

Appendix-B LTE Band41

Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dBm)	EIRP (dBm)	Limit (dBm)	Verdict
Band41	5MHz	QPSK	39675	1RB#0	23.62	25.83	33.00	PASS
Band41	5MHz	QPSK	39675	25RB#0	22.48	24.69	33.00	PASS
Band41	5MHz	QPSK	39675	1RB#12	23.28	25.49	33.00	PASS
Band41	5MHz	QPSK	39675	1RB#24	23.79	26	33.00	PASS
Band41	5MHz	QPSK	40620	1RB#0	23.66	25.87	33.00	PASS
Band41	5MHz	QPSK	40620	25RB#0	22.96	25.17	33.00	PASS
Band41	5MHz	QPSK	40620	1RB#12	23.40	25.61	33.00	PASS
Band41	5MHz	QPSK	40620	1RB#24	23.70	25.91	33.00	PASS
Band41	5MHz	QPSK	41565	1RB#0	23.77	25.98	33.00	PASS
Band41	5MHz	QPSK	41565	25RB#0	22.77	24.98	33.00	PASS
Band41	5MHz	QPSK	41565	1RB#12	23.49	25.7	33.00	PASS
Band41	5MHz	QPSK	41565	1RB#24	23.92	26.13	33.00	PASS
Band41	5MHz	16QAM	39675	1RB#0	22.72	24.93	33.00	PASS
Band41	5MHz	16QAM	39675	25RB#0	21.51	23.72	33.00	PASS
Band41	5MHz	16QAM	39675	1RB#12	22.41	24.62	33.00	PASS
Band41	5MHz	16QAM	39675	1RB#24	22.87	25.08	33.00	PASS
Band41	5MHz	16QAM	40620	1RB#0	22.95	25.16	33.00	PASS
Band41	5MHz	16QAM	40620	25RB#0	22.09	24.3	33.00	PASS
Band41	5MHz	16QAM	40620	1RB#12	22.69	24.9	33.00	PASS
Band41	5MHz	16QAM	40620	1RB#24	22.96	25.17	33.00	PASS
Band41	5MHz	16QAM	41565	1RB#0	23.18	25.39	33.00	PASS
Band41	5MHz	16QAM	41565	25RB#0	21.89	24.1	33.00	PASS
Band41	5MHz	16QAM	41565	1RB#12	22.88	25.09	33.00	PASS
Band41	5MHz	16QAM	41565	1RB#24	23.28	25.49	33.00	PASS
Band41	10MHz	QPSK	39700	1RB#0	23.67	25.88	33.00	PASS
Band41	10MHz	QPSK	39700	50RB#0	22.72	24.93	33.00	PASS
Band41	10MHz	QPSK	39700	1RB#24	23.59	25.8	33.00	PASS
Band41	10MHz	QPSK	39700	1RB#49	23.94	26.15	33.00	PASS
Band41	10MHz	QPSK	40620	1RB#0	23.72	25.93	33.00	PASS
Band41	10MHz	QPSK	40620	50RB#0	22.80	25.01	33.00	PASS
Band41	10MHz	QPSK	40620	1RB#24	23.70	25.91	33.00	PASS
Band41	10MHz	QPSK	40620	1RB#49	23.67	25.88	33.00	PASS
Band41	10MHz	QPSK	41540	1RB#0	23.69	25.9	33.00	PASS
Band41	10MHz	QPSK	41540	50RB#0	22.96	25.17	33.00	PASS
Band41	10MHz	QPSK	41540	1RB#24	23.77	25.98	33.00	PASS
Band41	10MHz	QPSK	41540	1RB#49	23.40	25.61	33.00	PASS
Band41	10MHz	16QAM	39700	1RB#0	22.75	24.96	33.00	PASS

Band41	10MHz	16QAM	39700	27RB#0	21.40	23.61	33.00	PASS
Band41	10MHz	16QAM	39700	1RB#24	22.92	25.13	33.00	PASS
Band41	10MHz	16QAM	39700	1RB#49	23.17	25.38	33.00	PASS
Band41	10MHz	16QAM	40620	1RB#0	23.12	25.33	33.00	PASS
Band41	10MHz	16QAM	40620	27RB#0	22.02	24.23	33.00	PASS
Band41	10MHz	16QAM	40620	1RB#24	23.08	25.29	33.00	PASS
Band41	10MHz	16QAM	40620	1RB#49	23.03	25.24	33.00	PASS
Band41	10MHz	16QAM	41540	1RB#0	23.09	25.3	33.00	PASS
Band41	10MHz	16QAM	41540	27RB#0	22.22	24.43	33.00	PASS
Band41	10MHz	16QAM	41540	1RB#24	23.12	25.33	33.00	PASS
Band41	10MHz	16QAM	41540	1RB#49	22.75	24.96	33.00	PASS
Band41	15MHz	QPSK	39725	1RB#0	23.08	25.29	33.00	PASS
Band41	15MHz	QPSK	39725	75RB#0	22.92	25.13	33.00	PASS
Band41	15MHz	QPSK	39725	1RB#38	23.47	25.68	33.00	PASS
Band41	15MHz	QPSK	39725	1RB#74	23.99	26.2	33.00	PASS
Band41	15MHz	QPSK	40620	1RB#0	23.54	25.75	33.00	PASS
Band41	15MHz	QPSK	40620	75RB#0	22.80	25.01	33.00	PASS
Band41	15MHz	QPSK	40620	1RB#38	23.51	25.72	33.00	PASS
Band41	15MHz	QPSK	40620	1RB#74	23.76	25.97	33.00	PASS
Band41	15MHz	QPSK	41515	1RB#0	23.56	25.77	33.00	PASS
Band41	15MHz	QPSK	41515	75RB#0	22.91	25.12	33.00	PASS
Band41	15MHz	QPSK	41515	1RB#38	23.53	25.74	33.00	PASS
Band41	15MHz	QPSK	41515	1RB#74	23.48	25.69	33.00	PASS
Band41	15MHz	16QAM	39725	1RB#0	22.28	24.49	33.00	PASS
Band41	15MHz	16QAM	39725	27RB#0	21.53	23.74	33.00	PASS
Band41	15MHz	16QAM	39725	1RB#38	22.61	24.82	33.00	PASS
Band41	15MHz	16QAM	39725	1RB#74	23.18	25.39	33.00	PASS
Band41	15MHz	16QAM	40620	1RB#0	22.74	24.95	33.00	PASS
Band41	15MHz	16QAM	40620	27RB#0	22.50	24.71	33.00	PASS
Band41	15MHz	16QAM	40620	1RB#38	22.70	24.91	33.00	PASS
Band41	15MHz	16QAM	40620	1RB#74	22.96	25.17	33.00	PASS
Band41	15MHz	16QAM	41515	1RB#0	22.80	25.01	33.00	PASS
Band41	15MHz	16QAM	41515	27RB#0	22.05	24.26	33.00	PASS
Band41	15MHz	16QAM	41515	1RB#38	22.77	24.98	33.00	PASS
Band41	15MHz	16QAM	41515	1RB#74	22.70	24.91	33.00	PASS
Band41	20MHz	QPSK	39750	1RB#0	22.85	25.06	33.00	PASS
Band41	20MHz	QPSK	39750	100RB#0	22.97	25.18	33.00	PASS
Band41	20MHz	QPSK	39750	1RB#49	23.71	25.92	33.00	PASS
Band41	20MHz	QPSK	39750	1RB#99	23.65	25.86	33.00	PASS
Band41	20MHz	QPSK	40620	1RB#0	23.13	25.34	33.00	PASS
Band41	20MHz	QPSK	40620	100RB#0	22.71	24.92	33.00	PASS
Band41	20MHz	QPSK	40620	1RB#49	23.71	25.92	33.00	PASS
Band41	20MHz	QPSK	40620	1RB#99	23.15	25.36	33.00	PASS
Band41	20MHz	QPSK	41490	1RB#0	23.02	25.23	33.00	PASS
Band41	20MHz	QPSK	41490	100RB#0	22.82	25.03	33.00	PASS

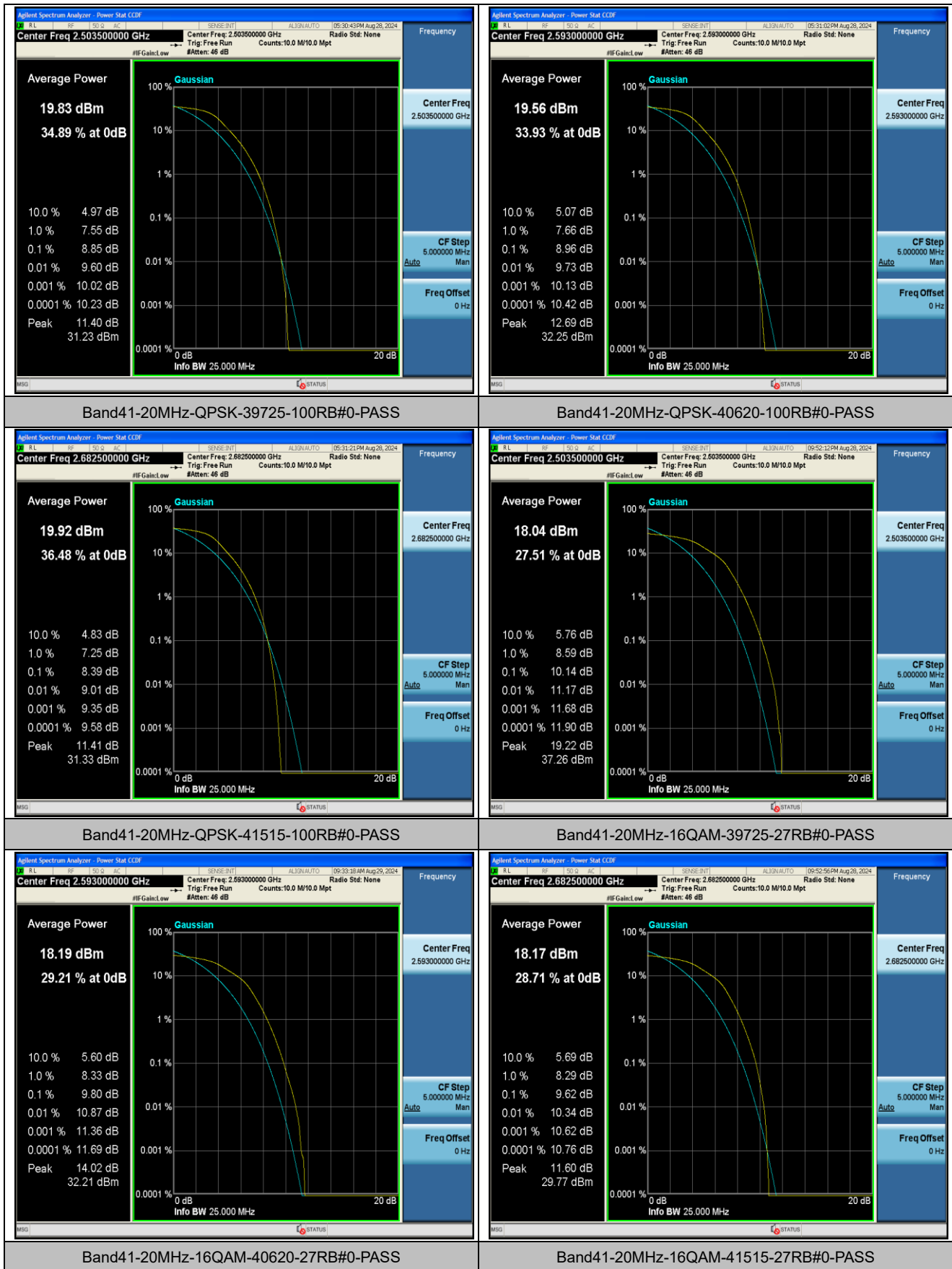
Band41	20MHz	QPSK	41490	1RB#49	23.69	25.9	33.00	PASS
Band41	20MHz	QPSK	41490	1RB#99	22.90	25.11	33.00	PASS
Band41	20MHz	16QAM	39750	1RB#0	21.78	23.99	33.00	PASS
Band41	20MHz	16QAM	39750	27RB#0	21.81	24.02	33.00	PASS
Band41	20MHz	16QAM	39750	1RB#49	22.90	25.11	33.00	PASS
Band41	20MHz	16QAM	39750	1RB#99	22.85	25.06	33.00	PASS
Band41	20MHz	16QAM	40620	1RB#0	22.69	24.9	33.00	PASS
Band41	20MHz	16QAM	40620	27RB#0	21.67	23.88	33.00	PASS
Band41	20MHz	16QAM	40620	1RB#49	22.69	24.9	33.00	PASS
Band41	20MHz	16QAM	40620	1RB#99	22.33	24.54	33.00	PASS
Band41	20MHz	16QAM	41490	1RB#0	22.22	24.43	33.00	PASS
Band41	20MHz	16QAM	41490	27RB#0	21.80	24.01	33.00	PASS
Band41	20MHz	16QAM	41490	1RB#49	22.79	25	33.00	PASS
Band41	20MHz	16QAM	41490	1RB#99	22.13	24.34	33.00	PASS

Peak-to-Average Ratio(CCDF)

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result (dB)	Limit (dB)	Verdict
Band41	20MHz	QPSK	39725	100RB#0	8.85	13	PASS
Band41	20MHz	QPSK	40620	100RB#0	8.96	13	PASS
Band41	20MHz	QPSK	41515	100RB#0	8.39	13	PASS
Band41	20MHz	16QAM	39725	27RB#0	10.14	13	PASS
Band41	20MHz	16QAM	40620	27RB#0	9.80	13	PASS
Band41	20MHz	16QAM	41515	27RB#0	9.62	13	PASS

Test Graphs

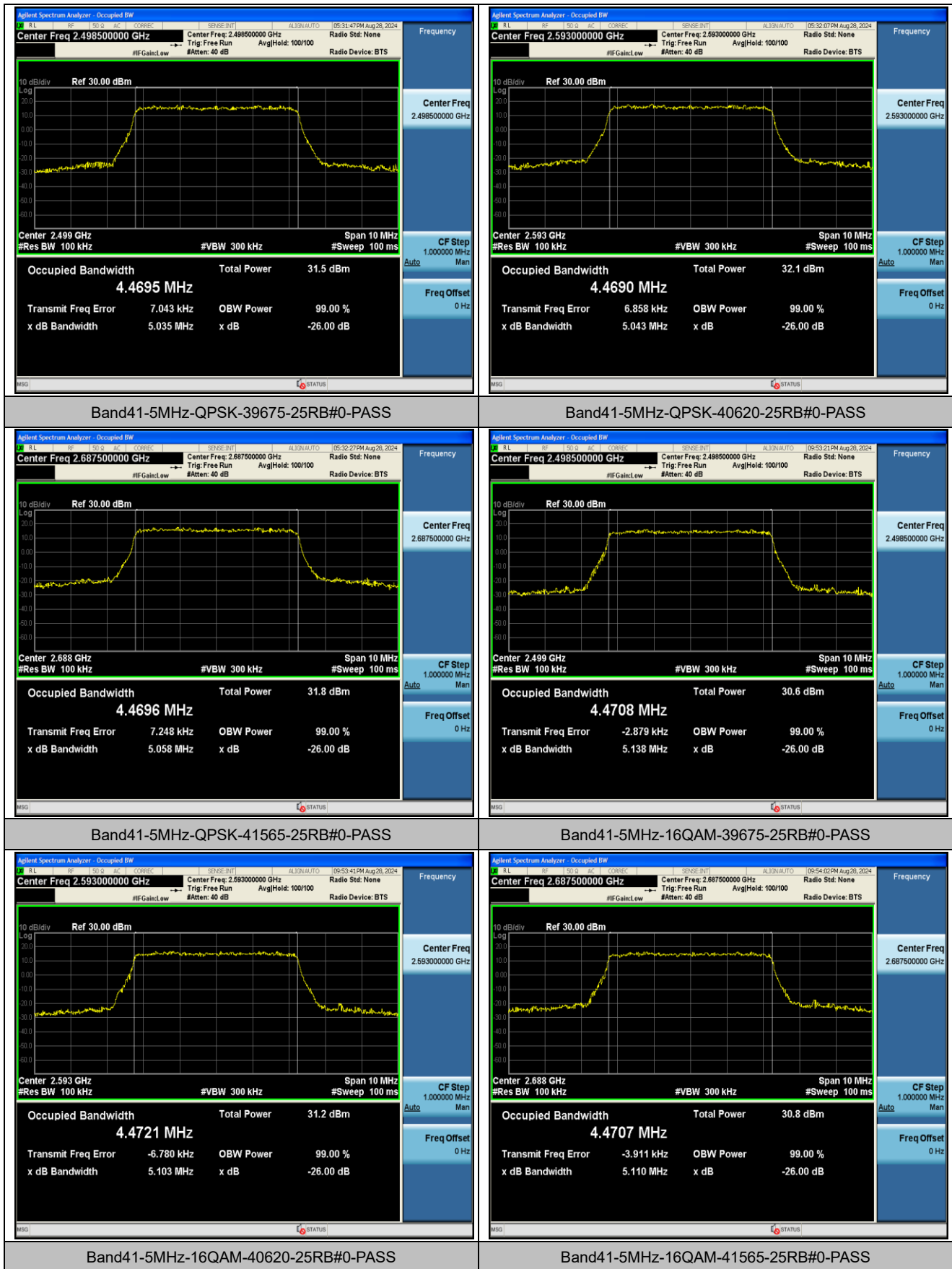


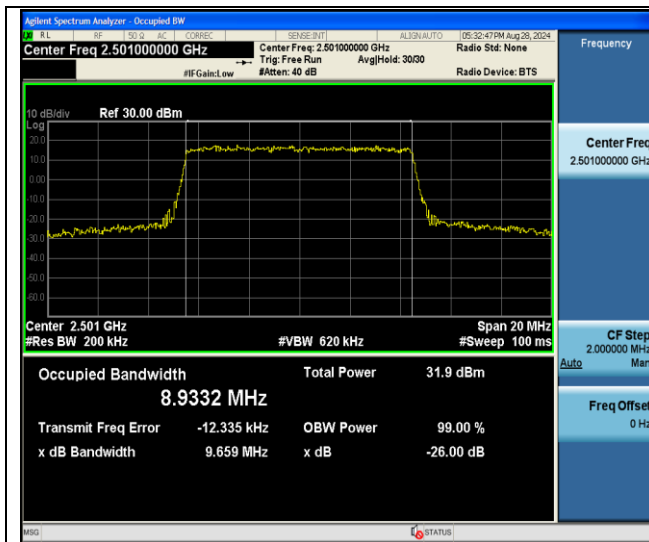
26dB Bandwidth and Occupied Bandwidth

Test Result

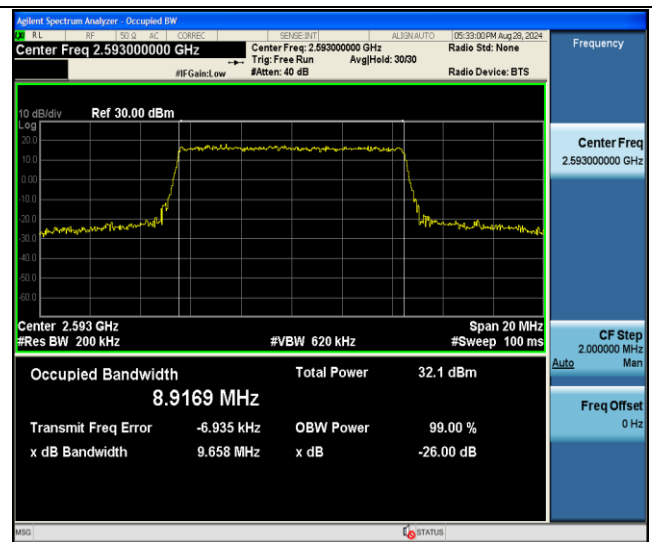
Band	Bandwidth	Modulation	Channel	RB Configuration	OBW (MHz)	26dB EBW (MHz)	Verdict
Band41	5MHz	QPSK	39675	25RB#0	4.4695	5.035	PASS
Band41	5MHz	QPSK	40620	25RB#0	4.4690	5.043	PASS
Band41	5MHz	QPSK	41565	25RB#0	4.4696	5.058	PASS
Band41	5MHz	16QAM	39675	25RB#0	4.4708	5.138	PASS
Band41	5MHz	16QAM	40620	25RB#0	4.4721	5.103	PASS
Band41	5MHz	16QAM	41565	25RB#0	4.4707	5.110	PASS
Band41	10MHz	QPSK	39700	50RB#0	8.9332	9.659	PASS
Band41	10MHz	QPSK	40620	50RB#0	8.9169	9.658	PASS
Band41	10MHz	QPSK	41540	50RB#0	8.9110	9.709	PASS
Band41	10MHz	16QAM	39700	27RB#0	4.9949	6.528	PASS
Band41	10MHz	16QAM	40620	27RB#0	5.0072	6.636	PASS
Band41	10MHz	16QAM	41540	27RB#0	5.0176	6.707	PASS
Band41	15MHz	QPSK	39725	75RB#0	13.538	16.39	PASS
Band41	15MHz	QPSK	40620	75RB#0	13.521	16.16	PASS
Band41	15MHz	QPSK	41515	75RB#0	13.536	16.33	PASS
Band41	15MHz	16QAM	39725	27RB#0	6.2915	10.12	PASS
Band41	15MHz	16QAM	40620	27RB#0	6.2449	9.525	PASS
Band41	15MHz	16QAM	41515	27RB#0	6.2633	10.26	PASS
Band41	20MHz	QPSK	39750	100RB#0	17.921	20.72	PASS
Band41	20MHz	QPSK	40620	100RB#0	17.962	20.72	PASS
Band41	20MHz	QPSK	41490	100RB#0	17.954	20.87	PASS
Band41	20MHz	16QAM	39750	27RB#0	6.1489	9.377	PASS
Band41	20MHz	16QAM	40620	27RB#0	6.1069	9.308	PASS
Band41	20MHz	16QAM	41490	27RB#0	6.1885	9.376	PASS

Test Graphs

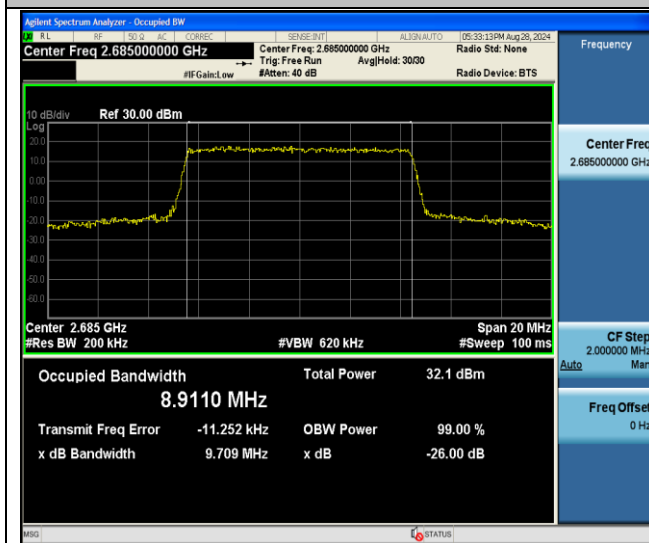




Band41-10MHz-QPSK-39700-50RB#0-PASS



Band41-10MHz-QPSK-40620-50RB#0-PASS



Band41-10MHz-QPSK-41540-50RB#0-PASS



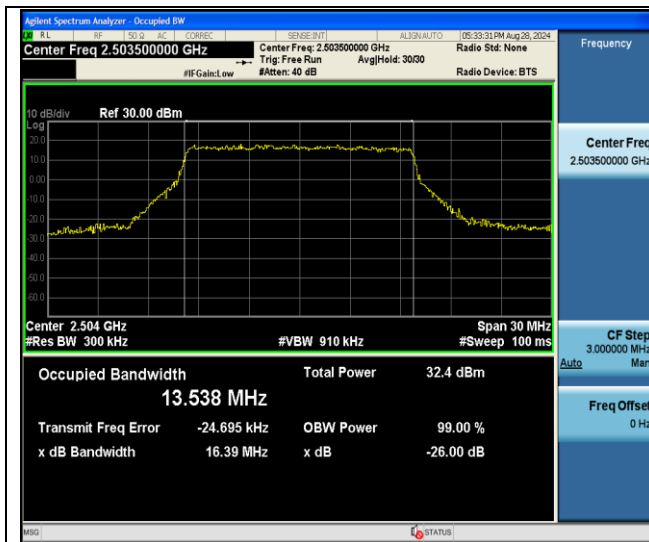
Band41-10MHz-16QAM-39700-27RB#0-PASS



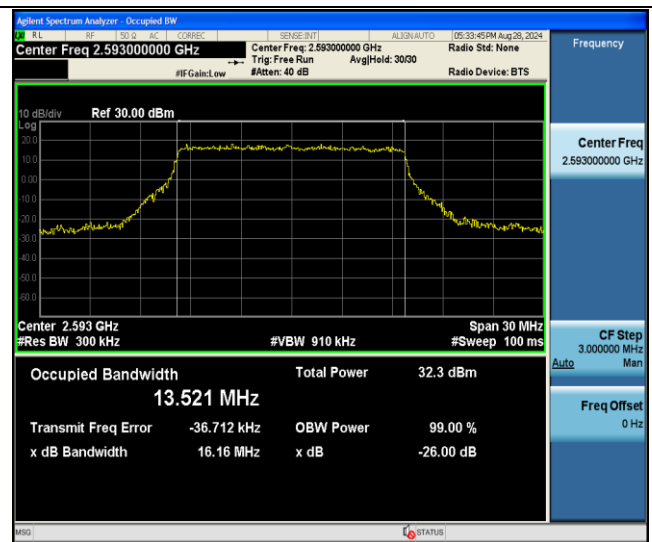
Band41-10MHz-16QAM-40620-27RB#0-PASS



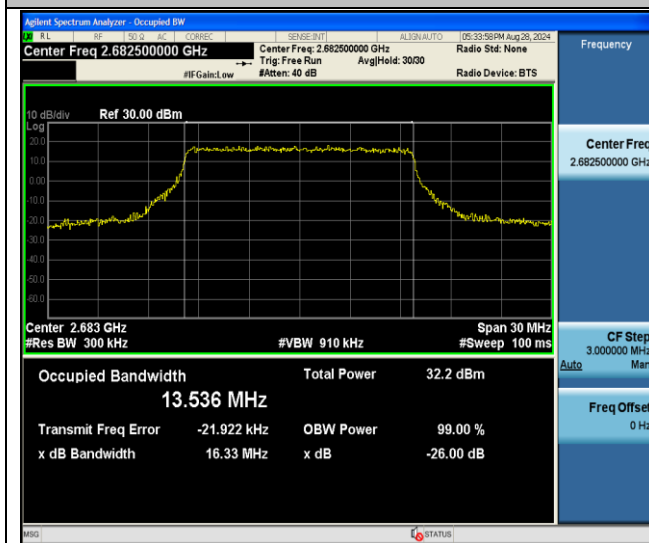
Band41-10MHz-16QAM-41540-27RB#0-PASS



Band41-15MHz-QPSK-39725-75RB#0-PASS



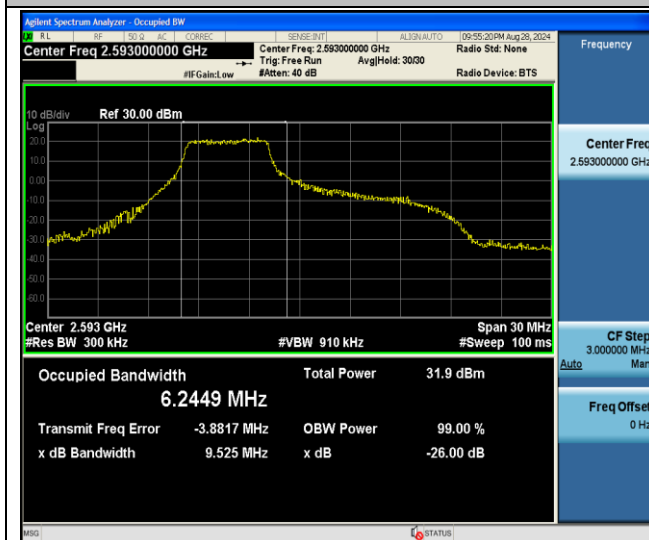
Band41-15MHz-QPSK-40620-75RB#0-PASS



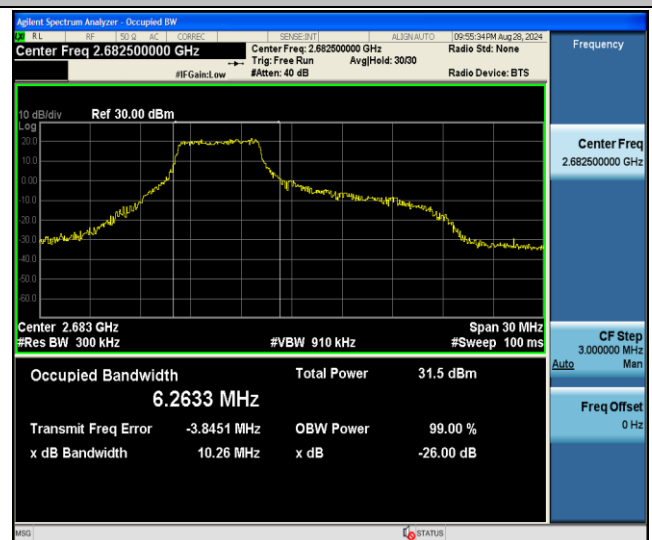
Band41-15MHz-QPSK-41515-75RB#0-PASS



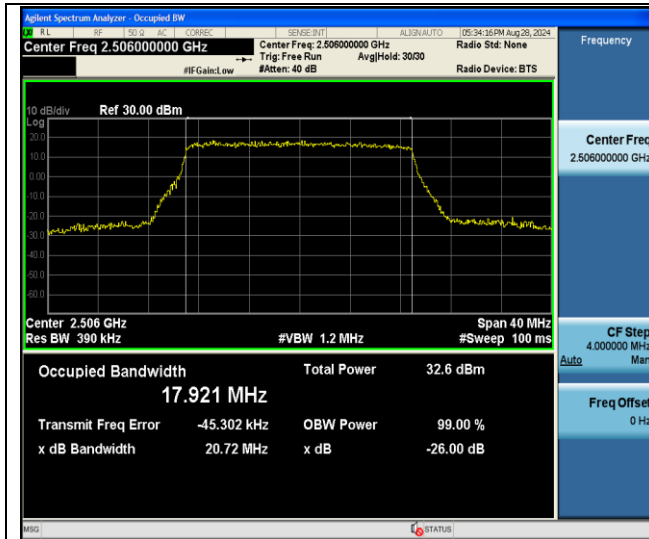
Band41-15MHz-16QAM-39725-27RB#0-PASS



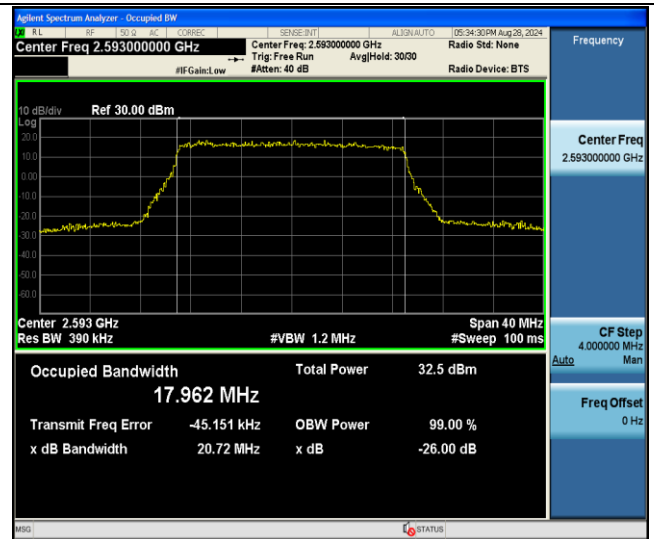
Band41-15MHz-16QAM-40620-27RB#0-PASS



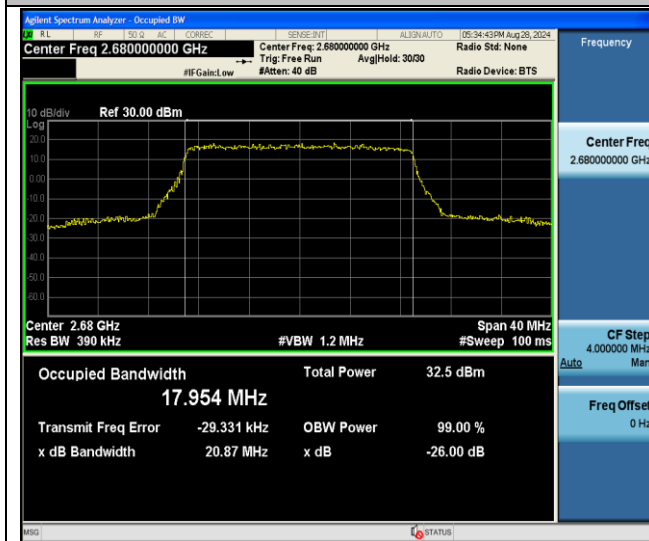
Band41-15MHz-16QAM-41515-27RB#0-PASS



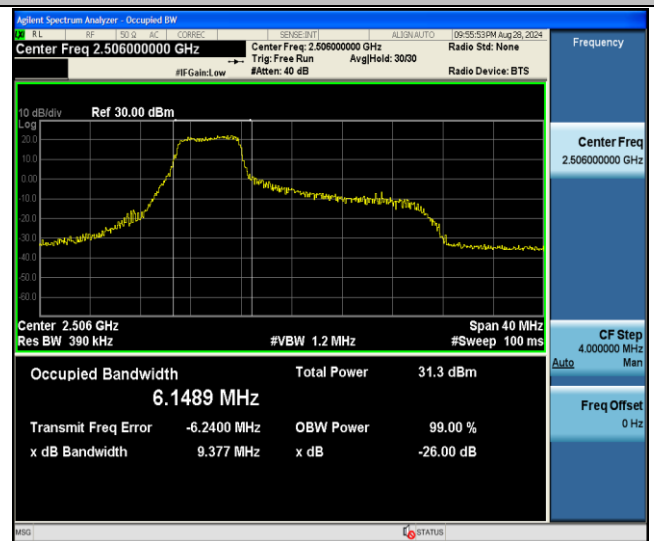
Band41-20MHz-QPSK-39750-100RB#0-PASS



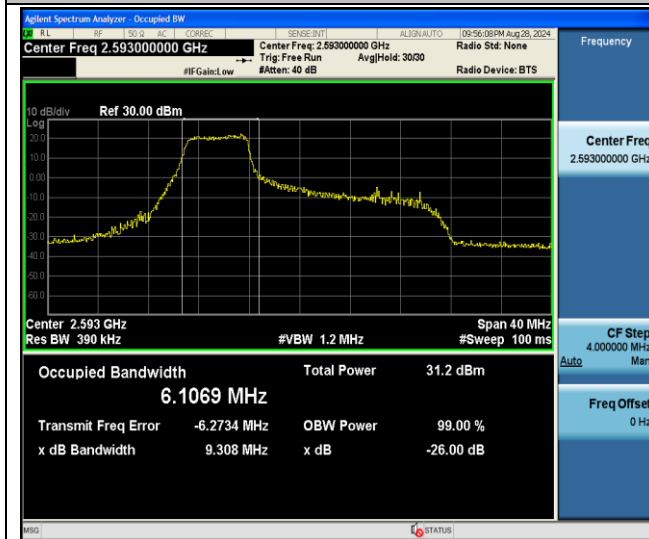
Band41-20MHz-QPSK-40620-100RB#0-PASS



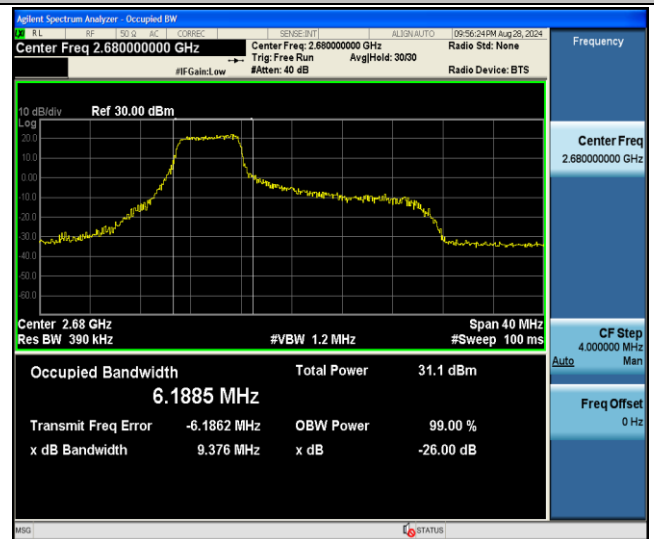
Band41-20MHz-QPSK-41490-100RB#0-PASS



Band41-20MHz-16QAM-39750-27RB#0-PASS



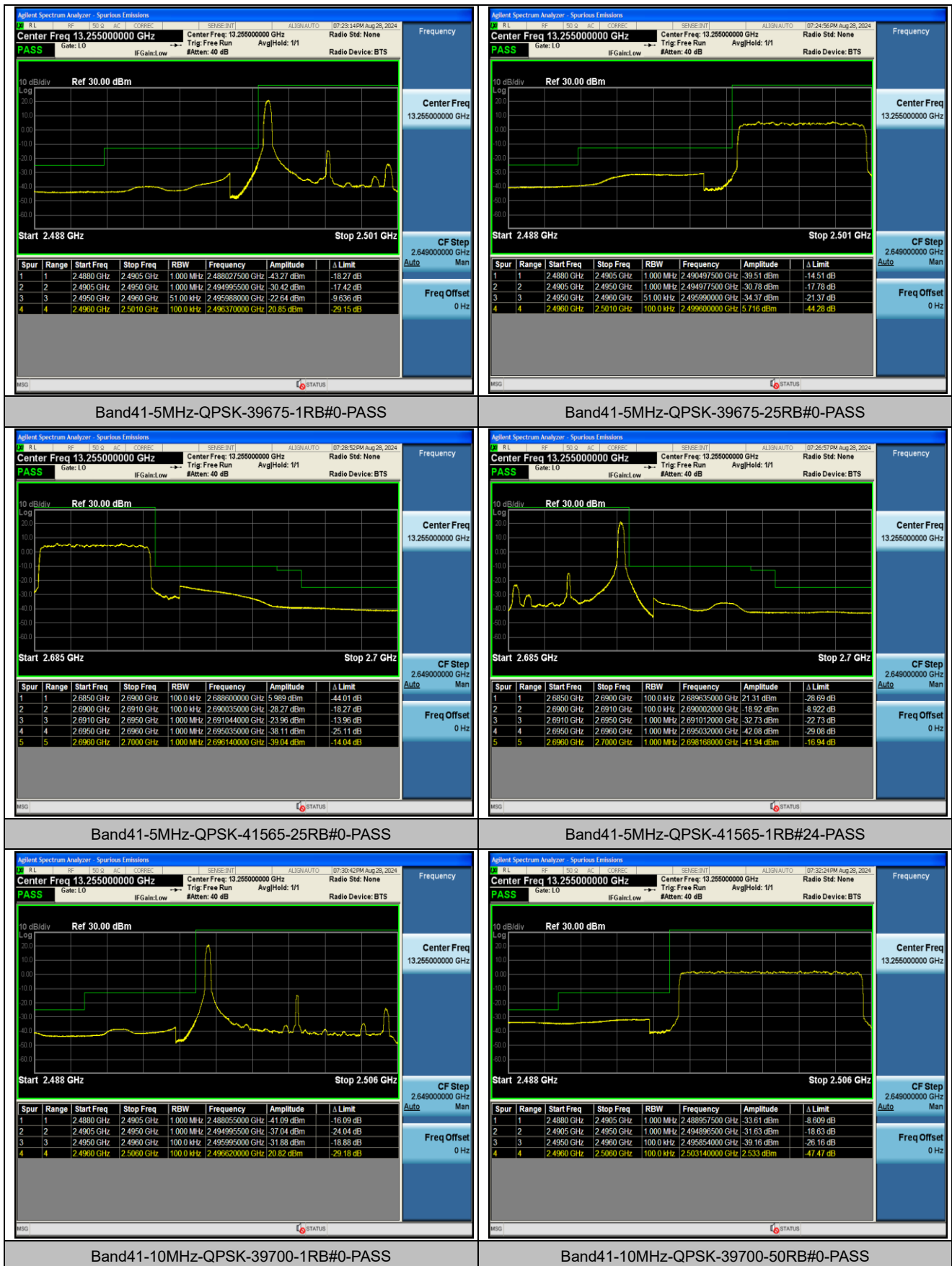
Band41-20MHz-16QAM-40620-27RB#0-PASS

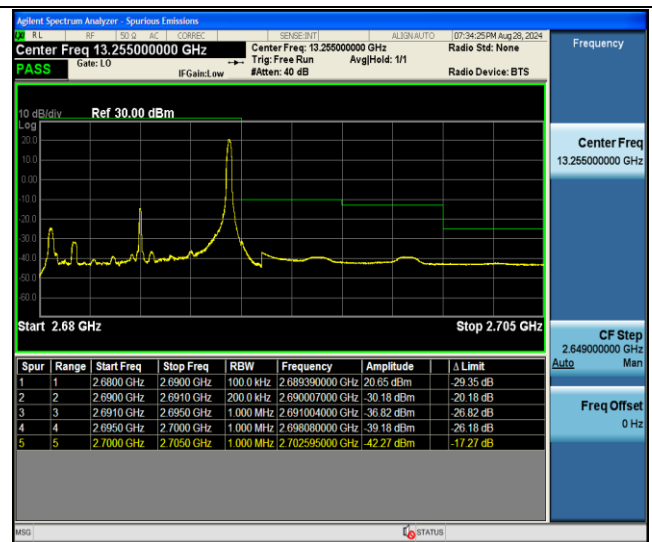


Band41-20MHz-16QAM-41490-27RB#0-PASS

Band Edge

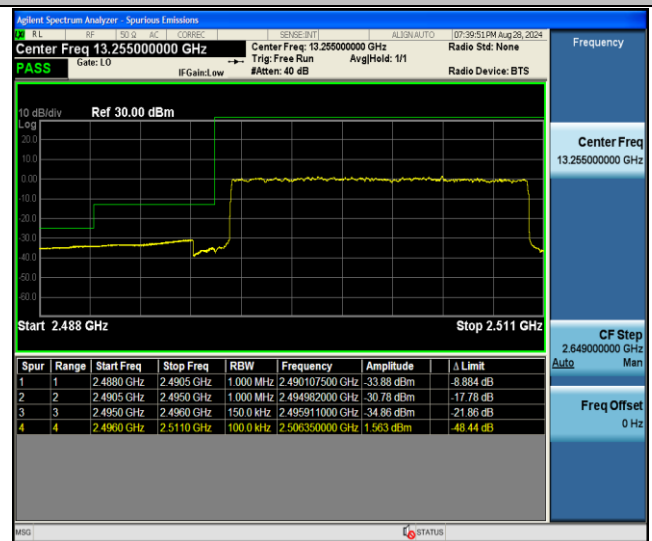
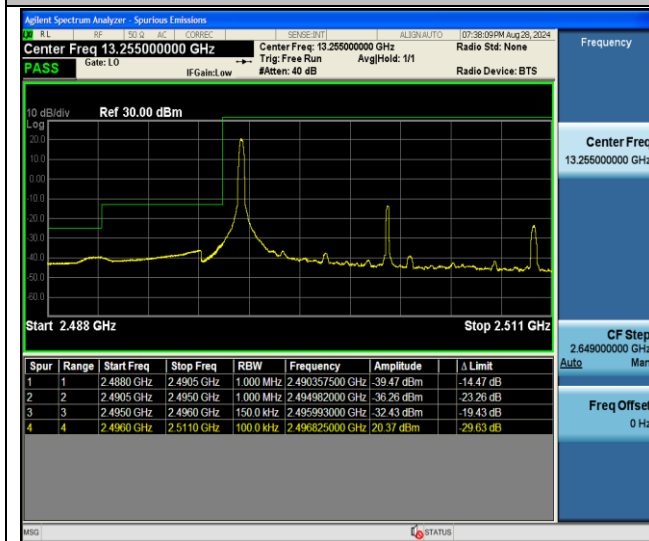
Test Graphs





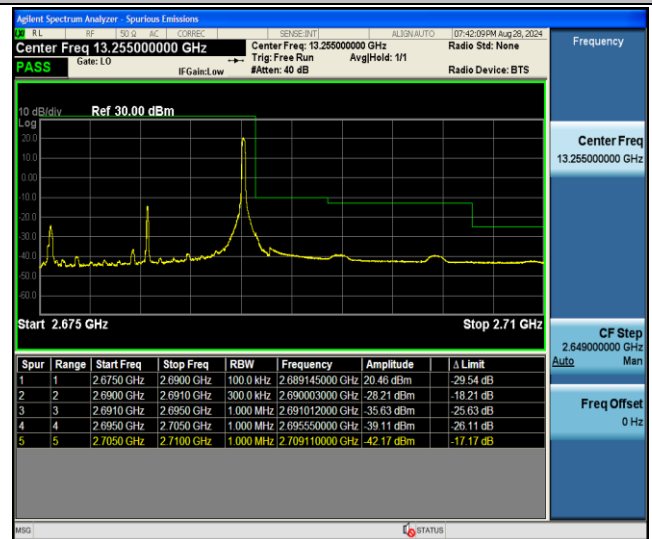
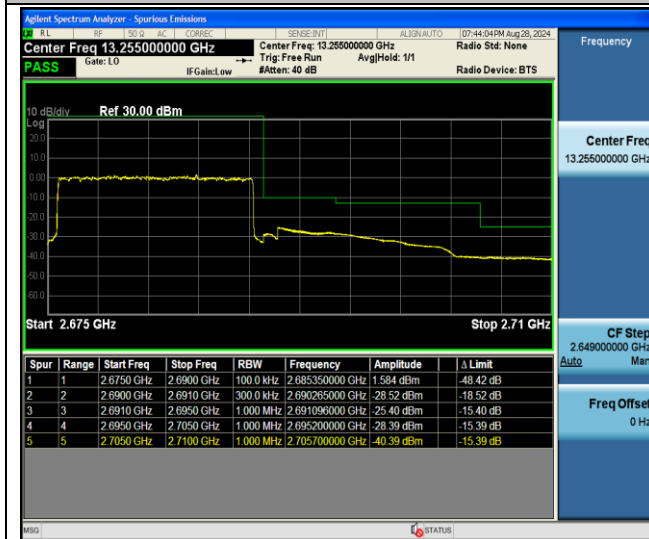
Band41-10MHz-QPSK-41540-50RB#0-PASS

Band41-10MHz-QPSK-41540-1RB#49-PASS



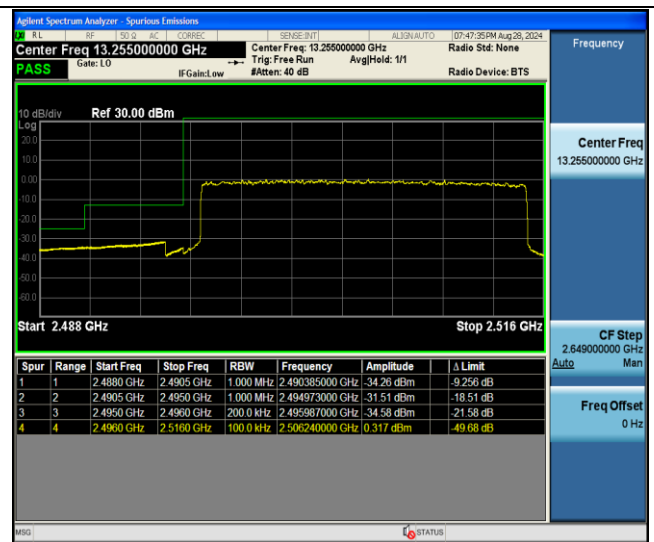
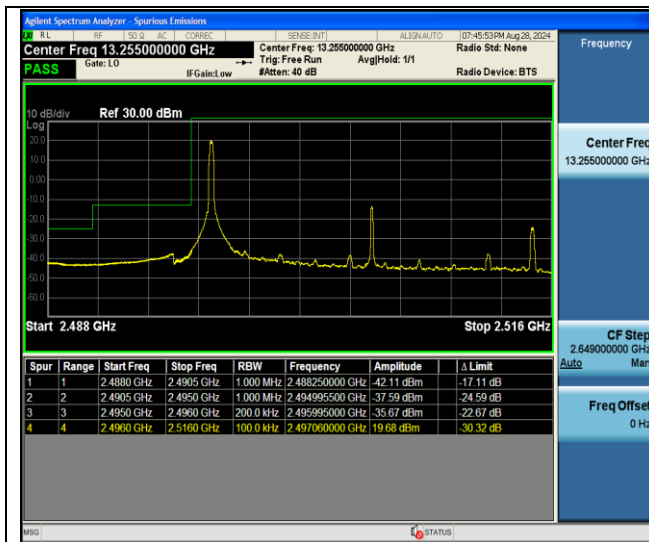
Band41-15MHz-QPSK-39725-1RB#0-PASS

Band41-15MHz-QPSK-39725-75RB#0-PASS



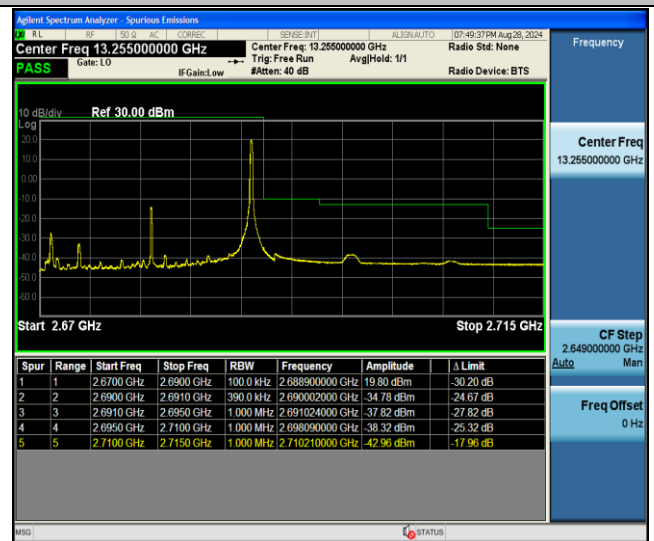
Band41-15MHz-QPSK-41515-75RB#0-PASS

Band41-15MHz-QPSK-41515-1RB#74-PASS



Band41-20MHz-QPSK-39750-1RB#0-PASS

Band41-20MHz-QPSK-39750-100RB#0-PASS

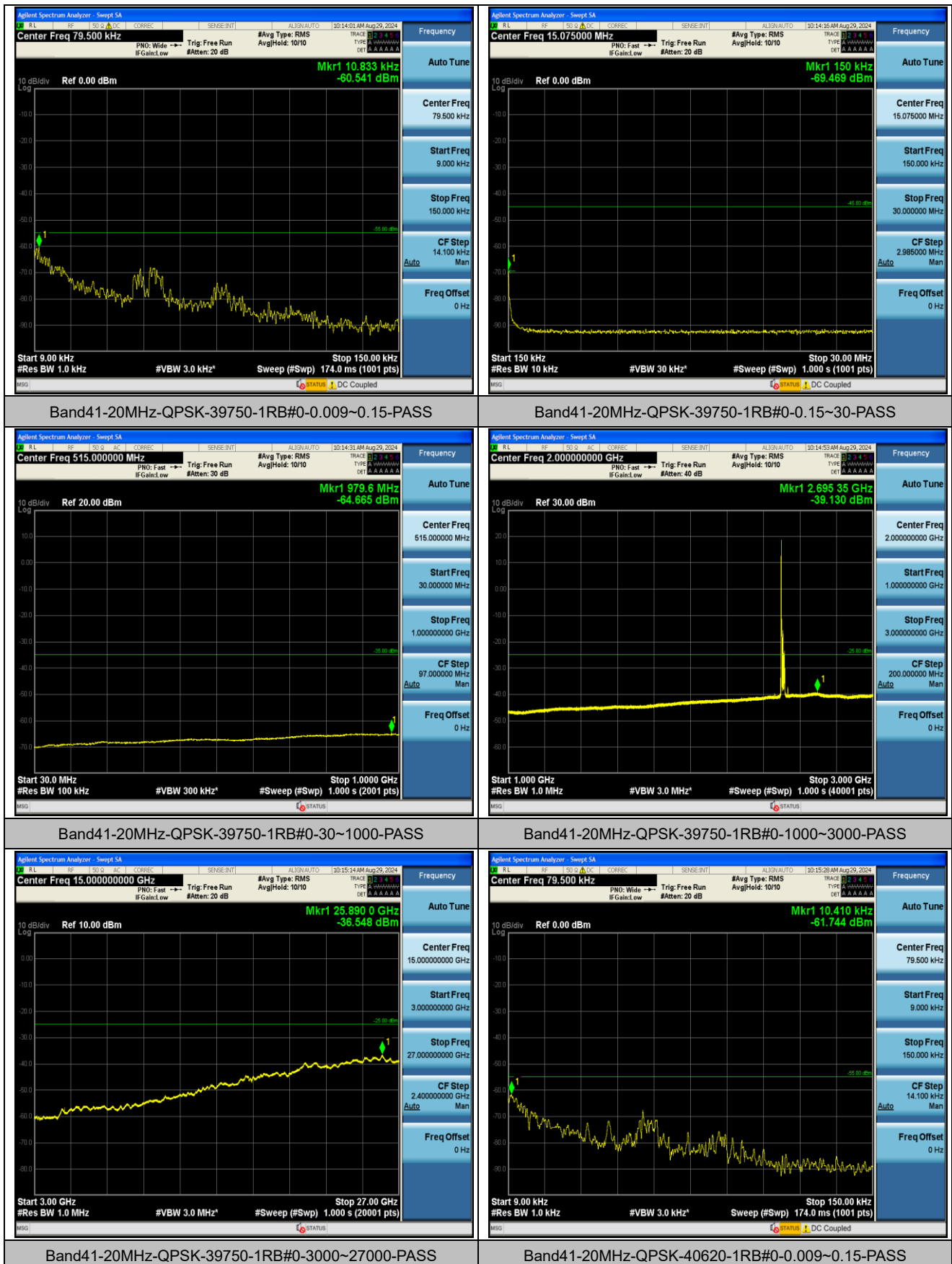


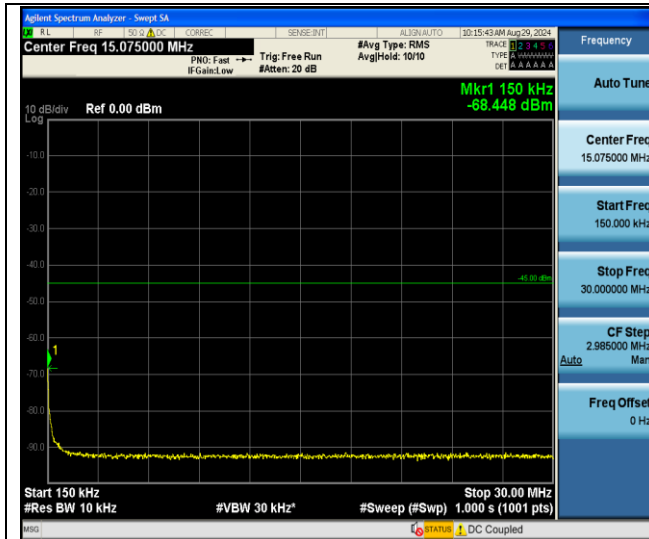
Band41-20MHz-QPSK-41490-100RB#0-PASS

Band41-20MHz-QPSK-41490-1RB#99-PASS

Appendix E: Conducted Spurious Emission

Test Graphs





Band41-20MHz-QPSK-40620-1RB#0-0.15~30-PASS



Band41-20MHz-QPSK-40620-1RB#0-30~1000-PASS



Band41-20MHz-QPSK-40620-1RB#0-1000~3000-PASS



Band41-20MHz-QPSK-40620-1RB#0-3000~27000-PASS



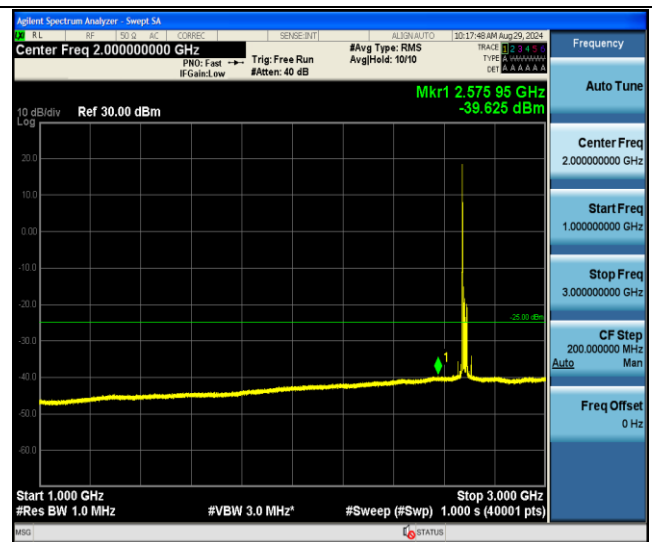
Band41-20MHz-QPSK-41490-1RB#0-0.009~0.15-PASS



Band41-20MHz-QPSK-41490-1RB#0-0.15~30-PASS



Band41-20MHz-QPSK-41490-1RB#0-30~1000-PASS



Band41-20MHz-QPSK-41490-1RB#0-1000~3000-PASS



Band41-20MHz-QPSK-41490-1RB#0-3000~27000-PASS

Appendix F: Frequency Stability

Test Result

Voltage									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band41	20MHz	QPSK	40620	100RB#0	VN	NT	-17.00	-0.006556	PASS
Band41	20MHz	QPSK	40620	100RB#0	VL	NT	-10.10	-0.003895	PASS
Band41	20MHz	QPSK	40620	100RB#0	VH	NT	-8.90	-0.003432	PASS

Temperature									
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (°C)	Deviation (Hz)	Deviation (ppm)	Verdict
Band41	20MHz	QPSK	40620	100RB#0	NV	-30	1.00	0.000386	PASS
Band41	20MHz	QPSK	40620	100RB#0	NV	-20	-7.70	-0.002970	PASS
Band41	20MHz	QPSK	40620	100RB#0	NV	-10	-9.90	-0.003818	PASS
Band41	20MHz	QPSK	40620	100RB#0	NV	0	-7.00	-0.002700	PASS
Band41	20MHz	QPSK	40620	100RB#0	NV	10	-7.70	-0.002970	PASS
Band41	20MHz	QPSK	40620	100RB#0	NV	20	-5.80	-0.002237	PASS
Band41	20MHz	QPSK	40620	100RB#0	NV	30	-9.40	-0.003625	PASS
Band41	20MHz	QPSK	40620	100RB#0	NV	40	0.40	0.000154	PASS
Band41	20MHz	QPSK	40620	100RB#0	NV	50	-6.80	-0.002622	PASS