

Appendix E: Test Data for E-UTRA Band 12

Product Name: ASSET 4G- SF iRF
Test Model: ASSET 4G- SF iRF

Environmental Conditions

Temperature:	24.3°C
Relative Humidity:	53.1%
ATM Pressure:	100.0 kPa
Test Engineer:	zhao xing hai
Supervised by:	Fengliu Tang

E.1 Conducted Output Power Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Power(dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	25.11	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	25.07	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	25.05	PASS
Band12	1.4MHz	QPSK	23017	3RB#0	24.92	PASS
Band12	1.4MHz	QPSK	23017	3RB#1	24.98	PASS
Band12	1.4MHz	QPSK	23017	3RB#3	24.84	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	23.95	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	24.21	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	24.06	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	24.11	PASS
Band12	1.4MHz	16QAM	23017	3RB#0	23.93	PASS
Band12	1.4MHz	16QAM	23017	3RB#1	24.03	PASS
Band12	1.4MHz	16QAM	23017	3RB#3	23.75	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	22.97	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	25.14	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	24.96	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	24.91	PASS
Band12	1.4MHz	QPSK	23095	3RB#0	24.92	PASS
Band12	1.4MHz	QPSK	23095	3RB#1	24.97	PASS
Band12	1.4MHz	QPSK	23095	3RB#3	24.83	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	23.81	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	24.09	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	24.55	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	23.90	PASS
Band12	1.4MHz	16QAM	23095	3RB#0	23.78	PASS
Band12	1.4MHz	16QAM	23095	3RB#1	23.93	PASS
Band12	1.4MHz	16QAM	23095	3RB#3	23.68	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	22.82	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	25.26	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	25.23	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	24.92	PASS
Band12	1.4MHz	QPSK	23173	3RB#0	25.15	PASS
Band12	1.4MHz	QPSK	23173	3RB#1	25.04	PASS
Band12	1.4MHz	QPSK	23173	3RB#3	24.80	PASS

Band12	1.4MHz	QPSK	23173	6RB#0	23.97	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	24.10	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	24.62	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	23.80	PASS
Band12	1.4MHz	16QAM	23173	3RB#0	23.98	PASS
Band12	1.4MHz	16QAM	23173	3RB#1	23.99	PASS
Band12	1.4MHz	16QAM	23173	3RB#3	23.74	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	23.04	PASS
Band12	3MHz	QPSK	23025	1RB#0	24.03	PASS
Band12	3MHz	QPSK	23025	1RB#8	24.83	PASS
Band12	3MHz	QPSK	23025	1RB#14	24.78	PASS
Band12	3MHz	QPSK	23025	8RB#0	23.32	PASS
Band12	3MHz	QPSK	23025	8RB#4	23.78	PASS
Band12	3MHz	QPSK	23025	8RB#7	23.98	PASS
Band12	3MHz	QPSK	23025	15RB#0	23.66	PASS
Band12	3MHz	16QAM	23025	1RB#0	23.19	PASS
Band12	3MHz	16QAM	23025	1RB#8	24.38	PASS
Band12	3MHz	16QAM	23025	1RB#14	23.91	PASS
Band12	3MHz	16QAM	23025	8RB#0	22.42	PASS
Band12	3MHz	16QAM	23025	8RB#4	22.81	PASS
Band12	3MHz	16QAM	23025	8RB#7	23.08	PASS
Band12	3MHz	16QAM	23025	15RB#0	22.77	PASS
Band12	3MHz	QPSK	23095	1RB#0	25.05	PASS
Band12	3MHz	QPSK	23095	1RB#8	24.35	PASS
Band12	3MHz	QPSK	23095	1RB#14	24.03	PASS
Band12	3MHz	QPSK	23095	8RB#0	23.59	PASS
Band12	3MHz	QPSK	23095	8RB#4	23.36	PASS
Band12	3MHz	QPSK	23095	8RB#7	23.27	PASS
Band12	3MHz	QPSK	23095	15RB#0	23.45	PASS
Band12	3MHz	16QAM	23095	1RB#0	23.92	PASS
Band12	3MHz	16QAM	23095	1RB#8	23.46	PASS
Band12	3MHz	16QAM	23095	1RB#14	23.01	PASS
Band12	3MHz	16QAM	23095	8RB#0	22.70	PASS
Band12	3MHz	16QAM	23095	8RB#4	22.48	PASS
Band12	3MHz	16QAM	23095	8RB#7	22.37	PASS
Band12	3MHz	16QAM	23095	15RB#0	22.47	PASS
Band12	3MHz	QPSK	23165	1RB#0	24.85	PASS
Band12	3MHz	QPSK	23165	1RB#8	24.84	PASS
Band12	3MHz	QPSK	23165	1RB#14	24.38	PASS
Band12	3MHz	QPSK	23165	8RB#0	23.86	PASS
Band12	3MHz	QPSK	23165	8RB#4	23.86	PASS

Band12	3MHz	QPSK	23165	8RB#7	23.71	PASS
Band12	3MHz	QPSK	23165	15RB#0	23.74	PASS
Band12	3MHz	16QAM	23165	1RB#0	24.10	PASS
Band12	3MHz	16QAM	23165	1RB#8	24.28	PASS
Band12	3MHz	16QAM	23165	1RB#14	23.73	PASS
Band12	3MHz	16QAM	23165	8RB#0	22.87	PASS
Band12	3MHz	16QAM	23165	8RB#4	22.77	PASS
Band12	3MHz	16QAM	23165	8RB#7	22.76	PASS
Band12	3MHz	16QAM	23165	15RB#0	22.68	PASS
Band12	5MHz	QPSK	23035	1RB#0	24.31	PASS
Band12	5MHz	QPSK	23035	1RB#12	24.98	PASS
Band12	5MHz	QPSK	23035	1RB#24	24.45	PASS
Band12	5MHz	QPSK	23035	12RB#0	23.57	PASS
Band12	5MHz	QPSK	23035	12RB#6	23.86	PASS
Band12	5MHz	QPSK	23035	12RB#13	23.57	PASS
Band12	5MHz	QPSK	23035	25RB#0	23.59	PASS
Band12	5MHz	16QAM	23035	1RB#0	23.52	PASS
Band12	5MHz	16QAM	23035	1RB#12	24.33	PASS
Band12	5MHz	16QAM	23035	1RB#24	23.69	PASS
Band12	5MHz	16QAM	23035	12RB#0	22.76	PASS
Band12	5MHz	16QAM	23035	12RB#6	23.03	PASS
Band12	5MHz	16QAM	23035	12RB#13	22.76	PASS
Band12	5MHz	16QAM	23035	25RB#0	22.66	PASS
Band12	5MHz	QPSK	23095	1RB#0	25.15	PASS
Band12	5MHz	QPSK	23095	1RB#12	24.50	PASS
Band12	5MHz	QPSK	23095	1RB#24	24.34	PASS
Band12	5MHz	QPSK	23095	12RB#0	23.88	PASS
Band12	5MHz	QPSK	23095	12RB#6	23.56	PASS
Band12	5MHz	QPSK	23095	12RB#13	23.32	PASS
Band12	5MHz	QPSK	23095	25RB#0	23.58	PASS
Band12	5MHz	16QAM	23095	1RB#0	24.16	PASS
Band12	5MHz	16QAM	23095	1RB#12	23.59	PASS
Band12	5MHz	16QAM	23095	1RB#24	23.35	PASS
Band12	5MHz	16QAM	23095	12RB#0	22.97	PASS
Band12	5MHz	16QAM	23095	12RB#6	22.61	PASS
Band12	5MHz	16QAM	23095	12RB#13	22.40	PASS
Band12	5MHz	16QAM	23095	25RB#0	22.66	PASS
Band12	5MHz	QPSK	23155	1RB#0	24.90	PASS
Band12	5MHz	QPSK	23155	1RB#12	24.99	PASS
Band12	5MHz	QPSK	23155	1RB#24	24.74	PASS
Band12	5MHz	QPSK	23155	12RB#0	23.95	PASS

Band12	5MHz	QPSK	23155	12RB#6	24.07	PASS
Band12	5MHz	QPSK	23155	12RB#13	24.01	PASS
Band12	5MHz	QPSK	23155	25RB#0	24.03	PASS
Band12	5MHz	16QAM	23155	1RB#0	23.93	PASS
Band12	5MHz	16QAM	23155	1RB#12	24.18	PASS
Band12	5MHz	16QAM	23155	1RB#24	23.76	PASS
Band12	5MHz	16QAM	23155	12RB#0	23.09	PASS
Band12	5MHz	16QAM	23155	12RB#6	23.16	PASS
Band12	5MHz	16QAM	23155	12RB#13	23.16	PASS
Band12	5MHz	16QAM	23155	25RB#0	23.05	PASS
Band12	10MHz	QPSK	23060	1RB#0	24.36	PASS
Band12	10MHz	QPSK	23060	1RB#24	24.60	PASS
Band12	10MHz	QPSK	23060	1RB#49	23.86	PASS
Band12	10MHz	QPSK	23060	25RB#0	23.71	PASS
Band12	10MHz	QPSK	23060	25RB#12	23.62	PASS
Band12	10MHz	QPSK	23060	25RB#25	23.39	PASS
Band12	10MHz	QPSK	23060	50RB#0	23.67	PASS
Band12	10MHz	16QAM	23060	1RB#0	23.25	PASS
Band12	10MHz	16QAM	23060	1RB#24	24.13	PASS
Band12	10MHz	16QAM	23060	1RB#49	22.81	PASS
Band12	10MHz	16QAM	23060	25RB#0	22.66	PASS
Band12	10MHz	16QAM	23060	25RB#12	22.65	PASS
Band12	10MHz	16QAM	23060	25RB#25	22.37	PASS
Band12	10MHz	QPSK	23095	1RB#0	24.86	PASS
Band12	10MHz	QPSK	23095	1RB#24	24.55	PASS
Band12	10MHz	QPSK	23095	1RB#49	24.89	PASS
Band12	10MHz	QPSK	23095	25RB#0	23.91	PASS
Band12	10MHz	QPSK	23095	25RB#12	23.77	PASS
Band12	10MHz	QPSK	23095	25RB#25	23.65	PASS
Band12	10MHz	QPSK	23095	50RB#0	24.06	PASS
Band12	10MHz	16QAM	23095	1RB#0	24.03	PASS
Band12	10MHz	16QAM	23095	1RB#24	23.90	PASS
Band12	10MHz	16QAM	23095	1RB#49	24.06	PASS
Band12	10MHz	16QAM	23095	25RB#0	23.19	PASS
Band12	10MHz	16QAM	23095	25RB#12	22.89	PASS
Band12	10MHz	16QAM	23095	25RB#25	22.77	PASS
Band12	10MHz	QPSK	23130	1RB#0	24.63	PASS
Band12	10MHz	QPSK	23130	1RB#24	24.39	PASS
Band12	10MHz	QPSK	23130	1RB#49	24.52	PASS
Band12	10MHz	QPSK	23130	25RB#0	23.17	PASS
Band12	10MHz	QPSK	23130	25RB#12	23.34	PASS

Band12	10MHz	QPSK	23130	25RB#25	23.66	PASS
Band12	10MHz	QPSK	23130	50RB#0	23.66	PASS
Band12	10MHz	16QAM	23130	1RB#0	23.86	PASS
Band12	10MHz	16QAM	23130	1RB#24	23.68	PASS
Band12	10MHz	16QAM	23130	1RB#49	23.70	PASS
Band12	10MHz	16QAM	23130	25RB#0	22.40	PASS
Band12	10MHz	16QAM	23130	25RB#12	22.51	PASS
Band12	10MHz	16QAM	23130	25RB#25	22.83	PASS

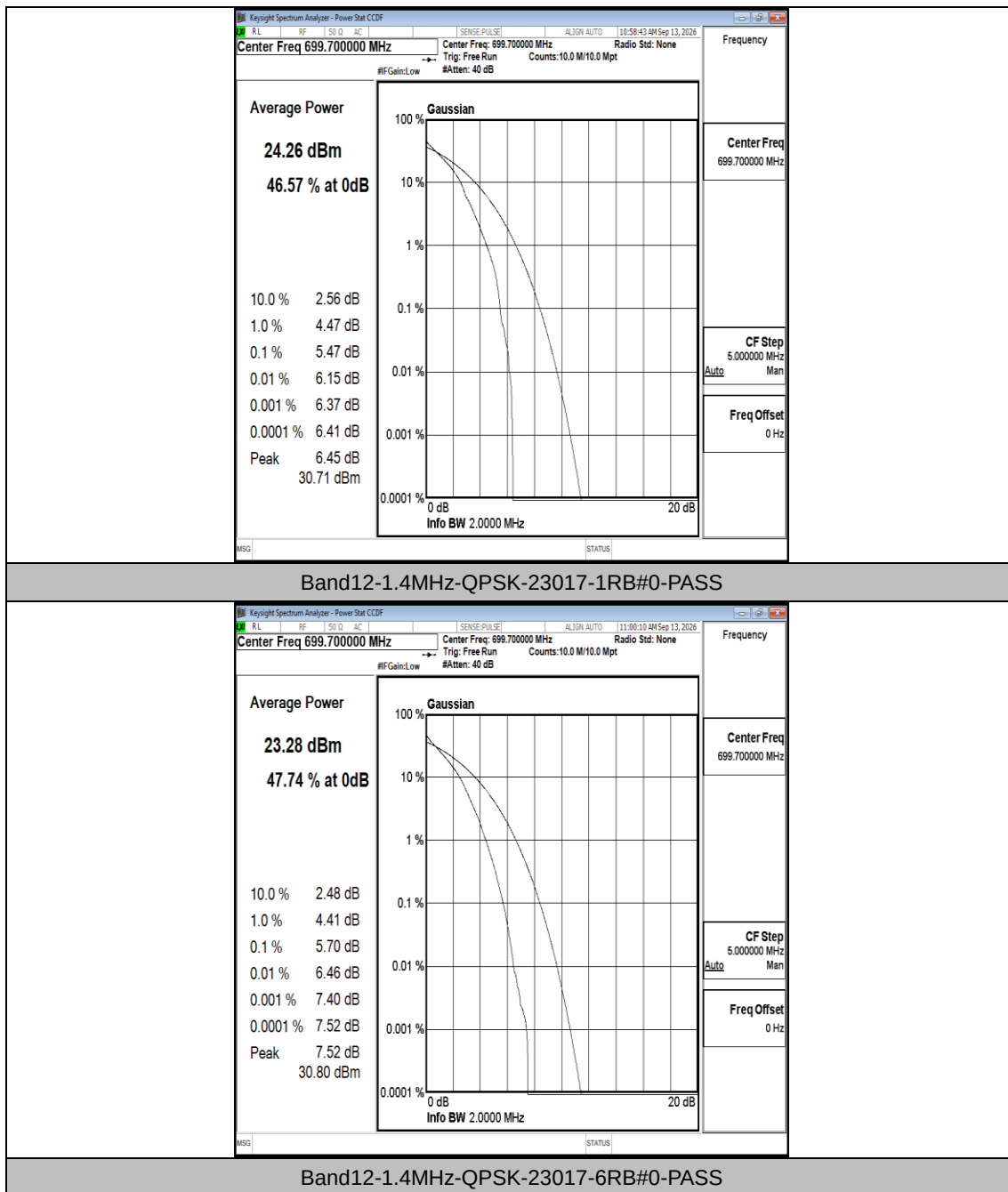
E.2 Peak-to-Average Ratio(CCDF)

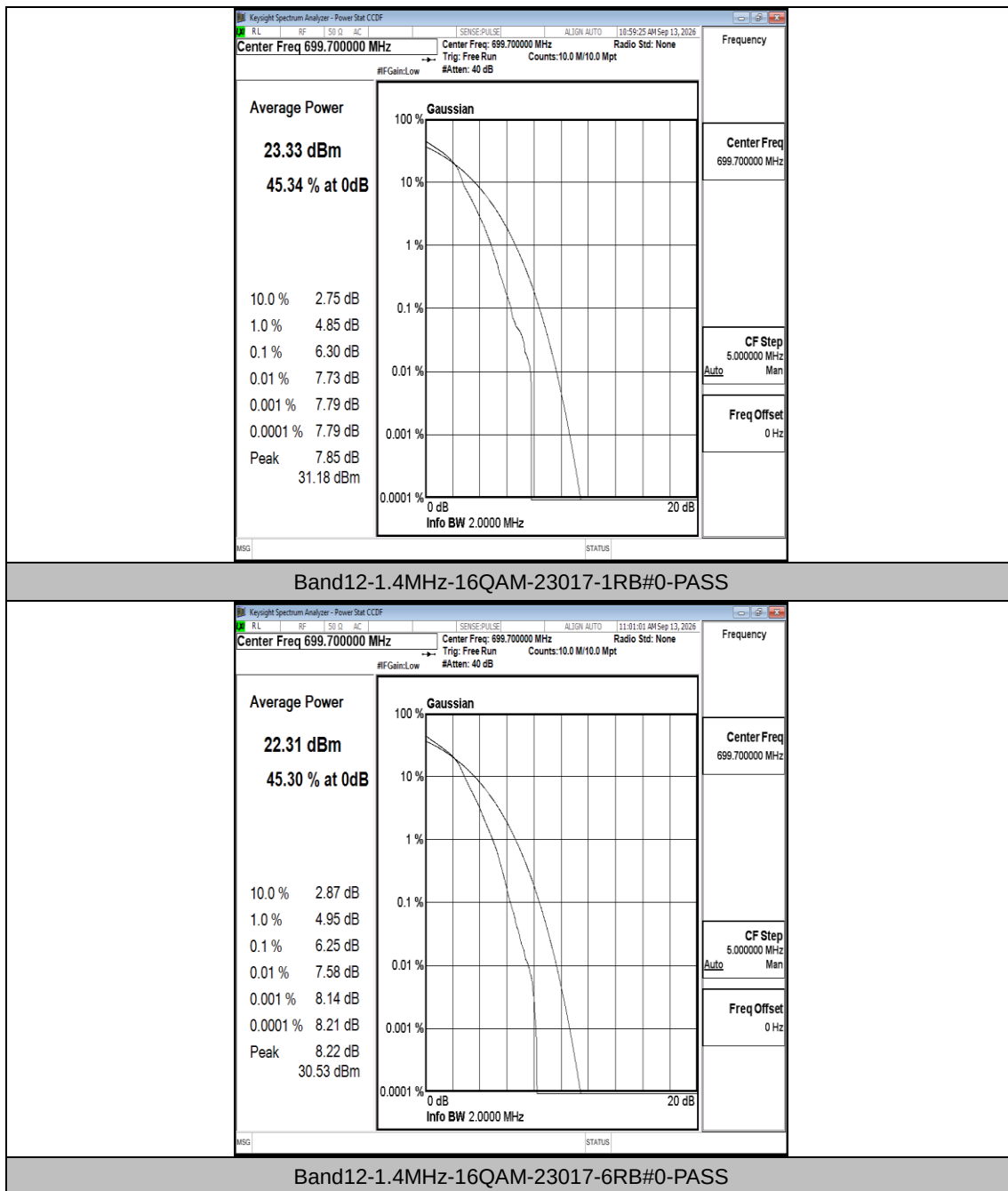
Test Result

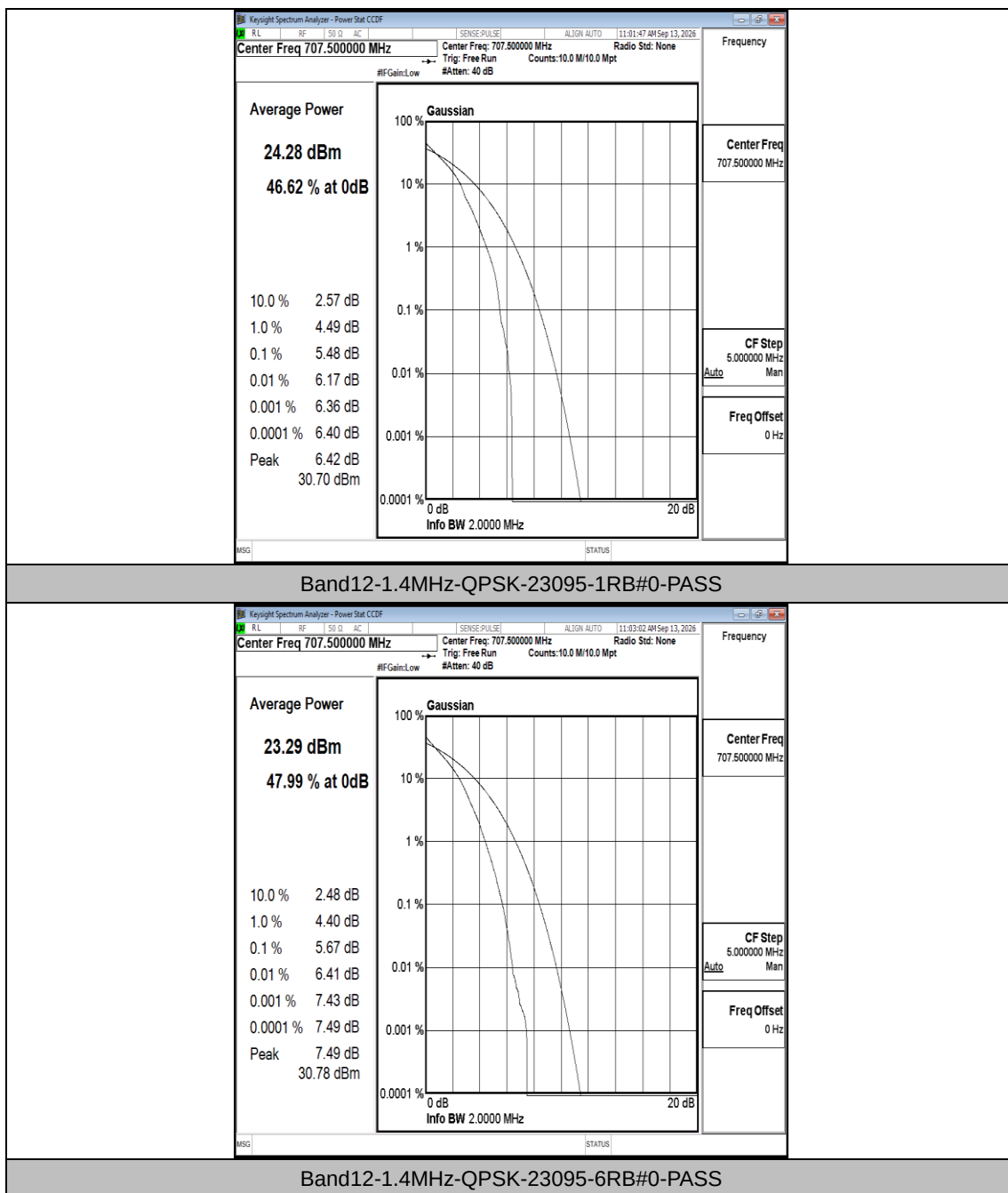
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	5.47	13	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	5.70	13	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	6.30	13	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	6.25	13	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	5.48	13	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	5.67	13	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	6.32	13	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	6.24	13	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	5.36	13	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	5.63	13	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	6.21	13	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	6.20	13	PASS
Band12	3MHz	QPSK	23025	1RB#0	5.49	13	PASS
Band12	3MHz	QPSK	23025	15RB#0	5.63	13	PASS
Band12	3MHz	16QAM	23025	1RB#0	6.59	13	PASS
Band12	3MHz	16QAM	23025	15RB#0	6.28	13	PASS
Band12	3MHz	QPSK	23095	1RB#0	5.41	13	PASS
Band12	3MHz	QPSK	23095	15RB#0	5.61	13	PASS
Band12	3MHz	16QAM	23095	1RB#0	6.50	13	PASS
Band12	3MHz	16QAM	23095	15RB#0	6.29	13	PASS
Band12	3MHz	QPSK	23165	1RB#0	5.42	13	PASS
Band12	3MHz	QPSK	23165	15RB#0	5.60	13	PASS
Band12	3MHz	16QAM	23165	1RB#0	6.56	13	PASS
Band12	3MHz	16QAM	23165	15RB#0	6.28	13	PASS
Band12	5MHz	QPSK	23035	1RB#0	5.31	13	PASS
Band12	5MHz	QPSK	23035	25RB#0	5.62	13	PASS
Band12	5MHz	16QAM	23035	1RB#0	6.32	13	PASS
Band12	5MHz	16QAM	23035	25RB#0	6.21	13	PASS
Band12	5MHz	QPSK	23095	1RB#0	5.23	13	PASS
Band12	5MHz	QPSK	23095	25RB#0	5.65	13	PASS
Band12	5MHz	16QAM	23095	1RB#0	6.18	13	PASS
Band12	5MHz	16QAM	23095	25RB#0	6.22	13	PASS
Band12	5MHz	QPSK	23155	1RB#0	5.30	13	PASS
Band12	5MHz	QPSK	23155	25RB#0	5.71	13	PASS

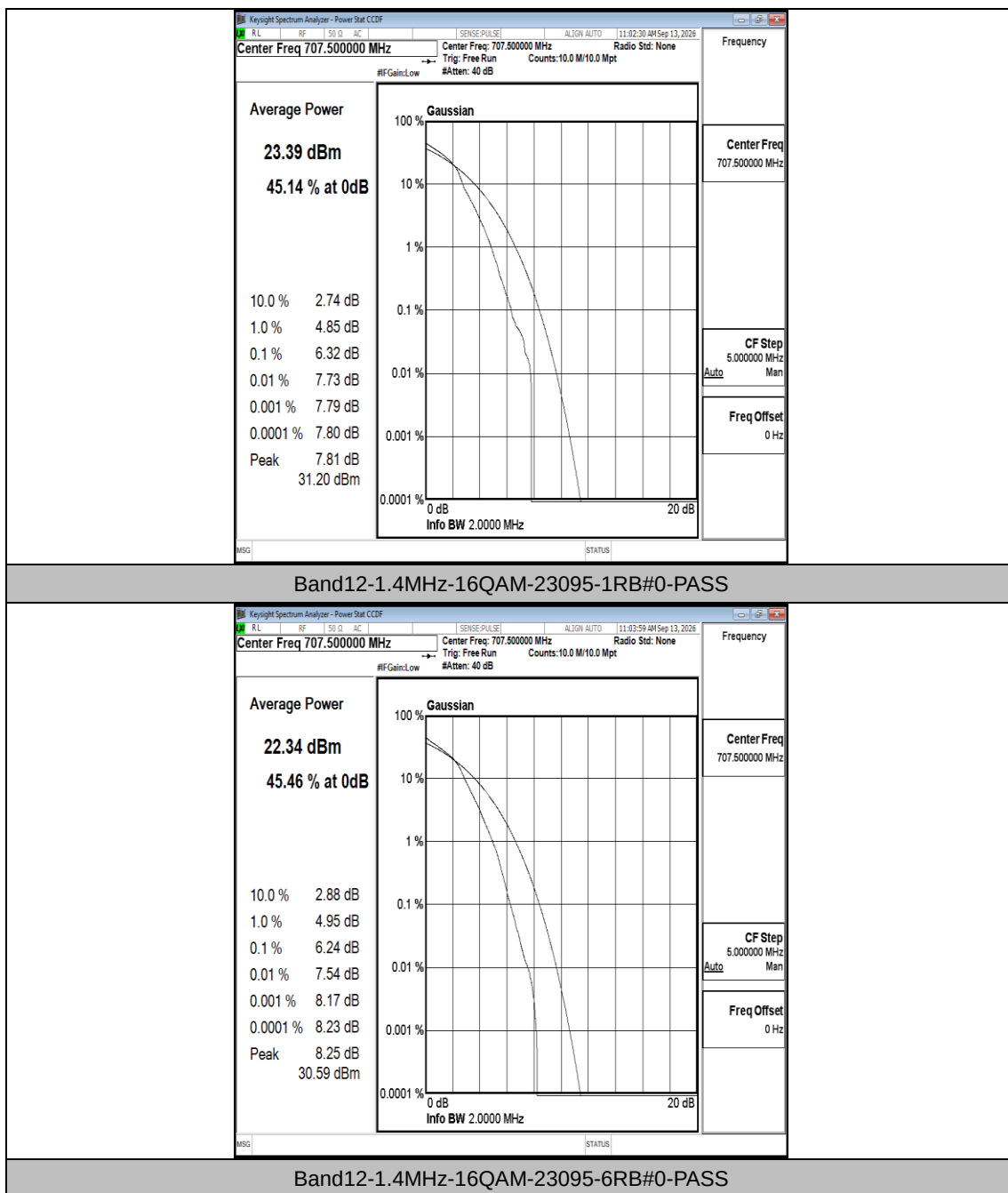
Band12	5MHz	16QAM	23155	1RB#0	6.25	13	PASS
Band12	5MHz	16QAM	23155	25RB#0	6.27	13	PASS
Band12	10MHz	QPSK	23060	1RB#0	5.42	13	PASS
Band12	10MHz	QPSK	23060	50RB#0	5.65	13	PASS
Band12	10MHz	16QAM	23060	1RB#0	6.33	13	PASS
Band12	10MHz	QPSK	23095	1RB#0	5.26	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	6.15	13	PASS
Band12	10MHz	16QAM	23095	1RB#0	6.16	13	PASS
Band12	10MHz	QPSK	23130	1RB#0	5.45	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	6.81	13	PASS
Band12	10MHz	16QAM	23130	1RB#0	6.23	13	PASS

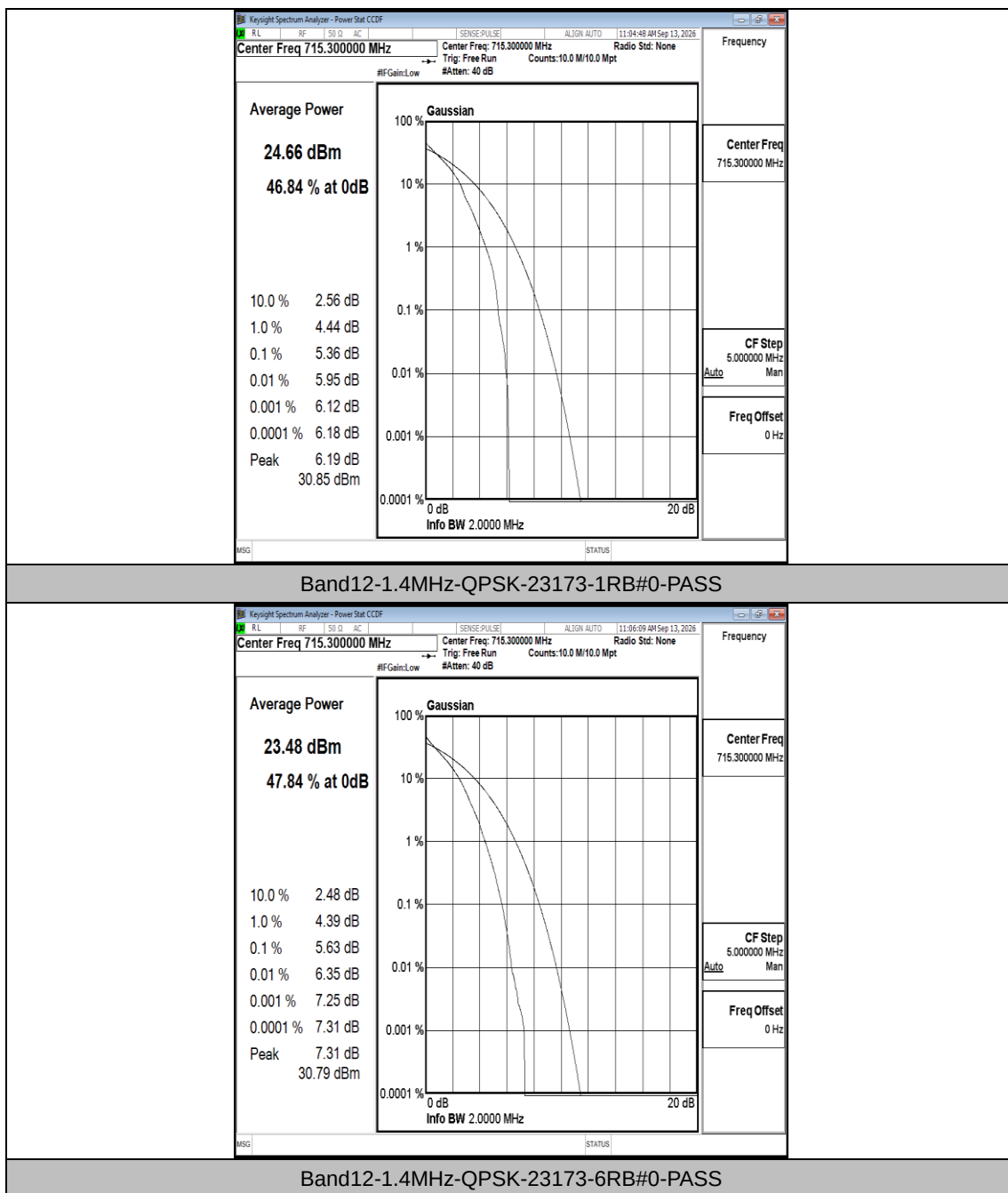
Test Graphs

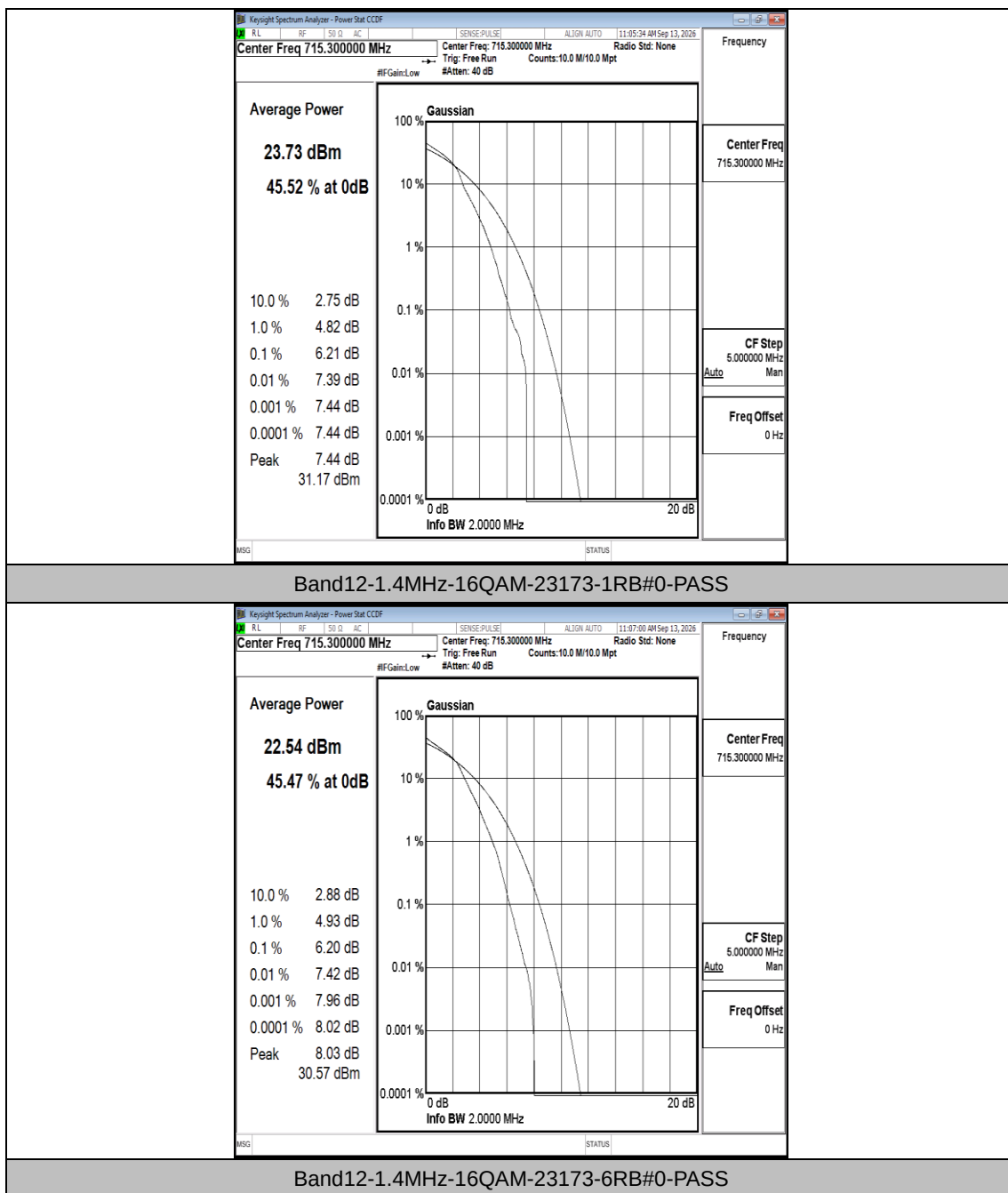


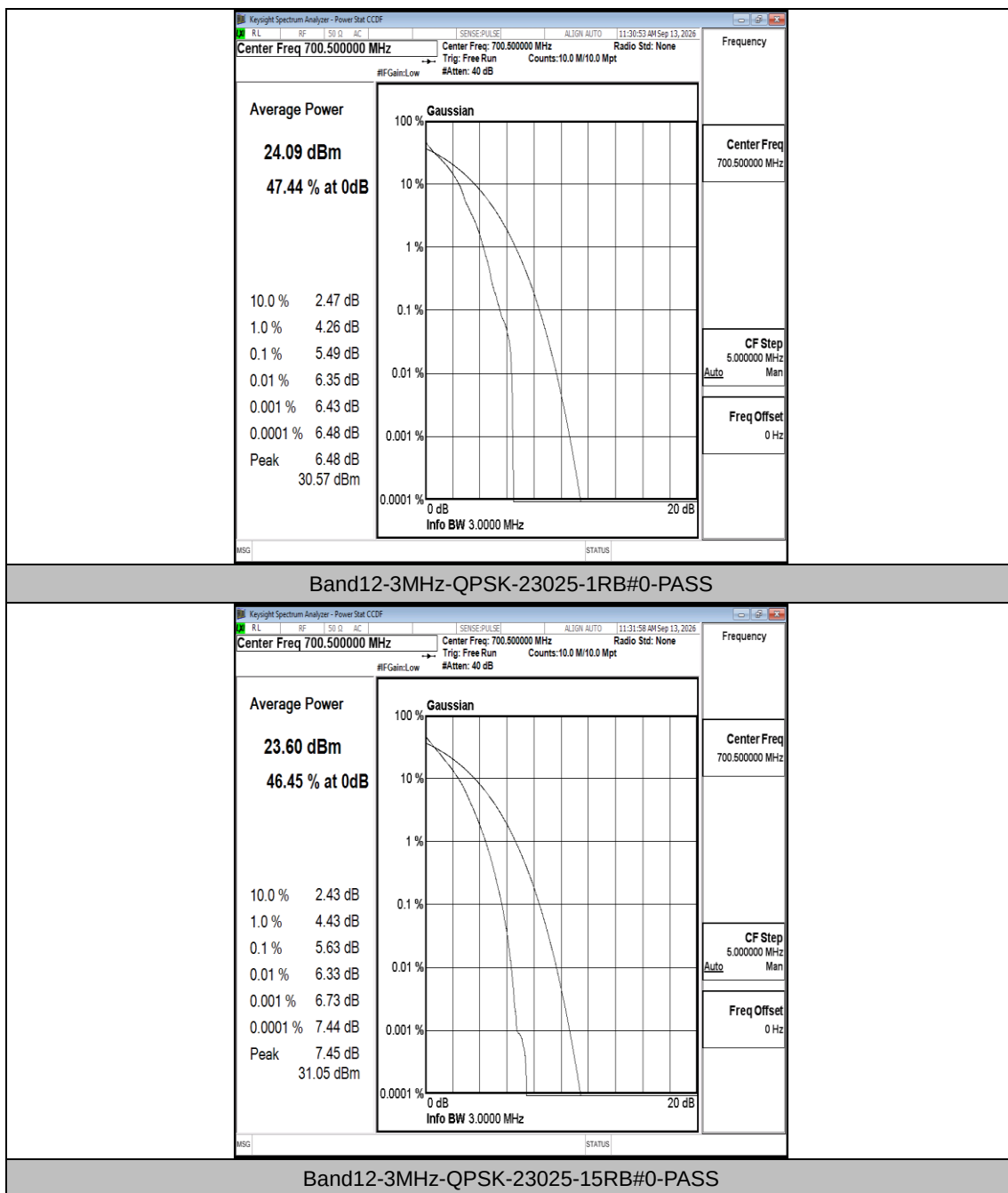


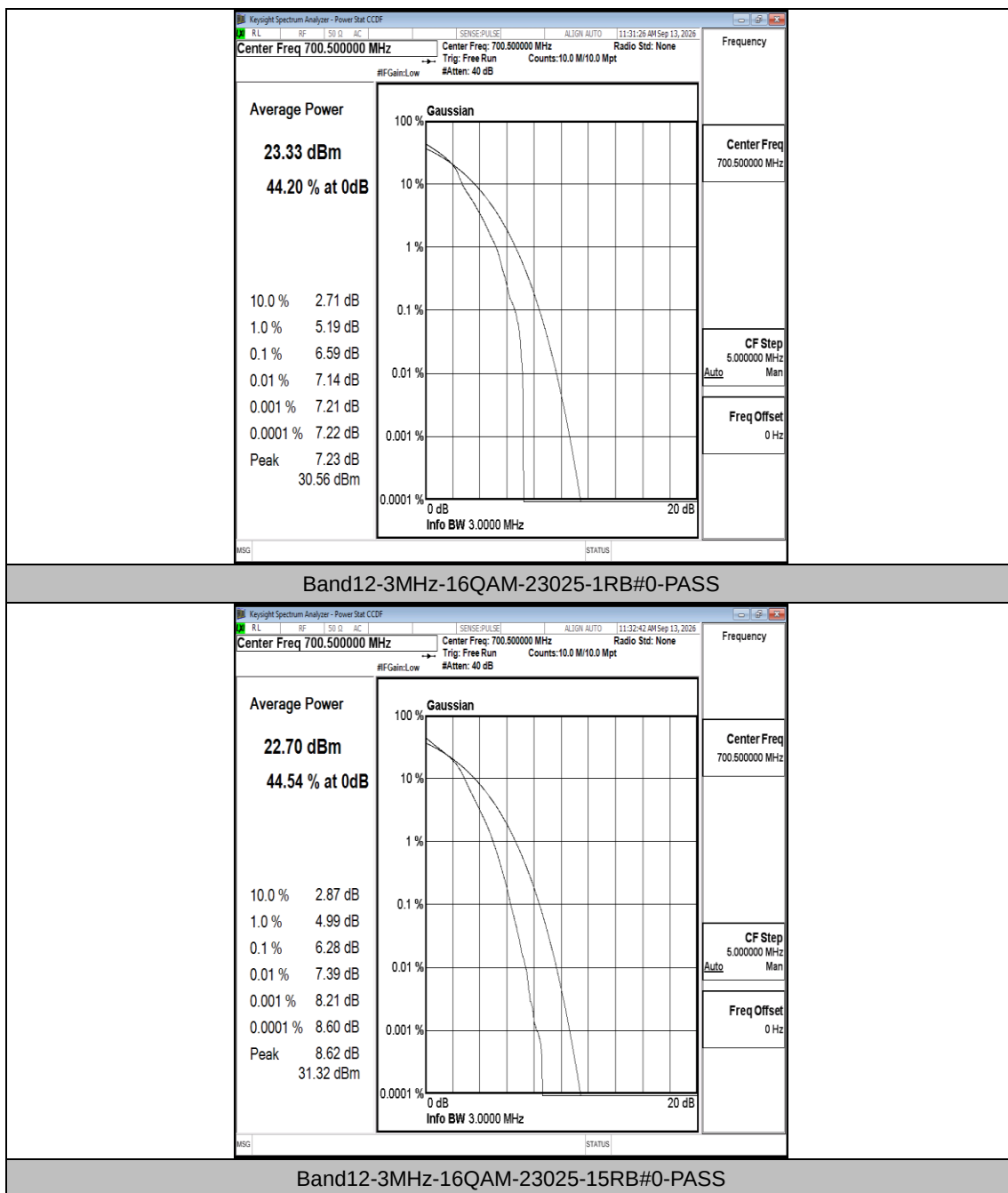


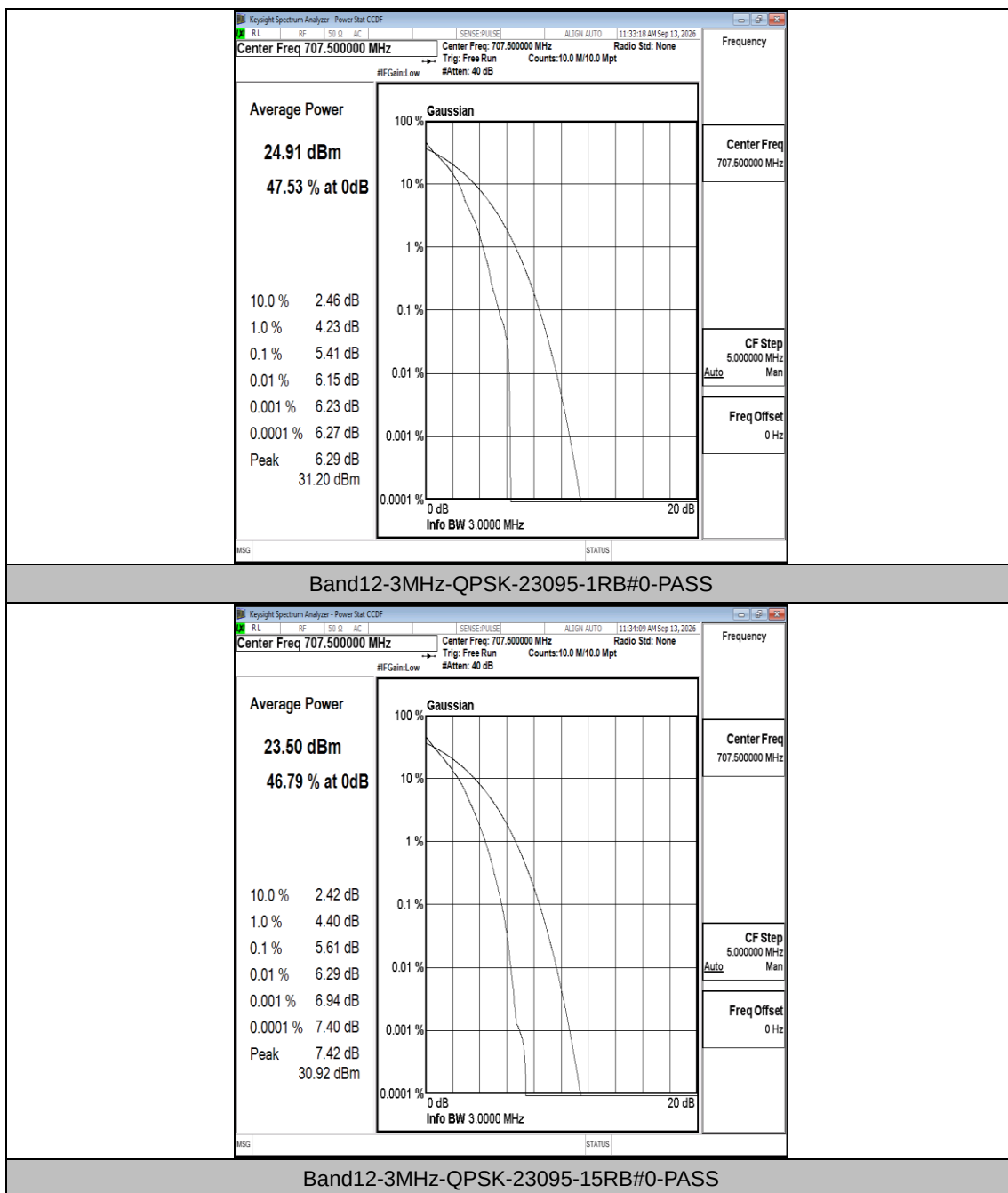


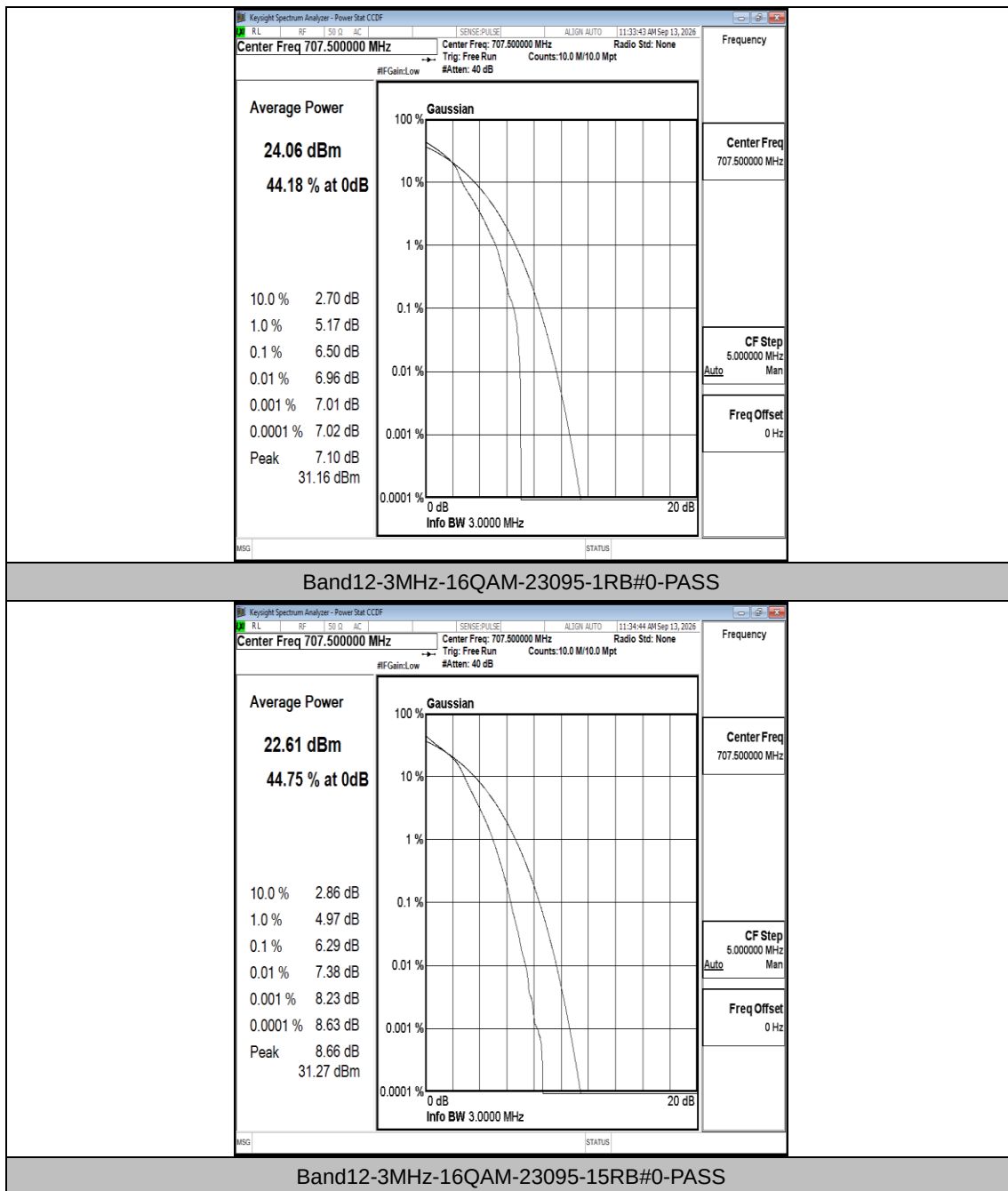


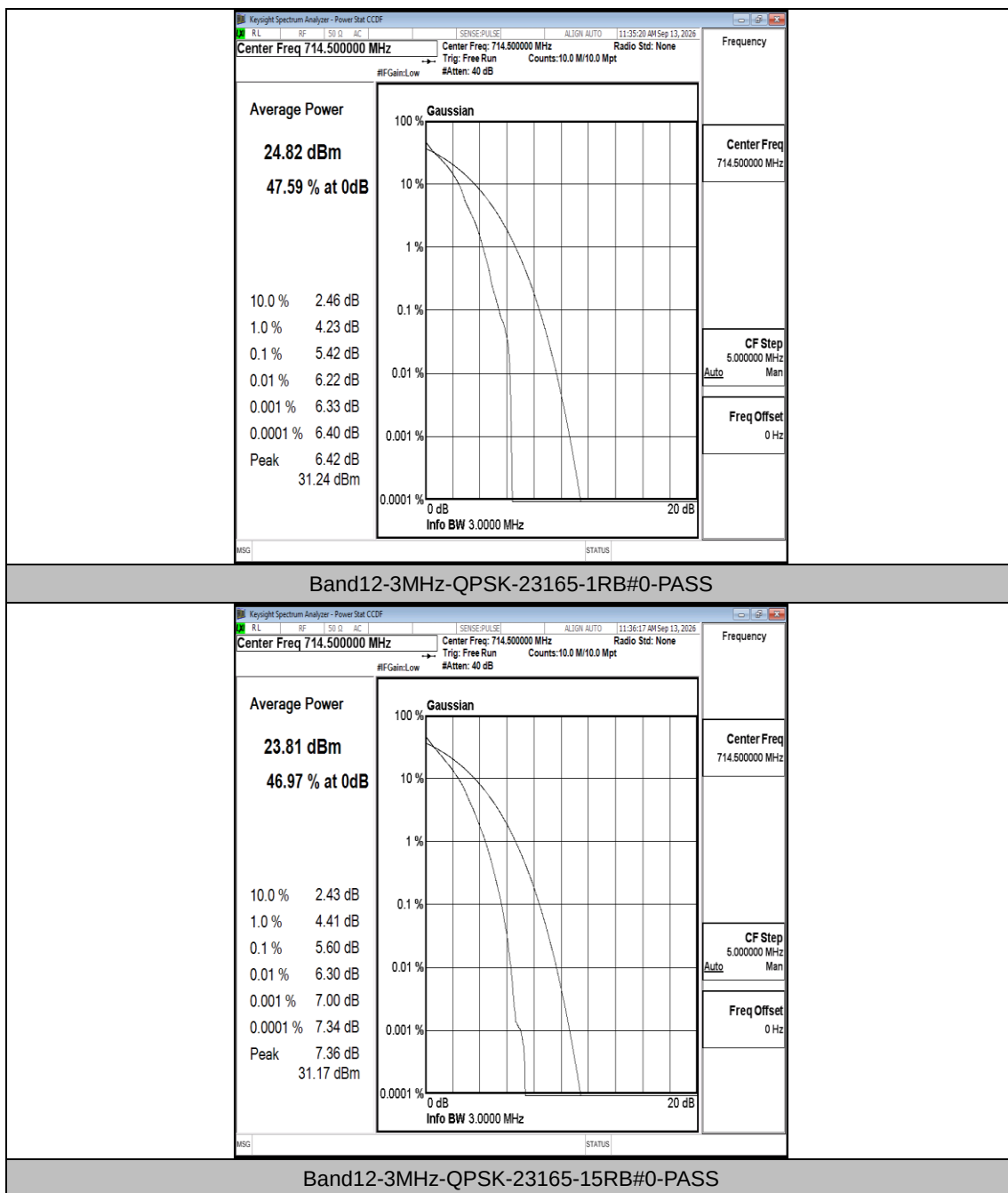


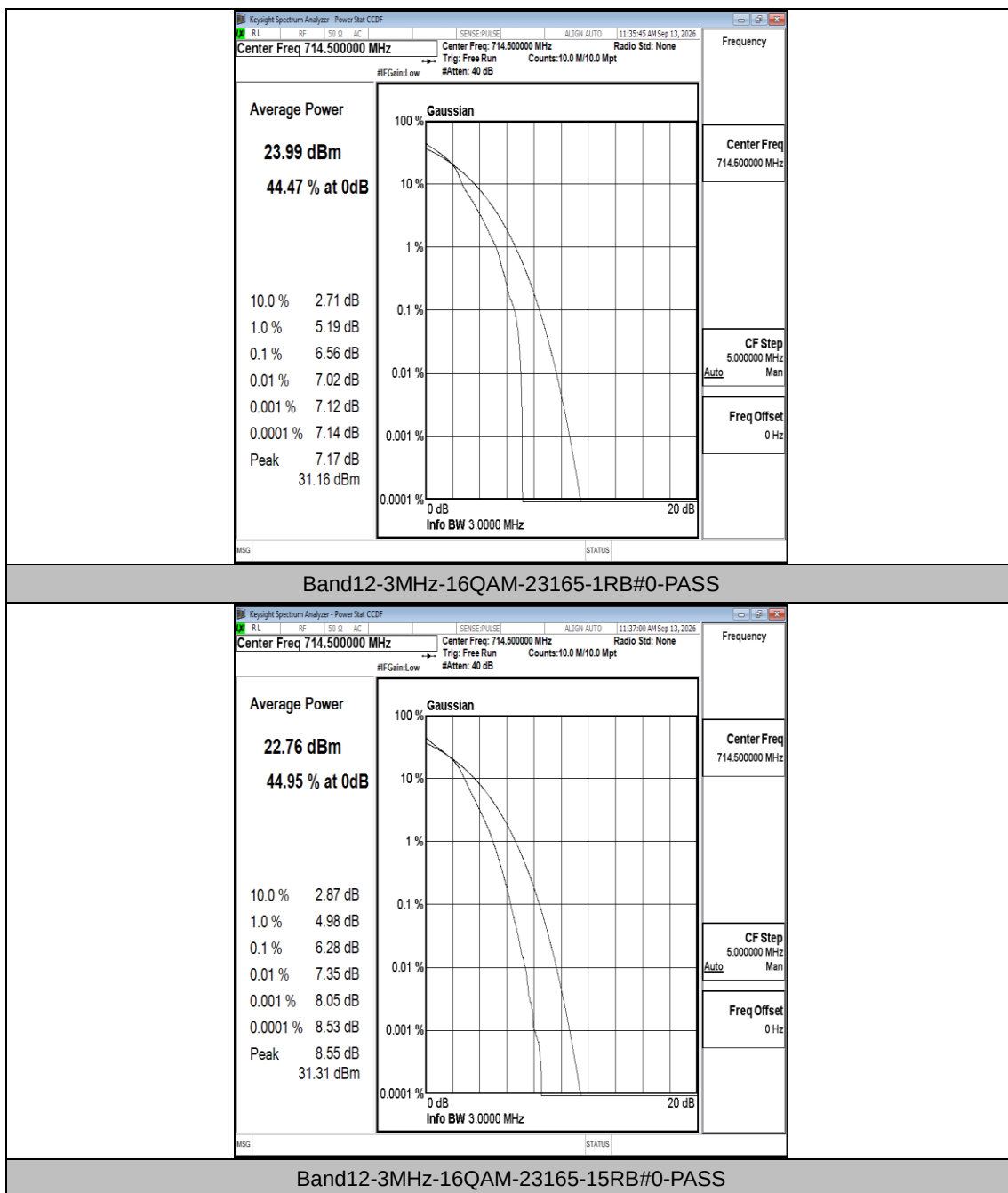


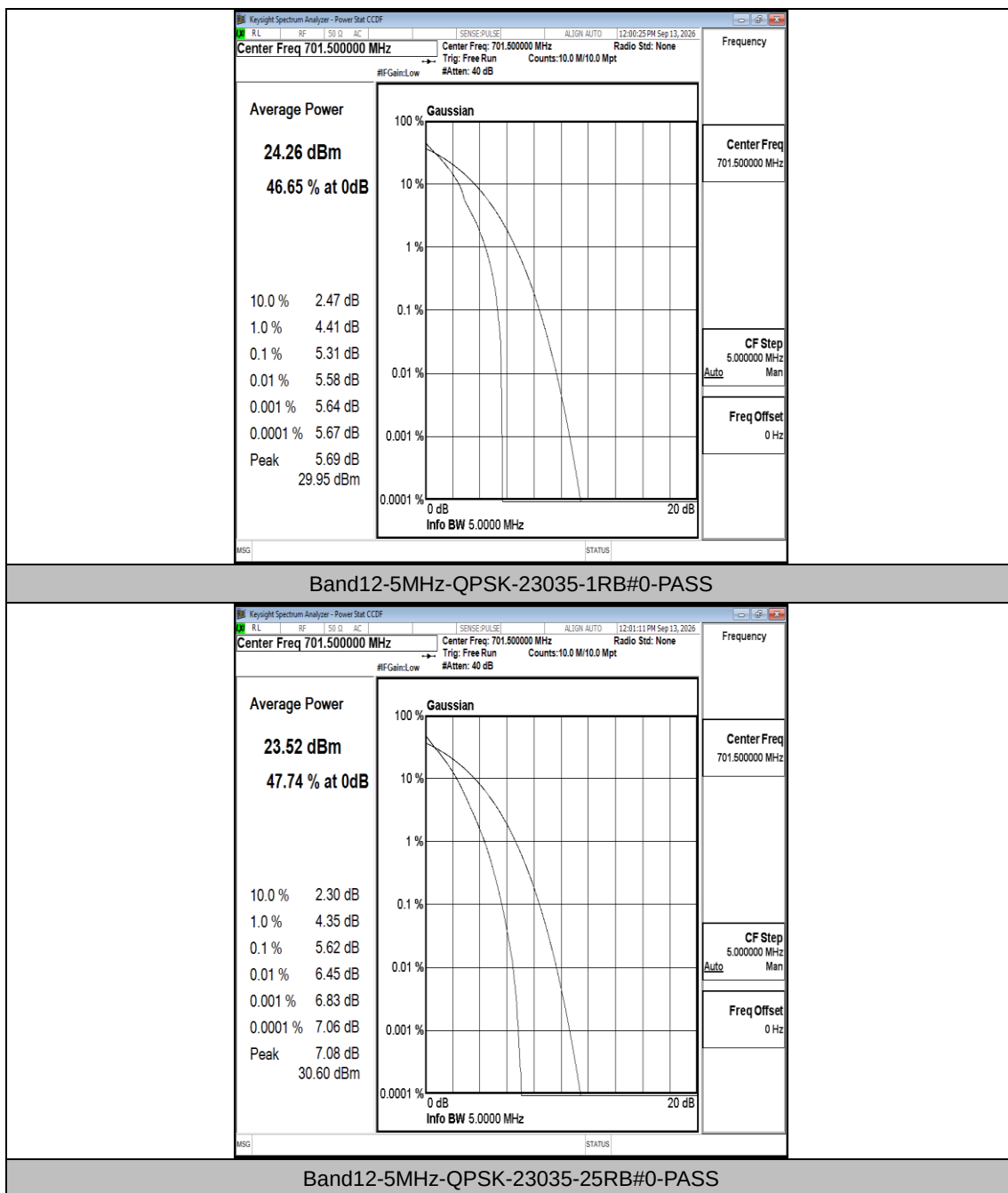


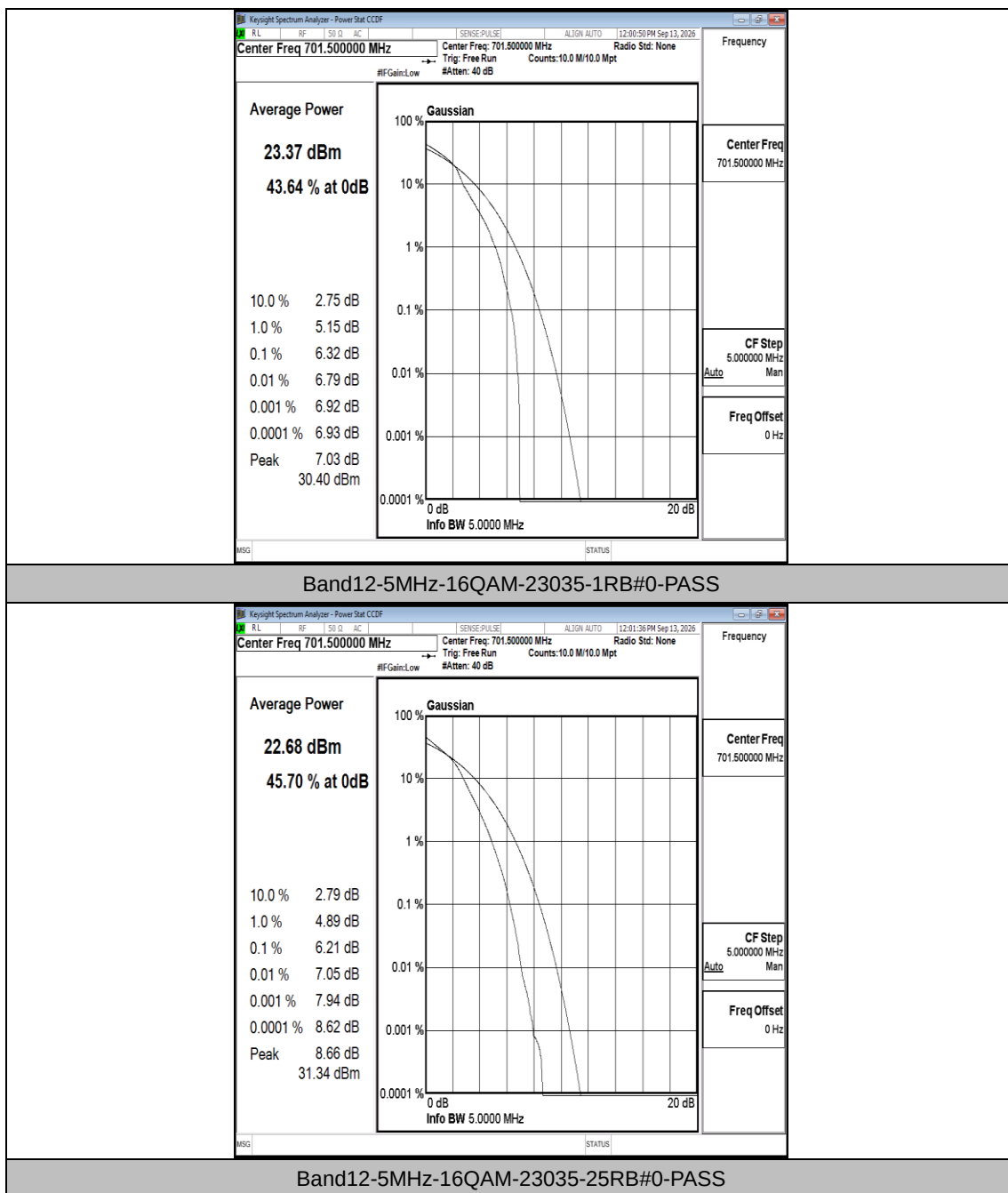


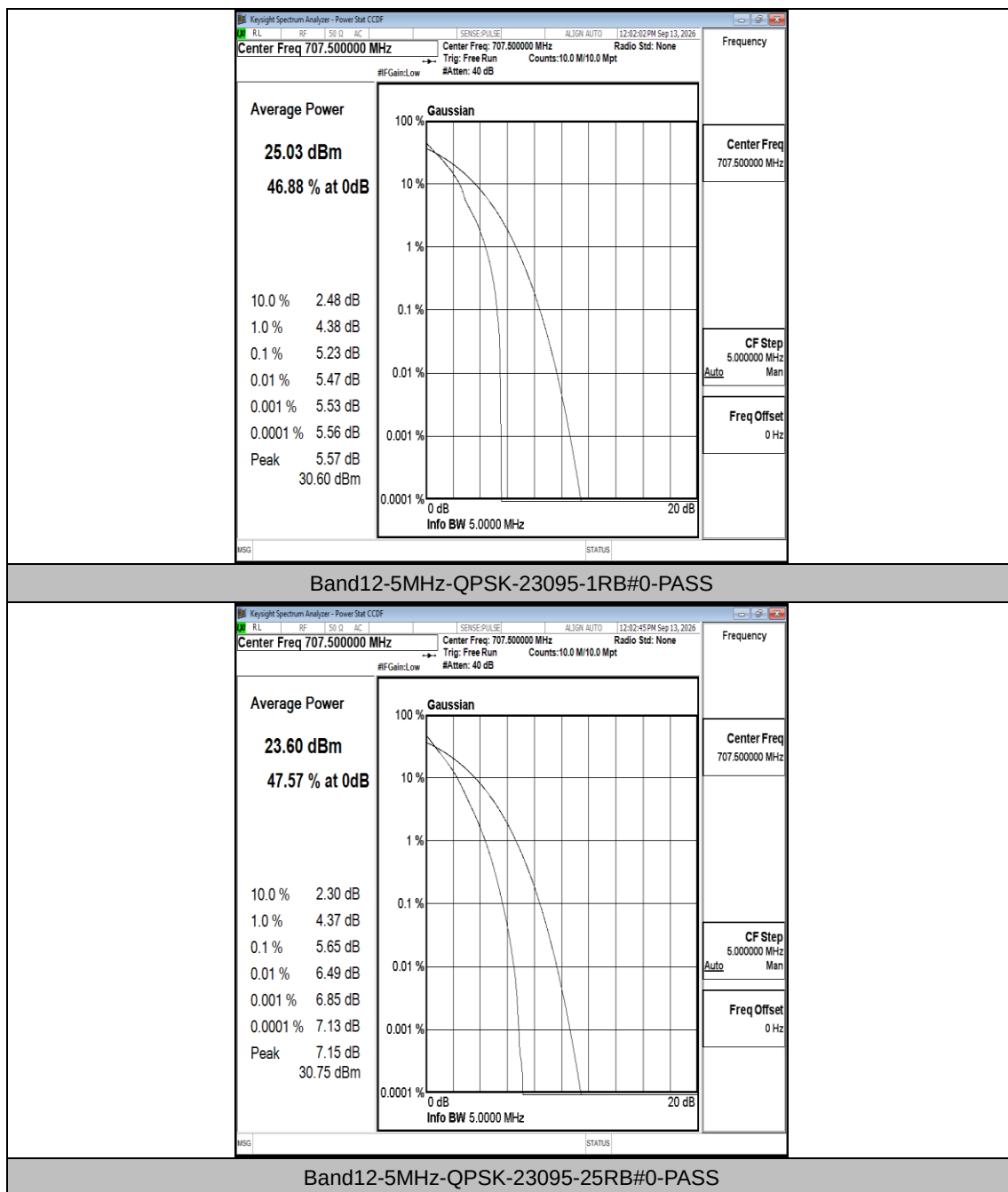


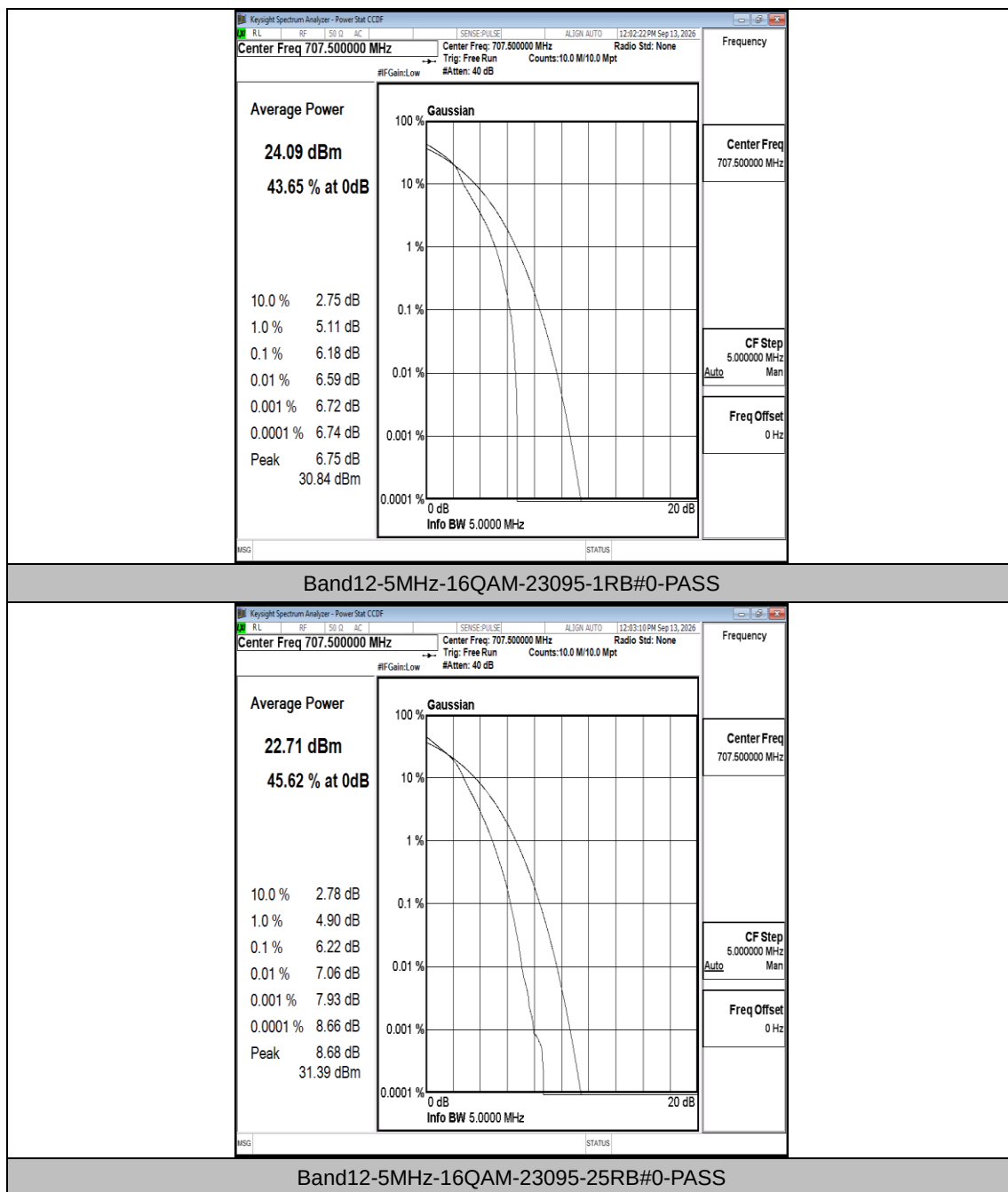


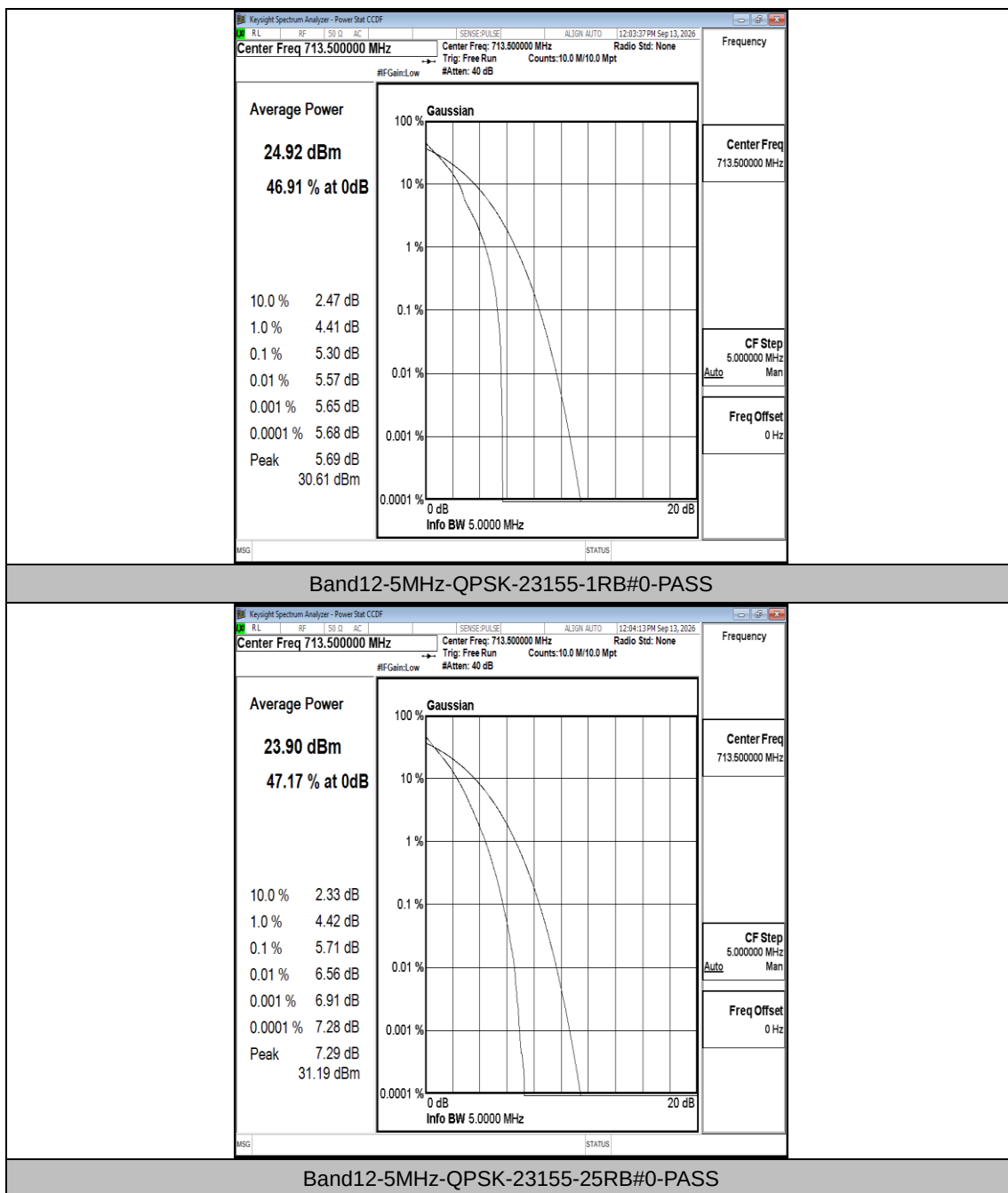


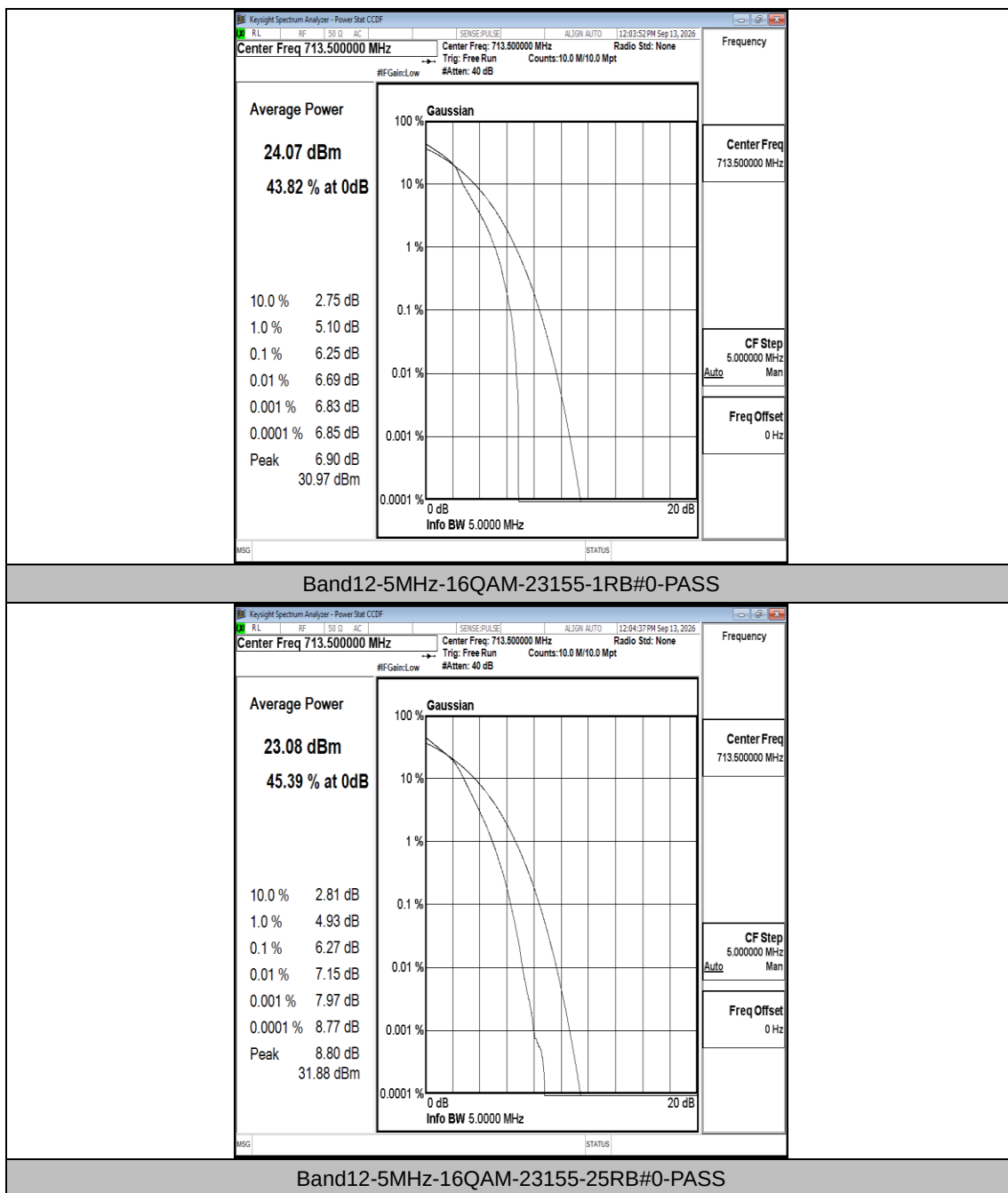


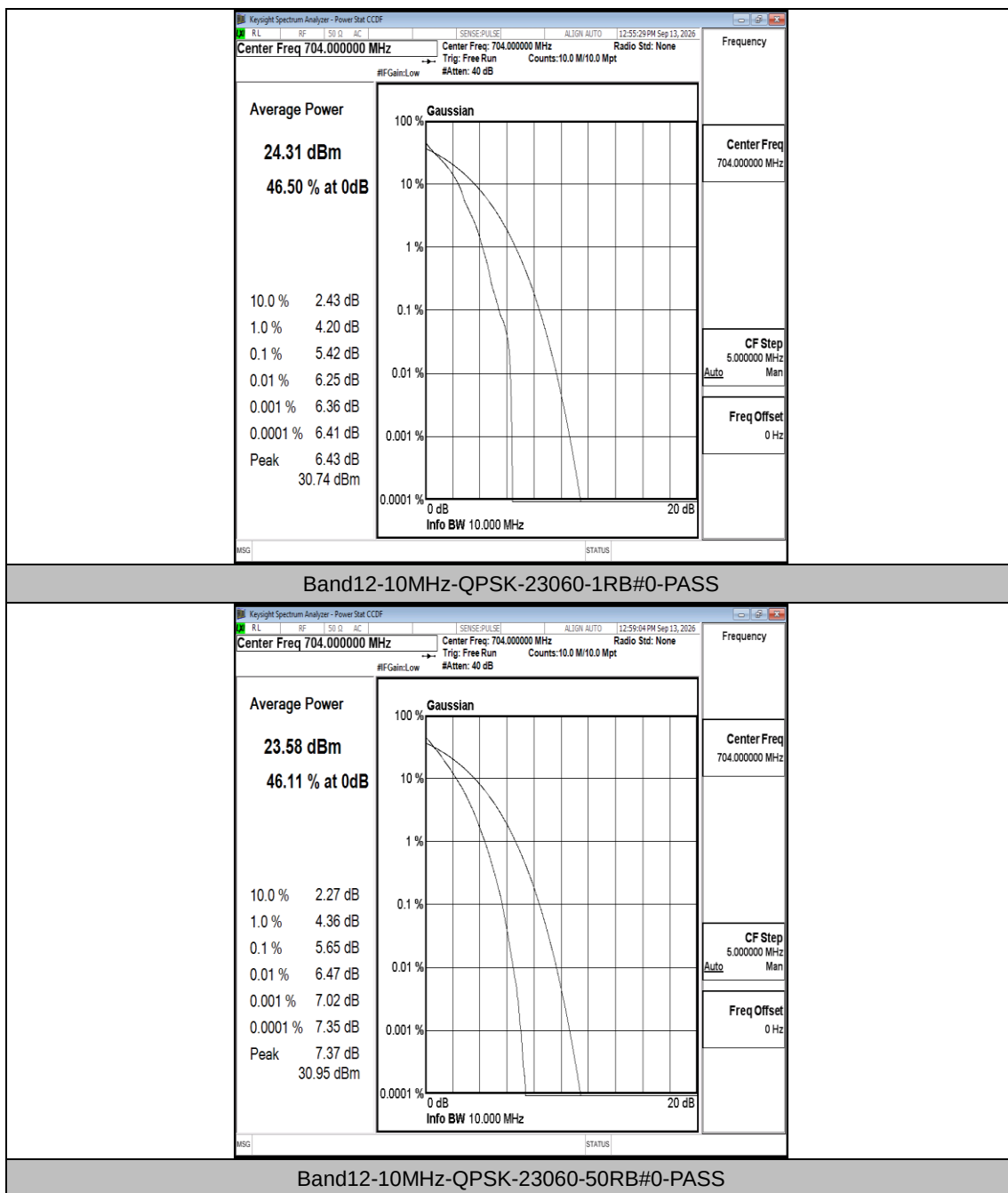


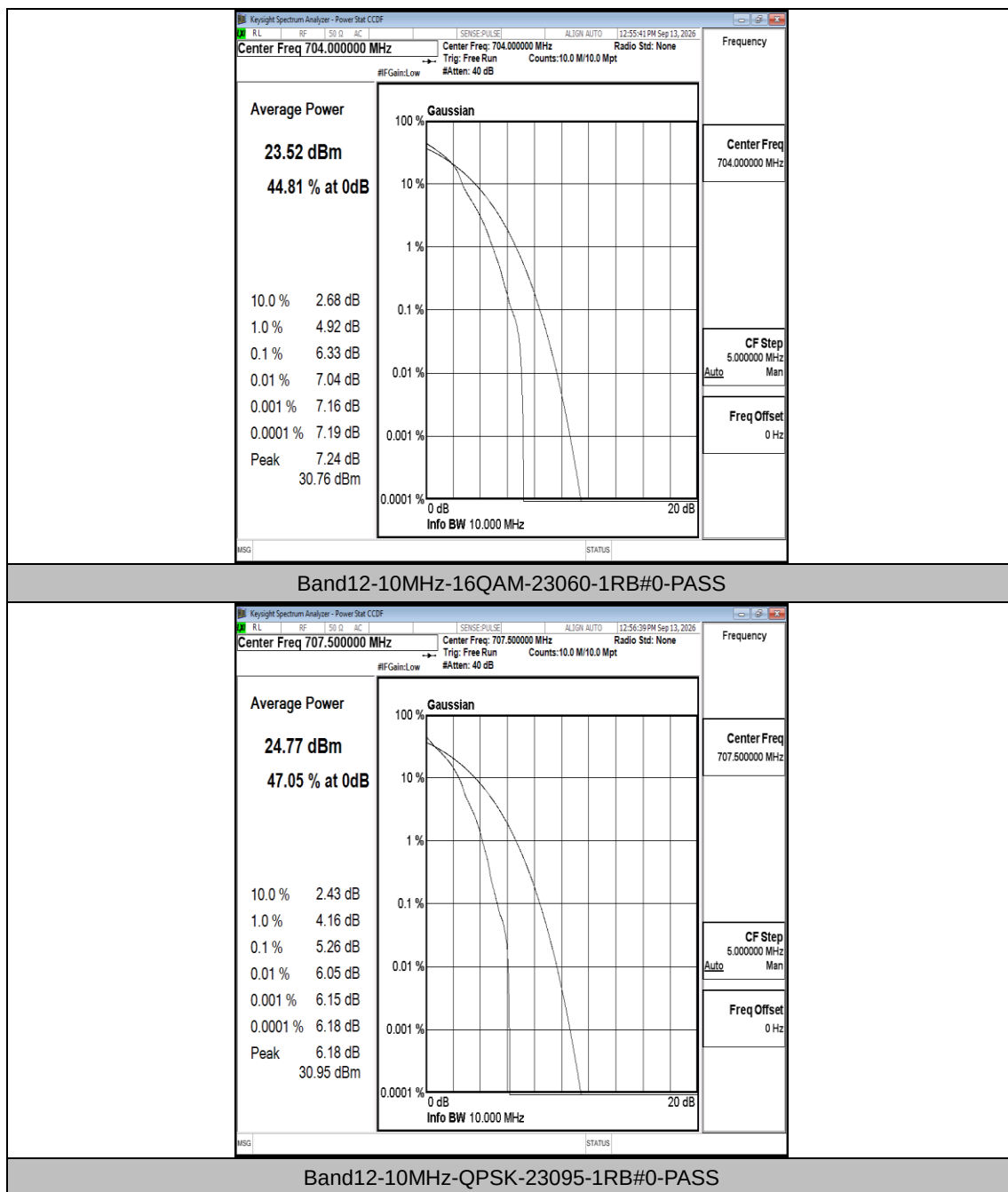


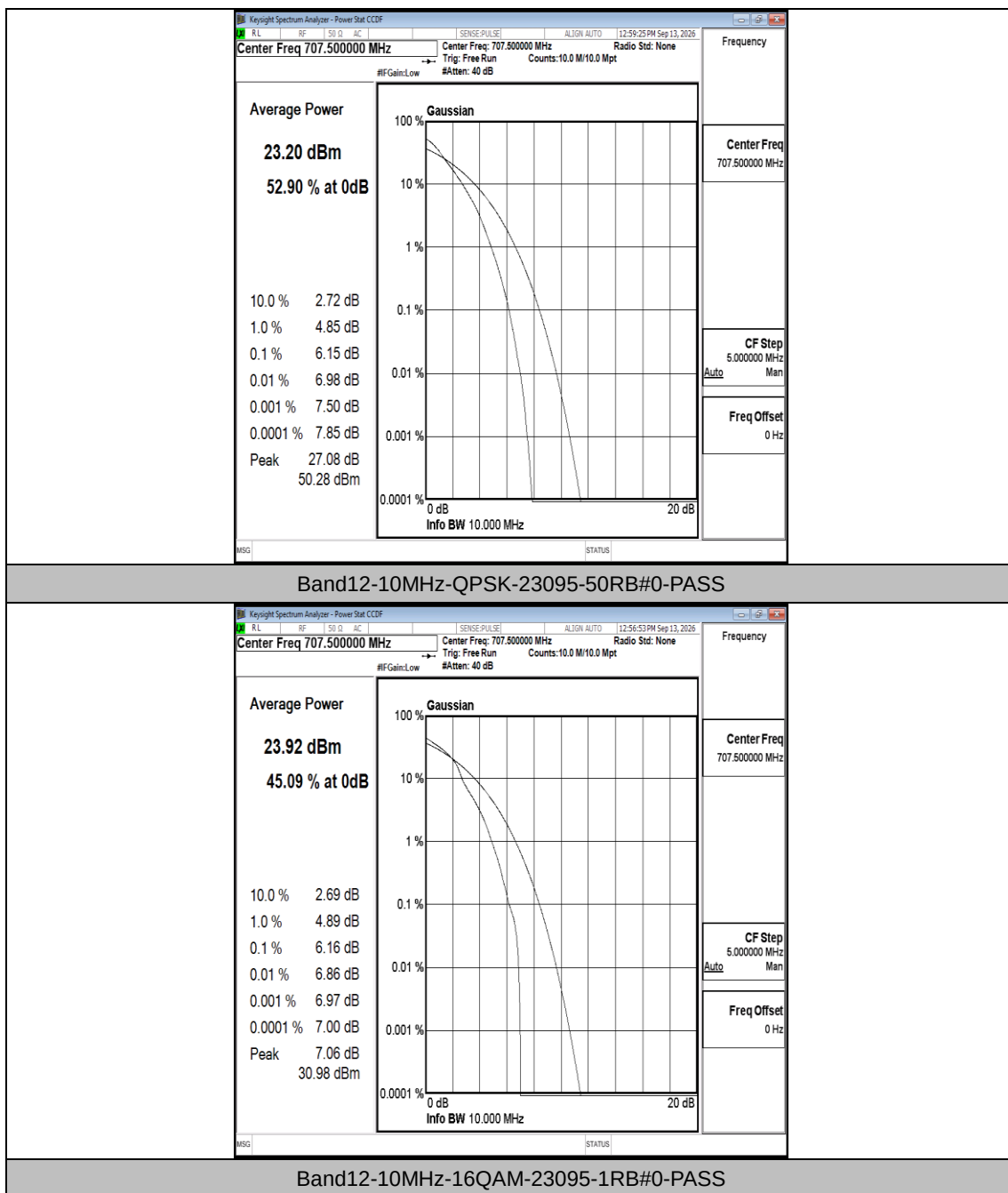


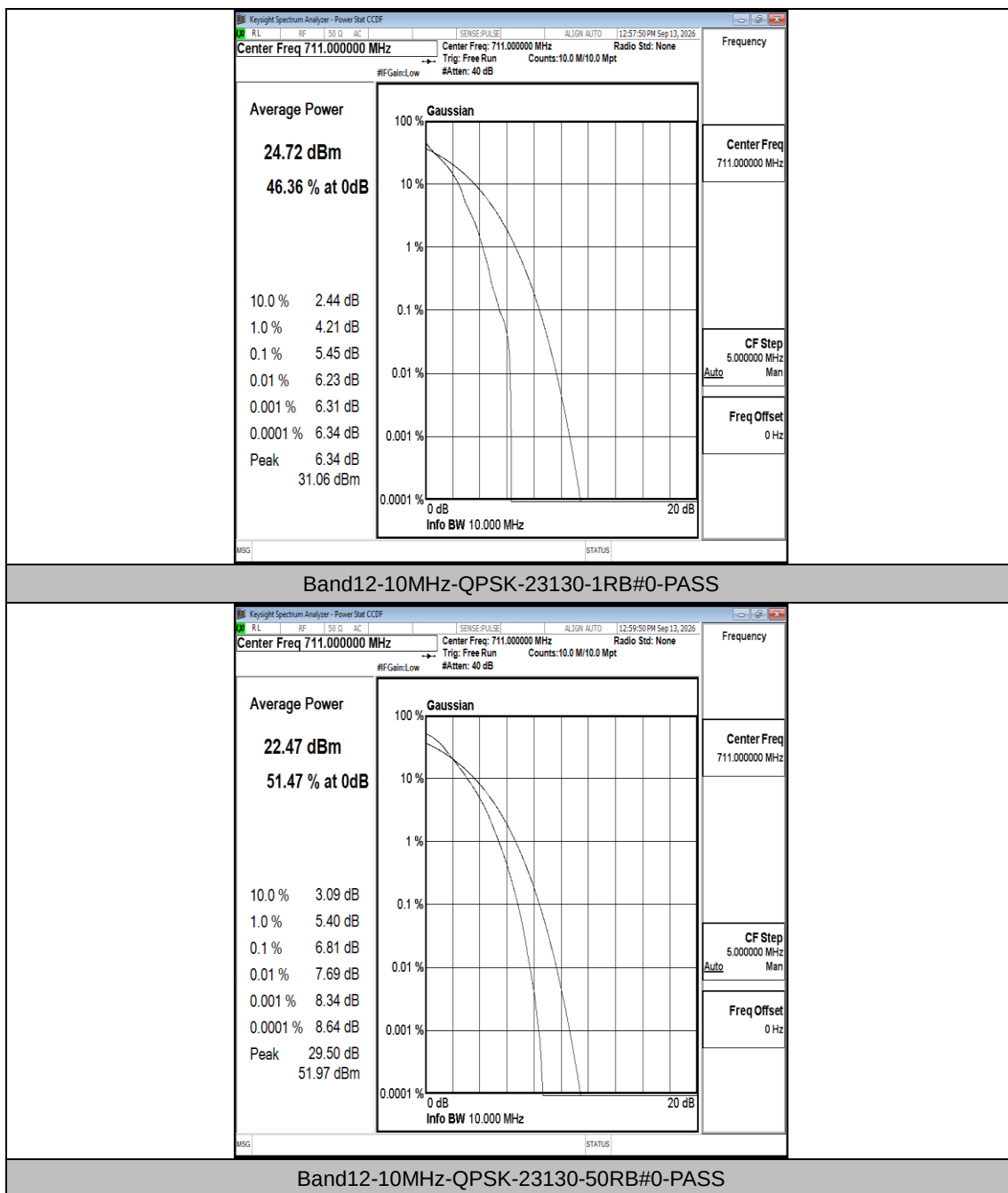


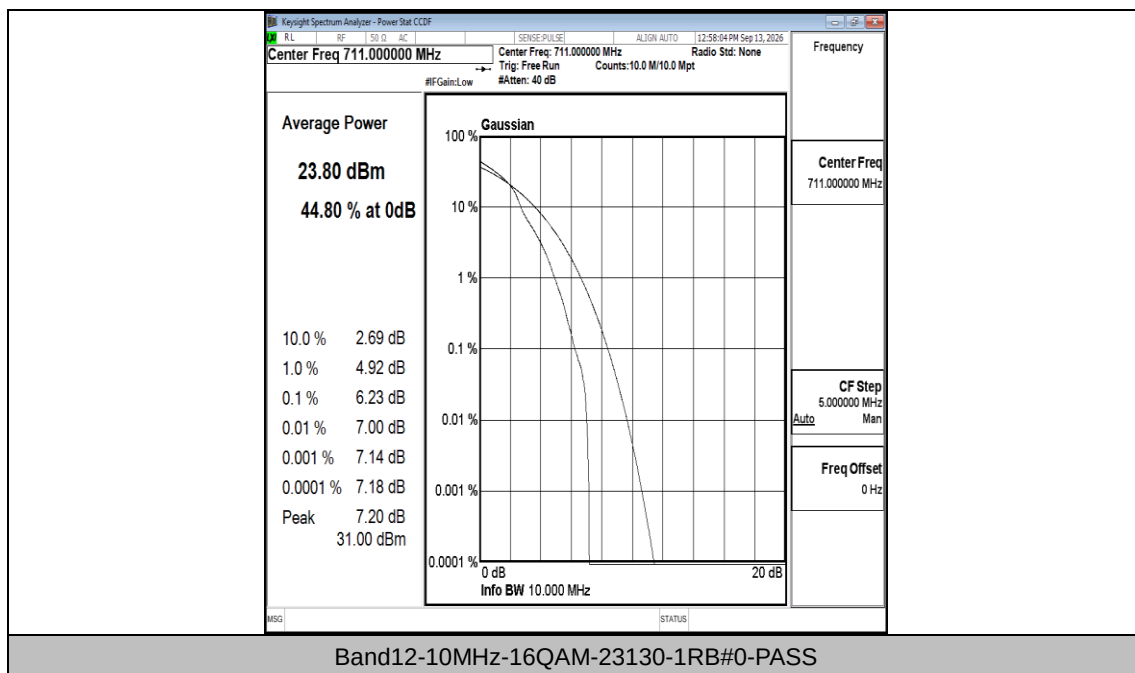










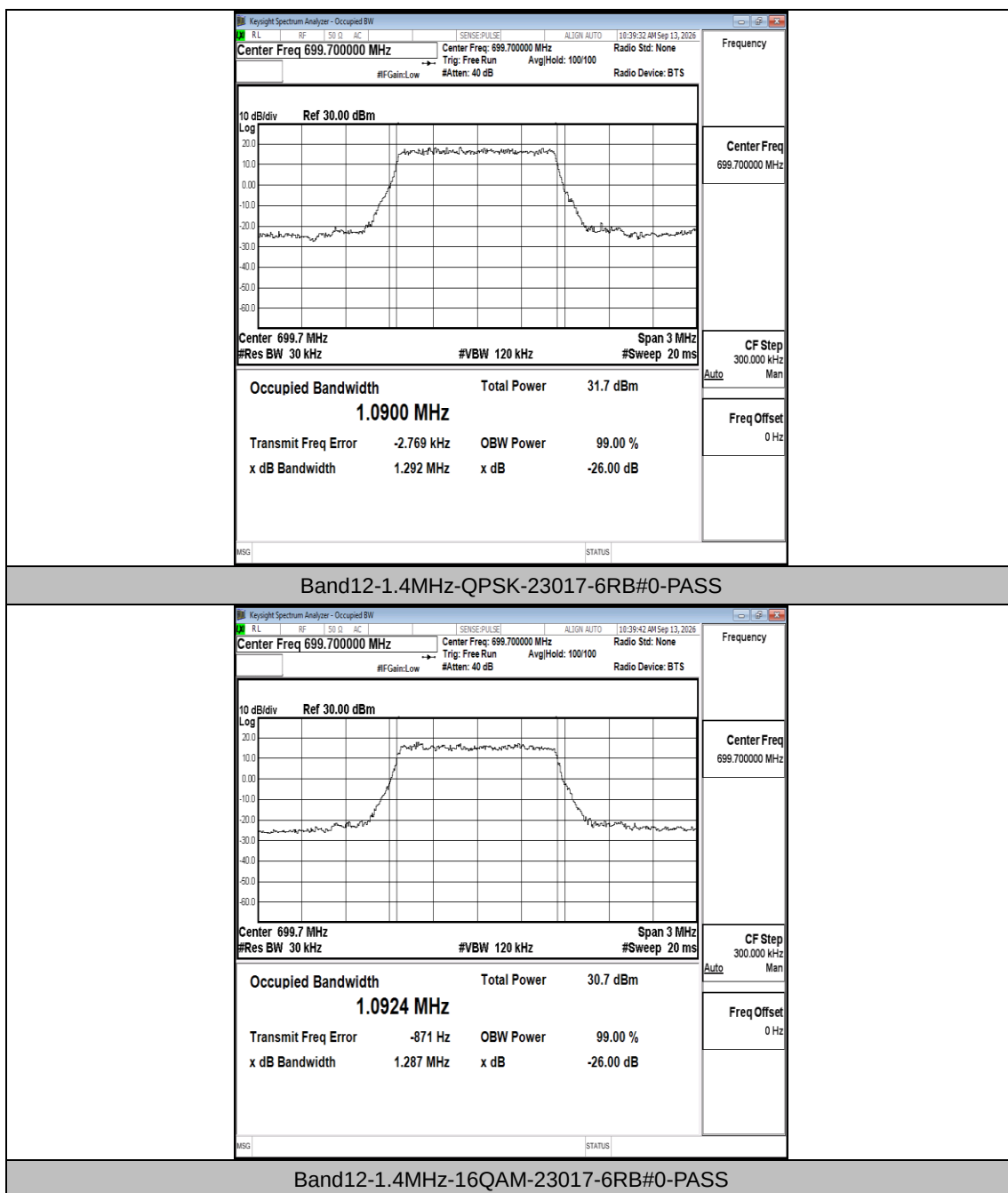


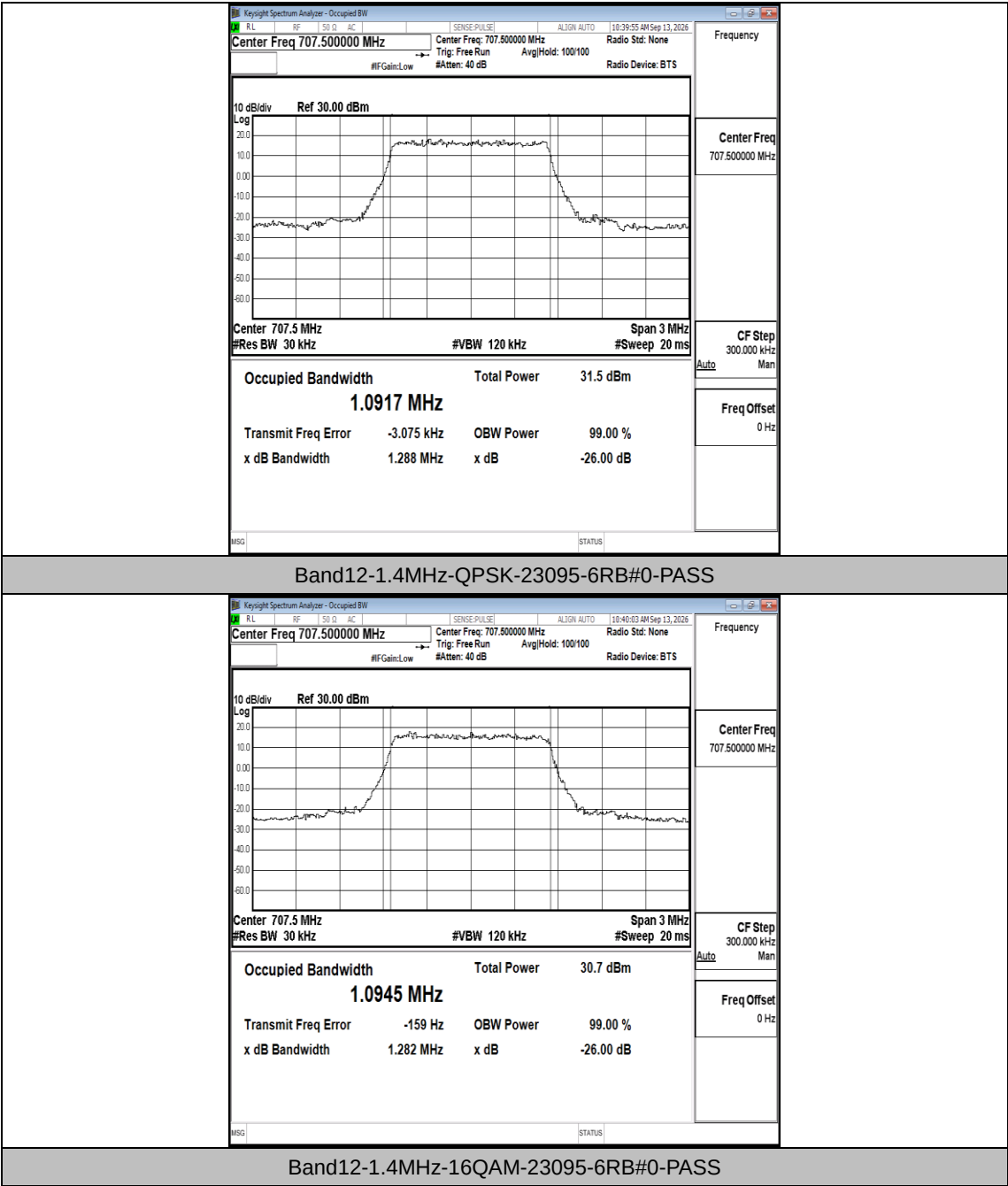
E.3 26dB Bandwidth and Occupied Bandwidth

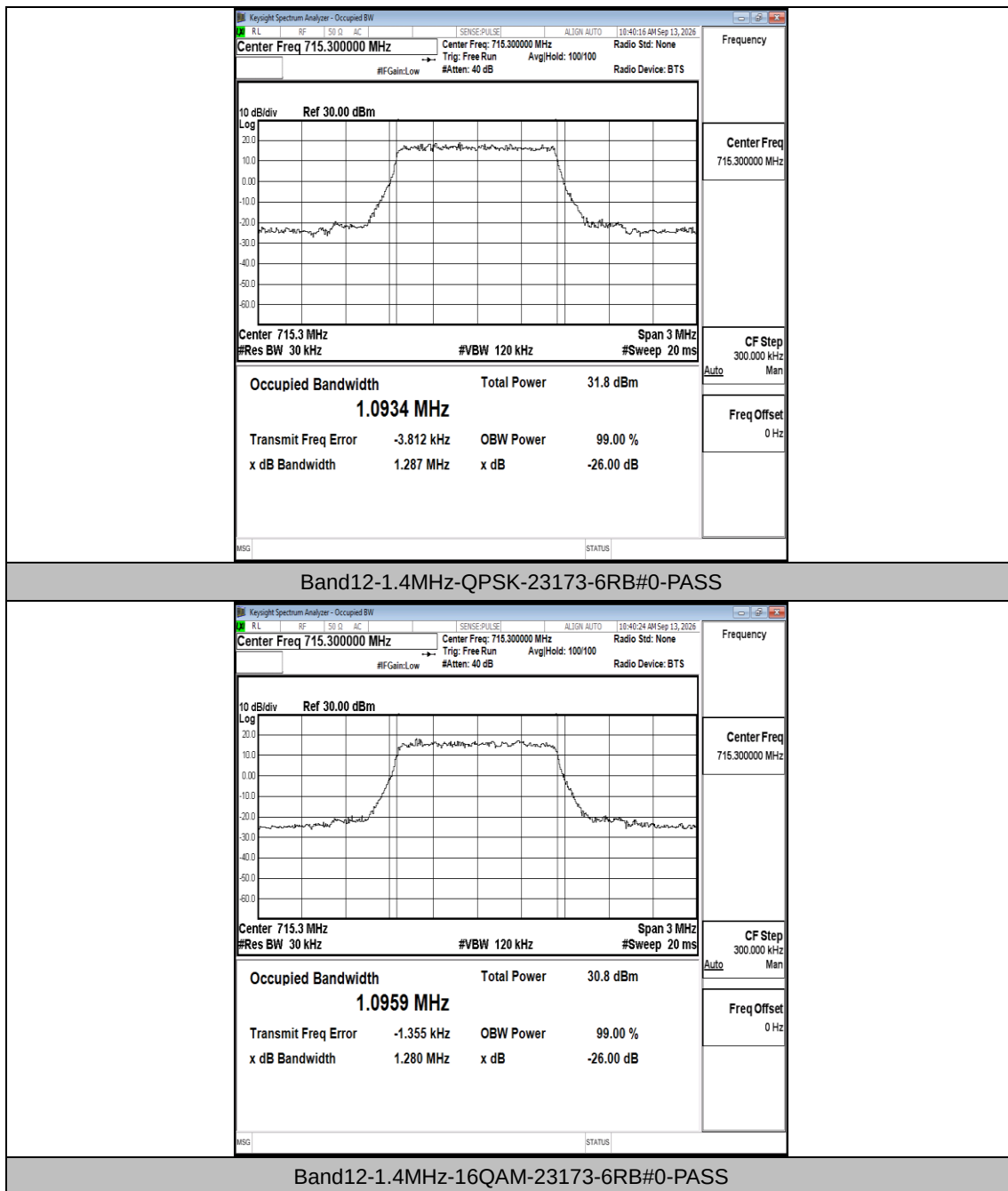
Test Result

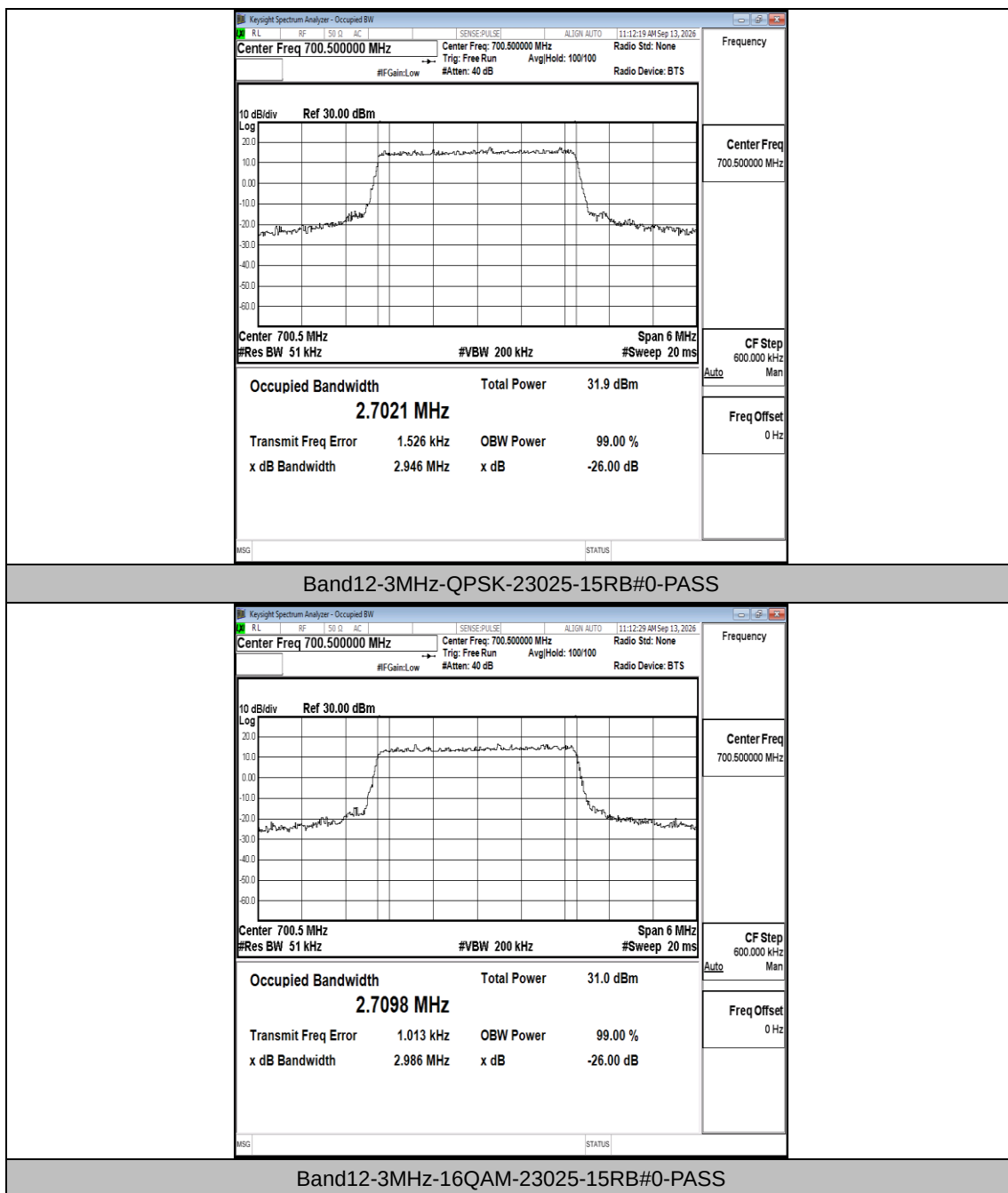
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.0900	1.292	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.0924	1.287	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.0917	1.288	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.0945	1.282	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.0934	1.287	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.0959	1.280	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.7021	2.946	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.7098	2.986	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.6967	2.964	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.7043	2.968	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.6968	2.961	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.7061	2.987	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.5064	4.997	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.4926	4.982	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.5029	5.004	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.4872	4.976	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.5062	5.024	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.4996	5.001	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.9912	10.18	PASS
Band12	10MHz	16QAM	23060	27RB#0	5.0215	6.106	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.9800	10.22	PASS
Band12	10MHz	16QAM	23095	27RB#0	9.2818	20.00	PASS
Band12	10MHz	QPSK	23130	50RB#0	9.0181	10.22	PASS
Band12	10MHz	16QAM	23130	27RB#0	4.9834	6.124	PASS

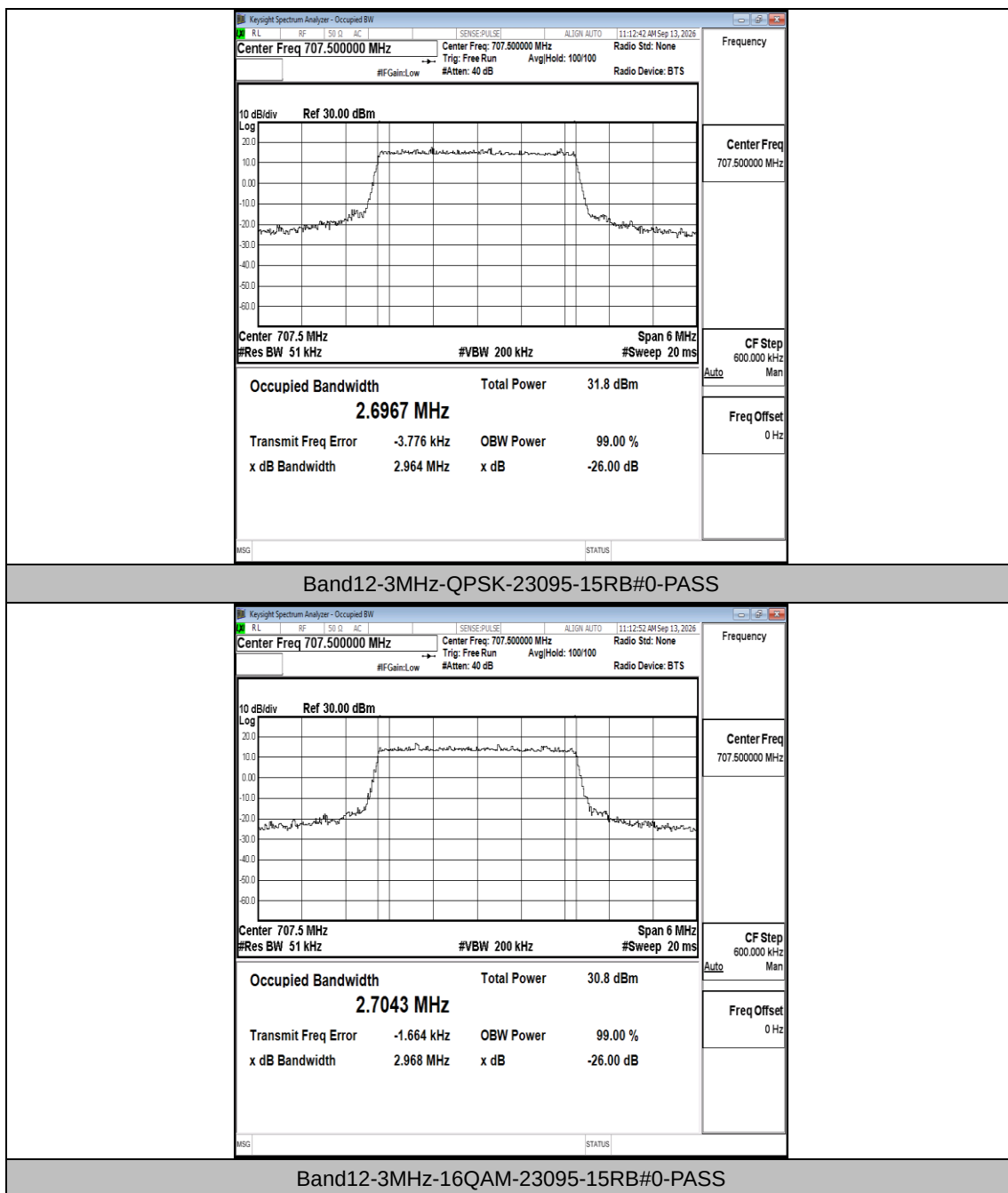
Test Graphs

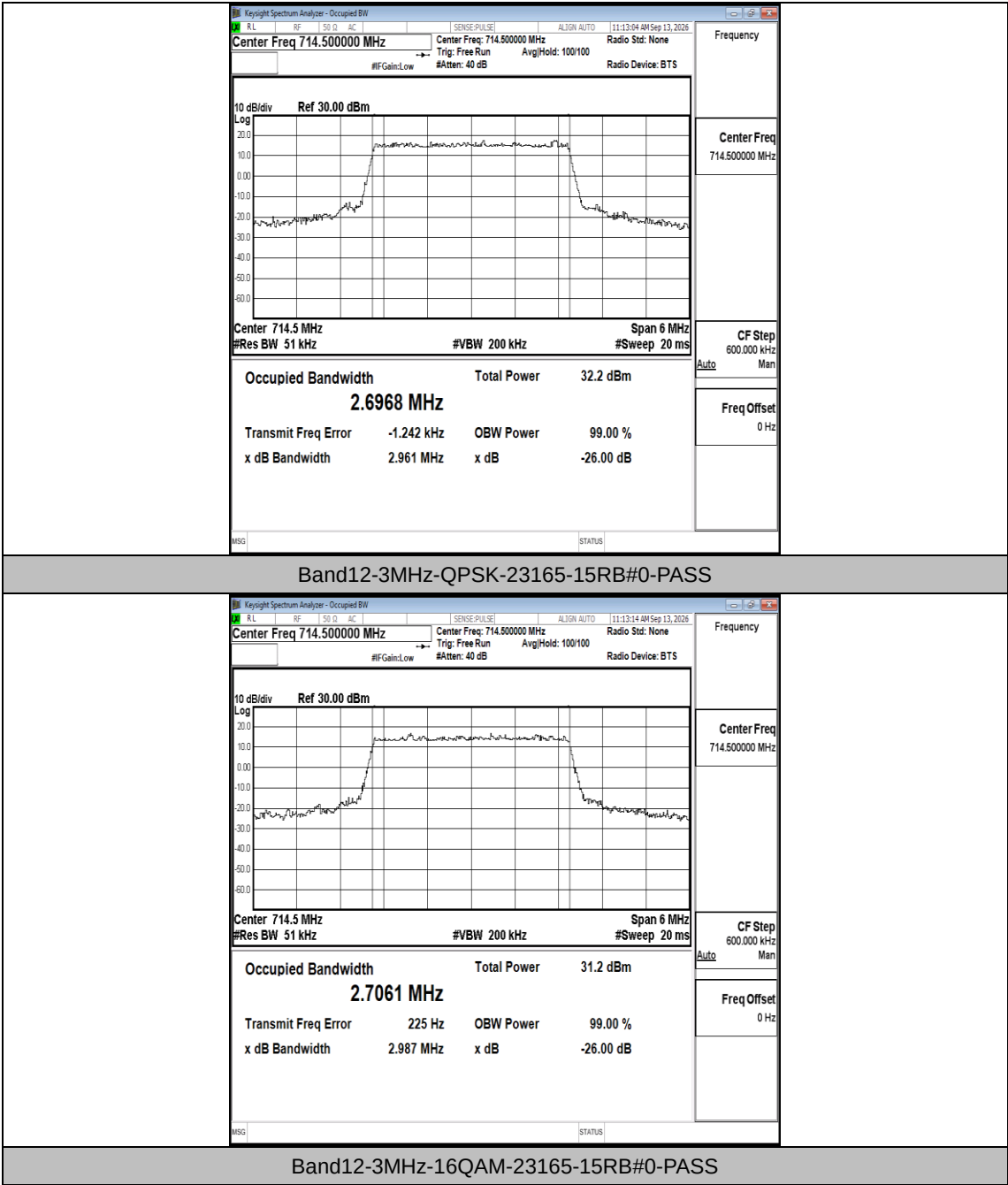


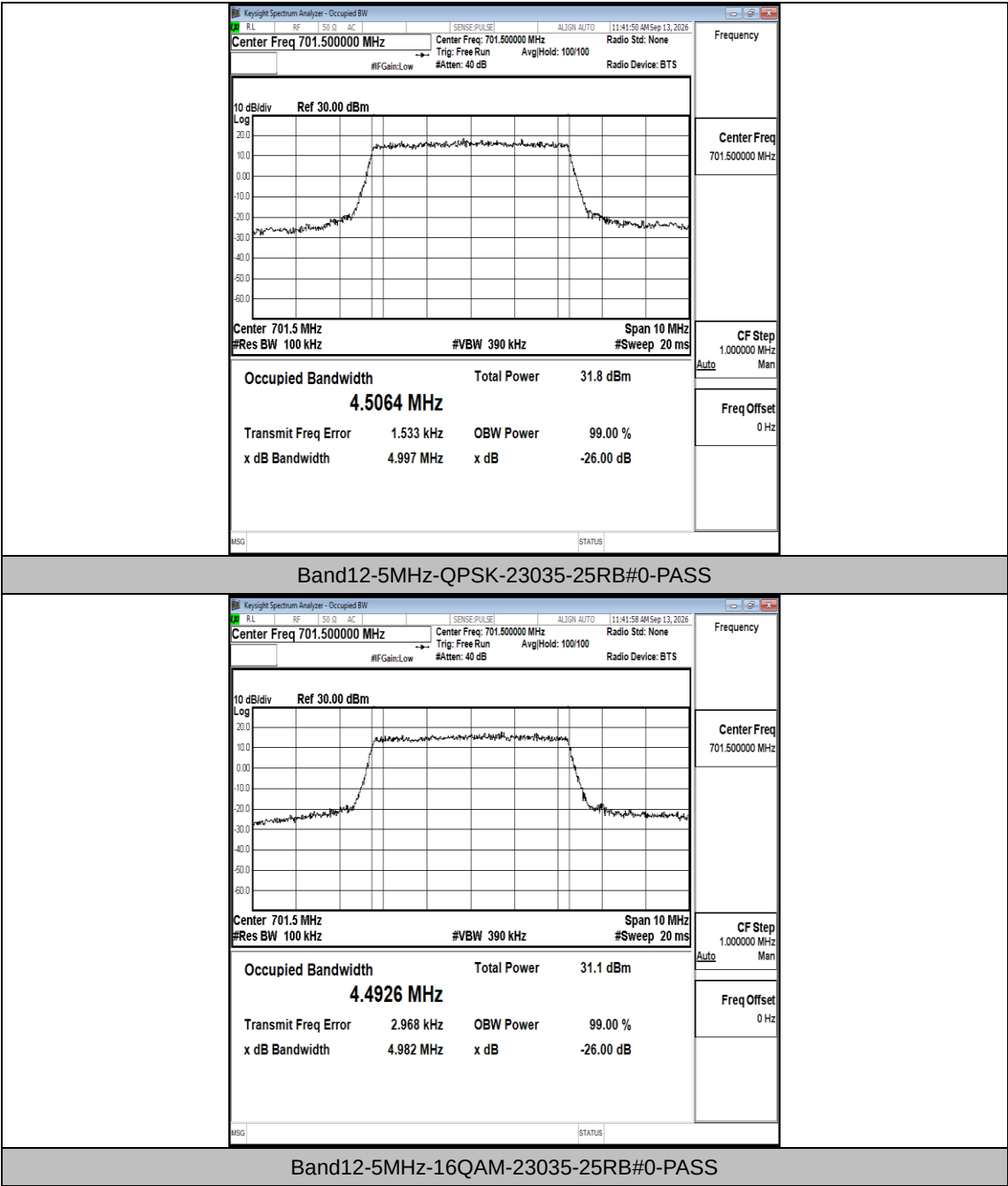


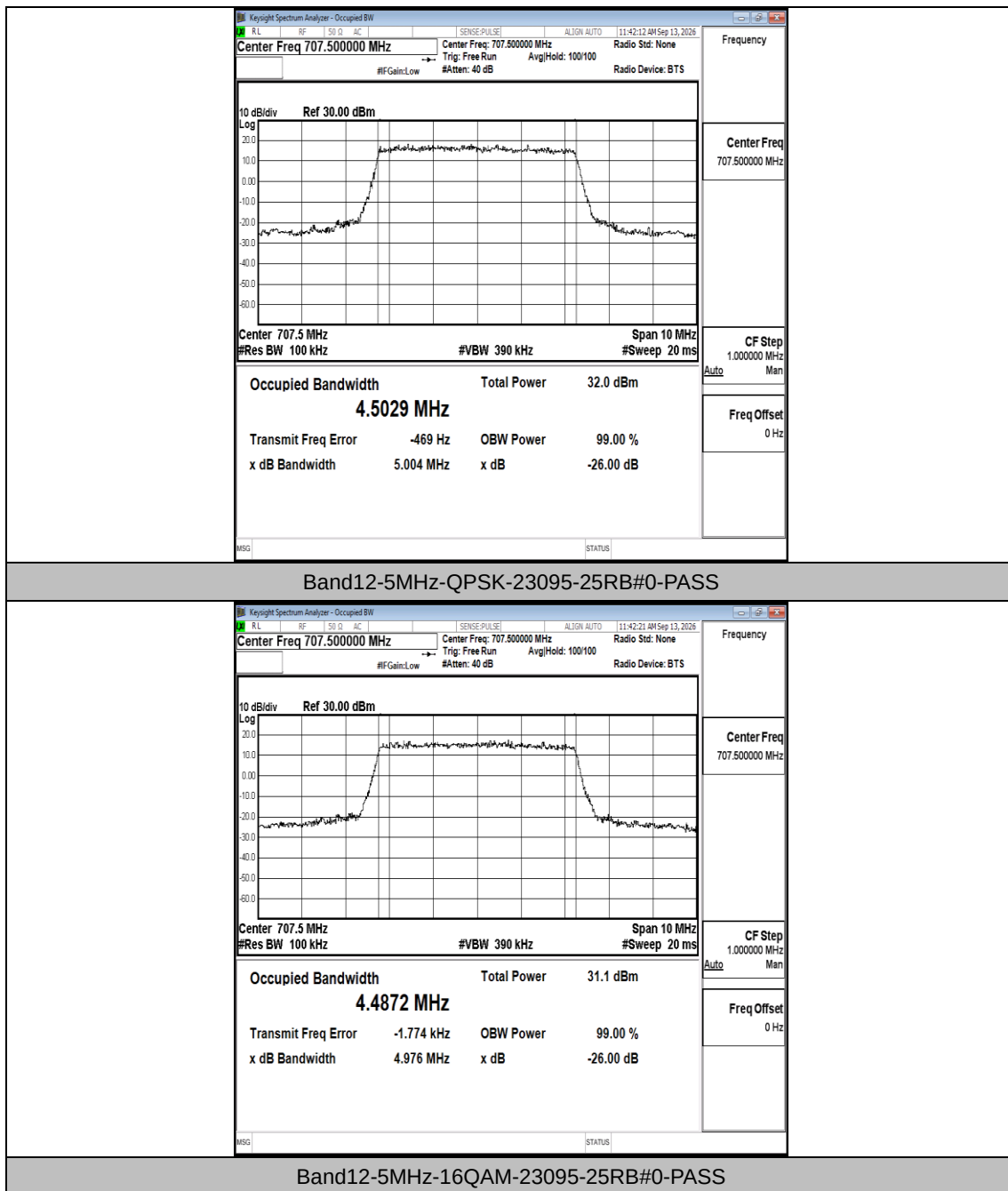


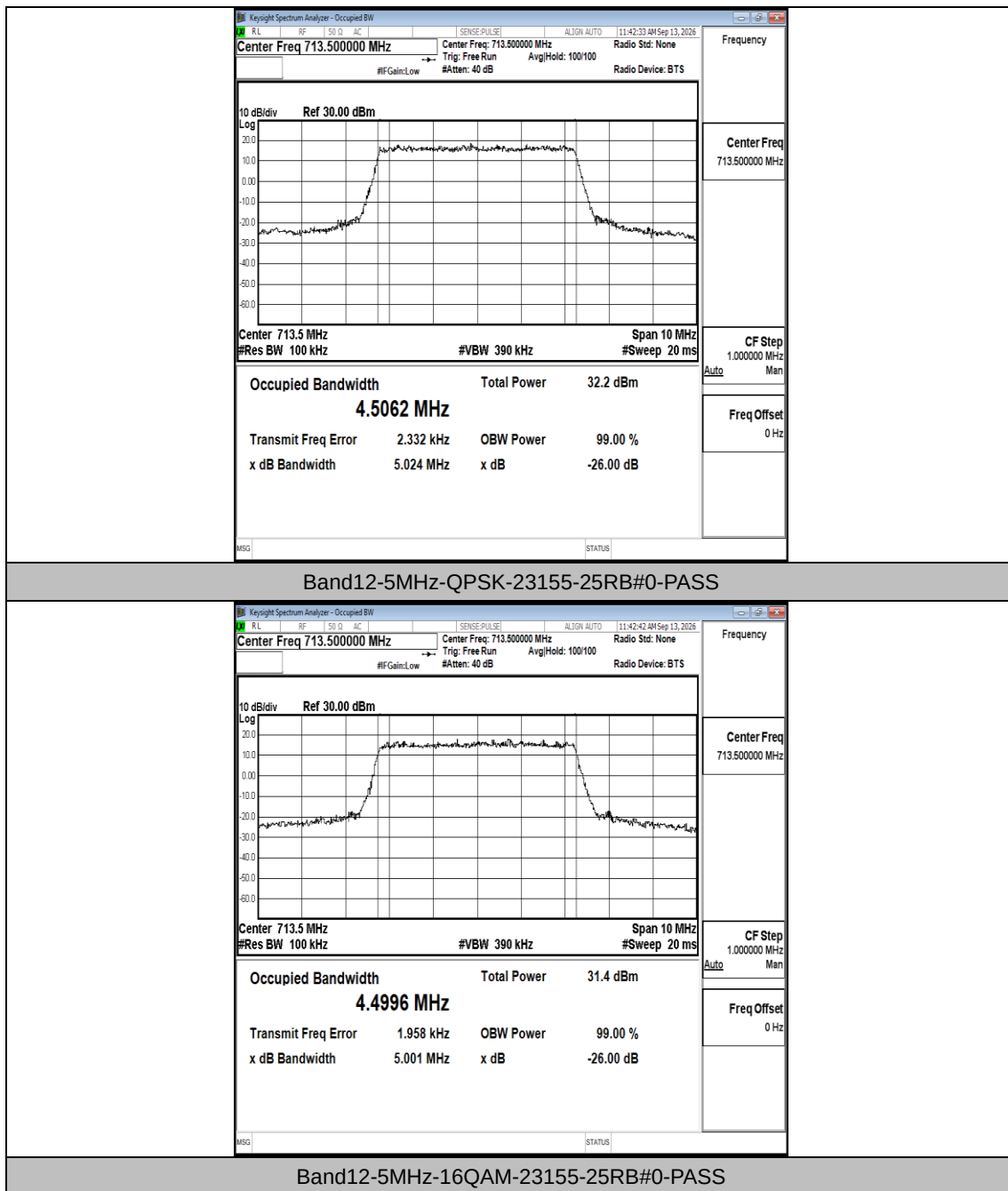




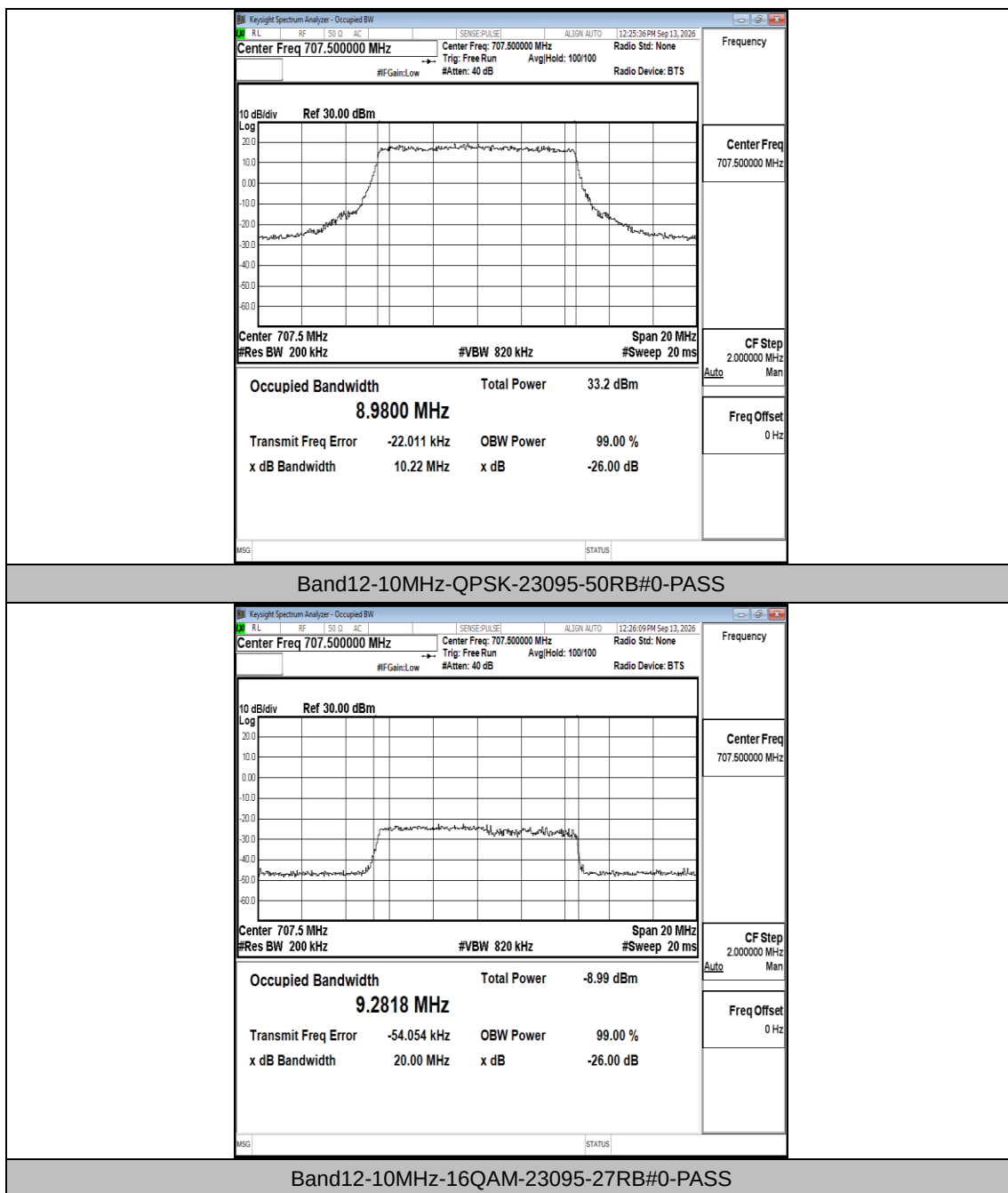


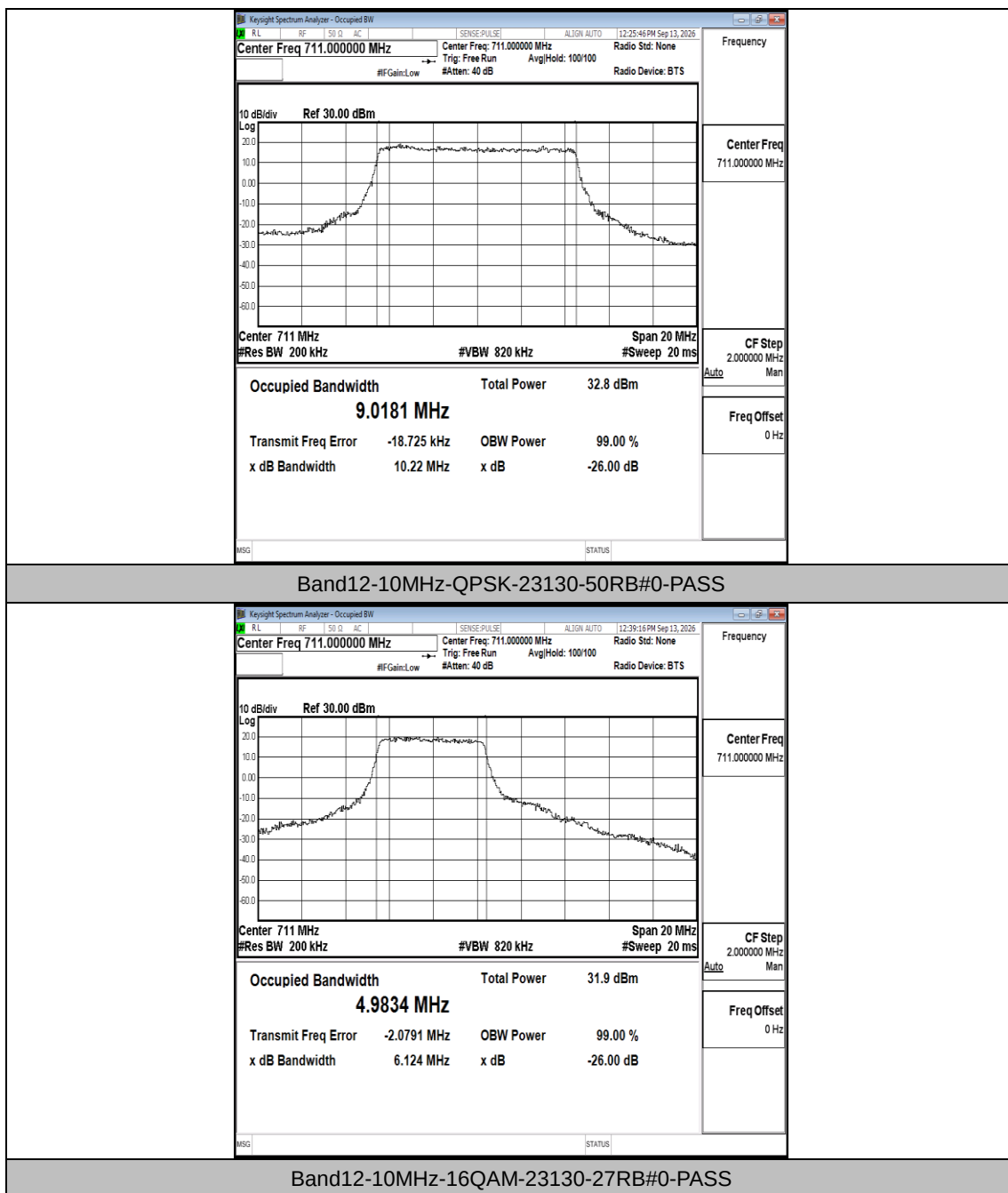












E.4 Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Margin (dB)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	-29.03	16.03	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	-28.34	15.34	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	-28.94	15.94	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	-28.18	15.18	PASS
Band12	3MHz	QPSK	23025	15RB#0	-30.82	17.82	PASS
Band12	3MHz	16QAM	23025	15RB#0	-30.08	17.08	PASS
Band12	3MHz	QPSK	23165	15RB#0	-29.48	16.48	PASS
Band12	3MHz	16QAM	23165	15RB#0	-28.90	15.90	PASS
Band12	5MHz	QPSK	23035	25RB#0	-33.18	20.18	PASS
Band12	5MHz	16QAM	23035	25RB#0	-32.67	19.67	PASS
Band12	5MHz	QPSK	23155	25RB#0	-32.39	19.39	PASS
Band12	5MHz	16QAM	23155	25RB#0	-31.88	18.88	PASS
Band12	10MHz	QPSK	23060	27RB#0	-34.22	21.22	PASS
Band12	10MHz	16QAM	23060	27RB#0	-33.40	20.40	PASS
Band12	10MHz	QPSK	23130	27RB#0	-37.95	24.95	PASS
Band12	10MHz	16QAM	23130	27RB#0	-40.70	27.70	PASS

Test Graphs

