

Appendix-A LTE Cat M1 Band 26

(824-849)

Effective (Isotropic) Radiated Power Output Data for M1

Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Power (dBm)	ERP (dBm)	Limit (dBm)	Verdict
Band26(824-849)	1.4MHz	QPSK	26797	1	0	Low	21.34	22.38	38.45	PASS
Band26(824-849)	1.4MHz	QPSK	26797	1	5	Low	20.92	21.96	38.45	PASS
Band26(824-849)	1.4MHz	QPSK	26797	6	0	Low	19.23	20.27	38.45	PASS
Band26(824-849)	1.4MHz	QPSK	26915	1	0	Low	20.83	21.87	38.45	PASS
Band26(824-849)	1.4MHz	QPSK	26915	1	5	Low	20.42	21.46	38.45	PASS
Band26(824-849)	1.4MHz	QPSK	26915	6	0	Low	18.74	19.78	38.45	PASS
Band26(824-849)	1.4MHz	QPSK	27033	1	0	High	20.84	21.88	38.45	PASS
Band26(824-849)	1.4MHz	QPSK	27033	1	5	High	20.49	21.53	38.45	PASS
Band26(824-849)	1.4MHz	QPSK	27033	6	0	High	18.73	19.77	38.45	PASS
Band26(824-849)	3MHz	QPSK	26805	1	0	Low	21.22	22.26	38.45	PASS
Band26(824-849)	3MHz	QPSK	26805	1	5	Low	20.95	21.99	38.45	PASS
Band26(824-849)	3MHz	QPSK	26805	6	0	Low	19.24	20.28	38.45	PASS
Band26(824-849)	3MHz	QPSK	26915	1	0	Low	20.95	21.99	38.45	PASS
Band26(824-849)	3MHz	QPSK	26915	1	5	Low	20.50	21.54	38.45	PASS
Band26(824-849)	3MHz	QPSK	26915	6	0	Low	18.80	19.84	38.45	PASS
Band26(824-849)	3MHz	QPSK	27025	1	0	High	20.84	21.88	38.45	PASS
Band26(824-849)	3MHz	QPSK	27025	1	5	High	20.50	21.54	38.45	PASS
Band26(824-849)	3MHz	QPSK	27025	6	0	High	18.84	19.88	38.45	PASS
Band26(824-849)	5MHz	QPSK	26815	1	0	Low	21.33	22.37	38.45	PASS
Band26(824-849)	5MHz	QPSK	26815	1	5	Low	21.01	22.05	38.45	PASS
Band26(824-849)	5MHz	QPSK	26815	6	0	Low	20.31	21.35	38.45	PASS
Band26(824-849)	5MHz	QPSK	26915	1	0	Low	21.04	22.08	38.45	PASS
Band26(824-849)	5MHz	QPSK	26915	1	5	Low	20.63	21.67	38.45	PASS
Band26(824-849)	5MHz	QPSK	26915	6	0	Low	19.96	21	38.45	PASS
Band26(824-849)	5MHz	QPSK	27015	1	0	High	20.83	21.87	38.45	PASS
Band26(824-849)	5MHz	QPSK	27015	1	5	High	20.54	21.58	38.45	PASS
Band26(824-849)	5MHz	QPSK	27015	6	0	High	19.95	20.99	38.45	PASS
Band26(824-849)	10MHz	QPSK	26840	1	0	Low	21.32	22.36	38.45	PASS
Band26(824-849)	10MHz	QPSK	26840	1	5	Low	21.02	22.06	38.45	PASS
Band26(824-849)	10MHz	QPSK	26840	6	0	Low	20.22	21.26	38.45	PASS
Band26(824-849)	10MHz	QPSK	26915	1	0	Low	21.00	22.04	38.45	PASS
Band26(824-849)	10MHz	QPSK	26915	1	5	Low	20.72	21.76	38.45	PASS
Band26(824-849)	10MHz	QPSK	26915	6	0	Low	19.94	20.98	38.45	PASS
Band26(824-849)	10MHz	QPSK	26990	1	0	High	20.71	21.75	38.45	PASS

Band26(824-849)	10MHz	QPSK	26990	1	5	High	20.52	21.56	38.45	PASS
Band26(824-849)	10MHz	QPSK	26990	6	0	High	19.94	20.98	38.45	PASS
Band26(824-849)	15MHz	QPSK	26865	1	0	Low	21.21	22.25	38.45	PASS
Band26(824-849)	15MHz	QPSK	26865	1	5	Low	20.93	21.97	38.45	PASS
Band26(824-849)	15MHz	QPSK	26865	6	0	Low	21.17	22.21	38.45	PASS
Band26(824-849)	15MHz	QPSK	26915	1	0	Low	21.05	22.09	38.45	PASS
Band26(824-849)	15MHz	QPSK	26915	1	5	Low	20.70	21.74	38.45	PASS
Band26(824-849)	15MHz	QPSK	26915	6	0	Low	20.93	21.97	38.45	PASS
Band26(824-849)	15MHz	QPSK	26965	1	0	High	20.76	21.8	38.45	PASS
Band26(824-849)	15MHz	QPSK	26965	1	5	High	20.55	21.59	38.45	PASS
Band26(824-849)	15MHz	QPSK	26965	6	0	High	20.94	21.98	38.45	PASS
Band26(824-849)	1.4MHz	16QAM	26797	1	0	Low	20.15	21.19	38.45	PASS
Band26(824-849)	1.4MHz	16QAM	26797	1	5	Low	19.84	20.88	38.45	PASS
Band26(824-849)	1.4MHz	16QAM	26797	5	0	Low	19.37	20.41	38.45	PASS
Band26(824-849)	1.4MHz	16QAM	26915	1	0	Low	19.82	20.86	38.45	PASS
Band26(824-849)	1.4MHz	16QAM	26915	1	5	Low	19.42	20.46	38.45	PASS
Band26(824-849)	1.4MHz	16QAM	26915	5	0	Low	18.84	19.88	38.45	PASS
Band26(824-849)	1.4MHz	16QAM	27033	1	0	High	19.73	20.77	38.45	PASS
Band26(824-849)	1.4MHz	16QAM	27033	1	5	High	19.39	20.43	38.45	PASS
Band26(824-849)	1.4MHz	16QAM	27033	5	0	High	18.85	19.89	38.45	PASS
Band26(824-849)	3MHz	16QAM	26805	1	0	Low	20.21	21.25	38.45	PASS
Band26(824-849)	3MHz	16QAM	26805	1	5	Low	19.96	21	38.45	PASS
Band26(824-849)	3MHz	16QAM	26805	5	0	Low	19.32	20.36	38.45	PASS
Band26(824-849)	3MHz	16QAM	26915	1	0	Low	19.86	20.9	38.45	PASS
Band26(824-849)	3MHz	16QAM	26915	1	5	Low	19.40	20.44	38.45	PASS
Band26(824-849)	3MHz	16QAM	26915	5	0	Low	18.92	19.96	38.45	PASS
Band26(824-849)	3MHz	16QAM	27025	1	0	High	19.86	20.9	38.45	PASS
Band26(824-849)	3MHz	16QAM	27025	1	5	High	19.53	20.57	38.45	PASS
Band26(824-849)	3MHz	16QAM	27025	5	0	High	18.94	19.98	38.45	PASS
Band26(824-849)	5MHz	16QAM	26815	1	0	Low	21.49	22.53	38.45	PASS
Band26(824-849)	5MHz	16QAM	26815	1	5	Low	21.19	22.23	38.45	PASS
Band26(824-849)	5MHz	16QAM	26815	5	0	Low	20.26	21.3	38.45	PASS
Band26(824-849)	5MHz	16QAM	26915	1	0	Low	20.96	22	38.45	PASS
Band26(824-849)	5MHz	16QAM	26915	1	5	Low	20.66	21.7	38.45	PASS
Band26(824-849)	5MHz	16QAM	26915	5	0	Low	19.80	20.84	38.45	PASS
Band26(824-849)	5MHz	16QAM	27015	1	0	High	21.00	22.04	38.45	PASS
Band26(824-849)	5MHz	16QAM	27015	1	5	High	20.68	21.72	38.45	PASS
Band26(824-849)	5MHz	16QAM	27015	5	0	High	19.89	20.93	38.45	PASS
Band26(824-849)	10MHz	16QAM	26840	1	0	Low	21.36	22.4	38.45	PASS
Band26(824-849)	10MHz	16QAM	26840	1	5	Low	21.07	22.11	38.45	PASS
Band26(824-849)	10MHz	16QAM	26840	5	0	Low	21.15	22.19	38.45	PASS
Band26(824-849)	10MHz	16QAM	26915	1	0	Low	20.92	21.96	38.45	PASS
Band26(824-849)	10MHz	16QAM	26915	1	5	Low	20.61	21.65	38.45	PASS
Band26(824-849)	10MHz	16QAM	26915	5	0	Low	20.78	21.82	38.45	PASS
Band26(824-849)	10MHz	16QAM	26990	1	0	High	20.69	21.73	38.45	PASS

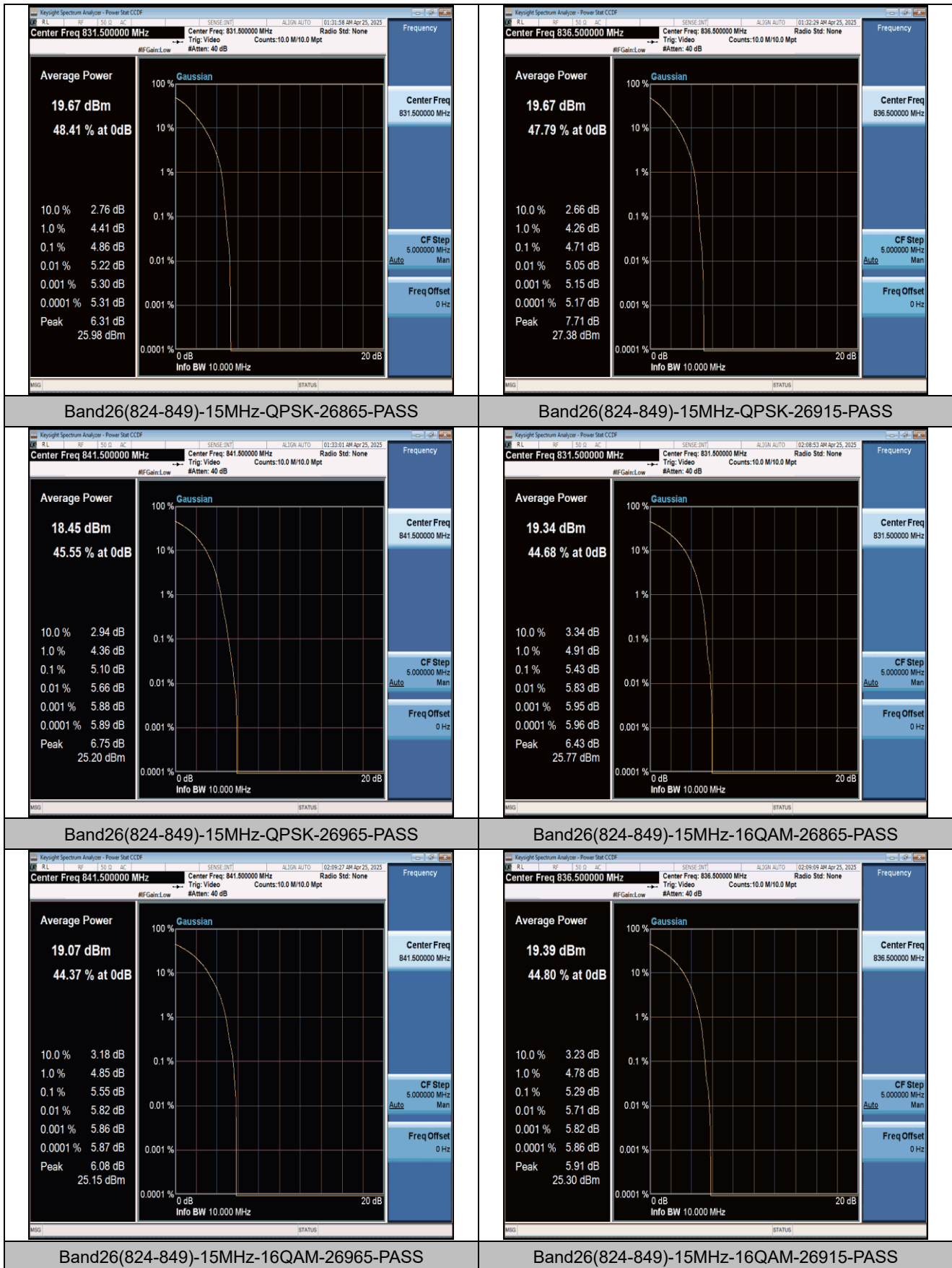
Band26(824-849)	10MHz	16QAM	26990	1	5	High	20.57	21.61	38.45	PASS
Band26(824-849)	10MHz	16QAM	26990	5	0	High	20.85	21.89	38.45	PASS
Band26(824-849)	15MHz	16QAM	26865	1	0	Low	21.36	22.4	38.45	PASS
Band26(824-849)	15MHz	16QAM	26865	1	5	Low	21.10	22.14	38.45	PASS
Band26(824-849)	15MHz	16QAM	26865	5	0	Low	21.17	22.21	38.45	PASS
Band26(824-849)	15MHz	16QAM	26915	1	0	Low	21.21	22.25	38.45	PASS
Band26(824-849)	15MHz	16QAM	26915	1	5	Low	20.87	21.91	38.45	PASS
Band26(824-849)	15MHz	16QAM	26915	5	0	Low	20.95	21.99	38.45	PASS
Band26(824-849)	15MHz	16QAM	26965	1	0	High	20.80	21.84	38.45	PASS
Band26(824-849)	15MHz	16QAM	26965	1	5	High	20.63	21.67	38.45	PASS
Band26(824-849)	15MHz	16QAM	26965	5	0	High	20.92	21.96	38.45	PASS

Peak-to-Average Ratio(CCDF) for M1

Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band26(824-849)	15MHz	QPSK	26865	6	0	Low	4.86	<=13	PASS
Band26(824-849)	15MHz	QPSK	26915	6	0	Low	4.71	<=13	PASS
Band26(824-849)	15MHz	QPSK	26965	6	0	High	5.10	<=13	PASS
Band26(824-849)	15MHz	16QAM	26865	5	0	Low	5.43	<=13	PASS
Band26(824-849)	15MHz	16QAM	26915	5	0	Low	5.29	<=13	PASS
Band26(824-849)	15MHz	16QAM	26965	5	0	High	5.55	<=13	PASS

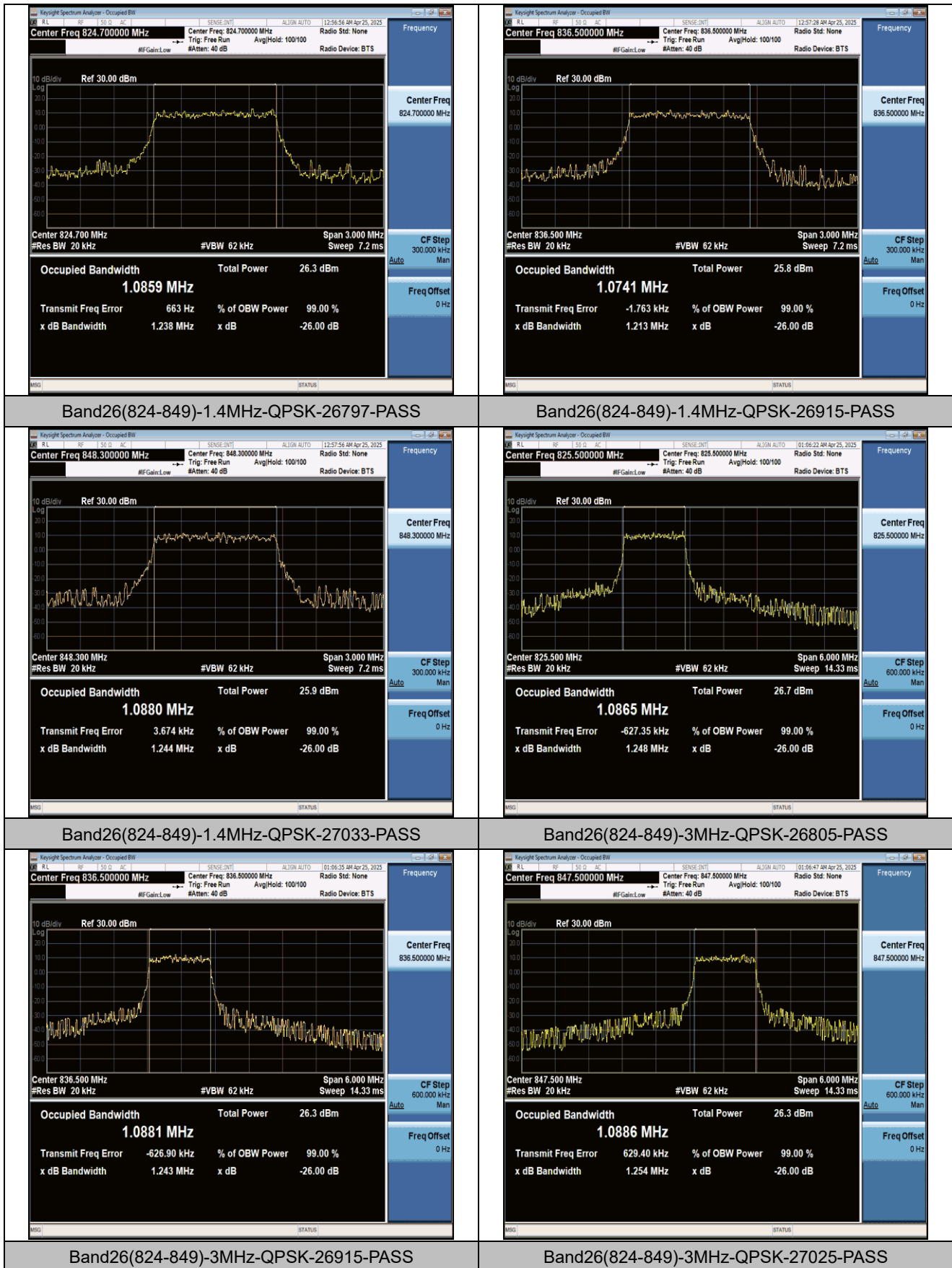
Test Graphs

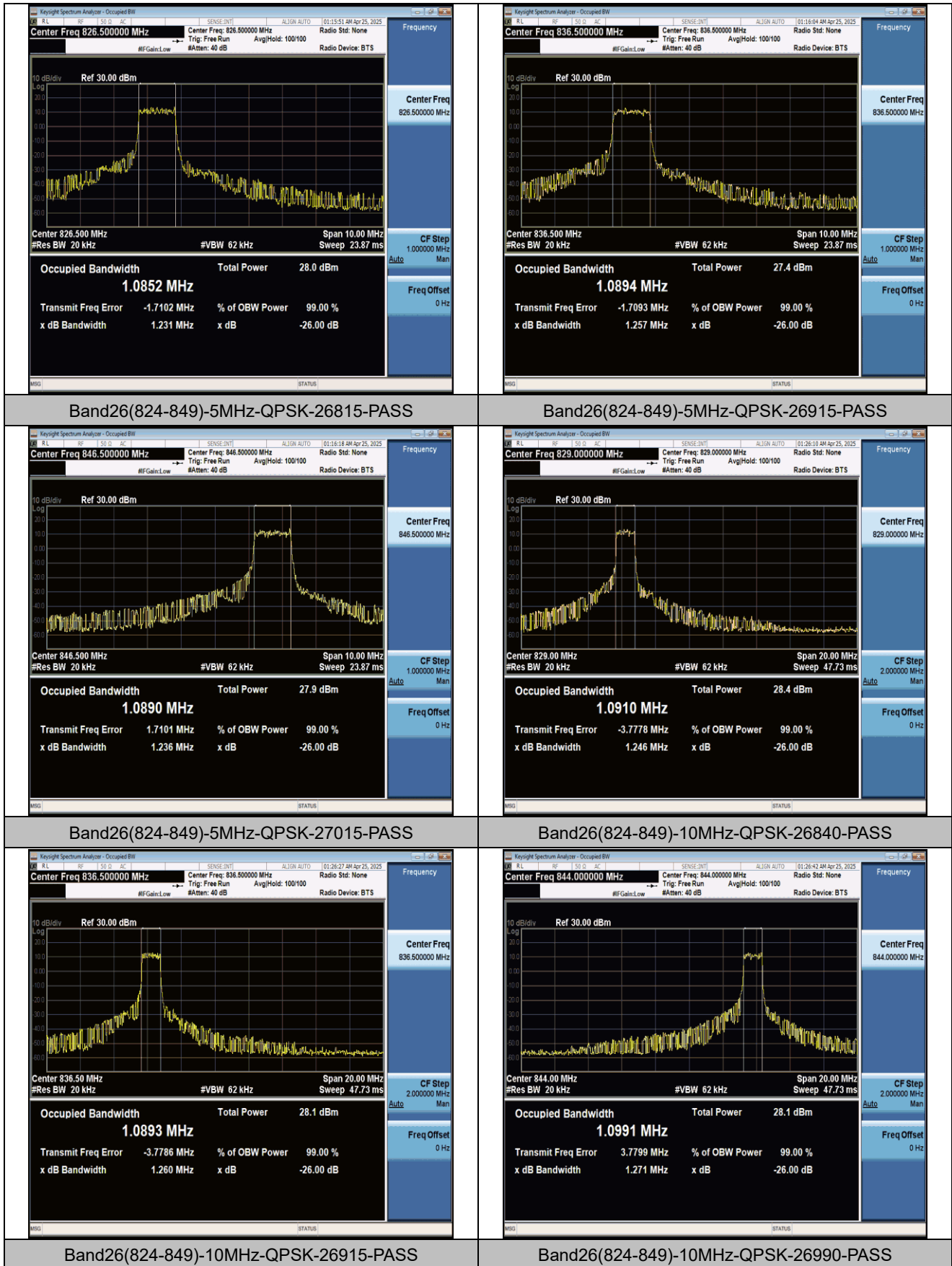


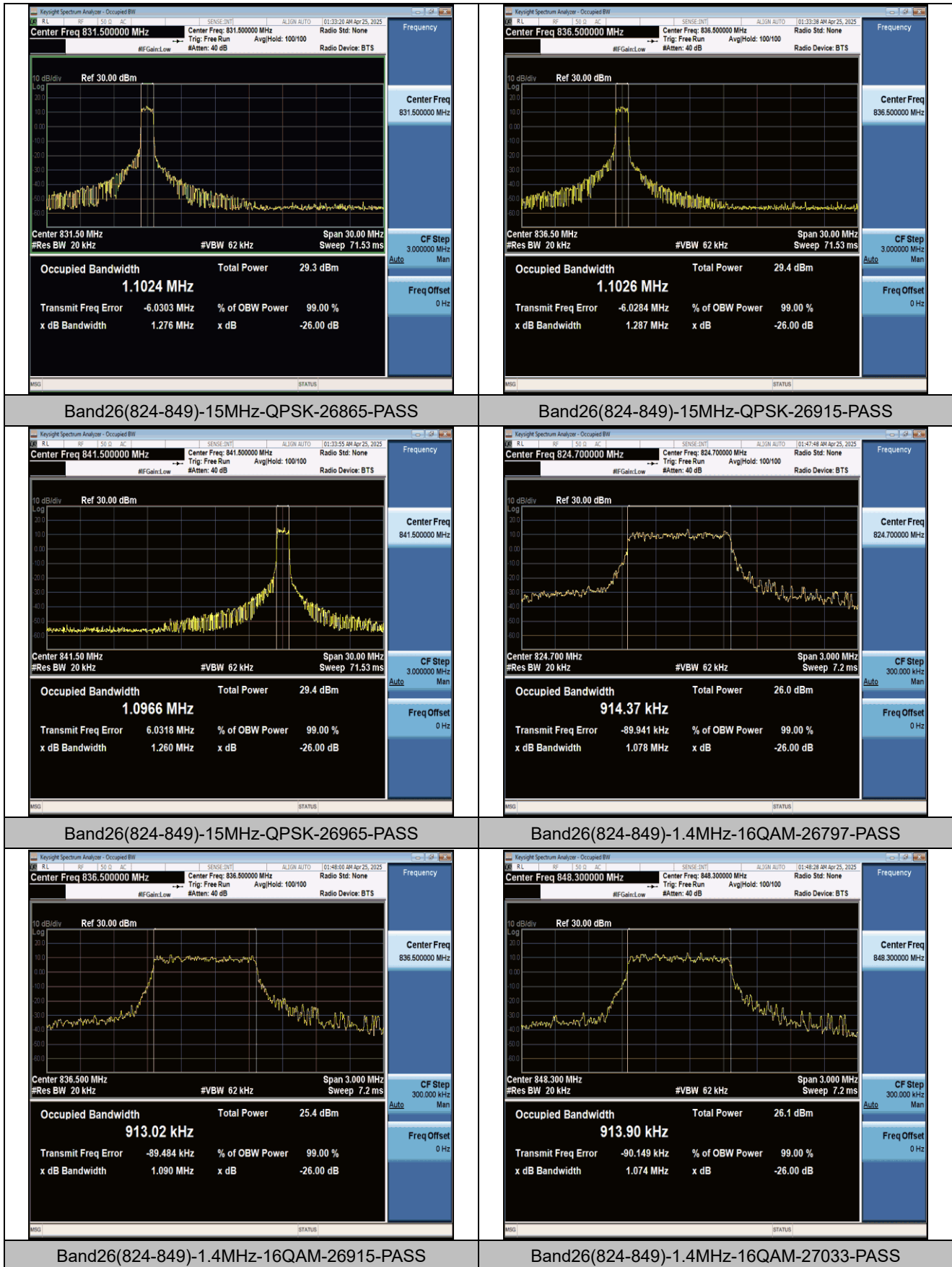
26dB Bandwidth and Occupied Bandwidth for M1**Test Result**

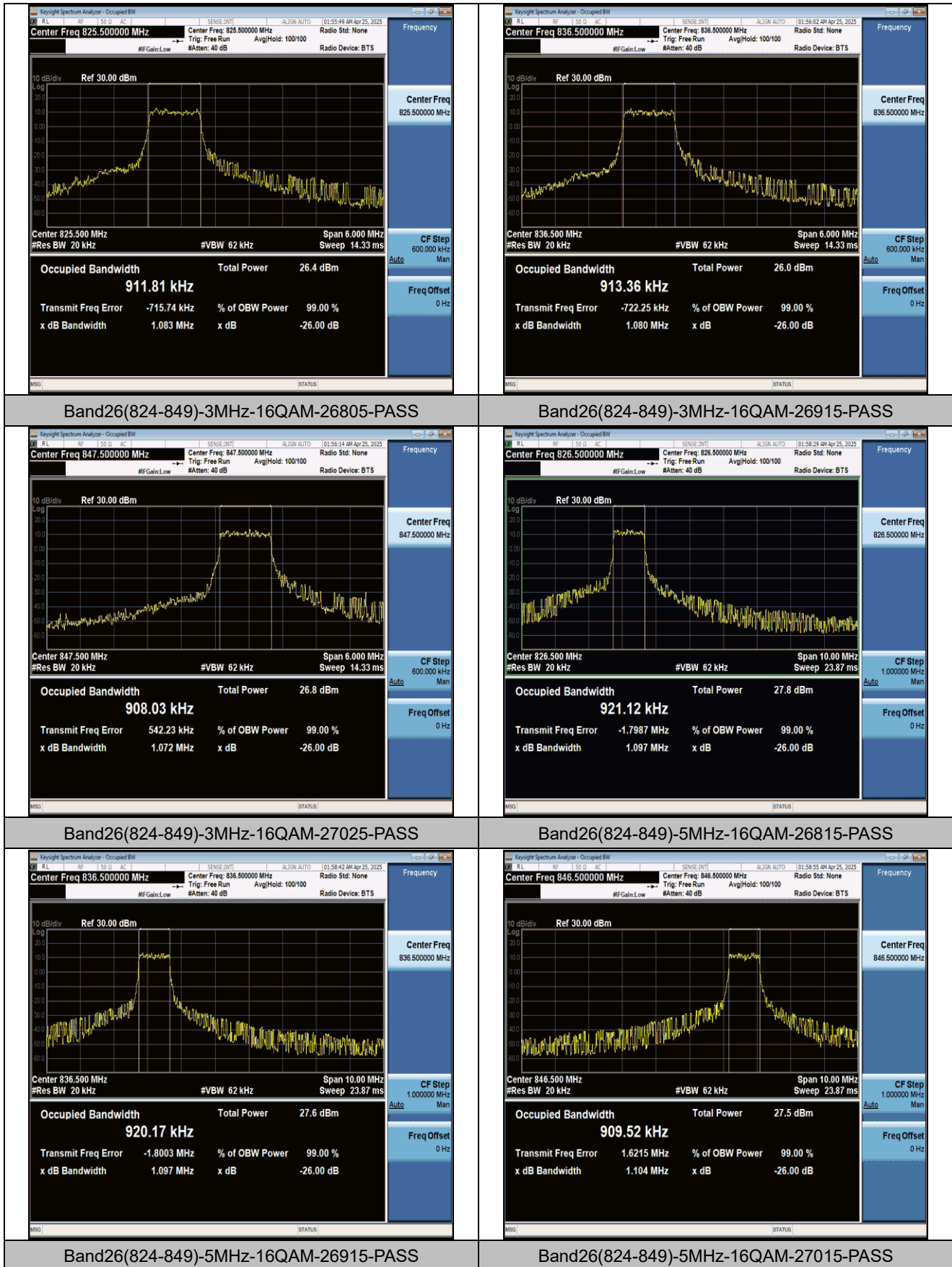
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band26(824-849)	1.4MHz	QPSK	26797	6	0	Low	1.0859	1.238	PASS
Band26(824-849)	1.4MHz	QPSK	26915	6	0	Low	1.0741	1.213	PASS
Band26(824-849)	1.4MHz	QPSK	27033	6	0	High	1.0880	1.244	PASS
Band26(824-849)	3MHz	QPSK	26805	6	0	Low	1.0865	1.248	PASS
Band26(824-849)	3MHz	QPSK	26915	6	0	Low	1.0881	1.243	PASS
Band26(824-849)	3MHz	QPSK	27025	6	0	High	1.0886	1.254	PASS
Band26(824-849)	5MHz	QPSK	26815	6	0	Low	1.0852	1.231	PASS
Band26(824-849)	5MHz	QPSK	26915	6	0	Low	1.0894	1.257	PASS
Band26(824-849)	5MHz	QPSK	27015	6	0	High	1.0890	1.236	PASS
Band26(824-849)	10MHz	QPSK	26840	6	0	Low	1.0910	1.246	PASS
Band26(824-849)	10MHz	QPSK	26915	6	0	Low	1.0893	1.260	PASS
Band26(824-849)	10MHz	QPSK	26990	6	0	High	1.0991	1.271	PASS
Band26(824-849)	15MHz	QPSK	26865	6	0	Low	1.1024	1.276	PASS
Band26(824-849)	15MHz	QPSK	26915	6	0	Low	1.1026	1.287	PASS
Band26(824-849)	15MHz	QPSK	26965	6	0	High	1.0966	1.260	PASS
Band26(824-849)	1.4MHz	16QAM	26797	5	0	Low	0.91437	1.078	PASS
Band26(824-849)	1.4MHz	16QAM	26915	5	0	Low	0.91302	1.090	PASS
Band26(824-849)	1.4MHz	16QAM	27033	5	0	High	0.91390	1.074	PASS
Band26(824-849)	3MHz	16QAM	26805	5	0	Low	0.91181	1.083	PASS
Band26(824-849)	3MHz	16QAM	26915	5	0	Low	0.91336	1.080	PASS
Band26(824-849)	3MHz	16QAM	27025	5	0	High	0.90803	1.072	PASS
Band26(824-849)	5MHz	16QAM	26815	5	0	Low	0.92112	1.097	PASS
Band26(824-849)	5MHz	16QAM	26915	5	0	Low	0.92017	1.097	PASS
Band26(824-849)	5MHz	16QAM	27015	5	0	High	0.90952	1.104	PASS
Band26(824-849)	10MHz	16QAM	26840	5	0	Low	0.93848	1.118	PASS
Band26(824-849)	10MHz	16QAM	26915	5	0	Low	0.92052	1.107	PASS
Band26(824-849)	10MHz	16QAM	26990	5	0	High	0.91714	1.099	PASS
Band26(824-849)	15MHz	16QAM	26865	5	0	Low	0.92747	1.096	PASS
Band26(824-849)	15MHz	16QAM	26915	5	0	Low	0.92899	1.123	PASS
Band26(824-849)	15MHz	16QAM	26965	5	0	High	0.93294	1.125	PASS

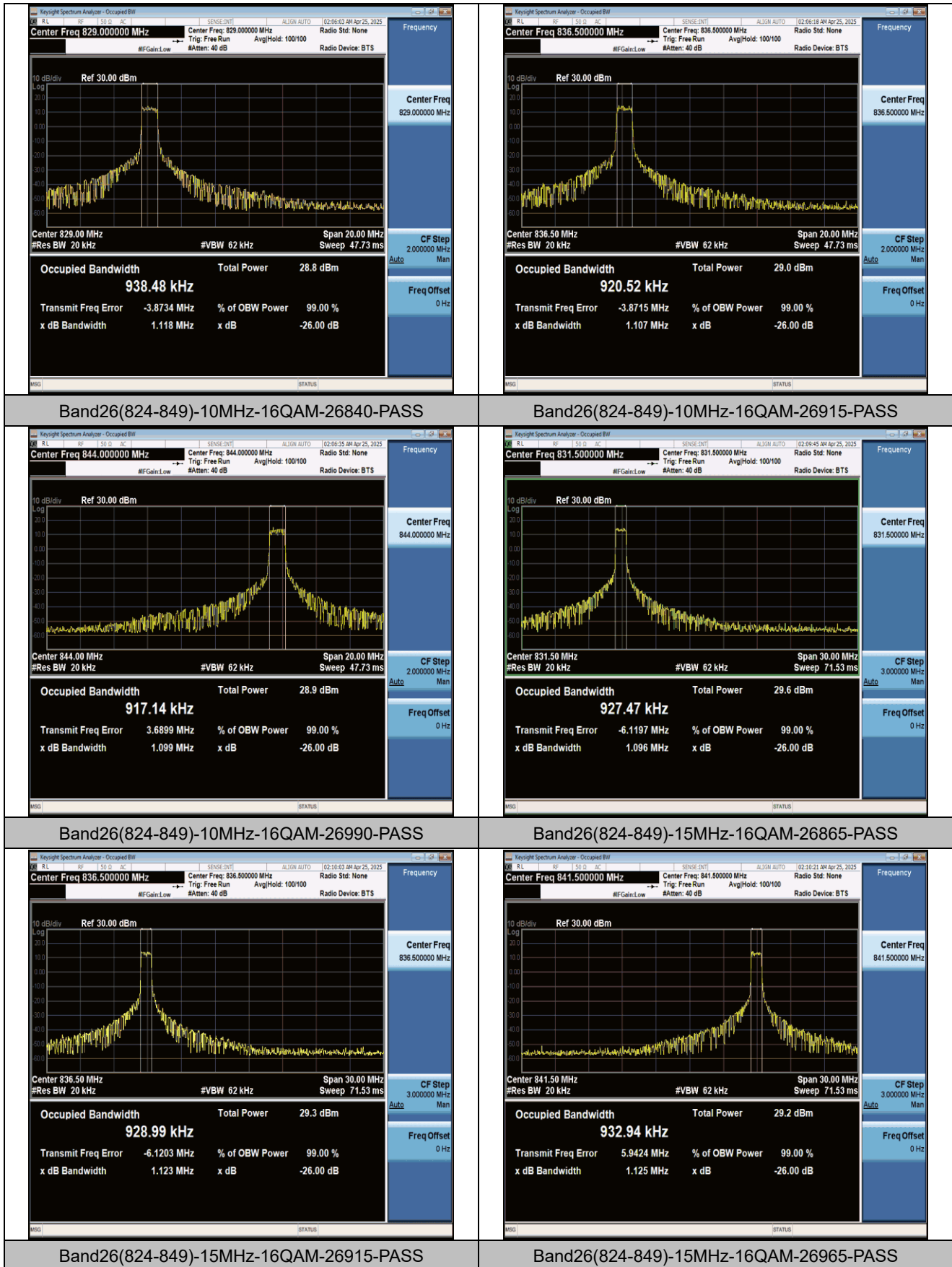
Test Graphs





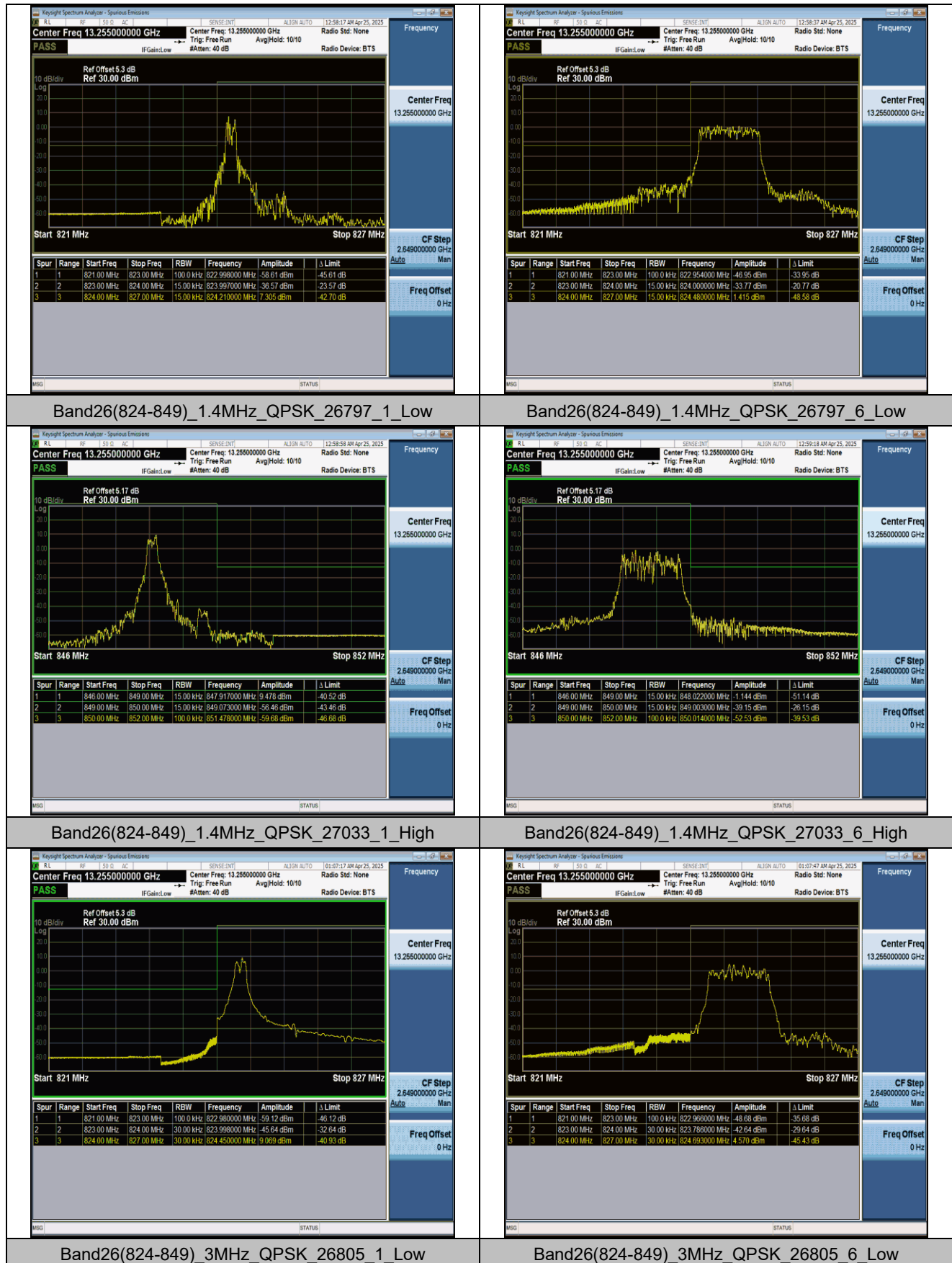


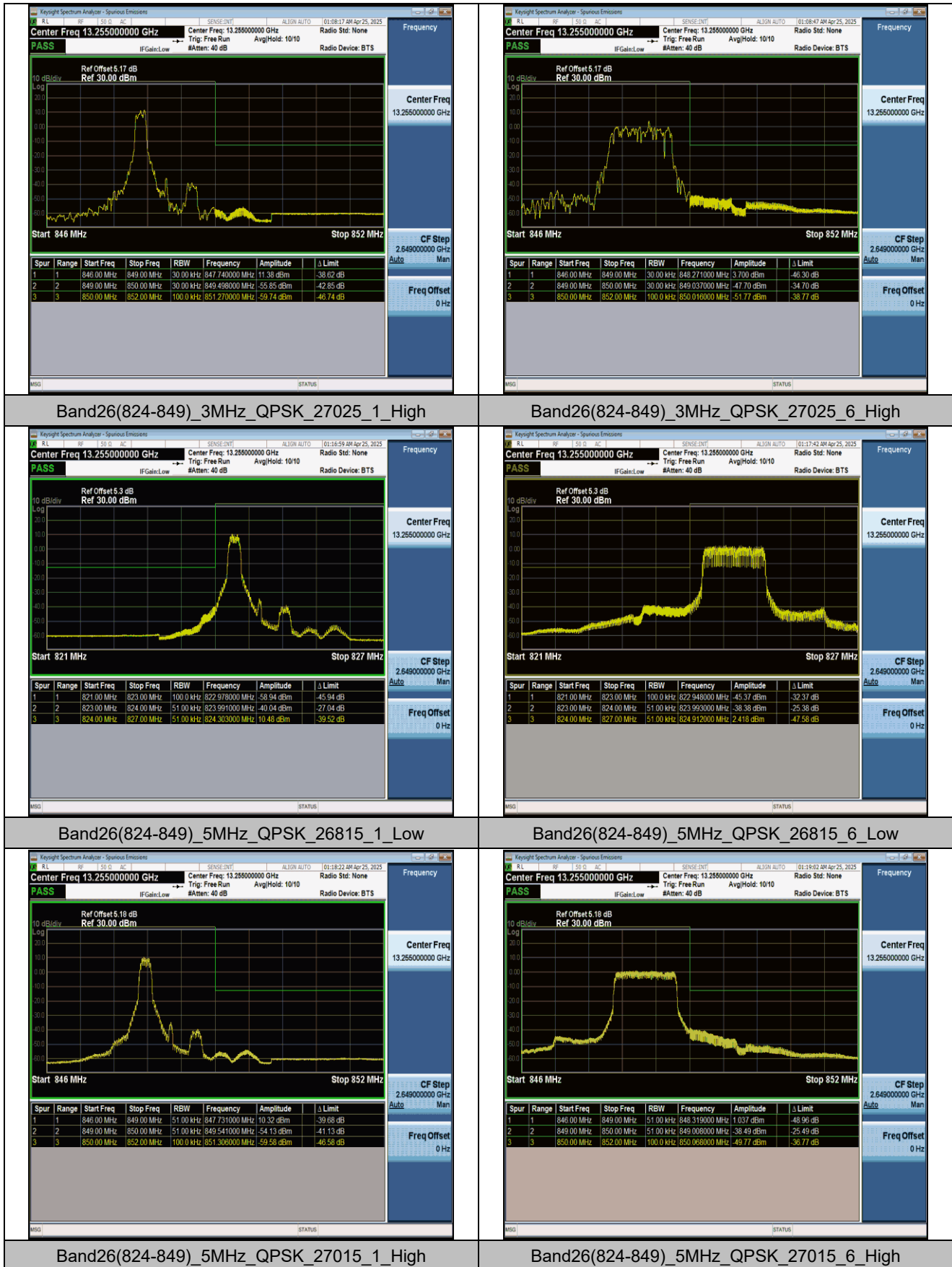




Band Edge for M1

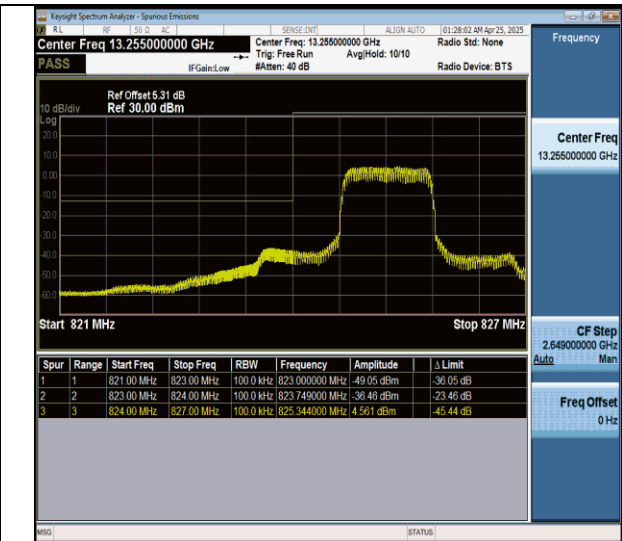
Test Graphs







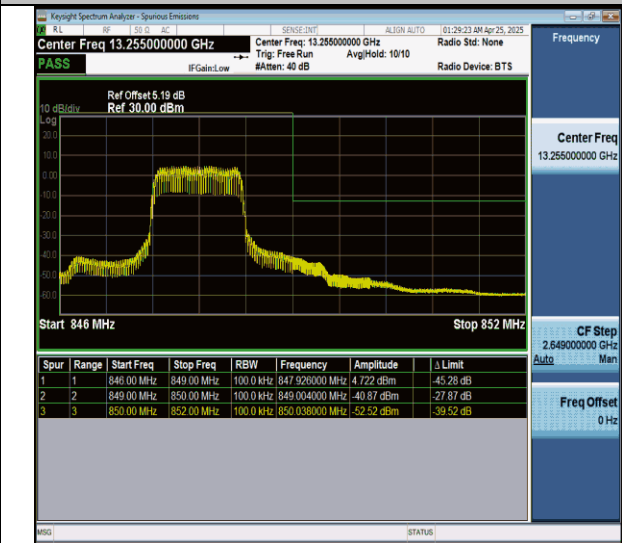
Band26(824-849)_10MHz_QPSK_26840_1_Low



Band26(824-849)_10MHz_QPSK_26840_6_Low



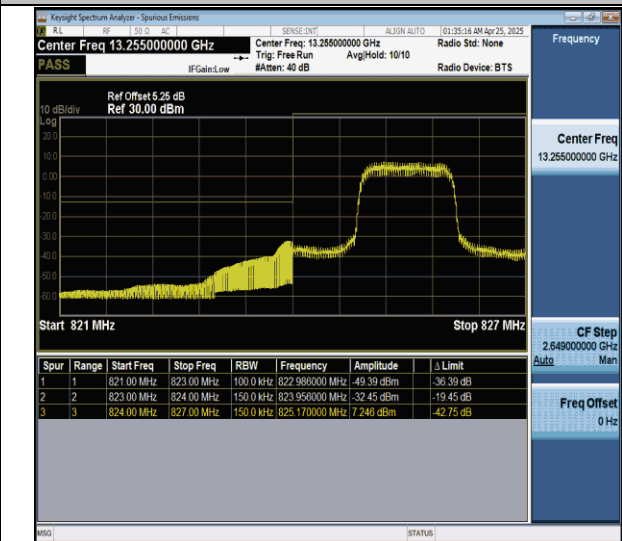
Band26(824-849)_10MHz_QPSK_26990_1_High



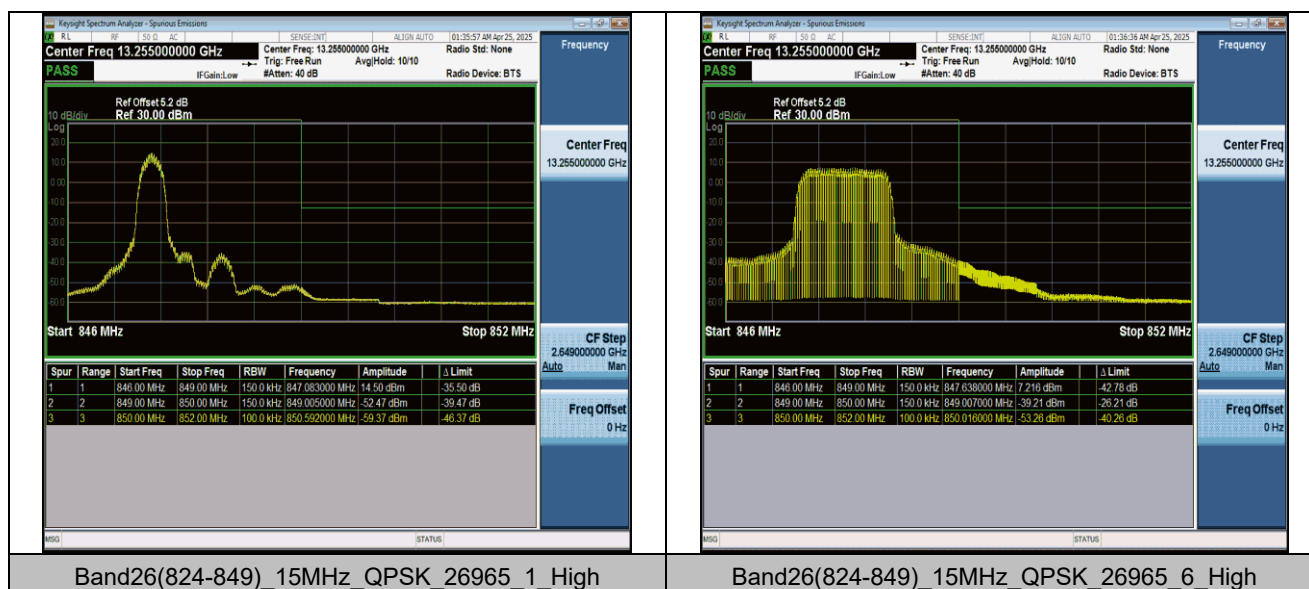
Band26(824-849)_10MHz_QPSK_26990_6_High



Band26(824-849)_15MHz_QPSK_26865_1_Low

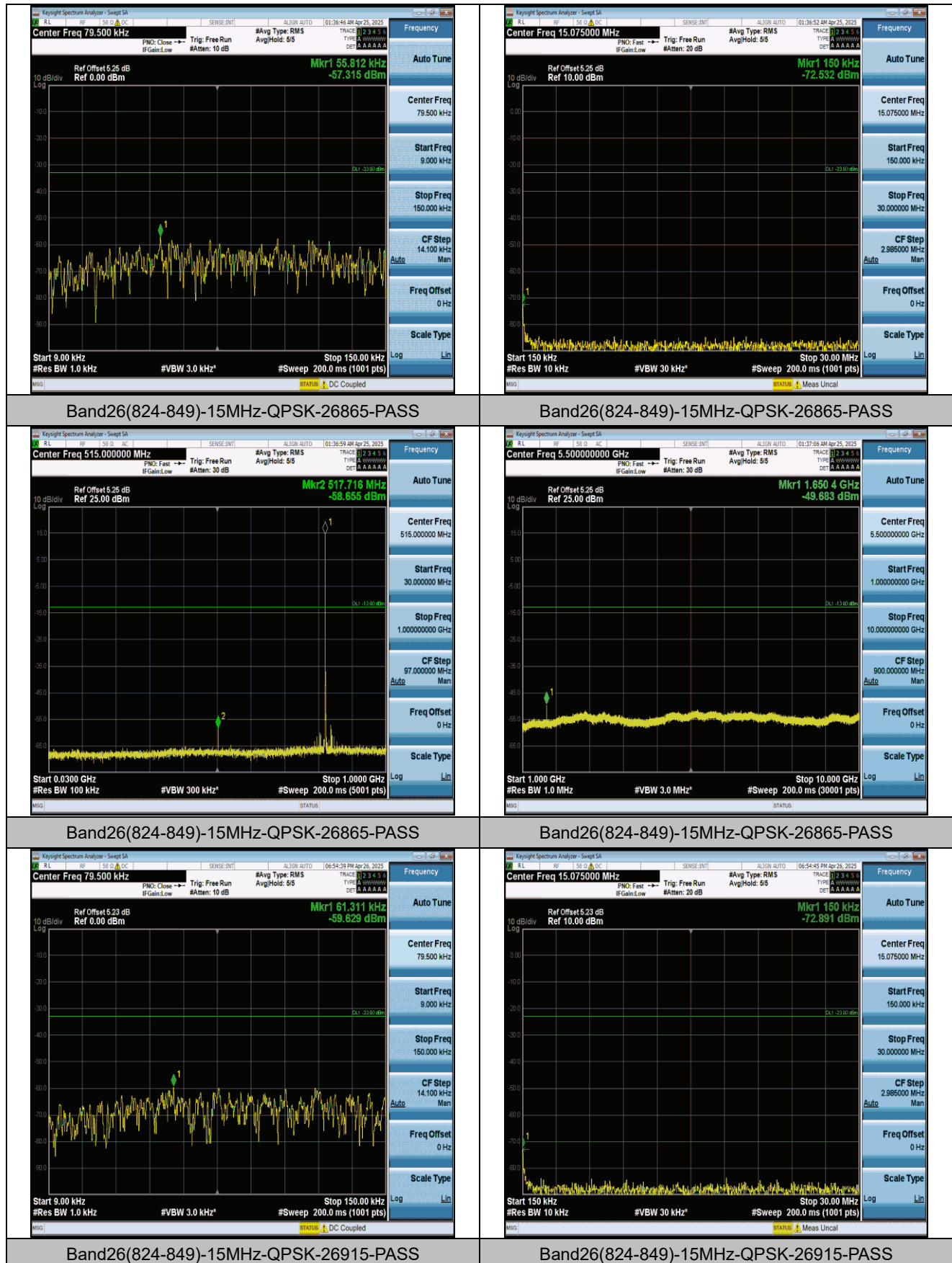


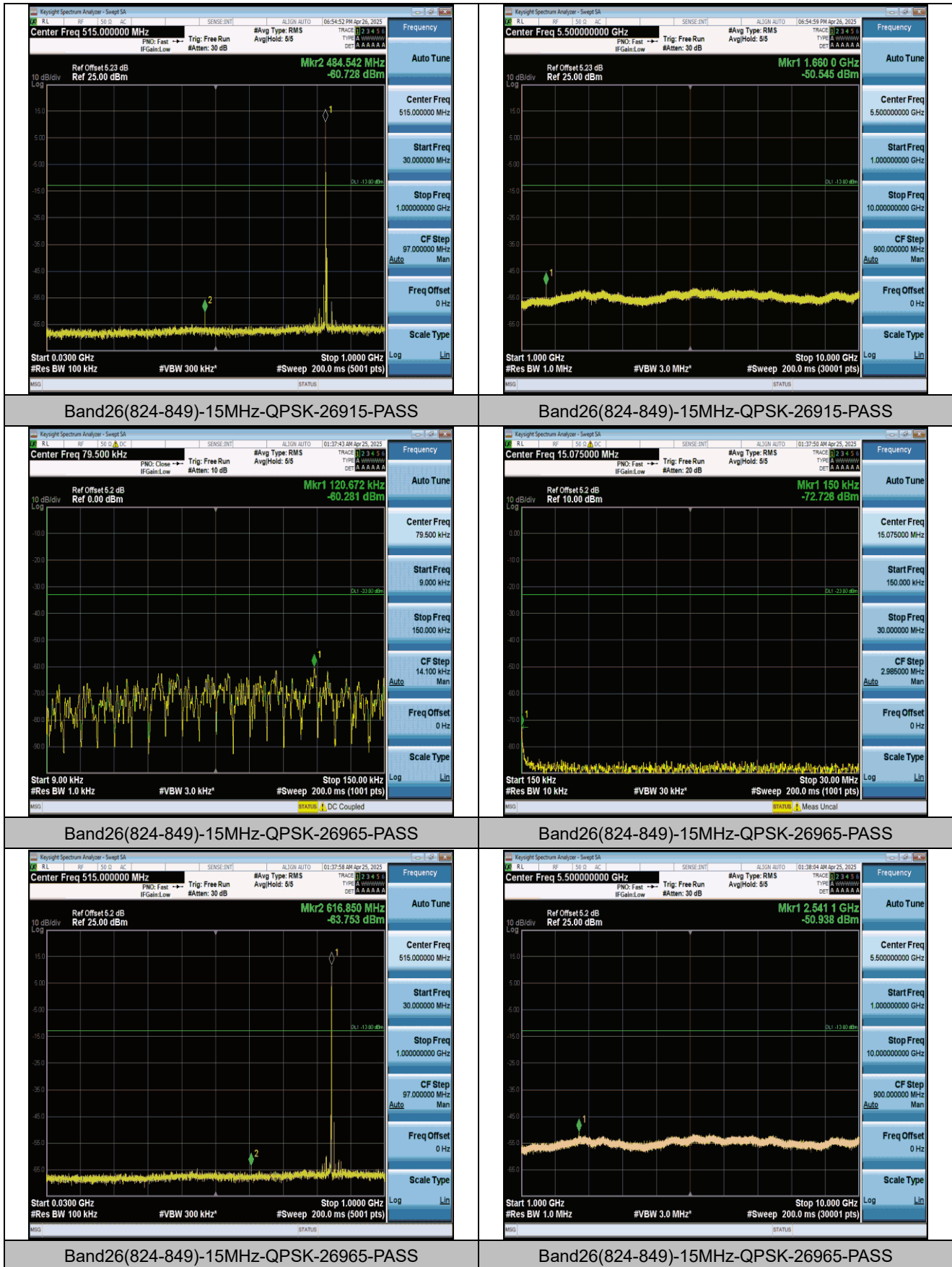
Band26(824-849)_15MHz_QPSK_26865_6_Low



Conducted Spurious Emission for M1

Test Graphs





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)	Limit (ppm)	Verdict
Band26 (824-849)	15MHz	QPSK	26915	6	0	Low	VN	NT	-3.70	-0.004423	±2.5	PASS
Band26 (824-849)	15MHz	QPSK	26915	6	0	Low	VL	NT	-5.40	-0.006455	±2.5	PASS
Band26 (824-849)	15MHz	QPSK	26915	6	0	Low	VH	NT	-4.90	-0.005858	±2.5	PASS

Temperature												
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band26 (824-849)	15MHz	QPSK	26915	6	0	Low	NV	-30	-4.30	-0.005140	±2.5	PASS
Band26 (824-849)	15MHz	QPSK	26915	6	0	Low	NV	-20	-4.30	-0.005140	±2.5	PASS
Band26 (824-849)	15MHz	QPSK	26915	6	0	Low	NV	-10	-5.00	-0.005977	±2.5	PASS
Band26 (824-849)	15MHz	QPSK	26915	6	0	Low	NV	0	-3.60	-0.004304	±2.5	PASS
Band26 (824-849)	15MHz	QPSK	26915	6	0	Low	NV	10	-3.10	-0.003706	±2.5	PASS
Band26 (824-849)	15MHz	QPSK	26915	6	0	Low	NV	20	-3.00	-0.003586	±2.5	PASS
Band26 (824-849)	15MHz	QPSK	26915	6	0	Low	NV	30	-5.30	-0.006336	±2.5	PASS
Band26 (824-849)	15MHz	QPSK	26915	6	0	Low	NV	40	-4.40	-0.005260	±2.5	PASS
Band26 (824-849)	15MHz	QPSK	26915	6	0	Low	NV	50	-3.80	-0.004543	±2.5	PASS

~The End~