

Appendix-A LTE Band 5

Effective (Isotropic) 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	23.39	23.24	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#2	23.17	23.02	38.45	PASS
Band5	1.4MHz	QPSK	20407	1RB#5	23.12	22.97	38.45	PASS
Band5	1.4MHz	QPSK	20407	6RB#0	22.23	22.08	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#0	22.6	22.45	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#2	22.3	22.15	38.45	PASS
Band5	1.4MHz	16QAM	20407	1RB#5	22.39	22.24	38.45	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	21.55	21.4	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#0	23.26	23.11	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#2	23.17	23.02	38.45	PASS
Band5	1.4MHz	QPSK	20525	1RB#5	22.97	22.82	38.45	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	22.19	22.04	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#0	22.7	22.55	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#2	22.44	22.29	38.45	PASS
Band5	1.4MHz	16QAM	20525	1RB#5	22.18	22.03	38.45	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	21.57	21.42	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#0	22.9	22.75	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#2	22.68	22.53	38.45	PASS
Band5	1.4MHz	QPSK	20643	1RB#5	22.55	22.4	38.45	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	21.81	21.66	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#0	22.3	22.15	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#2	21.8	21.65	38.45	PASS
Band5	1.4MHz	16QAM	20643	1RB#5	22.1	21.95	38.45	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	21.1	20.95	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#0	23.18	23.03	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#8	23.21	23.06	38.45	PASS
Band5	3MHz	QPSK	20415	1RB#14	23.04	22.89	38.45	PASS
Band5	3MHz	QPSK	20415	15RB#0	22.37	22.22	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#0	22.36	22.21	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#8	22.7	22.55	38.45	PASS
Band5	3MHz	16QAM	20415	1RB#14	22.41	22.26	38.45	PASS
Band5	3MHz	16QAM	20415	15RB#0	21.54	21.39	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#0	23.37	23.22	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#8	23.15	23	38.45	PASS
Band5	3MHz	QPSK	20525	1RB#14	22.72	22.57	38.45	PASS
Band5	3MHz	QPSK	20525	15RB#0	22.19	22.04	38.45	PASS

Band5	3MHz	16QAM	20525	1RB#0	22.48	22.33	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#8	22.4	22.25	38.45	PASS
Band5	3MHz	16QAM	20525	1RB#14	22.17	22.02	38.45	PASS
Band5	3MHz	16QAM	20525	15RB#0	21.51	21.36	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#0	23.03	22.88	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#8	22.81	22.66	38.45	PASS
Band5	3MHz	QPSK	20635	1RB#14	22.54	22.39	38.45	PASS
Band5	3MHz	QPSK	20635	15RB#0	21.86	21.71	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#0	22.42	22.27	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#8	21.77	21.62	38.45	PASS
Band5	3MHz	16QAM	20635	1RB#14	21.84	21.69	38.45	PASS
Band5	3MHz	16QAM	20635	15RB#0	21.19	21.04	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#0	23.58	23.43	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#12	23.39	23.24	38.45	PASS
Band5	5MHz	QPSK	20425	1RB#24	23.36	23.21	38.45	PASS
Band5	5MHz	QPSK	20425	25RB#0	22.61	22.46	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#0	22.85	22.7	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#12	22.53	22.38	38.45	PASS
Band5	5MHz	16QAM	20425	1RB#24	22.93	22.78	38.45	PASS
Band5	5MHz	16QAM	20425	25RB#0	21.79	21.64	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#0	23.32	23.17	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#12	23.13	22.98	38.45	PASS
Band5	5MHz	QPSK	20525	1RB#24	22.96	22.81	38.45	PASS
Band5	5MHz	QPSK	20525	25RB#0	22.35	22.2	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#0	22.82	22.67	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#12	22.49	22.34	38.45	PASS
Band5	5MHz	16QAM	20525	1RB#24	22.33	22.18	38.45	PASS
Band5	5MHz	16QAM	20525	25RB#0	21.56	21.41	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#0	23.1	22.95	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#12	22.93	22.78	38.45	PASS
Band5	5MHz	QPSK	20625	1RB#24	23.04	22.89	38.45	PASS
Band5	5MHz	QPSK	20625	25RB#0	22.19	22.04	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#0	22.76	22.61	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#12	22.12	21.97	38.45	PASS
Band5	5MHz	16QAM	20625	1RB#24	22.37	22.22	38.45	PASS
Band5	5MHz	16QAM	20625	25RB#0	21.62	21.47	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#0	23.56	23.41	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#24	23.11	22.96	38.45	PASS
Band5	10MHz	QPSK	20450	1RB#49	23.91	23.76	38.45	PASS
Band5	10MHz	QPSK	20450	50RB#0	22.67	22.52	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#0	22.68	22.53	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#24	22.29	22.14	38.45	PASS
Band5	10MHz	16QAM	20450	1RB#49	23.38	23.23	38.45	PASS
Band5	10MHz	16QAM	20450	27RB#0	22.08	21.93	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#0	23.64	23.49	38.45	PASS

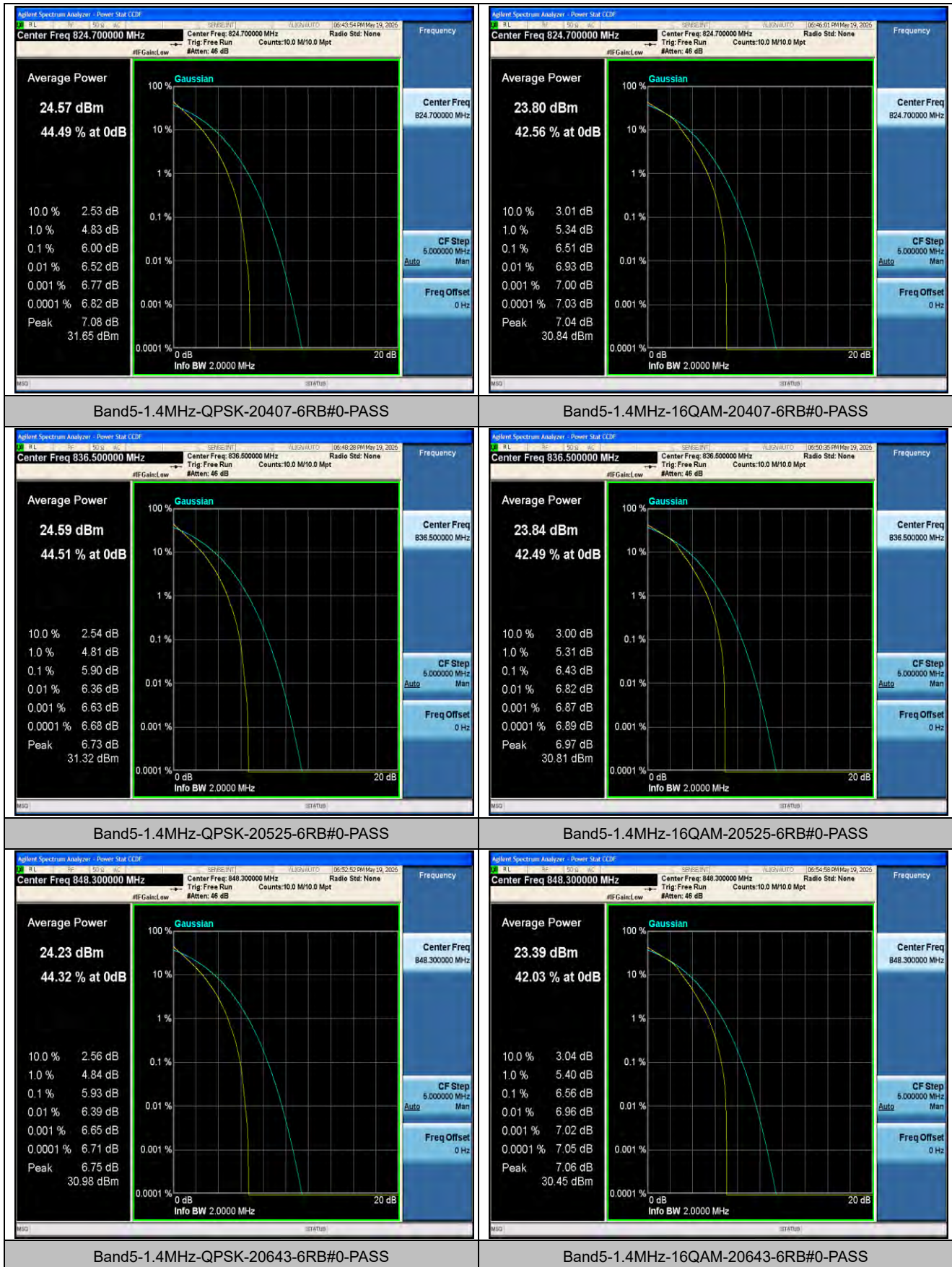
Band5	10MHz	QPSK	20525	1RB#24	23.18	23.03	38.45	PASS
Band5	10MHz	QPSK	20525	1RB#49	22.66	22.51	38.45	PASS
Band5	10MHz	QPSK	20525	50RB#0	22.29	22.14	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#0	22.67	22.52	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#24	22.38	22.23	38.45	PASS
Band5	10MHz	16QAM	20525	1RB#49	21.95	21.8	38.45	PASS
Band5	10MHz	16QAM	20525	27RB#0	21.28	21.13	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#0	23.79	23.64	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#24	23.2	23.05	38.45	PASS
Band5	10MHz	QPSK	20600	1RB#49	23.47	23.32	38.45	PASS
Band5	10MHz	QPSK	20600	50RB#0	22.49	22.34	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#0	22.89	22.74	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#24	22.69	22.54	38.45	PASS
Band5	10MHz	16QAM	20600	1RB#49	22.48	22.33	38.45	PASS
Band5	10MHz	16QAM	20600	27RB#0	21.81	21.66	38.45	PASS

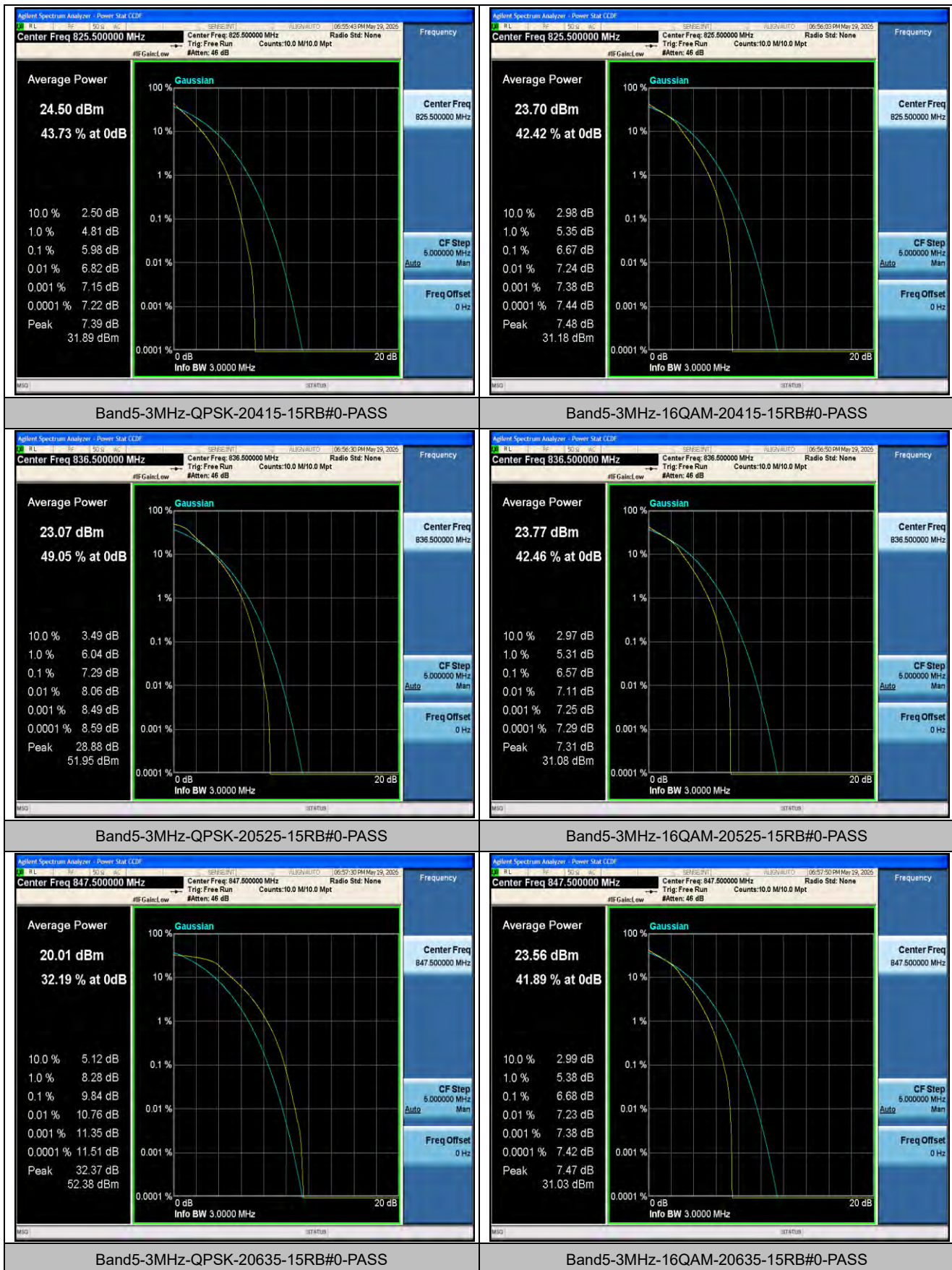
Peak-to-Average Ratio(CCDF)

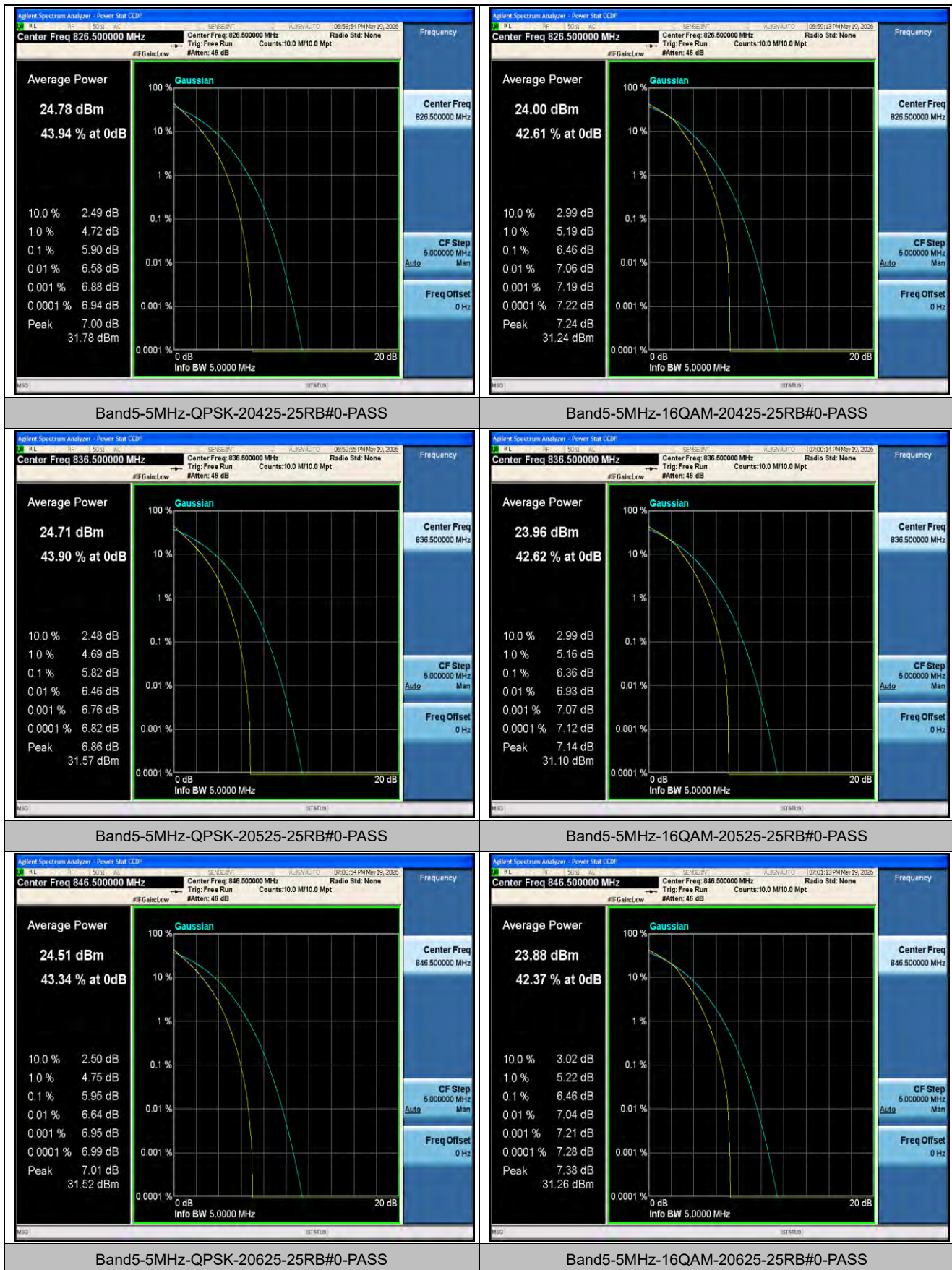
Test Result

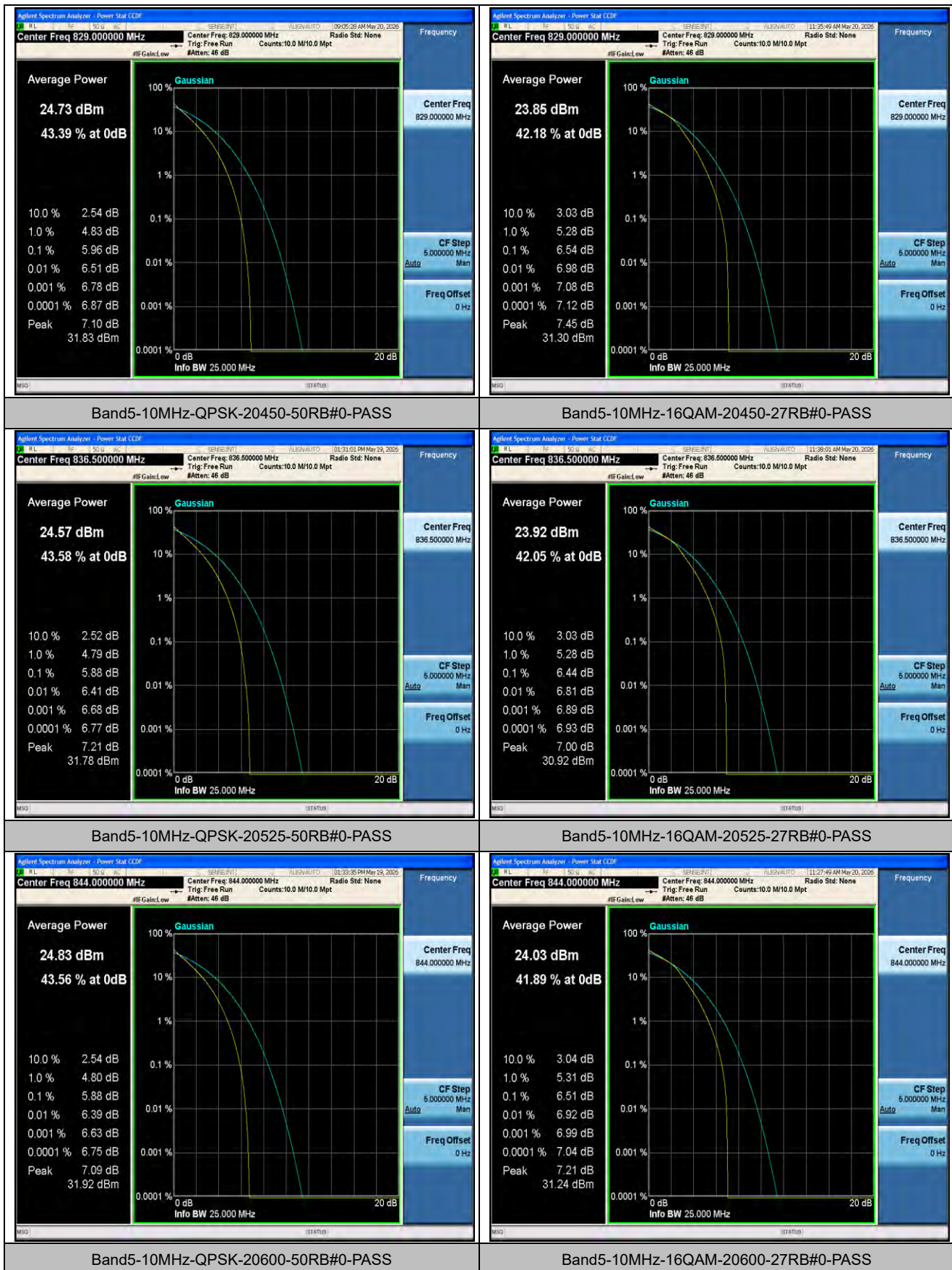
Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	6.00	13	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	6.51	13	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	5.90	13	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	6.43	13	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	5.93	13	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	6.56	13	PASS
Band5	3MHz	QPSK	20415	15RB#0	5.98	13	PASS
Band5	3MHz	16QAM	20415	15RB#0	6.67	13	PASS
Band5	3MHz	QPSK	20525	15RB#0	7.29	13	PASS
Band5	3MHz	16QAM	20525	15RB#0	6.57	13	PASS
Band5	3MHz	QPSK	20635	15RB#0	9.84	13	PASS
Band5	3MHz	16QAM	20635	15RB#0	6.68	13	PASS
Band5	5MHz	QPSK	20425	25RB#0	5.90	13	PASS
Band5	5MHz	16QAM	20425	25RB#0	6.46	13	PASS
Band5	5MHz	QPSK	20525	25RB#0	5.82	13	PASS
Band5	5MHz	16QAM	20525	25RB#0	6.36	13	PASS
Band5	5MHz	QPSK	20625	25RB#0	5.95	13	PASS
Band5	5MHz	16QAM	20625	25RB#0	6.46	13	PASS
Band5	10MHz	QPSK	20450	50RB#0	5.96	13	PASS
Band5	10MHz	16QAM	20450	27RB#0	6.54	13	PASS
Band5	10MHz	QPSK	20525	50RB#0	5.88	13	PASS
Band5	10MHz	16QAM	20525	27RB#0	6.44	13	PASS
Band5	10MHz	QPSK	20600	50RB#0	5.88	13	PASS
Band5	10MHz	16QAM	20600	27RB#0	6.51	13	PASS

Test Graphs







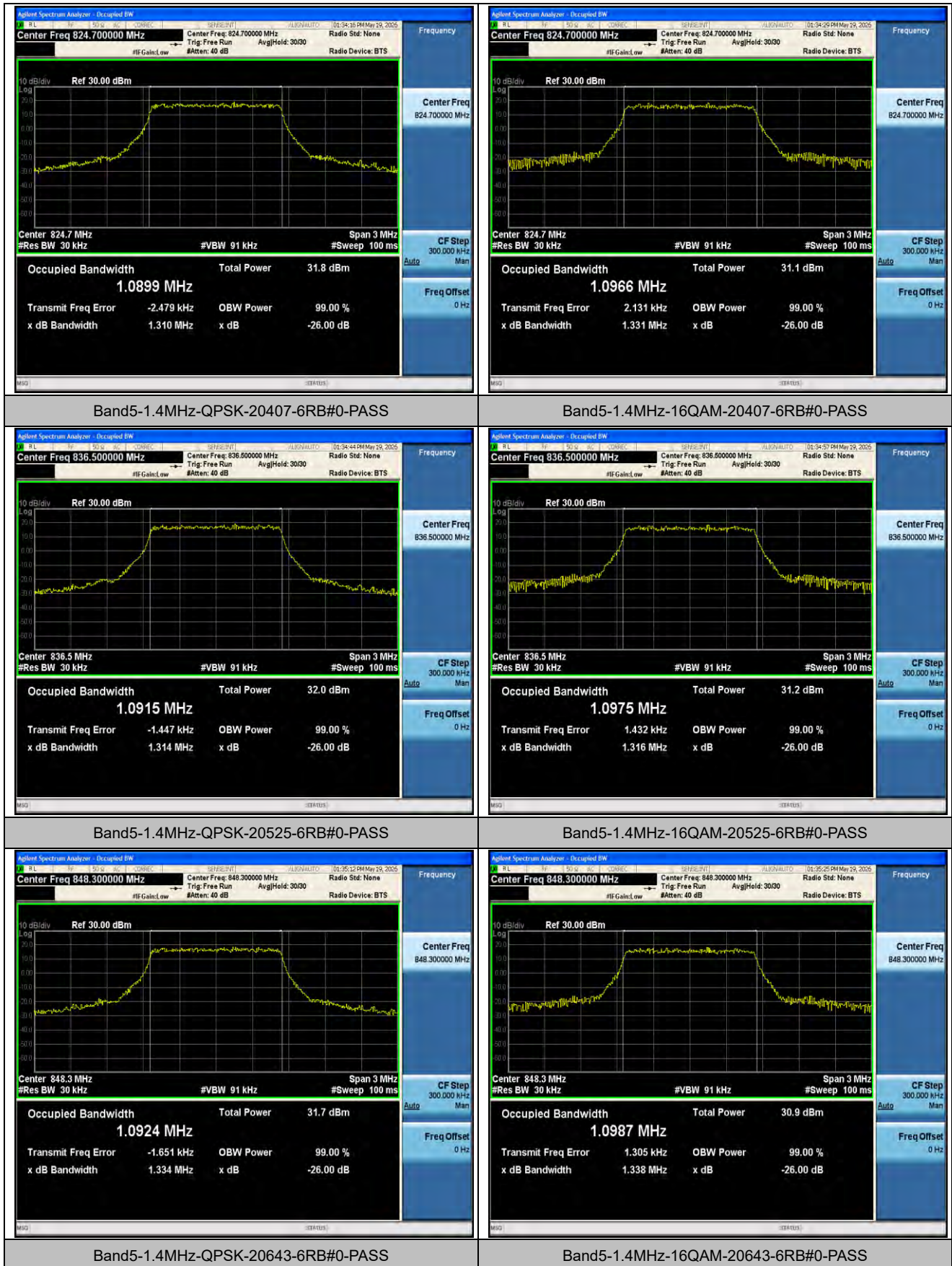


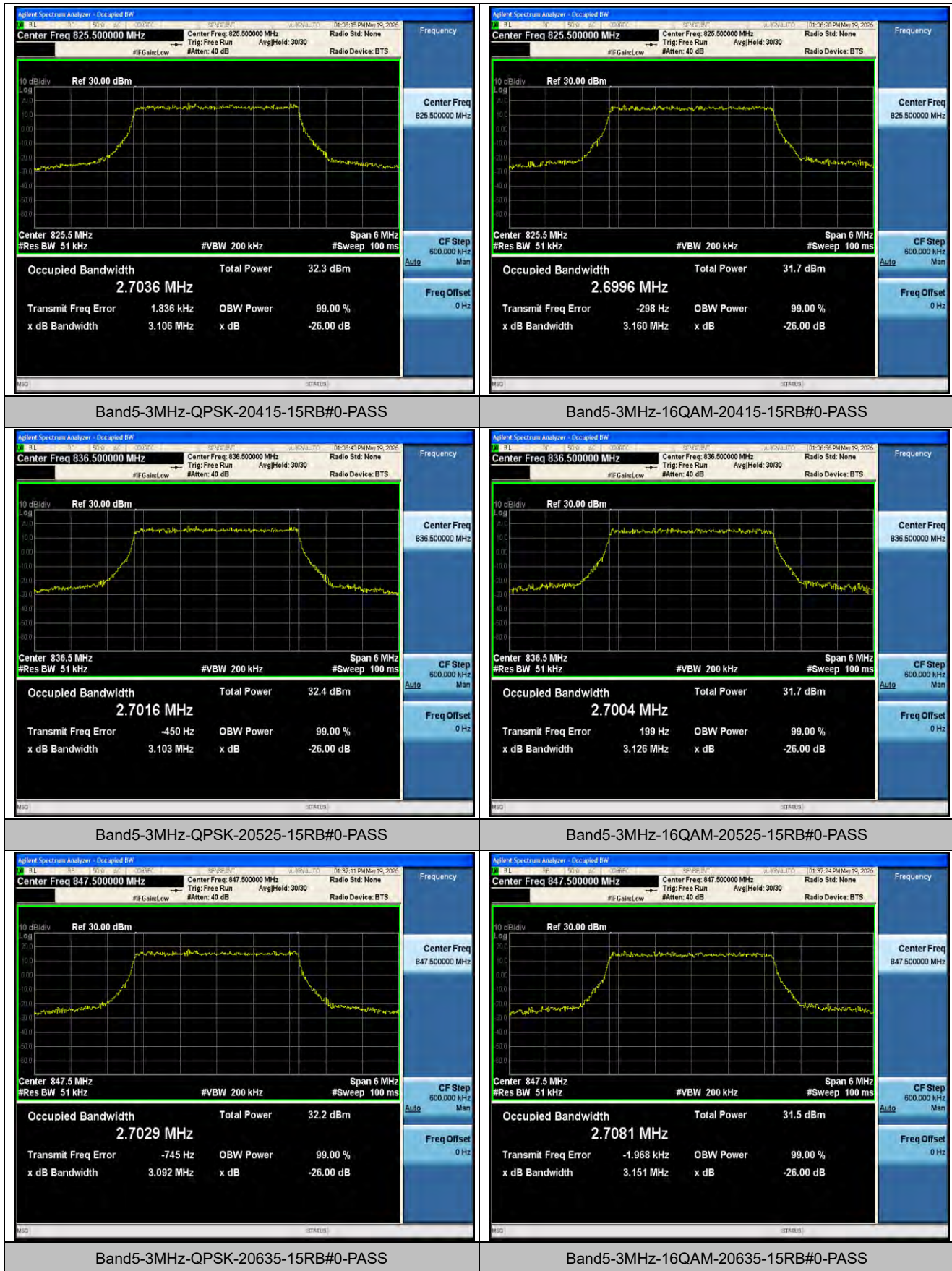
26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band5	1.4MHz	QPSK	20407	6RB#0	1.0899	1.310	PASS
Band5	1.4MHz	16QAM	20407	6RB#0	1.0966	1.331	PASS
Band5	1.4MHz	QPSK	20525	6RB#0	1.0915	1.314	PASS
Band5	1.4MHz	16QAM	20525	6RB#0	1.0975	1.316	PASS
Band5	1.4MHz	QPSK	20643	6RB#0	1.0924	1.334	PASS
Band5	1.4MHz	16QAM	20643	6RB#0	1.0987	1.338	PASS
Band5	3MHz	QPSK	20415	15RB#0	2.7036	3.106	PASS
Band5	3MHz	16QAM	20415	15RB#0	2.6996	3.160	PASS
Band5	3MHz	QPSK	20525	15RB#0	2.7016	3.103	PASS
Band5	3MHz	16QAM	20525	15RB#0	2.7004	3.126	PASS
Band5	3MHz	QPSK	20635	15RB#0	2.7029	3.092	PASS
Band5	3MHz	16QAM	20635	15RB#0	2.7081	3.151	PASS
Band5	5MHz	QPSK	20425	25RB#0	4.5122	5.520	PASS
Band5	5MHz	16QAM	20425	25RB#0	4.5157	5.574	PASS
Band5	5MHz	QPSK	20525	25RB#0	4.5125	5.527	PASS
Band5	5MHz	16QAM	20525	25RB#0	4.5155	5.592	PASS
Band5	5MHz	QPSK	20625	25RB#0	4.5094	5.510	PASS
Band5	5MHz	16QAM	20625	25RB#0	4.5176	5.565	PASS
Band5	10MHz	QPSK	20450	50RB#0	9.0149	10.55	PASS
Band5	10MHz	16QAM	20450	27RB#0	5.0303	6.481	PASS
Band5	10MHz	QPSK	20525	50RB#0	9.0305	10.40	PASS
Band5	10MHz	16QAM	20525	27RB#0	5.0167	6.514	PASS
Band5	10MHz	QPSK	20600	50RB#0	9.0165	10.51	PASS
Band5	10MHz	16QAM	20600	27RB#0	5.0350	6.486	PASS

Test Graphs

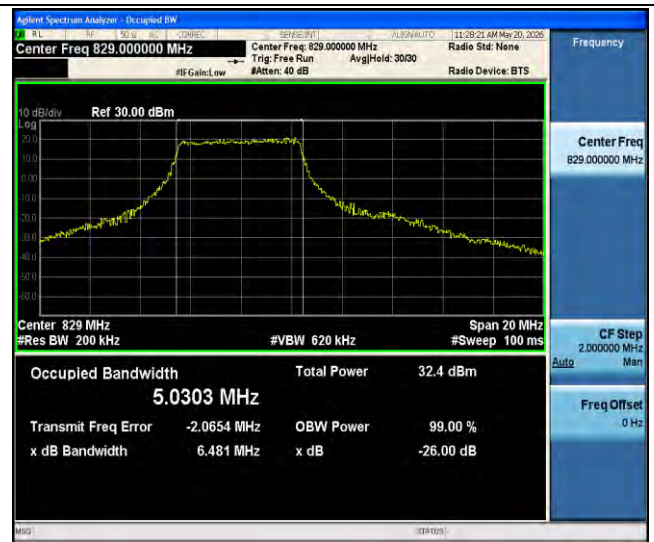








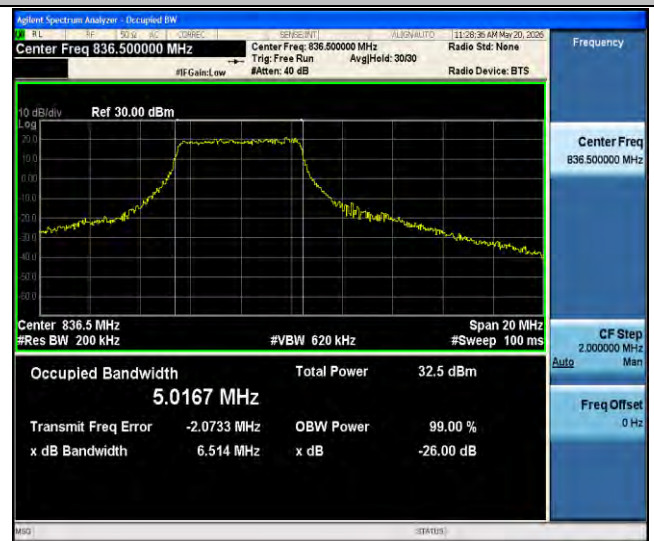
Band5-10MHz-QPSK-20450-50RB#0-PASS



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



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



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



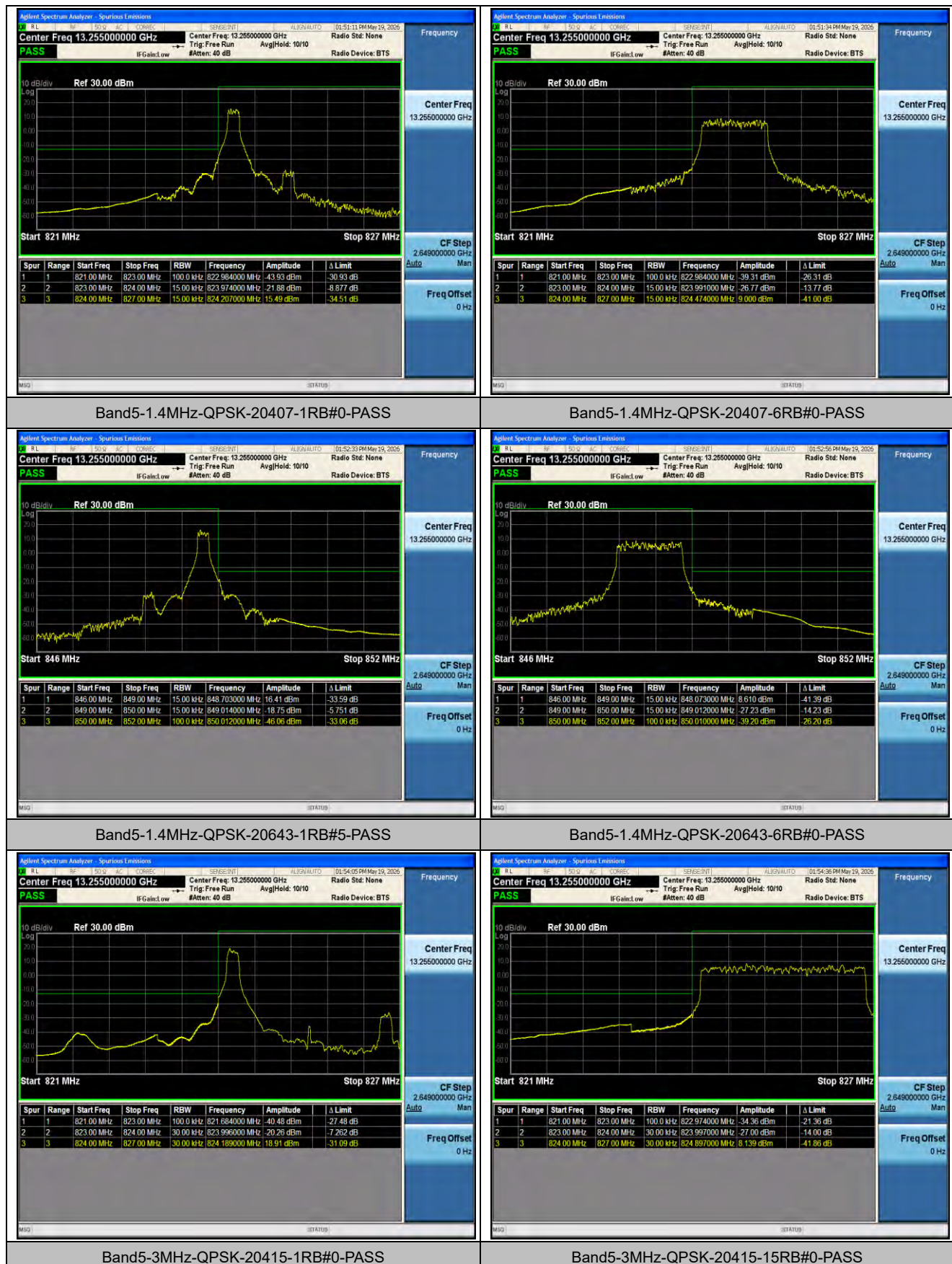
Band5-10MHz-QPSK-20600-50RB#0-PASS



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

Band Edge

Test Graphs

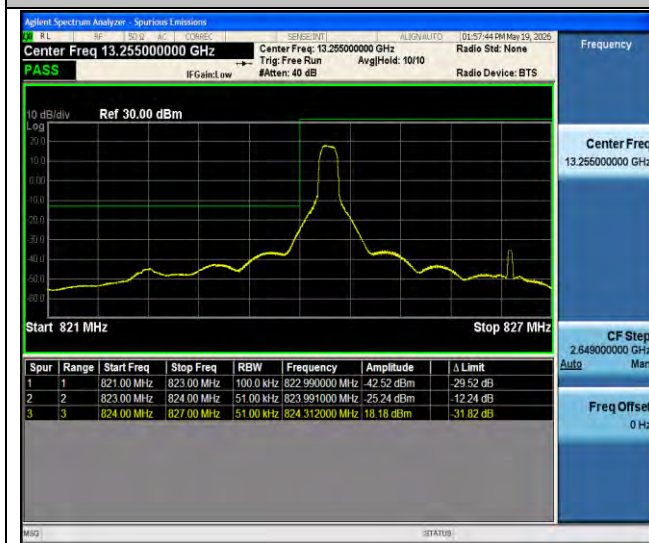




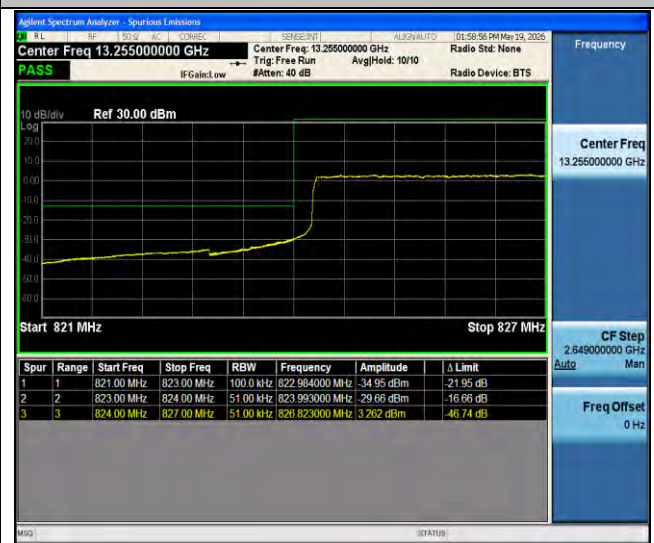
Band5-3MHz-QPSK-20635-1RB#14-PASS



Band5-3MHz-QPSK-20635-15RB#0-PASS



Band5-5MHz-QPSK-20425-1RB#0-PASS



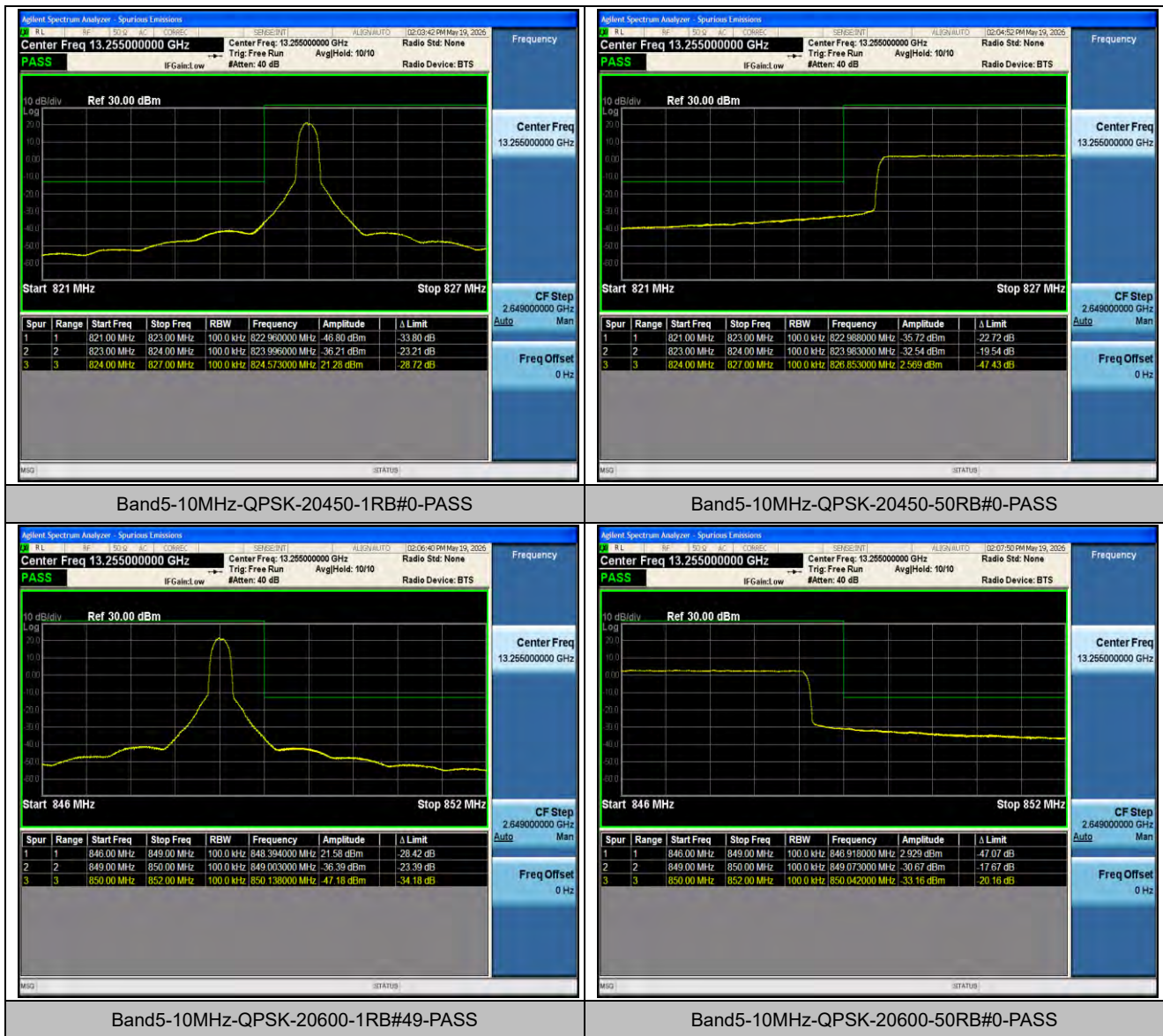
Band5-5MHz-QPSK-20425-25RB#0-PASS



Band5-5MHz-QPSK-20625-1RB#24-PASS

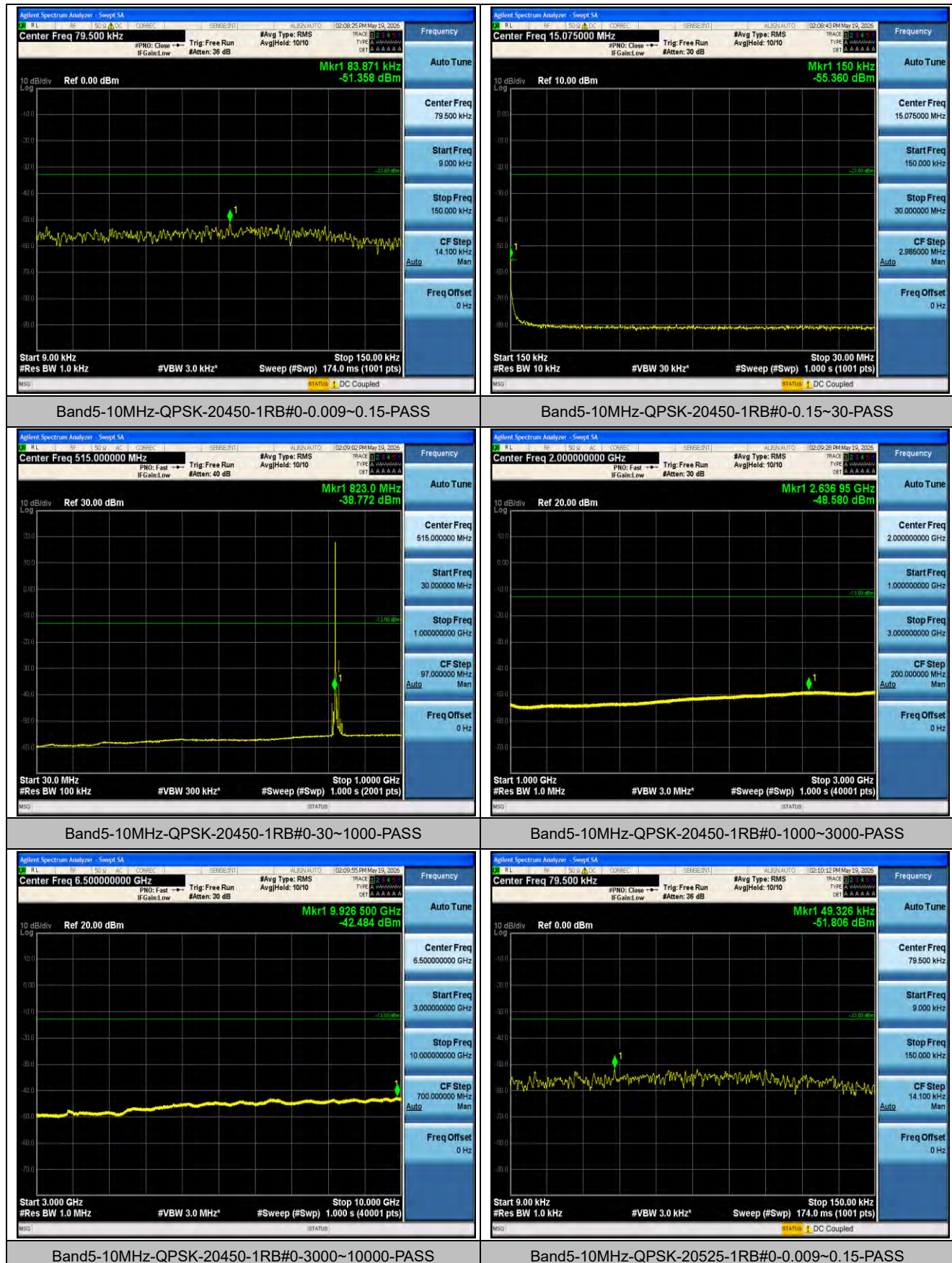


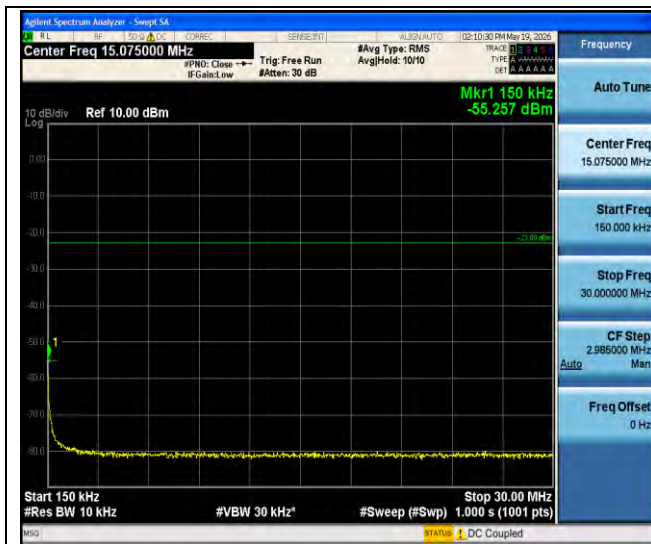
Band5-5MHz-QPSK-20625-25RB#0-PASS



Conducted Spurious Emission

Test Graphs





Band5-10MHz-QPSK-20525-1RB#0-0.15~30-PASS



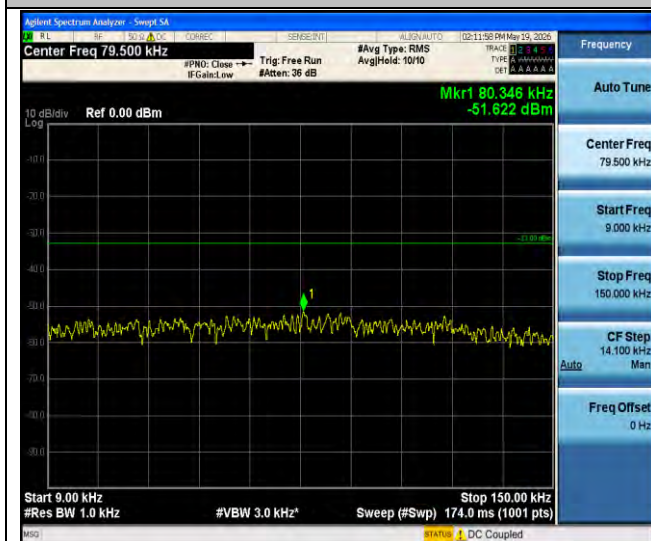
Band5-10MHz-QPSK-20525-1RB#0-30~1000-PASS



Band5-10MHz-QPSK-20525-1RB#0-1000~3000-PASS



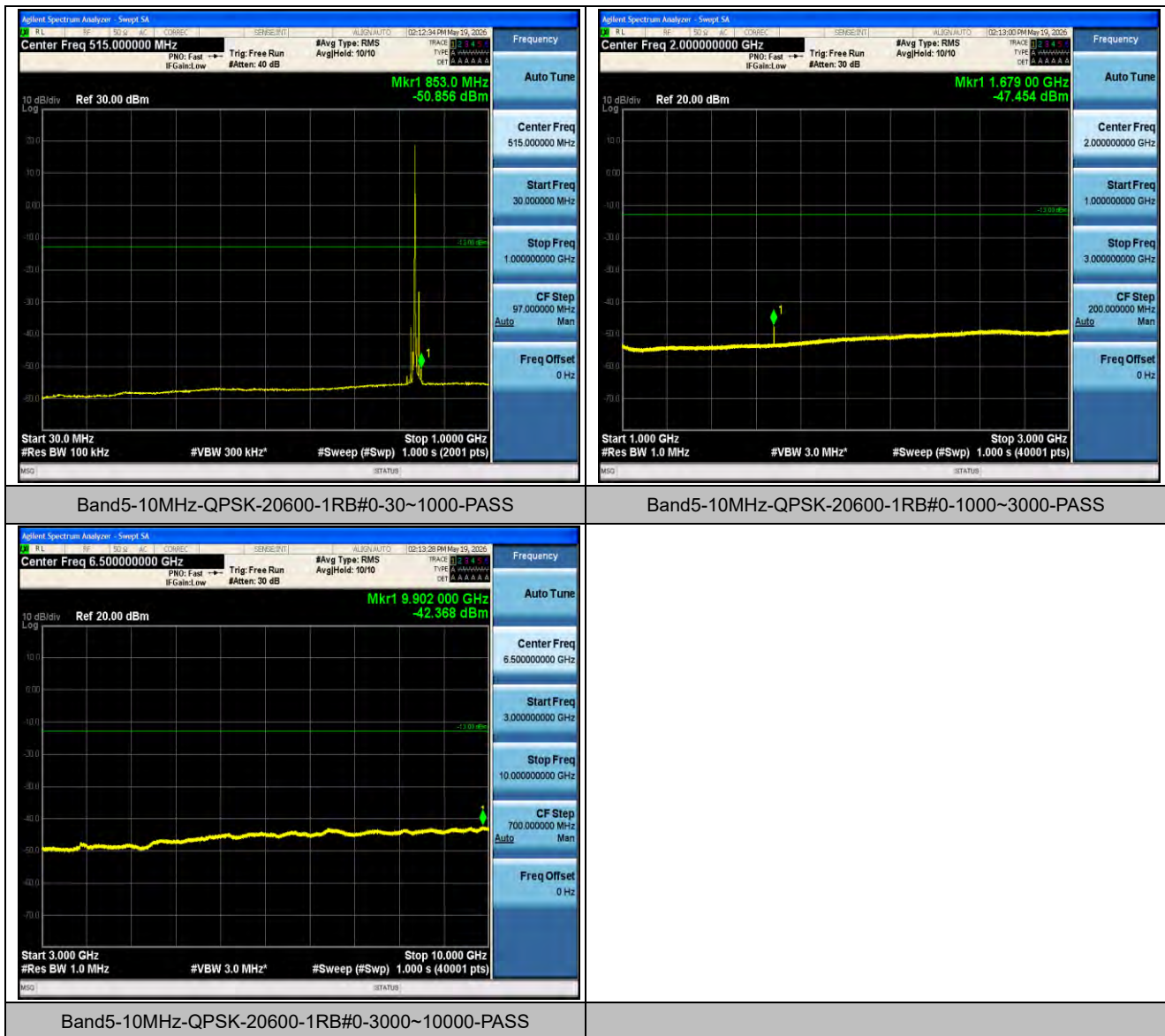
Band5-10MHz-QPSK-20525-1RB#0-3000~10000-PASS



Band5-10MHz-QPSK-20600-1RB#0-0.009~0.15-PASS



Band5-10MHz-QPSK-20600-1RB#0-0.15~30-PASS



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	-1.20	-0.001435	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VL	NT	-1.90	-0.002271	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	VH	NT	-3.20	-0.003825	±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	-0.80	-0.000956	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	-20	0.30	0.000359	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	-10	0.10	0.000120	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	0	-0.20	-0.000239	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	10	0.00	0.000000	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	20	-0.60	-0.000717	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	30	0.00	0.000000	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	40	1.00	0.001195	±2.5	PASS
Band5	10MHz	QPSK	20525	50RB#0	NV	50	0.80	0.000956	±2.5	PASS

~The End~