

Appendix-A LTE Cat M1 Band 25

Effective (Isotropic) Radiated Power Output Data for M1

Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Power (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band25	1.4MHz	QPSK	26047	1	0	Low	21.08	22.67	33.00	PASS
Band25	1.4MHz	QPSK	26047	1	5	Low	20.98	22.57	33.00	PASS
Band25	1.4MHz	QPSK	26047	6	0	Low	19.13	20.72	33.00	PASS
Band25	1.4MHz	QPSK	26365	1	0	Low	21.15	22.74	33.00	PASS
Band25	1.4MHz	QPSK	26365	1	5	Low	21.03	22.62	33.00	PASS
Band25	1.4MHz	QPSK	26365	6	0	Low	19.26	20.85	33.00	PASS
Band25	1.4MHz	QPSK	26683	1	0	High	21.31	22.9	33.00	PASS
Band25	1.4MHz	QPSK	26683	1	5	High	20.96	22.55	33.00	PASS
Band25	1.4MHz	QPSK	26683	6	0	High	19.09	20.68	33.00	PASS
Band25	3MHz	QPSK	26055	1	0	Low	21.11	22.7	33.00	PASS
Band25	3MHz	QPSK	26055	1	5	Low	20.98	22.57	33.00	PASS
Band25	3MHz	QPSK	26055	6	0	Low	19.15	20.74	33.00	PASS
Band25	3MHz	QPSK	26365	1	0	Low	21.7	23.29	33.00	PASS
Band25	3MHz	QPSK	26365	1	5	Low	21.14	22.73	33.00	PASS
Band25	3MHz	QPSK	26365	6	0	Low	19.4	20.99	33.00	PASS
Band25	3MHz	QPSK	26675	1	0	High	21.18	22.77	33.00	PASS
Band25	3MHz	QPSK	26675	1	5	High	21	22.59	33.00	PASS
Band25	3MHz	QPSK	26675	6	0	High	19.15	20.74	33.00	PASS
Band25	5MHz	QPSK	26065	1	0	Low	21.26	22.85	33.00	PASS
Band25	5MHz	QPSK	26065	1	5	Low	21.09	22.68	33.00	PASS
Band25	5MHz	QPSK	26065	6	0	Low	20.19	21.78	33.00	PASS
Band25	5MHz	QPSK	26365	1	0	Low	21.4	22.99	33.00	PASS
Band25	5MHz	QPSK	26365	1	5	Low	21.16	22.75	33.00	PASS
Band25	5MHz	QPSK	26365	6	0	Low	20.3	21.89	33.00	PASS
Band25	5MHz	QPSK	26665	1	0	High	21.29	22.88	33.00	PASS
Band25	5MHz	QPSK	26665	1	5	High	21.03	22.62	33.00	PASS
Band25	5MHz	QPSK	26665	6	0	High	20.16	21.75	33.00	PASS
Band25	10MHz	QPSK	26090	1	0	Low	21.28	22.87	33.00	PASS
Band25	10MHz	QPSK	26090	1	5	Low	21.13	22.72	33.00	PASS
Band25	10MHz	QPSK	26090	6	0	Low	20.23	21.82	33.00	PASS
Band25	10MHz	QPSK	26365	1	0	Low	21.4	22.99	33.00	PASS
Band25	10MHz	QPSK	26365	1	5	Low	21.18	22.77	33.00	PASS
Band25	10MHz	QPSK	26365	6	0	Low	20.33	21.92	33.00	PASS
Band25	10MHz	QPSK	26640	1	0	High	21.34	22.93	33.00	PASS
Band25	10MHz	QPSK	26640	1	5	High	21.09	22.68	33.00	PASS
Band25	10MHz	QPSK	26640	6	0	High	20.19	21.78	33.00	PASS
Band25	15MHz	QPSK	26115	1	0	Low	21.3	22.89	33.00	PASS

Band25	15MHz	QPSK	26115	1	5	Low	21.15	22.74	33.00	PASS
Band25	15MHz	QPSK	26115	6	0	Low	21.24	22.83	33.00	PASS
Band25	15MHz	QPSK	26365	1	0	Low	21.43	23.02	33.00	PASS
Band25	15MHz	QPSK	26365	1	5	Low	21.12	22.71	33.00	PASS
Band25	15MHz	QPSK	26365	6	0	Low	21.33	22.92	33.00	PASS
Band25	15MHz	QPSK	26615	1	0	High	21.29	22.88	33.00	PASS
Band25	15MHz	QPSK	26615	1	5	High	21.05	22.64	33.00	PASS
Band25	15MHz	QPSK	26615	6	0	High	21.21	22.8	33.00	PASS
Band25	20MHz	QPSK	26140	1	0	Low	21.26	22.85	33.00	PASS
Band25	20MHz	QPSK	26140	1	5	Low	21.16	22.75	33.00	PASS
Band25	20MHz	QPSK	26140	6	0	Low	21.27	22.86	33.00	PASS
Band25	20MHz	QPSK	26365	1	0	Low	21.41	23	33.00	PASS
Band25	20MHz	QPSK	26365	1	5	Low	21.19	22.78	33.00	PASS
Band25	20MHz	QPSK	26365	6	0	Low	21.33	22.92	33.00	PASS
Band25	20MHz	QPSK	26590	1	0	High	21.34	22.93	33.00	PASS
Band25	20MHz	QPSK	26590	1	5	High	21.09	22.68	33.00	PASS
Band25	20MHz	QPSK	26590	6	0	High	21.24	22.83	33.00	PASS
Band25	1.4MHz	16QAM	26047	1	0	Low	20.65	22.24	33.00	PASS
Band25	1.4MHz	16QAM	26047	1	5	Low	20.04	21.63	33.00	PASS
Band25	1.4MHz	16QAM	26047	5	0	Low	19.03	20.62	33.00	PASS
Band25	1.4MHz	16QAM	26365	1	0	Low	20.55	22.14	33.00	PASS
Band25	1.4MHz	16QAM	26365	1	5	Low	20.5	22.09	33.00	PASS
Band25	1.4MHz	16QAM	26365	5	0	Low	19.19	20.78	33.00	PASS
Band25	1.4MHz	16QAM	26683	1	0	High	20.44	22.03	33.00	PASS
Band25	1.4MHz	16QAM	26683	1	5	High	20.31	21.9	33.00	PASS
Band25	1.4MHz	16QAM	26683	5	0	High	19.25	20.84	33.00	PASS
Band25	3MHz	16QAM	26055	1	0	Low	20.09	21.68	33.00	PASS
Band25	3MHz	16QAM	26055	1	5	Low	20.6	22.19	33.00	PASS
Band25	3MHz	16QAM	26055	5	0	Low	19.15	20.74	33.00	PASS
Band25	3MHz	16QAM	26365	1	0	Low	20.31	21.9	33.00	PASS
Band25	3MHz	16QAM	26365	1	5	Low	20.4	21.99	33.00	PASS
Band25	3MHz	16QAM	26365	5	0	Low	19.27	20.86	33.00	PASS
Band25	3MHz	16QAM	26675	1	0	High	20.46	22.05	33.00	PASS
Band25	3MHz	16QAM	26675	1	5	High	20.3	21.89	33.00	PASS
Band25	3MHz	16QAM	26675	5	0	High	19.34	20.93	33.00	PASS
Band25	5MHz	16QAM	26065	1	0	Low	21.13	22.72	33.00	PASS
Band25	5MHz	16QAM	26065	1	5	Low	20.89	22.48	33.00	PASS
Band25	5MHz	16QAM	26065	5	0	Low	19.99	21.58	33.00	PASS
Band25	5MHz	16QAM	26365	1	0	Low	21.3	22.89	33.00	PASS
Band25	5MHz	16QAM	26365	1	5	Low	21.09	22.68	33.00	PASS
Band25	5MHz	16QAM	26365	5	0	Low	20.15	21.74	33.00	PASS
Band25	5MHz	16QAM	26665	1	0	High	21.3	22.89	33.00	PASS
Band25	5MHz	16QAM	26665	1	5	High	21.06	22.65	33.00	PASS
Band25	5MHz	16QAM	26665	5	0	High	20.13	21.72	33.00	PASS
Band25	10MHz	16QAM	26090	1	0	Low	20.99	22.58	33.00	PASS

Band25	10MHz	16QAM	26090	1	5	Low	20.87	22.46	33.00	PASS
Band25	10MHz	16QAM	26090	5	0	Low	21.08	22.67	33.00	PASS
Band25	10MHz	16QAM	26365	1	0	Low	21.28	22.87	33.00	PASS
Band25	10MHz	16QAM	26365	1	5	Low	21	22.59	33.00	PASS
Band25	10MHz	16QAM	26365	5	0	Low	21.04	22.63	33.00	PASS
Band25	10MHz	16QAM	26640	1	0	High	21.31	22.9	33.00	PASS
Band25	10MHz	16QAM	26640	1	5	High	21.08	22.67	33.00	PASS
Band25	10MHz	16QAM	26640	5	0	High	21.13	22.72	33.00	PASS
Band25	15MHz	16QAM	26115	1	0	Low	21.25	22.84	33.00	PASS
Band25	15MHz	16QAM	26115	1	5	Low	20.92	22.51	33.00	PASS
Band25	15MHz	16QAM	26115	5	0	Low	21.03	22.62	33.00	PASS
Band25	15MHz	16QAM	26365	1	0	Low	21.27	22.86	33.00	PASS
Band25	15MHz	16QAM	26365	1	5	Low	21.06	22.65	33.00	PASS
Band25	15MHz	16QAM	26365	5	0	Low	21.11	22.7	33.00	PASS
Band25	15MHz	16QAM	26615	1	0	High	21.34	22.93	33.00	PASS
Band25	15MHz	16QAM	26615	1	5	High	21.21	22.8	33.00	PASS
Band25	15MHz	16QAM	26615	5	0	High	21.18	22.77	33.00	PASS
Band25	20MHz	16QAM	26140	1	0	Low	20.95	22.54	33.00	PASS
Band25	20MHz	16QAM	26140	1	5	Low	20.9	22.49	33.00	PASS
Band25	20MHz	16QAM	26140	5	0	Low	21.01	22.6	33.00	PASS
Band25	20MHz	16QAM	26365	1	0	Low	21.34	22.93	33.00	PASS
Band25	20MHz	16QAM	26365	1	5	Low	21.04	22.63	33.00	PASS
Band25	20MHz	16QAM	26365	5	0	Low	21.09	22.68	33.00	PASS
Band25	20MHz	16QAM	26590	1	0	High	21.34	22.93	33.00	PASS
Band25	20MHz	16QAM	26590	1	5	High	21.11	22.7	33.00	PASS
Band25	20MHz	16QAM	26590	5	0	High	21.17	22.76	33.00	PASS

Peak-to-Average Ratio(CCDF) for M1

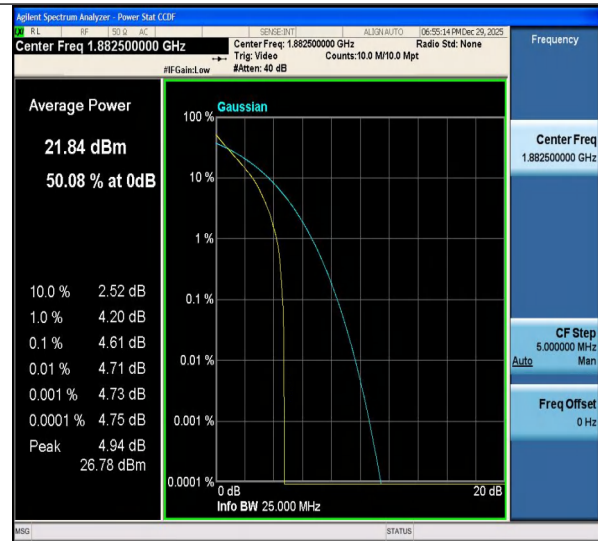
Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band25	20MHz	QPSK	26140	6	0	Low	4.58	<=13	PASS
Band25	20MHz	QPSK	26365	6	0	Low	4.61	<=13	PASS
Band25	20MHz	QPSK	26590	6	0	High	4.75	<=13	PASS
Band25	20MHz	16QAM	26140	5	0	Low	5.03	<=13	PASS
Band25	20MHz	16QAM	26365	5	0	Low	5.04	<=13	PASS
Band25	20MHz	16QAM	26590	5	0	High	5.08	<=13	PASS

Test Graphs



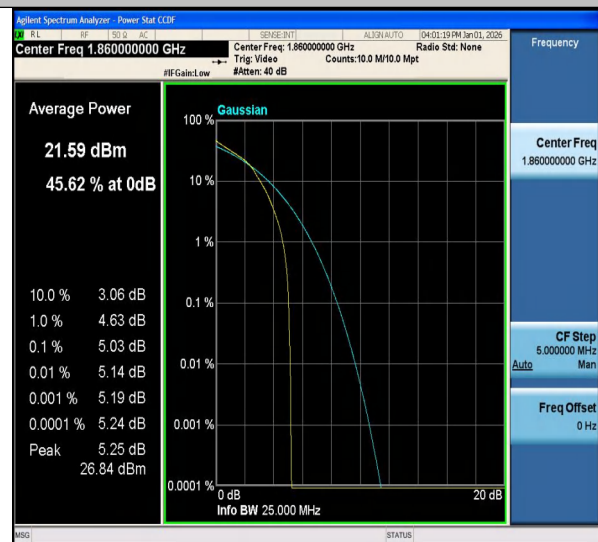
Band25-20MHz-QPSK-26140-6#0-PASS



Band25-20MHz-QPSK-26365-6#0-PASS



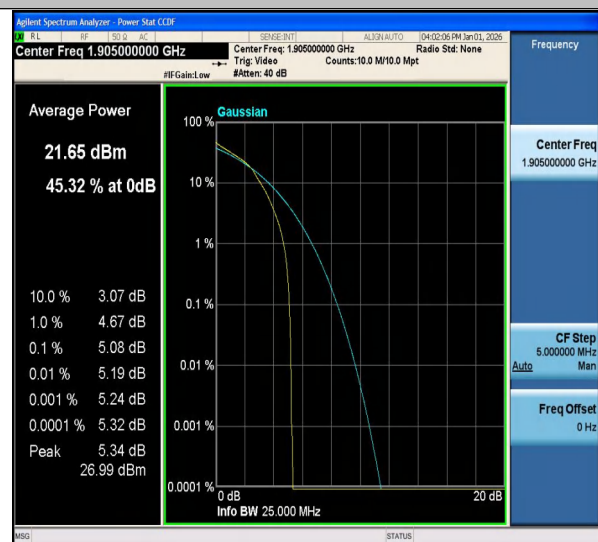
Band25-20MHz-QPSK-26590-6#0-PASS



Band25-20MHz-16QAM-26140-5#0-PASS



Band25-20MHz-16QAM-26365-5#0-PASS



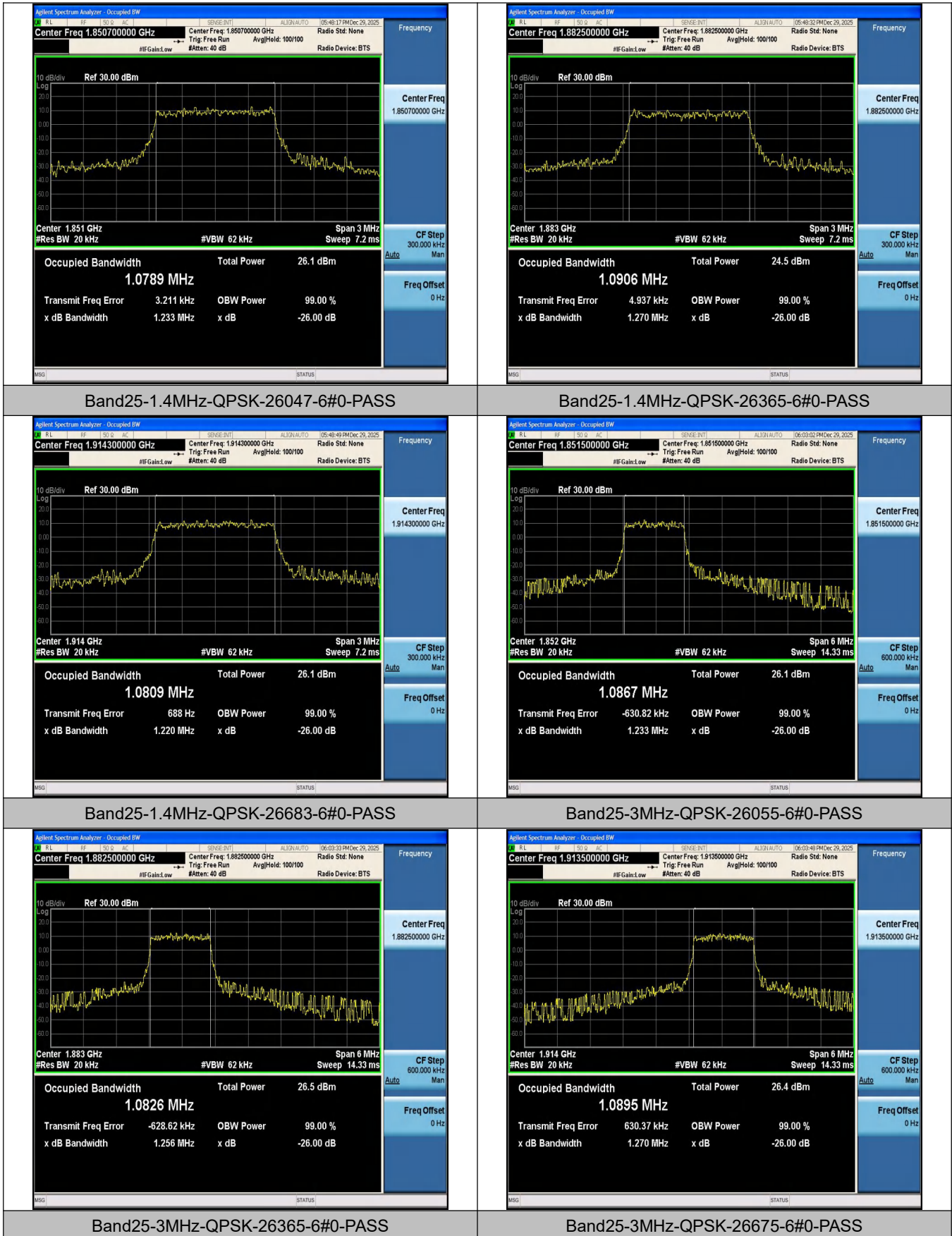
Band25-20MHz-16QAM-26590-5#0-PASS

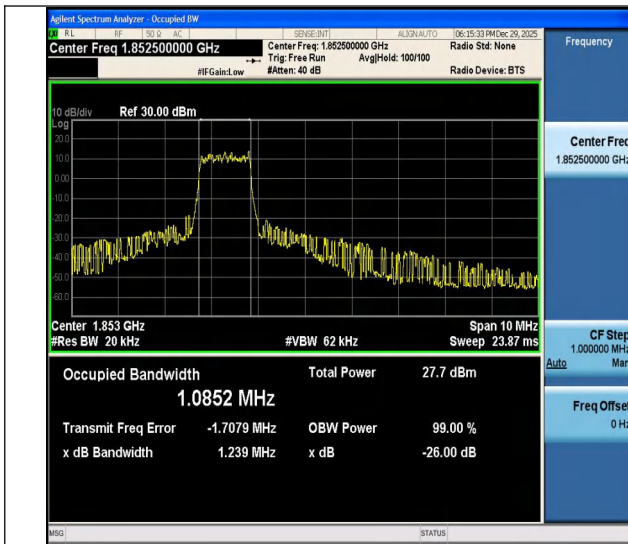
26dB Bandwidth and Occupied Bandwidth for M1

Test Result

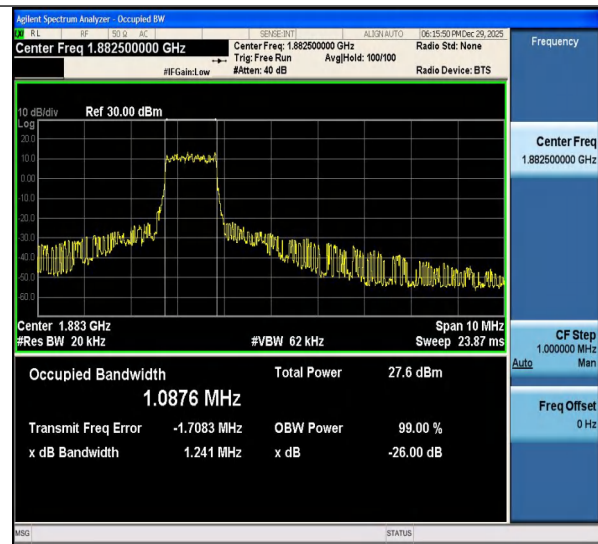
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band25	1.4MHz	QPSK	26047	6	0	Low	1.0789	1.233	PASS
Band25	1.4MHz	QPSK	26365	6	0	Low	1.0906	1.270	PASS
Band25	1.4MHz	QPSK	26683	6	0	High	1.0809	1.220	PASS
Band25	3MHz	QPSK	26055	6	0	Low	1.0867	1.233	PASS
Band25	3MHz	QPSK	26365	6	0	Low	1.0826	1.256	PASS
Band25	3MHz	QPSK	26675	6	0	High	1.0895	1.270	PASS
Band25	5MHz	QPSK	26065	6	0	Low	1.0852	1.239	PASS
Band25	5MHz	QPSK	26365	6	0	Low	1.0876	1.241	PASS
Band25	10MHz	QPSK	26090	6	0	Low	1.0904	1.274	PASS
Band25	10MHz	QPSK	26365	6	0	Low	1.0950	1.261	PASS
Band25	10MHz	QPSK	26640	6	0	High	1.0953	1.291	PASS
Band25	5MHz	QPSK	26665	6	0	High	1.0839	1.260	PASS
Band25	15MHz	QPSK	26115	6	0	Low	1.1061	1.272	PASS
Band25	15MHz	QPSK	26365	6	0	Low	1.1013	1.290	PASS
Band25	15MHz	QPSK	26615	6	0	High	1.1032	1.283	PASS
Band25	20MHz	QPSK	26140	6	0	Low	1.1106	1.268	PASS
Band25	20MHz	QPSK	26365	6	0	Low	1.1120	1.277	PASS
Band25	20MHz	QPSK	26590	6	0	High	1.1100	1.277	PASS
Band25	1.4MHz	16QAM	26047	5	0	Low	0.91578	1.046	PASS
Band25	1.4MHz	16QAM	26365	5	0	Low	0.91092	1.077	PASS
Band25	1.4MHz	16QAM	26683	5	0	High	0.90933	1.070	PASS
Band25	3MHz	16QAM	26055	5	0	Low	0.91812	1.056	PASS
Band25	3MHz	16QAM	26365	5	0	Low	0.91226	1.098	PASS
Band25	3MHz	16QAM	26675	5	0	High	0.91237	1.075	PASS
Band25	5MHz	16QAM	26065	5	0	Low	0.90784	1.099	PASS
Band25	5MHz	16QAM	26365	5	0	Low	0.91924	1.099	PASS
Band25	10MHz	16QAM	26090	5	0	Low	0.92401	1.108	PASS
Band25	10MHz	16QAM	26365	5	0	Low	0.93039	1.114	PASS
Band25	10MHz	16QAM	26640	5	0	High	0.92390	1.099	PASS
Band25	15MHz	16QAM	26115	5	0	Low	0.92622	1.124	PASS
Band25	15MHz	16QAM	26365	5	0	Low	0.92957	1.088	PASS
Band25	15MHz	16QAM	26615	5	0	High	0.93495	1.105	PASS
Band25	20MHz	16QAM	26140	5	0	Low	0.94280	1.165	PASS
Band25	5MHz	16QAM	26665	5	0	High	0.92107	1.109	PASS
Band25	20MHz	16QAM	26365	5	0	Low	0.95139	1.140	PASS
Band25	20MHz	16QAM	26590	5	0	High	0.94858	1.125	PASS

Test Graphs

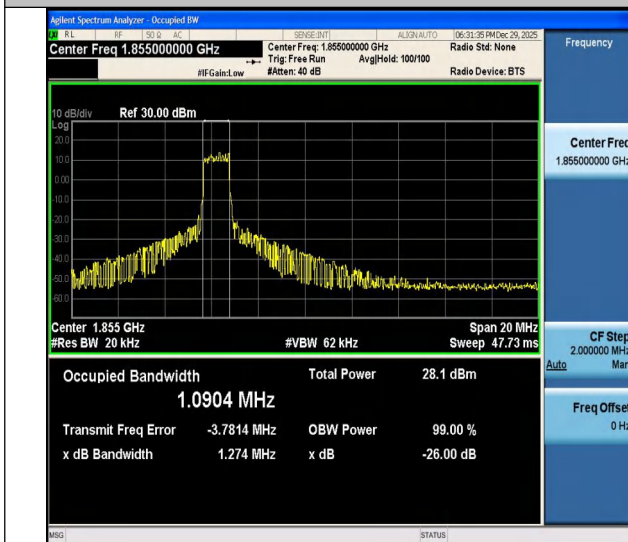




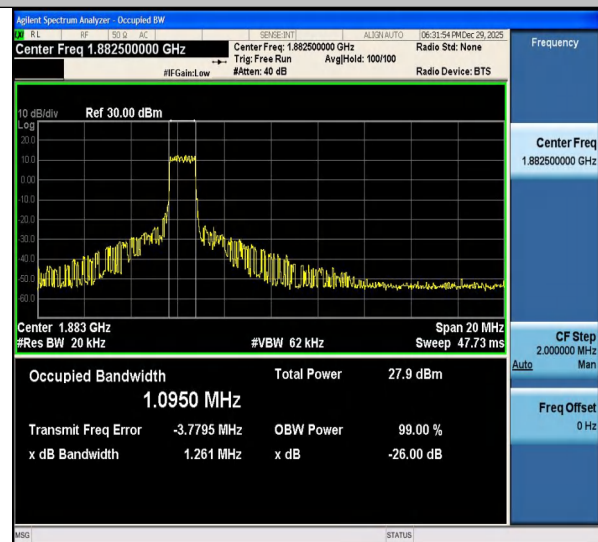
Band25-5MHz-QPSK-26065-6#0-PASS



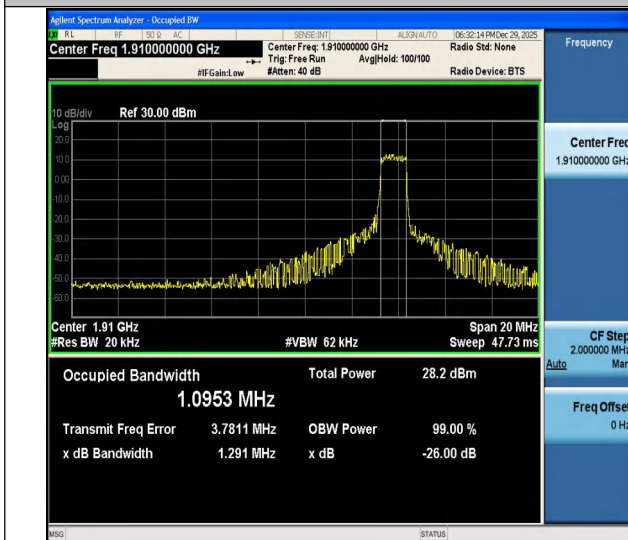
Band25-5MHz-QPSK-26365-6#0-PASS



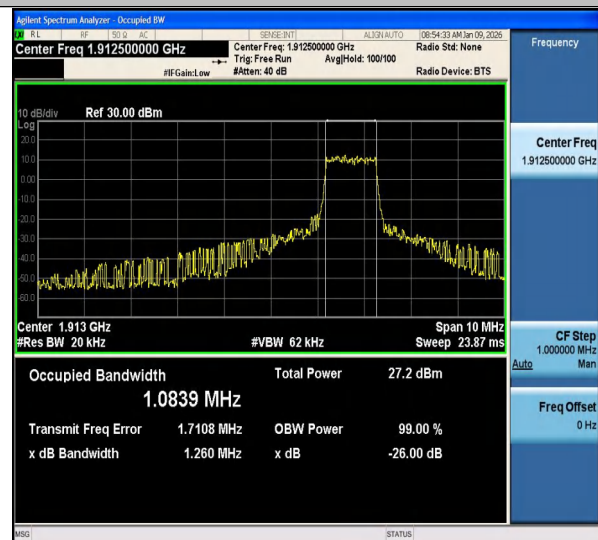
Band25-10MHz-QPSK-26090-6#0-PASS



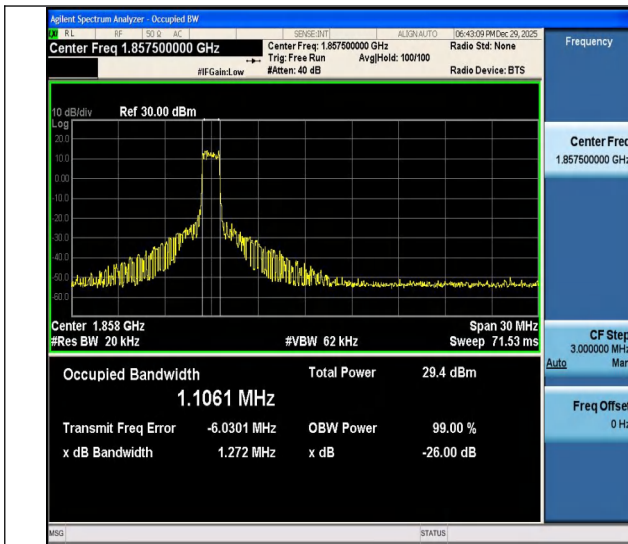
Band25-10MHz-QPSK-26365-6#0-PASS



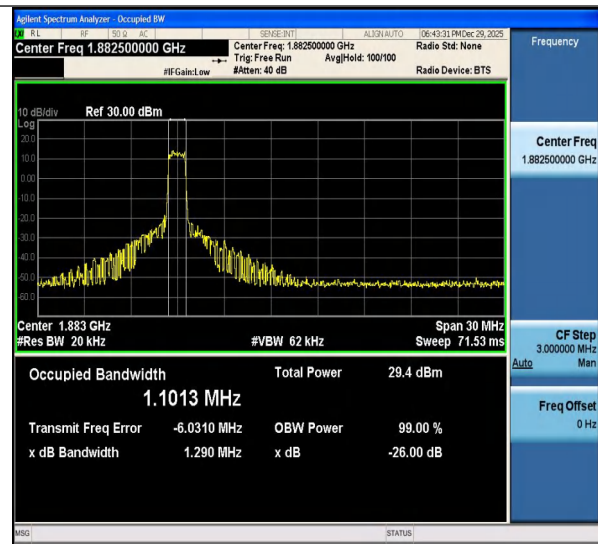
Band25-10MHz-QPSK-26640-6#0-PASS



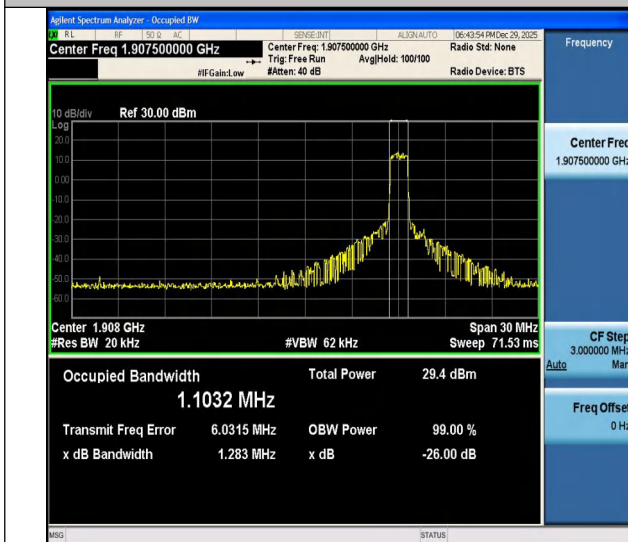
Band25-5MHz-QPSK-26665-6#0-PASS



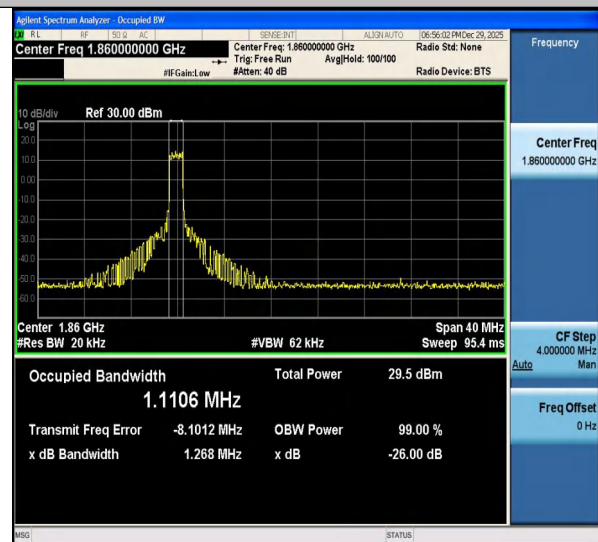
Band25-15MHz-QPSK-26115-6#0-PASS



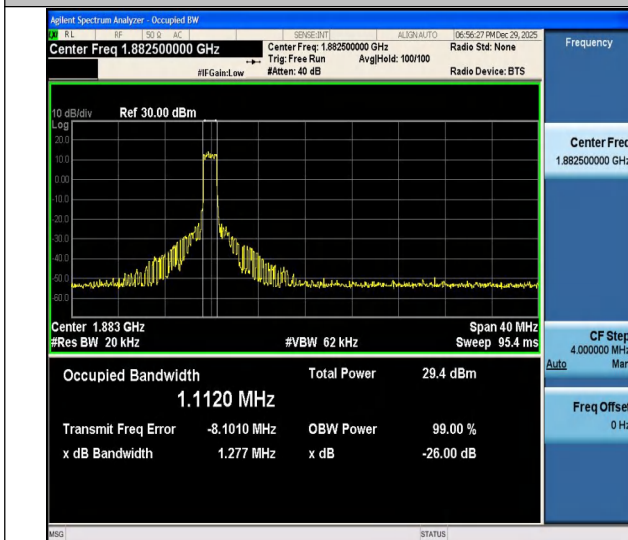
Band25-15MHz-QPSK-26365-6#0-PASS



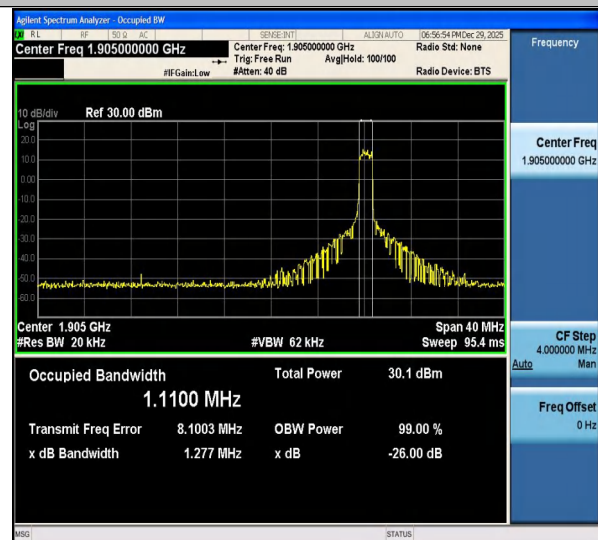
Band25-15MHz-QPSK-26615-6#0-PASS



Band25-20MHz-QPSK-26140-6#0-PASS



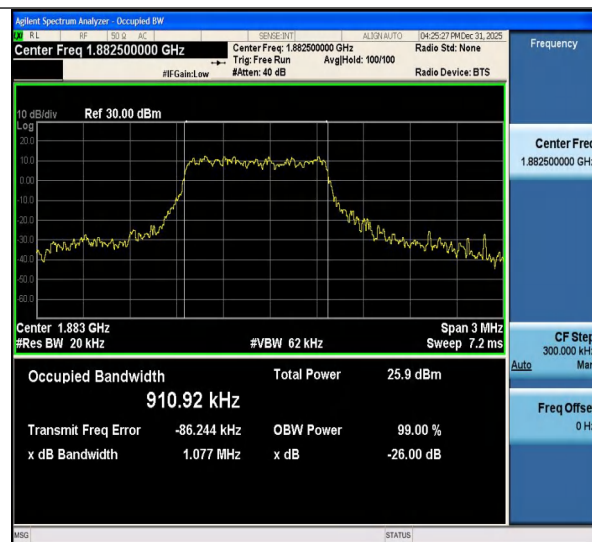
Band25-20MHz-QPSK-26365-6#0-PASS



Band25-20MHz-QPSK-26590-6#0-PASS



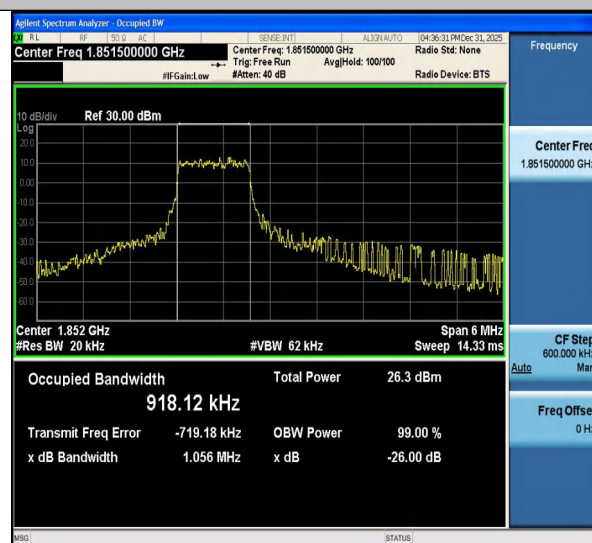
Band25-1.4MHz-16QAM-26047-5#0-PASS



Band25-1.4MHz-16QAM-26365-5#0-PASS



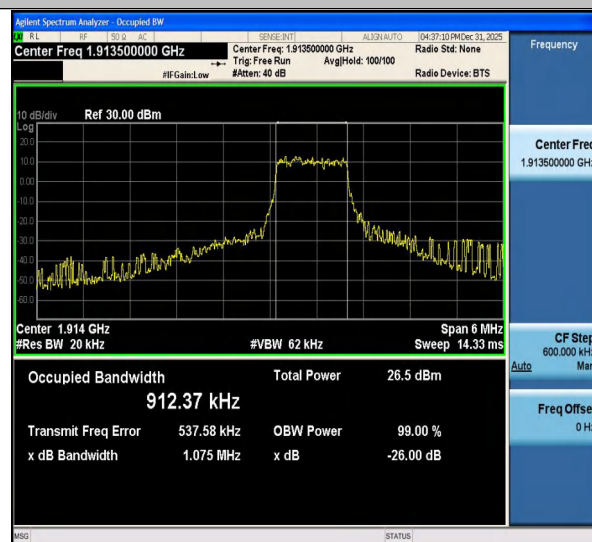
Band25-1.4MHz-16QAM-26683-5#0-PASS



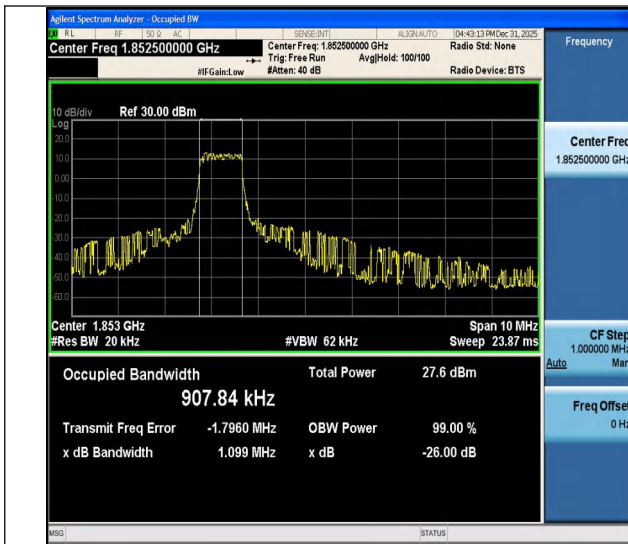
Band25-3MHz-16QAM-26055-5#0-PASS



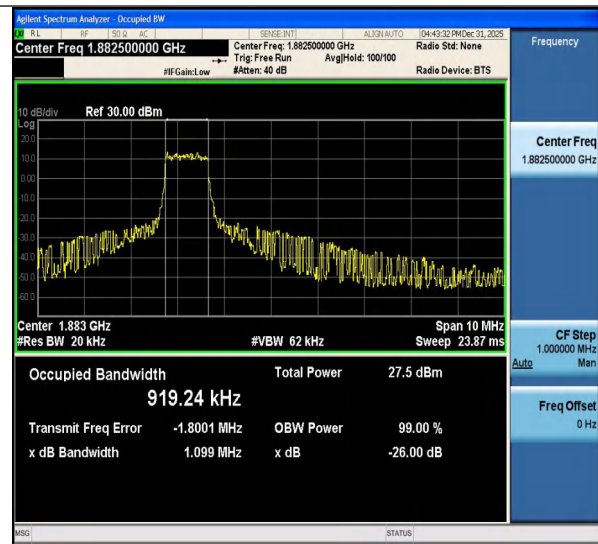
Band25-3MHz-16QAM-26365-5#0-PASS



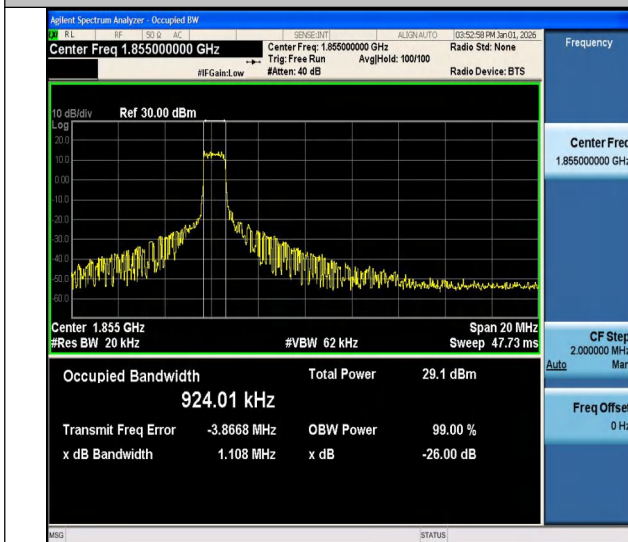
Band25-3MHz-16QAM-26675-5#0-PASS



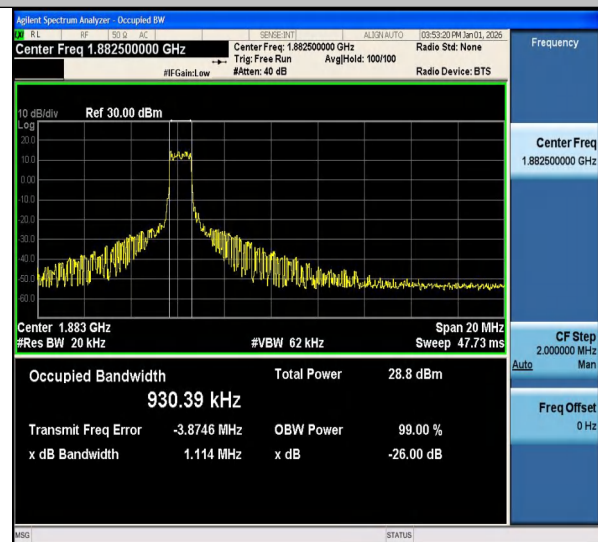
Band25-5MHz-16QAM-26065-5#0-PASS



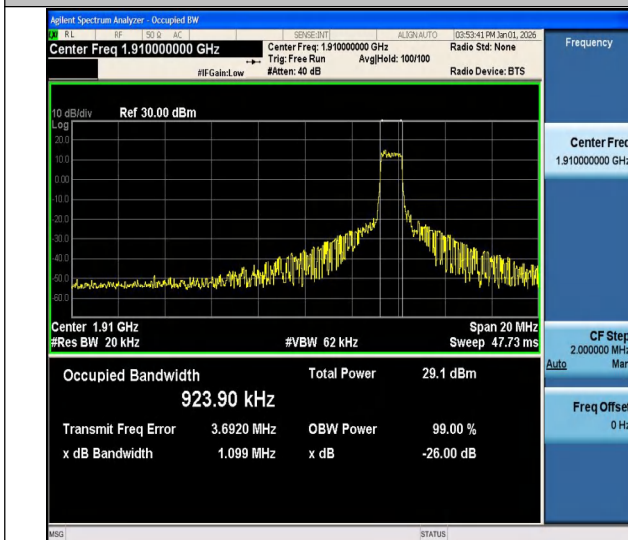
Band25-5MHz-16QAM-26365-5#0-PASS



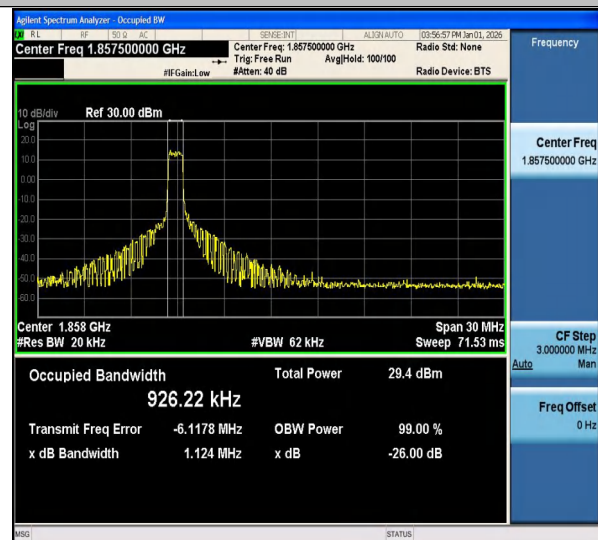
Band25-10MHz-16QAM-26090-5#0-PASS



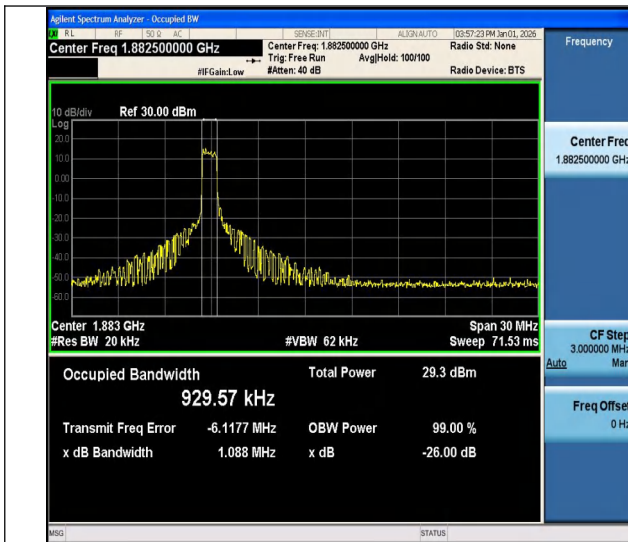
Band25-10MHz-16QAM-26365-5#0-PASS



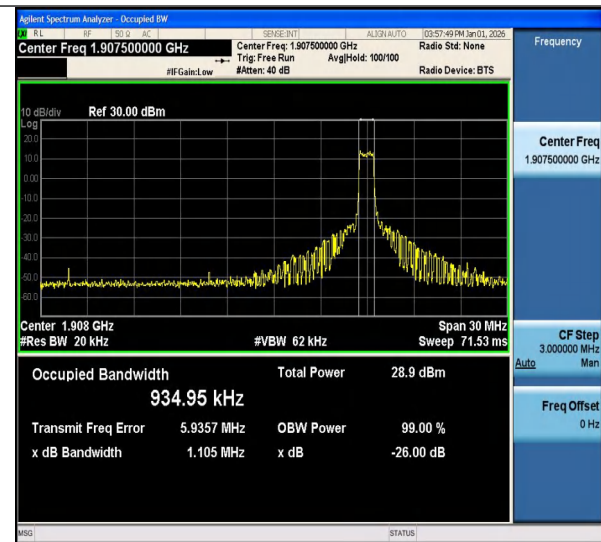
Band25-10MHz-16QAM-26640-5#0-PASS



Band25-15MHz-16QAM-26115-5#0-PASS



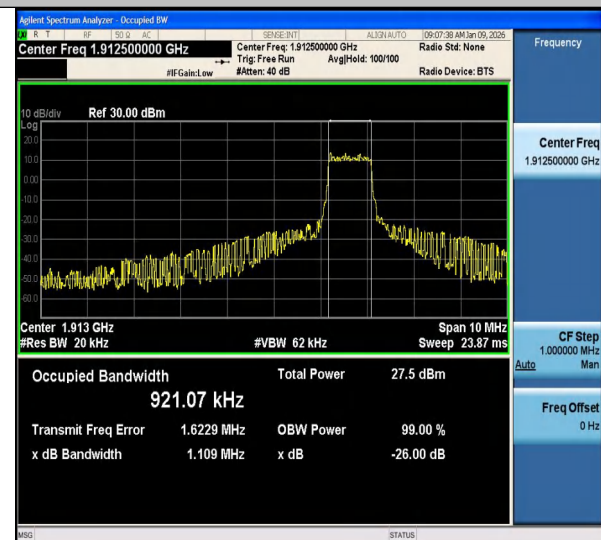
Band25-15MHz-16QAM-26365-5#0-PASS



Band25-15MHz-16QAM-26615-5#0-PASS



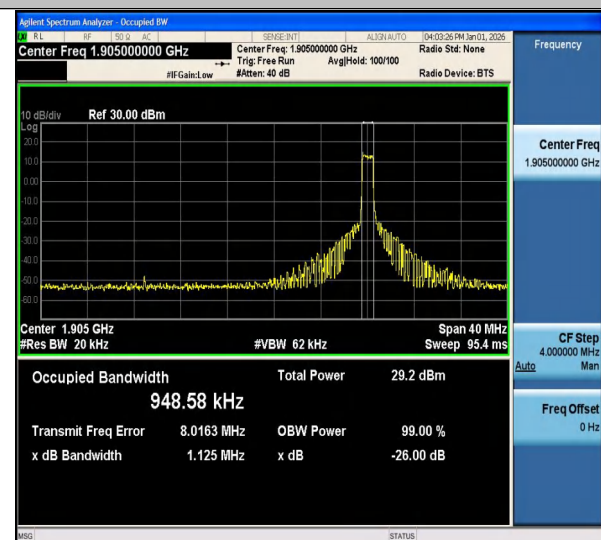
Band25-20MHz-16QAM-26140-5#0-PASS



Band25-5MHz-16QAM-26665-5#0-PASS



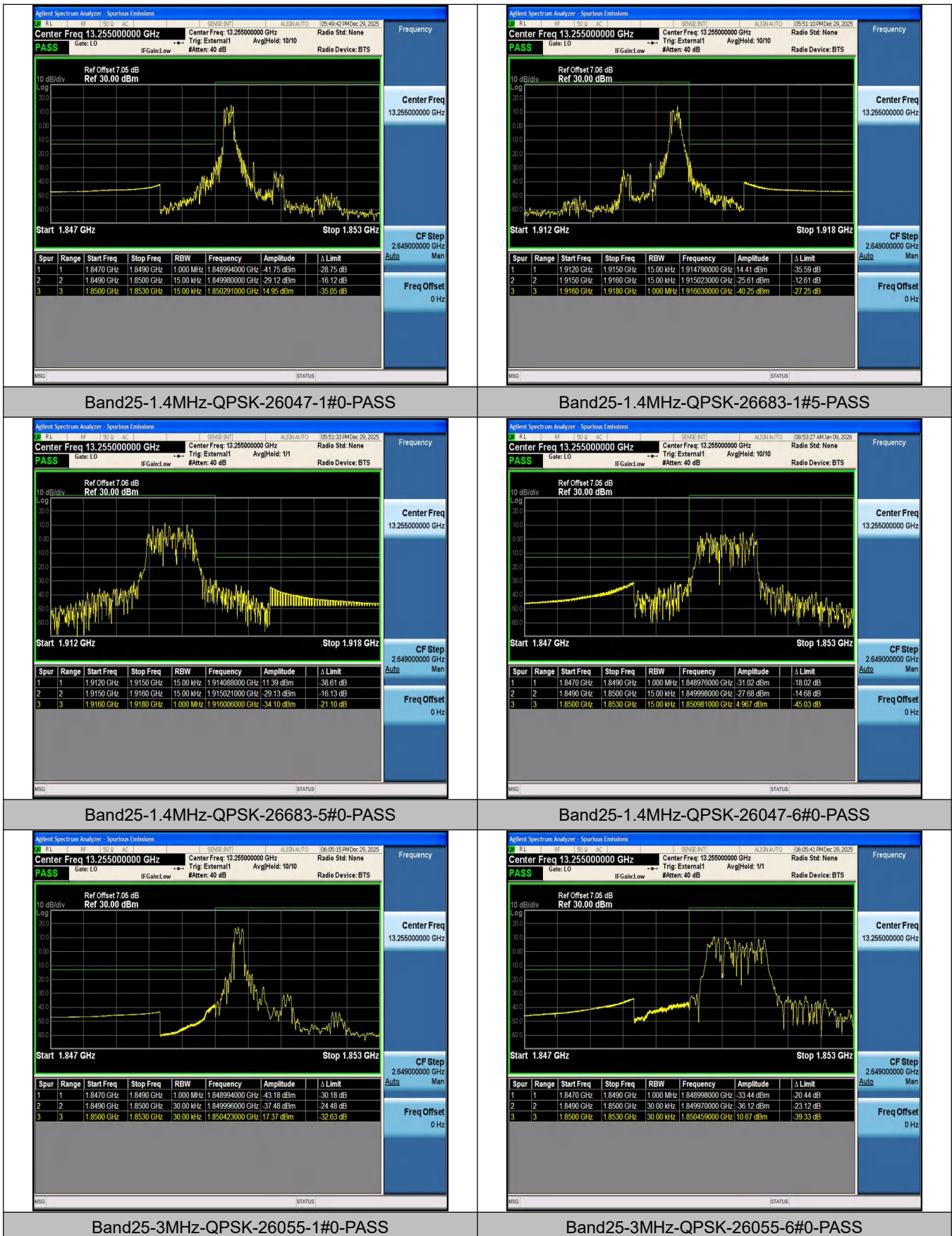
Band25-20MHz-16QAM-26365-5#0-PASS



Band25-20MHz-16QAM-26590-5#0-PASS

Band Edge for M1

Test Graphs





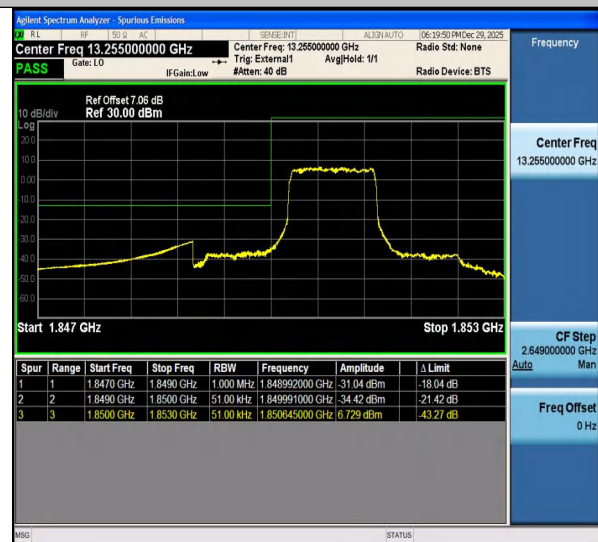
Band25-3MHz-QPSK-26675-1#0-PASS



Band25-3MHz-QPSK-26675-6#0-PASS



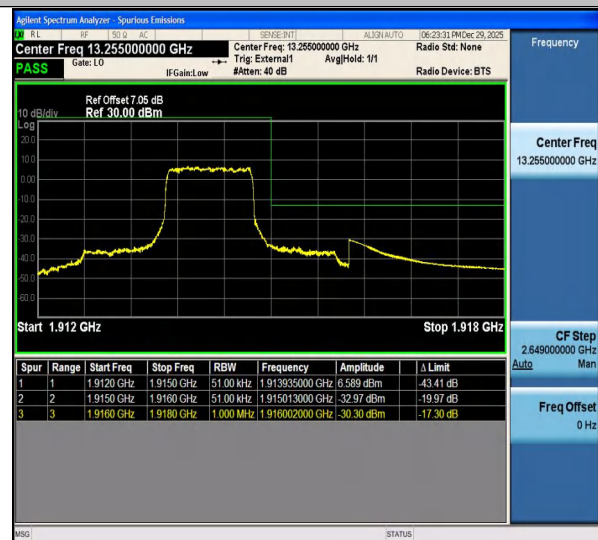
Band25-5MHz-QPSK-26065-1#0-PASS



Band25-5MHz-QPSK-26065-6#0-PASS



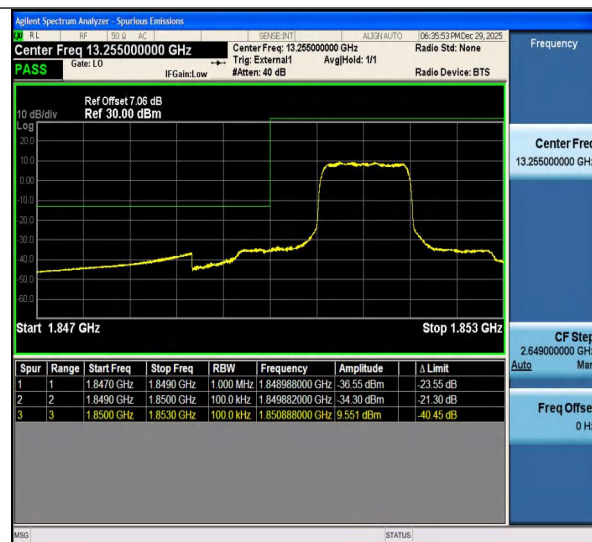
Band25-5MHz-QPSK-26665-1#0-PASS



Band25-5MHz-QPSK-26665-6#0-PASS



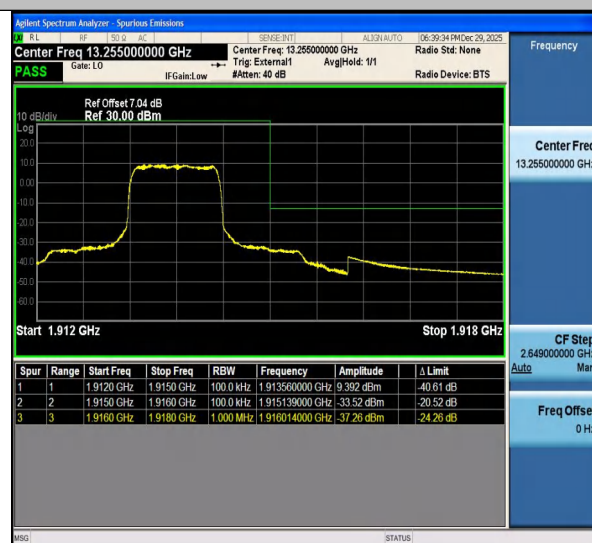
Band25-10MHz-QPSK-26090-1#0-PASS



Band25-10MHz-QPSK-26090-6#0-PASS



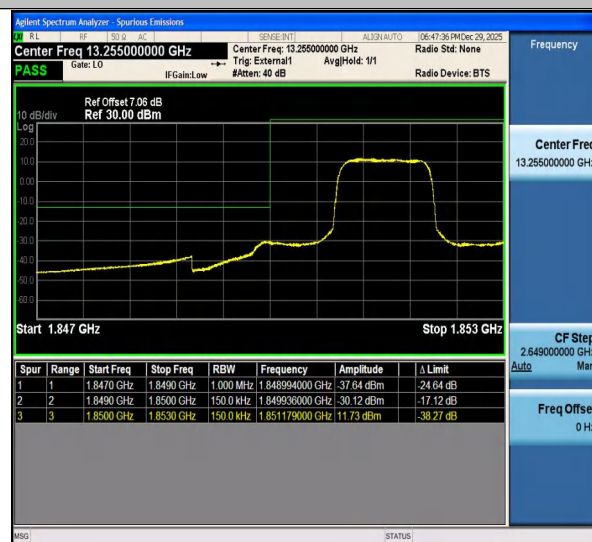
Band25-10MHz-QPSK-26640-1#0-PASS



Band25-10MHz-QPSK-26640-6#0-PASS



Band25-15MHz-QPSK-26115-1#0-PASS



Band25-15MHz-QPSK-26115-6#0-PASS



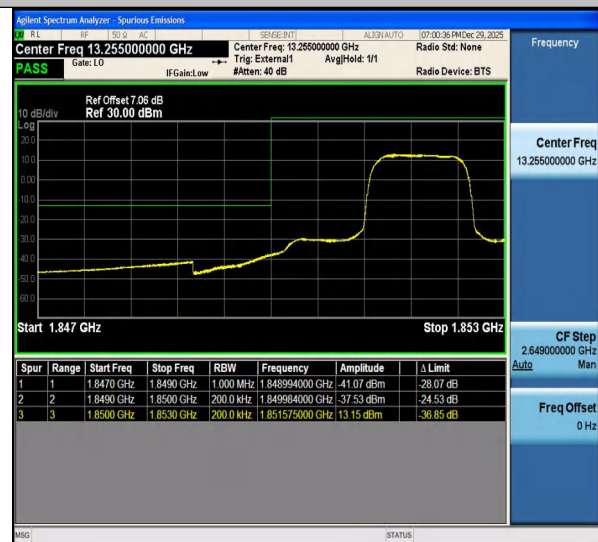
Band25-15MHz-QPSK-26615-1#0-PASS



Band25-15MHz-QPSK-26615-6#0-PASS



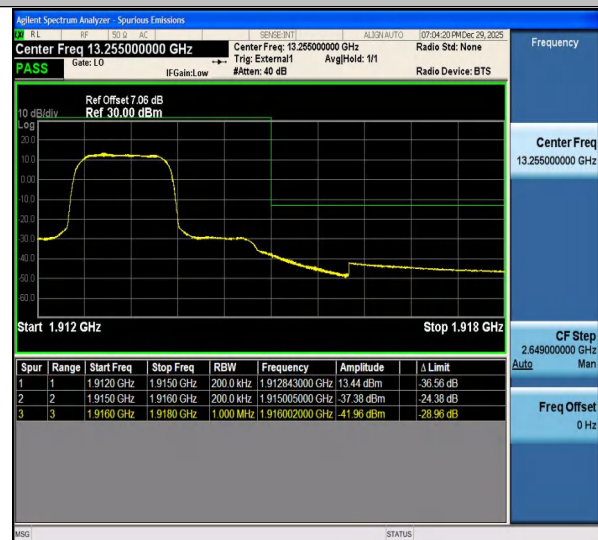
Band25-20MHz-QPSK-26140-1#0-PASS



Band25-20MHz-QPSK-26140-6#0-PASS



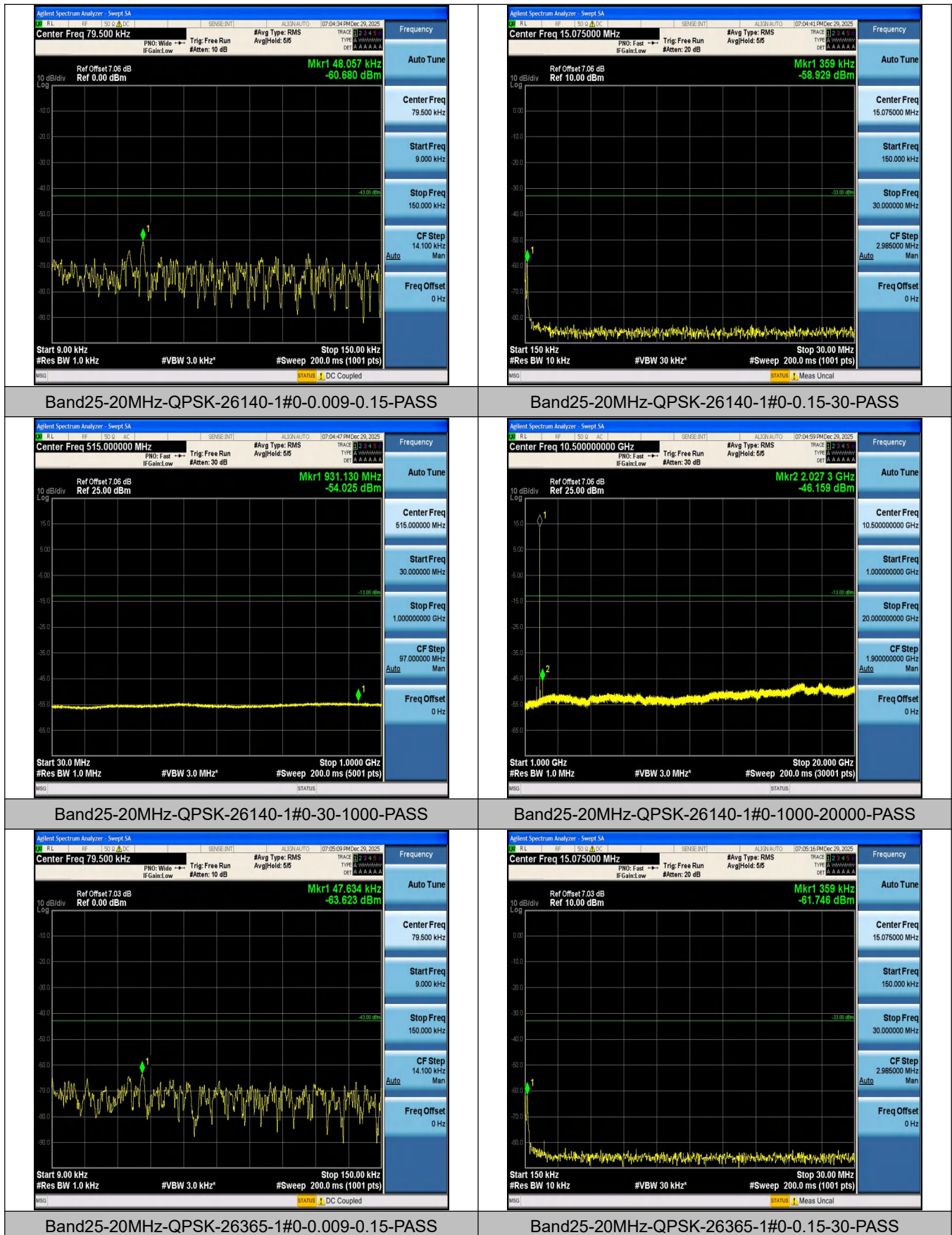
Band25-20MHz-QPSK-26590-1#0-PASS

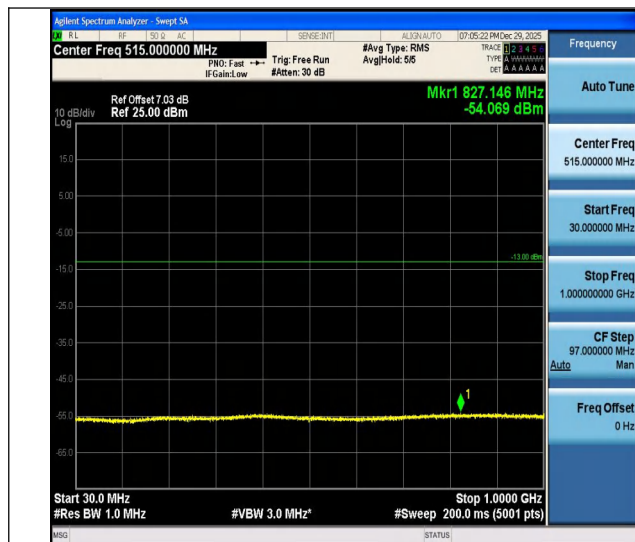


Band25-20MHz-QPSK-26590-6#0-PASS

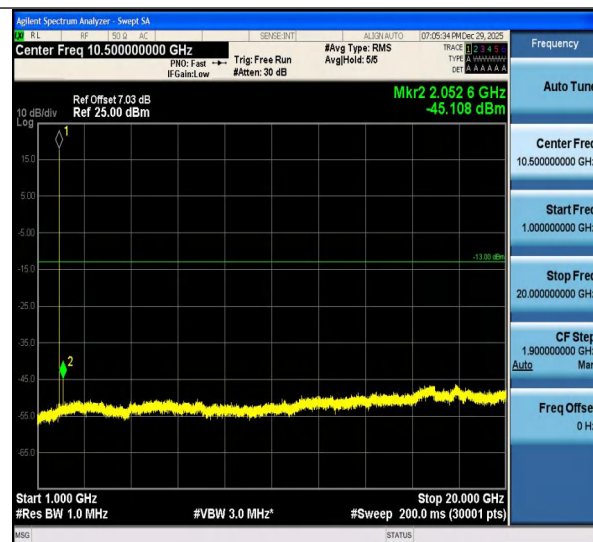
Conducted Spurious Emission for M1

Test Graphs

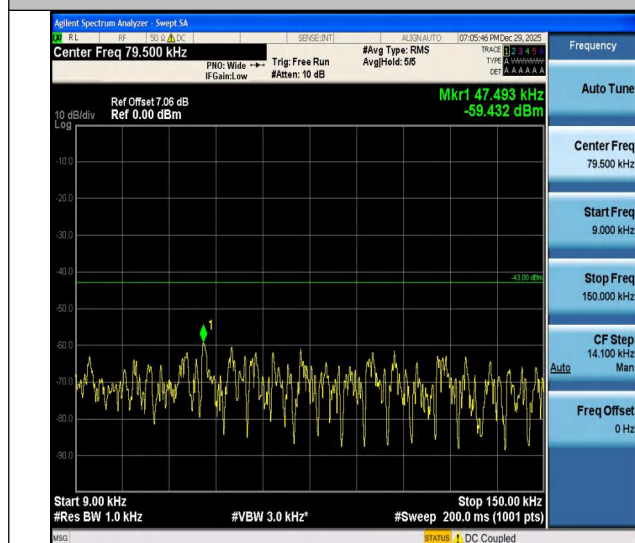




Band25-20MHz-QPSK-26365-1#0-30-1000-PASS



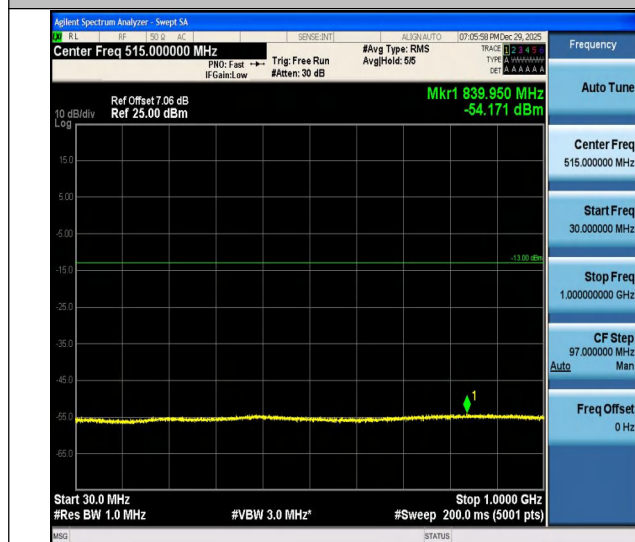
Band25-20MHz-QPSK-26365-1#0-1000-20000-PASS



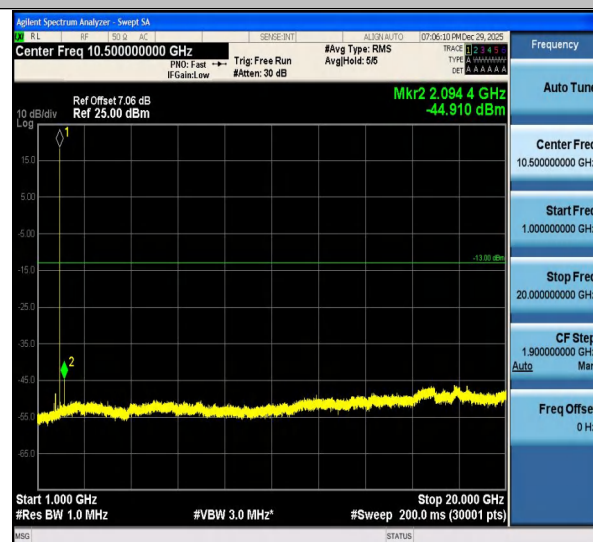
Band25-20MHz-QPSK-26590-1#0-0.009-0.15-PASS



Band25-20MHz-QPSK-26590-1#0-0.15-30-PASS



Band25-20MHz-QPSK-26590-1#0-30-1000-PASS



Band25-20MHz-QPSK-26590-1#0-1000-20000-PASS

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)	Verdict
Band25	20MHz	QPSK	26365	6	0	Low	VN	NT	-4.00	-0.002125	PASS
Band25	20MHz	QPSK	26365	6	0	Low	VL	NT	-2.30	-0.001222	PASS
Band25	20MHz	QPSK	26365	6	0	Low	VH	NT	-5.60	-0.002975	PASS

Temperature											
Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NB Index	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band25	20MHz	QPSK	26365	6	0	Low	NV	-30	-4.80	-0.002550	PASS
Band25	20MHz	QPSK	26365	6	0	Low	NV	-20	-6.80	-0.003612	PASS
Band25	20MHz	QPSK	26365	6	0	Low	NV	-10	-3.40	-0.001806	PASS
Band25	20MHz	QPSK	26365	6	0	Low	NV	0	-6.40	-0.003400	PASS
Band25	20MHz	QPSK	26365	6	0	Low	NV	10	-5.30	-0.002815	PASS
Band25	20MHz	QPSK	26365	6	0	Low	NV	20	-4.70	-0.002497	PASS
Band25	20MHz	QPSK	26365	6	0	Low	NV	30	-6.10	-0.003240	PASS
Band25	20MHz	QPSK	26365	6	0	Low	NV	40	-6.70	-0.003559	PASS
Band25	20MHz	QPSK	26365	6	0	Low	NV	50	-2.90	-0.001541	PASS

~The End~