

Appendix-B LTE Band 4

Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band4	1.4MHz	QPSK	19957	1RB#0	23.75	25.75	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#2	23.96	25.96	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#5	23.62	25.62	30.00	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	22.79	24.79	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	23.71	25.71	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#2	23.85	25.85	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#5	23.61	25.61	30.00	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	22.81	24.81	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	23.69	25.69	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#2	23.98	25.98	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#5	23.67	25.67	30.00	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	22.85	24.85	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	22.67	24.67	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#2	23.43	25.43	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#5	22.71	24.71	30.00	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	21.86	23.86	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	22.55	24.55	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#2	23.61	25.61	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#5	22.54	24.54	30.00	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	21.73	23.73	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	22.63	24.63	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#2	22.95	24.95	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#5	22.97	24.97	30.00	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	22.03	24.03	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#0	23.62	25.62	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#8	23.98	25.98	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#14	23.49	25.49	30.00	PASS
Band4	3MHz	QPSK	19965	15RB#0	22.82	24.82	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#0	23.90	25.9	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#8	23.72	25.72	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#14	23.44	25.44	30.00	PASS
Band4	3MHz	QPSK	20175	15RB#0	22.71	24.71	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#0	23.66	25.66	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#8	23.78	25.78	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#14	23.97	25.97	30.00	PASS

Band4	3MHz	QPSK	20385	15RB#0	22.85	24.85	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#0	22.67	24.67	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#8	23.18	25.18	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#14	22.80	24.8	30.00	PASS
Band4	3MHz	16QAM	19965	15RB#0	21.82	23.82	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#0	22.90	24.9	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#8	23.67	25.67	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#14	22.92	24.92	30.00	PASS
Band4	3MHz	16QAM	20175	15RB#0	21.69	23.69	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#0	22.77	24.77	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#8	22.67	24.67	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#14	23.11	25.11	30.00	PASS
Band4	3MHz	16QAM	20385	15RB#0	21.76	23.76	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#0	23.71	25.71	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#12	23.81	25.81	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#24	23.84	25.84	30.00	PASS
Band4	5MHz	QPSK	19975	25RB#0	22.83	24.83	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#0	23.68	25.68	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#12	23.65	25.65	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#24	23.76	25.76	30.00	PASS
Band4	5MHz	QPSK	20175	25RB#0	22.70	24.7	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#0	23.76	25.76	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#12	23.77	25.77	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#24	23.96	25.96	30.00	PASS
Band4	5MHz	QPSK	20375	25RB#0	22.69	24.69	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#0	22.76	24.76	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#12	22.75	24.75	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#24	22.71	24.71	30.00	PASS
Band4	5MHz	16QAM	19975	25RB#0	22.00	24	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#0	22.70	24.7	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#12	23.27	25.27	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#24	22.49	24.49	30.00	PASS
Band4	5MHz	16QAM	20175	25RB#0	21.65	23.65	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#0	22.71	24.71	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#12	23.06	25.06	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#24	23.05	25.05	30.00	PASS
Band4	5MHz	16QAM	20375	25RB#0	21.90	23.9	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#0	23.75	25.75	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#24	23.94	25.94	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#49	23.74	25.74	30.00	PASS
Band4	10MHz	QPSK	20000	50RB#0	22.91	24.91	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#0	23.54	25.54	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#24	23.93	25.93	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#49	23.62	25.62	30.00	PASS

Band4	10MHz	QPSK	20175	50RB#0	22.63	24.63	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#0	23.71	25.71	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#24	23.77	25.77	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#49	23.95	25.95	30.00	PASS
Band4	10MHz	QPSK	20350	50RB#0	22.74	24.74	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#0	22.71	24.71	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#24	23.25	25.25	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#49	22.64	24.64	30.00	PASS
Band4	10MHz	16QAM	20000	50RB#0	21.87	23.87	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#0	22.74	24.74	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#24	23.60	25.6	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#49	22.33	24.33	30.00	PASS
Band4	10MHz	16QAM	20175	50RB#0	21.73	23.73	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#0	22.70	24.7	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#24	22.78	24.78	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#49	23.03	25.03	30.00	PASS
Band4	10MHz	16QAM	20350	50RB#0	21.72	23.72	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#0	23.54	25.54	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#38	23.92	25.92	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#74	23.82	25.82	30.00	PASS
Band4	15MHz	QPSK	20025	75RB#0	22.75	24.75	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#0	23.60	25.6	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#38	23.69	25.69	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#74	23.56	25.56	30.00	PASS
Band4	15MHz	QPSK	20175	75RB#0	22.56	24.56	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#0	23.75	25.75	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#38	23.48	25.48	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#74	23.76	25.76	30.00	PASS
Band4	15MHz	QPSK	20325	75RB#0	22.51	24.51	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#0	22.56	24.56	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#38	23.18	25.18	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#74	22.82	24.82	30.00	PASS
Band4	15MHz	16QAM	20025	75RB#0	21.79	23.79	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#0	22.71	24.71	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#38	23.09	25.09	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#74	22.68	24.68	30.00	PASS
Band4	15MHz	16QAM	20175	75RB#0	21.63	23.63	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#0	23.03	25.03	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#38	22.45	24.45	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#74	22.79	24.79	30.00	PASS
Band4	15MHz	16QAM	20325	75RB#0	21.51	23.51	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#0	23.45	25.45	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#49	23.61	25.61	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#99	23.76	25.76	30.00	PASS

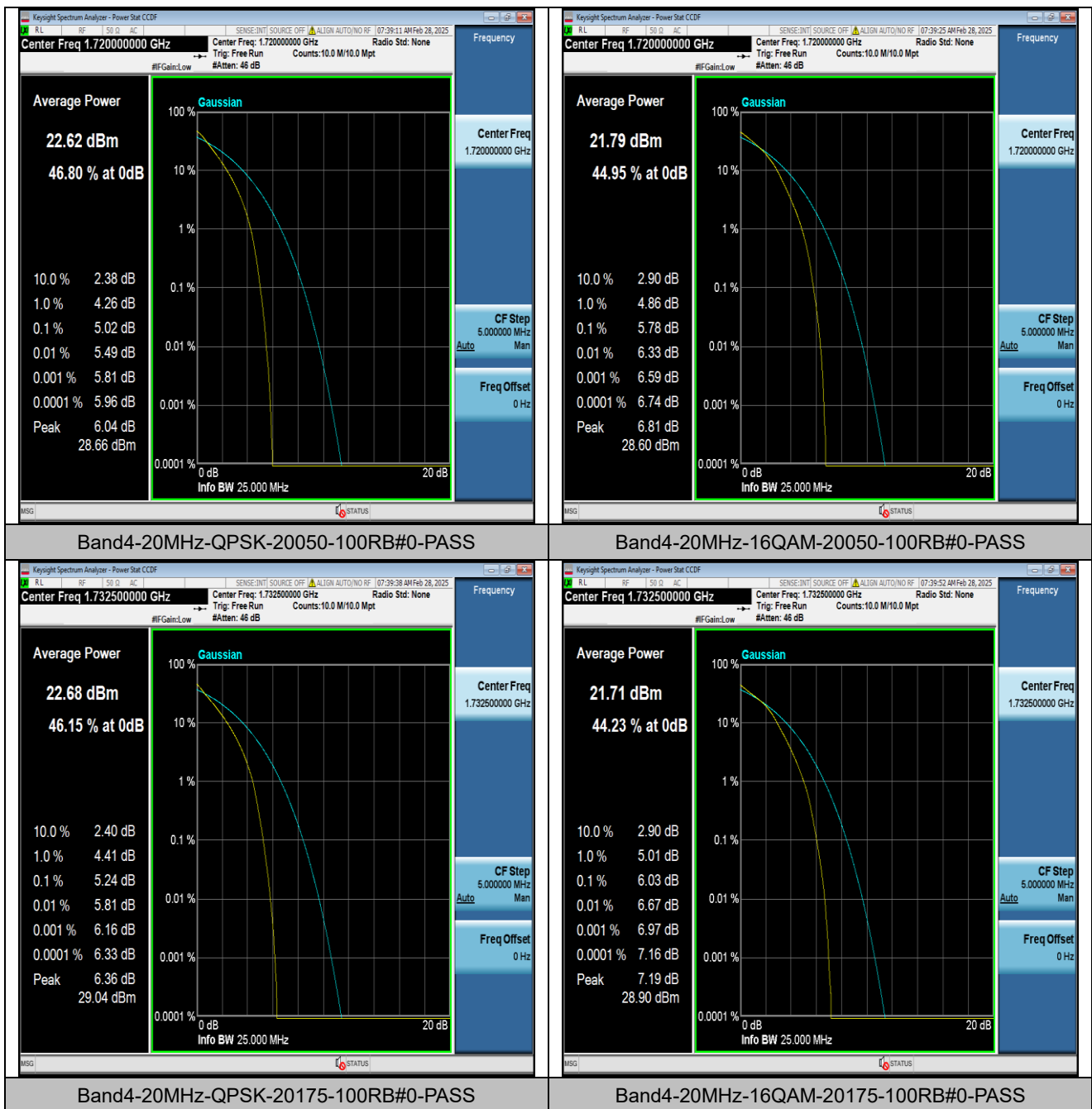
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Band4	20MHz	QPSK	20175	1RB#0	23.74	25.74	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#49	23.56	25.56	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#99	23.48	25.48	30.00	PASS
Band4	20MHz	QPSK	20175	100RB#0	22.60	24.6	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#0	23.76	25.76	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#49	23.80	25.8	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#99	23.47	25.47	30.00	PASS
Band4	20MHz	QPSK	20300	100RB#0	22.72	24.72	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#0	22.61	24.61	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#49	22.95	24.95	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#99	22.62	24.62	30.00	PASS
Band4	20MHz	16QAM	20050	100RB#0	21.66	23.66	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#0	23.18	25.18	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#49	22.67	24.67	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#99	23.11	25.11	30.00	PASS
Band4	20MHz	16QAM	20175	100RB#0	21.67	23.67	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#0	22.62	24.62	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#49	22.74	24.74	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#99	22.51	24.51	30.00	PASS
Band4	20MHz	16QAM	20300	100RB#0	21.72	23.72	30.00	PASS

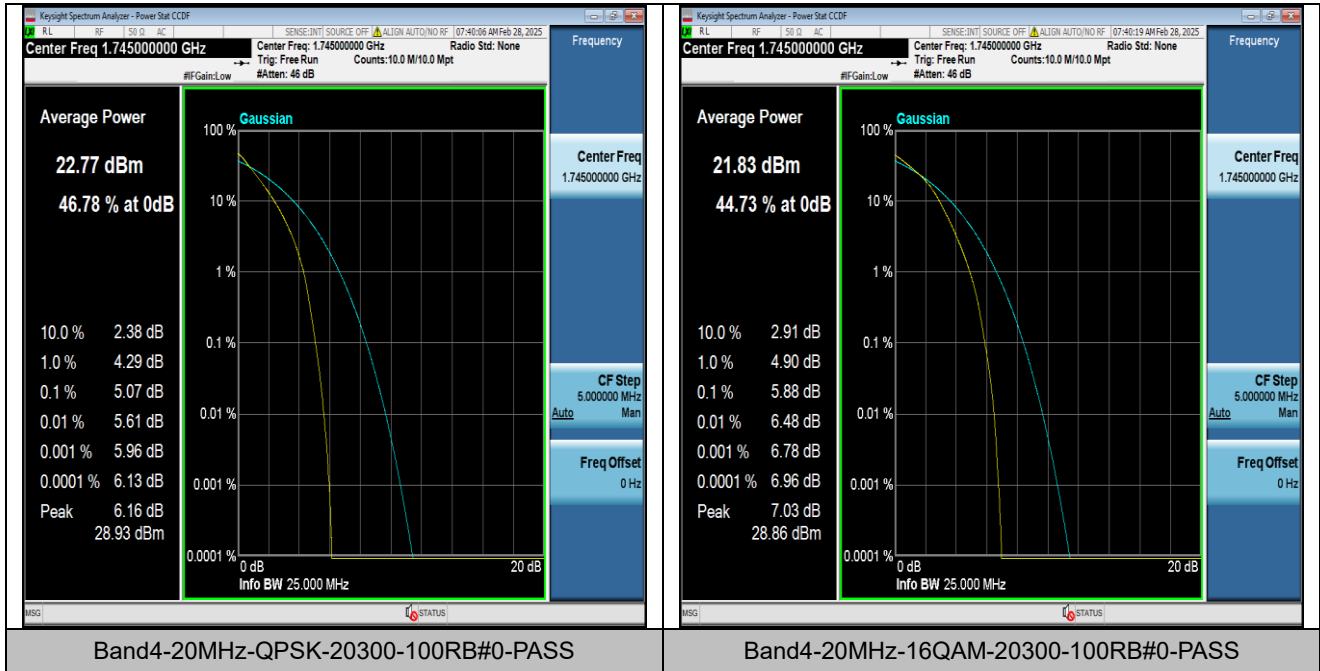
Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band4	20MHz	QPSK	20050	100RB#0	5.02	13	PASS
Band4	20MHz	16QAM	20050	100RB#0	5.78	13	PASS
Band4	20MHz	QPSK	20175	100RB#0	5.24	13	PASS
Band4	20MHz	16QAM	20175	100RB#0	6.03	13	PASS
Band4	20MHz	QPSK	20300	100RB#0	5.07	13	PASS
Band4	20MHz	16QAM	20300	100RB#0	5.88	13	PASS

Test Graphs



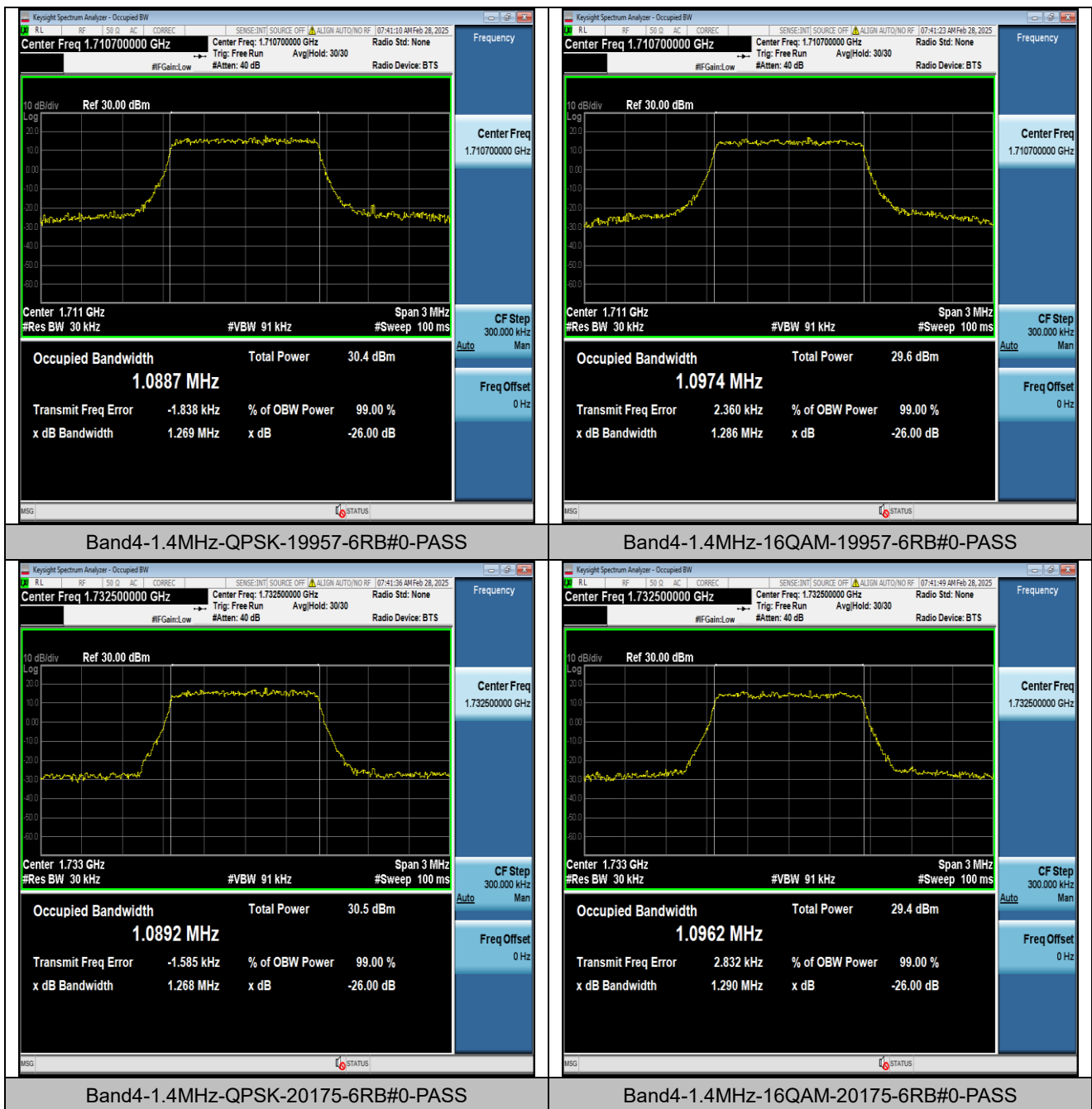


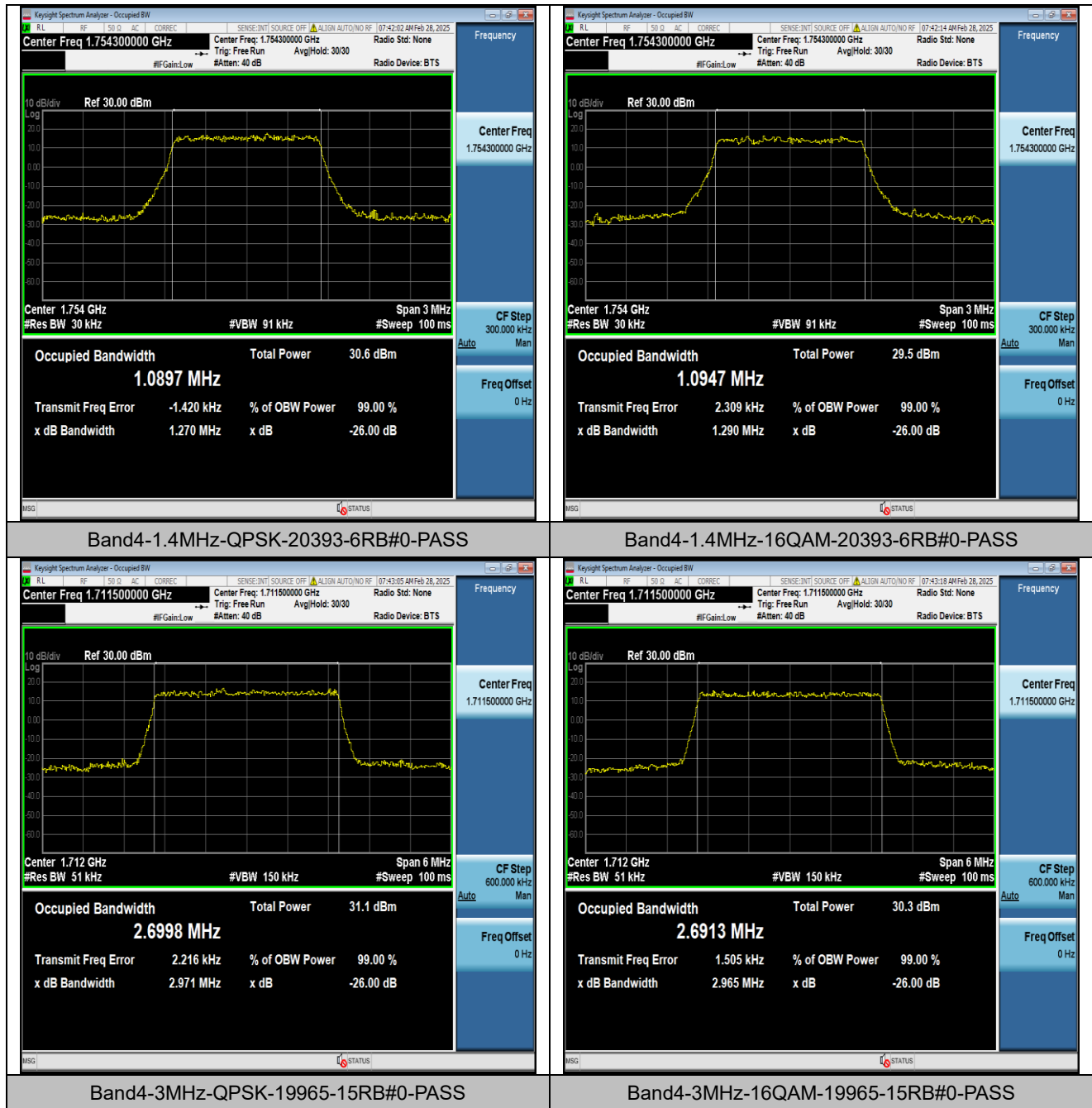
26dB Bandwidth and Occupied Bandwidth

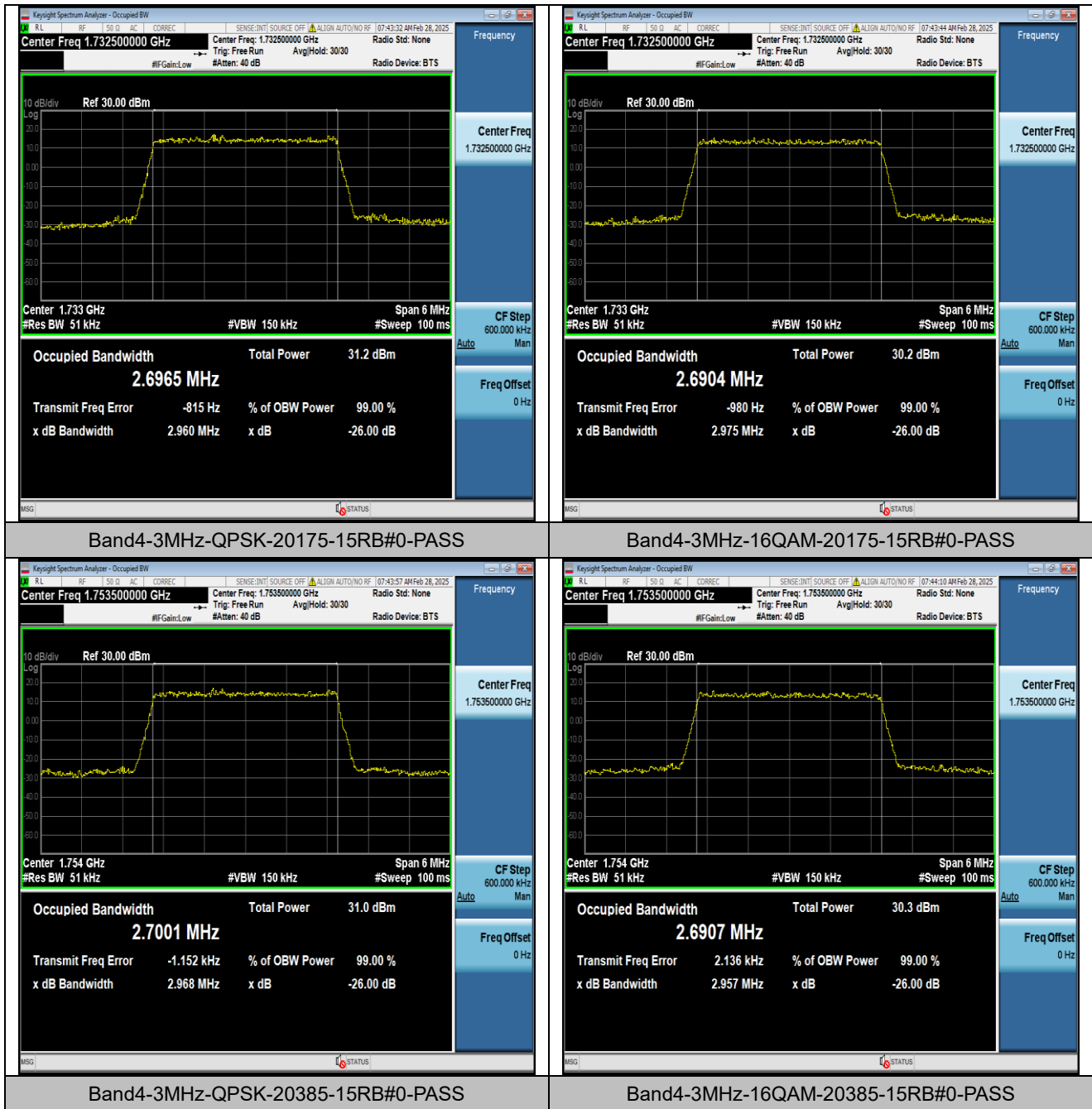
Test Result

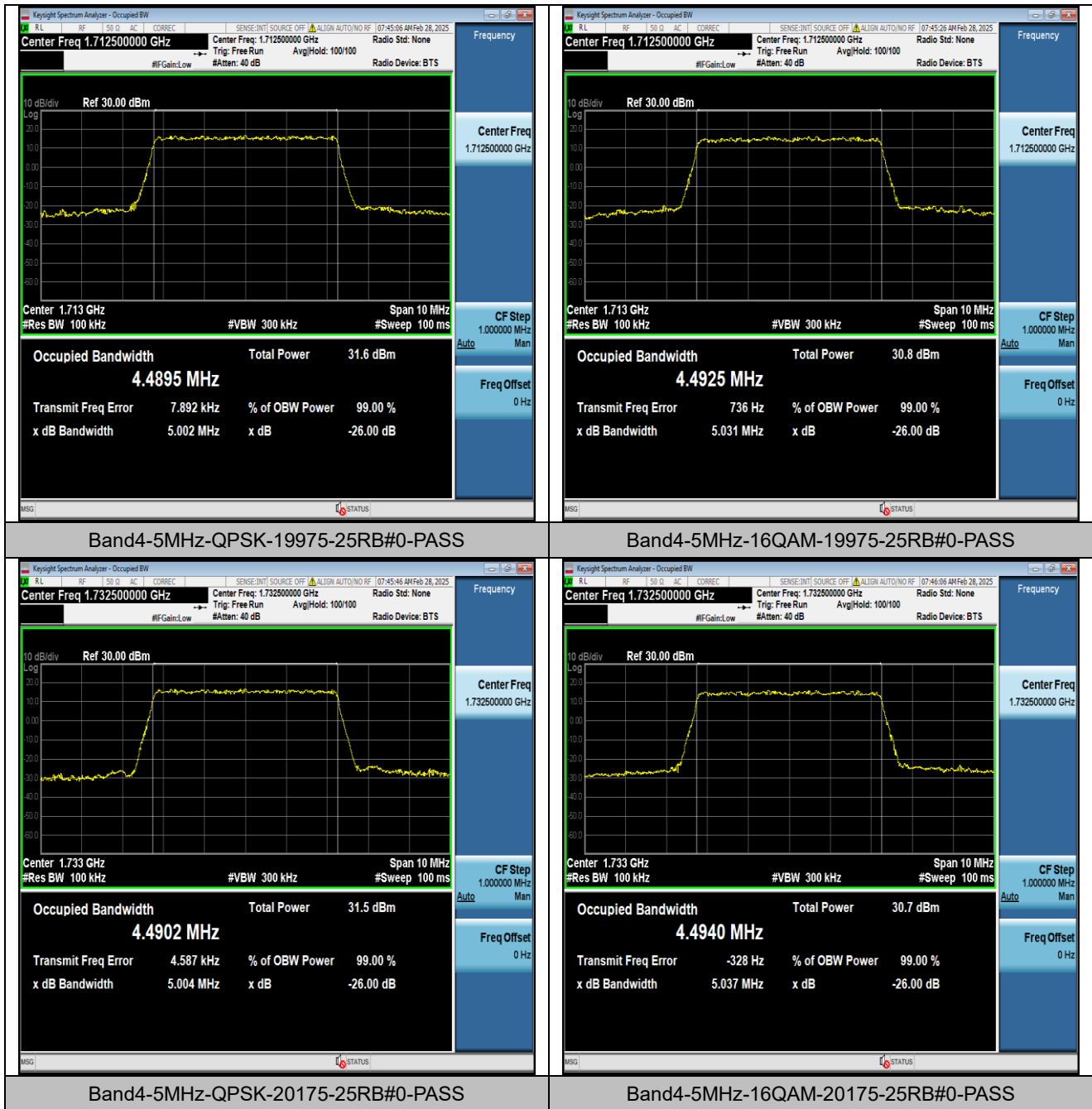
Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band4	1.4MHz	QPSK	19957	6RB#0	1.0887	1.269	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	1.0974	1.286	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	1.0892	1.268	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	1.0962	1.290	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	1.0897	1.270	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	1.0947	1.290	PASS
Band4	3MHz	QPSK	19965	15RB#0	2.6998	2.971	PASS
Band4	3MHz	16QAM	19965	15RB#0	2.6913	2.965	PASS
Band4	3MHz	QPSK	20175	15RB#0	2.6965	2.960	PASS
Band4	3MHz	16QAM	20175	15RB#0	2.6904	2.975	PASS
Band4	3MHz	QPSK	20385	15RB#0	2.7001	2.968	PASS
Band4	3MHz	16QAM	20385	15RB#0	2.6907	2.957	PASS
Band4	5MHz	QPSK	19975	25RB#0	4.4895	5.002	PASS
Band4	5MHz	16QAM	19975	25RB#0	4.4925	5.031	PASS
Band4	5MHz	QPSK	20175	25RB#0	4.4902	5.004	PASS
Band4	5MHz	16QAM	20175	25RB#0	4.4940	5.037	PASS
Band4	5MHz	QPSK	20375	25RB#0	4.4897	5.008	PASS
Band4	5MHz	16QAM	20375	25RB#0	4.4943	5.017	PASS
Band4	10MHz	QPSK	20000	50RB#0	8.9571	9.888	PASS
Band4	10MHz	16QAM	20000	50RB#0	8.9359	9.855	PASS
Band4	10MHz	QPSK	20175	50RB#0	8.9725	9.828	PASS
Band4	10MHz	16QAM	20175	50RB#0	8.9422	9.795	PASS
Band4	10MHz	QPSK	20350	50RB#0	8.9771	9.817	PASS
Band4	10MHz	16QAM	20350	50RB#0	8.9337	9.829	PASS
Band4	15MHz	QPSK	20025	75RB#0	13.424	14.64	PASS
Band4	15MHz	16QAM	20025	75RB#0	13.405	14.77	PASS
Band4	15MHz	QPSK	20175	75RB#0	13.462	14.70	PASS
Band4	15MHz	16QAM	20175	75RB#0	13.427	14.66	PASS
Band4	15MHz	QPSK	20325	75RB#0	13.430	14.73	PASS
Band4	15MHz	16QAM	20325	75RB#0	13.412	14.71	PASS
Band4	20MHz	QPSK	20050	100RB#0	17.911	19.54	PASS
Band4	20MHz	16QAM	20050	100RB#0	17.901	19.41	PASS
Band4	20MHz	QPSK	20175	100RB#0	17.940	19.62	PASS
Band4	20MHz	16QAM	20175	100RB#0	17.919	19.47	PASS
Band4	20MHz	QPSK	20300	100RB#0	17.906	19.56	PASS
Band4	20MHz	16QAM	20300	100RB#0	17.889	19.44	PASS

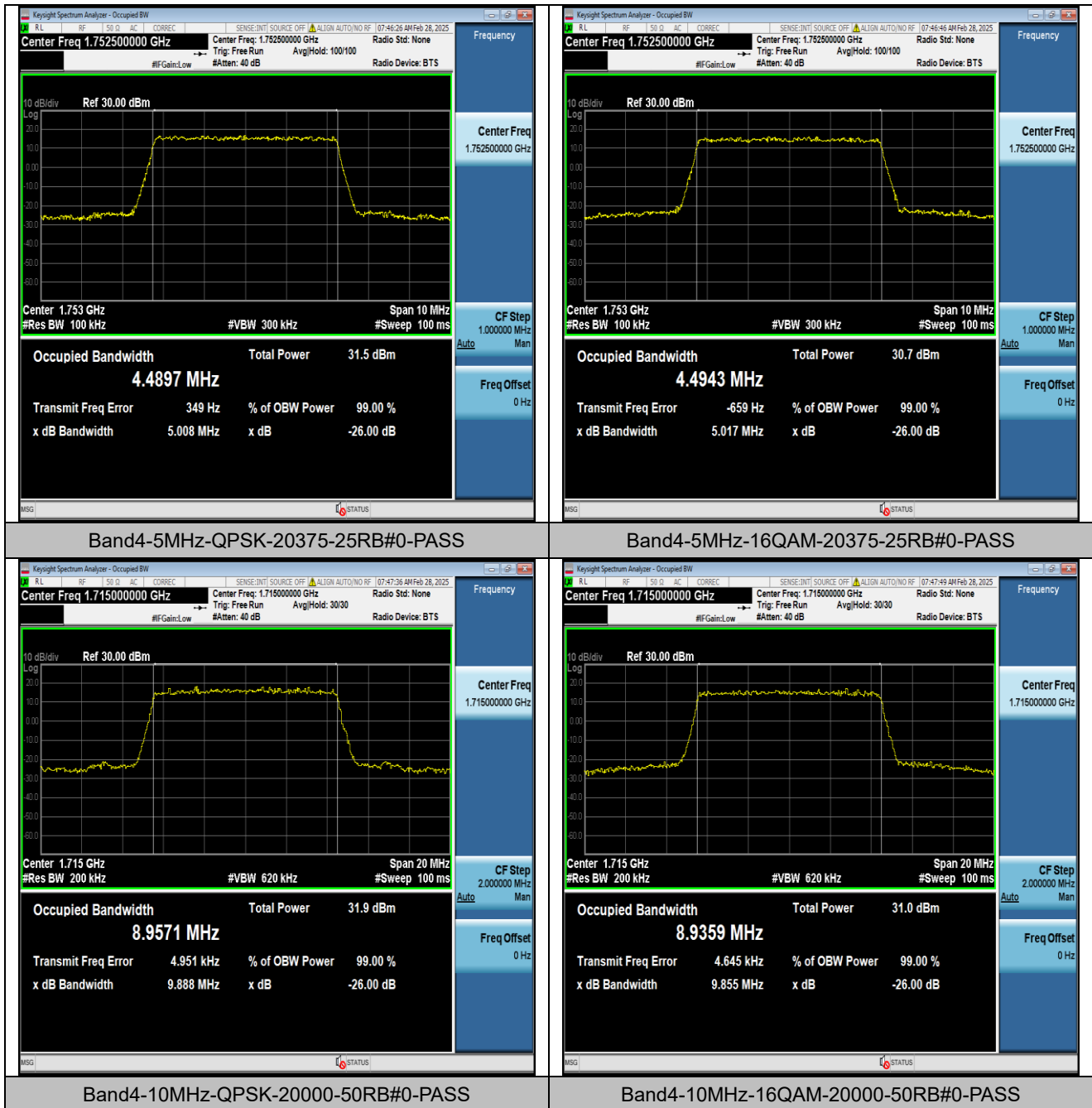
Test Graphs

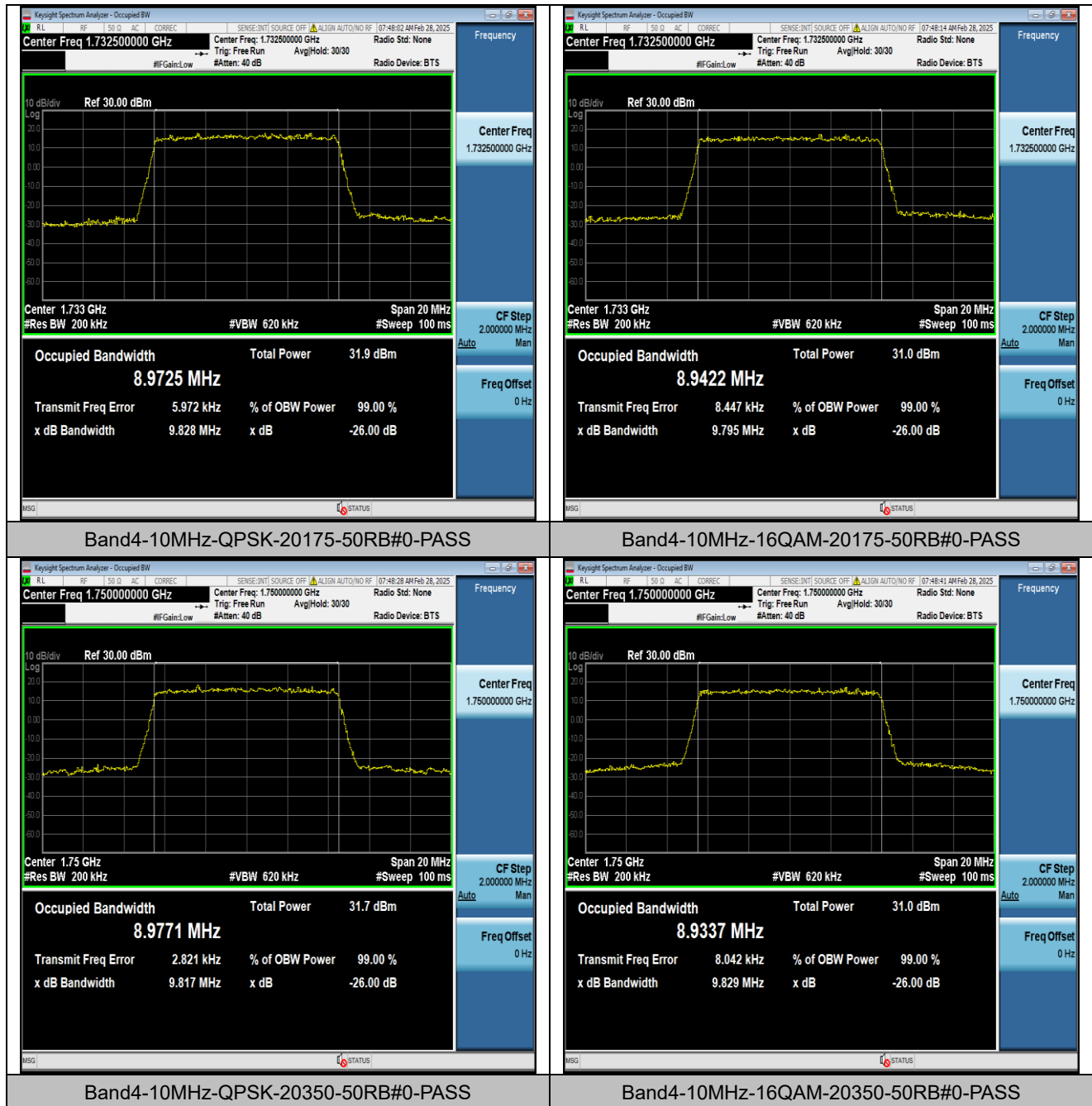


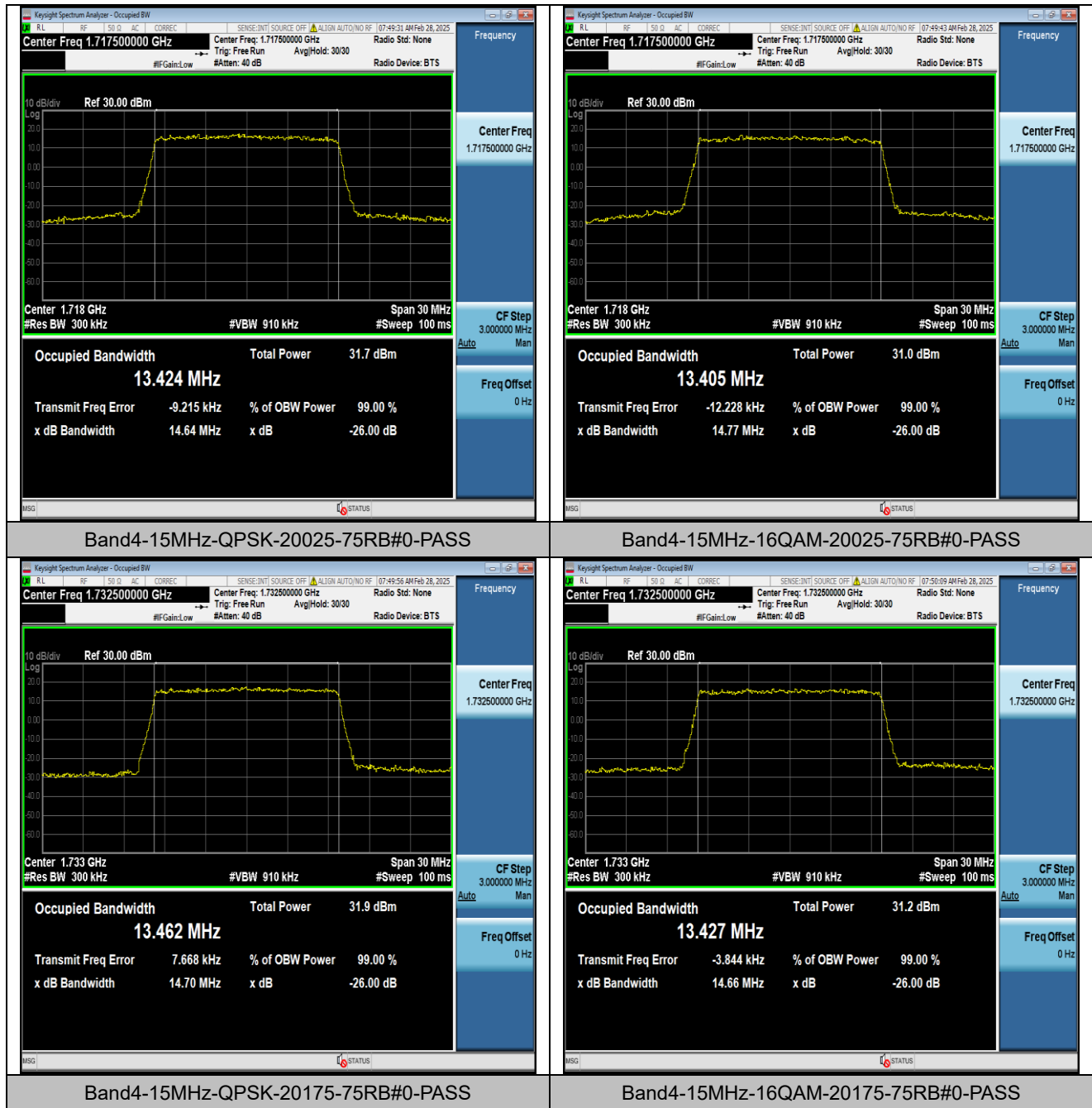


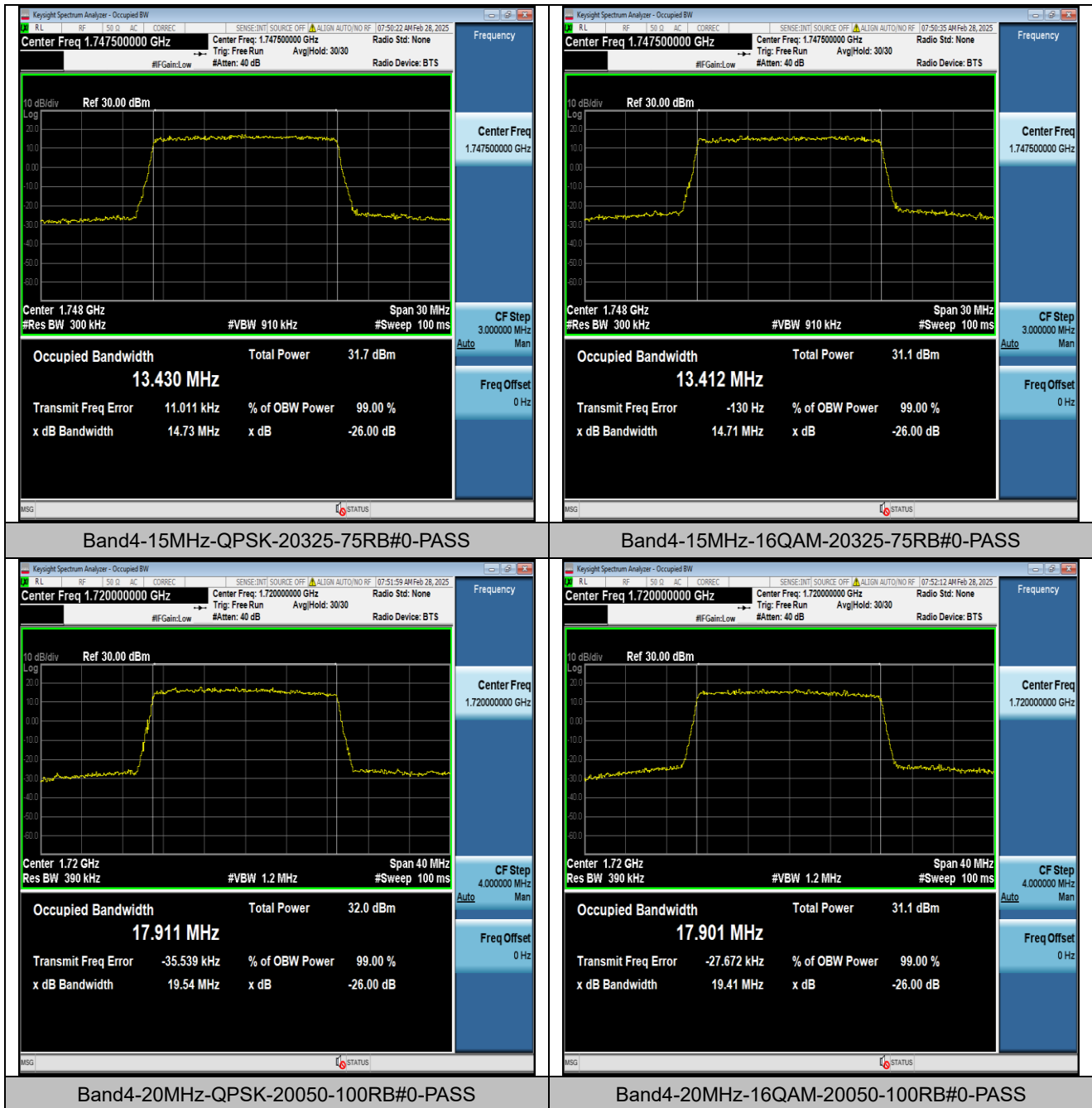


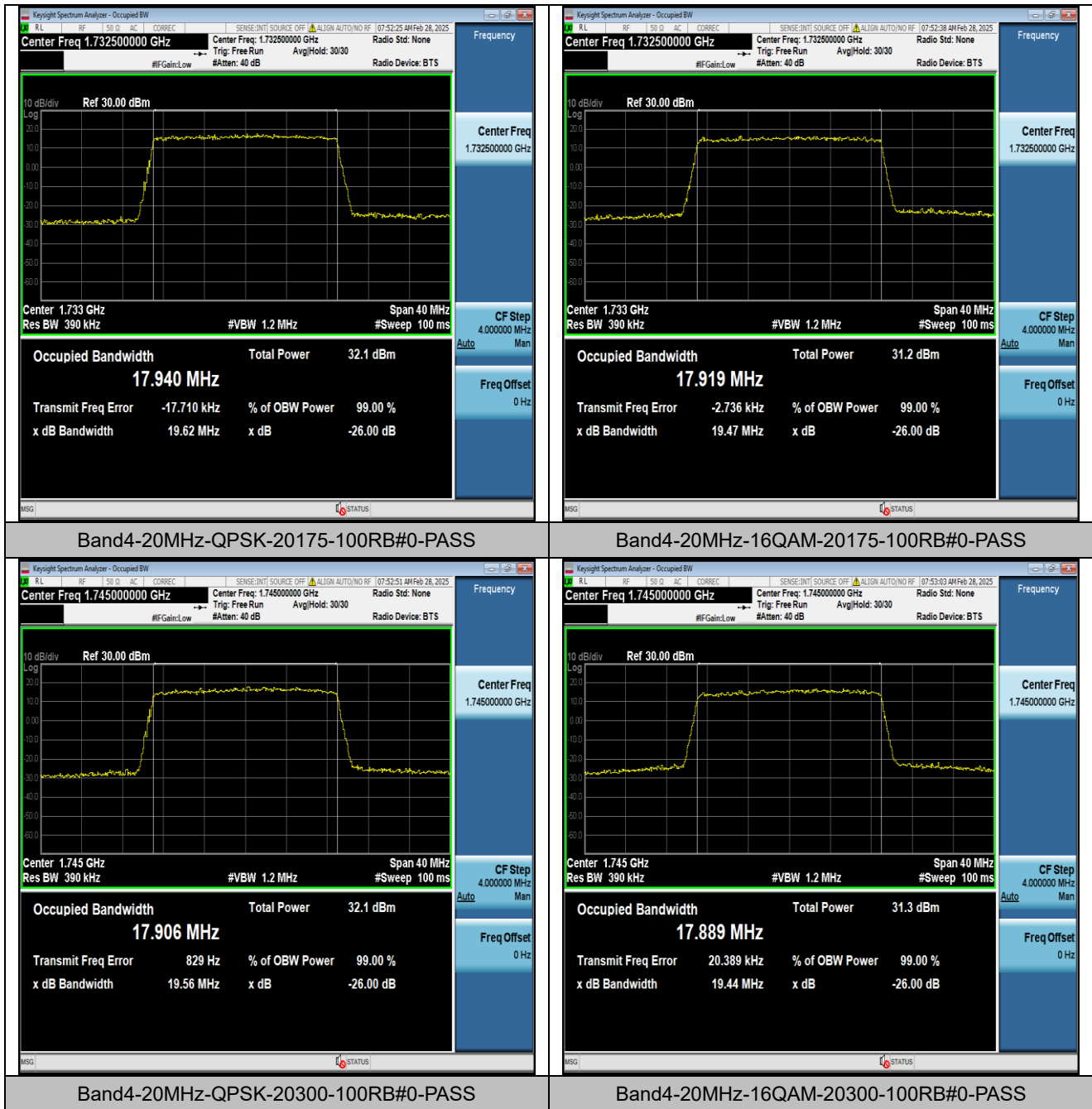






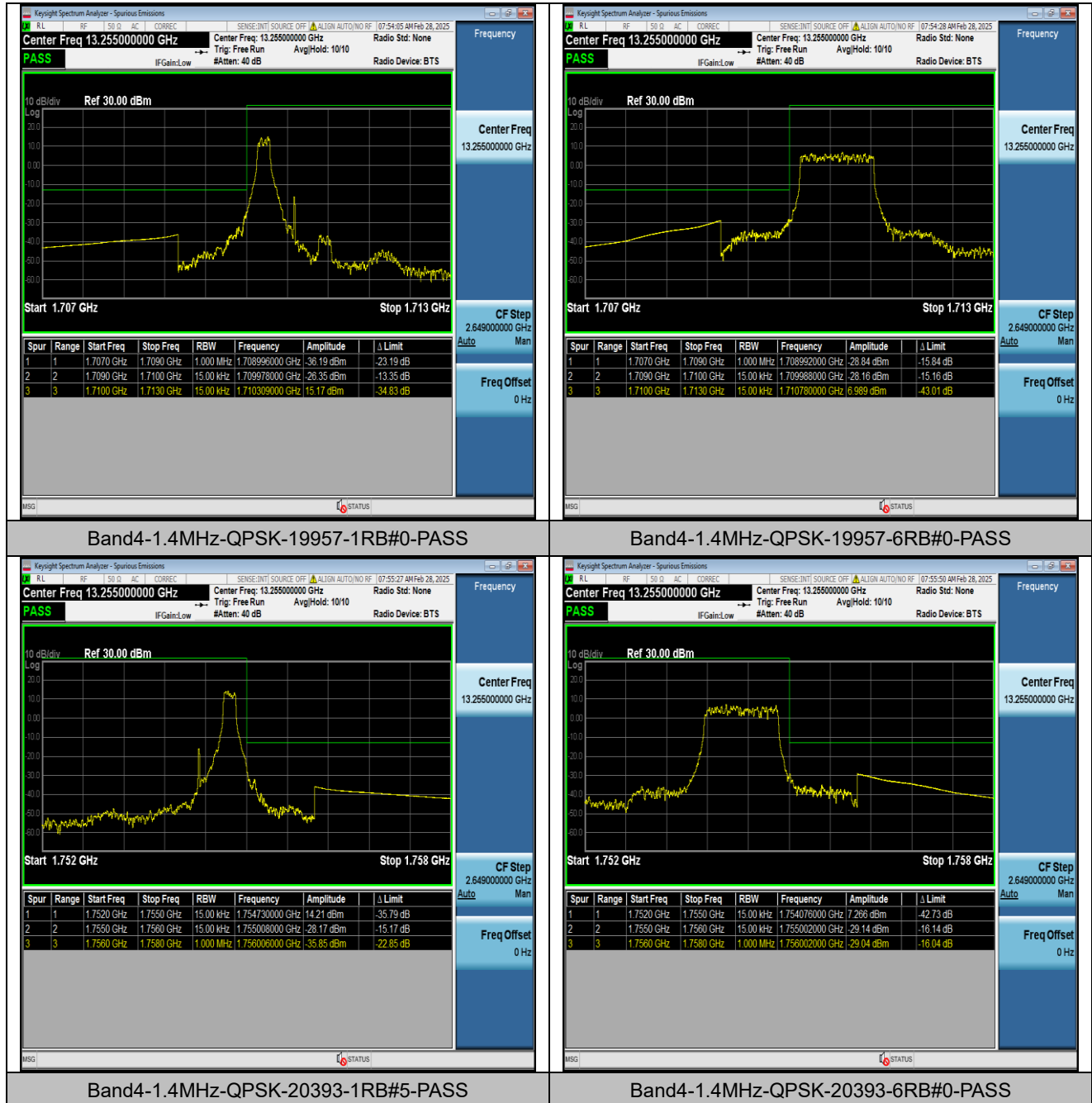


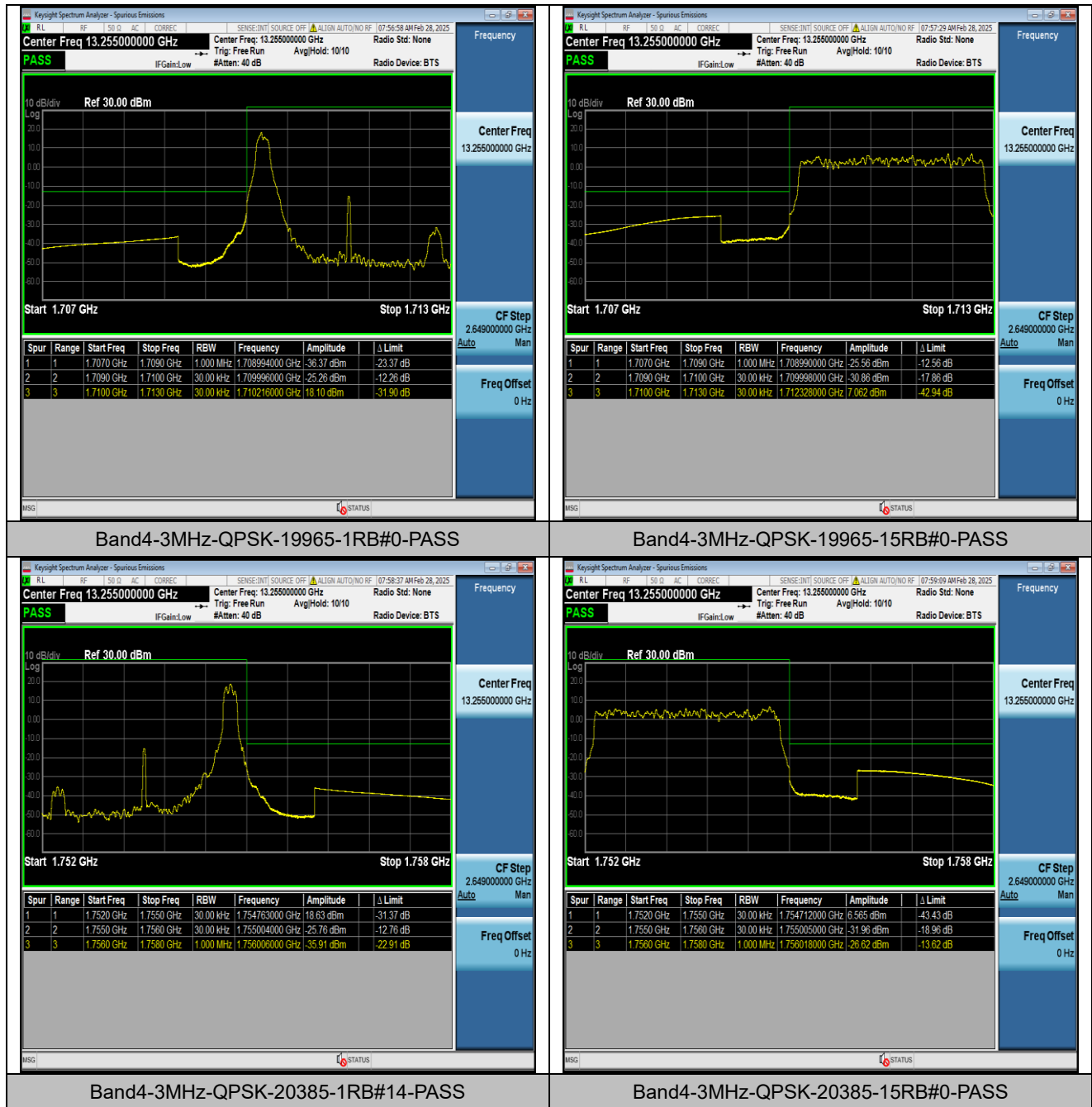


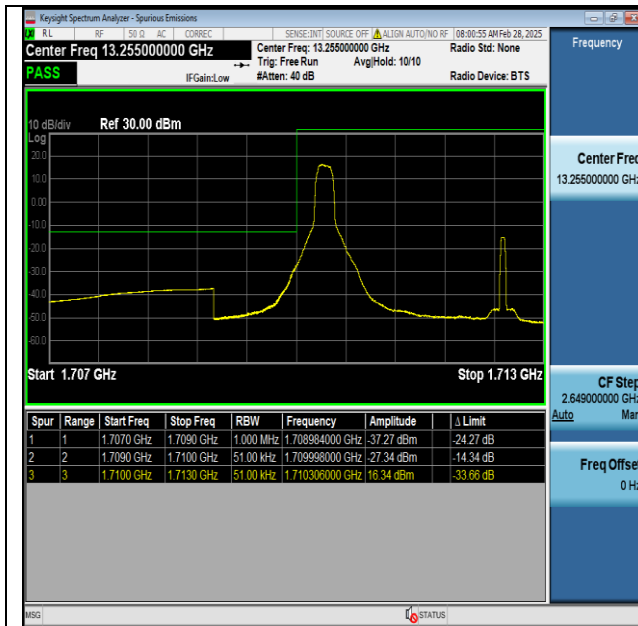


Band Edge

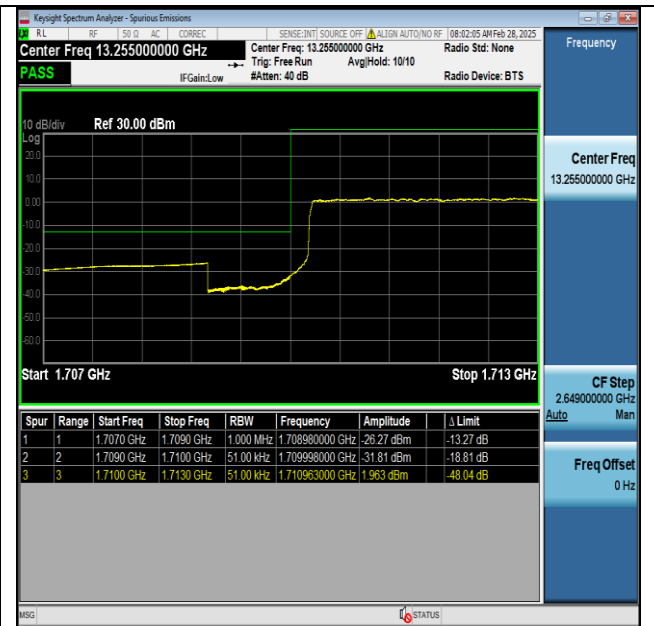
Test Graphs



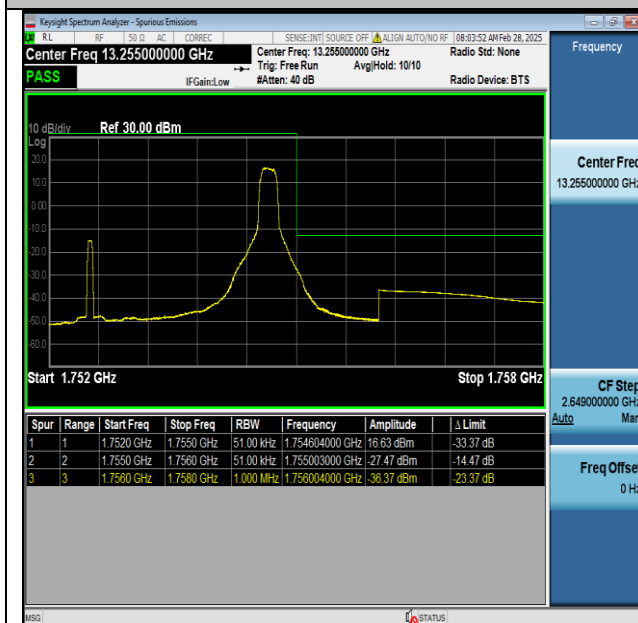




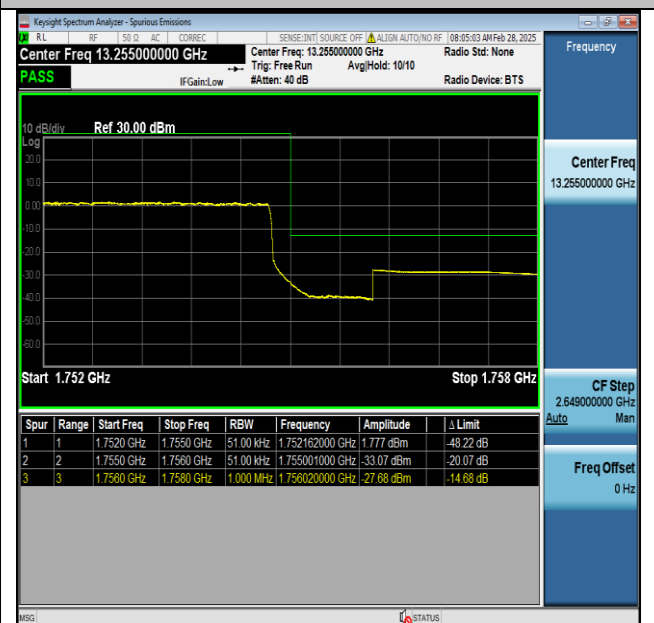
Band4-5MHz-QPSK-19975-1RB#0-PASS



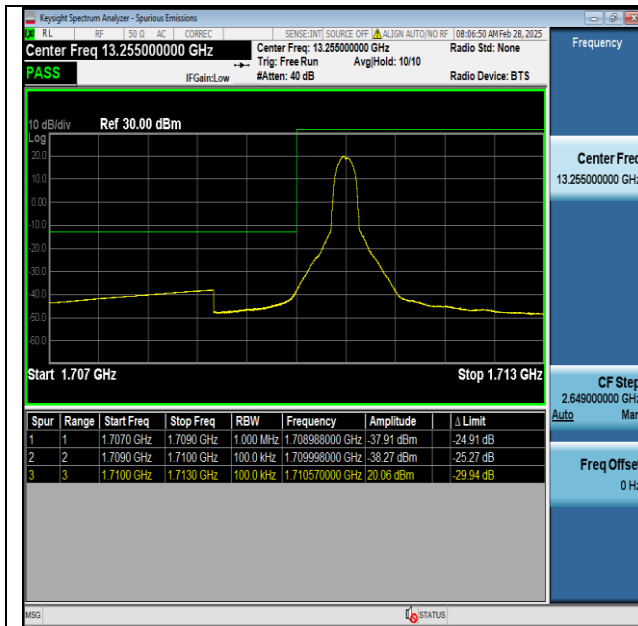
Band4-5MHz-QPSK-19975-25RB#0-PASS



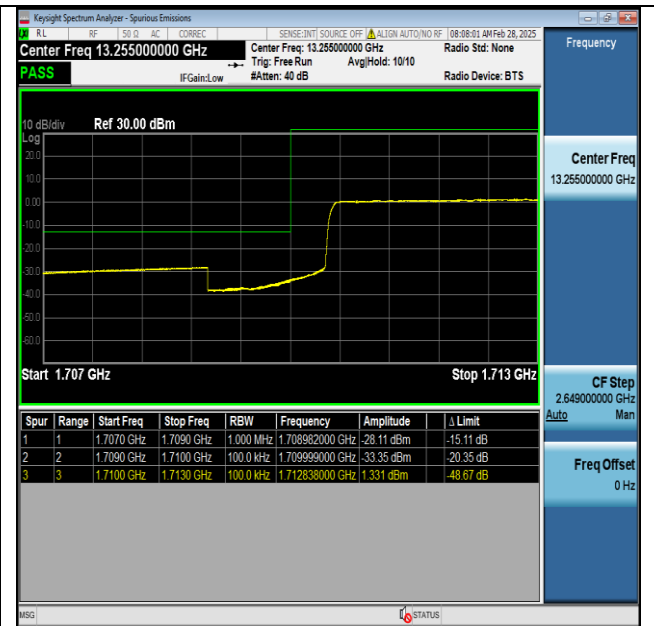
Band4-5MHz-QPSK-20375-1RB#24-PASS



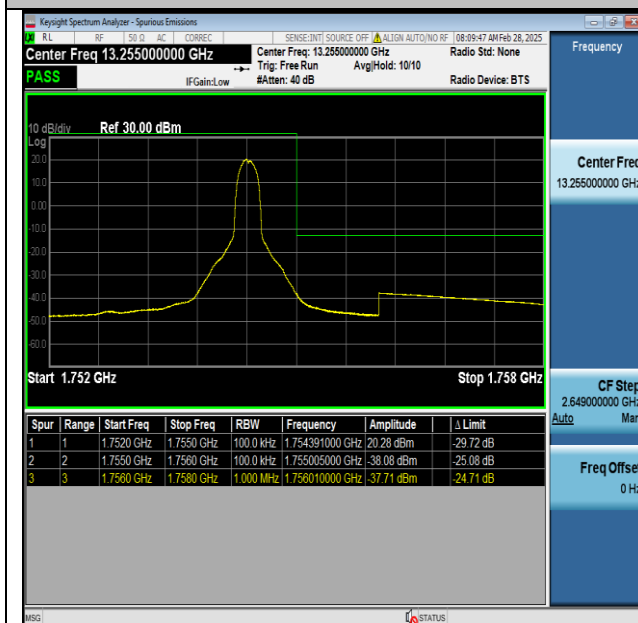
Band4-5MHz-QPSK-20375-25RB#0-PASS



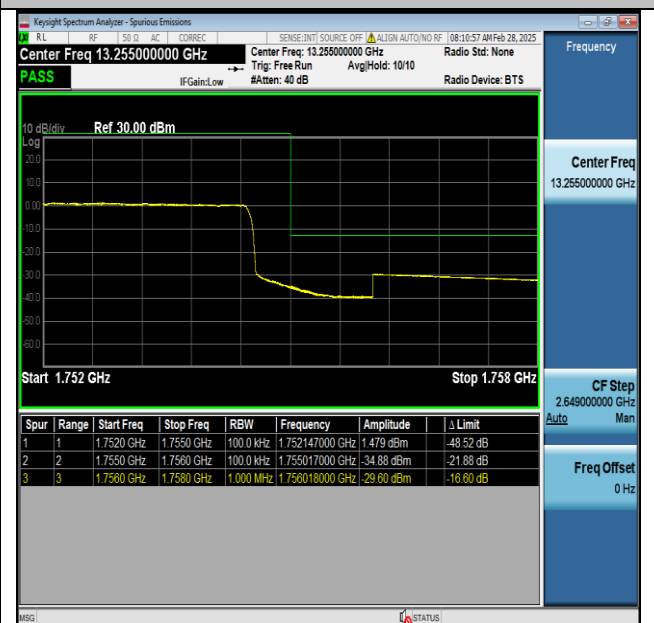
Band4-10MHz-QPSK-20000-1RB#0-PASS



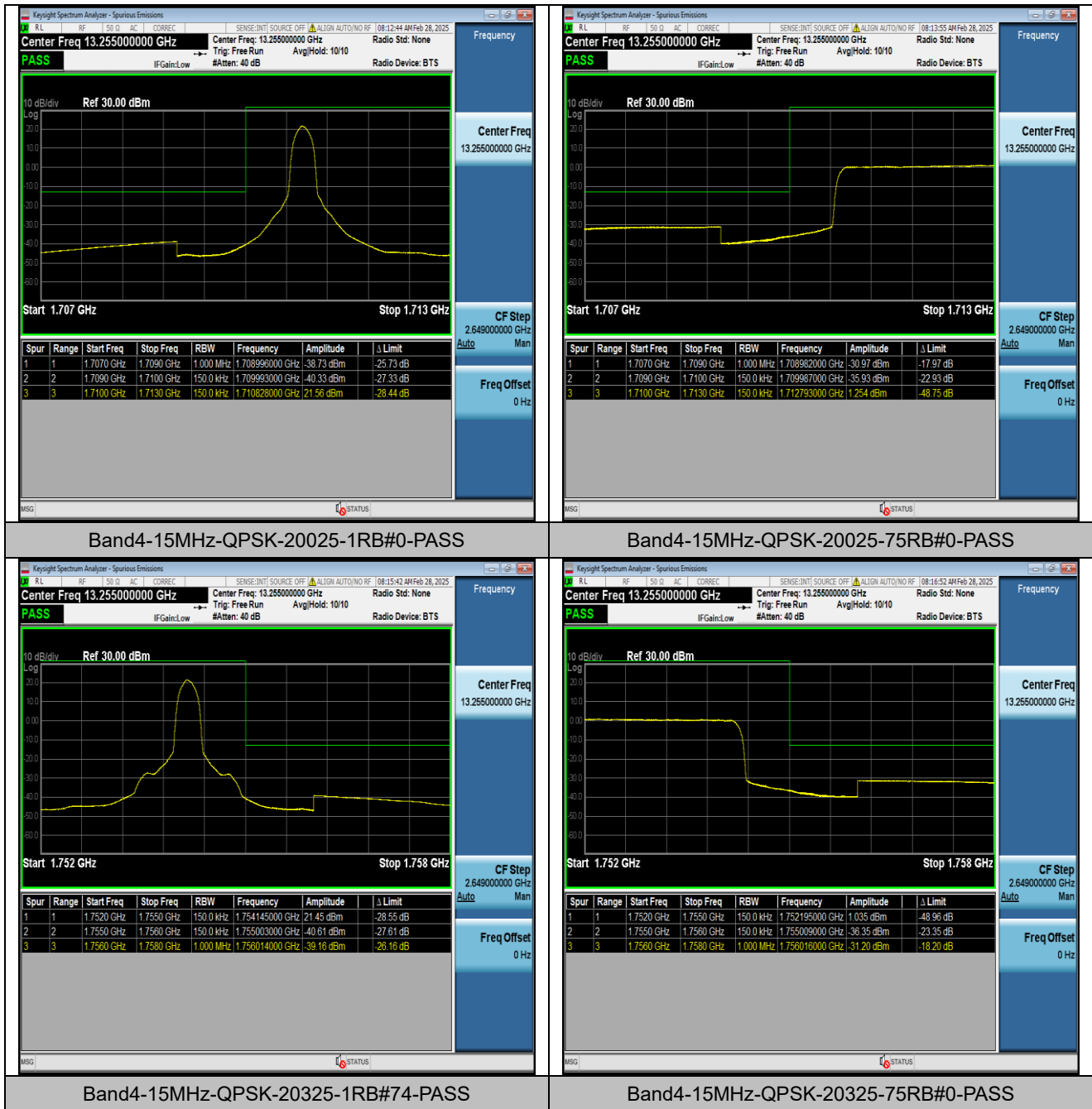
Band4-10MHz-QPSK-20000-50RB#0-PASS

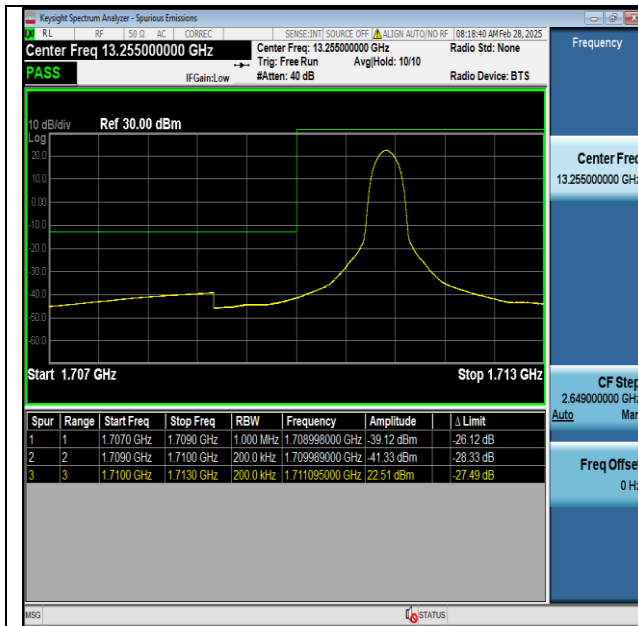


Band4-10MHz-QPSK-20350-1RB#49-PASS

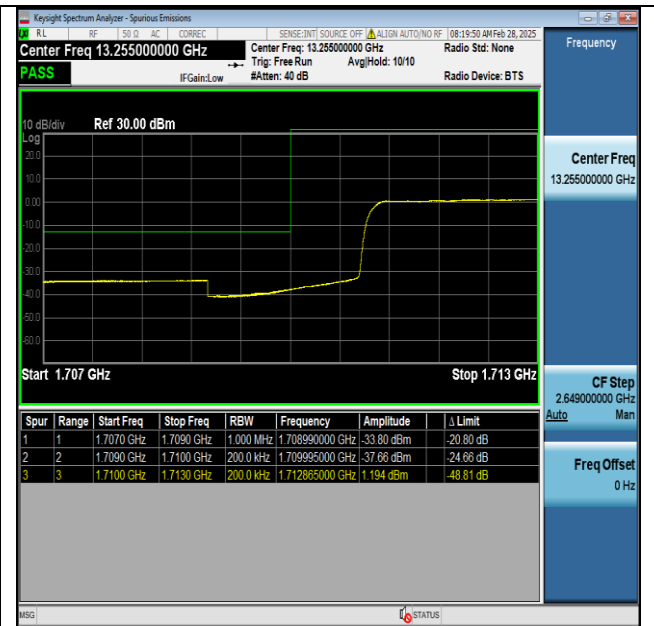


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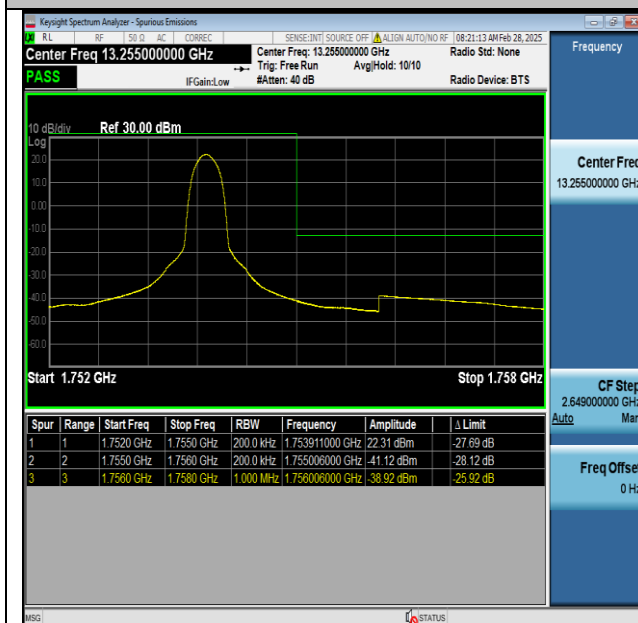




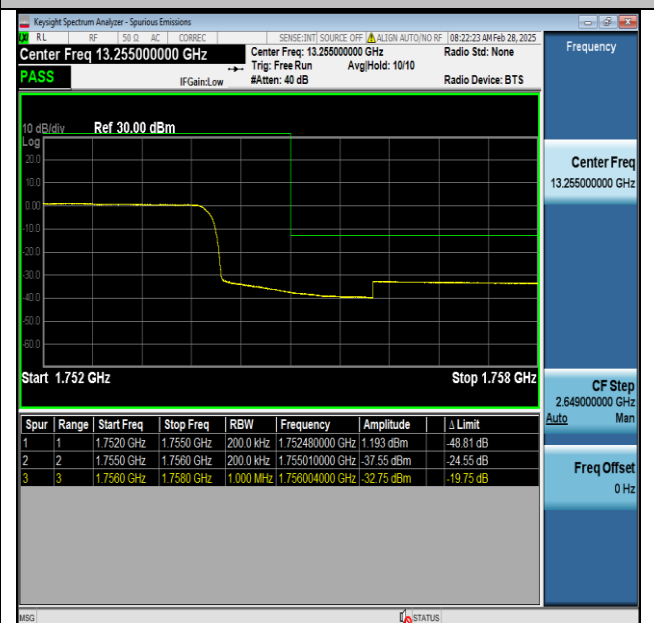
Band4-20MHz-QPSK-20050-1RB#0-PASS



Band4-20MHz-QPSK-20050-100RB#0-PASS



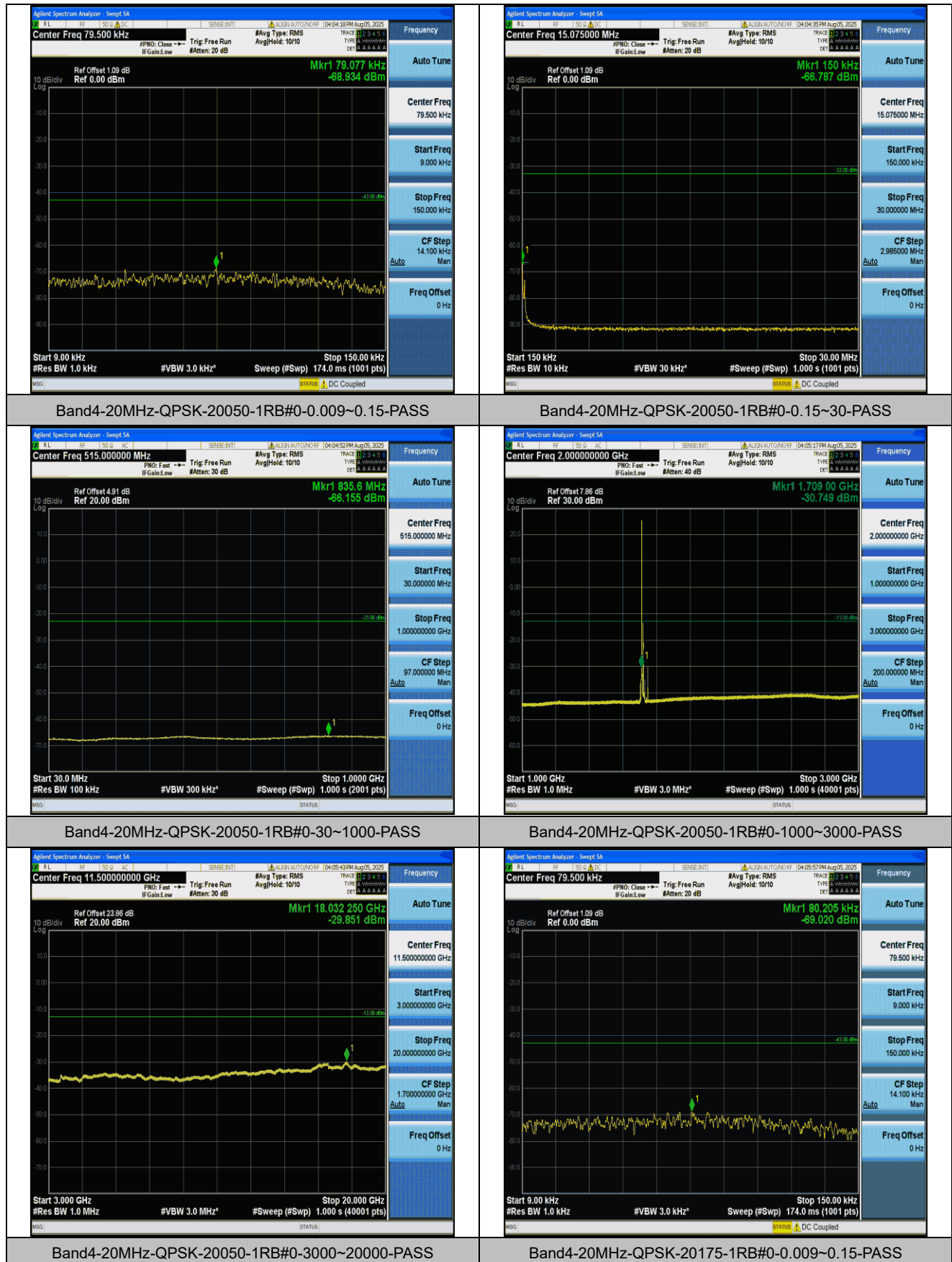
Band4-20MHz-QPSK-20300-1RB#99-PASS

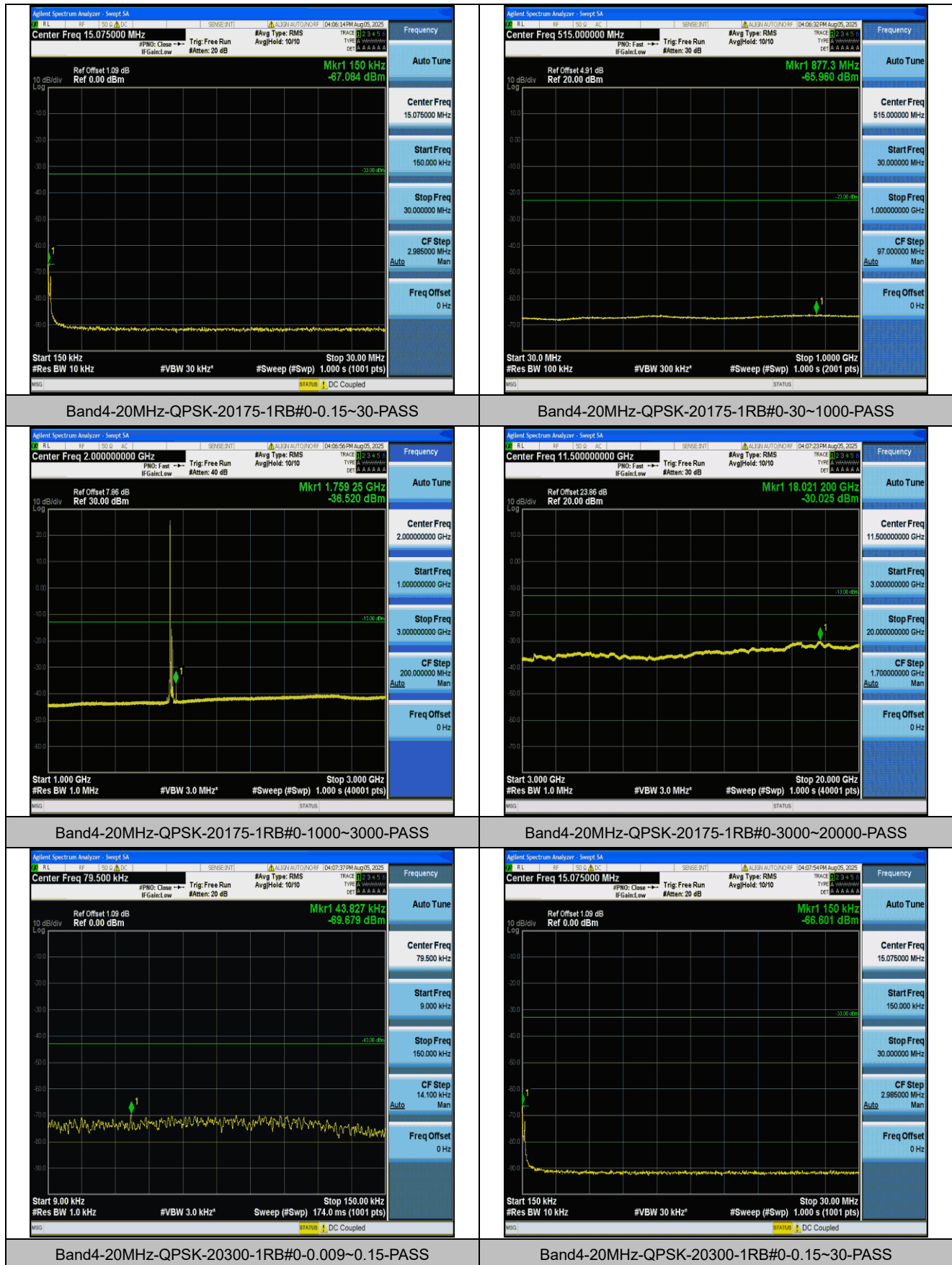


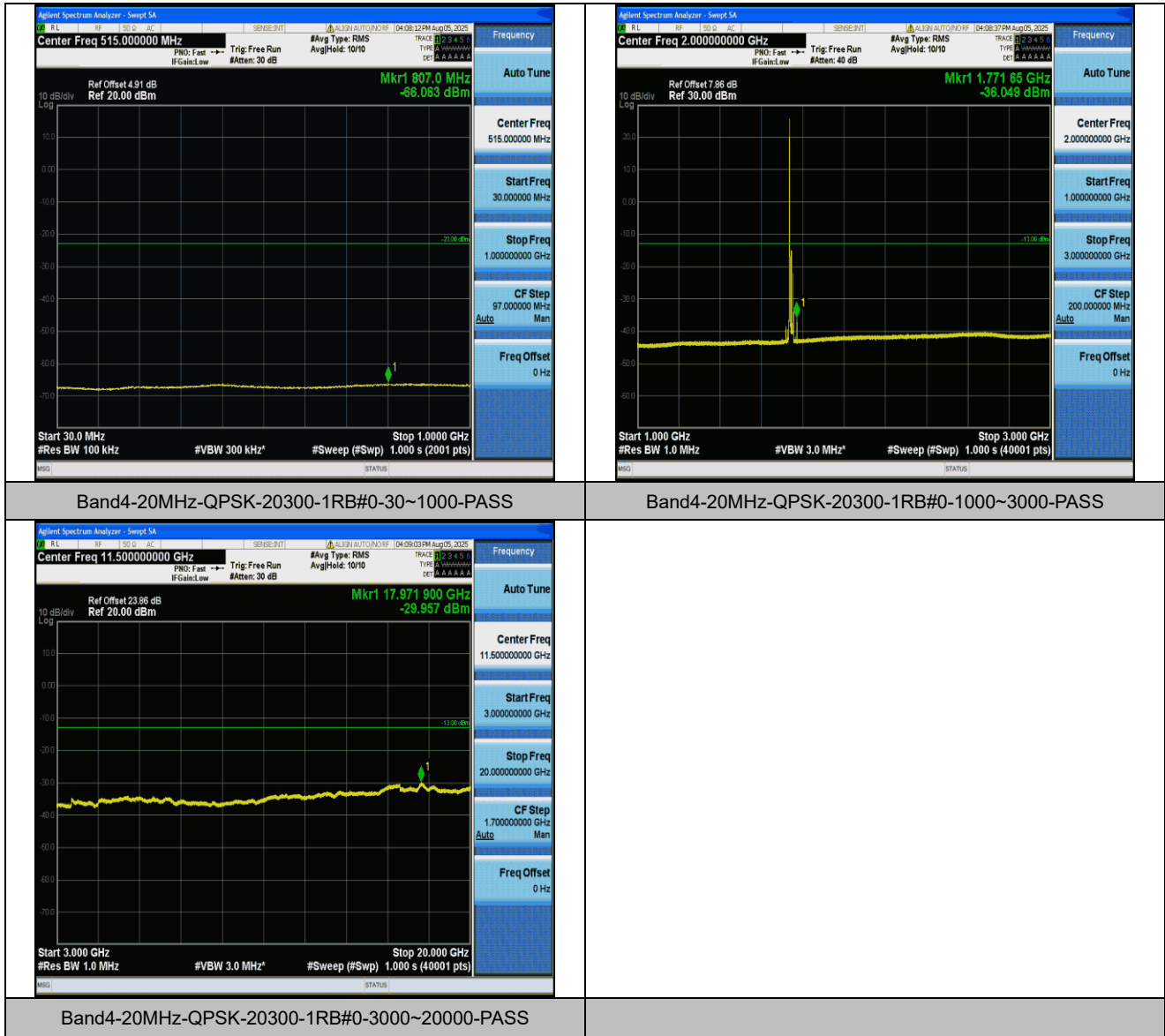
Band4-20MHz-QPSK-20300-100RB#0-PASS

Conducted Spurious Emission

Test Graphs







Frequency Stability

Test Result

Voltage									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band4	20MHz	QPSK	20175	100RB#0	VN	NT	0.70	0.000404	PASS
Band4	20MHz	QPSK	20175	100RB#0	VL	NT	-1.20	-0.000693	PASS
Band4	20MHz	QPSK	20175	100RB#0	VH	NT	-0.80	-0.000462	PASS

Temperature									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band4	20MHz	QPSK	20175	100RB#0	NV	-30	-0.70	-0.000404	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-20	1.50	0.000866	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-10	-0.10	-0.000058	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	0	-1.00	-0.000577	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	10	0.20	0.000115	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	20	-0.20	-0.000115	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	30	0.10	0.000058	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	40	0.90	0.000519	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	50	1.20	0.000693	PASS

~The End~