Appendix L: Test Data for E-UTRA Band 41

Product Name: Smart Phone

Test Model: HPPL67A

Environmental Conditions

Temperature:	23.8° C
Relative Humidity:	52.1%
ATM Pressure:	100.0 kPa
Test Engineer:	Can Kun
Supervised by:	Nick Peng

L.1 Conducted Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band41	5MHz	QPSK	39675	1RB#0	21.79	PASS
Band41	5MHz	16QAM	39675	1RB#0	21.31	PASS
Band41	5MHz	QPSK	39675	1RB#12	21.71	PASS
Band41	5MHz	16QAM	39675	1RB#12	21.55	PASS
Band41	5MHz	QPSK	39675	1RB#24	21.74	PASS
Band41	5MHz	16QAM	39675	1RB#24	21.28	PASS
Band41	5MHz	QPSK	39675	12RB#0	20.94	PASS
Band41	5MHz	16QAM	39675	12RB#0	20.35	PASS
Band41	5MHz	QPSK	39675	12RB#6	20.95	PASS
Band41	5MHz	16QAM	39675	12RB#6	19.89	PASS
Band41	5MHz	QPSK	39675	12RB#13	20.67	PASS
Band41	5MHz	16QAM	39675	12RB#13	19.87	PASS
Band41	5MHz	QPSK	39675	25RB#0	20.68	PASS
Band41	5MHz	16QAM	39675	25RB#0	20.02	PASS
Band41	5MHz	QPSK	40620	1RB#0	21.89	PASS
Band41	5MHz	16QAM	40620	1RB#0	21.62	PASS
Band41	5MHz	QPSK	40620	1RB#12	21.89	PASS
Band41	5MHz	16QAM	40620	1RB#12	21.64	PASS
Band41	5MHz	QPSK	40620	1RB#24	21.84	PASS
Band41	5MHz	16QAM	40620	1RB#24	21.37	PASS
Band41	5MHz	QPSK	40620	12RB#0	20.96	PASS
Band41	5MHz	16QAM	40620	12RB#0	20.14	PASS
Band41	5MHz	QPSK	40620	12RB#6	20.97	PASS
Band41	5MHz	16QAM	40620	12RB#6	20.14	PASS
Band41	5MHz	QPSK	40620	12RB#13	20.92	PASS
Band41	5MHz	16QAM	40620	12RB#13	20.07	PASS
Band41	5MHz	QPSK	40620	25RB#0	20.96	PASS
Band41	5MHz	16QAM	40620	25RB#0	20.31	PASS
Band41	5MHz	QPSK	41565	1RB#0	21.72	PASS
Band41	5MHz	16QAM	41565	1RB#0	21.26	PASS
Band41	5MHz	QPSK	41565	1RB#12	21.71	PASS
Band41	5MHz	16QAM	41565	1RB#12	21.52	PASS
Band41	5MHz	QPSK	41565	1RB#24	21.68	PASS
Band41	5MHz	16QAM	41565	1RB#24	21.12	PASS
Band41	5MHz	QPSK	41565	12RB#0	20.75	PASS
Band41	5MHz	16QAM	41565	12RB#0	19.94	PASS

Band41	5MHz	QPSK	41565	12RB#6	20.76	PASS
Band41	5MHz	16QAM	41565	12RB#6	19.94	PASS
Band41	5MHz	QPSK	41565	12RB#13	20.88	PASS
Band41	5MHz	16QAM	41565	12RB#13	20.07	PASS
Band41	5MHz	QPSK	41565	25RB#0	20.93	PASS
Band41	5MHz	16QAM	41565	25RB#0	20.16	PASS
Band41	10MHz	QPSK	39700	1RB#0	22.31	PASS
Band41	10MHz	16QAM	39700	1RB#0	21.59	PASS
Band41	10MHz	QPSK	39700	1RB#24	22.10	PASS
Band41	10MHz	16QAM	39700	1RB#24	21.55	PASS
Band41	10MHz	QPSK	39700	1RB#49	22.11	PASS
Band41	10MHz	16QAM	39700	1RB#49	21.47	PASS
Band41	10MHz	QPSK	39700	25RB#0	21.32	PASS
Band41	10MHz	16QAM	39700	25RB#0	20.67	PASS
Band41	10MHz	QPSK	39700	25RB#12	21.33	PASS
Band41	10MHz	16QAM	39700	25RB#12	20.67	PASS
Band41	10MHz	QPSK	39700	25RB#25	21.27	PASS
Band41	10MHz	16QAM	39700	25RB#25	20.52	PASS
Band41	10MHz	QPSK	39700	50RB#0	21.27	PASS
Band41	10MHz	16QAM	39700	50RB#0	20.65	PASS
Band41	10MHz	QPSK	40620	1RB#0	22.23	PASS
Band41	10MHz	16QAM	40620	1RB#0	21.94	PASS
Band41	10MHz	QPSK	40620	1RB#24	22.19	PASS
Band41	10MHz	16QAM	40620	1RB#24	21.79	PASS
Band41	10MHz	QPSK	40620	1RB#49	22.16	PASS
Band41	10MHz	16QAM	40620	1RB#49	21.76	PASS
Band41	10MHz	QPSK	40620	25RB#0	21.17	PASS
Band41	10MHz	16QAM	40620	25RB#0	20.32	PASS
Band41	10MHz	QPSK	40620	25RB#12	21.19	PASS
Band41	10MHz	16QAM	40620	25RB#12	20.38	PASS
Band41	10MHz	QPSK	40620	25RB#25	21.13	PASS
Band41	10MHz	16QAM	40620	25RB#25	20.30	PASS
Band41	10MHz	QPSK	40620	50RB#0	21.26	PASS
Band41	10MHz	16QAM	40620	50RB#0	20.39	PASS
Band41	10MHz	QPSK	41540	1RB#0	22.00	PASS
Band41	10MHz	16QAM	41540	1RB#0	21.67	PASS
Band41	10MHz	QPSK	41540	1RB#24	22.04	PASS
Band41	10MHz	16QAM	41540	1RB#24	21.66	PASS
Band41	10MHz	QPSK	41540	1RB#49	22.06	PASS
Band41	10MHz	16QAM	41540	1RB#49	21.68	PASS
Band41	10MHz	QPSK	41540	25RB#0	20.96	PASS
Band41	10MHz	16QAM	41540	25RB#0	20.21	PASS

Band41	10MHz	QPSK	41540	25RB#12	20.96	PASS
Band41	10MHz	16QAM	41540	25RB#12	20.11	PASS
Band41	10MHz	QPSK	41540	25RB#25	20.93	PASS
Band41	10MHz	16QAM	41540	25RB#25	20.13	PASS
Band41	10MHz	QPSK	41540	50RB#0	20.80	PASS
Band41	10MHz	16QAM	41540	50RB#0	20.07	PASS
Band41	15MHz	QPSK	39725	1RB#0	22.61	PASS
Band41	15MHz	16QAM	39725	1RB#0	22.42	PASS
Band41	15MHz	QPSK	39725	1RB#38	22.61	PASS
Band41	15MHz	16QAM	39725	1RB#38	22.39	PASS
Band41	15MHz	QPSK	39725	1RB#74	22.46	PASS
Band41	15MHz	16QAM	39725	1RB#74	22.23	PASS
Band41	15MHz	QPSK	39725	38RB#0	21.66	PASS
Band41	15MHz	16QAM	39725	38RB#0	21.66	PASS
Band41	15MHz	QPSK	39725	38RB#18	21.66	PASS
Band41	15MHz	16QAM	39725	38RB#18	21.65	PASS
Band41	15MHz	QPSK	39725	38RB#37	21.65	PASS
Band41	15MHz	16QAM	39725	38RB#37	21.19	PASS
Band41	15MHz	QPSK	39725	75RB#0	21.19	PASS
Band41	15MHz	16QAM	39725	75RB#0	20.55	PASS
Band41	15MHz	QPSK	40620	1RB#0	22.26	PASS
Band41	15MHz	16QAM	40620	1RB#0	22.02	PASS
Band41	15MHz	QPSK	40620	1RB#38	22.21	PASS
Band41	15MHz	16QAM	40620	1RB#38	21.76	PASS
Band41	15MHz	QPSK	40620	1RB#74	22.12	PASS
Band41	15MHz	16QAM	40620	1RB#74	21.72	PASS
Band41	15MHz	QPSK	40620	38RB#0	21.19	PASS
Band41	15MHz	16QAM	40620	38RB#0	21.19	PASS
Band41	15MHz	QPSK	40620	38RB#18	21.19	PASS
Band41	15MHz	16QAM	40620	38RB#18	21.20	PASS
Band41	15MHz	QPSK	40620	38RB#37	21.20	PASS
Band41	15MHz	16QAM	40620	38RB#37	21.20	PASS
Band41	15MHz	QPSK	40620	75RB#0	21.20	PASS
Band41	15MHz	16QAM	40620	75RB#0	20.37	PASS
Band41	15MHz	QPSK	41515	1RB#0	22.02	PASS
Band41	15MHz	16QAM	41515	1RB#0	21.65	PASS
Band41	15MHz	QPSK	41515	1RB#38	22.02	PASS
Band41	15MHz	16QAM	41515	1RB#38	21.56	PASS
Band41	15MHz	QPSK	41515	1RB#74	22.03	PASS
Band41	15MHz	16QAM	41515	1RB#74	21.69	PASS
Band41	15MHz	QPSK	41515	38RB#0	20.99	PASS
Band41	15MHz	16QAM	41515	38RB#0	20.99	PASS

Band41	15MHz	QPSK	41515	38RB#18	20.99	PASS
Band41	15MHz	16QAM	41515	38RB#18	20.99	PASS
Band41	15MHz	QPSK	41515	38RB#37	20.99	PASS
Band41	15MHz	16QAM	41515	38RB#37	20.99	PASS
Band41	15MHz	QPSK	41515	75RB#0	21.00	PASS
Band41	15MHz	16QAM	41515	75RB#0	20.04	PASS
Band41	20MHz	QPSK	39750	1RB#0	22.35	PASS
Band41	20MHz	16QAM	39750	1RB#0	21.74	PASS
Band41	20MHz	QPSK	39750	1RB#49	22.15	PASS
Band41	20MHz	16QAM	39750	1RB#49	21.48	PASS
Band41	20MHz	QPSK	39750	1RB#99	22.06	PASS
Band41	20MHz	16QAM	39750	1RB#99	21.47	PASS
Band41	20MHz	QPSK	39750	50RB#0	21.62	PASS
Band41	20MHz	16QAM	39750	50RB#0	21.00	PASS
Band41	20MHz	QPSK	39750	50RB#25	21.62	PASS
Band41	20MHz	16QAM	39750	50RB#25	21.00	PASS
Band41	20MHz	QPSK	39750	50RB#50	21.52	PASS
Band41	20MHz	16QAM	39750	50RB#50	20.95	PASS
Band41	20MHz	QPSK	39750	100RB#0	21.54	PASS
Band41	20MHz	16QAM	39750	100RB#0	20.84	PASS
Band41	20MHz	QPSK	40620	1RB#0	22.05	PASS
Band41	20MHz	16QAM	40620	1RB#0	21.76	PASS
Band41	20MHz	QPSK	40620	1RB#49	21.75	PASS
Band41	20MHz	16QAM	40620	1RB#49	21.54	PASS
Band41	20MHz	QPSK	40620	1RB#99	21.73	PASS
Band41	20MHz	16QAM	40620	1RB#99	21.47	PASS
Band41	20MHz	QPSK	40620	50RB#0	21.30	PASS
Band41	20MHz	16QAM	40620	50RB#0	20.68	PASS
Band41	20MHz	QPSK	40620	50RB#25	21.16	PASS
Band41	20MHz	16QAM	40620	50RB#25	20.68	PASS
Band41	20MHz	QPSK	40620	50RB#50	21.07	PASS
Band41	20MHz	16QAM	40620	50RB#50	20.43	PASS
Band41	20MHz	QPSK	40620	100RB#0	21.22	PASS
Band41	20MHz	16QAM	40620	100RB#0	20.35	PASS
Band41	20MHz	QPSK	41490	1RB#0	21.79	PASS
Band41	20MHz	16QAM	41490	1RB#0	21.74	PASS
Band41	20MHz	QPSK	41490	1RB#49	21.73	PASS
Band41	20MHz	16QAM	41490	1RB#49	21.69	PASS
Band41	20MHz	QPSK	41490	1RB#99	21.70	PASS
Band41	20MHz	16QAM	41490	1RB#99	21.70	PASS
Band41	20MHz	QPSK	41490	50RB#0	20.95	PASS
Band41	20MHz	16QAM	41490	50RB#0	20.39	PASS

Band41	20MHz	QPSK	41490	50RB#25	20.93	PASS
Band41	20MHz	16QAM	41490	50RB#25	20.39	PASS
Band41	20MHz	QPSK	41490	50RB#50	20.90	PASS
Band41	20MHz	16QAM	41490	50RB#50	20.07	PASS
Band41	20MHz	QPSK	41490	100RB#0	20.79	PASS
Band41	20MHz	16QAM	41490	100RB#0	19.99	PASS

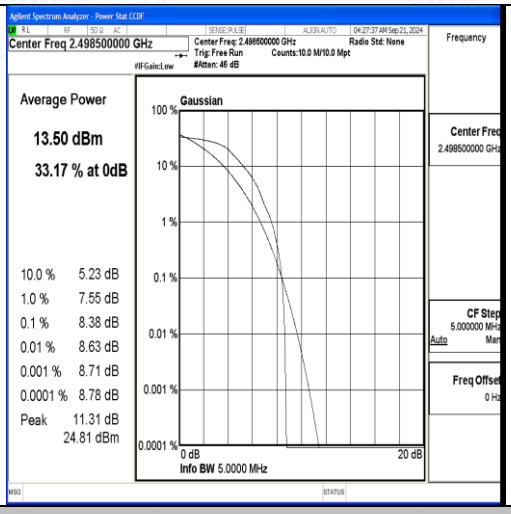
L.2 Peak-to-Average Ratio(CCDF)

Test Result

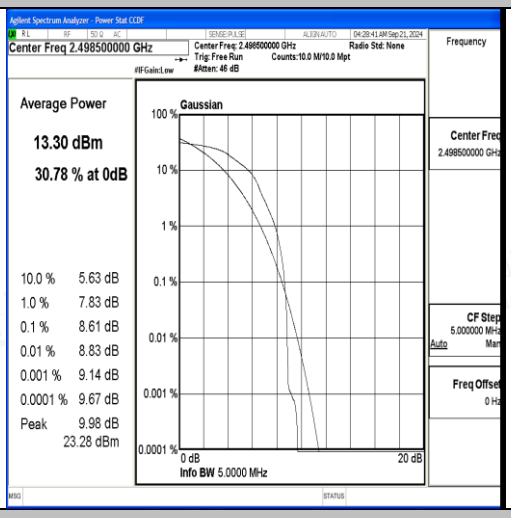
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band41	5MHz	QPSK	39675	1RB#0	8.38	13	PASS
Band41	5MHz	16QAM	39675	1RB#0	8.61	13	PASS
Band41	5MHz	QPSK	39675	25RB#0	8.92	13	PASS
Band41	5MHz	16QAM	39675	25RB#0	9.57	13	PASS
Band41	5MHz	QPSK	40620	1RB#0	8.56	13	PASS
Band41	5MHz	16QAM	40620	1RB#0	8.99	13	PASS
Band41	5MHz	QPSK	40620	25RB#0	9.05	13	PASS
Band41	5MHz	16QAM	40620	25RB#0	9.63	13	PASS
Band41	5MHz	QPSK	41565	1RB#0	8.33	13	PASS
Band41	5MHz	16QAM	41565	1RB#0	8.38	13	PASS
Band41	5MHz	QPSK	41565	25RB#0	8.88	13	PASS
Band41	5MHz	16QAM	41565	25RB#0	9.60	13	PASS
Band41	10MHz	QPSK	39700	1RB#0	8.00	13	PASS
Band41	10MHz	16QAM	39700	1RB#0	8.58	13	PASS
Band41	10MHz	QPSK	39700	50RB#0	8.82	13	PASS
Band41	10MHz	16QAM	39700	50RB#0	9.69	13	PASS
Band41	10MHz	QPSK	40620	1RB#0	8.74	13	PASS
Band41	10MHz	16QAM	40620	1RB#0	8.97	13	PASS
Band41	10MHz	QPSK	40620	50RB#0	8.78	13	PASS
Band41	10MHz	16QAM	40620	50RB#0	10.01	13	PASS
Band41	10MHz	QPSK	41540	1RB#0	8.07	13	PASS
Band41	10MHz	16QAM	41540	1RB#0	8.82	13	PASS
Band41	10MHz	QPSK	41540	50RB#0	9.17	13	PASS
Band41	10MHz	16QAM	41540	50RB#0	9.69	13	PASS
Band41	15MHz	QPSK	39725	1RB#0	8.37	13	PASS
Band41	15MHz	16QAM	39725	1RB#0	8.32	13	PASS
Band41	15MHz	QPSK	39725	75RB#0	9.05	13	PASS
Band41	15MHz	16QAM	39725	75RB#0	9.79	13	PASS
Band41	15MHz	QPSK	40620	1RB#0	7.94	13	PASS
Band41	15MHz	16QAM	40620	1RB#0	9.19	13	PASS
Band41	15MHz	QPSK	40620	75RB#0	9.44	13	PASS
Band41	15MHz	16QAM	40620	75RB#0	10.06	13	PASS
Band41	15MHz	QPSK	41515	1RB#0	8.42	13	PASS
Band41	15MHz	16QAM	41515	1RB#0	8.71	13	PASS
Band41	15MHz	QPSK	41515	75RB#0	9.42	13	PASS

Band41	15MHz	16QAM	41515	75RB#0	10.06	13	PASS
Band41	20MHz	QPSK	39750	1RB#0	8.23	13	PASS
Band41	20MHz	16QAM	39750	1RB#0	8.82	13	PASS
Band41	20MHz	QPSK	39750	100RB#0	9.16	13	PASS
Band41	20MHz	16QAM	39750	100RB#0	9.28	13	PASS
Band41	20MHz	QPSK	40620	1RB#0	8.44	13	PASS
Band41	20MHz	16QAM	40620	1RB#0	8.76	13	PASS
Band41	20MHz	QPSK	40620	100RB#0	9.04	13	PASS
Band41	20MHz	16QAM	40620	100RB#0	9.62	13	PASS
Band41	20MHz	QPSK	41490	1RB#0	8.30	13	PASS
Band41	20MHz	16QAM	41490	1RB#0	8.40	13	PASS
Band41	20MHz	QPSK	41490	100RB#0	8.61	13	PASS
Band41	20MHz	16QAM	41490	100RB#0	9.80	13	PASS

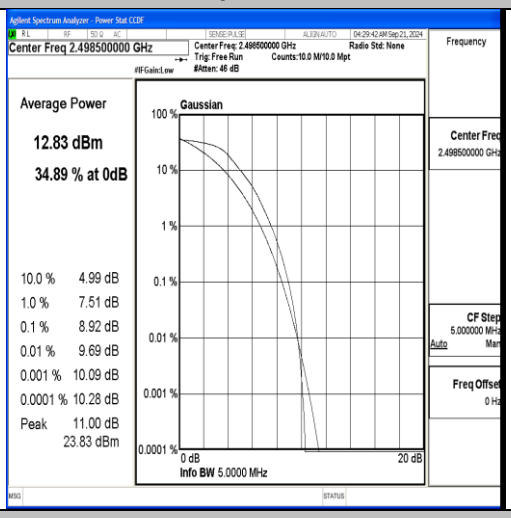
Test Graphs



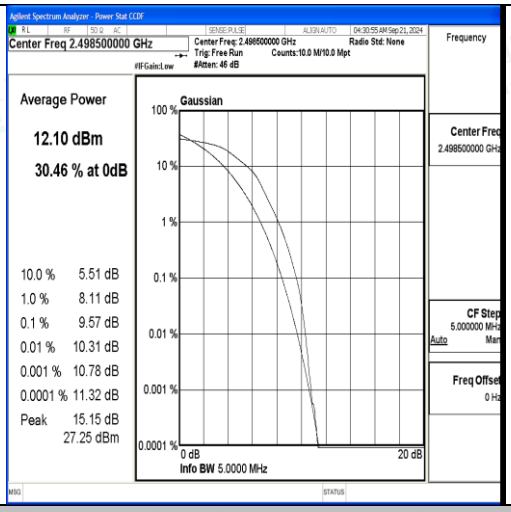
Band41-5MHz-QPSK-39675-1RB#0-PASS



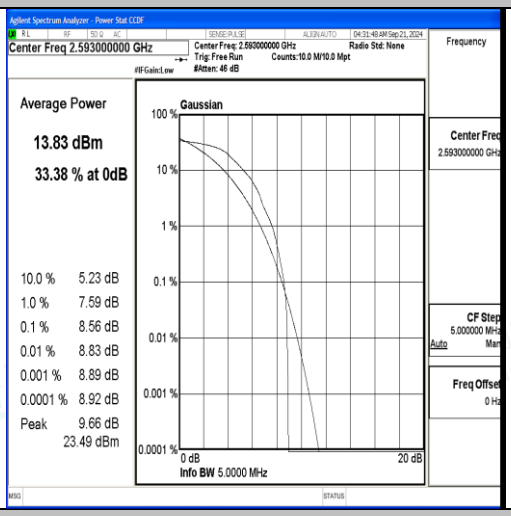
Band41-5MHz-16QAM-39675-1RB#0-PASS



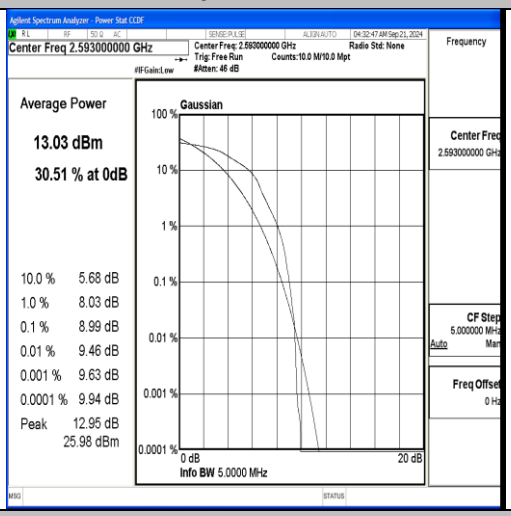
Band41-5MHz-QPSK-39675-25RB#0-PASS



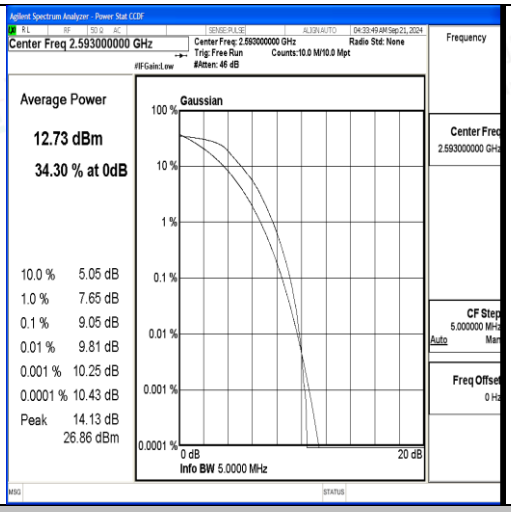
Band41-5MHz-16QAM-39675-25RB#0-PASS



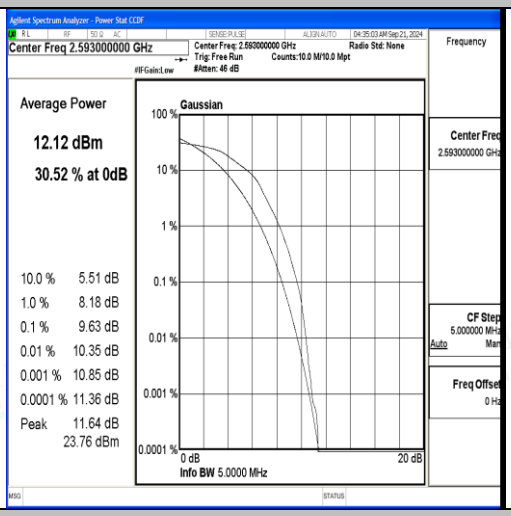
Band41-5MHz-QPSK-40620-1RB#0-PASS



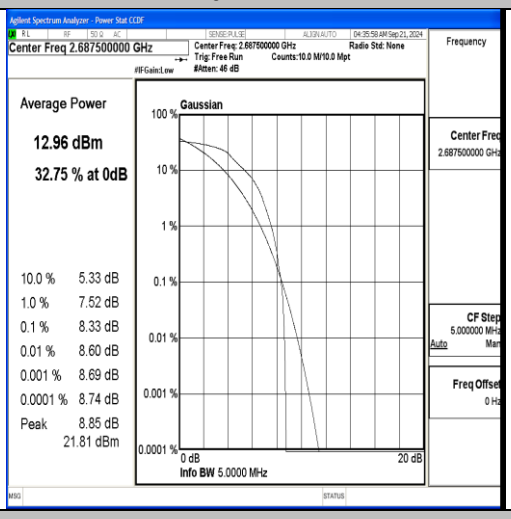
Band41-5MHz-16QAM-40620-1RB#0-PASS



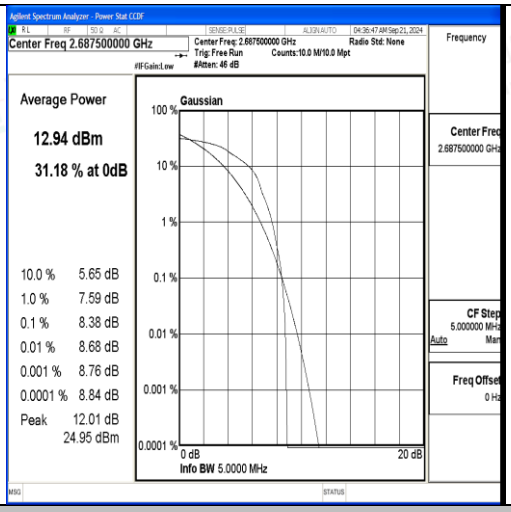
Band41-5MHz-QPSK-40620-25RB#0-PASS



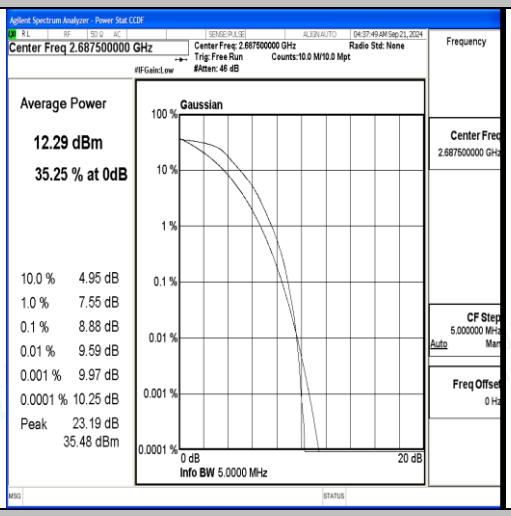
Band41-5MHz-16QAM-40620-25RB#0-PASS



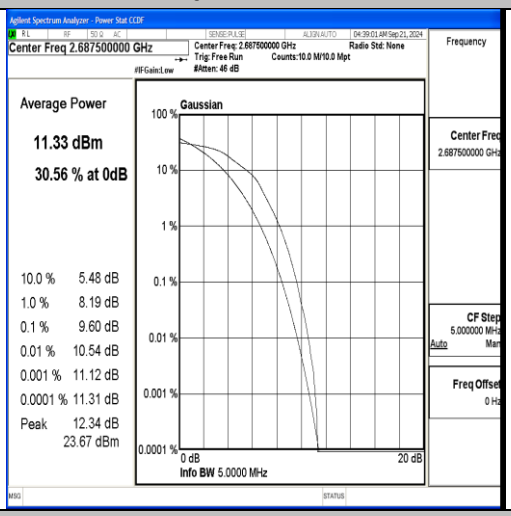
Band41-5MHz-QPSK-41565-1RB#0-PASS



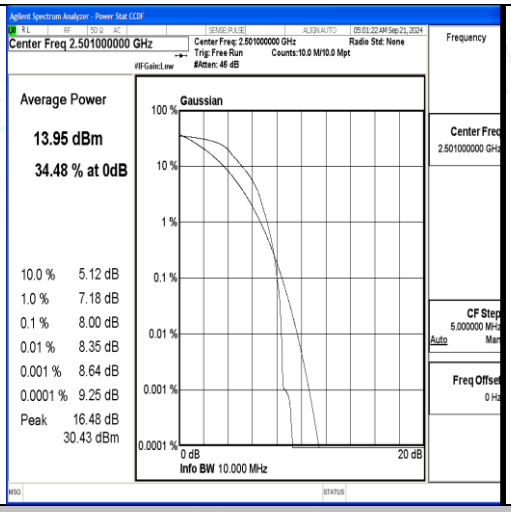
Band41-5MHz-16QAM-41565-1RB#0-PASS



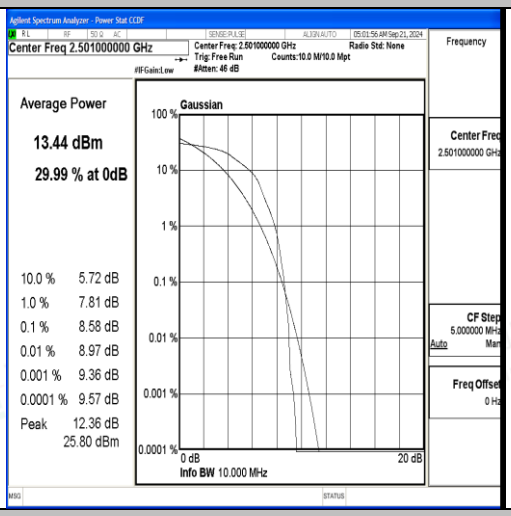
Band41-5MHz-QPSK-41565-25RB#0-PASS



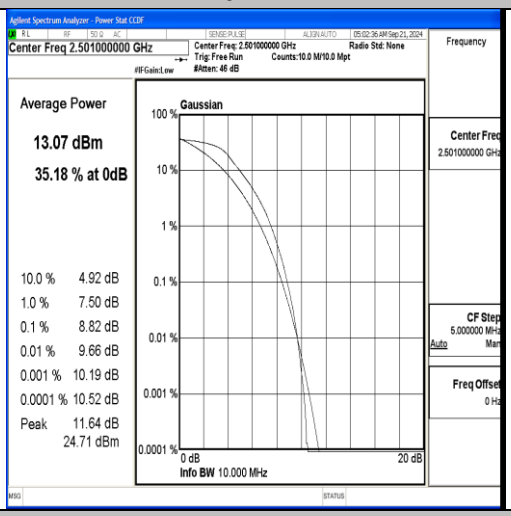
Band41-5MHz-16QAM-41565-25RB#0-PASS



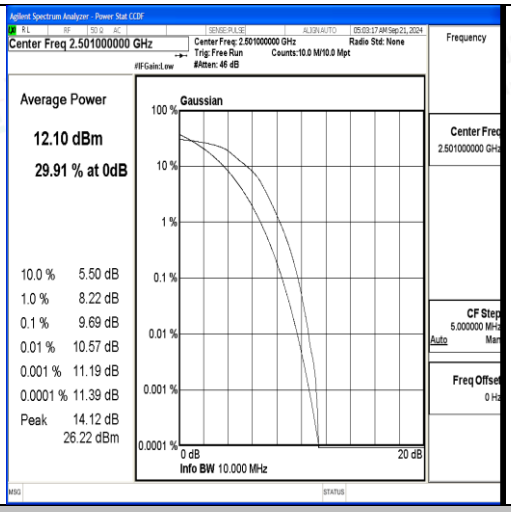
Band41-10MHz-QPSK-39700-1RB#0-PASS



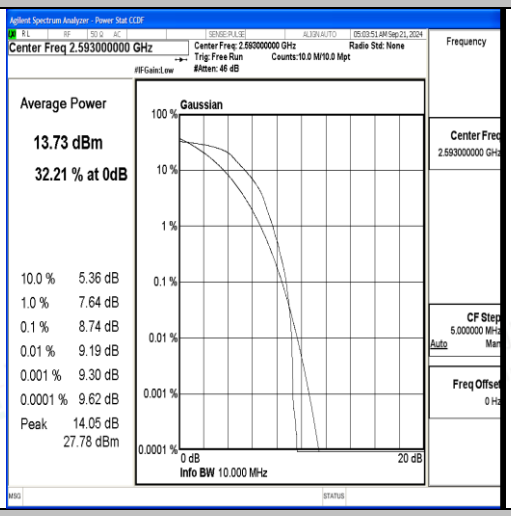
Band41-10MHz-16QAM-39700-1RB#0-PASS



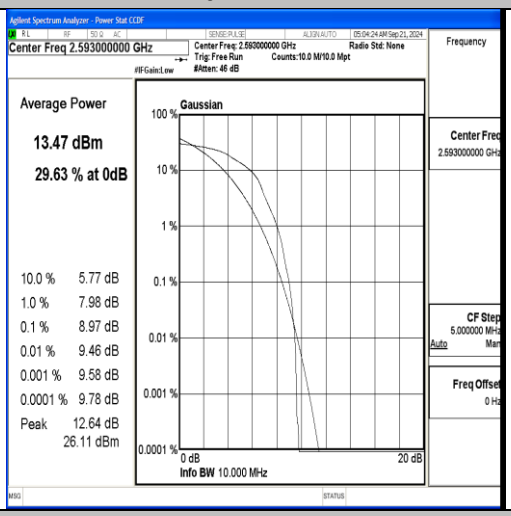
Band41-10MHz-QPSK-39700-50RB#0-PASS



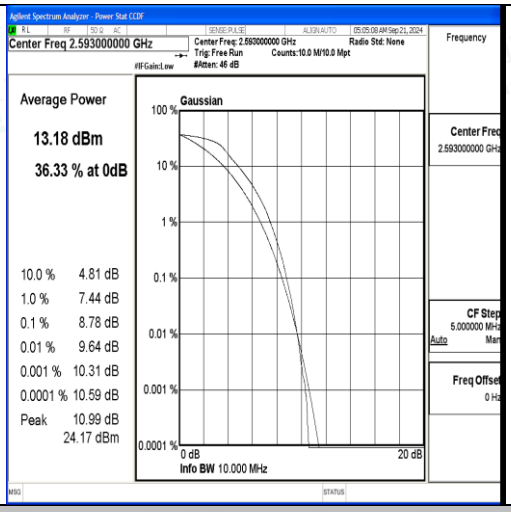
Band41-10MHz-16QAM-39700-50RB#0-PASS



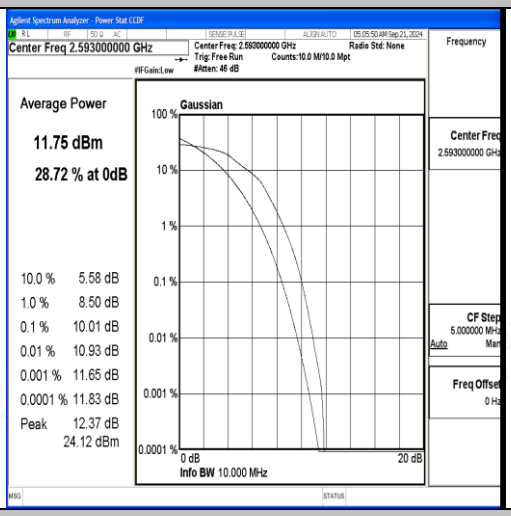
Band41-10MHz-QPSK-40620-1RB#0-PASS



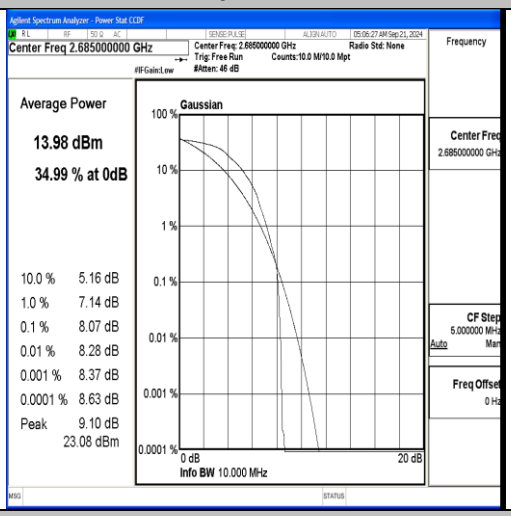
Band41-10MHz-16QAM-40620-1RB#0-PASS



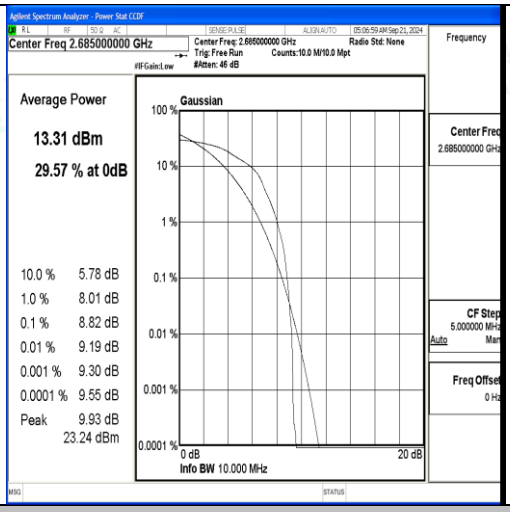
Band41-10MHz-QPSK-40620-50RB#0-PASS



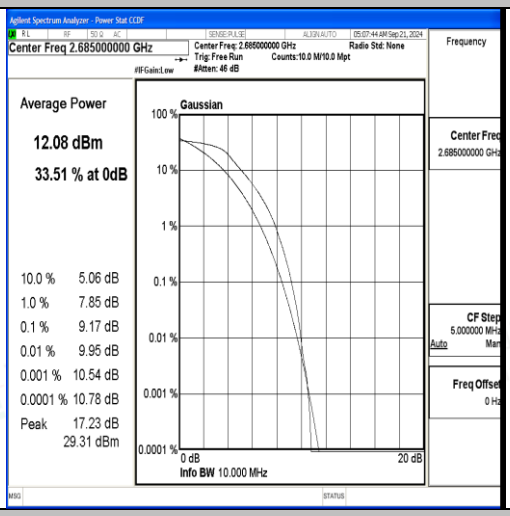
Band41-10MHz-16QAM-40620-50RB#0-PASS



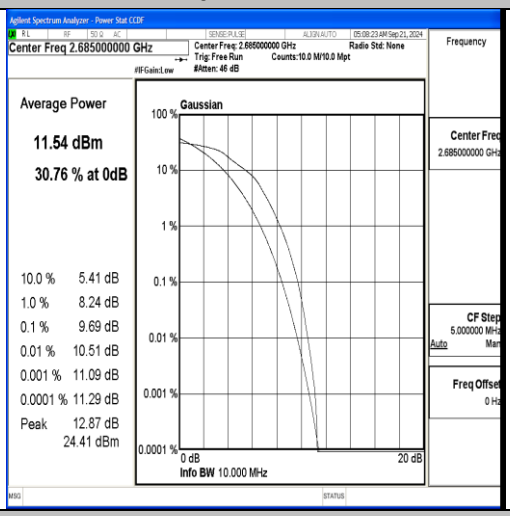
Band41-10MHz-QPSK-41540-1RB#0-PASS



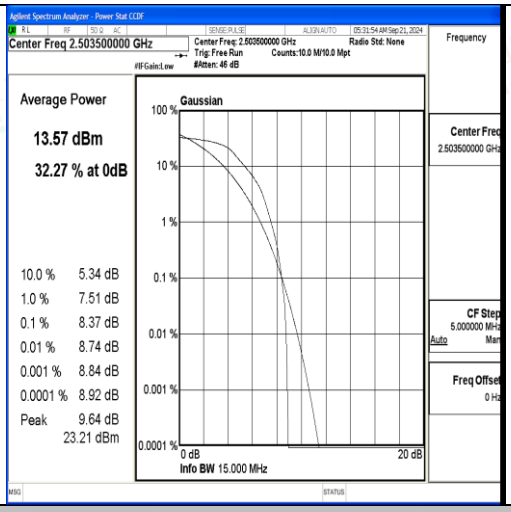
Band41-10MHz-16QAM-41540-1RB#0-PASS



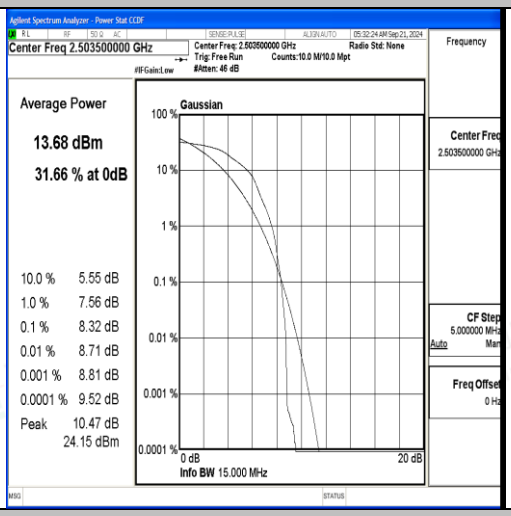
Band41-10MHz-QPSK-41540-50RB#0-PASS



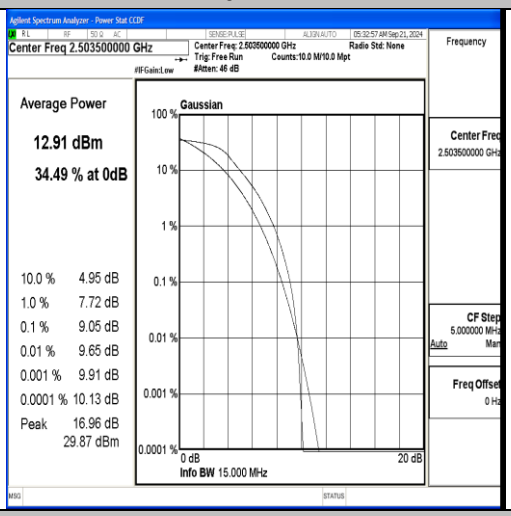
Band41-10MHz-16QAM-41540-50RB#0-PASS



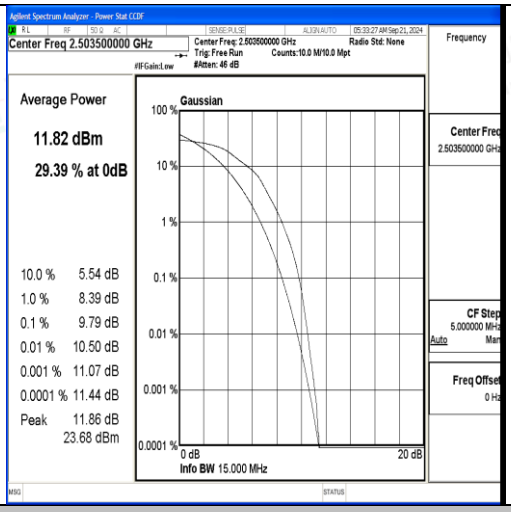
Band41-15MHz-QPSK-39725-1RB#0-PASS



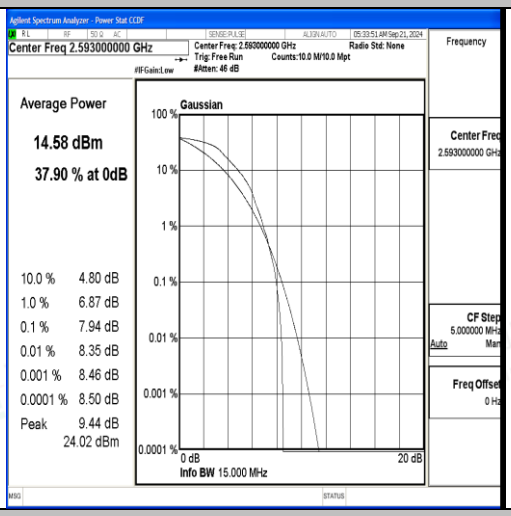
Band41-15MHz-16QAM-39725-1RB#0-PASS



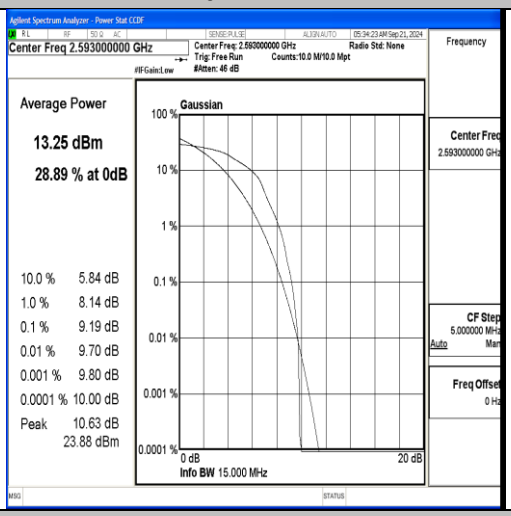
Band41-15MHz-QPSK-39725-75RB#0-PASS



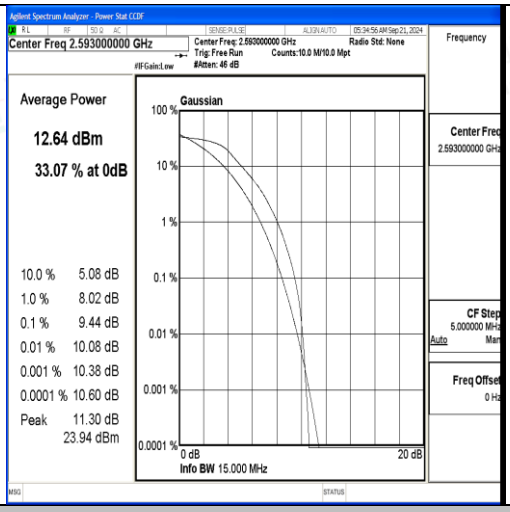
Band41-15MHz-16QAM-39725-75RB#0-PASS



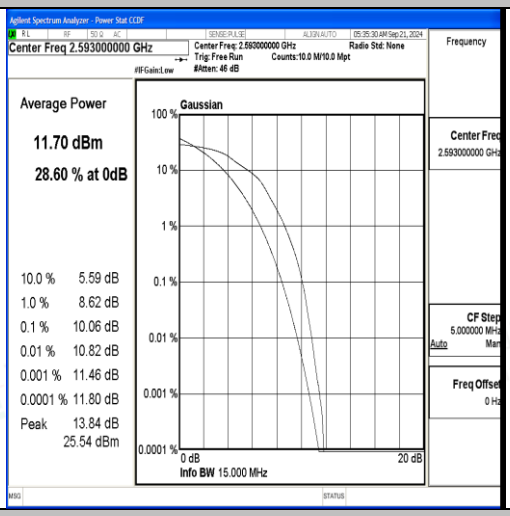
Band41-15MHz-QPSK-40620-1RB#0-PASS



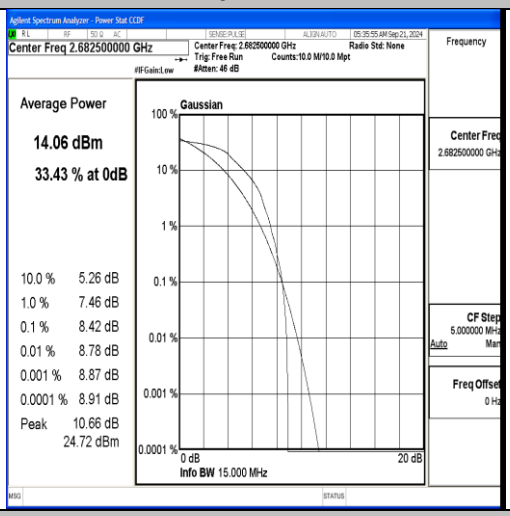
Band41-15MHz-16QAM-40620-1RB#0-PASS



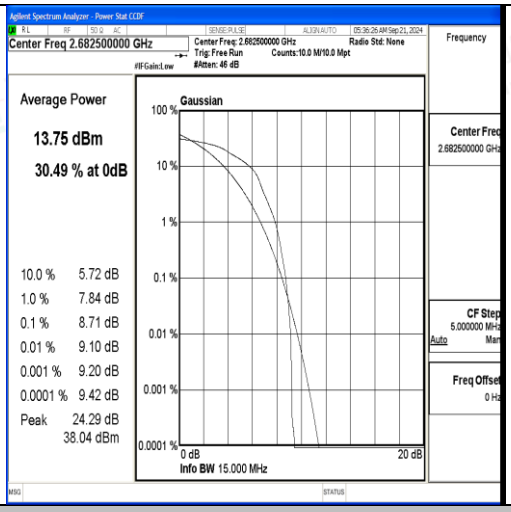
Band41-15MHz-QPSK-40620-75RB#0-PASS



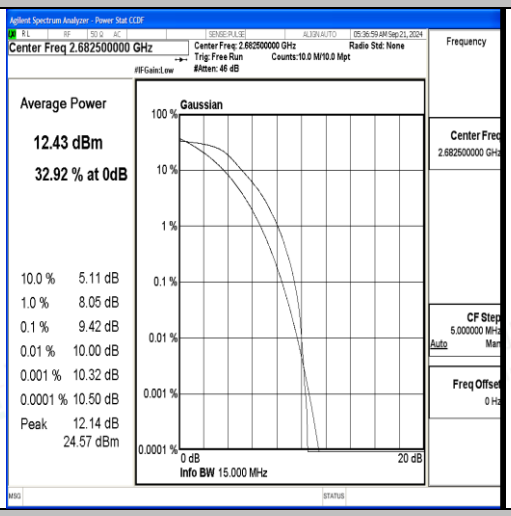
Band41-15MHz-16QAM-40620-75RB#0-PASS



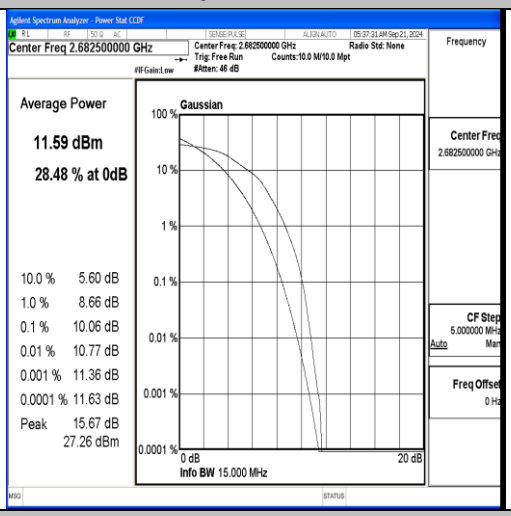
Band41-15MHz-QPSK-41515-1RB#0-PASS



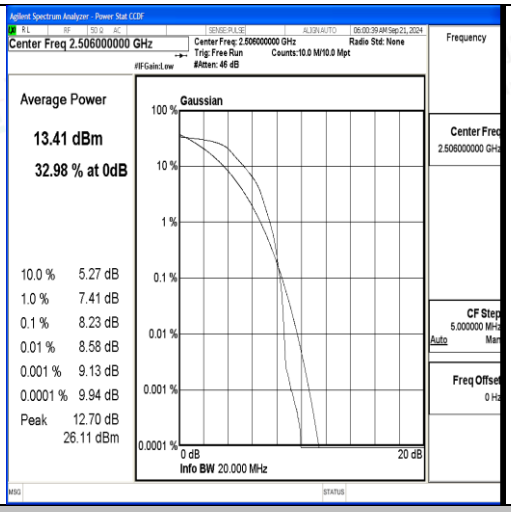
Band41-15MHz-16QAM-41515-1RB#0-PASS



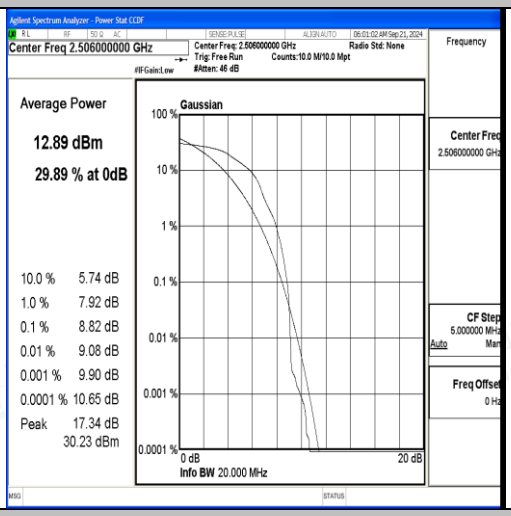
Band41-15MHz-QPSK-41515-75RB#0-PASS



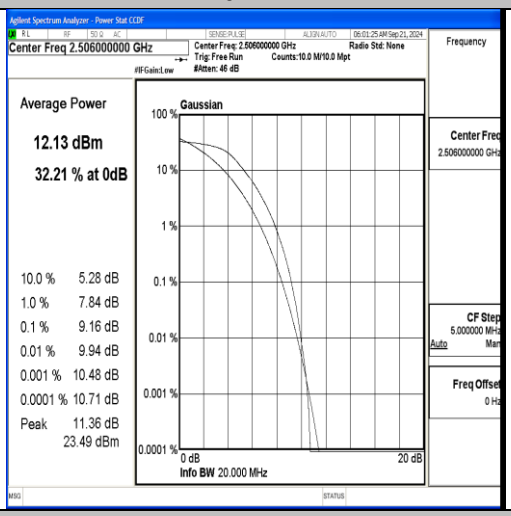
Band41-15MHz-16QAM-41515-75RB#0-PASS



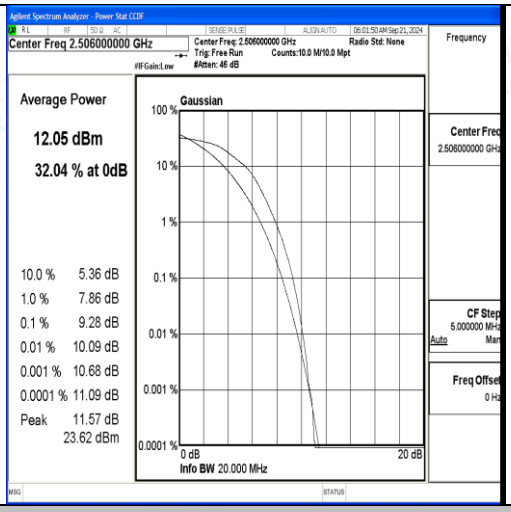
Band41-20MHz-QPSK-39750-1RB#0-PASS



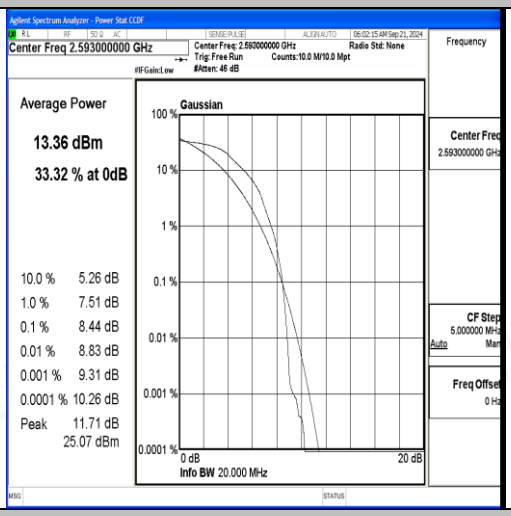
Band41-20MHz-16QAM-39750-1RB#0-PASS



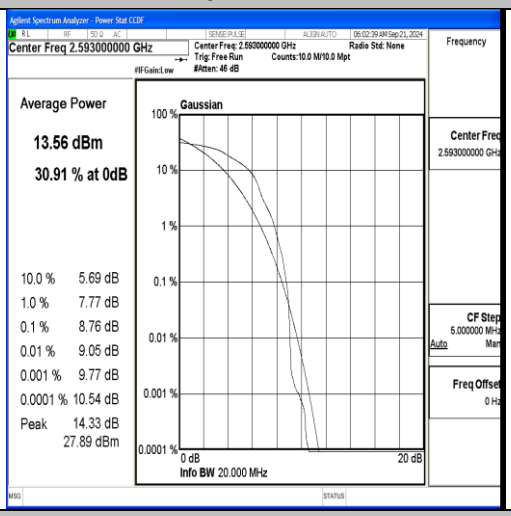
Band41-20MHz-QPSK-39750-100RB#0-PASS



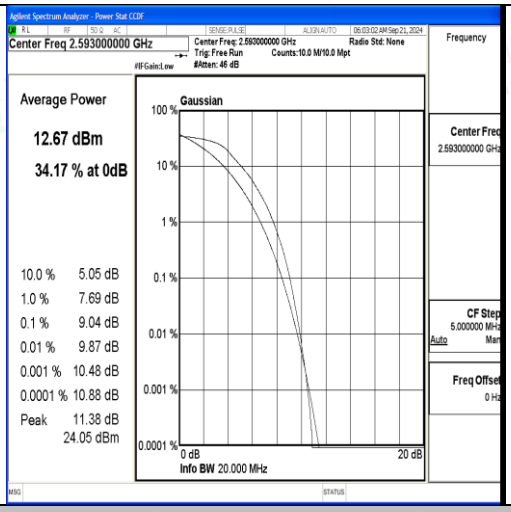
Band41-20MHz-16QAM-39750-100RB#0-PASS



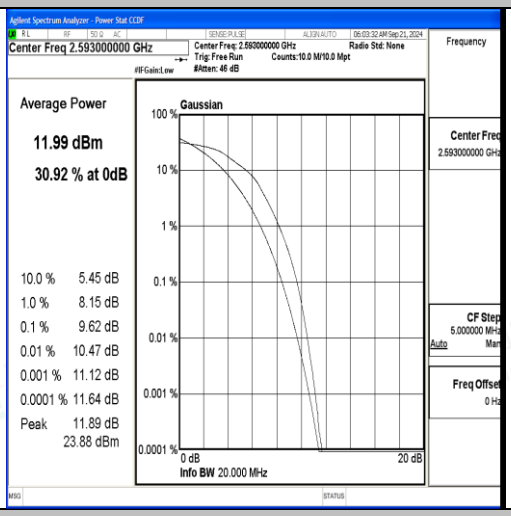
Band41-20MHz-QPSK-40620-1RB#0-PASS



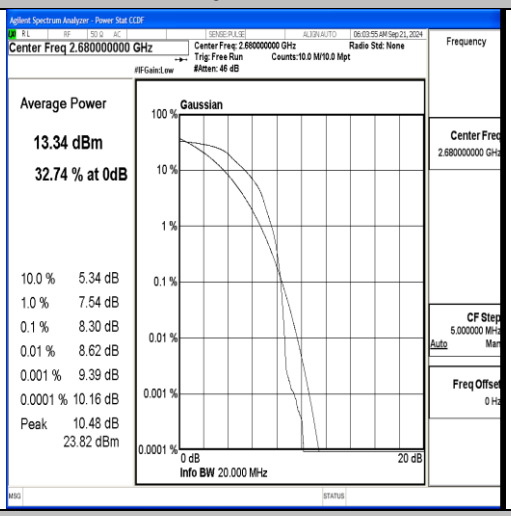
Band41-20MHz-16QAM-40620-1RB#0-PASS



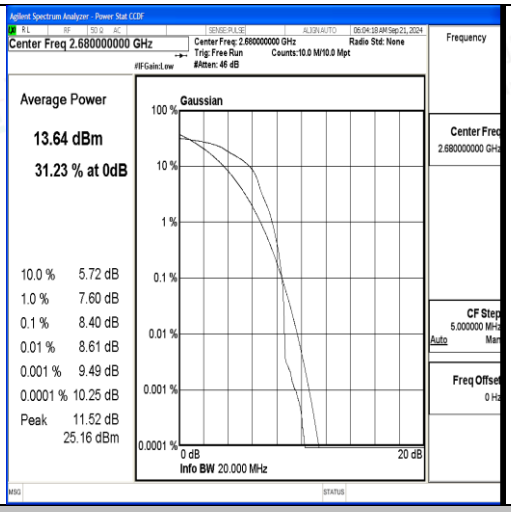
Band41-20MHz-QPSK-40620-100RB#0-PASS



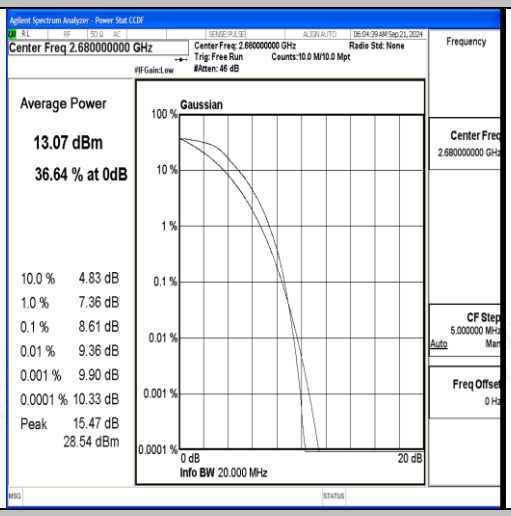
Band41-20MHz-16QAM-40620-100RB#0-PASS



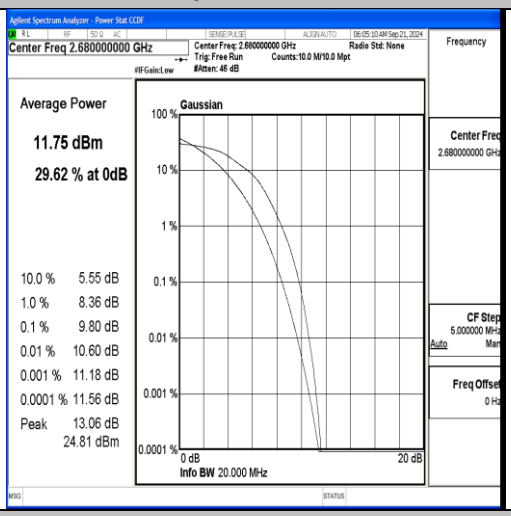
Band41-20MHz-QPSK-41490-1RB#0-PASS



Band41-20MHz-16QAM-41490-1RB#0-PASS



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



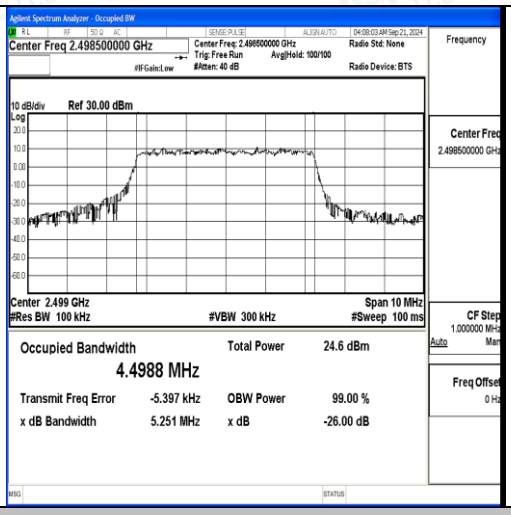
Band41-20MHz-16QAM-41490-100RB#0-PASS

L.3 26dB Bandwidth and Occupied Bandwidth

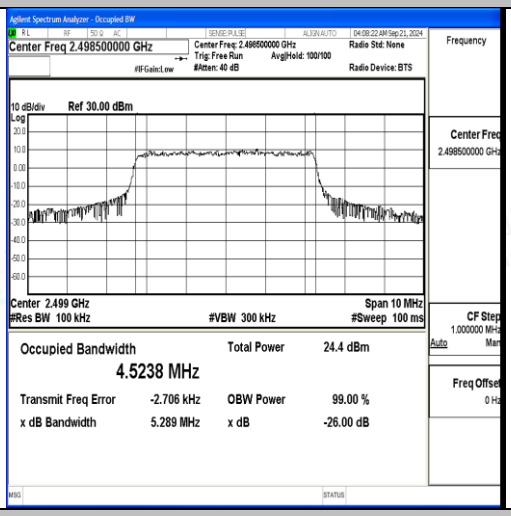
Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band41	5MHz	QPSK	39675	25RB#0	4.4988	5.251	PASS
Band41	5MHz	16QAM	39675	25RB#0	4.5238	5.289	PASS
Band41	5MHz	QPSK	40620	25RB#0	4.5216	5.202	PASS
Band41	5MHz	16QAM	40620	25RB#0	4.5020	5.430	PASS
Band41	5MHz	QPSK	41565	25RB#0	4.4985	5.208	PASS
Band41	5MHz	16QAM	41565	25RB#0	4.5008	5.302	PASS
Band41	10MHz	QPSK	39700	50RB#0	8.9810	9.889	PASS
Band41	10MHz	16QAM	39700	50RB#0	8.9775	10.14	PASS
Band41	10MHz	QPSK	40620	50RB#0	8.9906	10.08	PASS
Band41	10MHz	16QAM	40620	50RB#0	8.9550	10.08	PASS
Band41	10MHz	QPSK	41540	50RB#0	9.0231	10.18	PASS
Band41	10MHz	16QAM	41540	50RB#0	9.0108	11.08	PASS
Band41	15MHz	QPSK	39725	75RB#0	13.517	16.60	PASS
Band41	15MHz	16QAM	39725	75RB#0	13.489	14.81	PASS
Band41	15MHz	QPSK	40620	75RB#0	13.581	16.58	PASS
Band41	15MHz	16QAM	40620	75RB#0	13.489	15.00	PASS
Band41	15MHz	QPSK	41515	75RB#0	13.482	16.57	PASS
Band41	15MHz	16QAM	41515	75RB#0	13.490	15.08	PASS
Band41	20MHz	QPSK	39750	100RB#0	18.031	20.36	PASS
Band41	20MHz	16QAM	39750	100RB#0	17.966	20.03	PASS
Band41	20MHz	QPSK	40620	100RB#0	17.982	20.34	PASS
Band41	20MHz	16QAM	40620	100RB#0	17.961	19.57	PASS
Band41	20MHz	QPSK	41490	100RB#0	17.879	19.99	PASS
Band41	20MHz	16QAM	41490	100RB#0	17.948	19.47	PASS

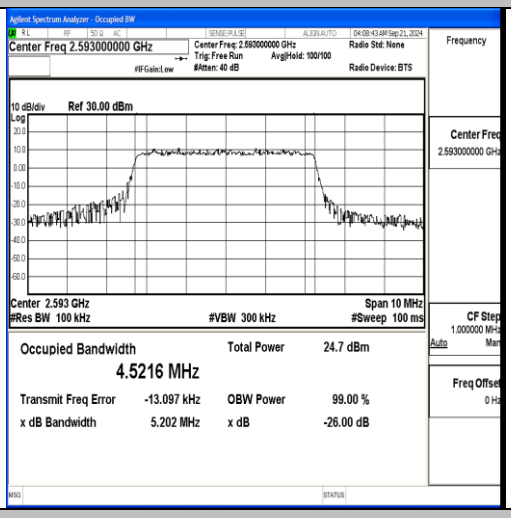
Test Graphs



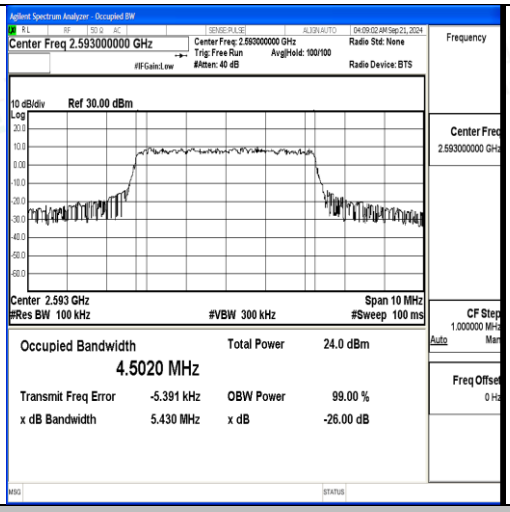
Band41-5MHz-QPSK-39675-25RB#0-PASS



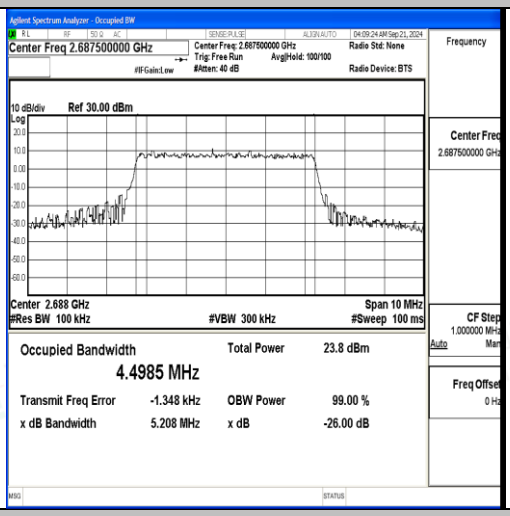
Band41-5MHz-16QAM-39675-25RB#0-PASS



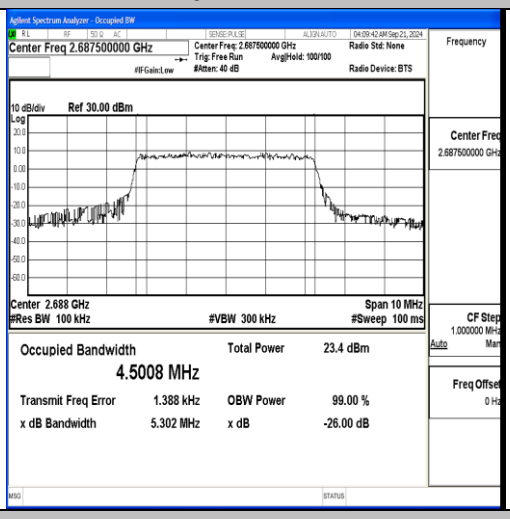
Band41-5MHz-QPSK-40620-25RB#0-PASS



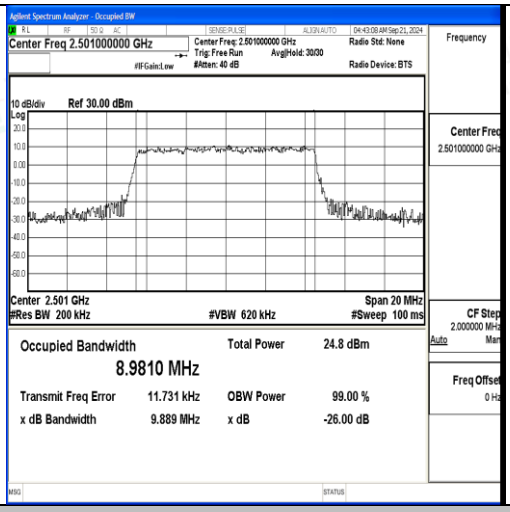
Band41-5MHz-16QAM-40620-25RB#0-PASS



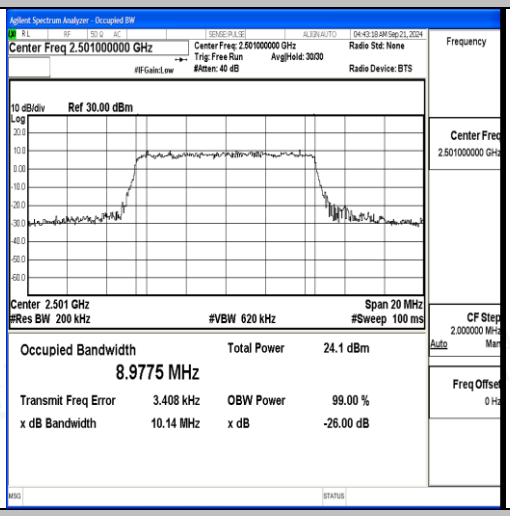
Band41-5MHz-QPSK-41565-25RB#0-PASS



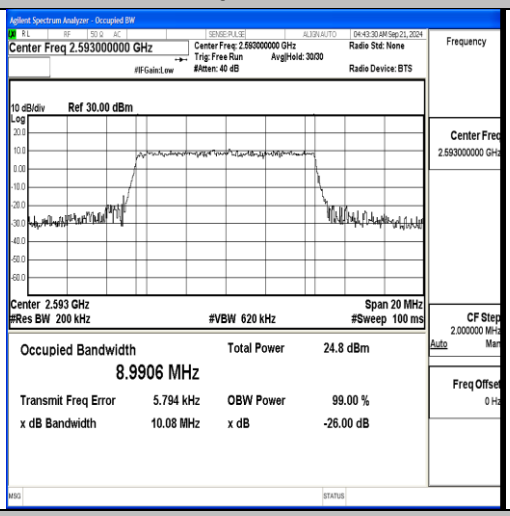
Band41-5MHz-16QAM-41565-25RB#0-PASS



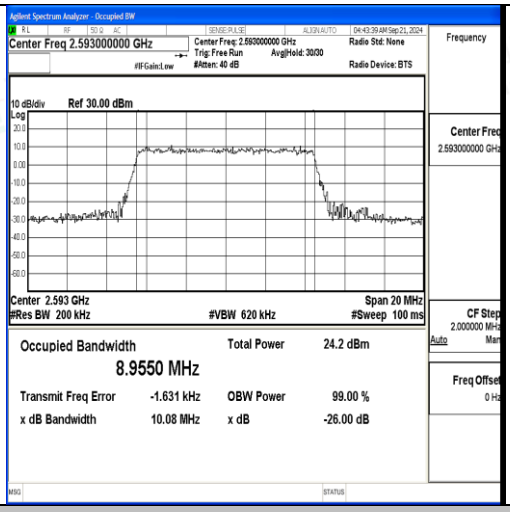
Band41-10MHz-QPSK-39700-50RB#0-PASS



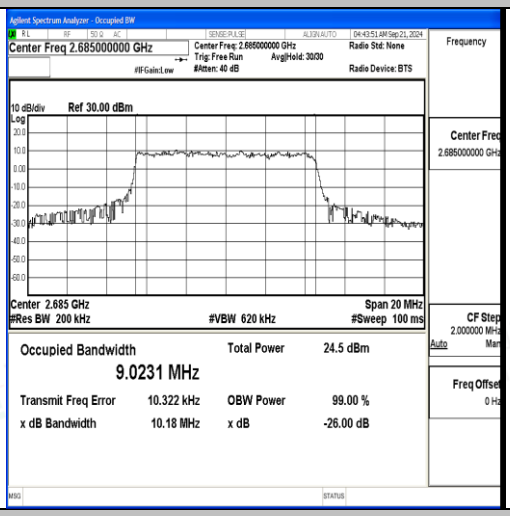
Band41-10MHz-16QAM-39700-50RB#0-PASS



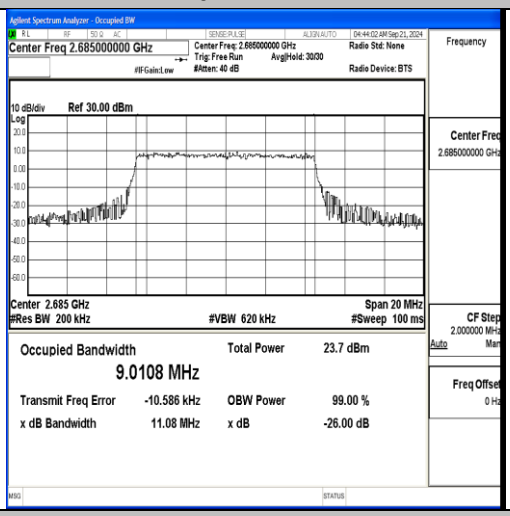
Band41-10MHz-QPSK-40620-50RB#0-PASS



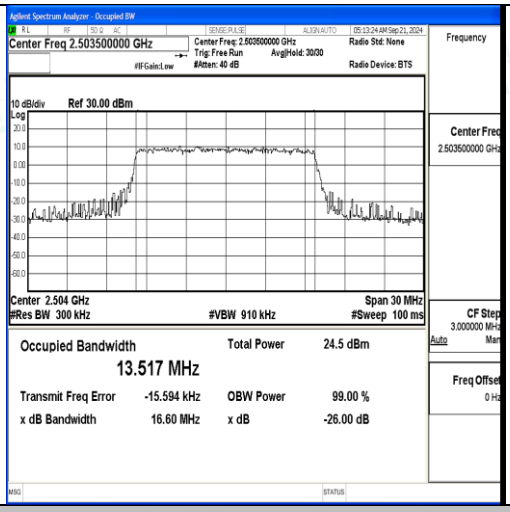
Band41-10MHz-16QAM-40620-50RB#0-PASS



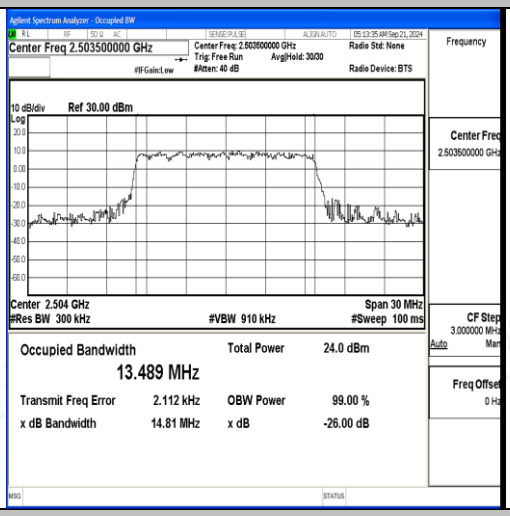
Band41-10MHz-QPSK-41540-50RB#0-PASS



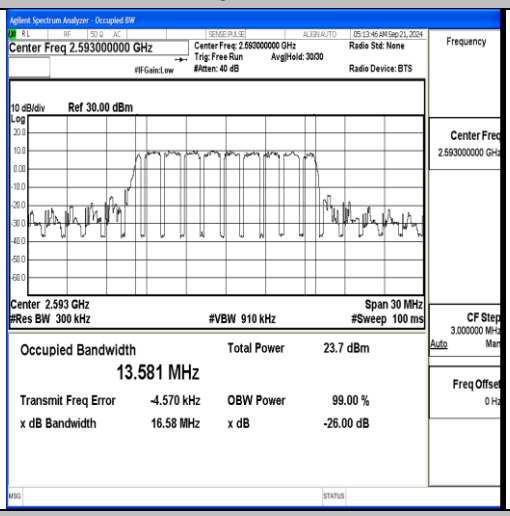
Band41-10MHz-16QAM-41540-50RB#0-PASS



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



Band41-15MHz-16QAM-39725-75RB#0-PASS



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