

Appendix-A LTE Cat M1 Band 66

Effective (Isotropic) Radiated Power Output Data for M1

Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Power (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band66	1.4MHz	QPSK	131979	1	0	Low	22.47	27.27	30.00	PASS
Band66	1.4MHz	16QAM	131979	1	0	Low	21.35	26.15	30.00	PASS
Band66	1.4MHz	QPSK	131979	1	5	Low	22.51	27.31	30.00	PASS
Band66	1.4MHz	16QAM	131979	1	5	Low	21.41	26.21	30.00	PASS
Band66	1.4MHz	QPSK	131979	6	0	Low	20.15	24.95	30.00	PASS
Band66	1.4MHz	16QAM	131979	6	0	Low	16.62	21.42	30.00	PASS
Band66	1.4MHz	QPSK	132322	1	0	Low	22.62	27.42	30.00	PASS
Band66	1.4MHz	16QAM	132322	1	0	Low	21.63	26.43	30.00	PASS
Band66	1.4MHz	QPSK	132322	1	5	Low	22.66	27.46	30.00	PASS
Band66	1.4MHz	16QAM	132322	1	5	Low	21.67	26.47	30.00	PASS
Band66	1.4MHz	QPSK	132322	6	0	Low	20.5	25.3	30.00	PASS
Band66	1.4MHz	16QAM	132322	6	0	Low	16.77	21.57	30.00	PASS
Band66	1.4MHz	QPSK	132665	1	0	High	22.71	27.51	30.00	PASS
Band66	1.4MHz	16QAM	132665	1	0	High	21.73	26.53	30.00	PASS
Band66	1.4MHz	QPSK	132665	1	5	High	22.74	27.54	30.00	PASS
Band66	1.4MHz	16QAM	132665	1	5	High	21.83	26.63	30.00	PASS
Band66	1.4MHz	QPSK	132665	6	0	High	20.64	25.44	30.00	PASS
Band66	1.4MHz	16QAM	132665	6	0	High	15.85	20.65	30.00	PASS
Band66	3MHz	QPSK	131987	1	0	Low	22.23	27.03	30.00	PASS
Band66	3MHz	16QAM	131987	1	0	Low	21.29	26.09	30.00	PASS
Band66	3MHz	QPSK	131987	1	5	Low	22.31	27.11	30.00	PASS
Band66	3MHz	16QAM	131987	1	5	Low	21.36	26.16	30.00	PASS
Band66	3MHz	QPSK	131987	6	0	Low	20.11	24.91	30.00	PASS
Band66	3MHz	16QAM	131987	6	0	Low	17.16	21.96	30.00	PASS
Band66	3MHz	QPSK	132322	1	0	Low	21.54	26.34	30.00	PASS
Band66	3MHz	16QAM	132322	1	0	Low	20.46	25.26	30.00	PASS
Band66	3MHz	QPSK	132322	1	5	Low	21.6	26.4	30.00	PASS
Band66	3MHz	16QAM	132322	1	5	Low	20.56	25.36	30.00	PASS
Band66	3MHz	QPSK	132322	6	0	Low	19.96	24.76	30.00	PASS
Band66	3MHz	16QAM	132322	6	0	Low	16.53	21.33	30.00	PASS
Band66	3MHz	QPSK	132657	1	0	High	22.68	27.48	30.00	PASS
Band66	3MHz	16QAM	132657	1	0	High	21.69	26.49	30.00	PASS
Band66	3MHz	QPSK	132657	1	5	High	22.7	27.5	30.00	PASS
Band66	3MHz	16QAM	132657	1	5	High	21.75	26.55	30.00	PASS
Band66	3MHz	QPSK	132657	6	0	High	20.58	25.38	30.00	PASS
Band66	3MHz	16QAM	132657	6	0	High	17.66	22.46	30.00	PASS

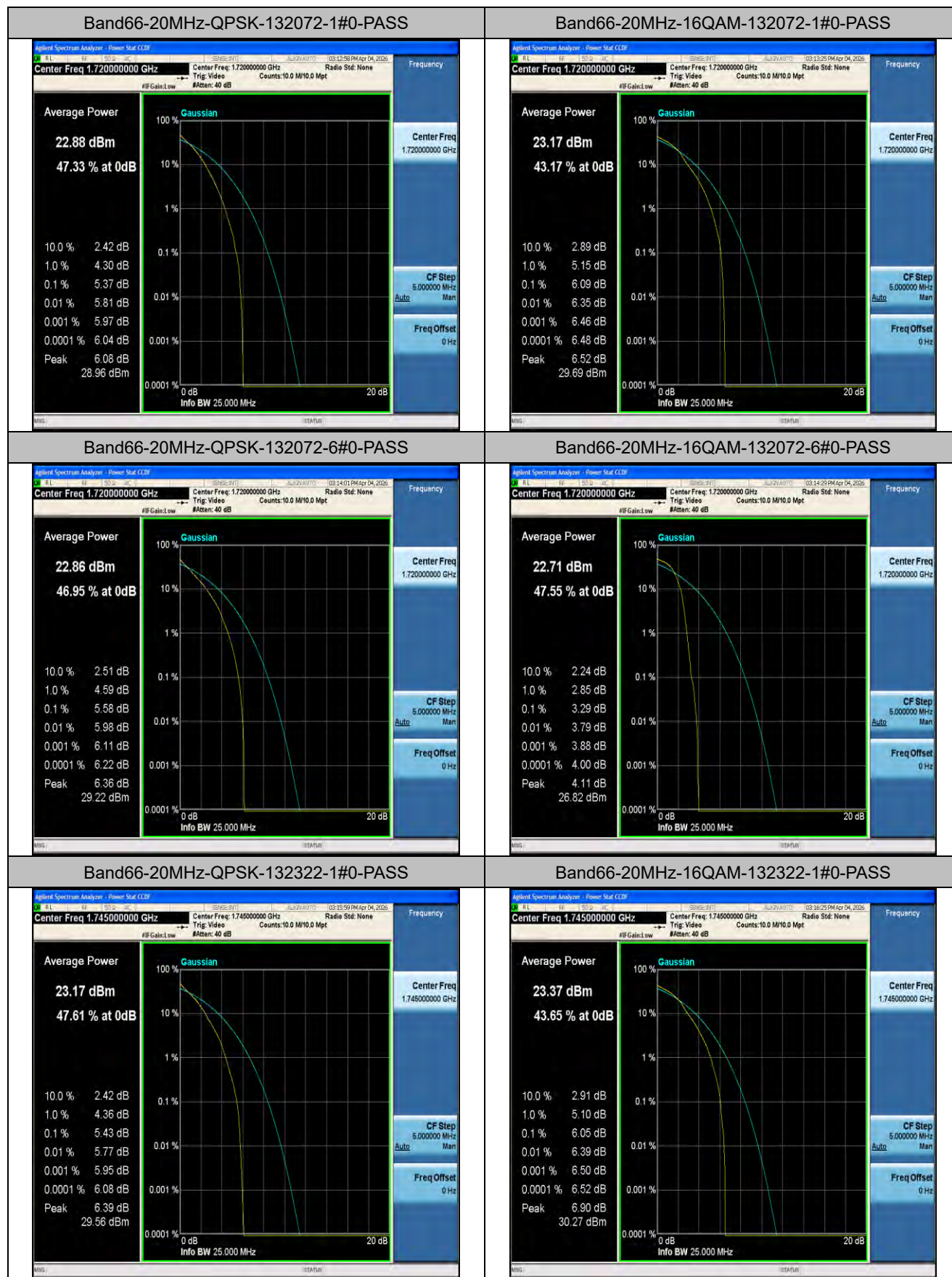
Band66	5MHz	QPSK	131997	1	0	Low	22.38	27.18	30.00	PASS
Band66	5MHz	16QAM	131997	1	0	Low	22.53	27.33	30.00	PASS
Band66	5MHz	QPSK	131997	1	5	Low	22.38	27.18	30.00	PASS
Band66	5MHz	16QAM	131997	1	5	Low	22.59	27.39	30.00	PASS
Band66	5MHz	QPSK	131997	6	0	Low	21.3	26.1	30.00	PASS
Band66	5MHz	16QAM	131997	6	0	Low	22.3	27.1	30.00	PASS
Band66	5MHz	QPSK	132322	1	0	Low	22.55	27.35	30.00	PASS
Band66	5MHz	16QAM	132322	1	0	Low	22.83	27.63	30.00	PASS
Band66	5MHz	QPSK	132322	1	5	Low	22.65	27.45	30.00	PASS
Band66	5MHz	16QAM	132322	1	5	Low	22.89	27.69	30.00	PASS
Band66	5MHz	QPSK	132322	6	0	Low	21.49	26.29	30.00	PASS
Band66	5MHz	16QAM	132322	6	0	Low	22.46	27.26	30.00	PASS
Band66	5MHz	QPSK	132647	1	0	High	22.6	27.4	30.00	PASS
Band66	5MHz	16QAM	132647	1	0	High	22.86	27.66	30.00	PASS
Band66	5MHz	QPSK	132647	1	5	High	22.68	27.48	30.00	PASS
Band66	5MHz	16QAM	132647	1	5	High	22.9	27.7	30.00	PASS
Band66	5MHz	QPSK	132647	6	0	High	21.53	26.33	30.00	PASS
Band66	5MHz	16QAM	132647	6	0	High	22.54	27.34	30.00	PASS
Band66	10MHz	QPSK	132022	1	0	Low	22.33	27.13	30.00	PASS
Band66	10MHz	16QAM	132022	1	0	Low	22.59	27.39	30.00	PASS
Band66	10MHz	QPSK	132022	1	5	Low	22.37	27.17	30.00	PASS
Band66	10MHz	16QAM	132022	1	5	Low	22.66	27.46	30.00	PASS
Band66	10MHz	QPSK	132022	6	0	Low	21.26	26.06	30.00	PASS
Band66	10MHz	16QAM	132022	6	0	Low	22.23	27.03	30.00	PASS
Band66	10MHz	QPSK	132322	1	0	Low	22.53	27.33	30.00	PASS
Band66	10MHz	16QAM	132322	1	0	Low	22.68	27.48	30.00	PASS
Band66	10MHz	QPSK	132322	1	5	Low	22.62	27.42	30.00	PASS
Band66	10MHz	16QAM	132322	1	5	Low	22.82	27.62	30.00	PASS
Band66	10MHz	QPSK	132322	6	0	Low	21.49	26.29	30.00	PASS
Band66	10MHz	16QAM	132322	6	0	Low	22.44	27.24	30.00	PASS
Band66	10MHz	QPSK	132622	1	0	High	22.6	27.4	30.00	PASS
Band66	10MHz	16QAM	132622	1	0	High	22.76	27.56	30.00	PASS
Band66	10MHz	QPSK	132622	1	5	High	22.67	27.47	30.00	PASS
Band66	10MHz	16QAM	132622	1	5	High	22.85	27.65	30.00	PASS
Band66	10MHz	QPSK	132622	6	0	High	21.57	26.37	30.00	PASS
Band66	10MHz	16QAM	132622	6	0	High	22.55	27.35	30.00	PASS
Band66	15MHz	QPSK	132047	1	0	Low	22.33	27.13	30.00	PASS
Band66	15MHz	16QAM	132047	1	0	Low	22.62	27.42	30.00	PASS
Band66	15MHz	QPSK	132047	1	5	Low	22.36	27.16	30.00	PASS
Band66	15MHz	16QAM	132047	1	5	Low	22.64	27.44	30.00	PASS
Band66	15MHz	QPSK	132047	6	0	Low	22.23	27.03	30.00	PASS
Band66	15MHz	16QAM	132047	6	0	Low	22.32	27.12	30.00	PASS
Band66	15MHz	QPSK	132322	1	0	Low	22.6	27.4	30.00	PASS
Band66	15MHz	16QAM	132322	1	0	Low	22.8	27.6	30.00	PASS

Band66	15MHz	QPSK	132322	1	5	Low	22.61	27.41	30.00	PASS
Band66	15MHz	16QAM	132322	1	5	Low	22.95	27.75	30.00	PASS
Band66	15MHz	QPSK	132322	6	0	Low	22.5	27.3	30.00	PASS
Band66	15MHz	16QAM	132322	6	0	Low	22.43	27.23	30.00	PASS
Band66	15MHz	QPSK	132597	1	0	High	21.59	26.39	30.00	PASS
Band66	15MHz	16QAM	132597	1	0	High	21.79	26.59	30.00	PASS
Band66	15MHz	QPSK	132597	1	5	High	21.65	26.45	30.00	PASS
Band66	15MHz	16QAM	132597	1	5	High	21.8	26.6	30.00	PASS
Band66	15MHz	QPSK	132597	6	0	High	22.07	26.87	30.00	PASS
Band66	15MHz	16QAM	132597	6	0	High	22.41	27.21	30.00	PASS
Band66	20MHz	QPSK	132072	1	0	Low	22.34	27.14	30.00	PASS
Band66	20MHz	16QAM	132072	1	0	Low	22.53	27.33	30.00	PASS
Band66	20MHz	QPSK	132072	1	5	Low	22.46	27.26	30.00	PASS
Band66	20MHz	16QAM	132072	1	5	Low	22.76	27.56	30.00	PASS
Band66	20MHz	QPSK	132072	6	0	Low	22.32	27.12	30.00	PASS
Band66	20MHz	16QAM	132072	6	0	Low	22.29	27.09	30.00	PASS
Band66	20MHz	QPSK	132322	1	0	Low	22.67	27.47	30.00	PASS
Band66	20MHz	16QAM	132322	1	0	Low	22.67	27.47	30.00	PASS
Band66	20MHz	QPSK	132322	1	5	Low	22.68	27.48	30.00	PASS
Band66	20MHz	16QAM	132322	1	5	Low	22.84	27.64	30.00	PASS
Band66	20MHz	QPSK	132322	6	0	Low	22.55	27.35	30.00	PASS
Band66	20MHz	16QAM	132322	6	0	Low	22.44	27.24	30.00	PASS
Band66	20MHz	QPSK	132572	1	0	High	22.62	27.42	30.00	PASS
Band66	20MHz	16QAM	132572	1	0	High	22.8	27.6	30.00	PASS
Band66	20MHz	QPSK	132572	1	5	High	22.7	27.5	30.00	PASS
Band66	20MHz	16QAM	132572	1	5	High	22.88	27.68	30.00	PASS
Band66	20MHz	QPSK	132572	6	0	High	22.59	27.39	30.00	PASS
Band66	20MHz	16QAM	132572	6	0	High	22.59	27.39	30.00	PASS

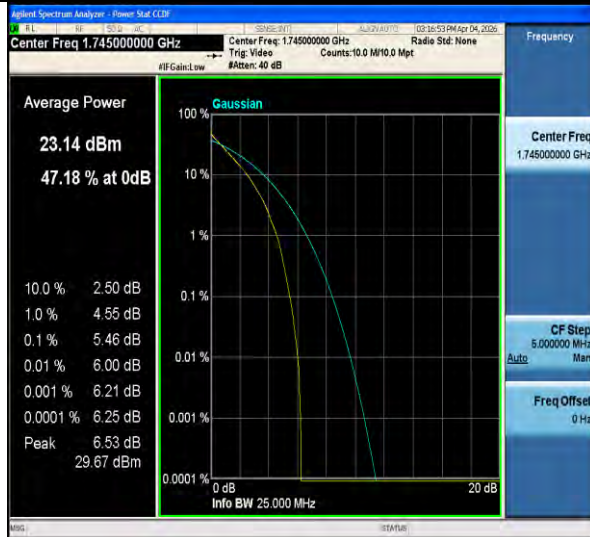
Peak-to-Average Ratio(CCDF) for M1**Test Result**

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band66	20MHz	QPSK	132072	1	0	Low	5.37	<=13	PASS
Band66	20MHz	16QAM	132072	1	0	Low	6.09	<=13	PASS
Band66	20MHz	QPSK	132072	6	0	Low	5.58	<=13	PASS
Band66	20MHz	16QAM	132072	6	0	Low	3.29	<=13	PASS
Band66	20MHz	QPSK	132322	1	0	Low	5.43	<=13	PASS
Band66	20MHz	16QAM	132322	1	0	Low	6.05	<=13	PASS
Band66	20MHz	QPSK	132322	6	0	Low	5.46	<=13	PASS
Band66	20MHz	16QAM	132322	6	0	Low	3.38	<=13	PASS
Band66	20MHz	QPSK	132572	1	0	High	5.40	<=13	PASS
Band66	20MHz	16QAM	132572	1	0	High	5.88	<=13	PASS
Band66	20MHz	QPSK	132572	6	0	High	5.52	<=13	PASS
Band66	20MHz	16QAM	132572	6	0	High	3.26	<=13	PASS

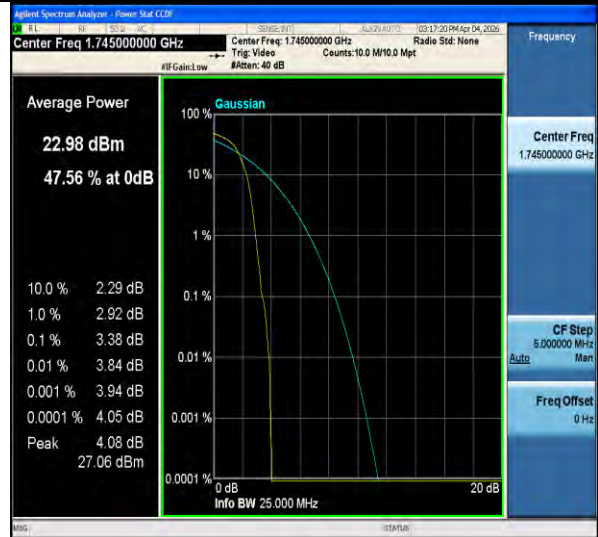
Test Graphs



Band66-20MHz-QPSK-132322-6#0-PASS



Band66-20MHz-16QAM-132322-6#0-PASS



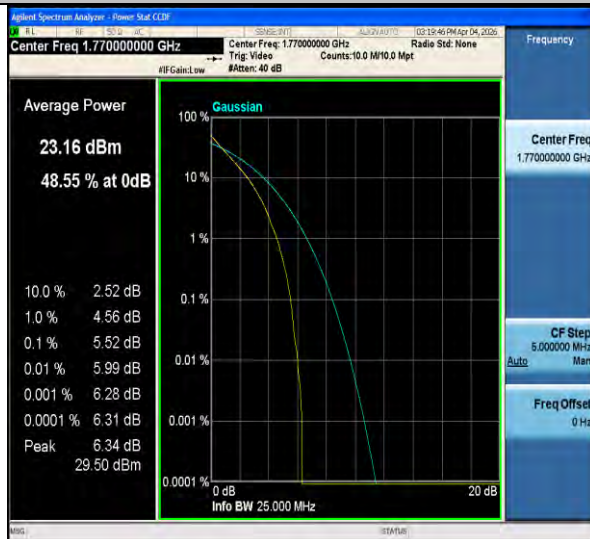
Band66-20MHz-QPSK-132572-1#0-PASS



Band66-20MHz-16QAM-132572-1#0-PASS



Band66-20MHz-QPSK-132572-6#0-PASS



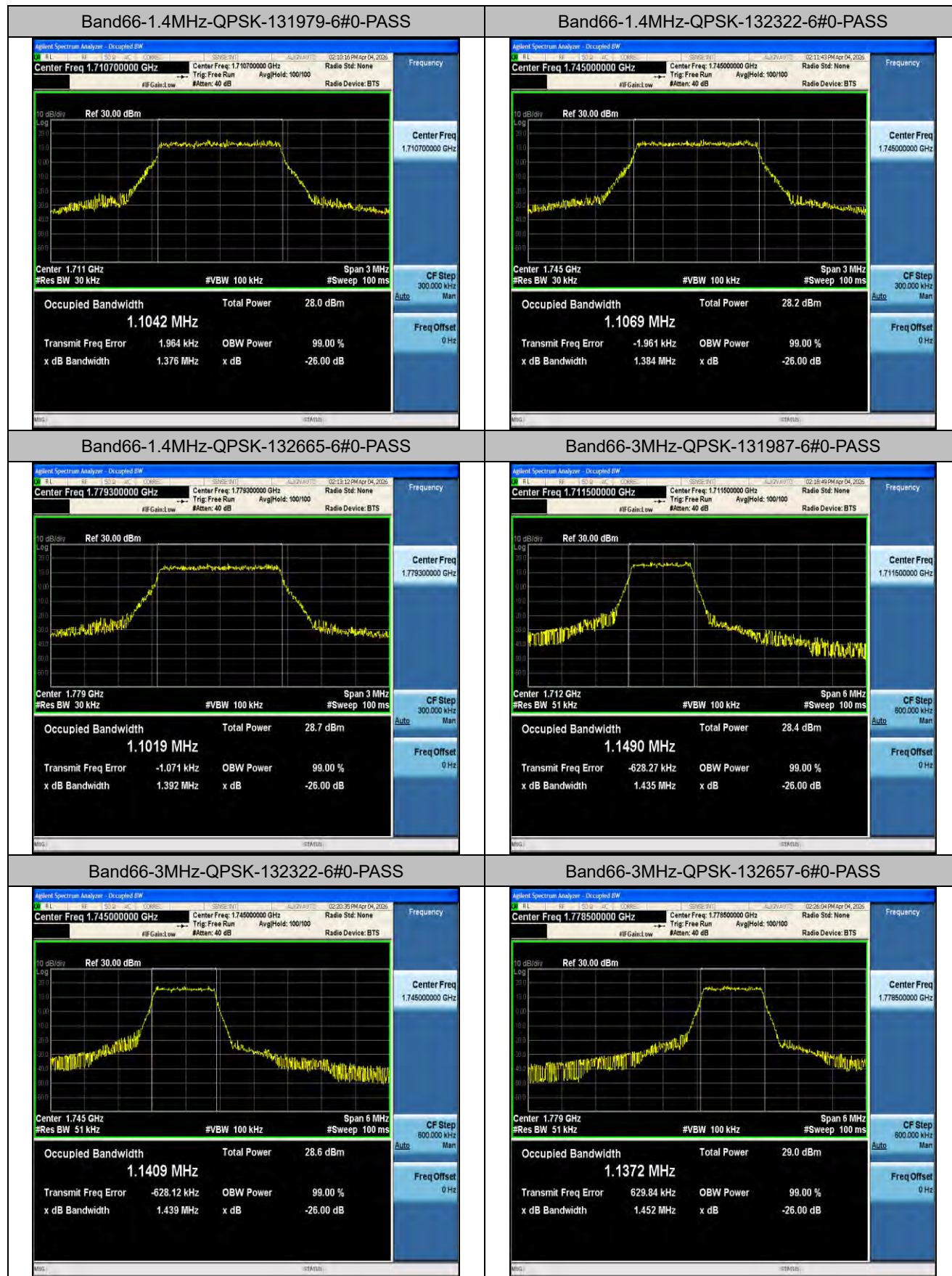
Band66-20MHz-16QAM-132572-6#0-PASS



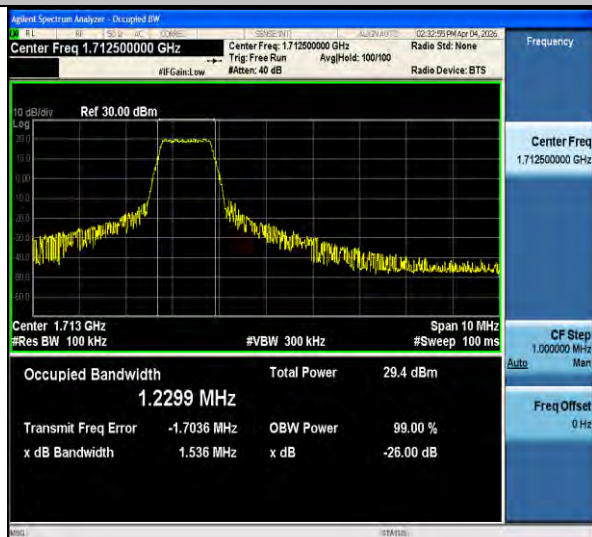
26dB Bandwidth and Occupied Bandwidth for M1**Test Result**

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band66	1.4MHz	QPSK	131979	6	0	Low	1.1042	1.376	PASS
Band66	1.4MHz	QPSK	132322	6	0	Low	1.1069	1.384	PASS
Band66	1.4MHz	QPSK	132665	6	0	High	1.1019	1.392	PASS
Band66	3MHz	QPSK	131987	6	0	Low	1.1490	1.435	PASS
Band66	3MHz	QPSK	132322	6	0	Low	1.1409	1.439	PASS
Band66	3MHz	QPSK	132657	6	0	High	1.1372	1.452	PASS
Band66	5MHz	QPSK	131997	6	0	Low	1.2299	1.536	PASS
Band66	5MHz	QPSK	132322	6	0	Low	1.2305	1.533	PASS
Band66	5MHz	QPSK	132647	6	0	High	1.2223	1.554	PASS
Band66	10MHz	QPSK	132022	6	0	Low	1.3468	1.729	PASS
Band66	10MHz	QPSK	132322	6	0	Low	1.3595	1.714	PASS
Band66	10MHz	QPSK	132622	6	0	High	1.3662	1.790	PASS
Band66	15MHz	QPSK	132047	6	0	Low	1.5217	1.983	PASS
Band66	15MHz	QPSK	132322	6	0	Low	1.5360	2.042	PASS
Band66	15MHz	QPSK	132597	6	0	High	1.5134	1.924	PASS
Band66	20MHz	QPSK	132072	6	0	Low	1.8871	2.421	PASS
Band66	20MHz	QPSK	132322	6	0	Low	1.8808	2.410	PASS
Band66	20MHz	QPSK	132572	6	0	High	1.8928	2.416	PASS
Band66	1.4MHz	16QAM	131979	5	0	Low	0.96386	1.371	PASS
Band66	1.4MHz	16QAM	132322	5	0	Low	0.96748	1.377	PASS
Band66	1.4MHz	16QAM	132665	5	0	High	0.97354	1.332	PASS
Band66	3MHz	16QAM	131987	5	0	Low	1.0333	1.439	PASS
Band66	3MHz	16QAM	132322	5	0	Low	1.0450	1.424	PASS
Band66	3MHz	16QAM	132657	5	0	High	1.0358	1.413	PASS
Band66	5MHz	16QAM	131997	5	0	Low	1.1291	1.503	PASS
Band66	5MHz	16QAM	132322	5	0	Low	1.1269	1.512	PASS
Band66	5MHz	16QAM	132647	5	0	High	1.1418	1.506	PASS
Band66	10MHz	16QAM	132022	5	0	Low	1.2808	1.670	PASS
Band66	10MHz	16QAM	132322	5	0	Low	1.2829	1.648	PASS
Band66	10MHz	16QAM	132622	5	0	High	1.2910	1.637	PASS
Band66	15MHz	16QAM	132047	5	0	Low	1.4263	1.861	PASS
Band66	15MHz	16QAM	132322	5	0	Low	1.4300	1.859	PASS
Band66	15MHz	16QAM	132597	5	0	High	1.4481	1.871	PASS
Band66	20MHz	16QAM	132072	5	0	Low	1.7916	2.337	PASS
Band66	20MHz	16QAM	132322	5	0	Low	1.7710	2.505	PASS
Band66	20MHz	16QAM	132572	5	0	High	1.7820	2.337	PASS

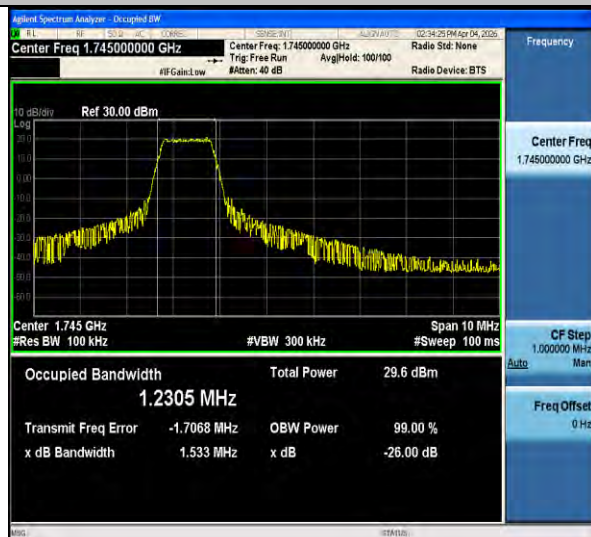
Test Graphs



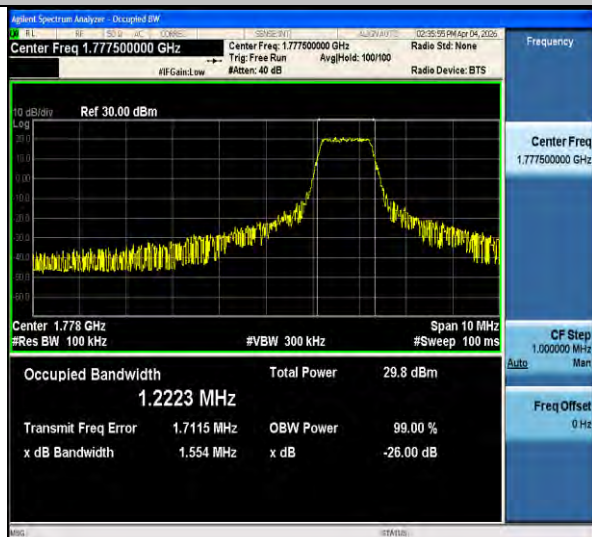
Band66-5MHz-QPSK-131997-6#0-PASS



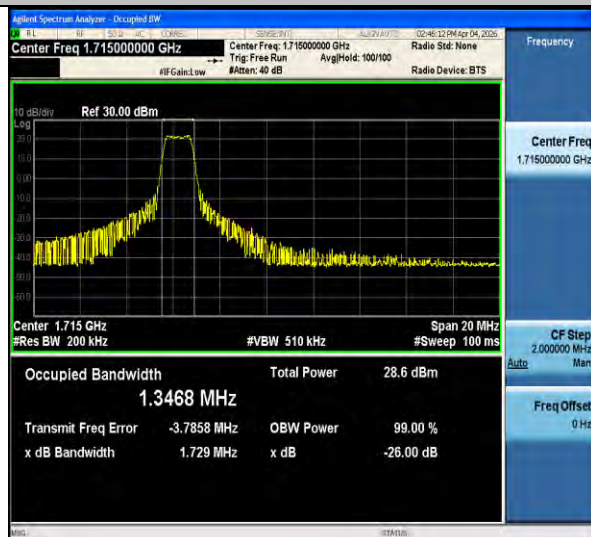
Band66-5MHz-QPSK-132322-6#0-PASS



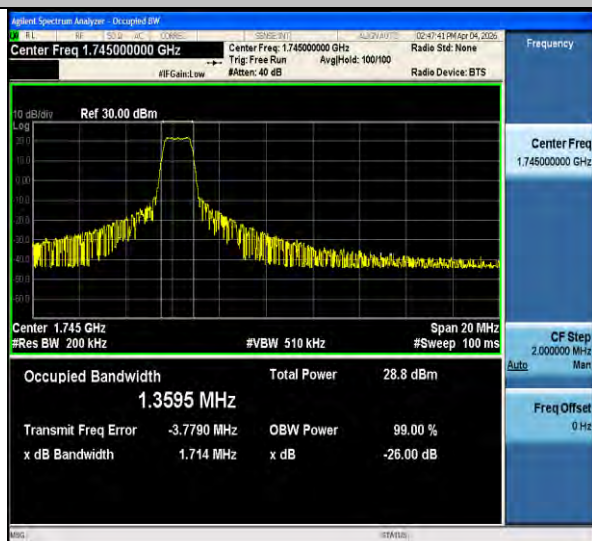
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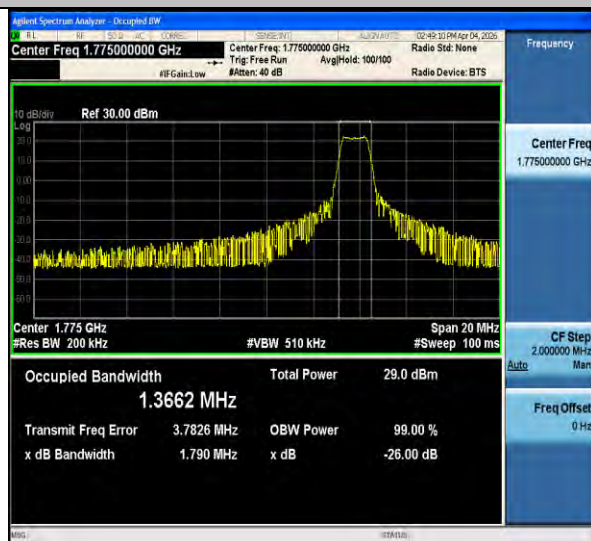
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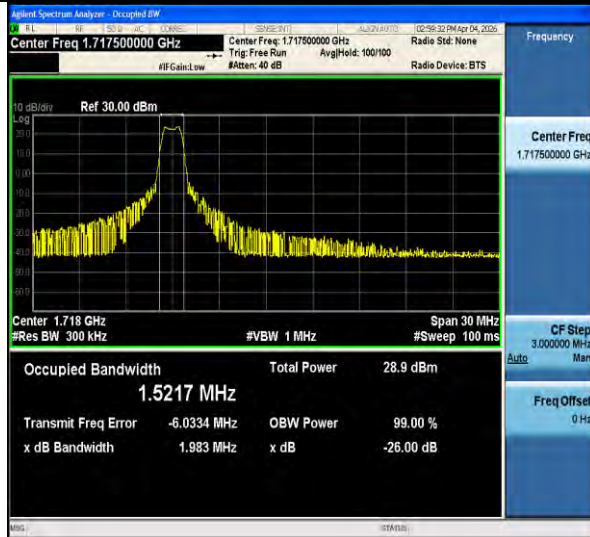
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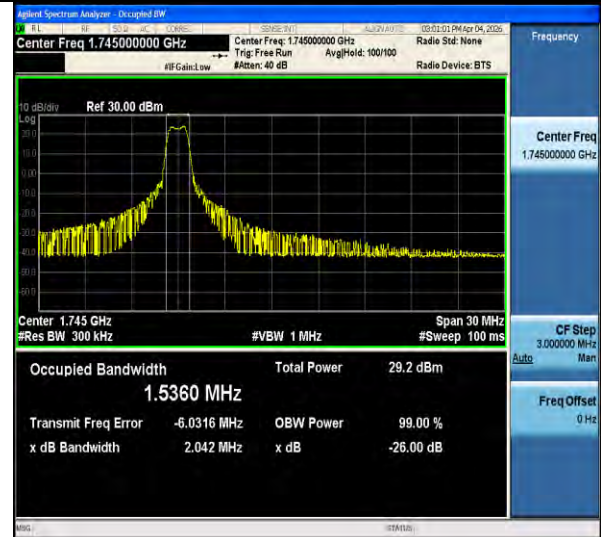
Band66-10MHz-QPSK-132622-6#0-PASS



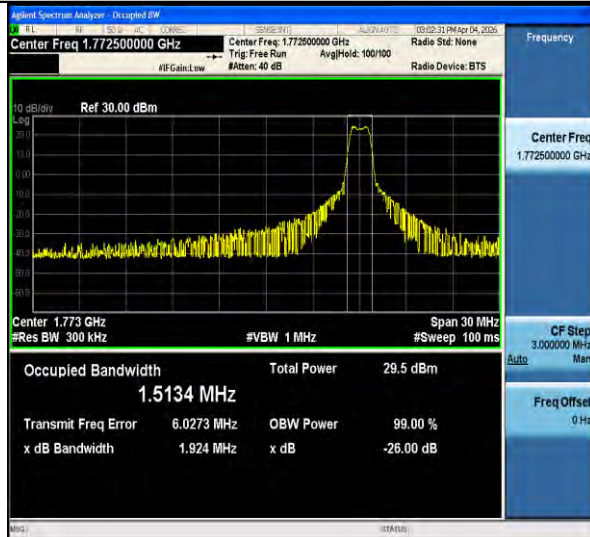
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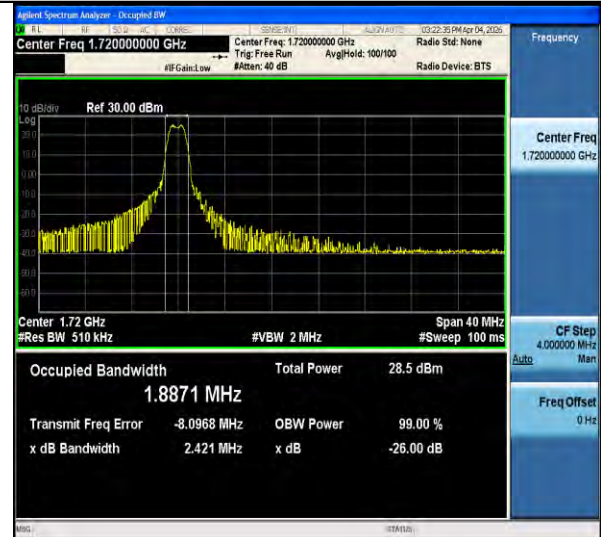
Band66-15MHz-QPSK-132322-6#0-PASS



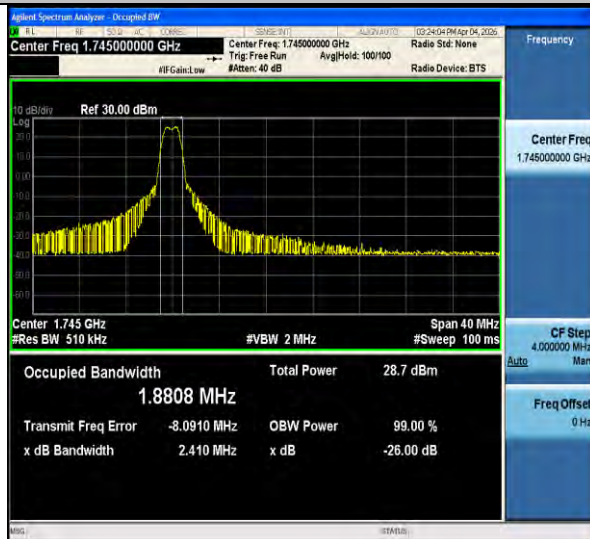
Band66-15MHz-QPSK-132597-6#0-PASS



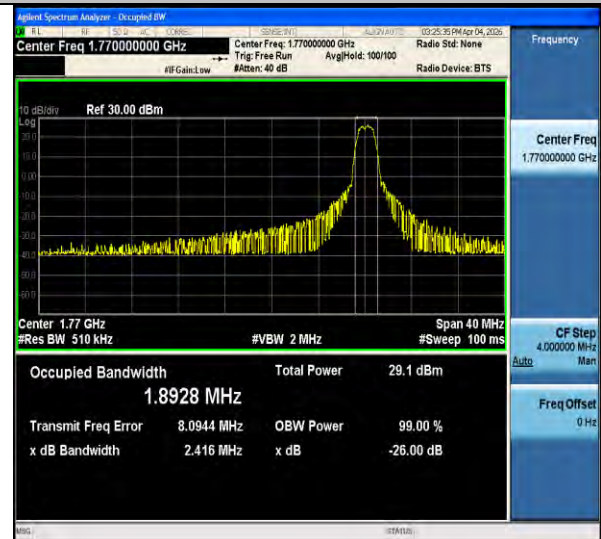
Band66-20MHz-QPSK-132072-6#0-PASS



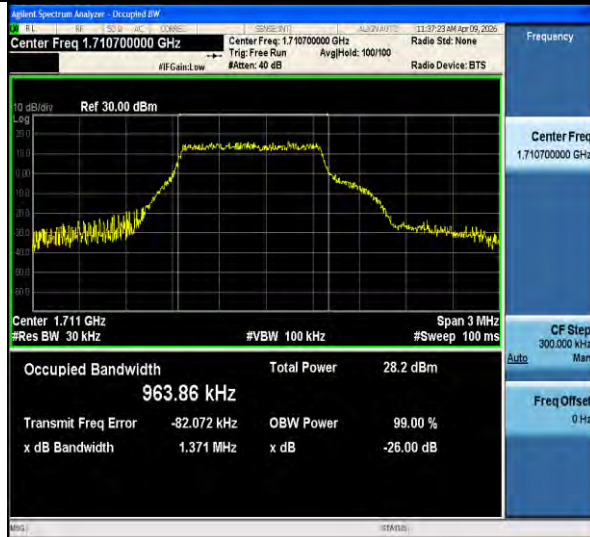
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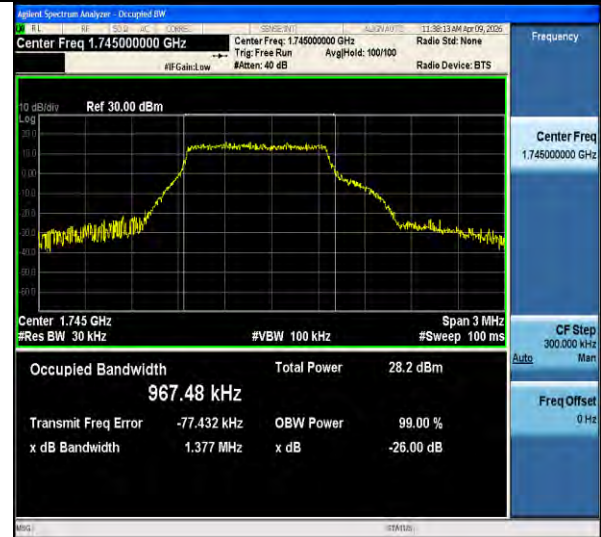
Band66-20MHz-QPSK-132572-6#0-PASS



Band66-1.4MHz-16QAM-131979-5#0-PASS



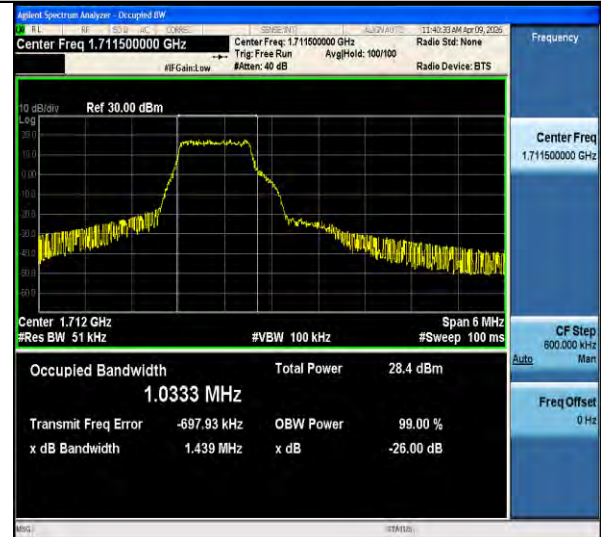
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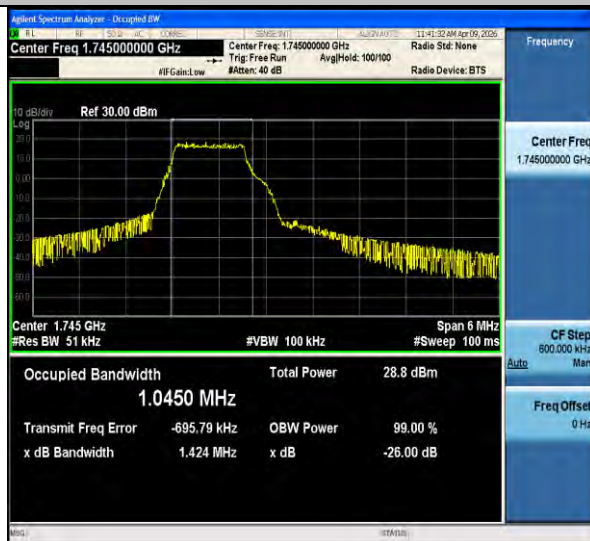
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Band66-3MHz-16QAM-131987-5#0-PASS



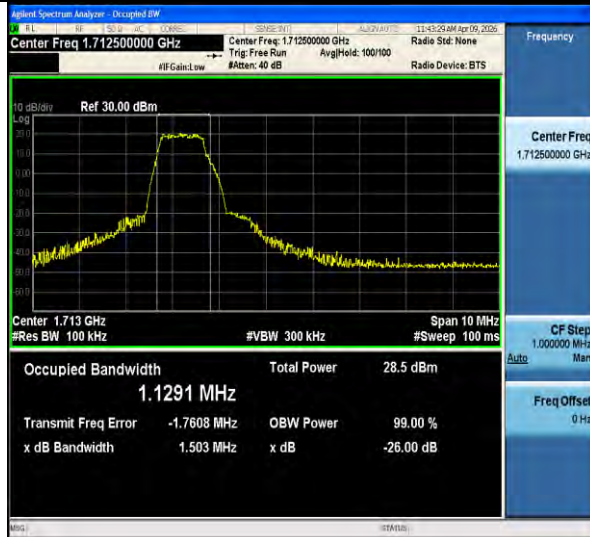
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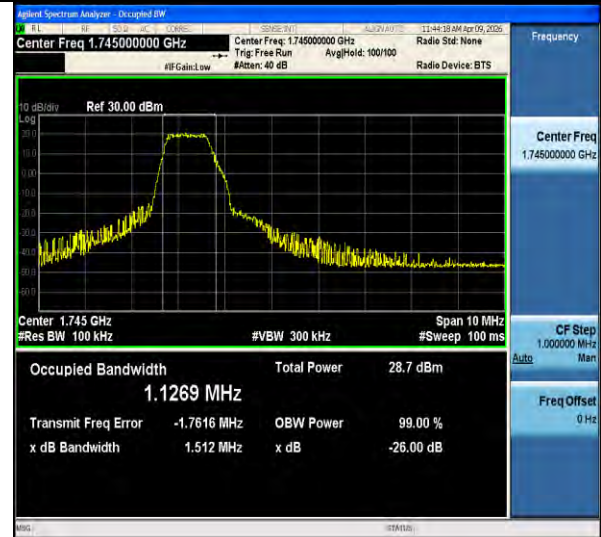
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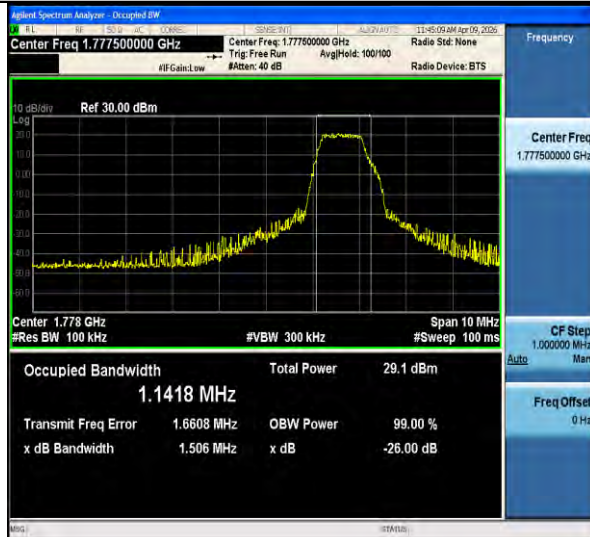
Band66-5MHz-16QAM-131997-5#0-PASS



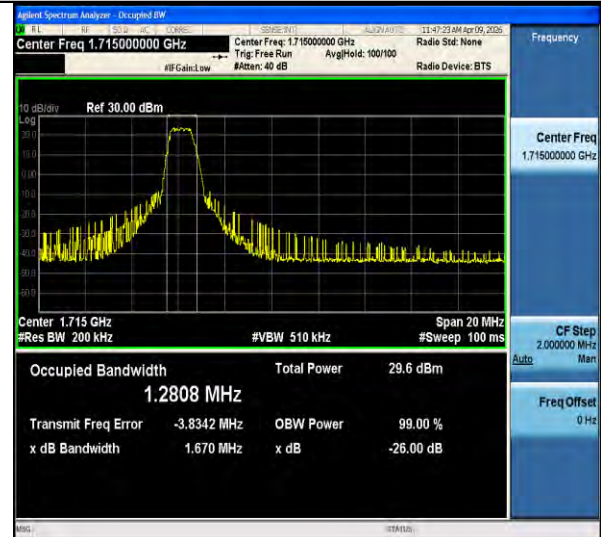
Band66-5MHz-16QAM-132322-5#0-PASS



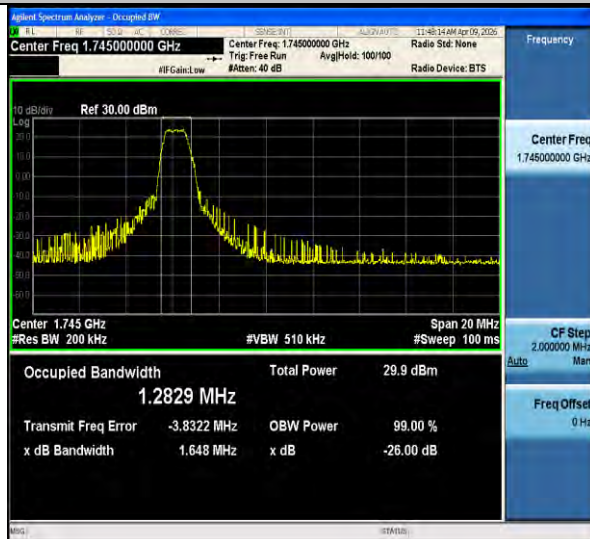
Band66-5MHz-16QAM-132647-5#0-PASS



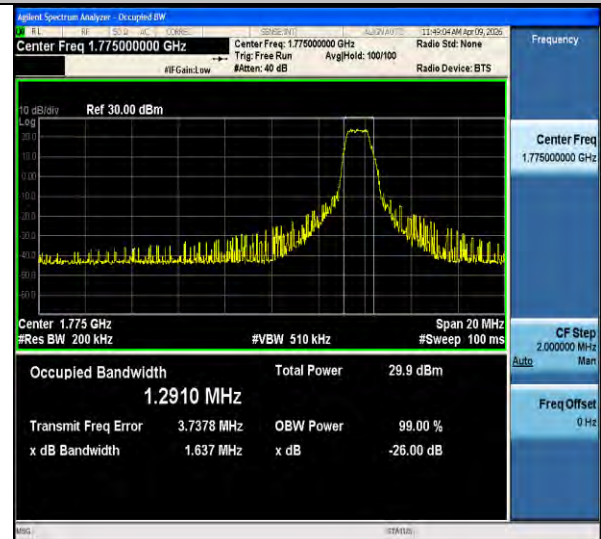
Band66-10MHz-16QAM-132022-5#0-PASS



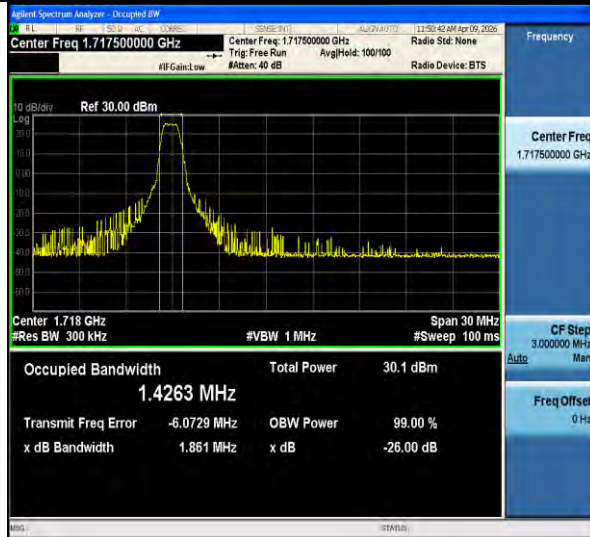
Band66-10MHz-16QAM-132322-5#0-PASS



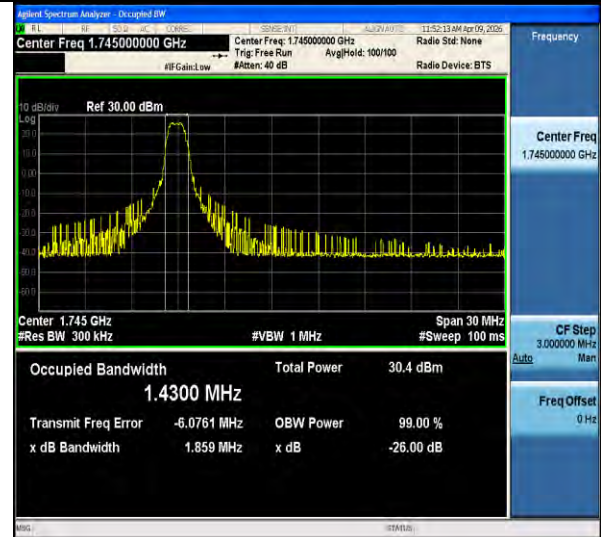
Band66-10MHz-16QAM-132622-5#0-PASS



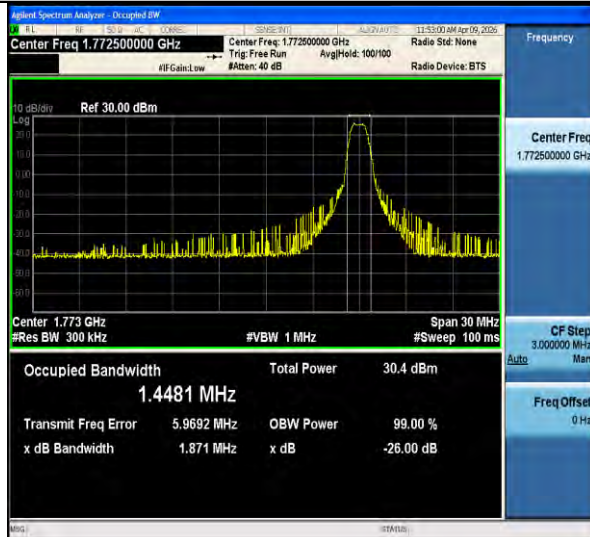
Band66-15MHz-16QAM-132047-5#0-PASS



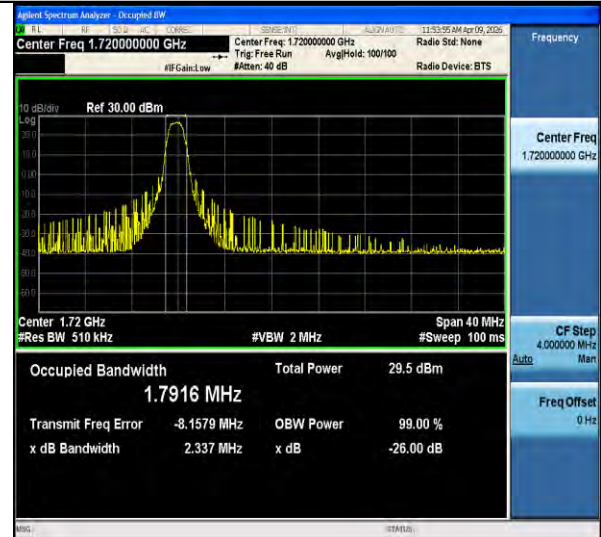
Band66-15MHz-16QAM-132322-5#0-PASS



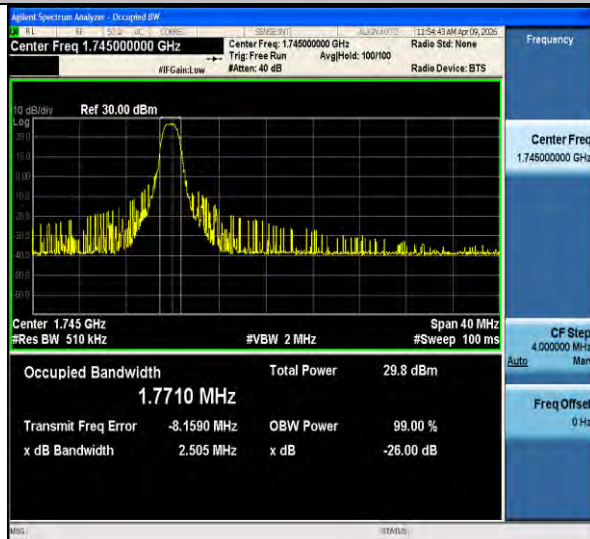
Band66-15MHz-16QAM-132597-5#0-PASS



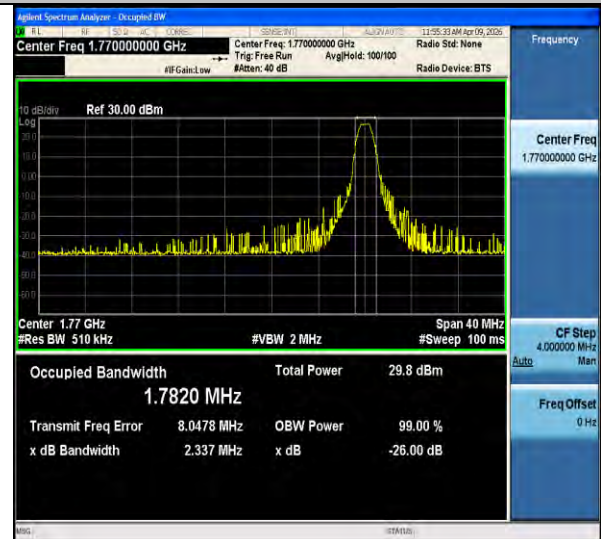
Band66-20MHz-16QAM-132072-5#0-PASS



Band66-20MHz-16QAM-132322-5#0-PASS

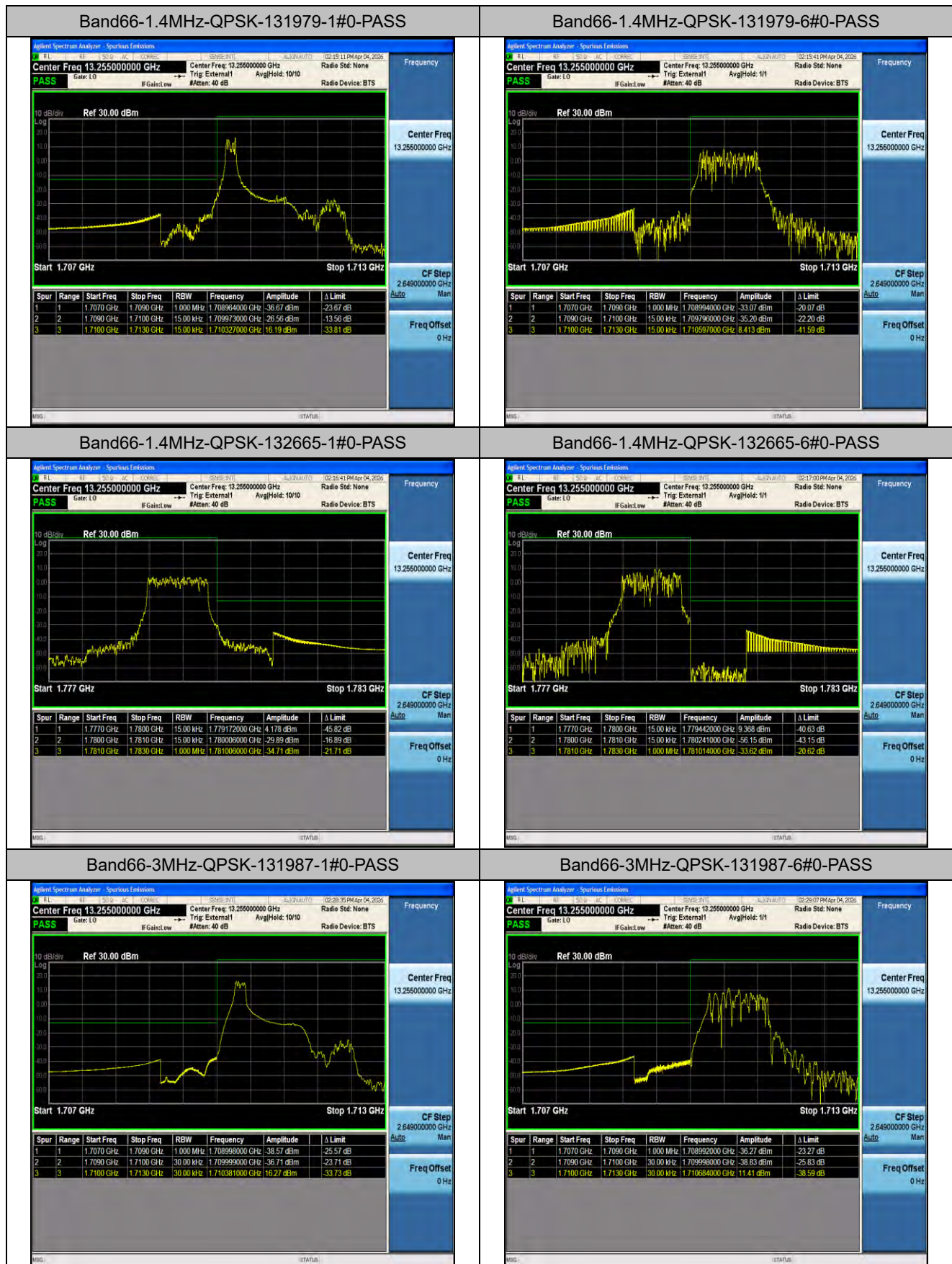


Band66-20MHz-16QAM-132572-5#0-PASS



Band Edge for M1

Test Graphs



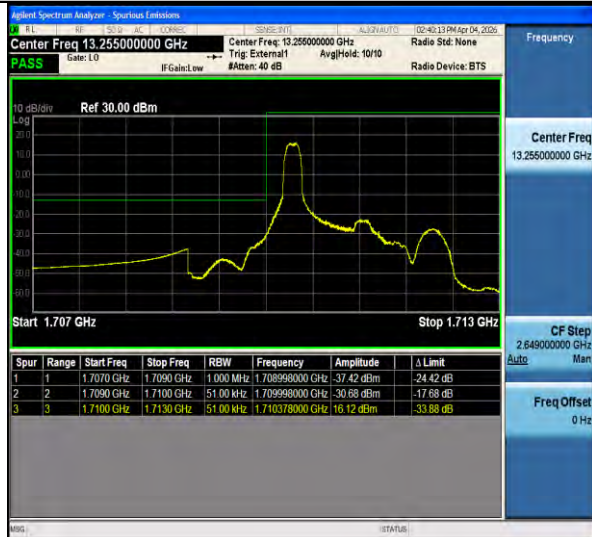
Band66-3MHz-QPSK-132657-1#0-PASS



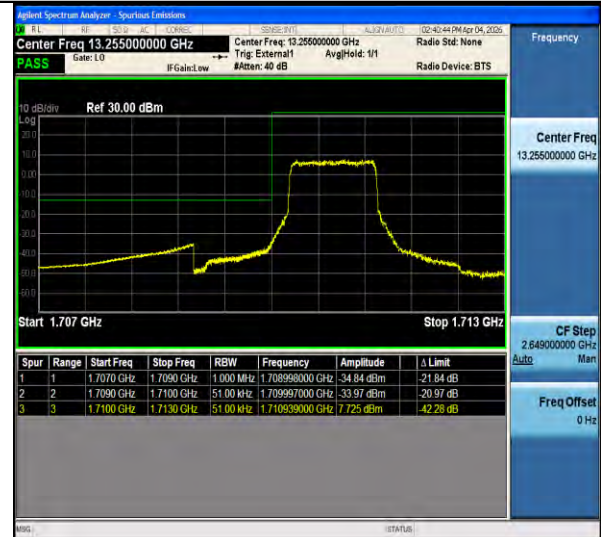
Band66-3MHz-QPSK-132657-6#0-PASS



Band66-5MHz-QPSK-131997-1#0-PASS



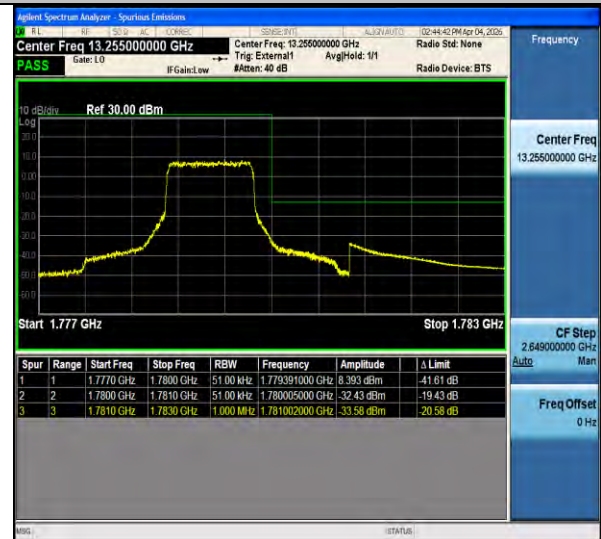
Band66-5MHz-QPSK-131997-6#0-PASS

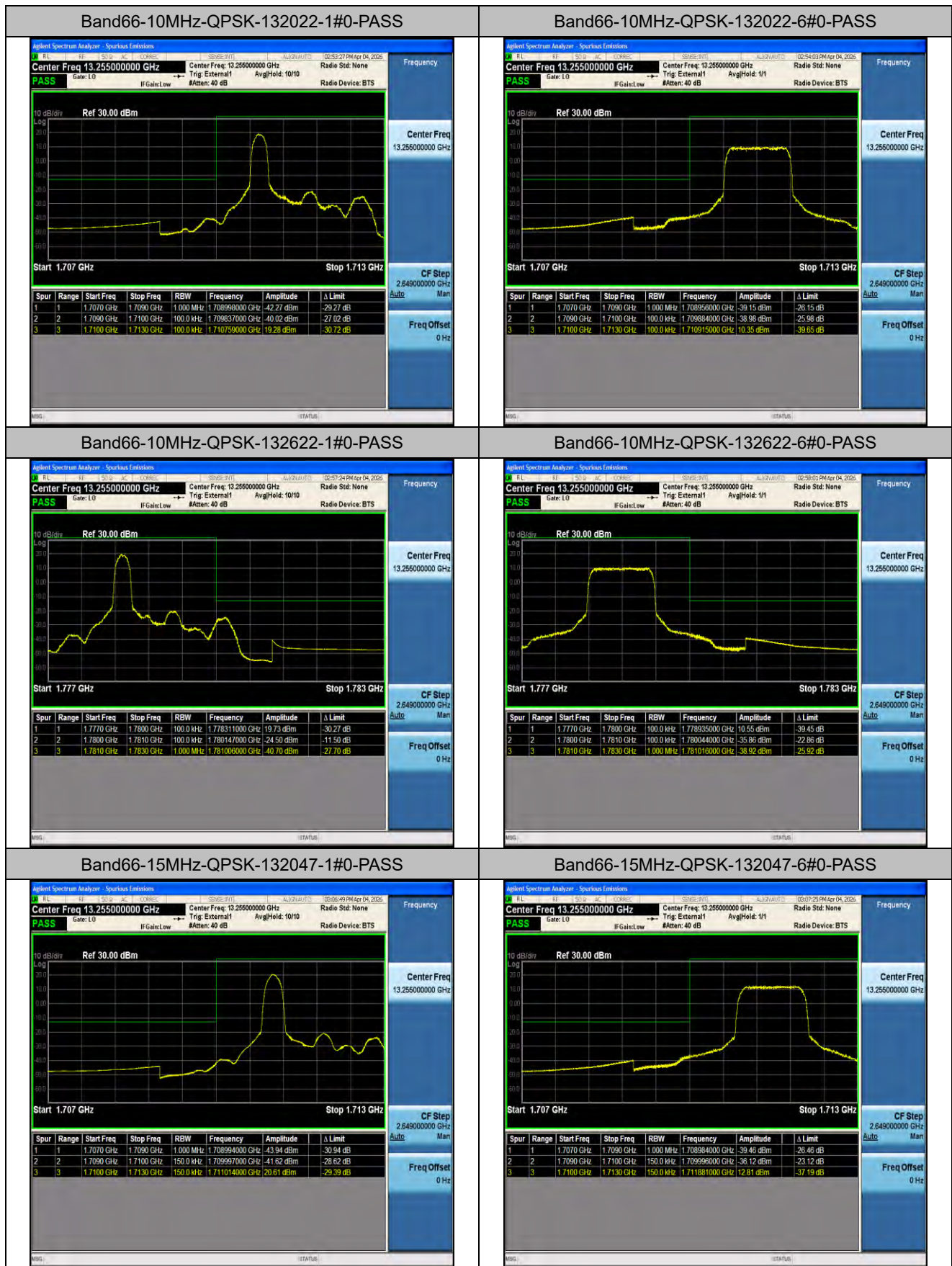


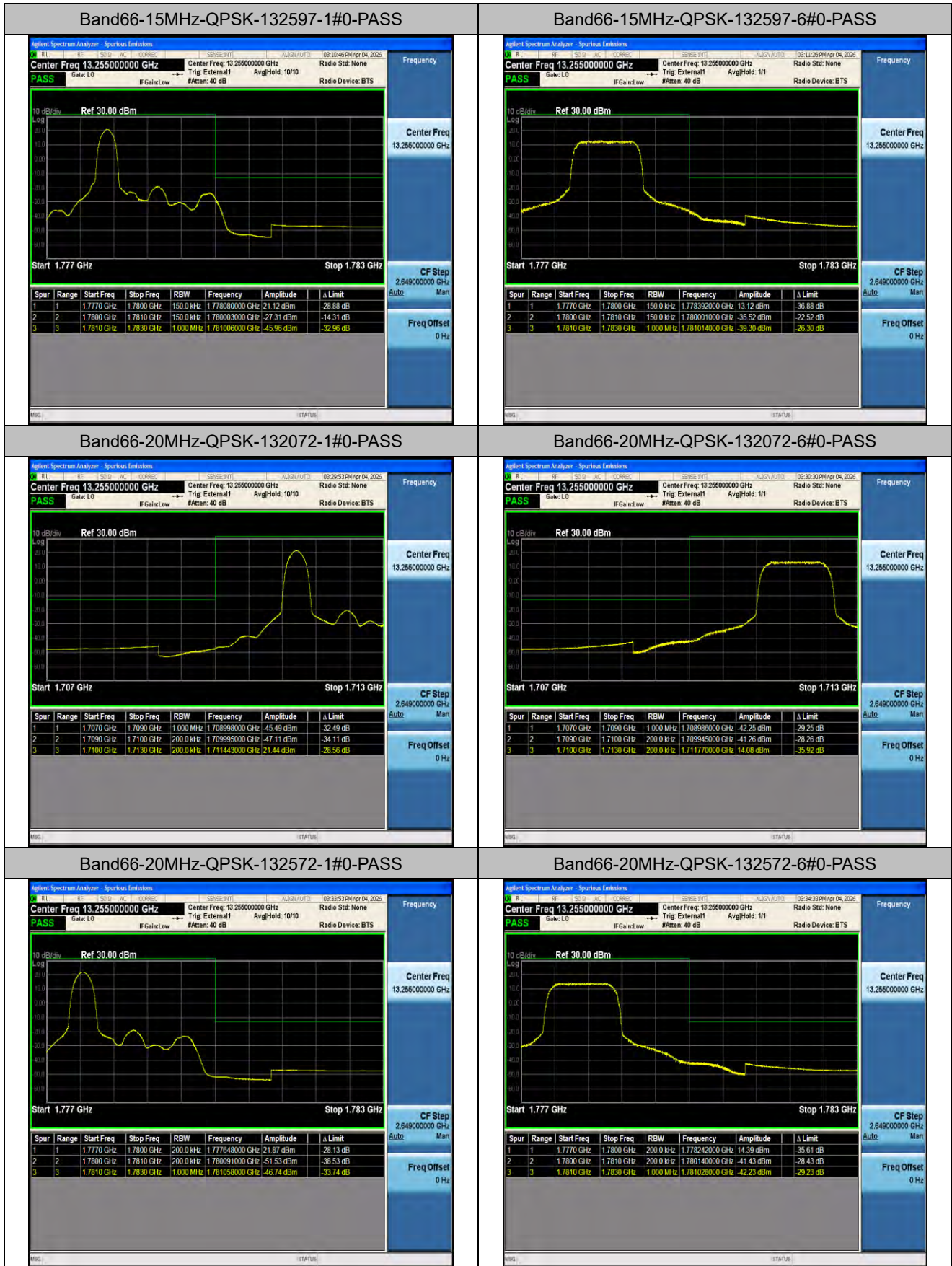
Band66-5MHz-QPSK-132647-1#0-PASS



Band66-5MHz-QPSK-132647-6#0-PASS

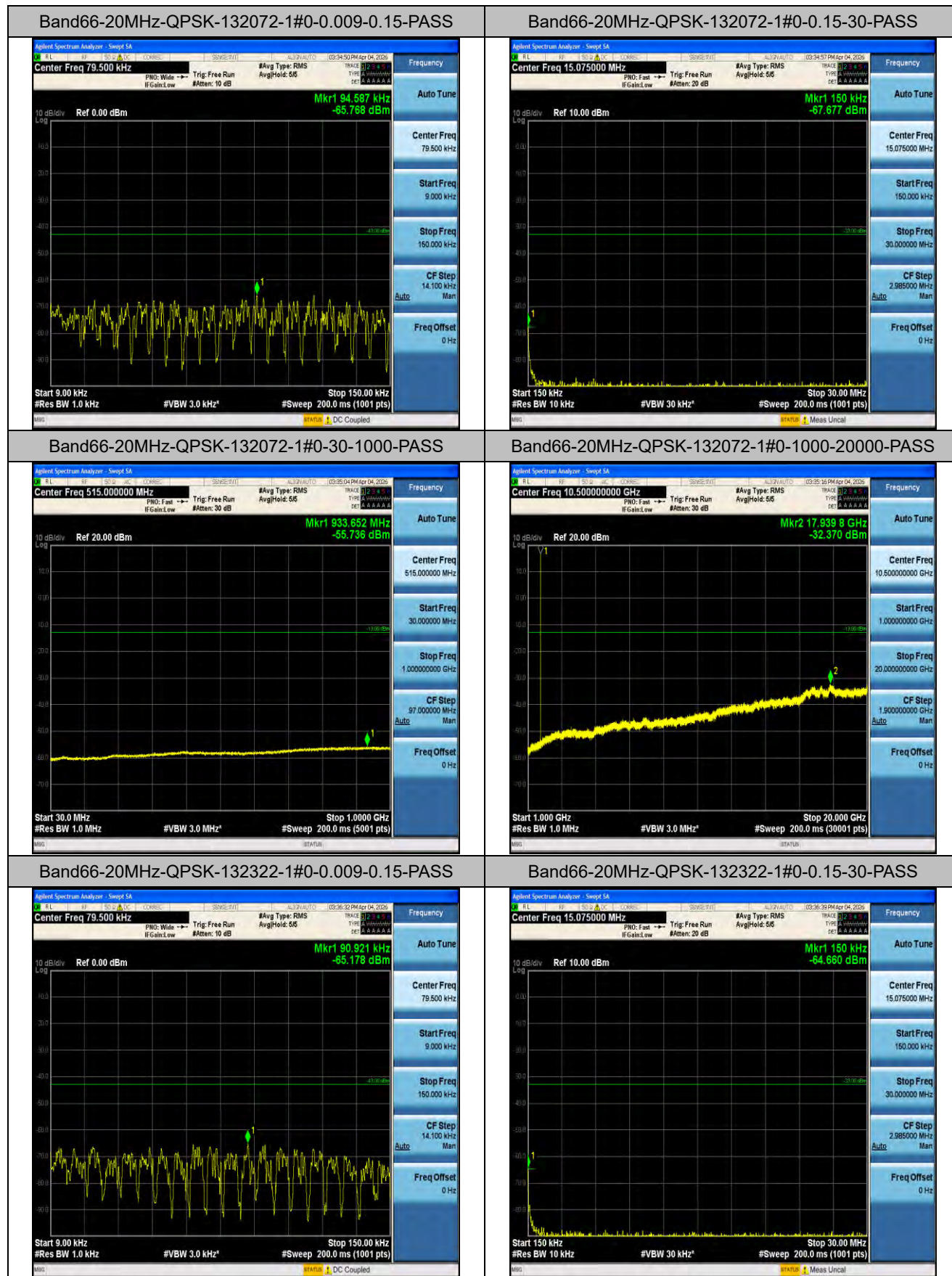






Conducted Spurious Emission for M1

Test Graphs



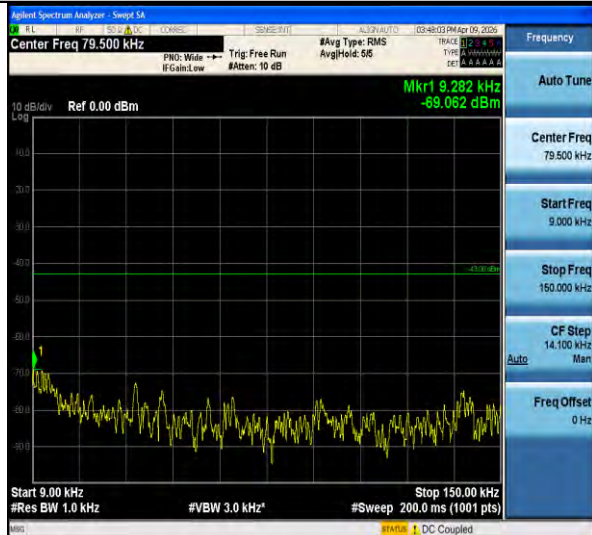
Band66-20MHz-QPSK-132322-1#0-30-1000-PASS



Band66-20MHz-QPSK-132322-1#0-1000-20000-PASS



Band66-20MHz-QPSK-132572-1#0-0.009-0.15-PASS



Band66-20MHz-QPSK-132572-1#0-0.15-30-PASS



Band66-20MHz-QPSK-132572-1#0-30-1000-PASS



Band66-20MHz-QPSK-132572-1#0-1000-20000-PASS



Frequency Stability for M1

Test Result

Voltage											
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band66	20MHz	QPSK	132322	6	0	Low	VN	NT	-9.80	-0.005616	PASS
Band66	20MHz	QPSK	132322	6	0	Low	VL	NT	-12.30	-0.007049	PASS
Band66	20MHz	QPSK	132322	6	0	Low	VH	NT	-6.20	-0.003553	PASS

Temperature											
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band66	20MHz	QPSK	132322	6	0	Low	NV	-30	-8.40	-0.004814	PASS
Band66	20MHz	QPSK	132322	6	0	Low	NV	-20	-9.10	-0.005215	PASS
Band66	20MHz	QPSK	132322	6	0	Low	NV	-10	-10.00	-0.005731	PASS
Band66	20MHz	QPSK	132322	6	0	Low	NV	0	-11.50	-0.006590	PASS
Band66	20MHz	QPSK	132322	6	0	Low	NV	10	-13.90	-0.007966	PASS
Band66	20MHz	QPSK	132322	6	0	Low	NV	20	-15.40	-0.008825	PASS
Band66	20MHz	QPSK	132322	6	0	Low	NV	30	-16.20	-0.009284	PASS
Band66	20MHz	QPSK	132322	6	0	Low	NV	40	-10.50	-0.006017	PASS
Band66	20MHz	QPSK	132322	6	0	Low	NV	50	-7.90	-0.004527	PASS

~The End~