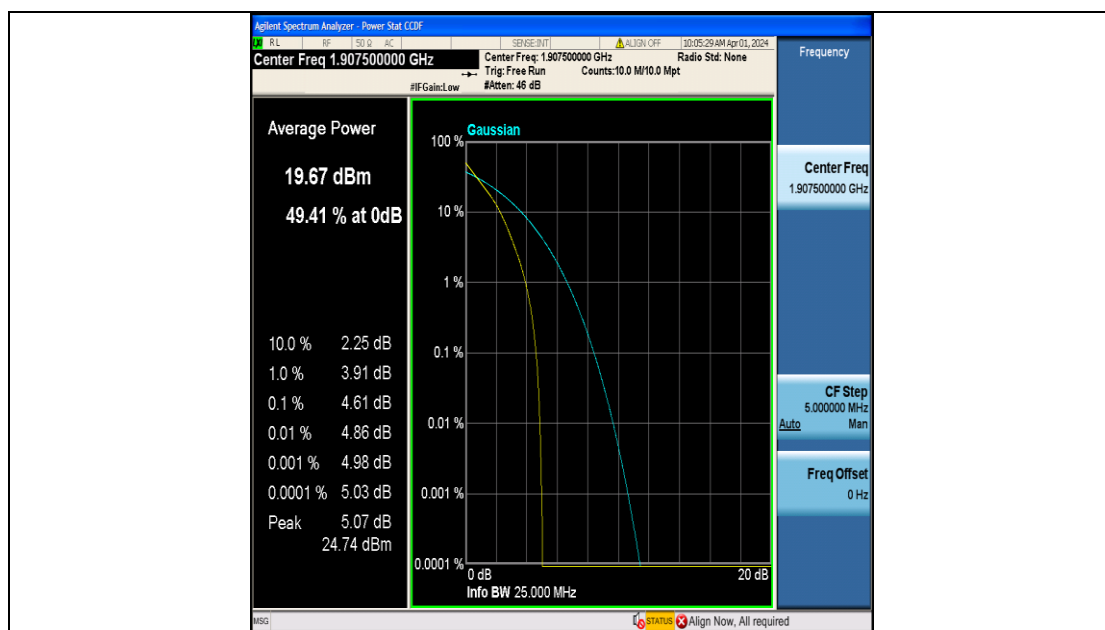
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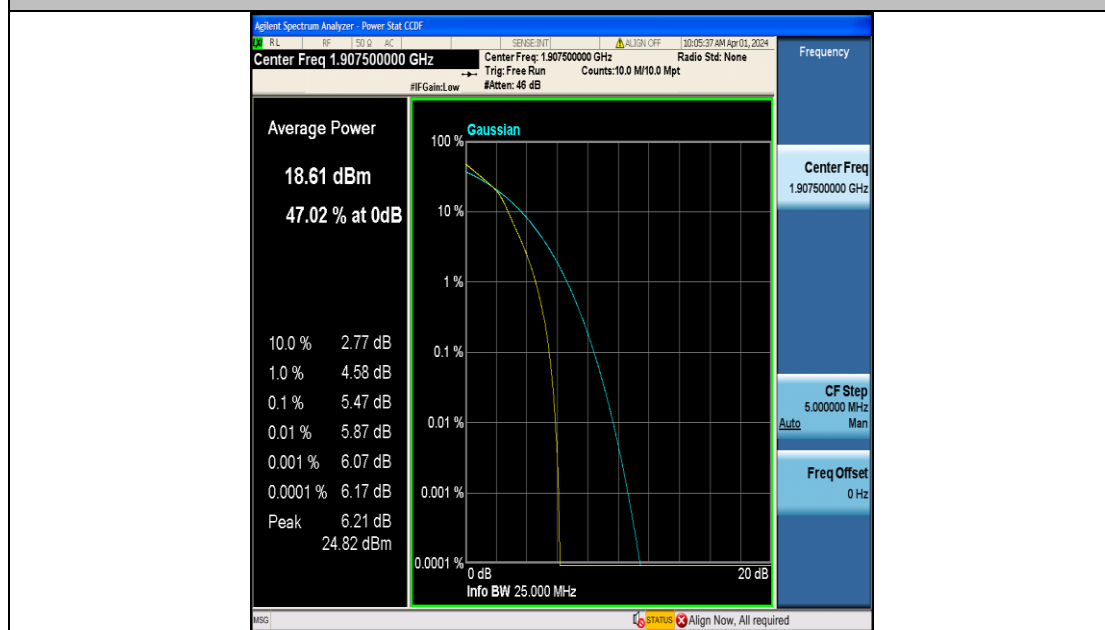
Band2-5MHz-QPSK-18900-25RB#0-PASS



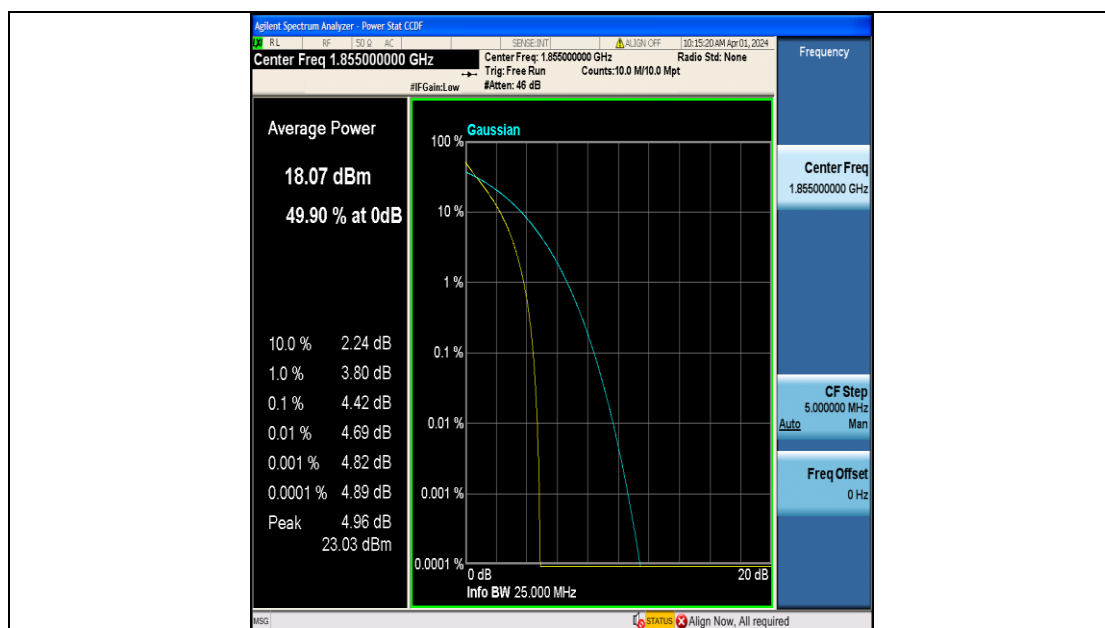
Band2-5MHz-16QAM-18900-25RB#0-PASS



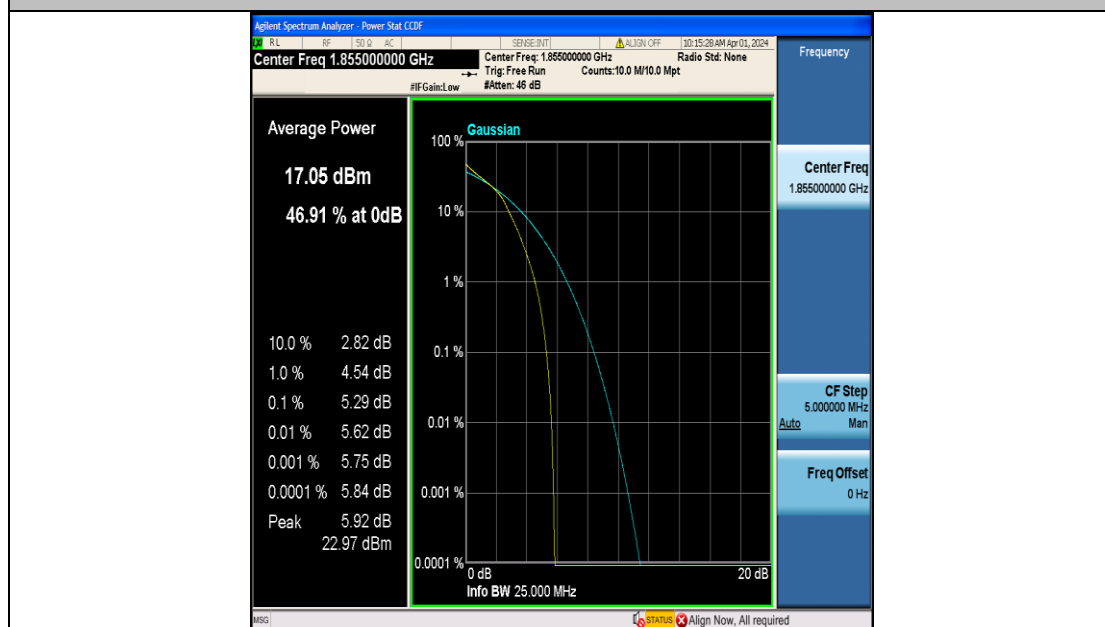
Band2-5MHz-QPSK-19175-25RB#0-PASS



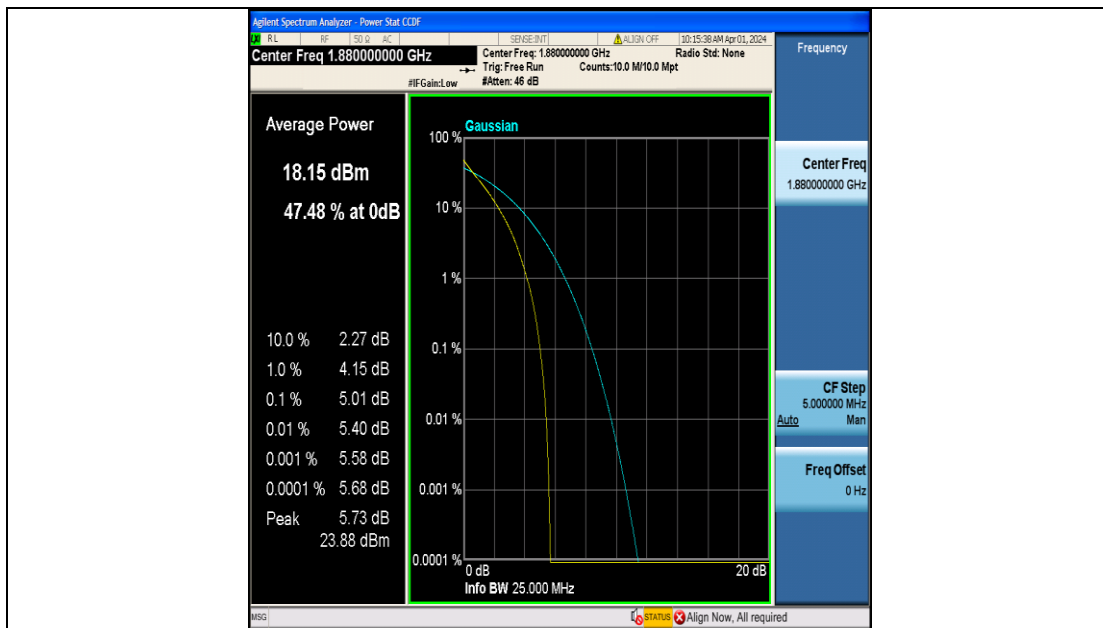
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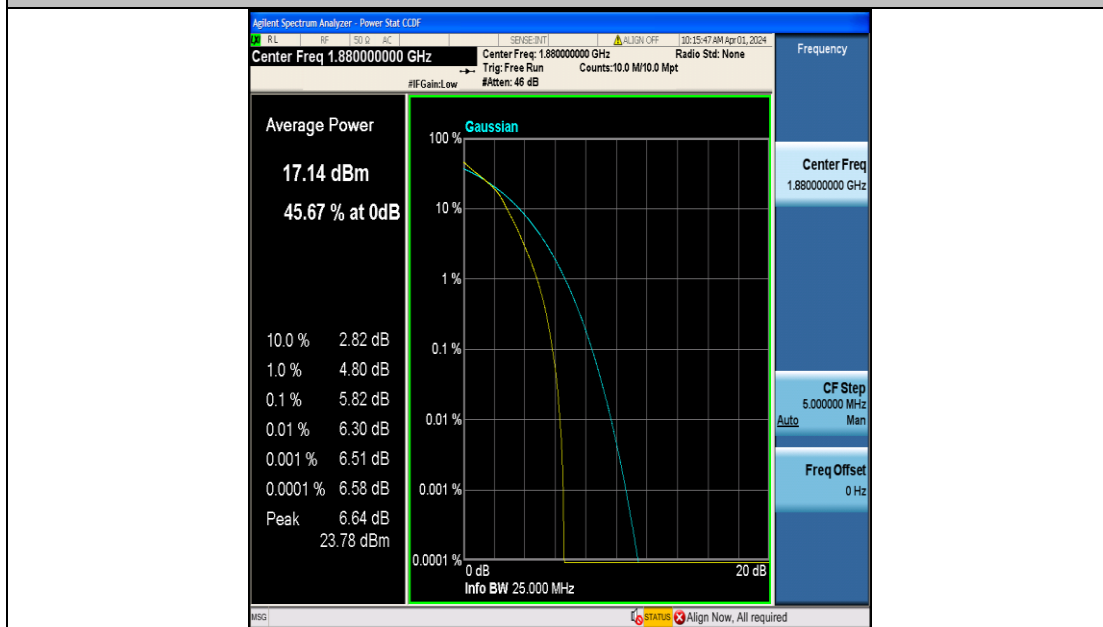
Band2-10MHz-QPSK-18650-50RB#0-PASS



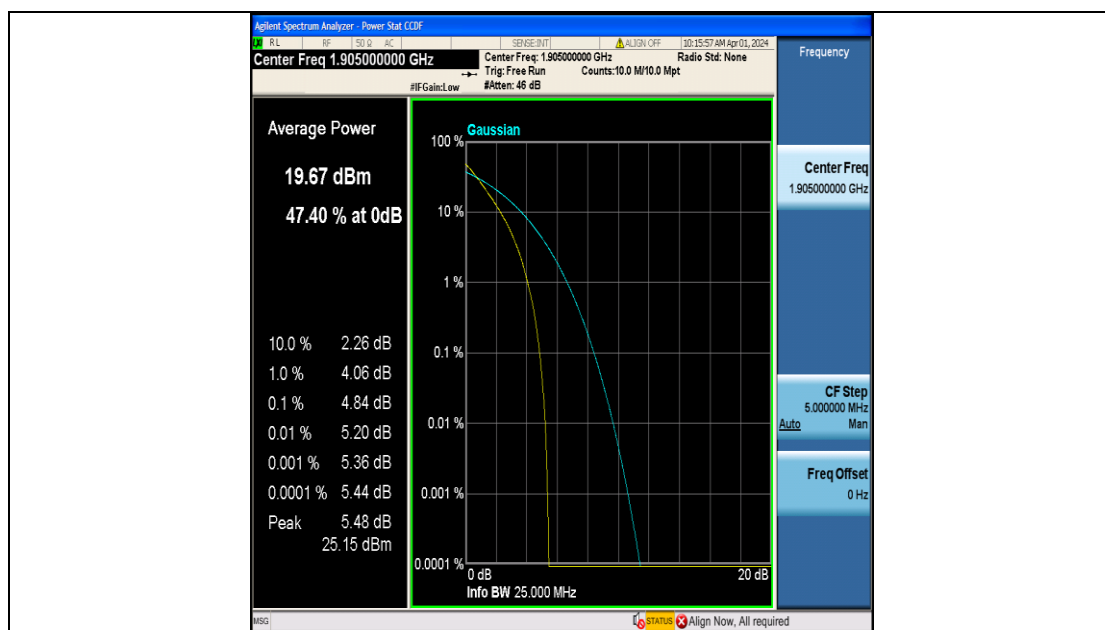
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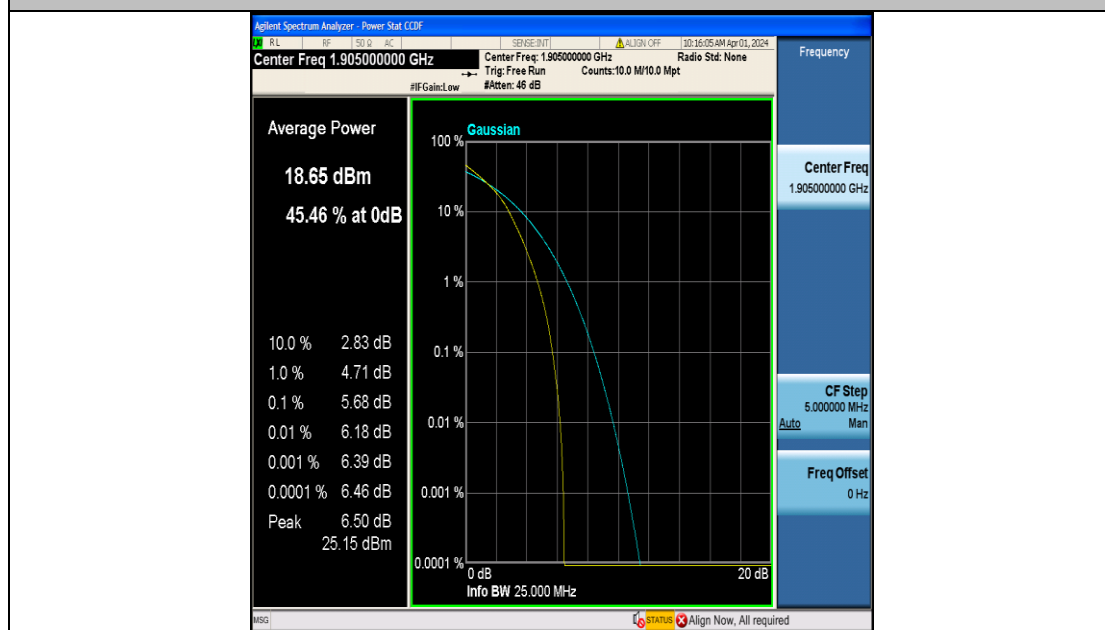
Band2-10MHz-QPSK-18900-50RB#0-PASS



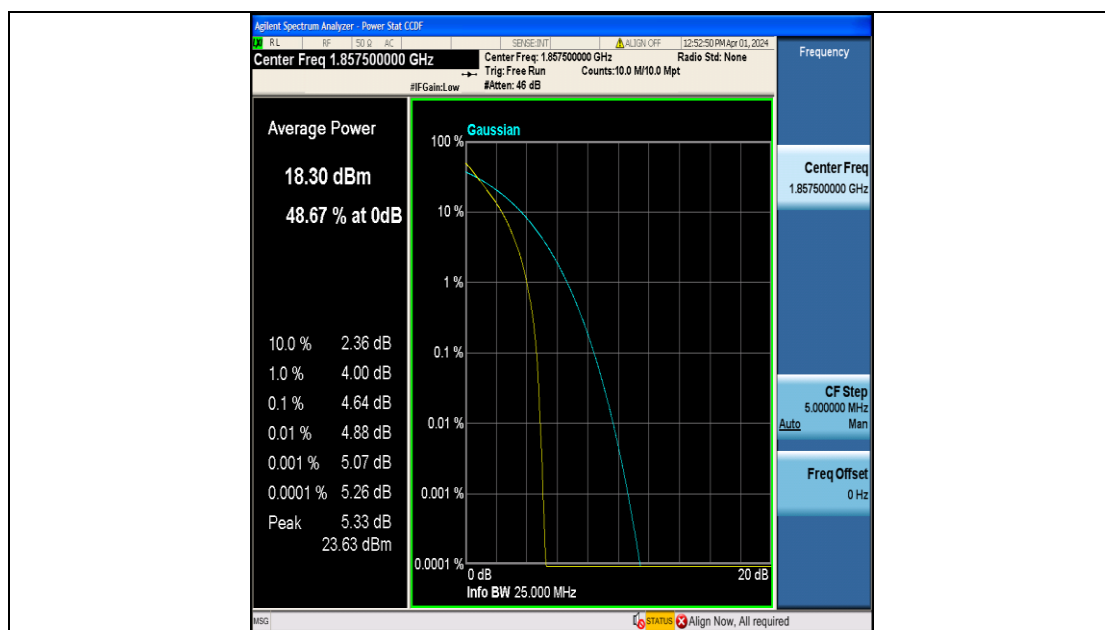
Band2-10MHz-16QAM-18900-50RB#0-PASS



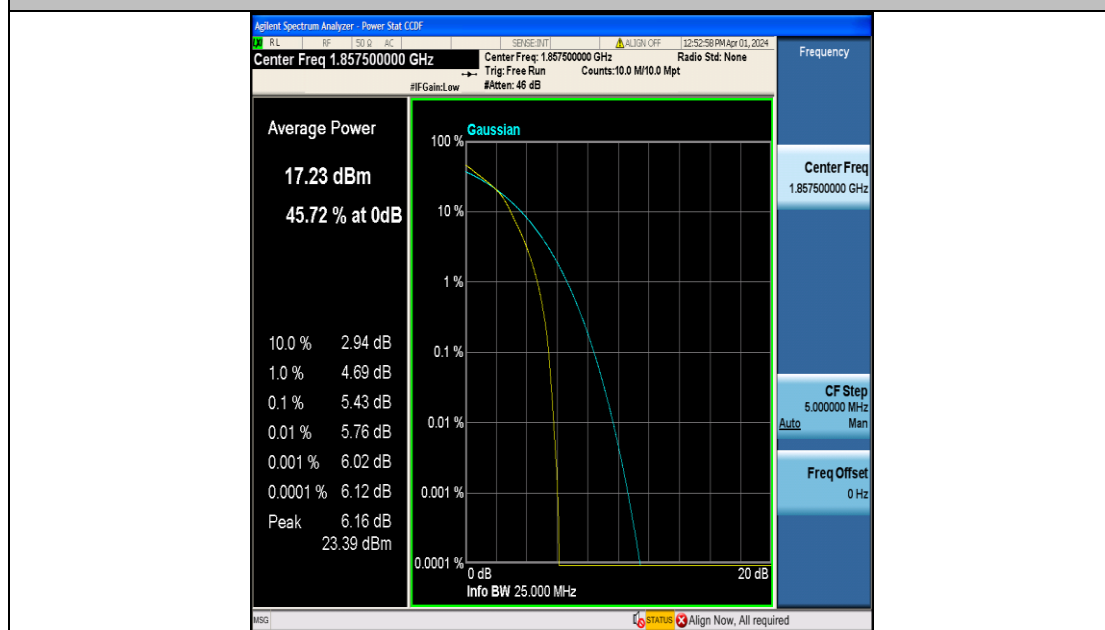
Band2-10MHz-QPSK-19150-50RB#0-PASS



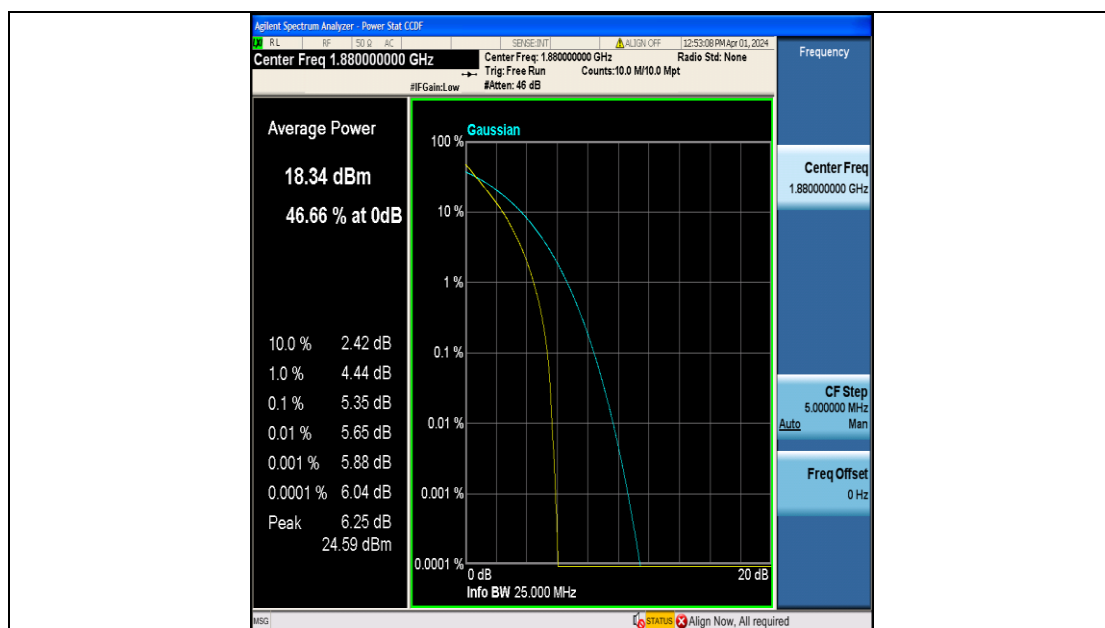
Band2-10MHz-16QAM-19150-50RB#0-PASS



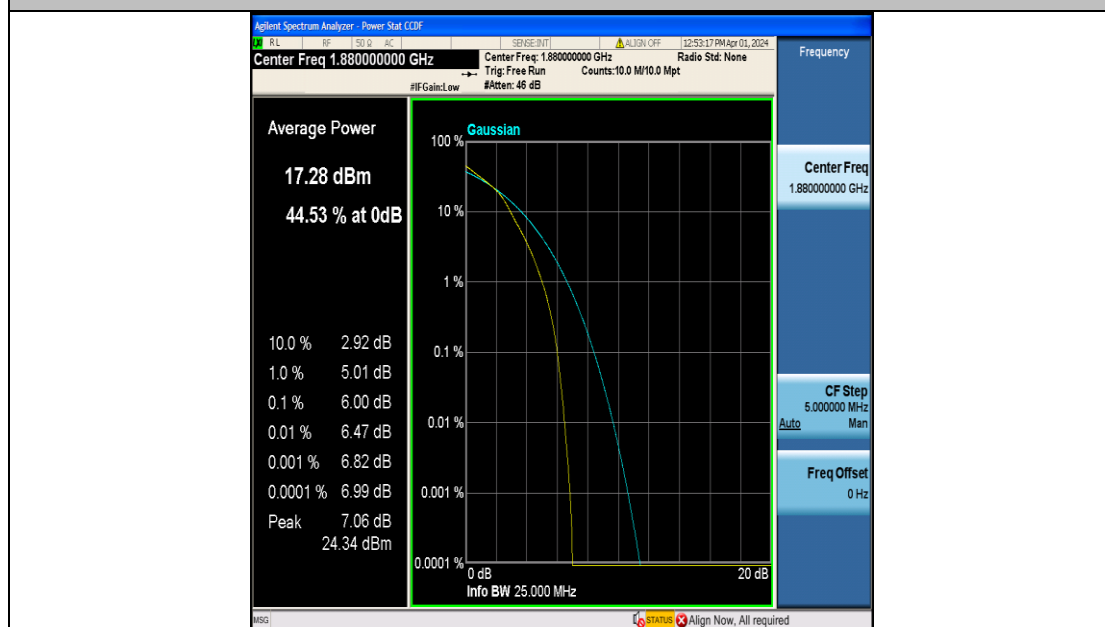
Band2-15MHz-QPSK-18675-75RB#0-PASS



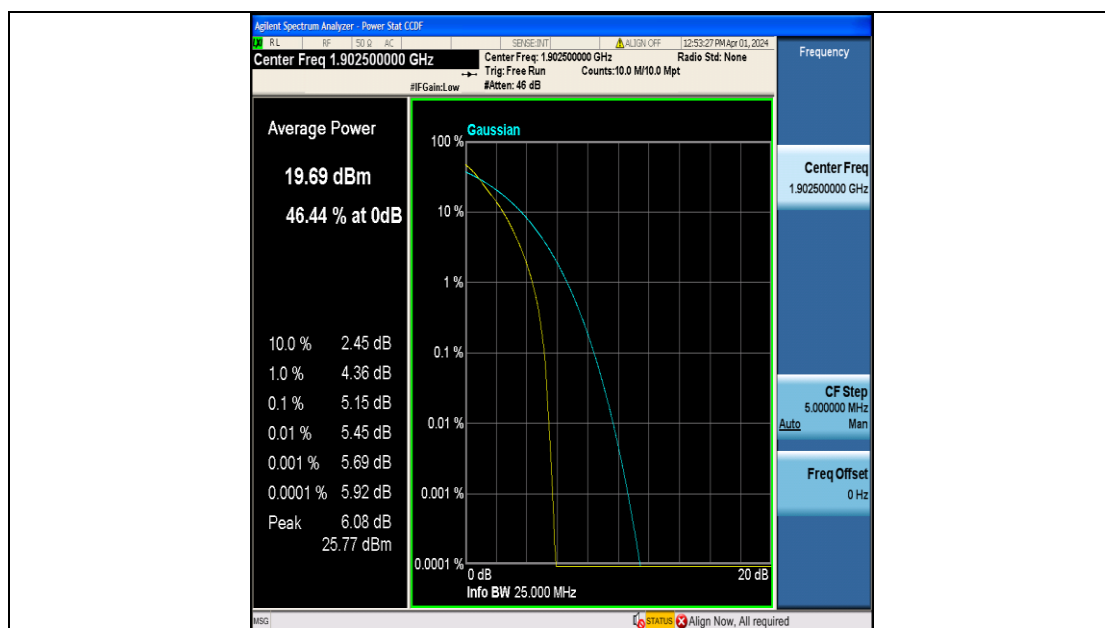
Band2-15MHz-16QAM-18675-75RB#0-PASS



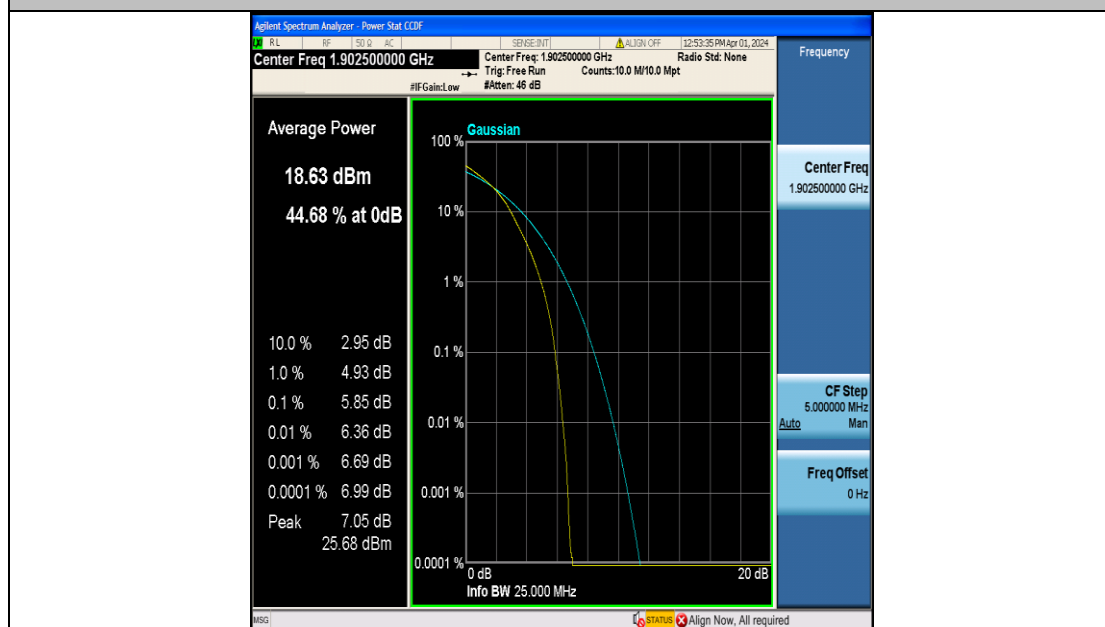
Band2-15MHz-QPSK-18900-75RB#0-PASS



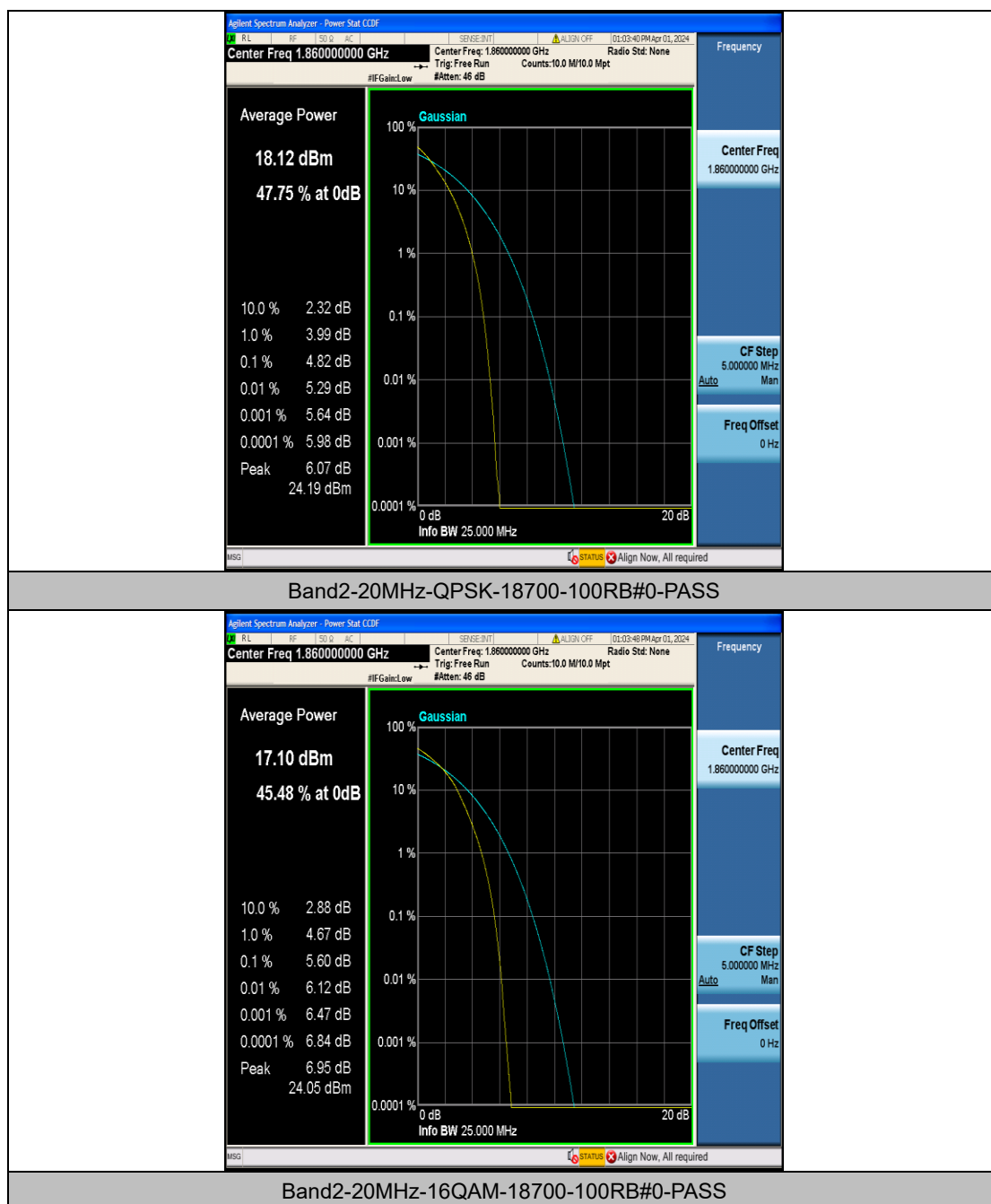
Band2-15MHz-16QAM-18900-75RB#0-PASS

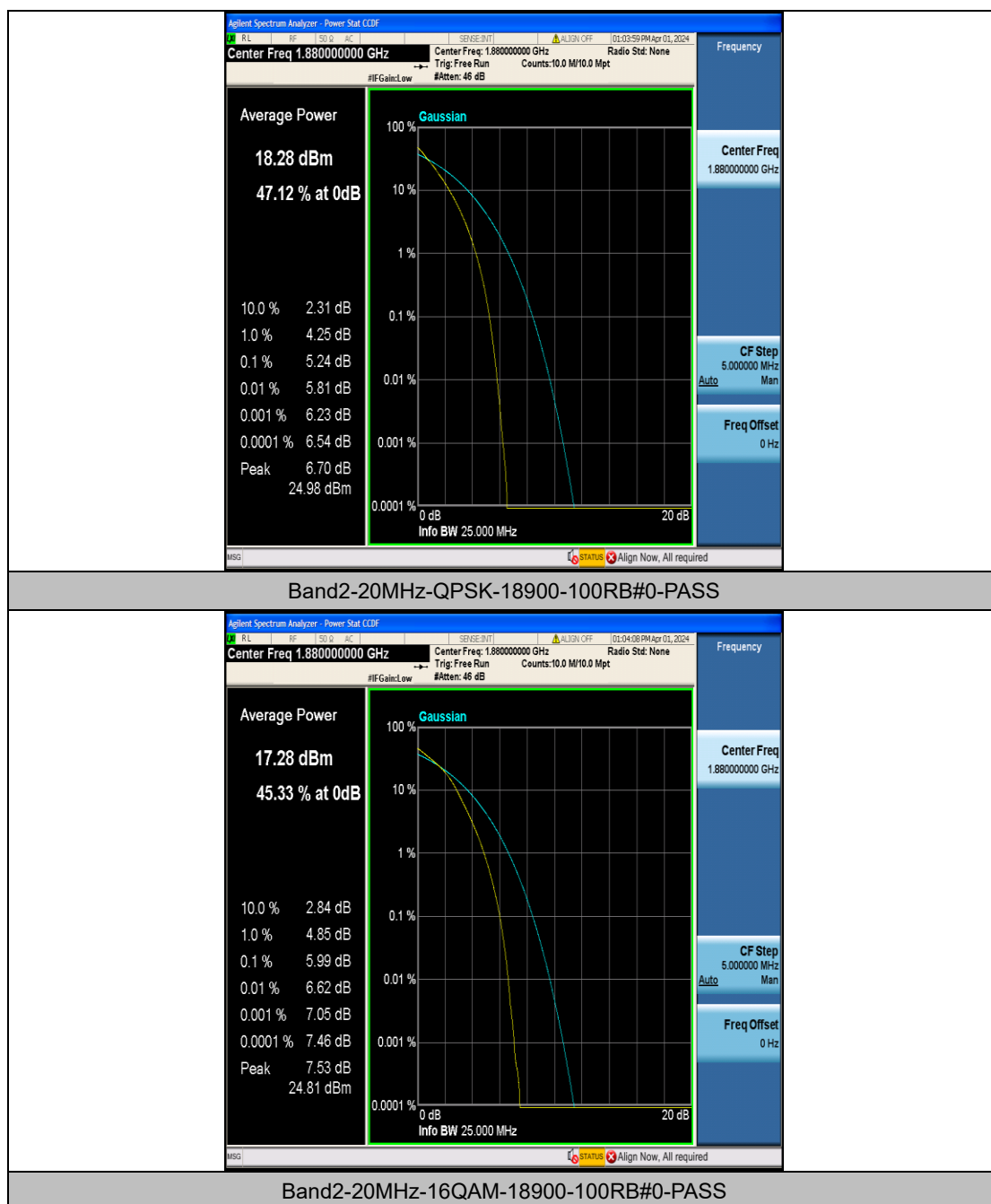


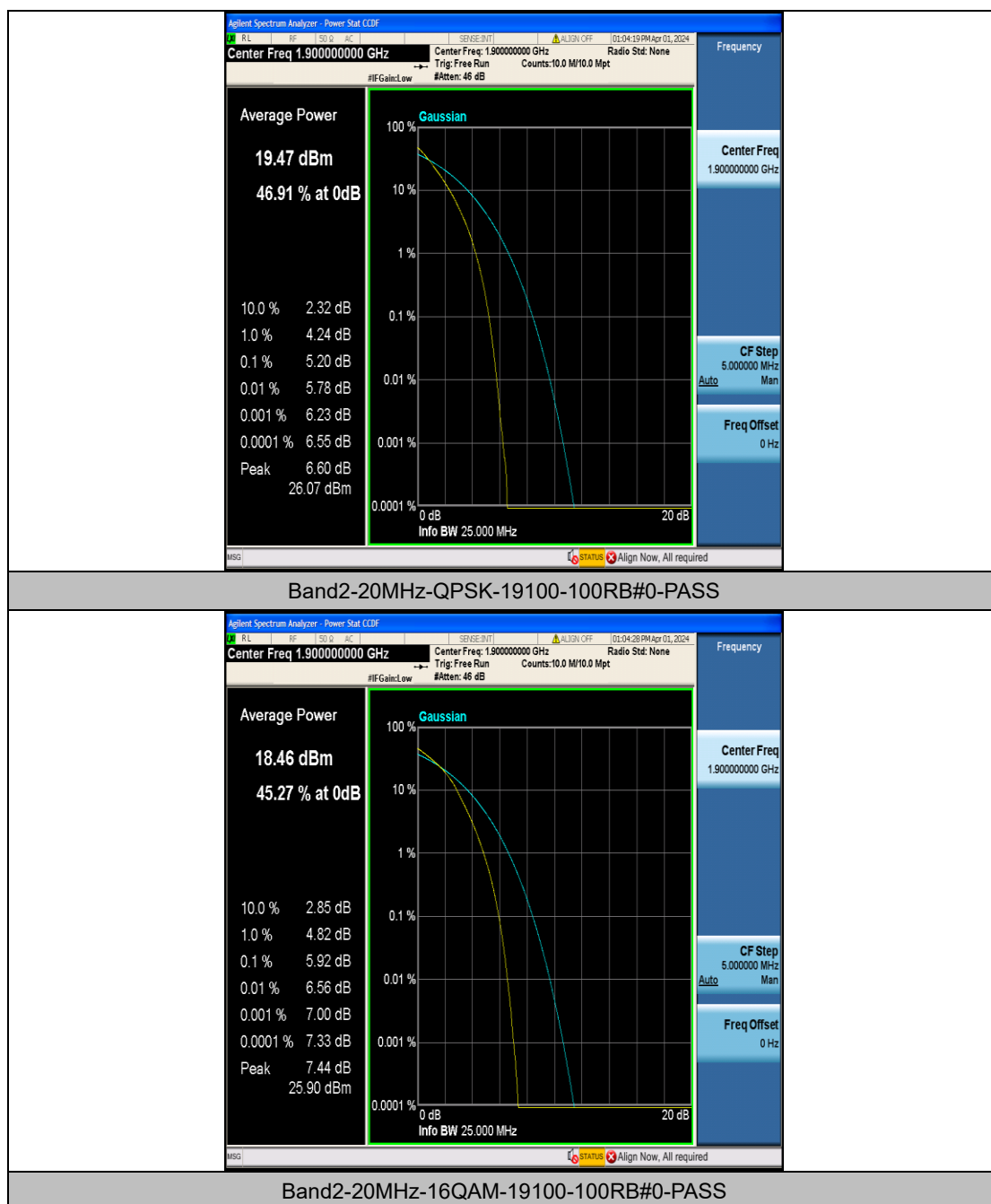
Band2-15MHz-QPSK-19125-75RB#0-PASS



Band2-15MHz-16QAM-19125-75RB#0-PASS







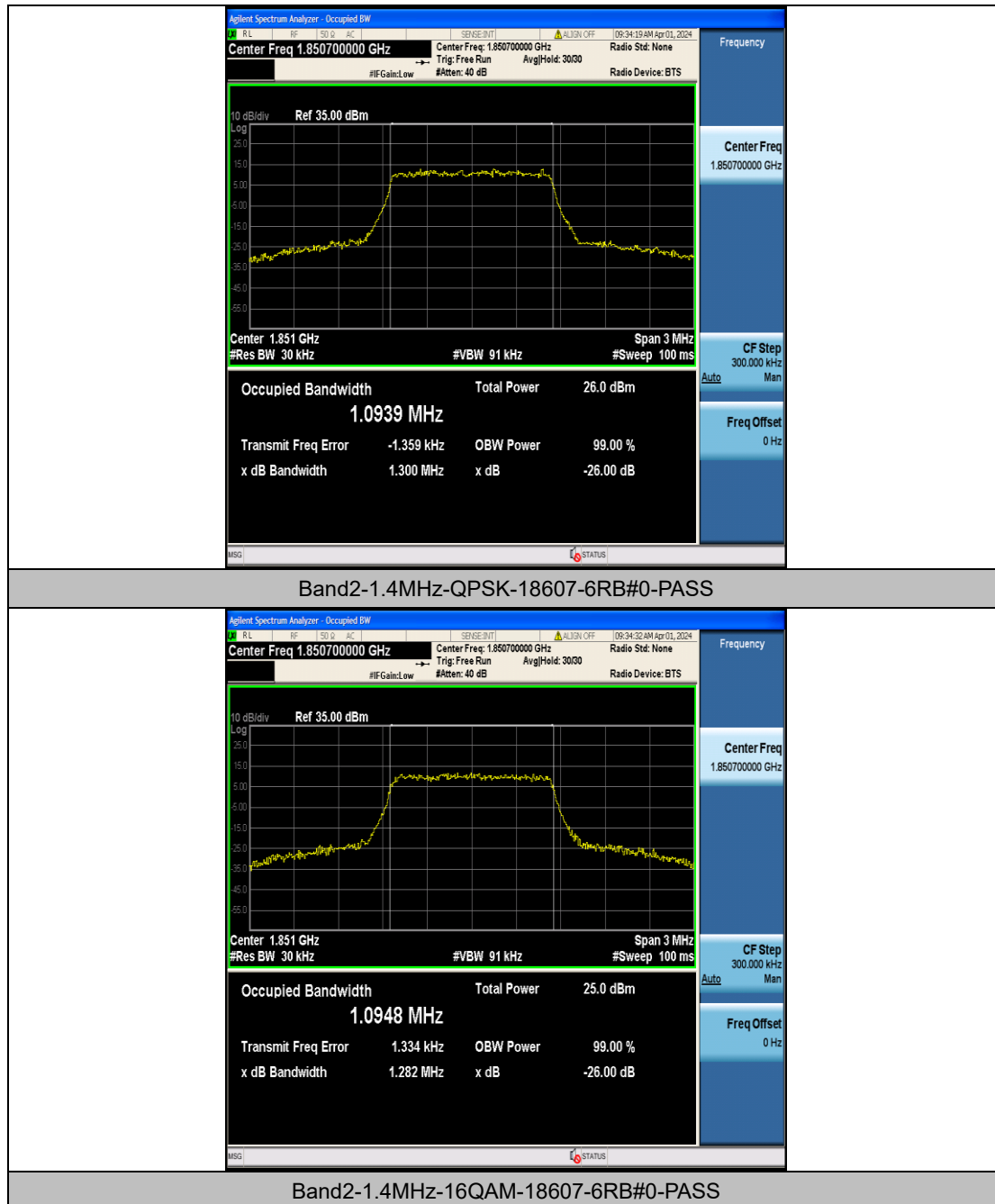
Appendix C: 26dB Bandwidth and Occupied Bandwidth

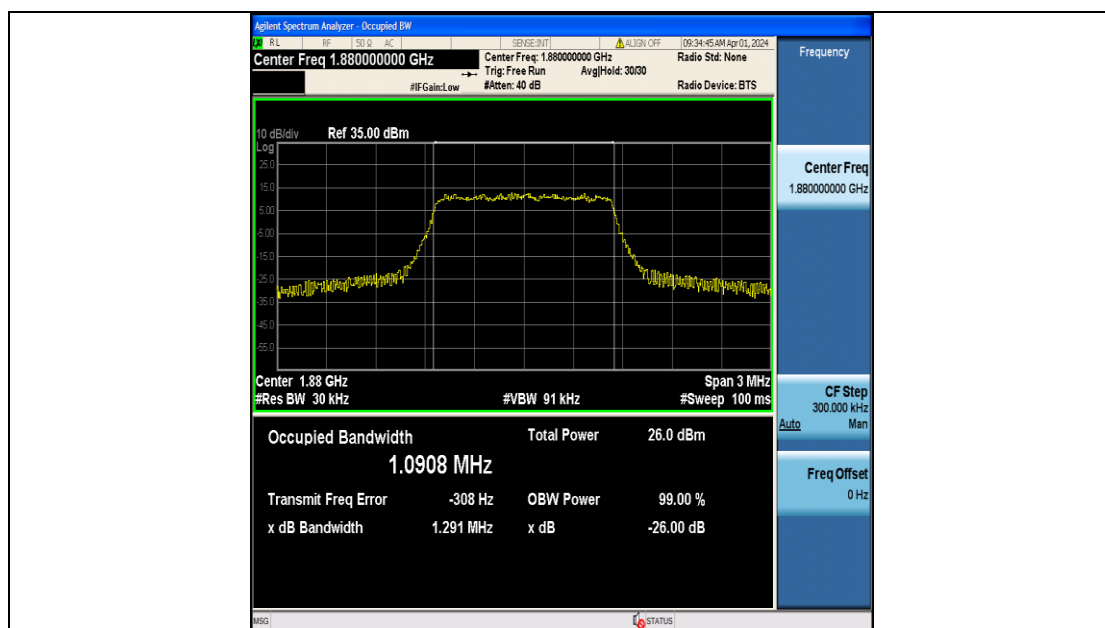
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band2	1.4MHz	QPSK	18607	6RB#0	1.0939	1.300	PASS
Band2	1.4MHz	16QAM	18607	6RB#0	1.0948	1.282	PASS
Band2	1.4MHz	QPSK	18900	6RB#0	1.0908	1.291	PASS
Band2	1.4MHz	16QAM	18900	6RB#0	1.0959	1.303	PASS
Band2	1.4MHz	QPSK	19193	6RB#0	1.0942	1.322	PASS
Band2	1.4MHz	16QAM	19193	6RB#0	1.0981	1.296	PASS
Band2	3MHz	QPSK	18615	15RB#0	2.6915	2.891	PASS
Band2	3MHz	16QAM	18615	15RB#0	2.6764	2.901	PASS
Band2	3MHz	QPSK	18900	15RB#0	2.6902	2.892	PASS
Band2	3MHz	16QAM	18900	15RB#0	2.6796	2.893	PASS
Band2	3MHz	QPSK	19185	15RB#0	2.6908	2.906	PASS
Band2	3MHz	16QAM	19185	15RB#0	2.6768	2.901	PASS
Band2	5MHz	QPSK	18625	25RB#0	4.4953	4.930	PASS
Band2	5MHz	16QAM	18625	25RB#0	4.4898	4.912	PASS
Band2	5MHz	QPSK	18900	25RB#0	4.4999	4.939	PASS
Band2	5MHz	16QAM	18900	25RB#0	4.4895	4.914	PASS
Band2	5MHz	QPSK	19175	25RB#0	4.4931	4.936	PASS
Band2	5MHz	16QAM	19175	25RB#0	4.4824	4.918	PASS
Band2	10MHz	QPSK	18650	50RB#0	8.9842	9.774	PASS
Band2	10MHz	16QAM	18650	50RB#0	8.9822	9.749	PASS
Band2	10MHz	QPSK	18900	50RB#0	8.9878	9.814	PASS
Band2	10MHz	16QAM	18900	50RB#0	8.9655	9.757	PASS
Band2	10MHz	QPSK	19150	50RB#0	8.9808	9.815	PASS
Band2	10MHz	16QAM	19150	50RB#0	8.9753	9.701	PASS
Band2	15MHz	QPSK	18675	75RB#0	13.441	14.70	PASS
Band2	15MHz	16QAM	18675	75RB#0	13.466	14.59	PASS
Band2	15MHz	QPSK	18900	75RB#0	13.503	14.59	PASS
Band2	15MHz	16QAM	18900	75RB#0	13.489	14.68	PASS
Band2	15MHz	QPSK	19125	75RB#0	13.526	14.76	PASS
Band2	15MHz	16QAM	19125	75RB#0	13.498	14.67	PASS
Band2	20MHz	QPSK	18700	100RB#0	17.885	19.29	PASS
Band2	20MHz	16QAM	18700	100RB#0	17.956	19.37	PASS
Band2	20MHz	QPSK	18900	100RB#0	17.977	19.41	PASS
Band2	20MHz	16QAM	18900	100RB#0	17.990	19.42	PASS

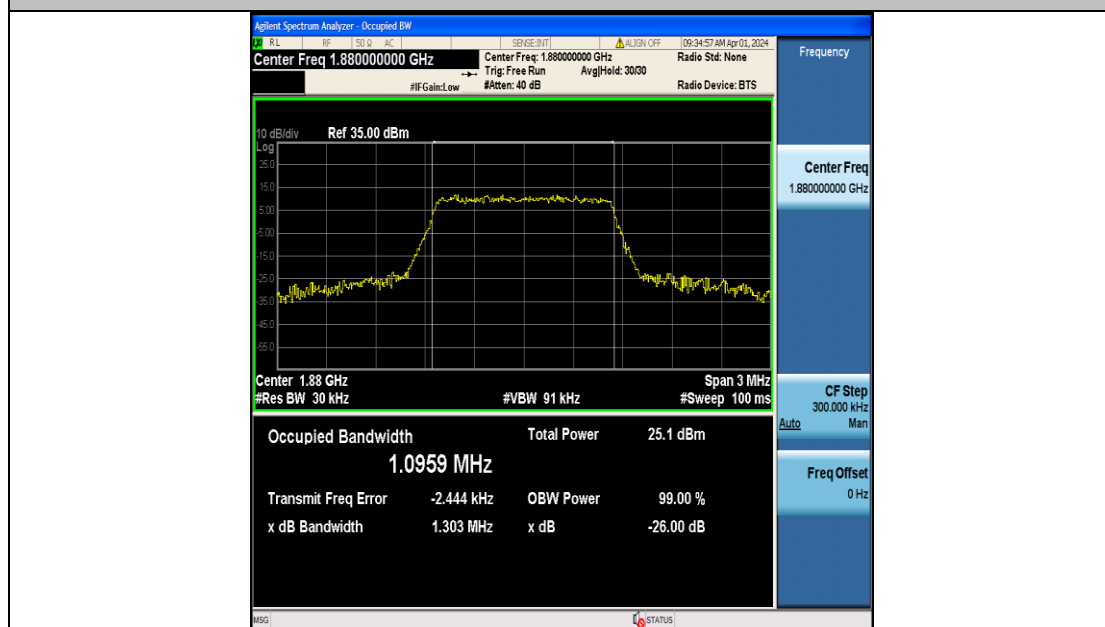
Band2	20MHz	QPSK	19100	100RB#0	18.013	19.37	PASS
Band2	20MHz	16QAM	19100	100RB#0	18.052	19.29	PASS

Test Graphs

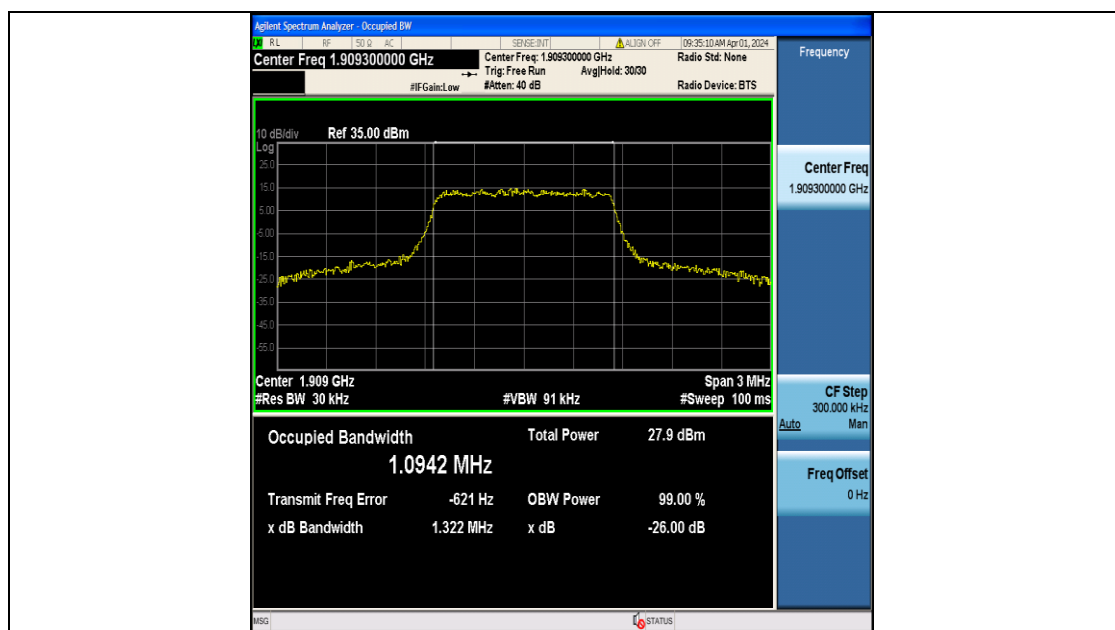




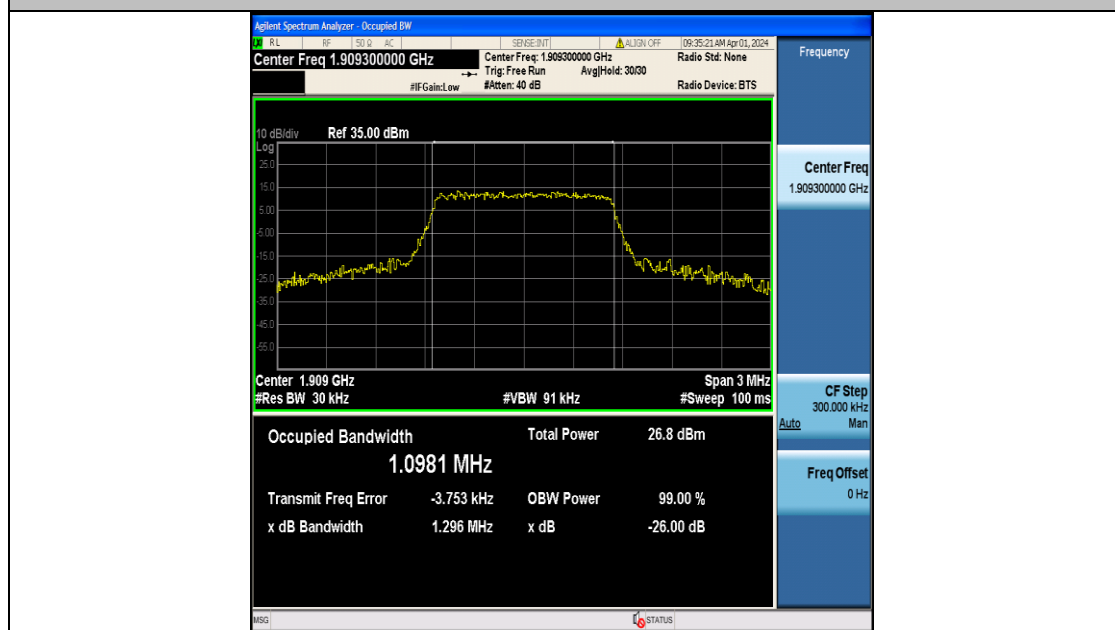
Band2-1.4MHz-QPSK-18900-6RB#0-PASS



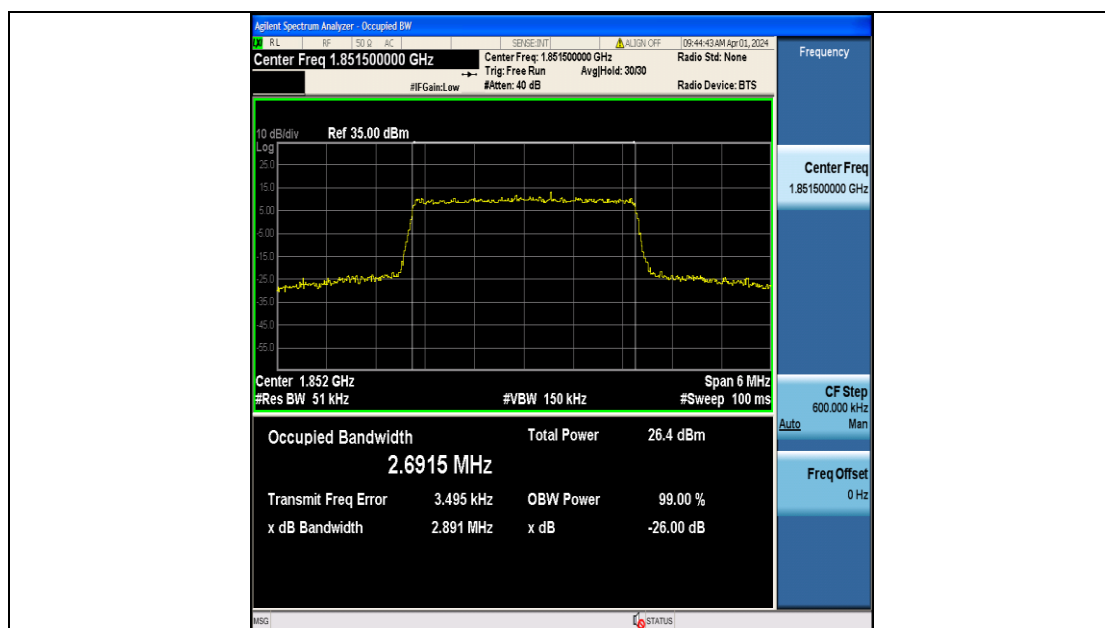
Band2-1.4MHz-16QAM-18900-6RB#0-PASS



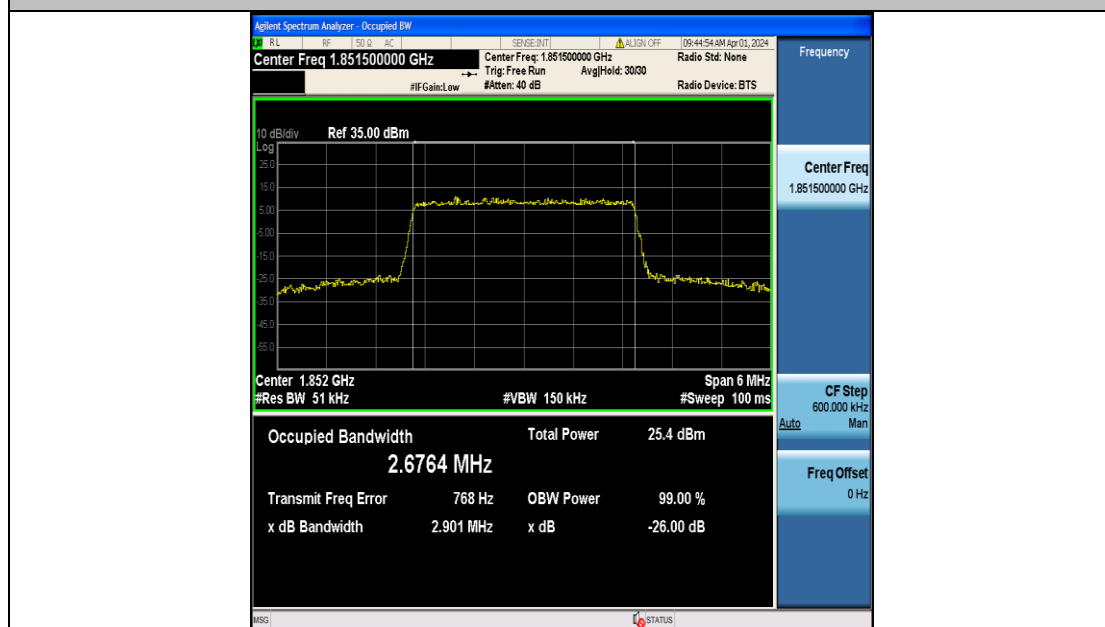
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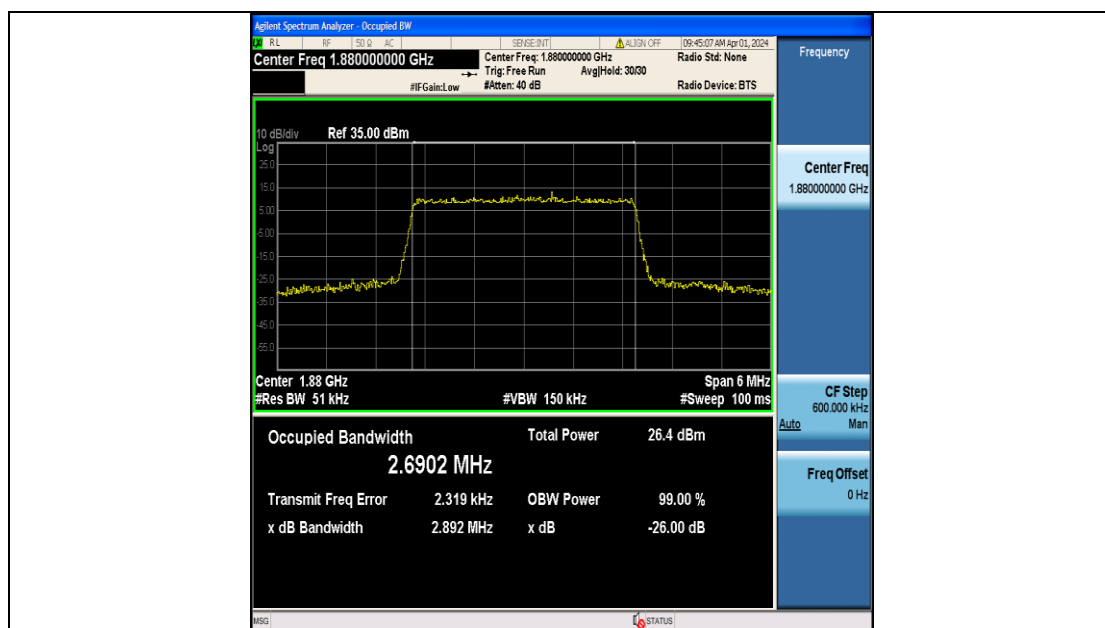
Band2-1.4MHz-16QAM-19193-6RB#0-PASS



Band2-3MHz-QPSK-18615-15RB#0-PASS



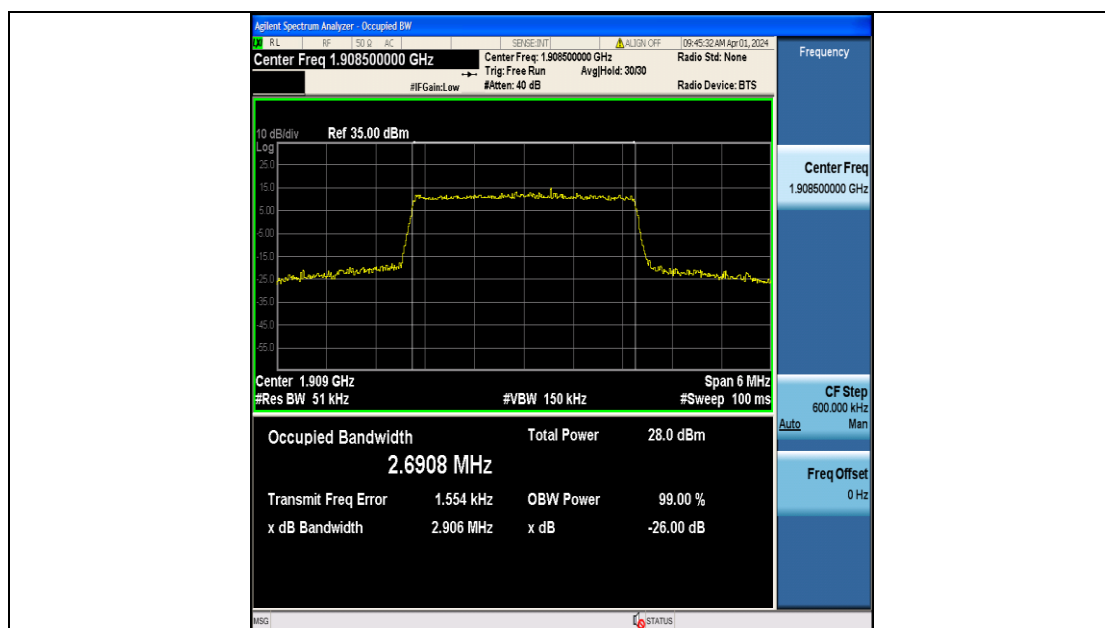
Band2-3MHz-16QAM-18615-15RB#0-PASS



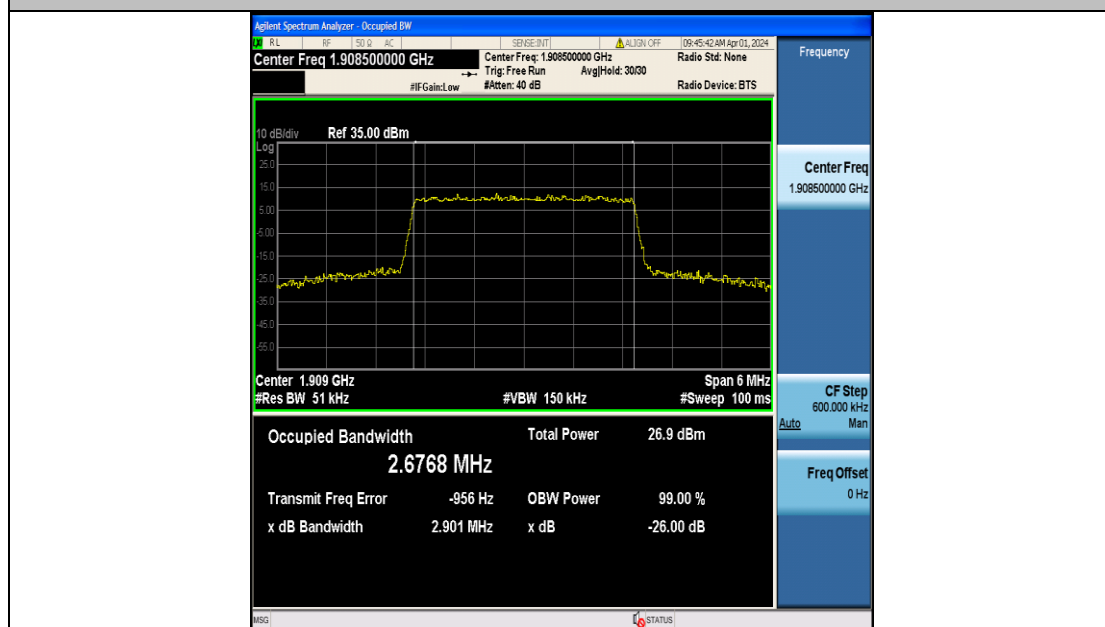
Band2-3MHz-QPSK-18900-15RB#0-PASS



Band2-3MHz-16QAM-18900-15RB#0-PASS



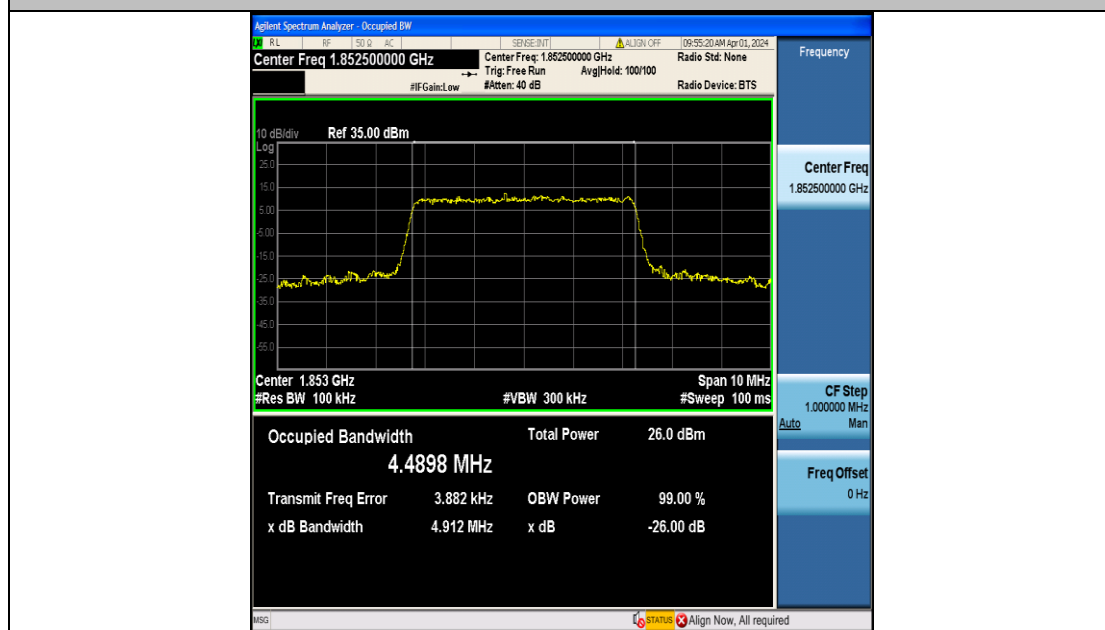
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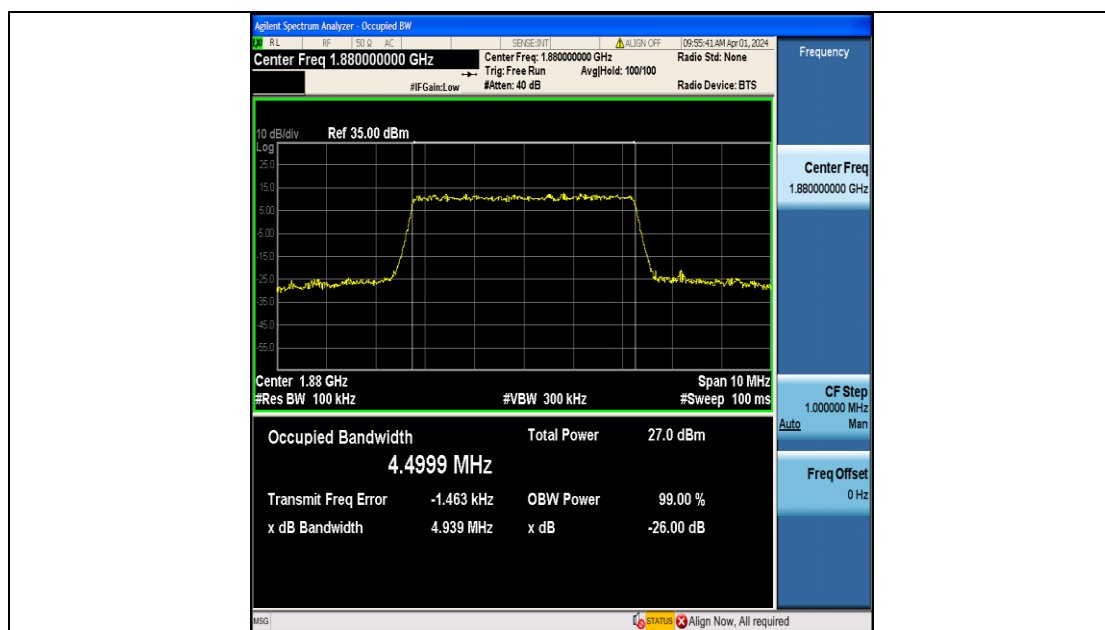
Band2-3MHz-16QAM-19185-15RB#0-PASS



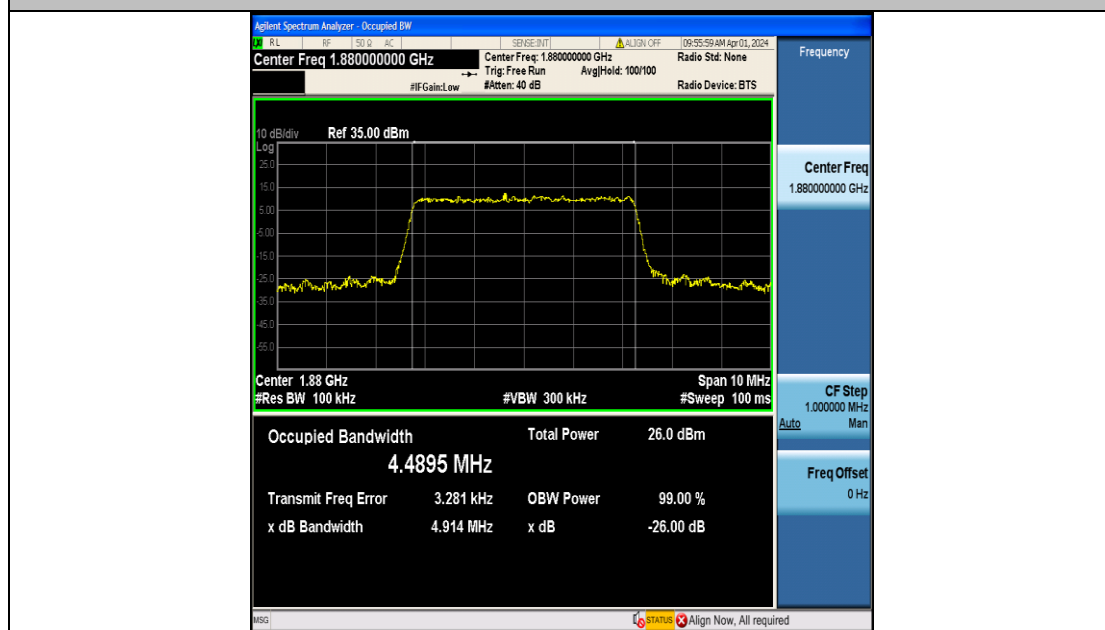
Band2-5MHz-QPSK-18625-25RB#0-PASS



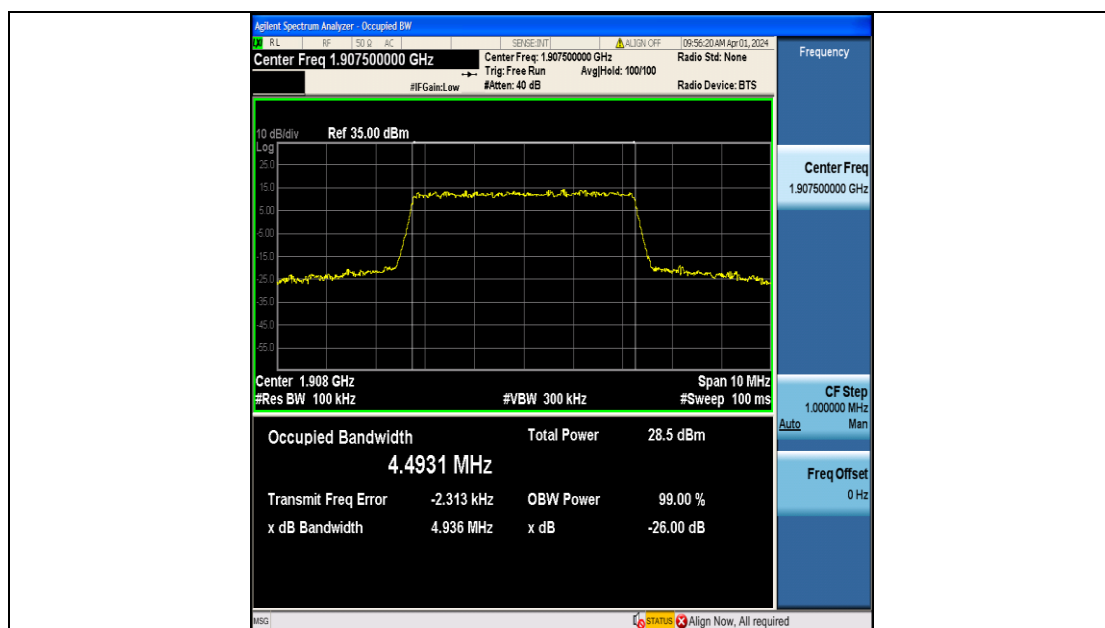
Band2-5MHz-16QAM-18625-25RB#0-PASS



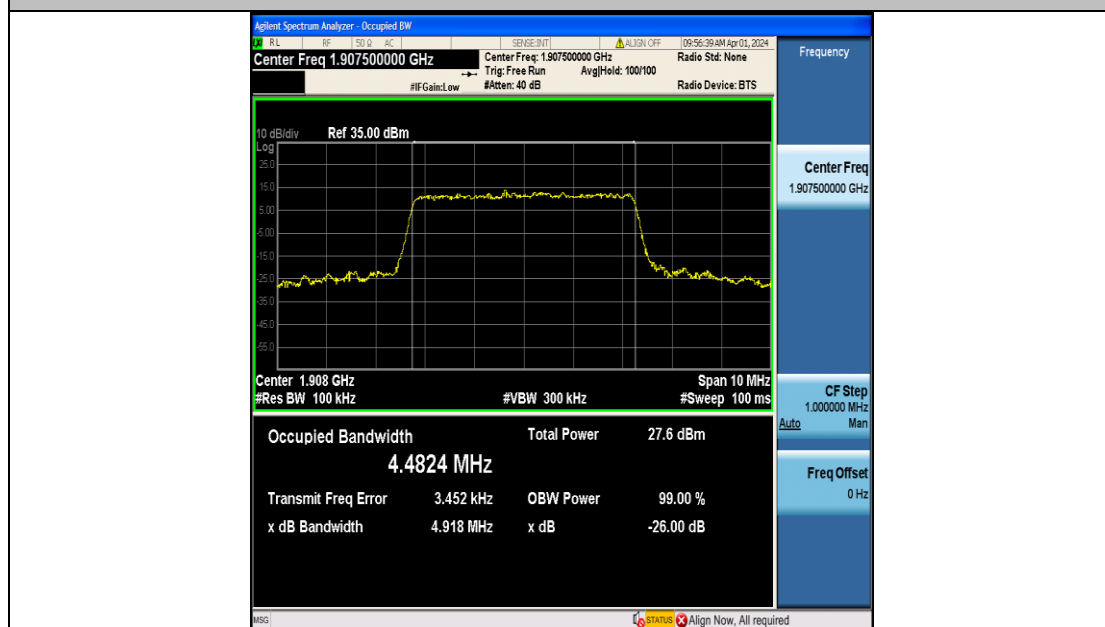
Band2-5MHz-QPSK-18900-25RB#0-PASS



Band2-5MHz-16QAM-18900-25RB#0-PASS



Band2-5MHz-QPSK-19175-25RB#0-PASS



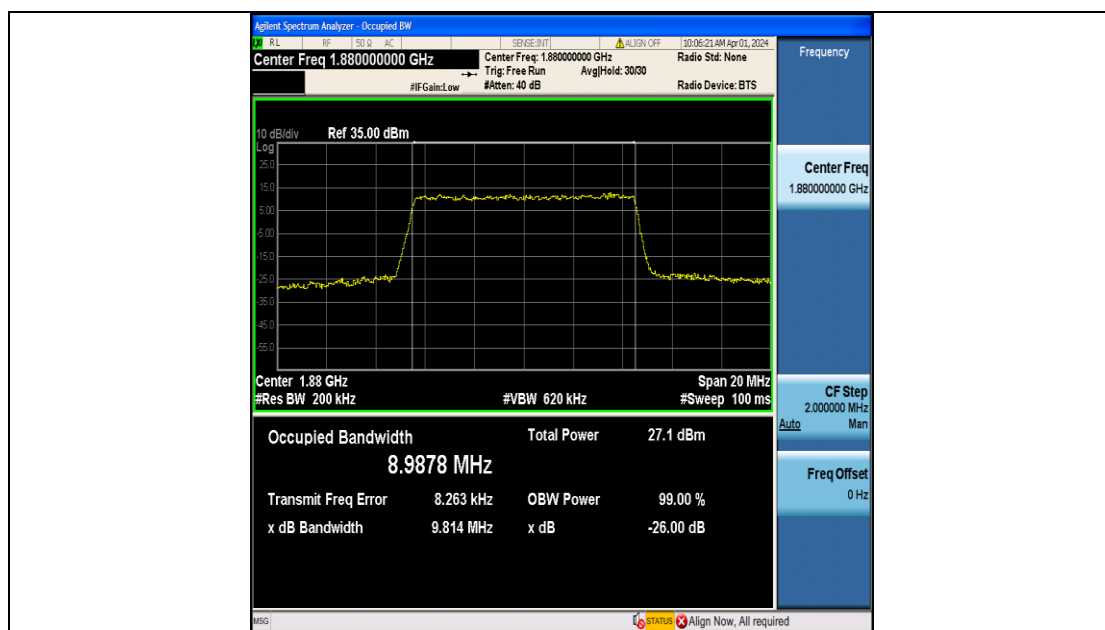
Band2-5MHz-16QAM-19175-25RB#0-PASS



Band2-10MHz-QPSK-18650-50RB#0-PASS



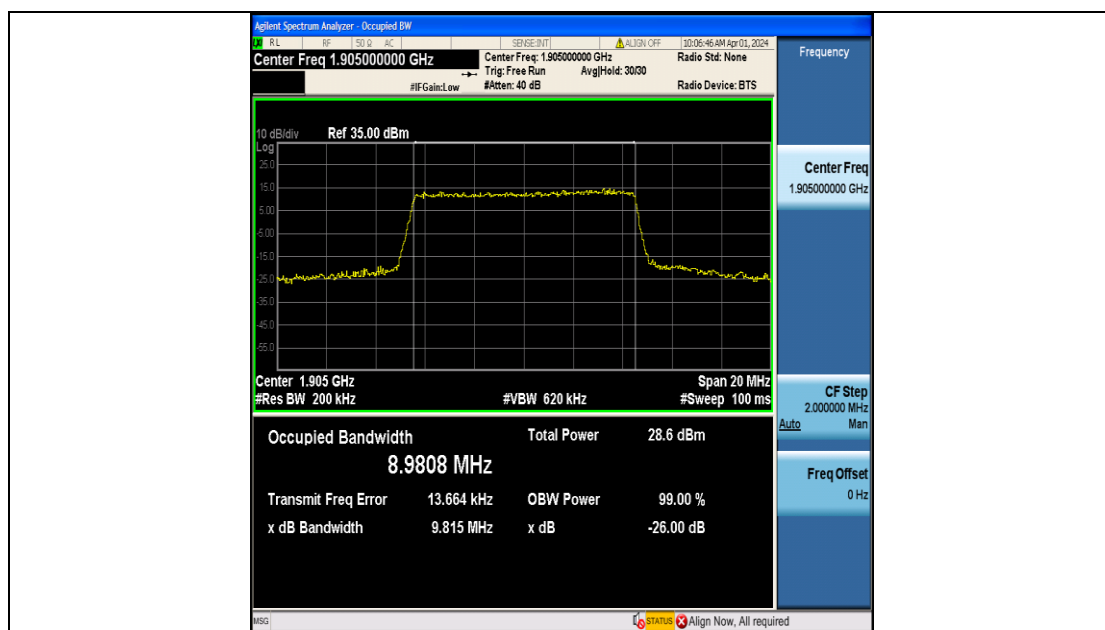
Band2-10MHz-16QAM-18650-50RB#0-PASS



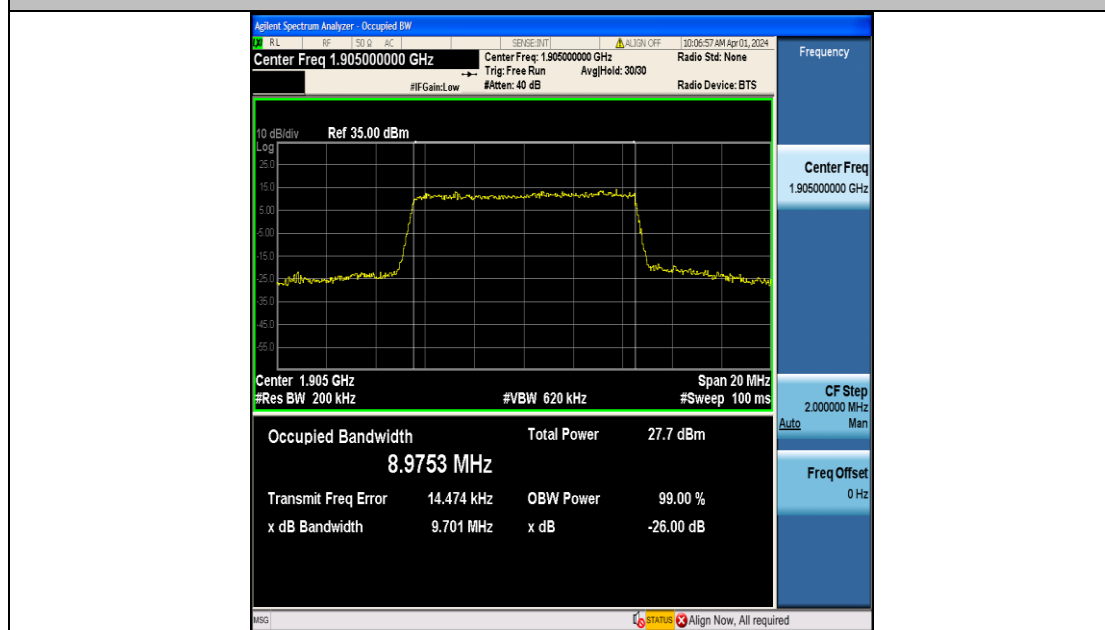
Band2-10MHz-QPSK-18900-50RB#0-PASS



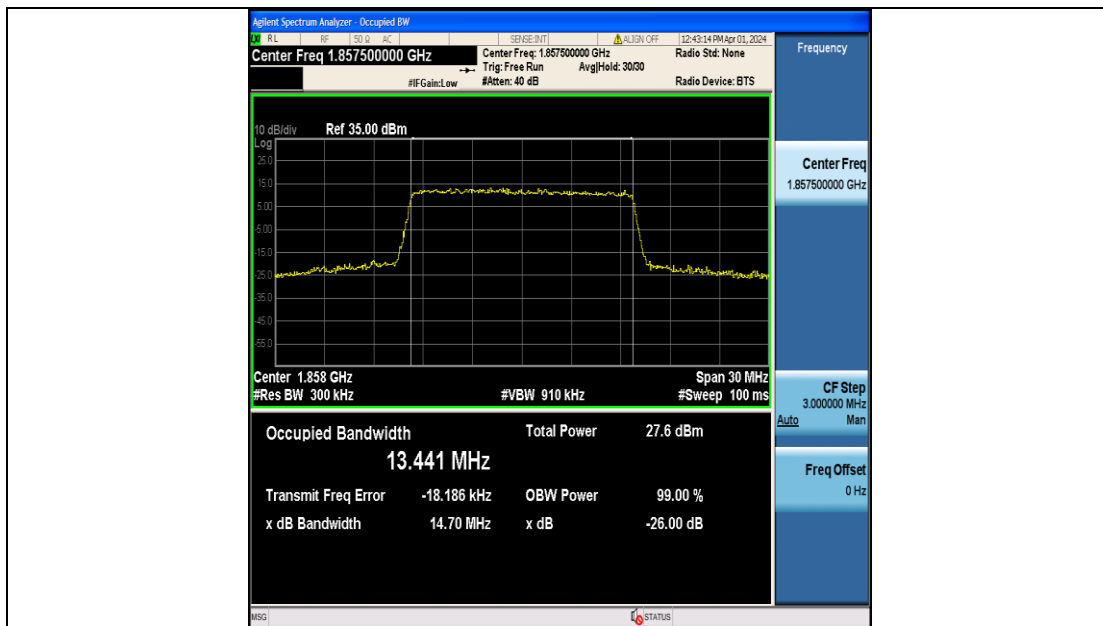
Band2-10MHz-16QAM-18900-50RB#0-PASS



Band2-10MHz-QPSK-19150-50RB#0-PASS



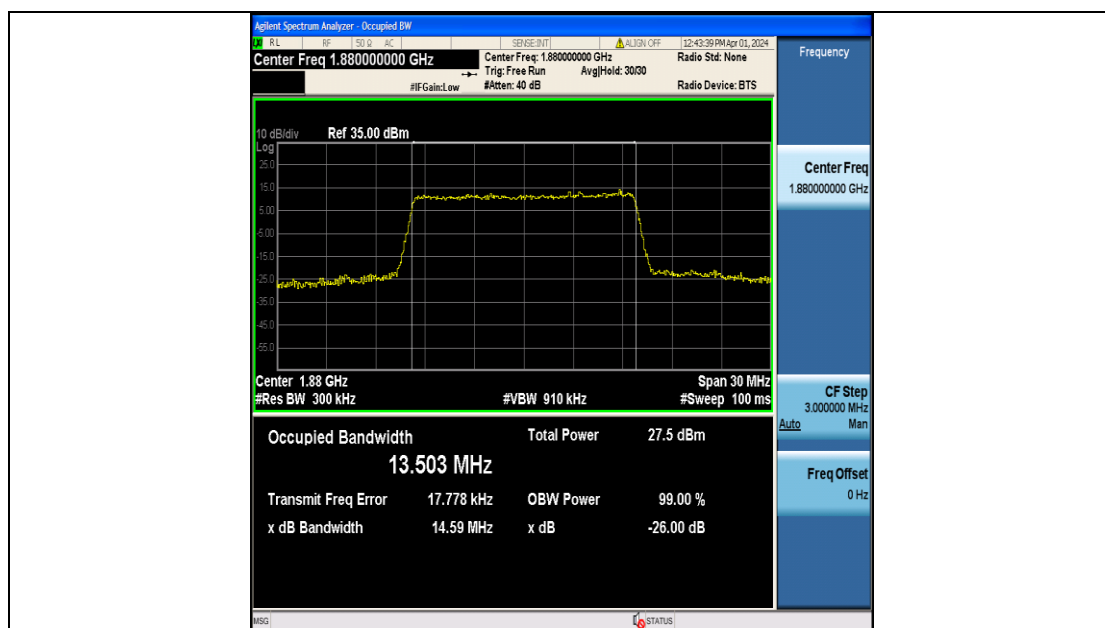
Band2-10MHz-16QAM-19150-50RB#0-PASS



Band2-15MHz-QPSK-18675-75RB#0-PASS



Band2-15MHz-16QAM-18675-75RB#0-PASS



Band2-15MHz-QPSK-18900-75RB#0-PASS



Band2-15MHz-16QAM-18900-75RB#0-PASS



Band2-15MHz-QPSK-19125-75RB#0-PASS



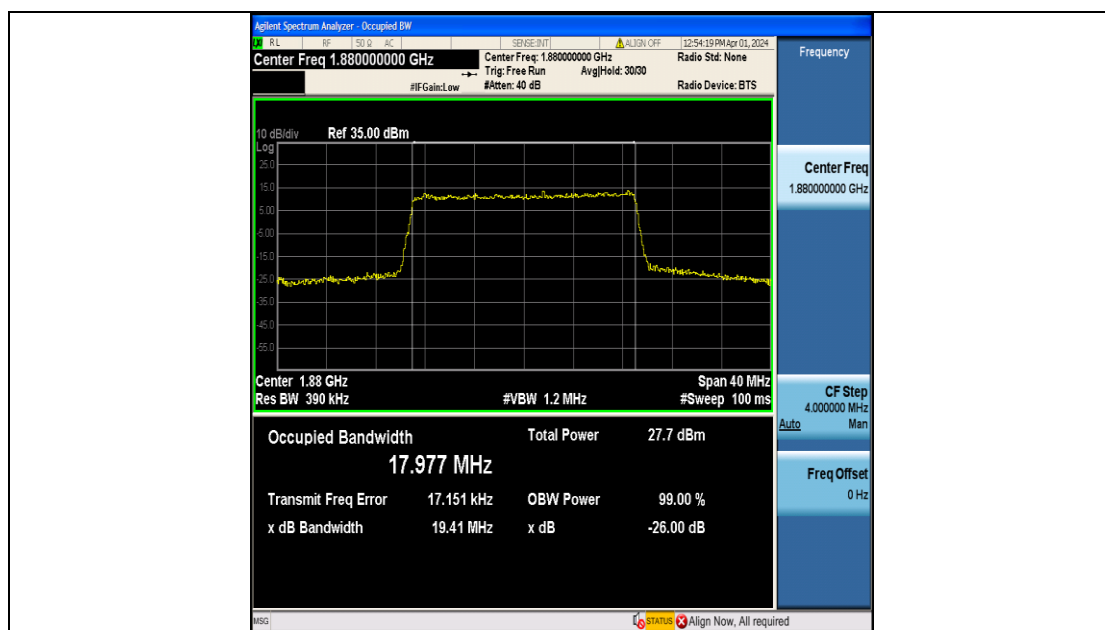
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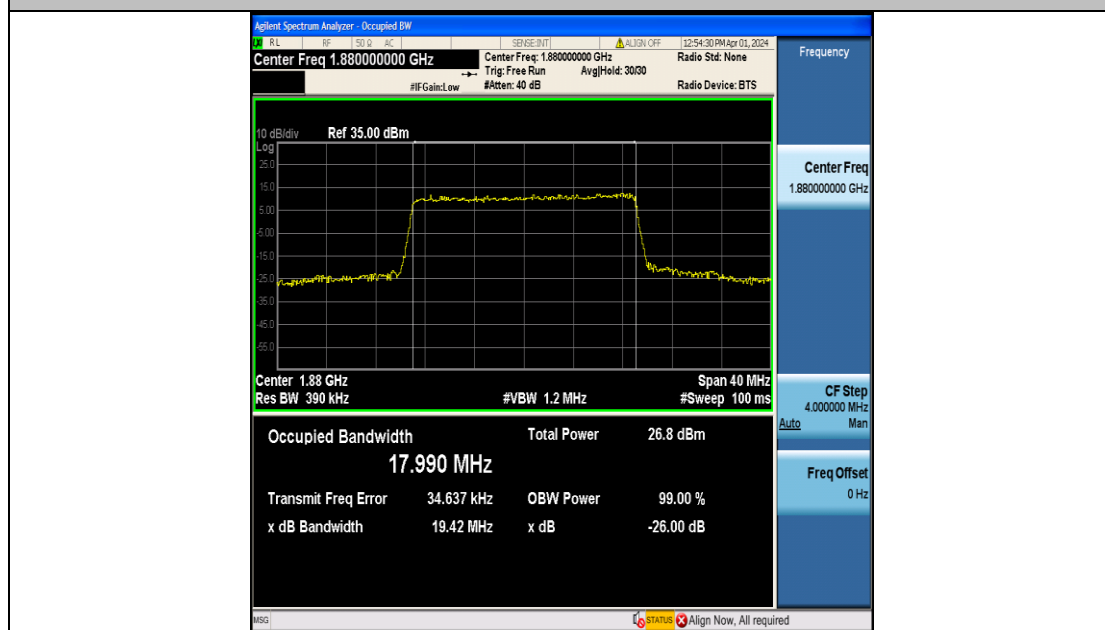
Band2-20MHz-QPSK-18700-100RB#0-PASS



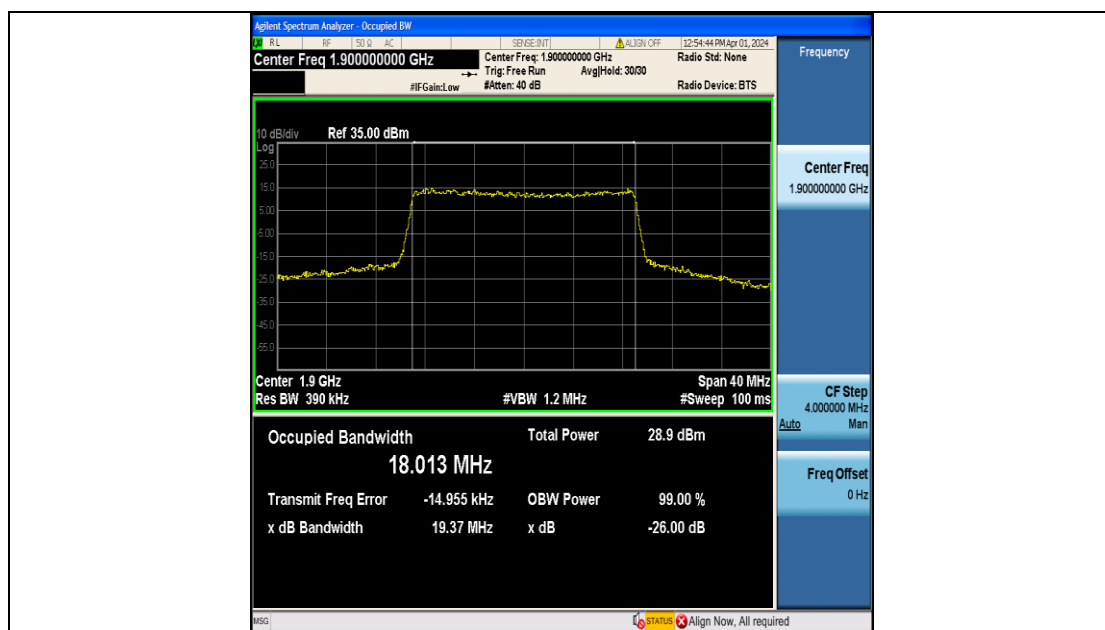
Band2-20MHz-16QAM-18700-100RB#0-PASS



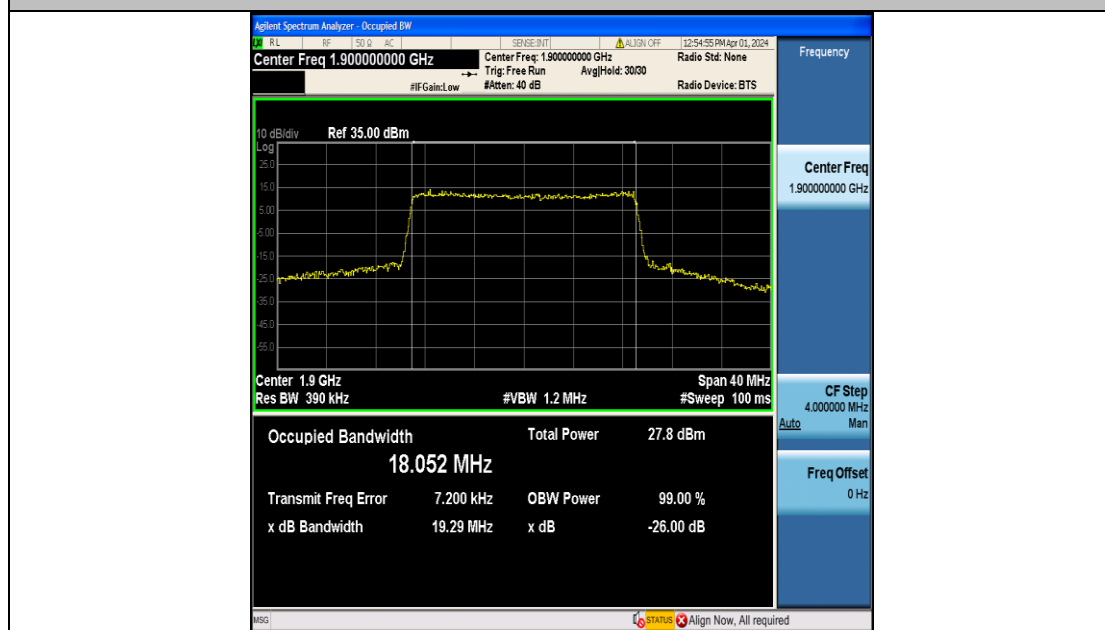
Band2-20MHz-QPSK-18900-100RB#0-PASS



Band2-20MHz-16QAM-18900-100RB#0-PASS



Band2-20MHz-QPSK-19100-100RB#0-PASS



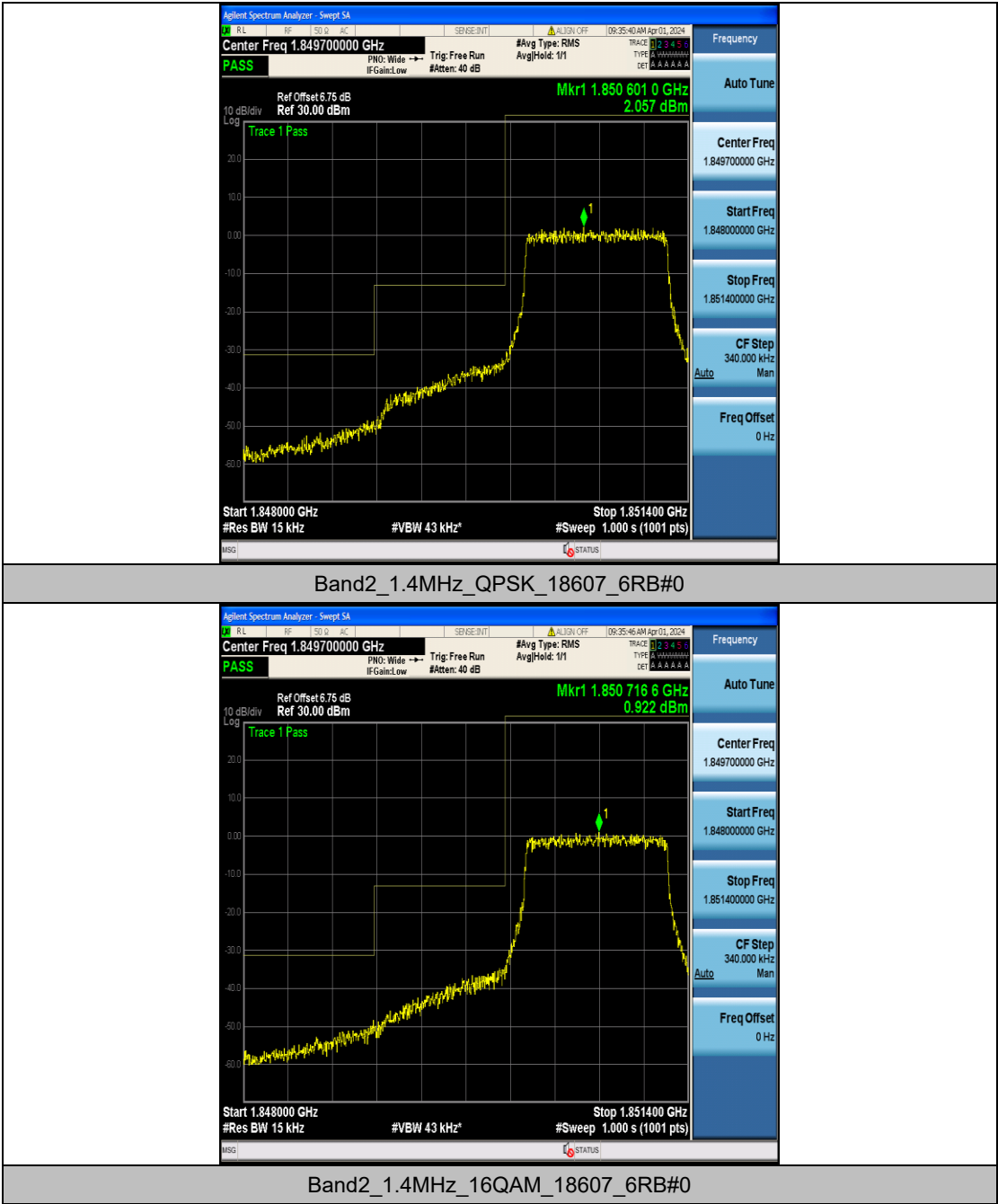
Band2-20MHz-16QAM-19100-100RB#0-PASS

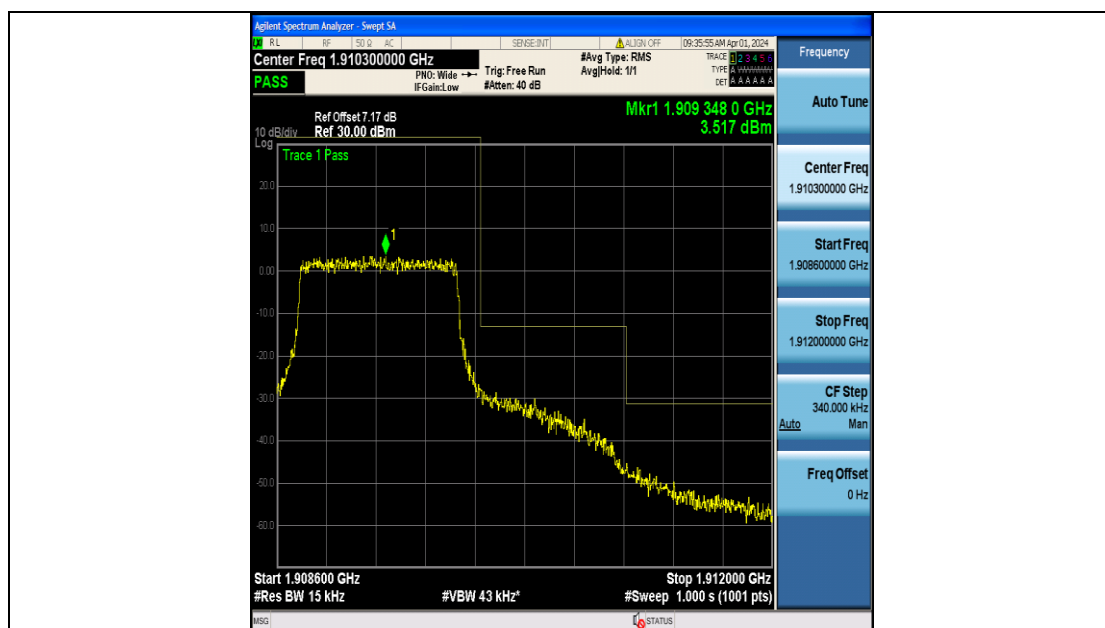
Appendix D: Band Edge

Test Result

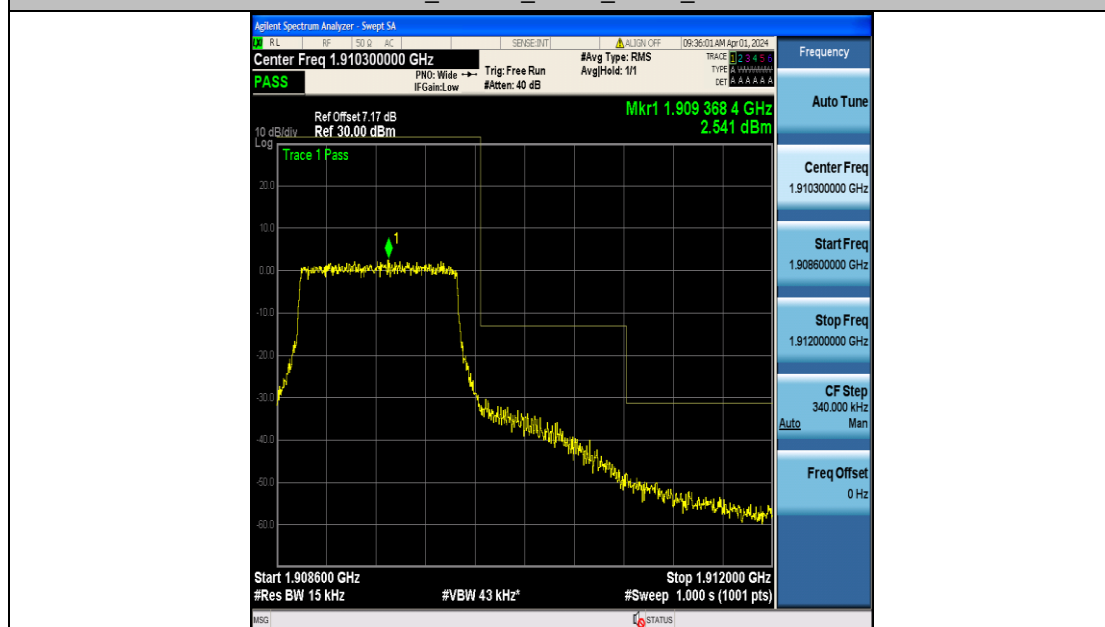
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band2	1.4MHz	QPSK	18607	6RB#0	-48.60	PASS
Band2	1.4MHz	16QAM	18607	6RB#0	-48.36	PASS
Band2	1.4MHz	QPSK	19193	6RB#0	-45.27	PASS
Band2	1.4MHz	16QAM	19193	6RB#0	-48.13	PASS
Band2	3MHz	QPSK	18615	15RB#0	-37.46	PASS
Band2	3MHz	16QAM	18615	15RB#0	-40.00	PASS
Band2	3MHz	QPSK	19185	15RB#0	-35.11	PASS
Band2	3MHz	16QAM	19185	15RB#0	-37.68	PASS
Band2	5MHz	QPSK	18625	25RB#0	-36.31	PASS
Band2	5MHz	16QAM	18625	25RB#0	-38.44	PASS
Band2	5MHz	QPSK	19175	25RB#0	-34.87	PASS
Band2	5MHz	16QAM	19175	25RB#0	-37.24	PASS
Band2	10MHz	QPSK	18650	50RB#0	-34.84	PASS
Band2	10MHz	16QAM	18650	50RB#0	-37.11	PASS
Band2	10MHz	QPSK	19150	50RB#0	-33.20	PASS
Band2	10MHz	16QAM	19150	50RB#0	-35.06	PASS
Band2	15MHz	QPSK	18675	75RB#0	-31.57	PASS
Band2	15MHz	16QAM	18675	75RB#0	-34.78	PASS
Band2	15MHz	QPSK	19125	75RB#0	-30.88	PASS
Band2	15MHz	16QAM	19125	75RB#0	-34.12	PASS
Band2	20MHz	QPSK	18700	100RB#0	-34.53	PASS
Band2	20MHz	16QAM	18700	100RB#0	-36.29	PASS
Band2	20MHz	QPSK	19100	100RB#0	-32.89	PASS
Band2	20MHz	16QAM	19100	100RB#0	-35.23	PASS

Test Graphs

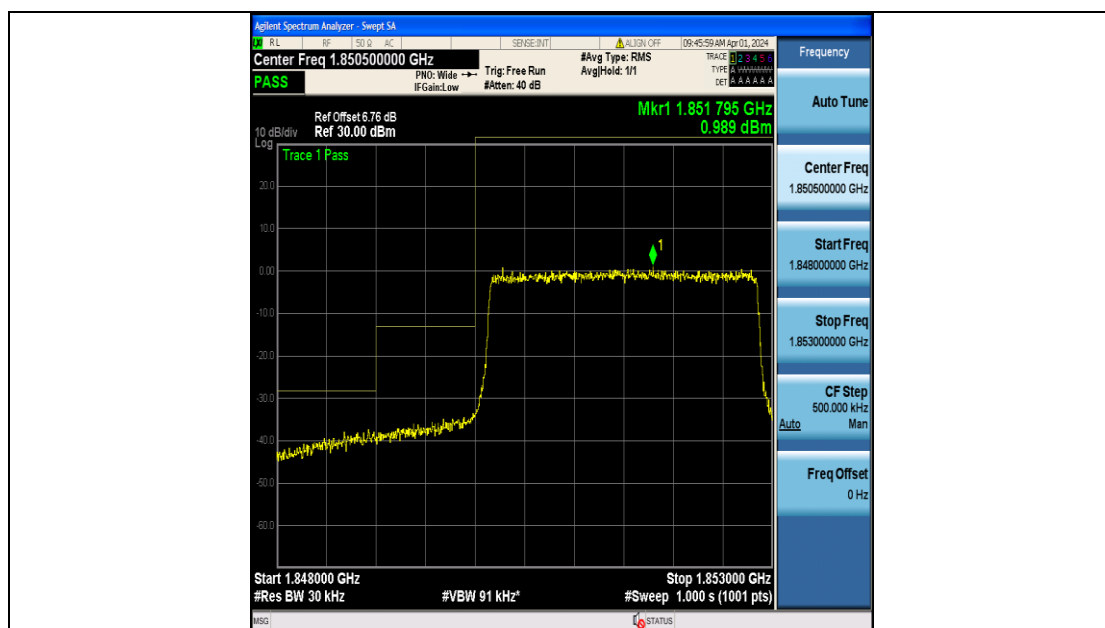




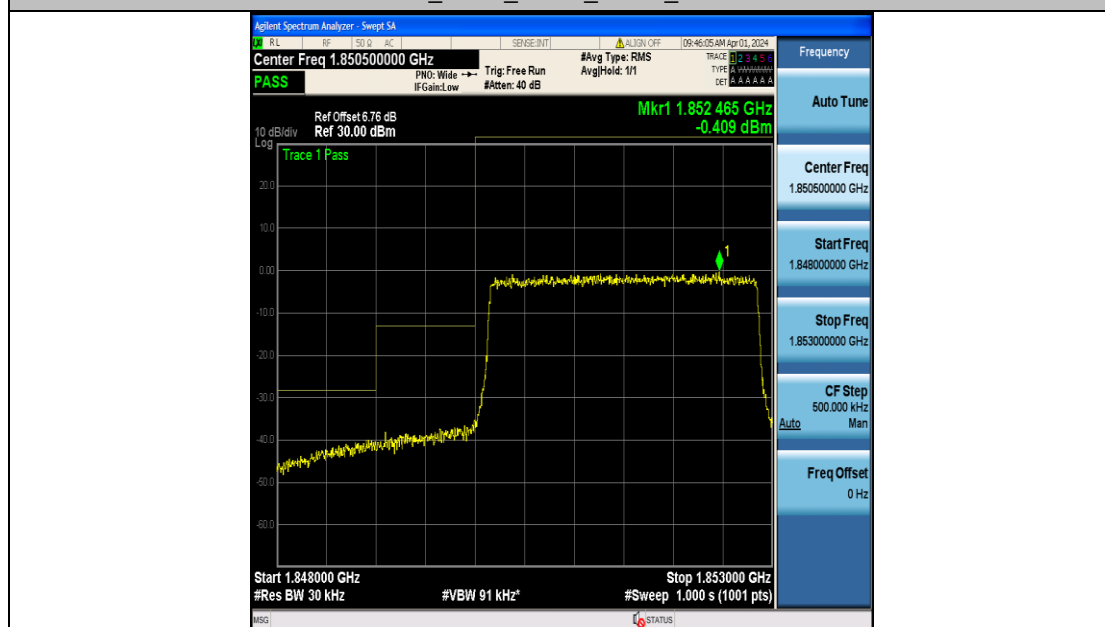
Band2_1.4MHz_QPSK_19193_6RB#0



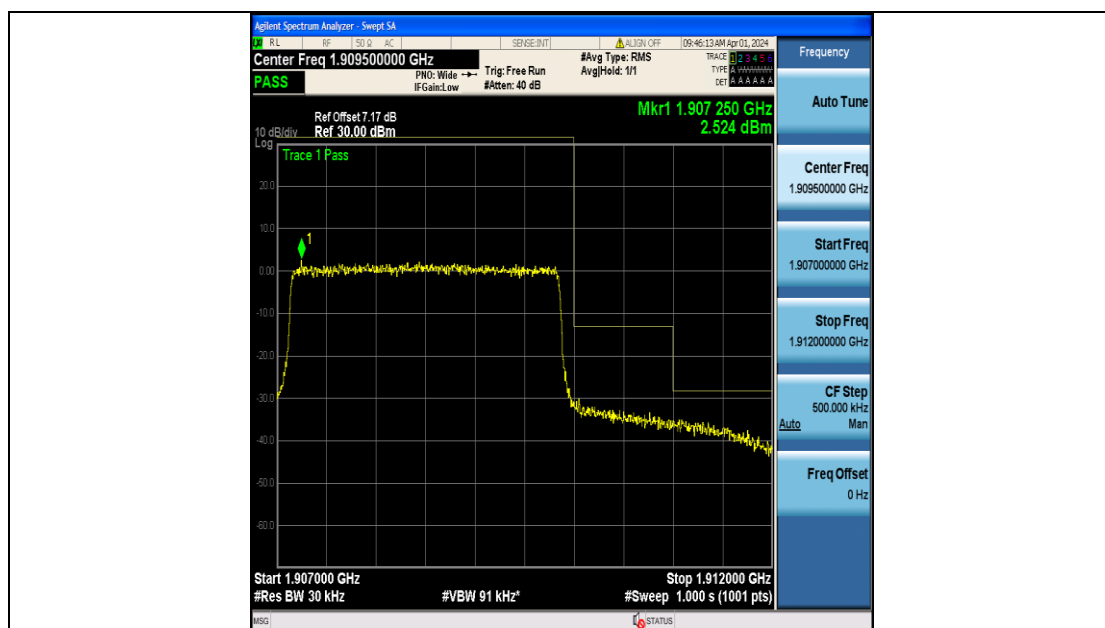
Band2_1.4MHz_16QAM_19193_6RB#0



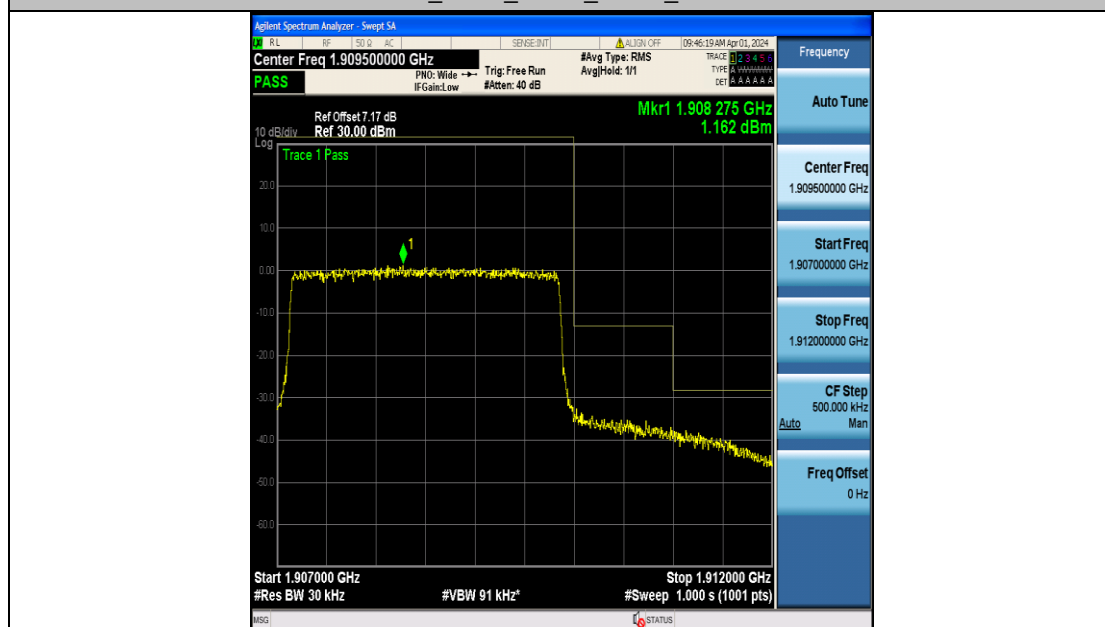
Band2_3MHz_QPSK_18615_15RB#0



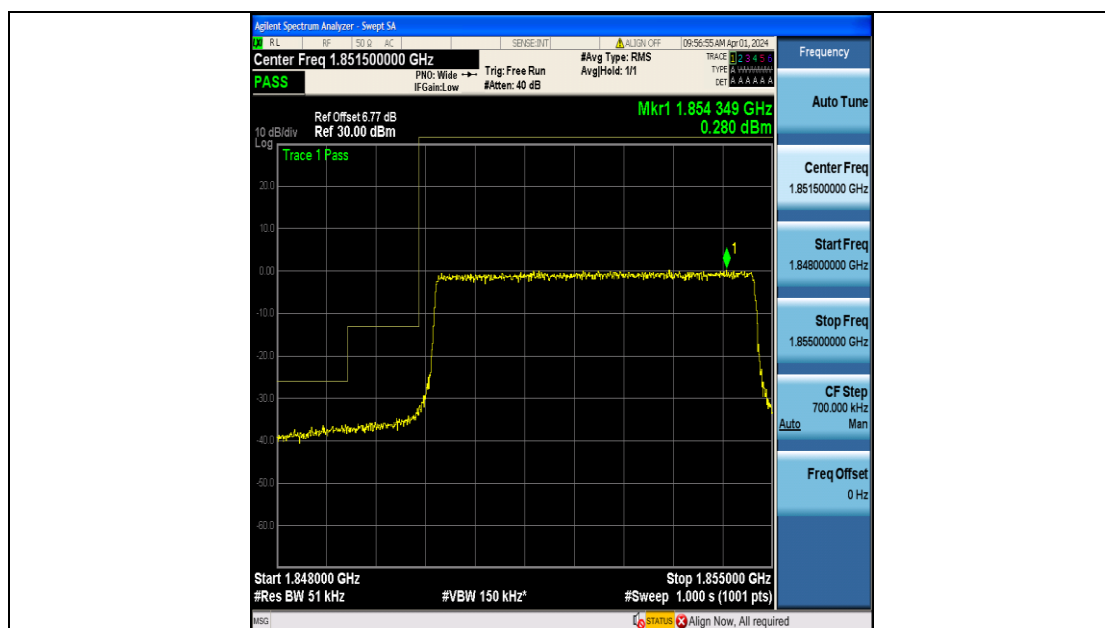
Band2_3MHz_16QAM_18615_15RB#0



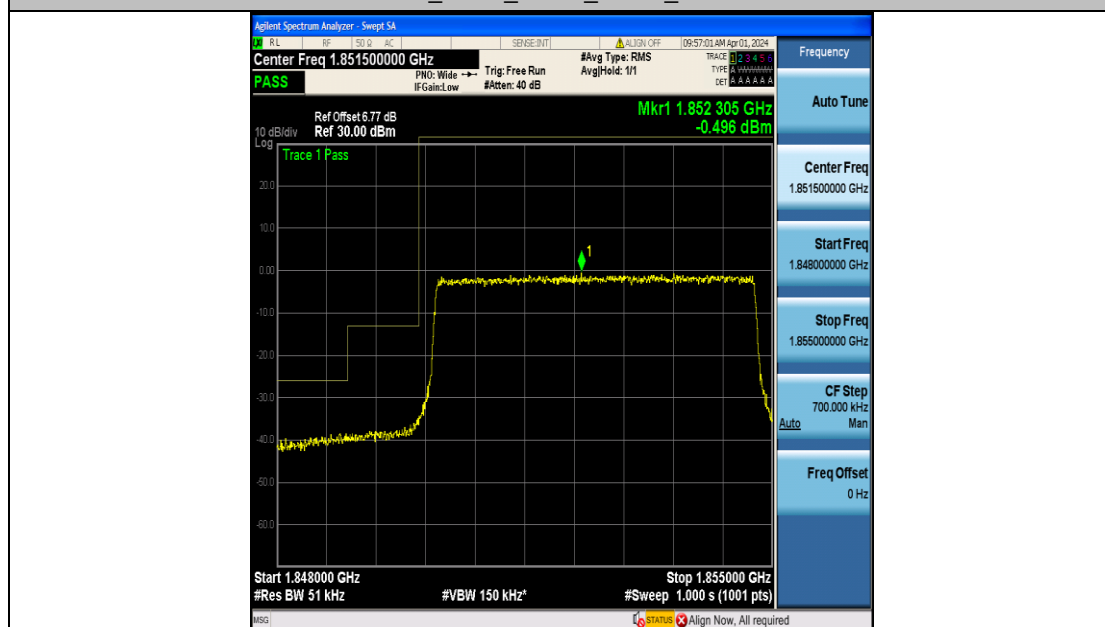
Band2_3MHz_QPSK_19185_15RB#0



Band2_3MHz_16QAM_19185_15RB#0



Band2_5MHz_QPSK_18625_25RB#0



Band2_5MHz_16QAM_18625_25RB#0