

Appendix-A 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	23.84	25.84	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#2	23.74	25.74	30.00	PASS
Band4	1.4MHz	QPSK	19957	1RB#5	23.85	25.85	30.00	PASS
Band4	1.4MHz	QPSK	19957	6RB#0	22.88	24.88	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#0	22.95	24.95	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#2	23.08	25.08	30.00	PASS
Band4	1.4MHz	16QAM	19957	1RB#5	22.8	24.8	30.00	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	21.97	23.97	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#0	23.4	25.4	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#2	23.39	25.39	30.00	PASS
Band4	1.4MHz	QPSK	20175	1RB#5	23.41	25.41	30.00	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	22.42	24.42	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#0	22.16	24.16	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#2	22.5	24.5	30.00	PASS
Band4	1.4MHz	16QAM	20175	1RB#5	22.25	24.25	30.00	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	21.55	23.55	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#0	23.76	25.76	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#2	23.67	25.67	30.00	PASS
Band4	1.4MHz	QPSK	20393	1RB#5	23.75	25.75	30.00	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	22.63	24.63	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#0	22.84	24.84	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#2	22.69	24.69	30.00	PASS
Band4	1.4MHz	16QAM	20393	1RB#5	22.69	24.69	30.00	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	21.73	23.73	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#0	23.65	25.65	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#8	23.75	25.75	30.00	PASS
Band4	3MHz	QPSK	19965	1RB#14	23.44	25.44	30.00	PASS
Band4	3MHz	QPSK	19965	15RB#0	22.74	24.74	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#0	22.47	24.47	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#8	22.87	24.87	30.00	PASS
Band4	3MHz	16QAM	19965	1RB#14	22.83	24.83	30.00	PASS
Band4	3MHz	16QAM	19965	15RB#0	21.65	23.65	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#0	23.2	25.2	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#8	23.3	25.3	30.00	PASS
Band4	3MHz	QPSK	20175	1RB#14	23.29	25.29	30.00	PASS
Band4	3MHz	QPSK	20175	15RB#0	22.29	24.29	30.00	PASS

Band4	3MHz	16QAM	20175	1RB#0	22.18	24.18	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#8	22.71	24.71	30.00	PASS
Band4	3MHz	16QAM	20175	1RB#14	22.47	24.47	30.00	PASS
Band4	3MHz	16QAM	20175	15RB#0	21.38	23.38	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#0	23.38	25.38	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#8	23.67	25.67	30.00	PASS
Band4	3MHz	QPSK	20385	1RB#14	23.56	25.56	30.00	PASS
Band4	3MHz	QPSK	20385	15RB#0	22.57	24.57	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#0	22.64	24.64	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#8	22.53	24.53	30.00	PASS
Band4	3MHz	16QAM	20385	1RB#14	22.52	24.52	30.00	PASS
Band4	3MHz	16QAM	20385	15RB#0	21.69	23.69	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#0	23.74	25.74	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#12	23.45	25.45	30.00	PASS
Band4	5MHz	QPSK	19975	1RB#24	23.5	25.5	30.00	PASS
Band4	5MHz	QPSK	19975	25RB#0	22.5	24.5	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#0	22.66	24.66	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#12	22.69	24.69	30.00	PASS
Band4	5MHz	16QAM	19975	1RB#24	22.53	24.53	30.00	PASS
Band4	5MHz	16QAM	19975	25RB#0	21.59	23.59	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#0	23.46	25.46	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#12	23.24	25.24	30.00	PASS
Band4	5MHz	QPSK	20175	1RB#24	23.48	25.48	30.00	PASS
Band4	5MHz	QPSK	20175	25RB#0	22.4	24.4	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#0	22.41	24.41	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#12	22.34	24.34	30.00	PASS
Band4	5MHz	16QAM	20175	1RB#24	22.6	24.6	30.00	PASS
Band4	5MHz	16QAM	20175	25RB#0	21.51	23.51	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#0	23.72	25.72	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#12	23.6	25.6	30.00	PASS
Band4	5MHz	QPSK	20375	1RB#24	23.83	25.83	30.00	PASS
Band4	5MHz	QPSK	20375	25RB#0	22.74	24.74	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#0	22.58	24.58	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#12	22.9	24.9	30.00	PASS
Band4	5MHz	16QAM	20375	1RB#24	23.02	25.02	30.00	PASS
Band4	5MHz	16QAM	20375	25RB#0	21.86	23.86	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#0	23.67	25.67	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#24	23.61	25.61	30.00	PASS
Band4	10MHz	QPSK	20000	1RB#49	23.59	25.59	30.00	PASS
Band4	10MHz	QPSK	20000	50RB#0	22.64	24.64	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#0	23.07	25.07	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#24	22.67	24.67	30.00	PASS
Band4	10MHz	16QAM	20000	1RB#49	22.66	24.66	30.00	PASS
Band4	10MHz	16QAM	20000	27RB#0	21.73	23.73	30.00	PASS

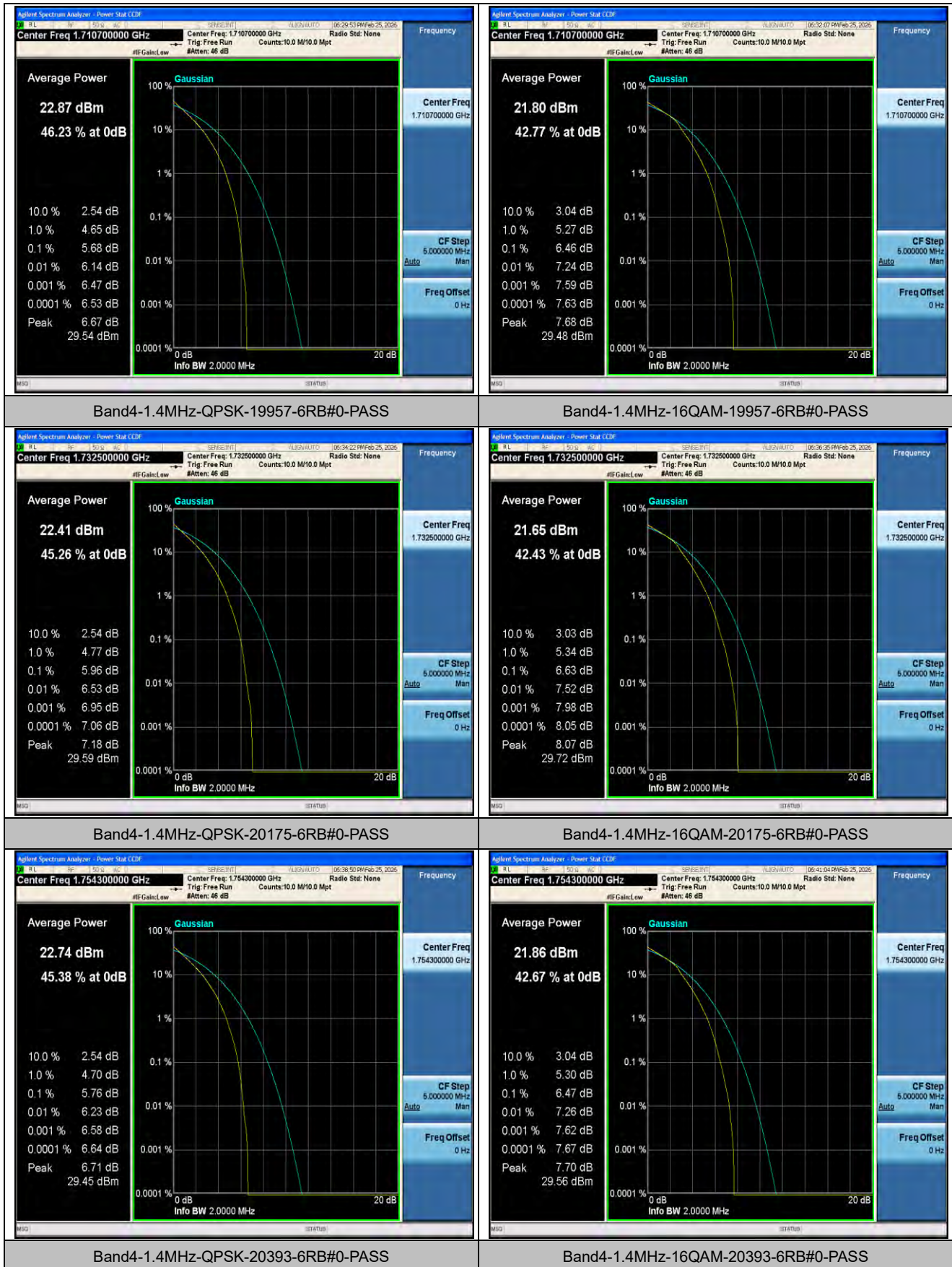
Band4	10MHz	QPSK	20175	1RB#0	23.77	25.77	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#24	23.5	25.5	30.00	PASS
Band4	10MHz	QPSK	20175	1RB#49	23.57	25.57	30.00	PASS
Band4	10MHz	QPSK	20175	50RB#0	22.55	24.55	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#0	22.87	24.87	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#24	22.34	24.34	30.00	PASS
Band4	10MHz	16QAM	20175	1RB#49	22.48	24.48	30.00	PASS
Band4	10MHz	16QAM	20175	27RB#0	21.64	23.64	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#0	23.72	25.72	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#24	23.79	25.79	30.00	PASS
Band4	10MHz	QPSK	20350	1RB#49	23.93	25.93	30.00	PASS
Band4	10MHz	QPSK	20350	50RB#0	22.87	24.87	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#0	22.65	24.65	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#24	22.61	24.61	30.00	PASS
Band4	10MHz	16QAM	20350	1RB#49	23.02	25.02	30.00	PASS
Band4	10MHz	16QAM	20350	27RB#0	21.96	23.96	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#0	23.58	25.58	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#38	23.72	25.72	30.00	PASS
Band4	15MHz	QPSK	20025	1RB#74	23.5	25.5	30.00	PASS
Band4	15MHz	QPSK	20025	75RB#0	22.79	24.79	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#0	22.9	24.9	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#38	22.95	24.95	30.00	PASS
Band4	15MHz	16QAM	20025	1RB#74	22.7	24.7	30.00	PASS
Band4	15MHz	16QAM	20025	27RB#0	21.8	23.8	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#0	23.78	25.78	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#38	23.59	25.59	30.00	PASS
Band4	15MHz	QPSK	20175	1RB#74	23.68	25.68	30.00	PASS
Band4	15MHz	QPSK	20175	75RB#0	22.56	24.56	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#0	22.82	24.82	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#38	22.65	24.65	30.00	PASS
Band4	15MHz	16QAM	20175	1RB#74	22.83	24.83	30.00	PASS
Band4	15MHz	16QAM	20175	27RB#0	21.79	23.79	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#0	23.42	25.42	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#38	23.66	25.66	30.00	PASS
Band4	15MHz	QPSK	20325	1RB#74	23.84	25.84	30.00	PASS
Band4	15MHz	QPSK	20325	75RB#0	22.84	24.84	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#0	22.39	24.39	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#38	22.93	24.93	30.00	PASS
Band4	15MHz	16QAM	20325	1RB#74	22.88	24.88	30.00	PASS
Band4	15MHz	16QAM	20325	27RB#0	21.77	23.77	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#0	22.67	24.67	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#49	23.72	25.72	30.00	PASS
Band4	20MHz	QPSK	20050	1RB#99	23.6	25.6	30.00	PASS
Band4	20MHz	QPSK	20050	100RB#0	22.85	24.85	30.00	PASS

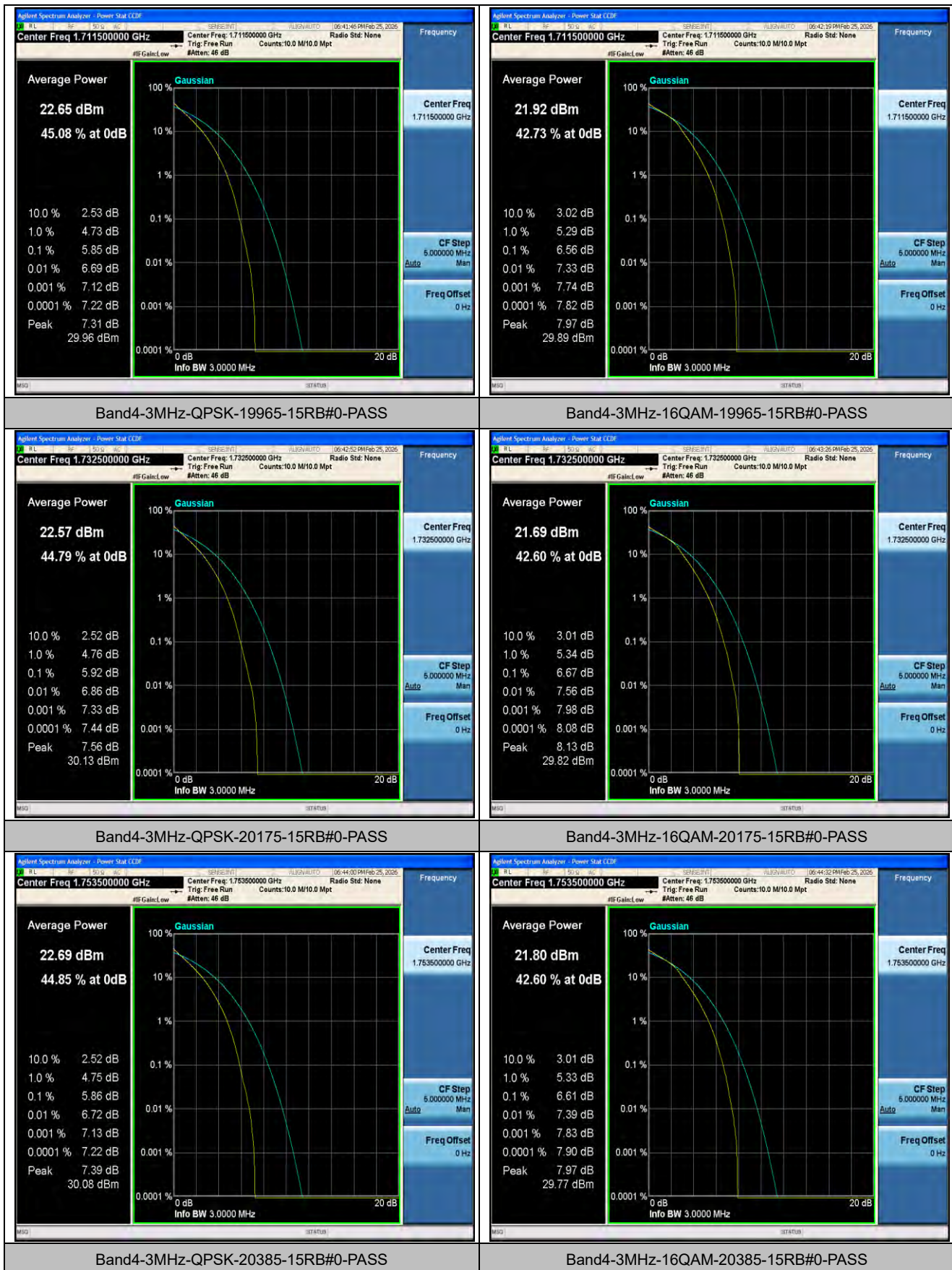
Band4	20MHz	16QAM	20050	1RB#0	23.15	25.15	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#49	23.01	25.01	30.00	PASS
Band4	20MHz	16QAM	20050	1RB#99	22.69	24.69	30.00	PASS
Band4	20MHz	16QAM	20050	27RB#0	21.98	23.98	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#0	23.78	25.78	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#49	23.61	25.61	30.00	PASS
Band4	20MHz	QPSK	20175	1RB#99	23.85	25.85	30.00	PASS
Band4	20MHz	QPSK	20175	100RB#0	22.64	24.64	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#0	23.22	25.22	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#49	22.81	24.81	30.00	PASS
Band4	20MHz	16QAM	20175	1RB#99	22.85	24.85	30.00	PASS
Band4	20MHz	16QAM	20175	27RB#0	21.86	23.86	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#0	23.42	25.42	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#49	23.63	25.63	30.00	PASS
Band4	20MHz	QPSK	20300	1RB#99	24.03	26.03	30.00	PASS
Band4	20MHz	QPSK	20300	100RB#0	22.71	24.71	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#0	22.81	24.81	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#49	22.82	24.82	30.00	PASS
Band4	20MHz	16QAM	20300	1RB#99	23.15	25.15	30.00	PASS
Band4	20MHz	16QAM	20300	27RB#0	21.64	23.64	30.00	PASS

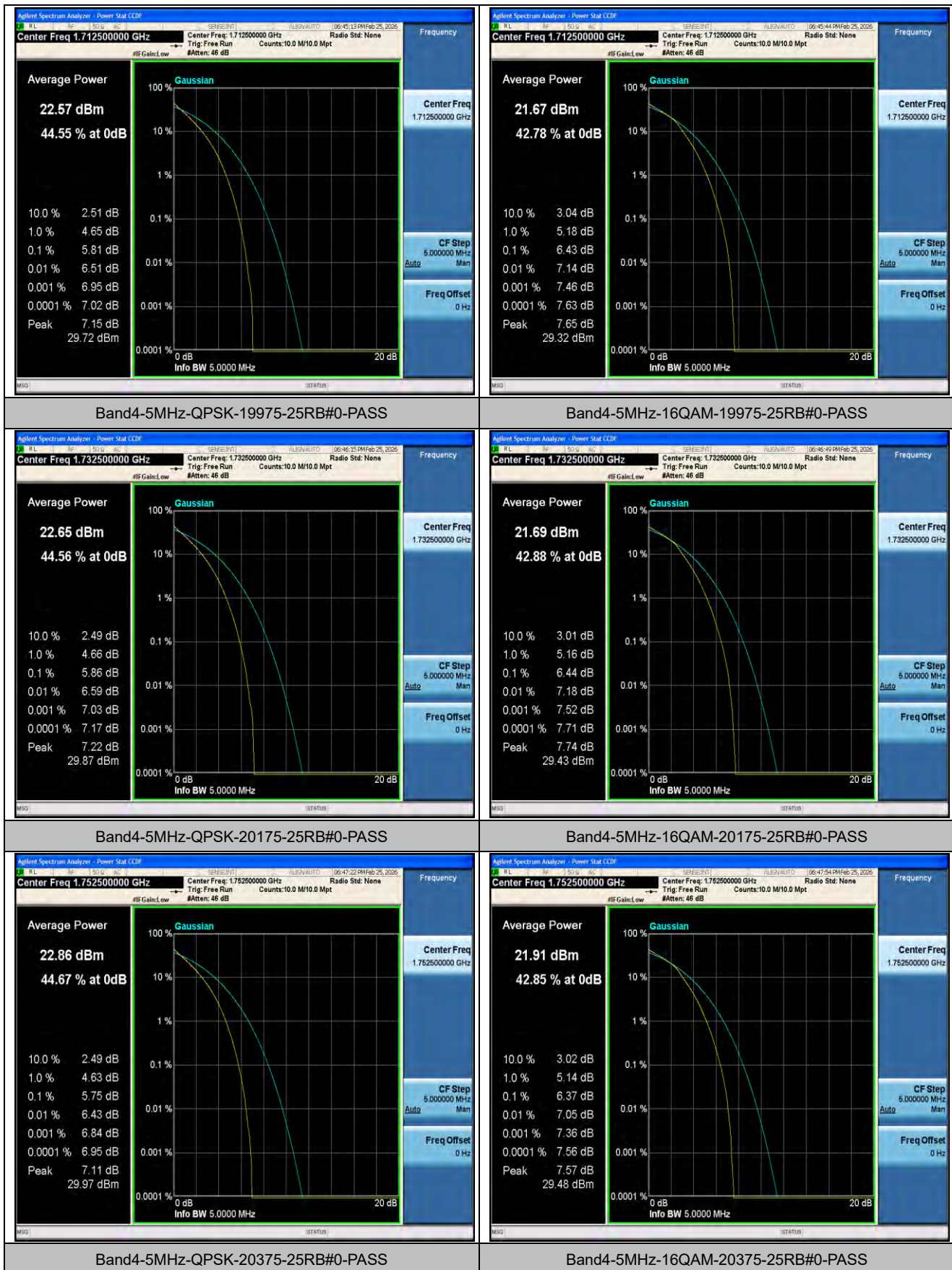
Peak-to-Average Ratio(CCDF)**Test Result**

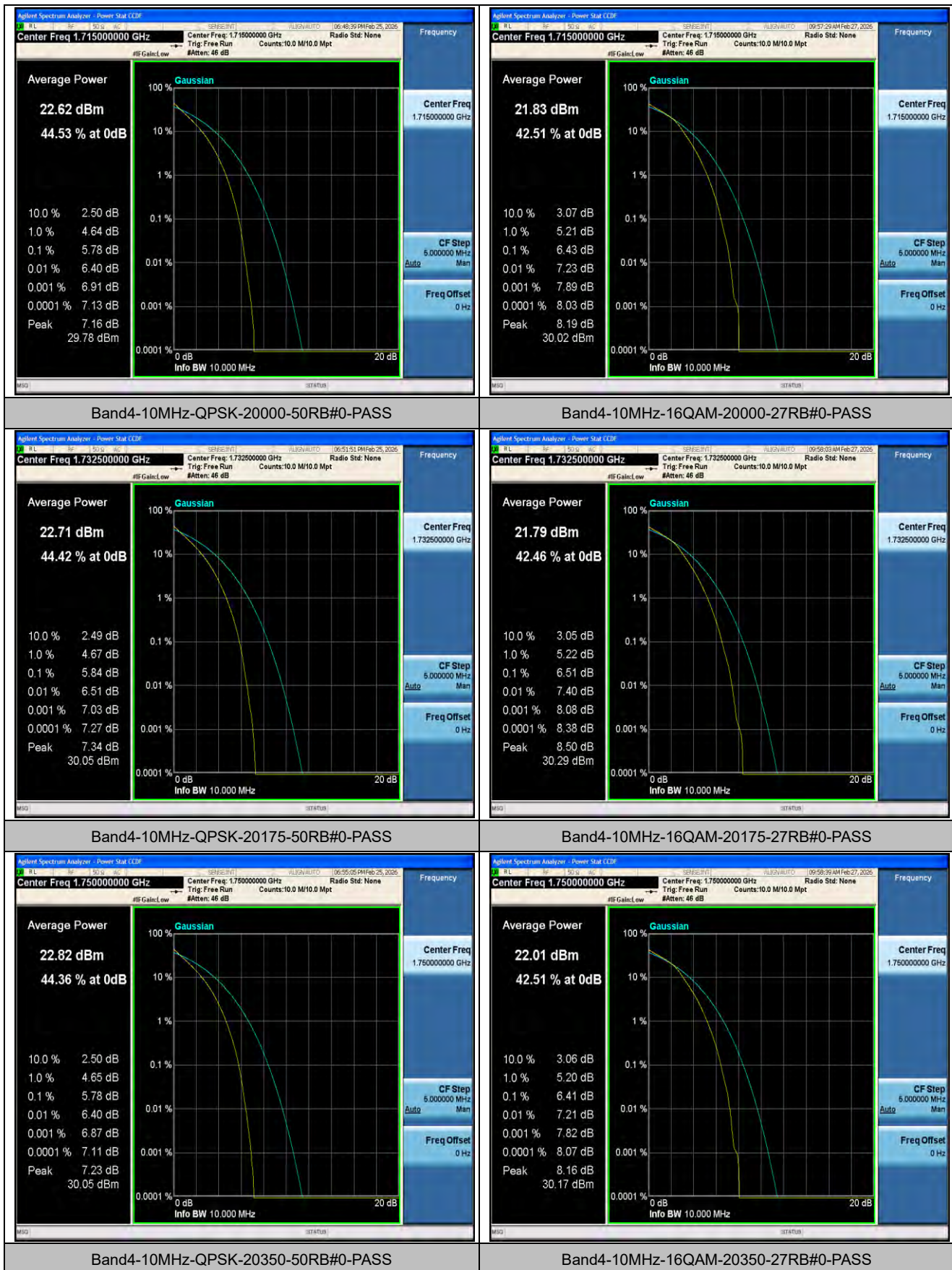
Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band4	1.4MHz	QPSK	19957	6RB#0	5.68	13	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	6.46	13	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	5.96	13	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	6.63	13	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	5.76	13	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	6.47	13	PASS
Band4	3MHz	QPSK	19965	15RB#0	5.85	13	PASS
Band4	3MHz	16QAM	19965	15RB#0	6.56	13	PASS
Band4	3MHz	QPSK	20175	15RB#0	5.92	13	PASS
Band4	3MHz	16QAM	20175	15RB#0	6.67	13	PASS
Band4	3MHz	QPSK	20385	15RB#0	5.86	13	PASS
Band4	3MHz	16QAM	20385	15RB#0	6.61	13	PASS
Band4	5MHz	QPSK	19975	25RB#0	5.81	13	PASS
Band4	5MHz	16QAM	19975	25RB#0	6.43	13	PASS
Band4	5MHz	QPSK	20175	25RB#0	5.86	13	PASS
Band4	5MHz	16QAM	20175	25RB#0	6.44	13	PASS
Band4	5MHz	QPSK	20375	25RB#0	5.75	13	PASS
Band4	5MHz	16QAM	20375	25RB#0	6.37	13	PASS
Band4	10MHz	QPSK	20000	50RB#0	5.78	13	PASS
Band4	10MHz	16QAM	20000	27RB#0	6.43	13	PASS
Band4	10MHz	QPSK	20175	50RB#0	5.84	13	PASS
Band4	10MHz	16QAM	20175	27RB#0	6.51	13	PASS
Band4	10MHz	QPSK	20350	50RB#0	5.78	13	PASS
Band4	10MHz	16QAM	20350	27RB#0	6.41	13	PASS
Band4	15MHz	QPSK	20025	75RB#0	5.39	13	PASS
Band4	15MHz	16QAM	20025	27RB#0	6.35	13	PASS
Band4	15MHz	QPSK	20175	75RB#0	5.41	13	PASS
Band4	15MHz	16QAM	20175	27RB#0	6.41	13	PASS
Band4	15MHz	QPSK	20325	75RB#0	5.37	13	PASS
Band4	15MHz	16QAM	20325	27RB#0	6.39	13	PASS
Band4	20MHz	QPSK	20050	100RB#0	5.76	13	PASS
Band4	20MHz	16QAM	20050	27RB#0	6.35	13	PASS
Band4	20MHz	QPSK	20175	100RB#0	5.78	13	PASS
Band4	20MHz	16QAM	20175	27RB#0	6.46	13	PASS
Band4	20MHz	QPSK	20300	100RB#0	5.77	13	PASS
Band4	20MHz	16QAM	20300	27RB#0	6.50	13	PASS

Test Graphs



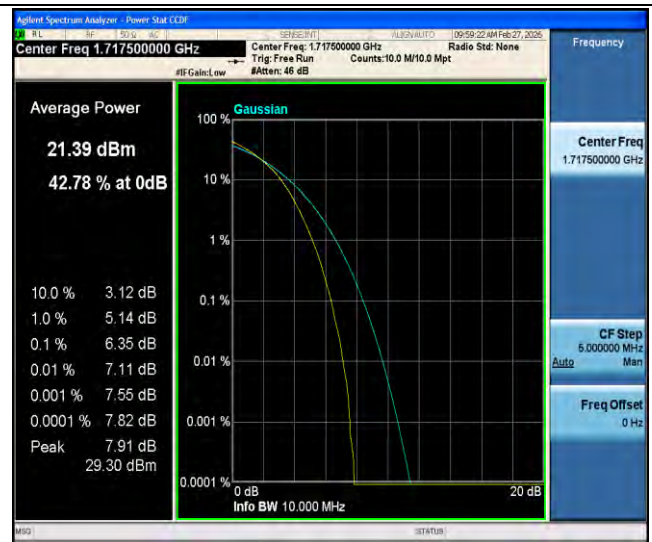








Band4-15MHz-QPSK-20025-75RB#0-PASS



Band4-15MHz-16QAM-20025-27RB#0-PASS



Band4-15MHz-QPSK-20175-75RB#0-PASS



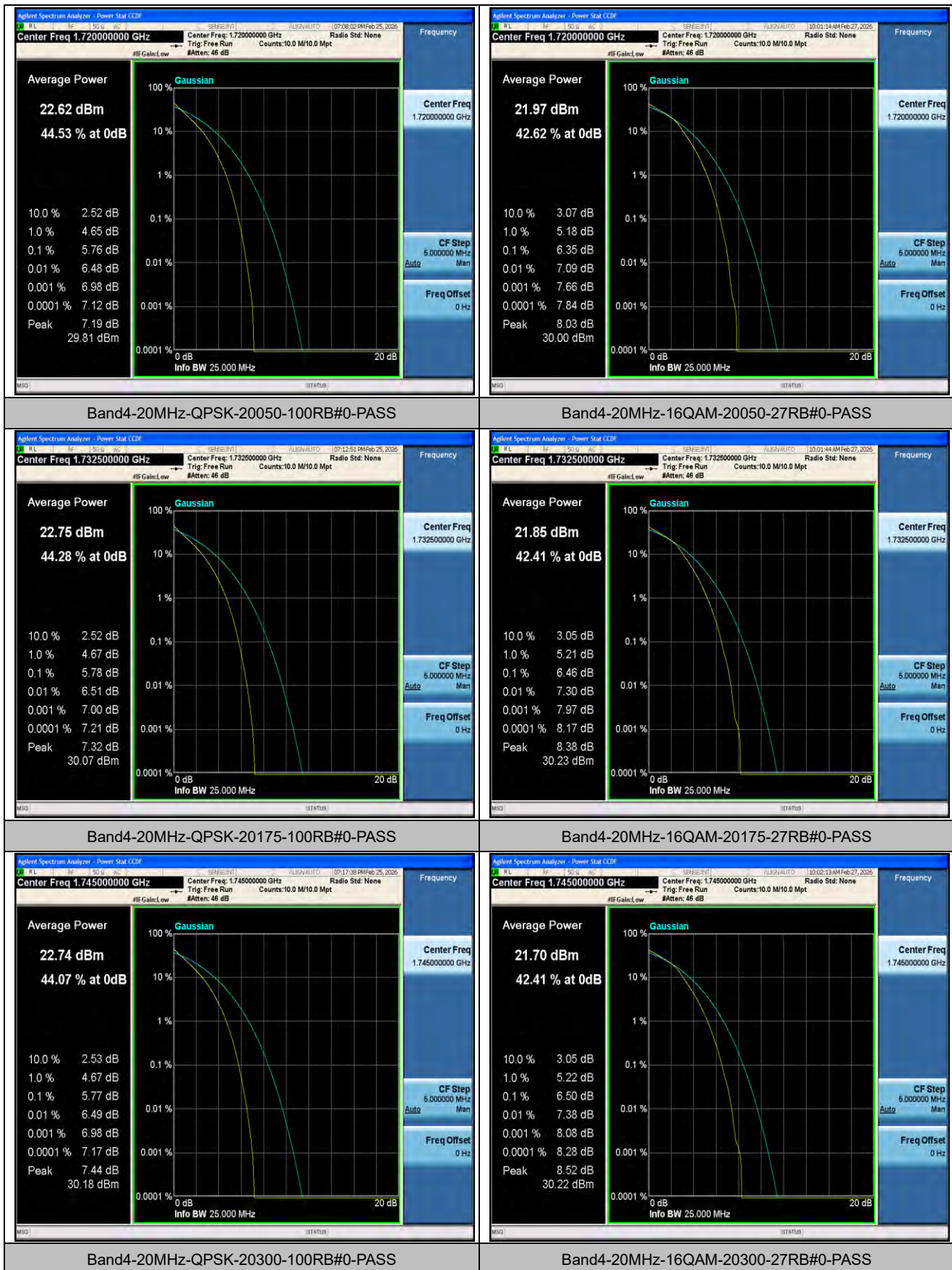
Band4-15MHz-16QAM-20175-27RB#0-PASS



Band4-15MHz-QPSK-20325-75RB#0-PASS



Band4-15MHz-16QAM-20325-27RB#0-PASS

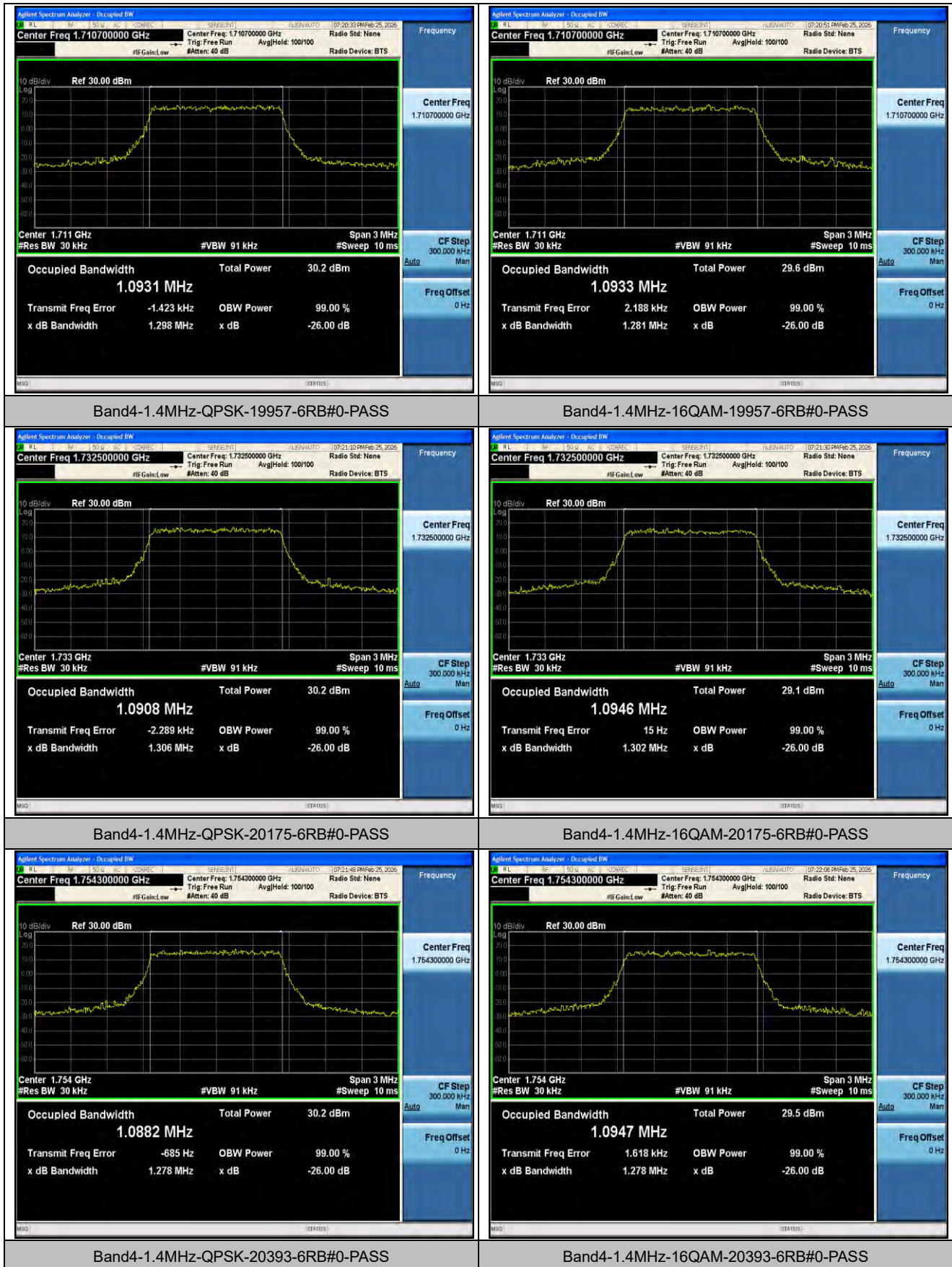


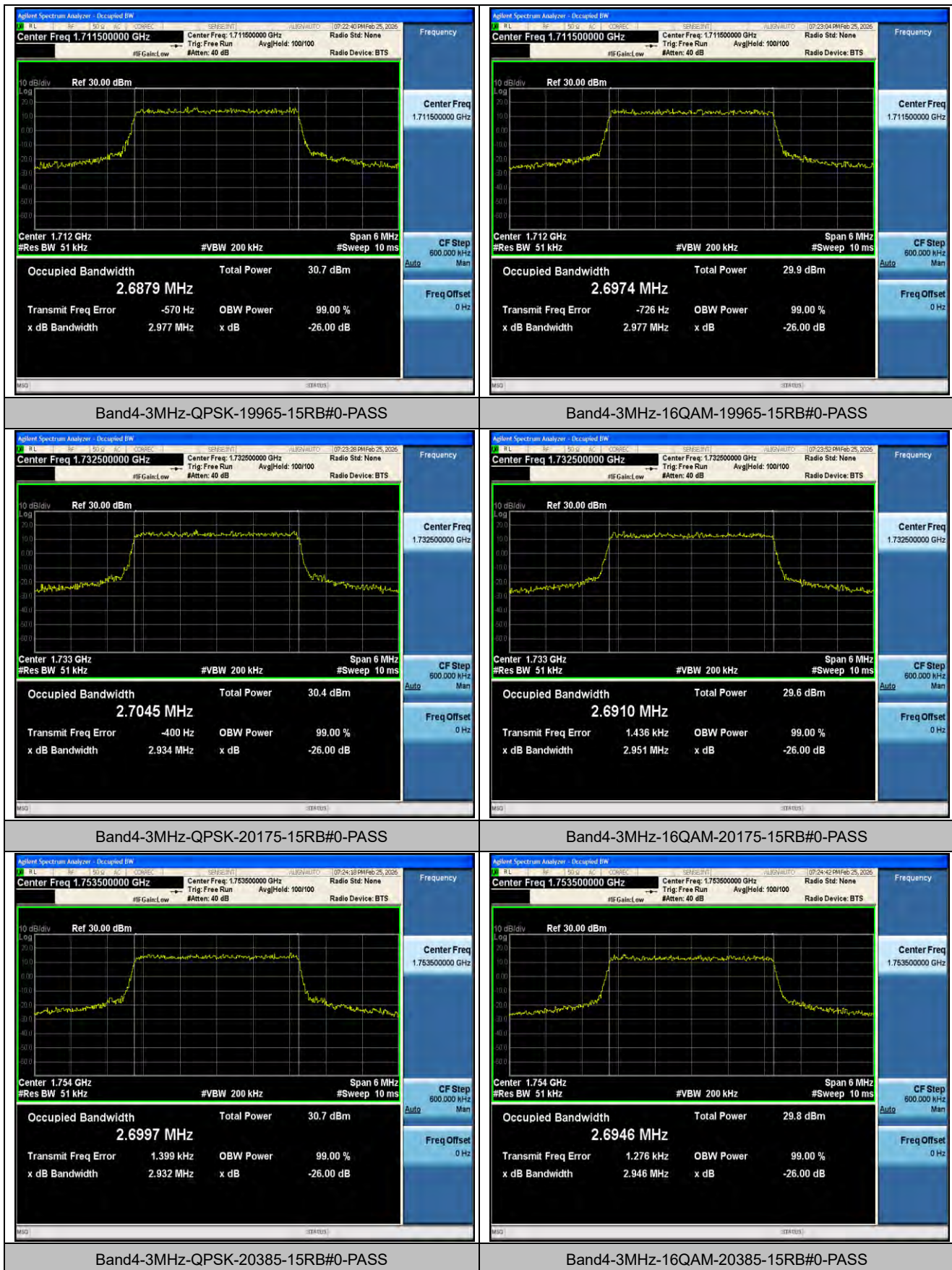
26dB Bandwidth and Occupied Bandwidth

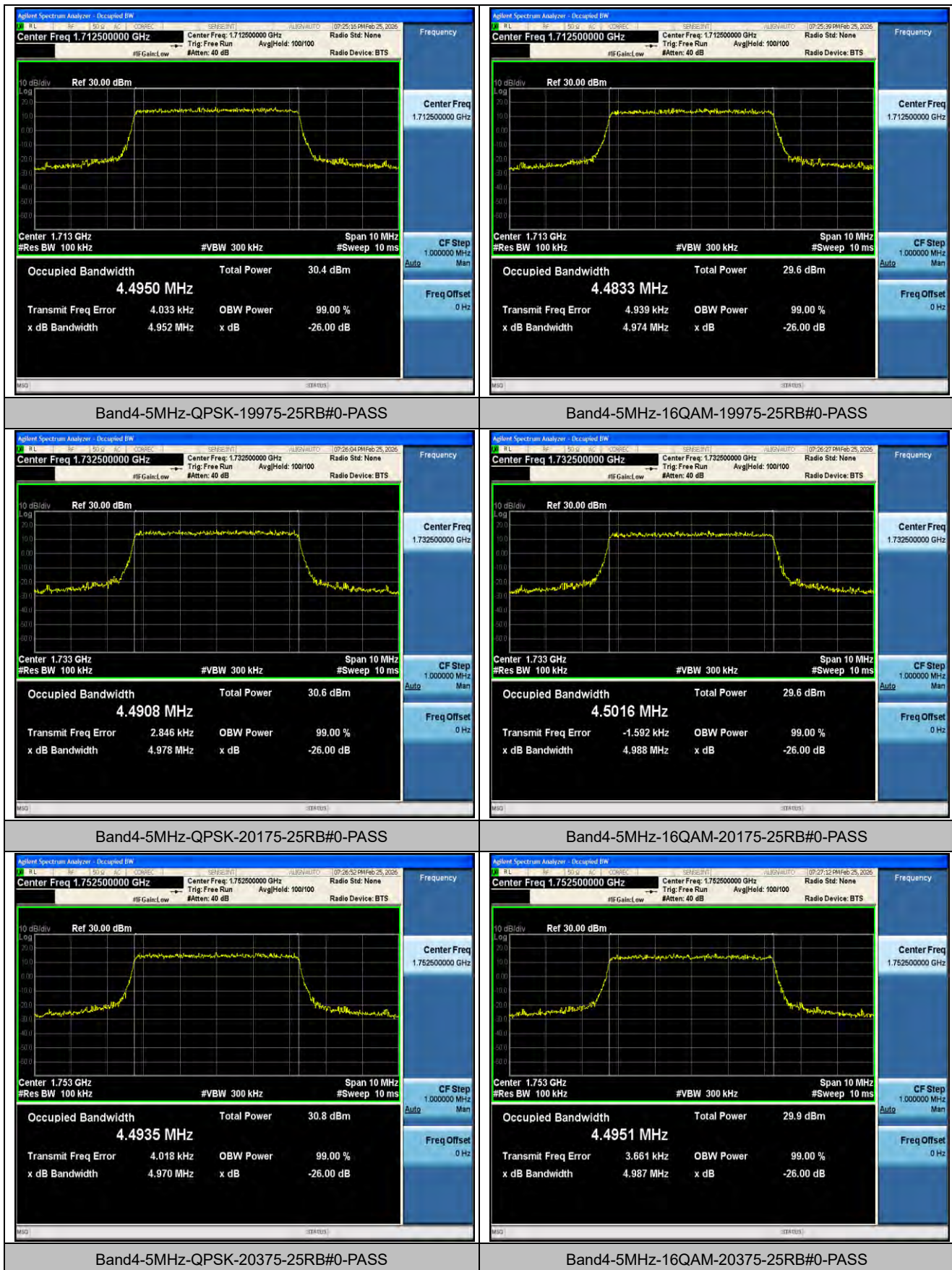
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band4	1.4MHz	QPSK	19957	6RB#0	1.0931	1.298	PASS
Band4	1.4MHz	16QAM	19957	6RB#0	1.0933	1.281	PASS
Band4	1.4MHz	QPSK	20175	6RB#0	1.0908	1.306	PASS
Band4	1.4MHz	16QAM	20175	6RB#0	1.0946	1.302	PASS
Band4	1.4MHz	QPSK	20393	6RB#0	1.0882	1.278	PASS
Band4	1.4MHz	16QAM	20393	6RB#0	1.0947	1.278	PASS
Band4	3MHz	QPSK	19965	15RB#0	2.6879	2.977	PASS
Band4	3MHz	16QAM	19965	15RB#0	2.6974	2.977	PASS
Band4	3MHz	QPSK	20175	15RB#0	2.7045	2.934	PASS
Band4	3MHz	16QAM	20175	15RB#0	2.6910	2.951	PASS
Band4	3MHz	QPSK	20385	15RB#0	2.6997	2.932	PASS
Band4	3MHz	16QAM	20385	15RB#0	2.6946	2.946	PASS
Band4	5MHz	QPSK	19975	25RB#0	4.4950	4.952	PASS
Band4	5MHz	16QAM	19975	25RB#0	4.4833	4.974	PASS
Band4	5MHz	QPSK	20175	25RB#0	4.4908	4.978	PASS
Band4	5MHz	16QAM	20175	25RB#0	4.5016	4.988	PASS
Band4	5MHz	QPSK	20375	25RB#0	4.4935	4.970	PASS
Band4	5MHz	16QAM	20375	25RB#0	4.4951	4.987	PASS
Band4	10MHz	QPSK	20000	50RB#0	8.9926	10.15	PASS
Band4	10MHz	16QAM	20000	27RB#0	4.9806	6.052	PASS
Band4	10MHz	QPSK	20175	50RB#0	9.0008	10.03	PASS
Band4	10MHz	16QAM	20175	27RB#0	4.9776	6.059	PASS
Band4	10MHz	QPSK	20350	50RB#0	8.9966	10.07	PASS
Band4	10MHz	16QAM	20350	27RB#0	4.9836	5.981	PASS
Band4	15MHz	QPSK	20025	75RB#0	13.501	15.13	PASS
Band4	15MHz	16QAM	20025	27RB#0	5.2234	7.069	PASS
Band4	15MHz	QPSK	20175	75RB#0	13.515	15.20	PASS
Band4	15MHz	16QAM	20175	27RB#0	5.1446	6.922	PASS
Band4	15MHz	QPSK	20325	75RB#0	13.515	15.23	PASS
Band4	15MHz	16QAM	20325	27RB#0	5.1999	6.882	PASS
Band4	20MHz	QPSK	20050	100RB#0	17.967	20.21	PASS
Band4	20MHz	16QAM	20050	27RB#0	5.3591	7.192	PASS
Band4	20MHz	QPSK	20175	100RB#0	17.966	19.84	PASS
Band4	20MHz	16QAM	20175	27RB#0	5.3302	7.120	PASS
Band4	20MHz	QPSK	20300	100RB#0	18.012	20.44	PASS
Band4	20MHz	16QAM	20300	27RB#0	5.3877	7.216	PASS

Test Graphs







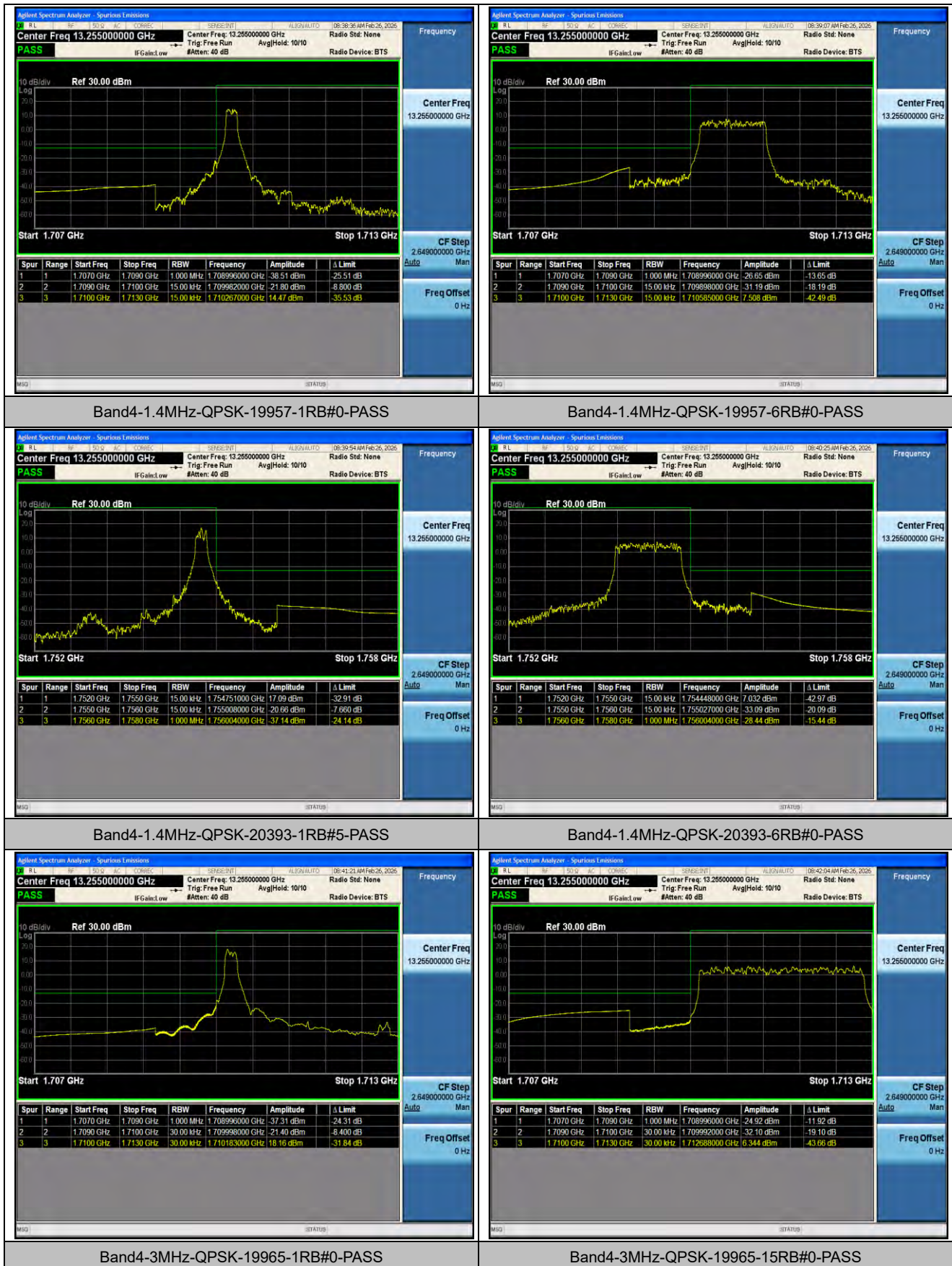






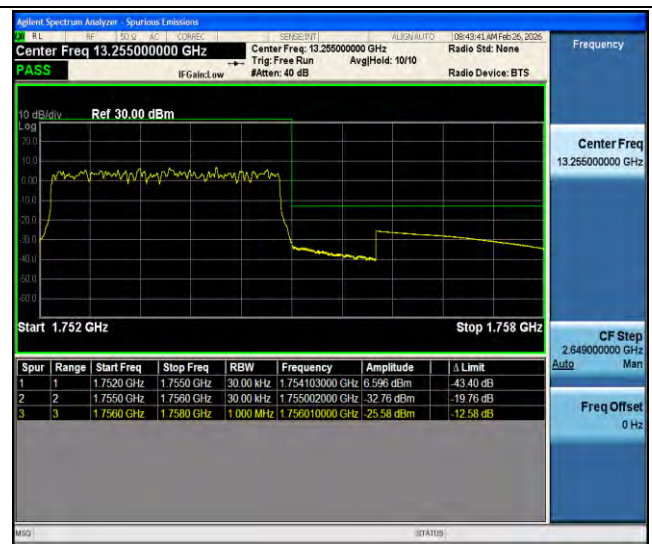
Band Edge

Test Graphs

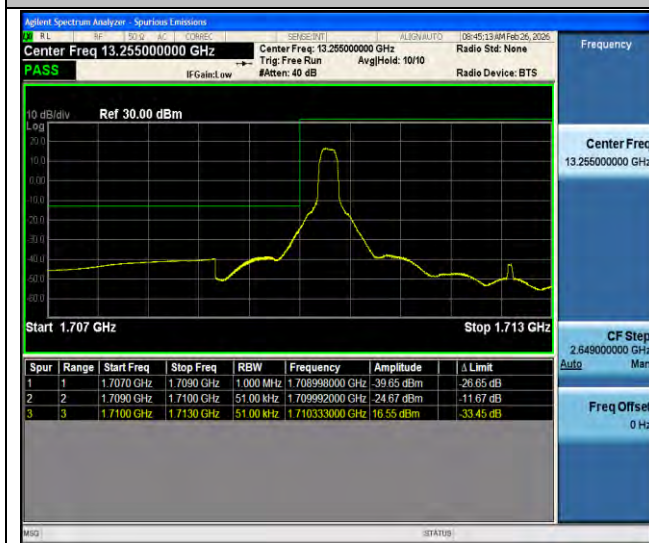




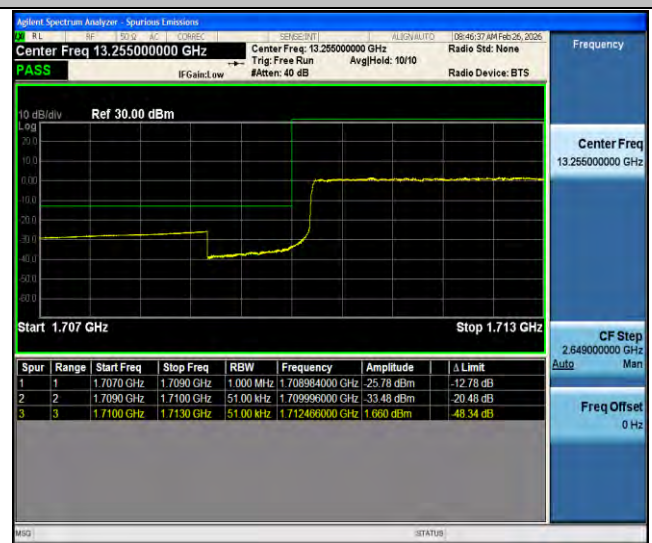
Band4-3MHz-QPSK-20385-1RB#14-PASS



Band4-3MHz-QPSK-20385-15RB#0-PASS



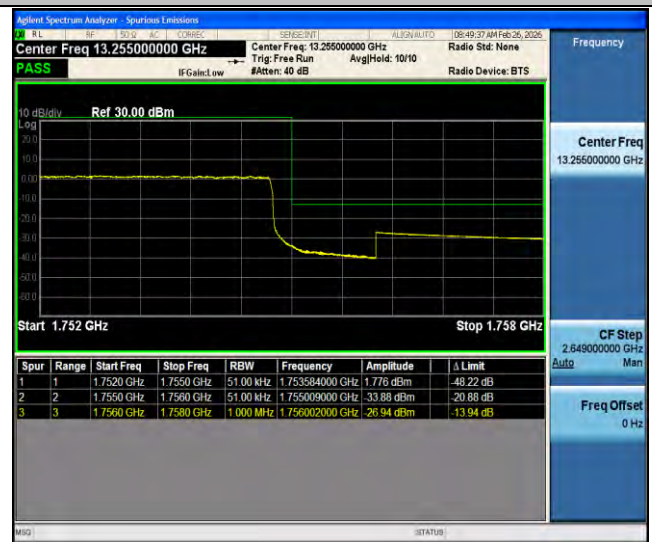
Band4-5MHz-QPSK-19975-1RB#0-PASS



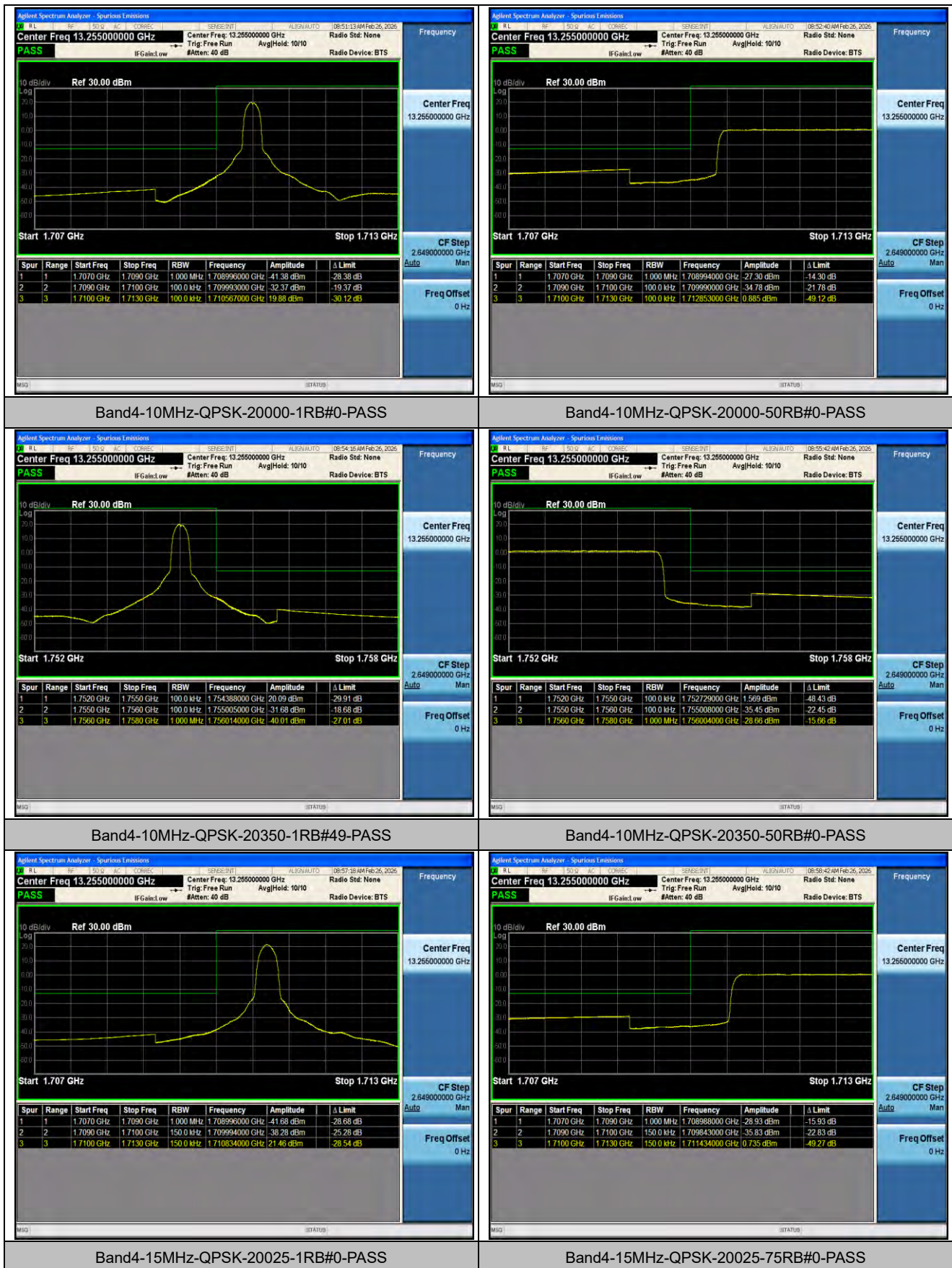
Band4-5MHz-QPSK-19975-25RB#0-PASS

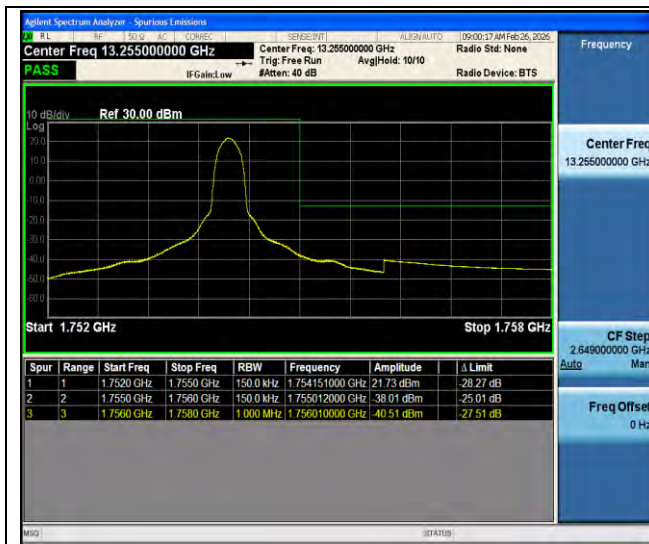


Band4-5MHz-QPSK-20375-1RB#24-PASS

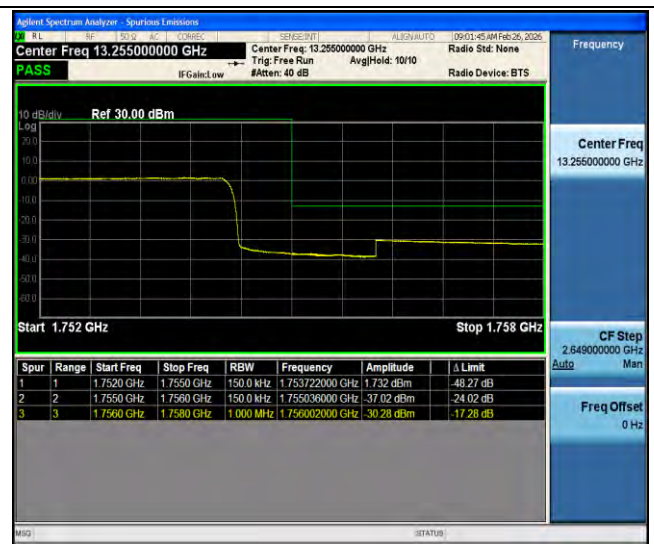


Band4-5MHz-QPSK-20375-25RB#0-PASS

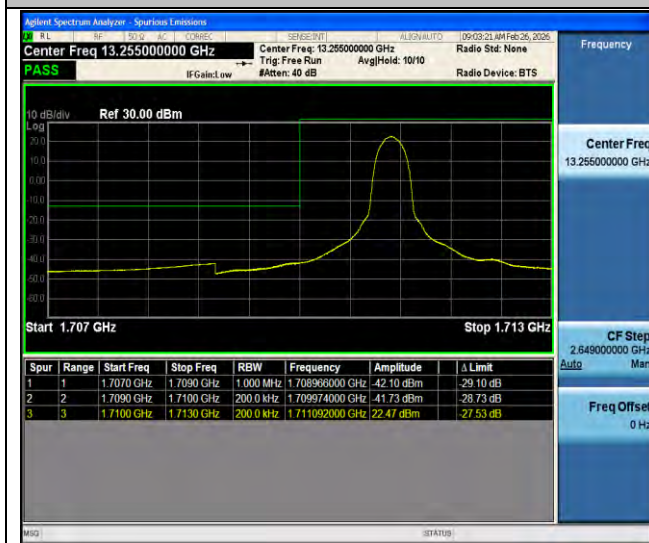




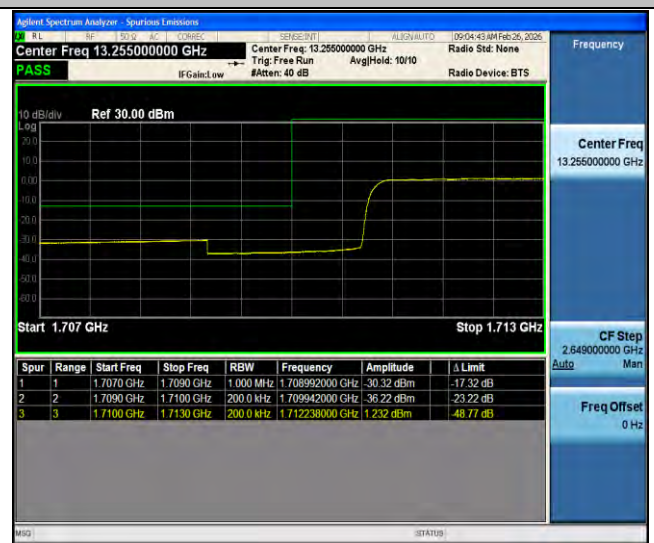
Band4-15MHz-QPSK-20325-1RB#74-PASS



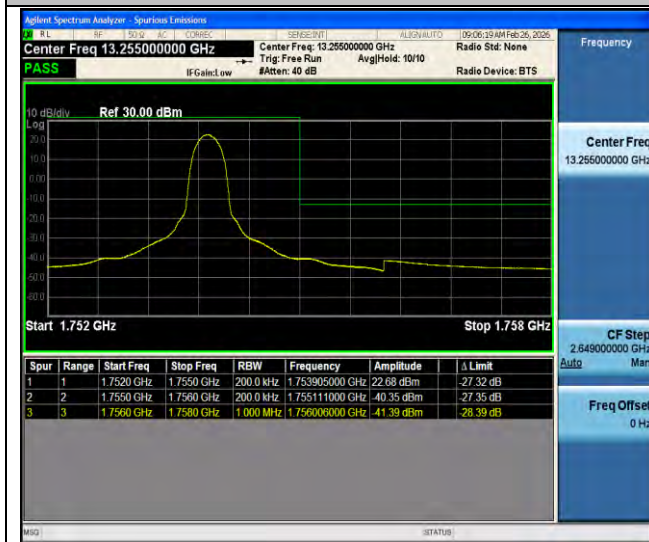
Band4-15MHz-QPSK-20325-75RB#0-PASS



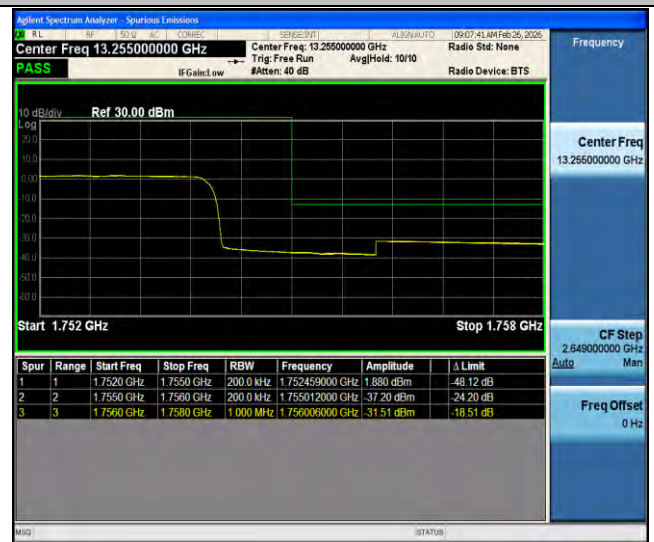
Band4-20MHz-QPSK-20050-1RB#0-PASS



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



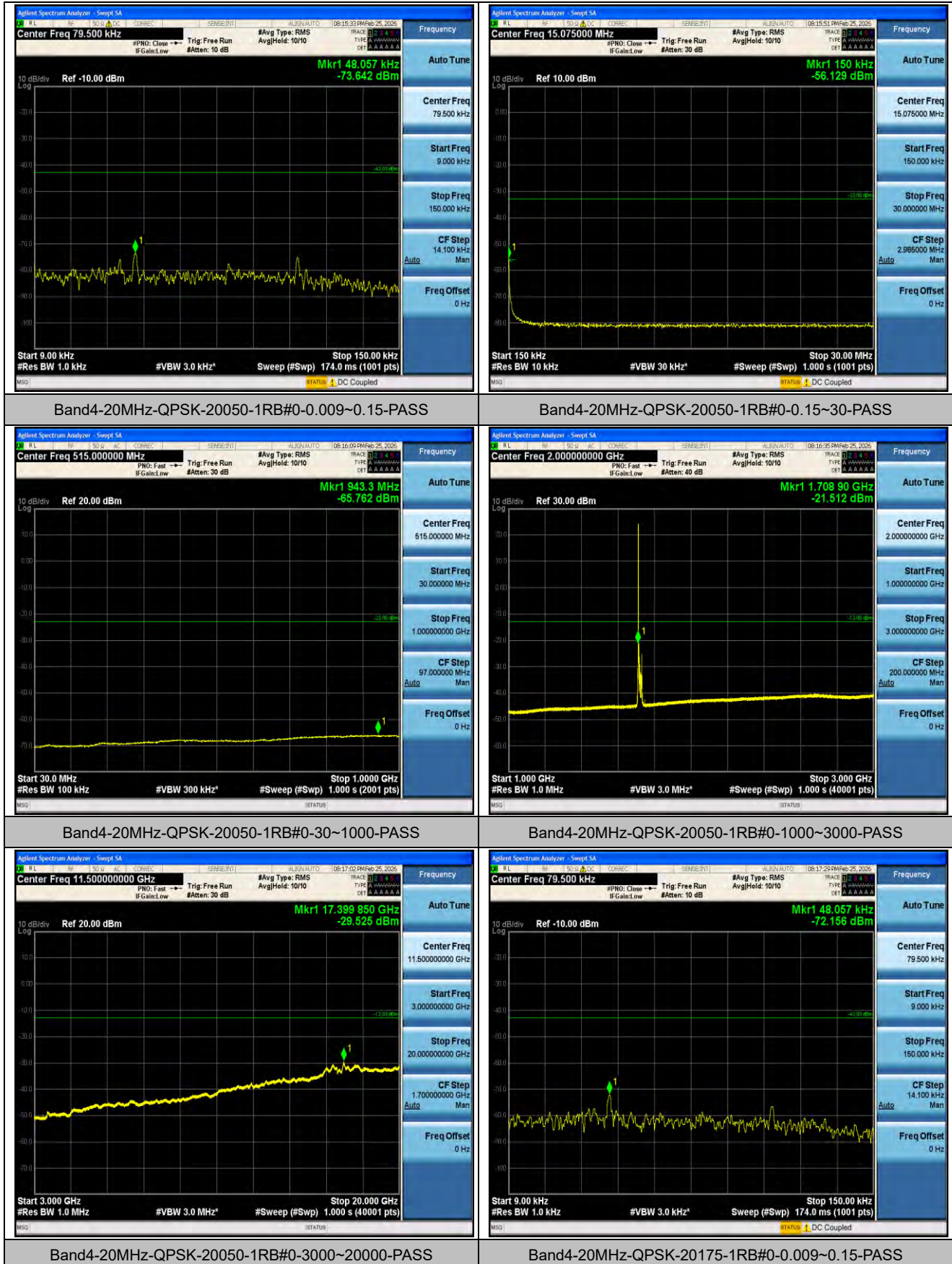
Band4-20MHz-QPSK-20300-1RB#99-PASS



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

Conducted Spurious Emission

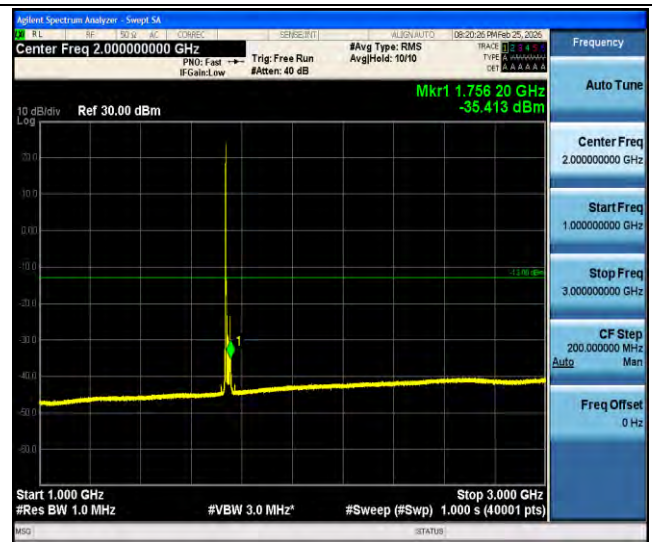
Test Graphs







Band4-20MHz-QPSK-20300-1RB#0-30~1000-PASS



Band4-20MHz-QPSK-20300-1RB#0-1000~3000-PASS



Band4-20MHz-QPSK-20300-1RB#0-3000~20000-PASS

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	-3.40	-0.001962	PASS
Band4	20MHz	QPSK	20175	100RB#0	VL	NT	-4.80	-0.002771	PASS
Band4	20MHz	QPSK	20175	100RB#0	VH	NT	-6.50	-0.003752	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	-2.50	-0.001443	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-20	-3.00	-0.001732	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	-10	-1.20	-0.000693	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	0	0.40	0.000231	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	10	-1.20	-0.000693	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	20	-0.70	-0.000404	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	30	-2.00	-0.001154	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	40	1.40	0.000808	PASS
Band4	20MHz	QPSK	20175	100RB#0	NV	50	-0.50	-0.000289	PASS

~The End~