

Appendix-B LTE Band 5

Effective Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	ERP(dBm)	Limit(dBm)	Verdict
Band5	1.4MHz	QPSK	20407	1RB#0	24.05	23.22	38.45	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	23.47	22.64	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#2	24.54	23.71	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	23.72	22.89	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	23.98	23.15	38.45	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	23.18	22.35	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#2	24.5	23.67	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#5	23.51	22.68	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	23.43	22.60	38.45	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	23.18	22.35	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#2	24.2	23.37	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	24.14	23.31	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	23.49	22.66	38.45	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	22.68	21.85	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#2	23.98	23.15	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	23.3	22.47	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	23.39	22.56	38.45	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	22.27	21.44	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#2	23.95	23.12	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#5	22.86	22.03	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	22.74	21.91	38.45	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	22.18	21.35	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#2	23.47	22.64	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	23.39	22.56	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#0	24.11	23.28	38.45	PASS
Band5	3MHz	QPSK	20415	15RB#0	23.43	22.60	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#8	24.57	23.74	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#14	22.91	22.08	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#0	23.73	22.90	38.45	PASS
Band5	3MHz	QPSK	20525	15RB#0	23.08	22.25	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#8	24.55	23.72	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#14	23.26	22.43	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#0	22.73	21.90	38.45	PASS
Band5	3MHz	QPSK	20635	15RB#0	23.06	22.23	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#8	24.44	23.61	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#14	24.14	23.31	38.45	PASS

Band5	3MHz	16QAM	20415	1RB#0	23.54	22.71	38.45	PASS
Band5	3MHz	16QAM	20415	15RB#0	22.52	21.69	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#8	23.96	23.13	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#14	22.22	21.39	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#0	23	22.17	38.45	PASS
Band5	3MHz	16QAM	20525	15RB#0	22.17	21.34	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#8	23.9	23.07	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#14	22.58	21.75	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#0	21.98	21.15	38.45	PASS
Band5	3MHz	16QAM	20635	15RB#0	22.14	21.31	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#8	23.63	22.80	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#14	23.53	22.70	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#0	24.16	23.33	38.45	PASS
Band5	5MHz	QPSK	20425	25RB#0	23.19	22.36	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#12	23.94	23.11	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#24	23.22	22.39	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#0	23.94	23.11	38.45	PASS
Band5	5MHz	QPSK	20525	25RB#0	23.13	22.30	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#12	23.93	23.10	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#24	23.04	22.21	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#0	23.21	22.38	38.45	PASS
Band5	5MHz	QPSK	20625	25RB#0	23.12	22.29	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#12	23.75	22.92	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#24	24.16	23.33	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#0	23.51	22.68	38.45	PASS
Band5	5MHz	16QAM	20425	25RB#0	22.19	21.36	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#12	23.37	22.54	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#24	22.66	21.83	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#0	23.16	22.33	38.45	PASS
Band5	5MHz	16QAM	20525	25RB#0	22.27	21.44	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#12	23.35	22.52	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#24	22.43	21.60	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#0	22.47	21.64	38.45	PASS
Band5	5MHz	16QAM	20625	25RB#0	22.1	21.27	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#12	23.17	22.34	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#24	23.36	22.53	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#0	24.46	23.63	38.45	PASS
Band5	10MHz	QPSK	20450	50RB#0	23.28	22.45	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#24	23.9	23.07	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#49	23.49	22.66	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#0	23.96	23.13	38.45	PASS
Band5	10MHz	QPSK	20525	50RB#0	23.36	22.53	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#24	24.51	23.68	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#49	23.79	22.96	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#0	23.54	22.71	38.45	PASS

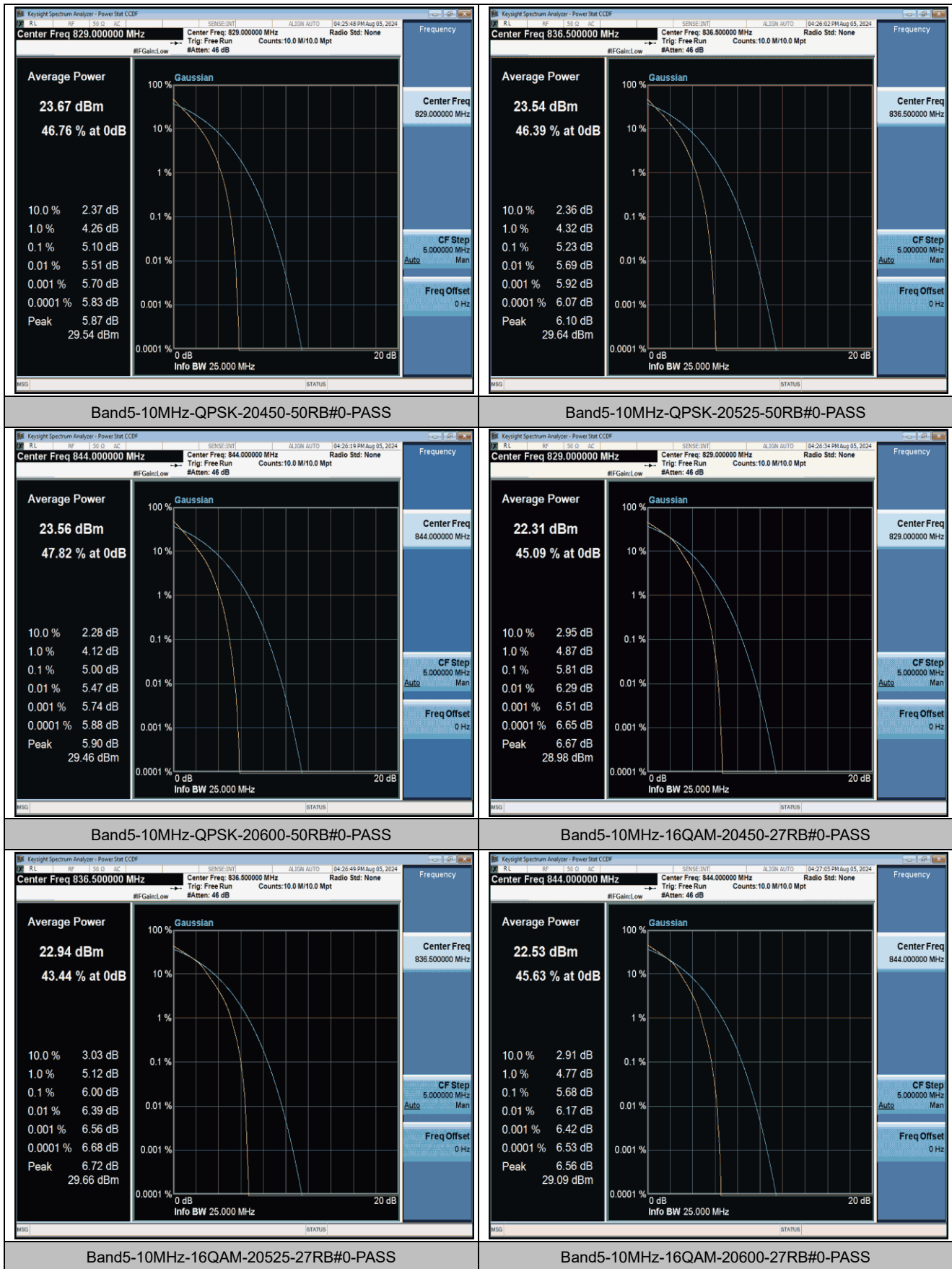
Band5	10MHz	QPSK	20600	50RB#0	23.37	22.54	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#24	23.96	23.13	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#49	24.48	23.65	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#0	23.91	23.08	38.45	PASS
Band5	10MHz	16QAM	20450	27RB#0	22.14	21.31	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#24	23.28	22.45	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#49	22.82	21.99	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#0	23.39	22.56	38.45	PASS
Band5	10MHz	16QAM	20525	27RB#0	22.47	21.64	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#24	23.81	22.98	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#49	23	22.17	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#0	22.71	21.88	38.45	PASS
Band5	10MHz	16QAM	20600	27RB#0	22.4	21.57	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#24	23.14	22.31	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#49	23.75	22.92	38.45	PASS

Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band5	10MHz	QPSK	20450	50RB#0	5.10	13	PASS
Band5	10MHz	QPSK	20525	50RB#0	5.23	13	PASS
Band5	10MHz	QPSK	20600	50RB#0	5.00	13	PASS
Band5	10MHz	16QAM	20450	27RB#0	5.81	13	PASS
Band5	10MHz	16QAM	20525	27RB#0	6.00	13	PASS
Band5	10MHz	16QAM	20600	27RB#0	5.68	13	PASS

Test Graphs

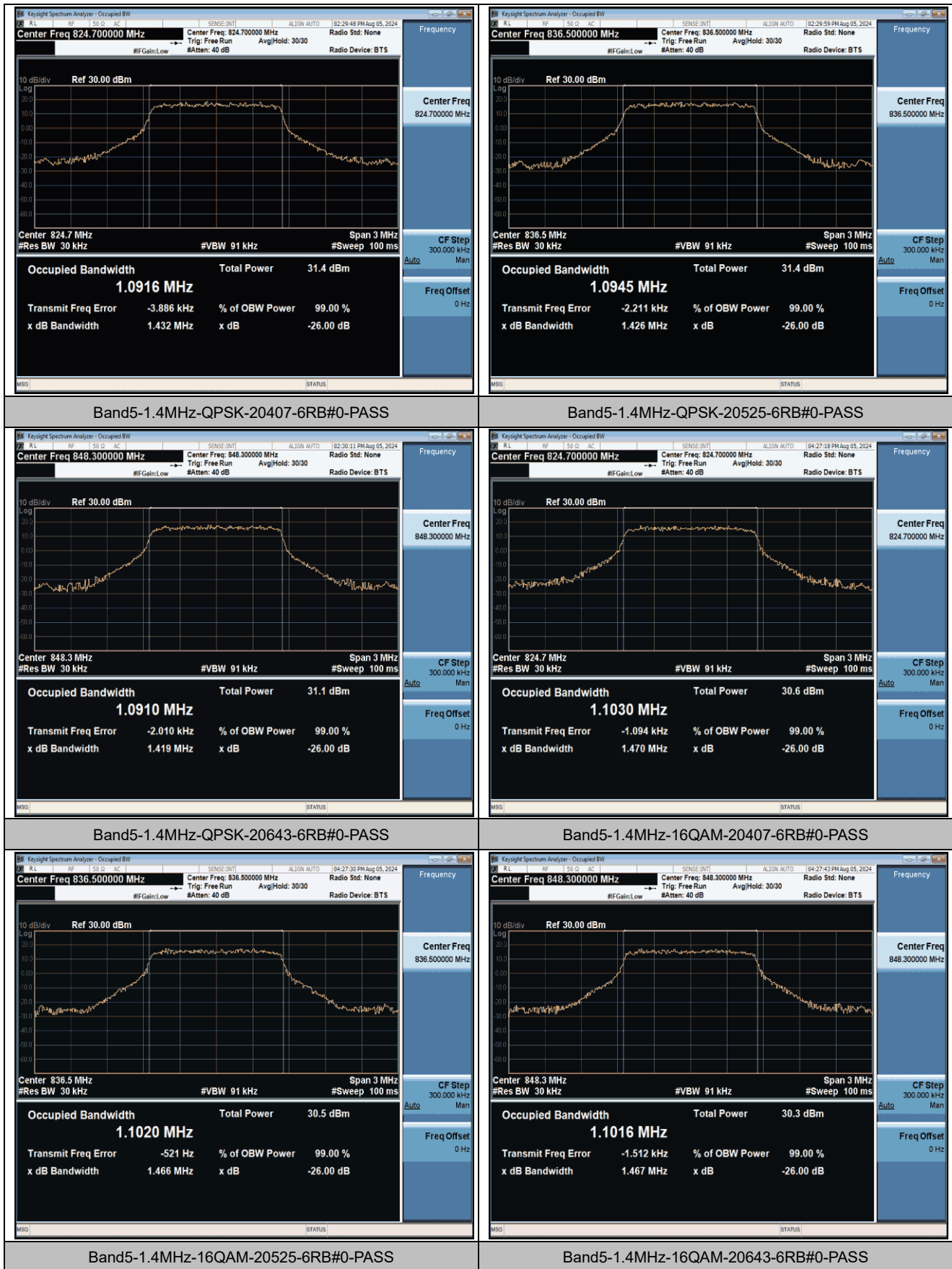


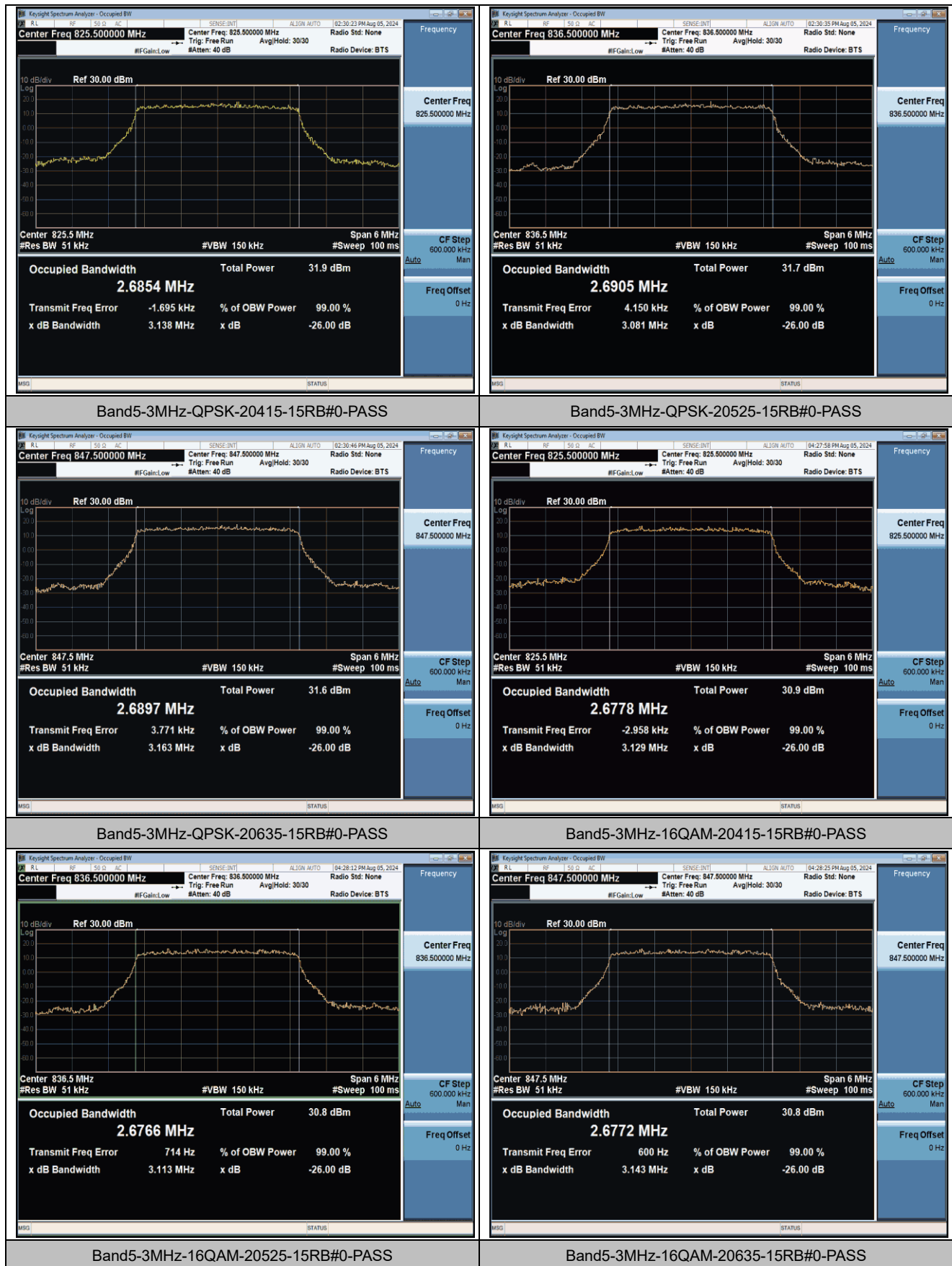
26dB Bandwidth and Occupied Bandwidth

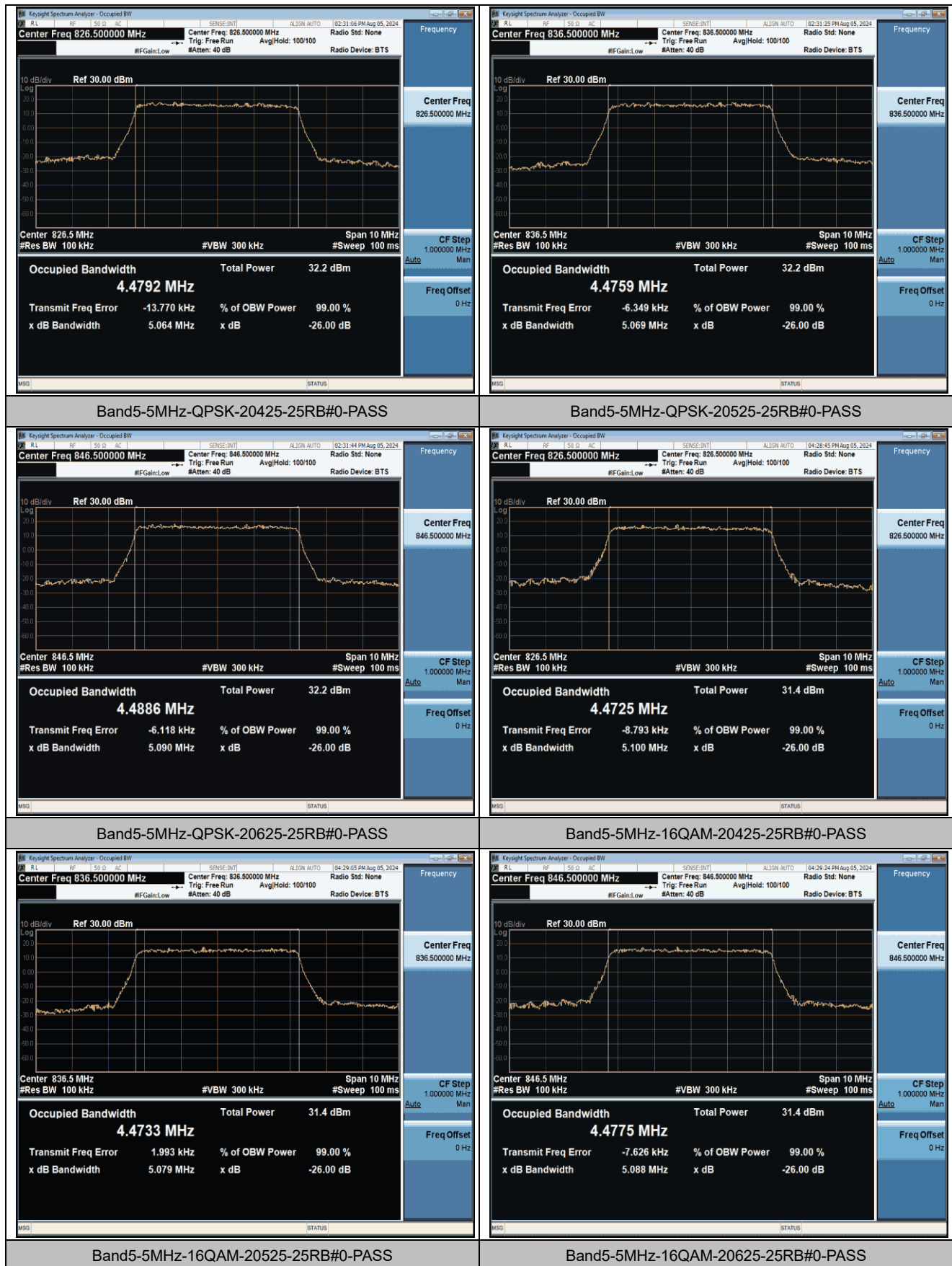
Test Result

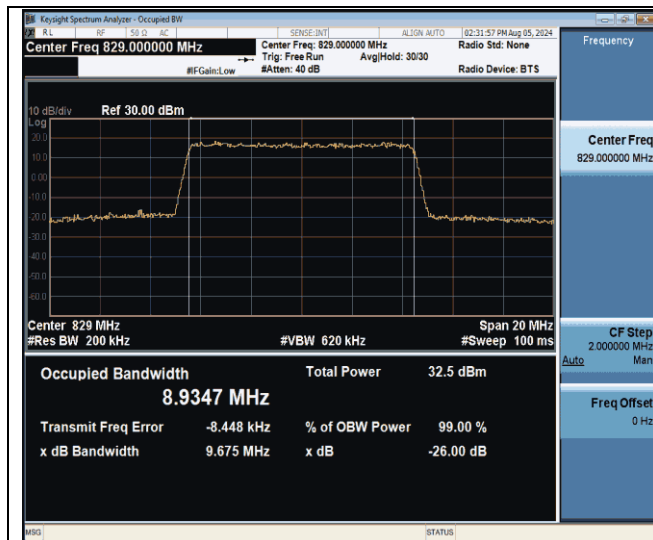
Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	1.0916	1.432	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.0945	1.426	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.0910	1.419	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.1030	1.470	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.1020	1.466	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.1016	1.467	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.6854	3.138	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.6905	3.081	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.6897	3.163	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.6778	3.129	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.6766	3.113	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.6772	3.143	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.4792	5.064	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.4759	5.069	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.4886	5.090	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.4725	5.100	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.4733	5.079	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.4775	5.088	PASS
Band5	10MHz	QPSK	20450	50RB#0	8.9347	9.675	PASS
Band5	10MHz	QPSK	20525	50RB#0	8.9351	9.669	PASS
Band5	10MHz	QPSK	20600	50RB#0	8.9288	9.687	PASS
Band5	10MHz	16QAM	20450	27RB#0	5.1464	7.568	PASS
Band5	10MHz	16QAM	20525	27RB#0	5.2550	8.350	PASS
Band5	10MHz	16QAM	20600	27RB#0	5.1478	7.240	PASS

Test Graphs









Band5-10MHz-QPSK-20450-50RB#0-PASS



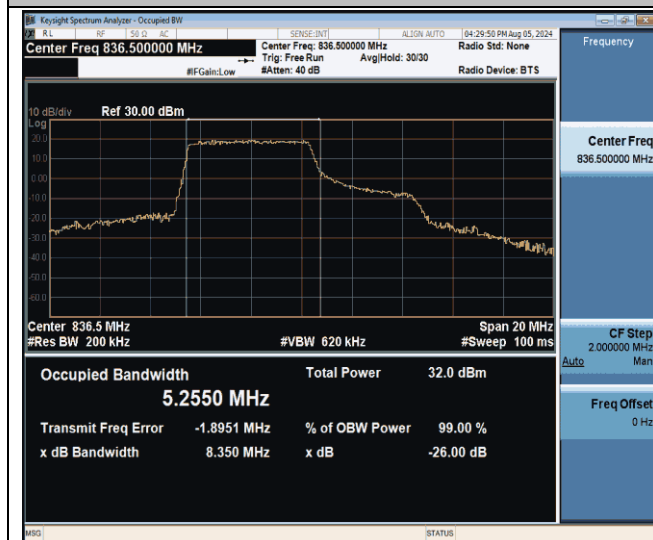
Band5-10MHz-QPSK-20525-50RB#0-PASS



Band5-10MHz-QPSK-20600-50RB#0-PASS



Band5-10MHz-16QAM-20450-27RB#0-PASS



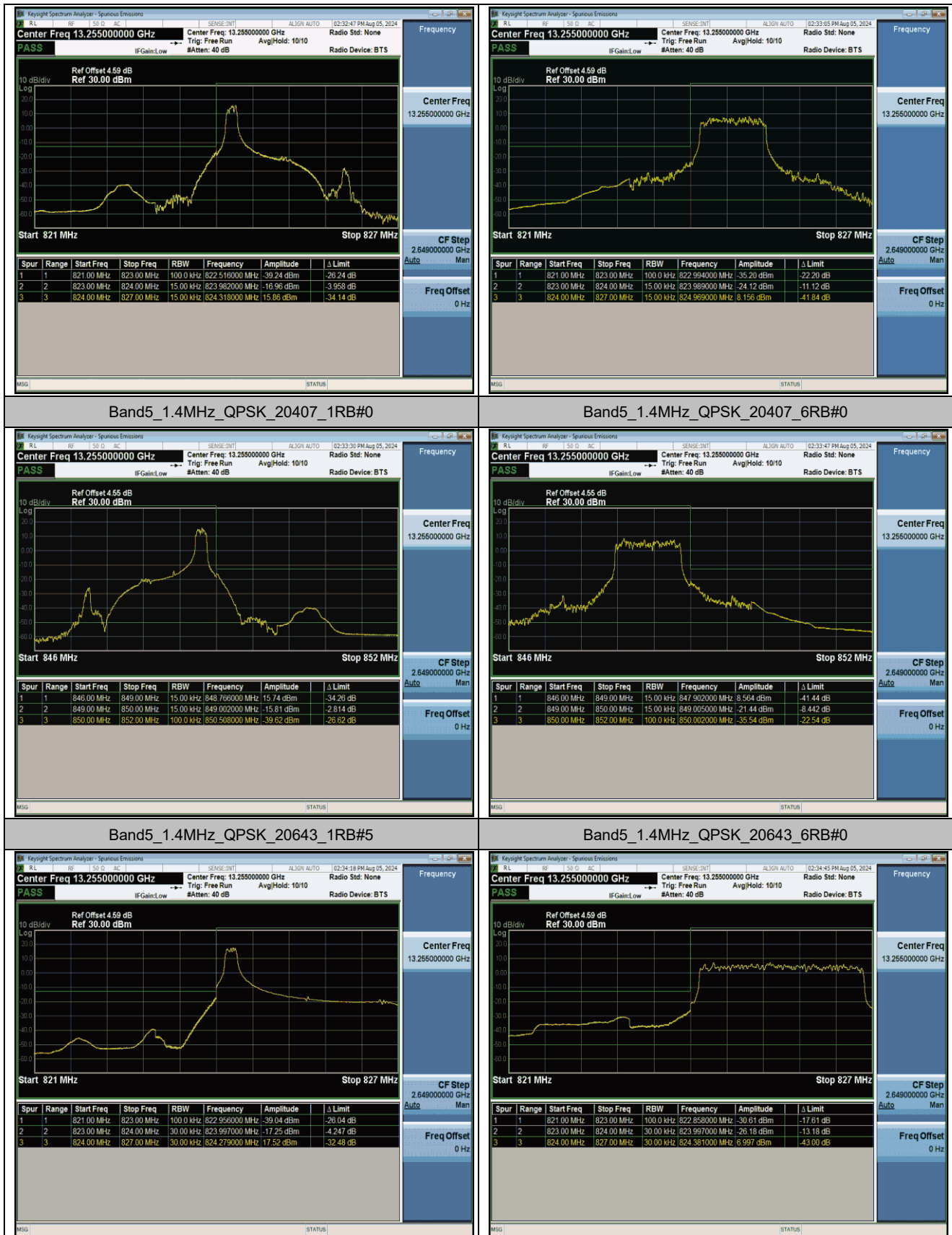
Band5-10MHz-16QAM-20525-27RB#0-PASS

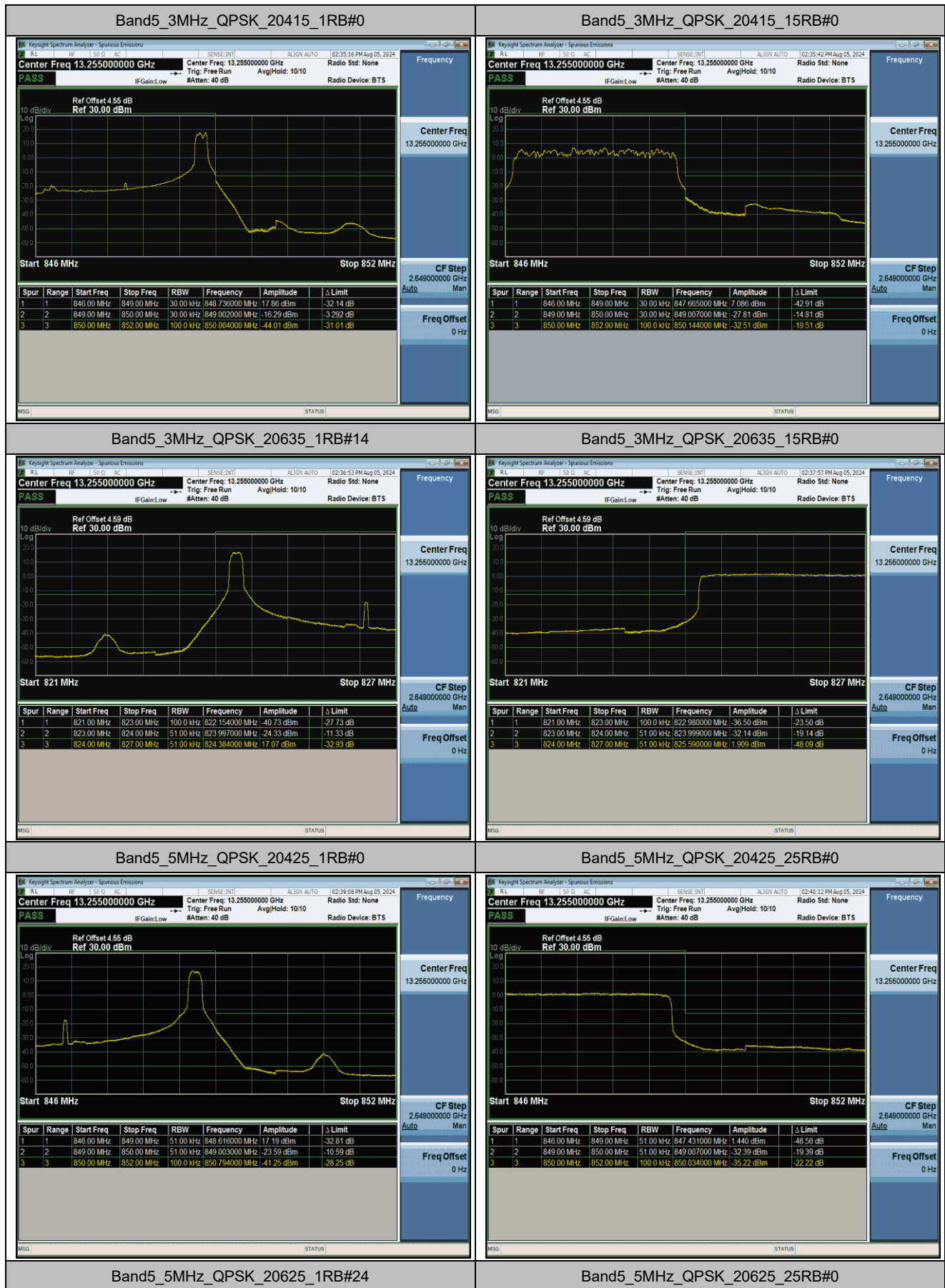


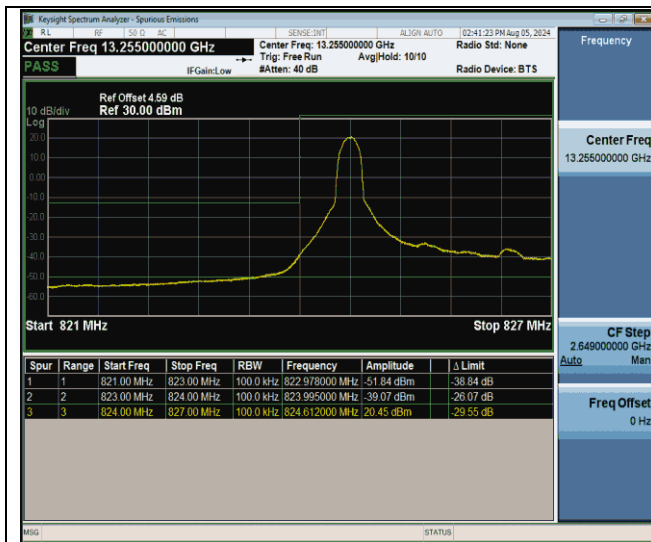
Band5-10MHz-16QAM-20600-27RB#0-PASS

Band Edge

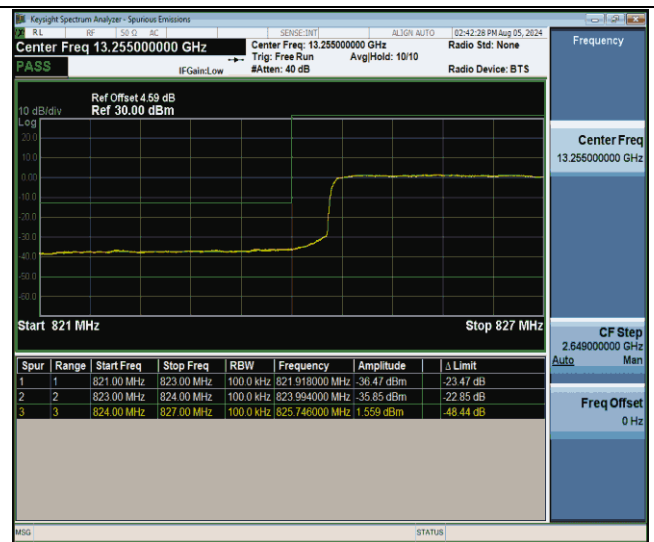
Test Graphs



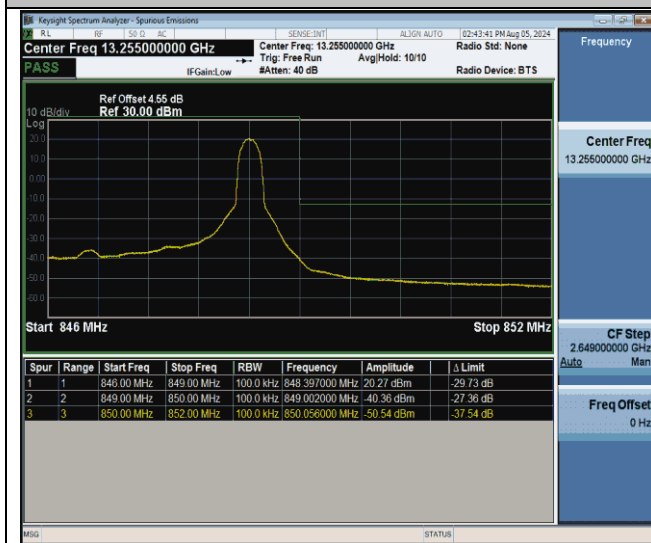




Band5_10MHz_QPSK_20450_1RB#0



Band5_10MHz_QPSK_20450_50RB#0



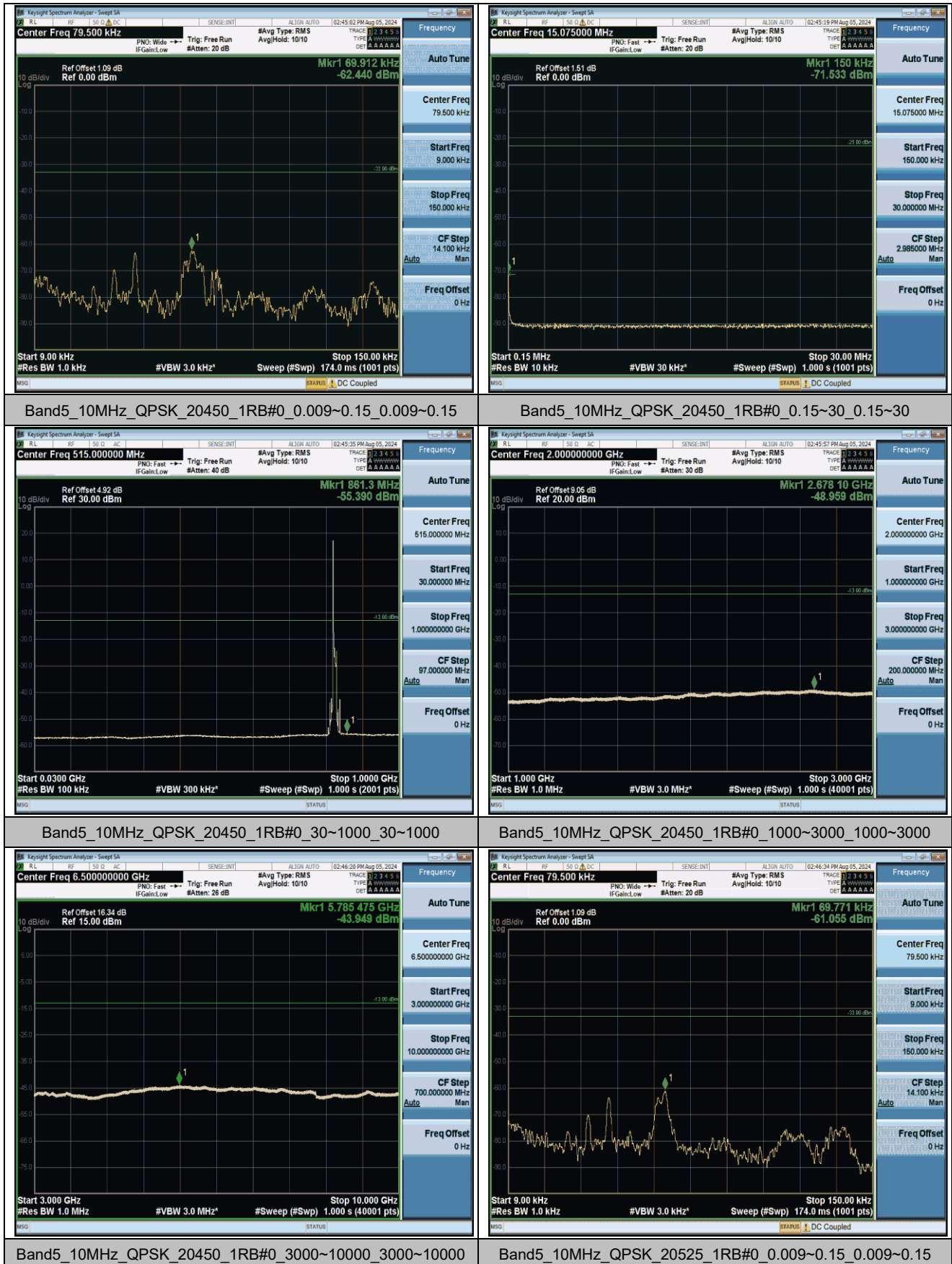
Band5_10MHz_QPSK_20600_1RB#49



Band5_10MHz_QPSK_20600_50RB#0

Conducted Spurious Emission

Test Graphs





Band5_10MHz_QPSK_20525_1RB#0_0.15~30_0.15~30



Band5_10MHz_QPSK_20525_1RB#0_30~1000_30~1000



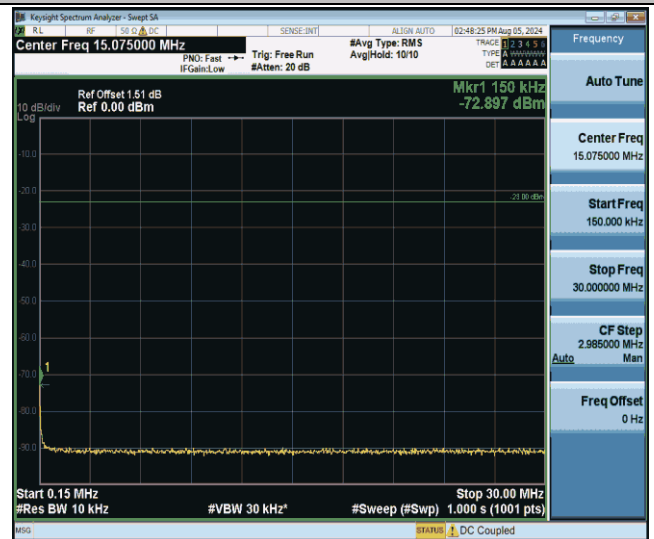
Band5_10MHz_QPSK_20525_1RB#0_1000~3000_1000~3000



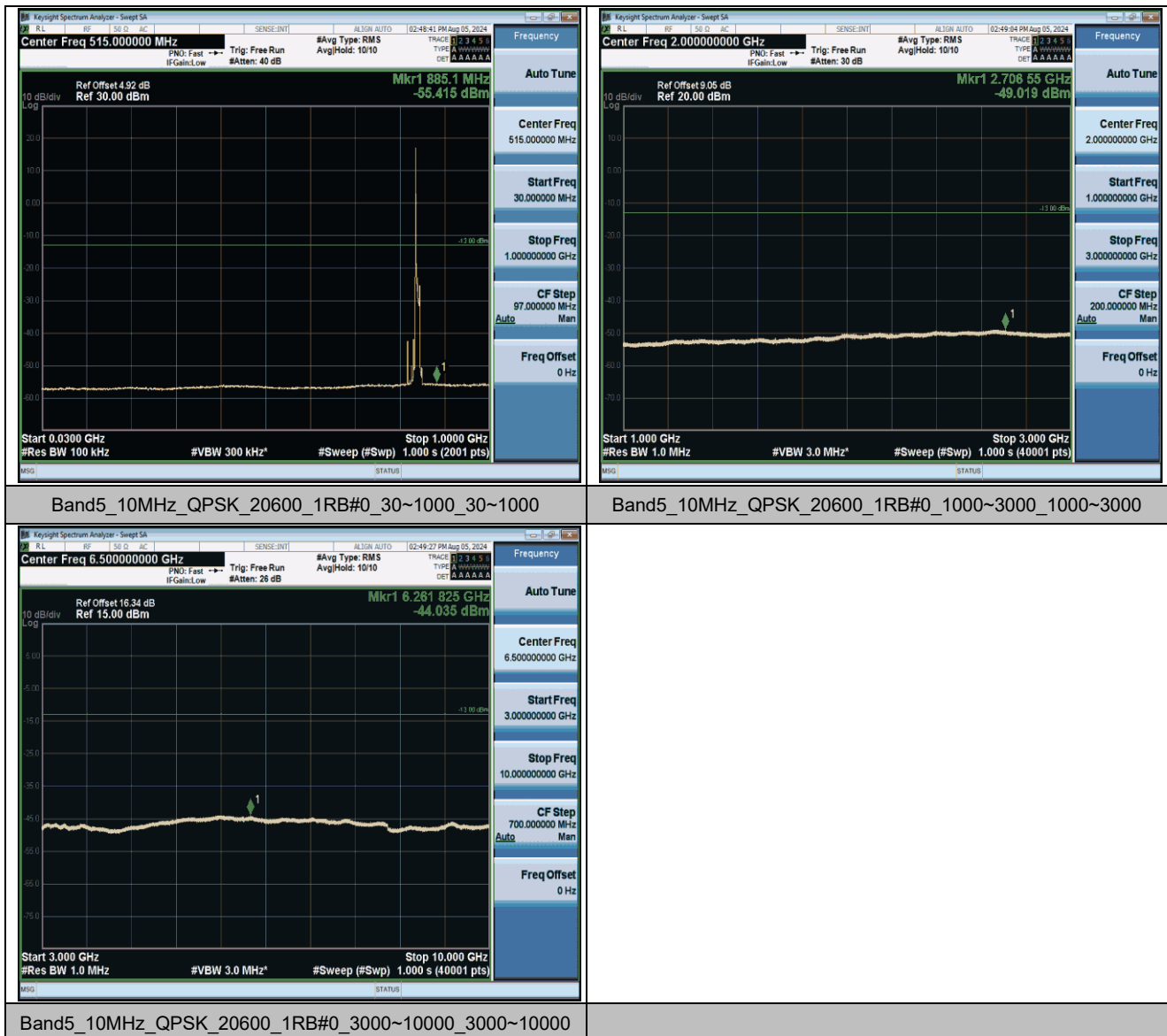
Band5_10MHz_QPSK_20525_1RB#0_3000~10000_3000~10000



Band5_10MHz_QPSK_20600_1RB#0_0.009~0.15_0.009~0.15



Band5_10MHz_QPSK_20600_1RB#0_0.15~30_0.15~30



Frequency Stability

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band5	10MHz	QPSK	20525	50RB#0	VN	NT	-9.86	-0.011787	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VL	NT	-8.93	-0.010675	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VH	NT	-6.95	-0.008308	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band5	10MHz	QPSK	20525	50RB#0	NV	-30	-8.27	-0.009886	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	-20	-7.01	-0.008380	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	-10	-8.96	-0.010711	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	0	-8.44	-0.010090	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	10	-9.14	-0.010926	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	20	-8.24	-0.009851	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	30	-2.79	-0.003335	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	40	-8.64	-0.010329	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	50	-6.19	-0.007400	±2.5	PASS