

FCC LTE-Cat M1 Band12 Test Data

General Description of EUT	
Product Name:	Elevate Telematic Unit
Test Model:	p5
Environmental Conditions	
Temperature:	25℃
Relative Humidity:	55%
Test Voltage:	DC 3.7V
Test Engineer:	Yan zhen ming
Note: For a more detailed features description, please refer to the report TBR-C-202307-0089-21 . The report only show the worst case data.	

Contents

FCC LTE-Cat M1 Band12 Test Data	1
1. Conducted Power Output Data for M1	3
Test Result	3
2. Peak-to-Average Ratio(CCDF) for M1	5
Test Result	5
Test Graphs	7
3. 26dB Bandwidth and Occupied Bandwidth for M1	15
Test Result	15
Test Graphs	16
4. Band Edge for M1	20
Test Result	20
Test Graphs	21
5. Conducted Spurious Emission for M1	27
Test Result	27
Test Graphs	30
6. Frequency Stability for M1	46
Test Result	46

1. Conducted Power Output Data for M1

Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result (dBm)	Limit	Verdict
Band12	1.4MHz	QPSK	23017	1	0	Low	18.91	34.8	PASS
Band12	1.4MHz	QPSK	23017	1	5	Low	19.11	34.8	PASS
Band12	1.4MHz	QPSK	23017	6	0	Low	17.16	34.8	PASS
Band12	1.4MHz	QPSK	23095	1	0	Low	18.94	34.8	PASS
Band12	1.4MHz	QPSK	23095	1	5	Low	19.13	34.8	PASS
Band12	1.4MHz	QPSK	23095	6	0	Low	17.16	34.8	PASS
Band12	1.4MHz	QPSK	23173	1	0	High	19.49	34.8	PASS
Band12	1.4MHz	QPSK	23173	1	5	High	19.63	34.8	PASS
Band12	1.4MHz	QPSK	23173	6	0	High	17.27	34.8	PASS
Band12	1.4MHz	16QAM	23017	1	0	Low	18.34	34.8	PASS
Band12	1.4MHz	16QAM	23017	1	5	Low	18.71	34.8	PASS
Band12	1.4MHz	16QAM	23017	6	0	Low	17.15	34.8	PASS
Band12	1.4MHz	16QAM	23095	1	0	Low	18.13	34.8	PASS
Band12	1.4MHz	16QAM	23095	1	5	Low	18.73	34.8	PASS
Band12	1.4MHz	16QAM	23095	6	0	Low	17.16	34.8	PASS
Band12	1.4MHz	16QAM	23173	1	0	High	17.56	34.8	PASS
Band12	1.4MHz	16QAM	23173	1	5	High	17.81	34.8	PASS
Band12	1.4MHz	16QAM	23173	6	0	High	17.27	34.8	PASS
Band12	3MHz	QPSK	23025	1	0	Low	19.25	34.8	PASS
Band12	3MHz	QPSK	23025	1	5	Low	19.58	34.8	PASS
Band12	3MHz	QPSK	23025	6	0	Low	17.28	34.8	PASS
Band12	3MHz	QPSK	23095	1	0	Low	19.06	34.8	PASS
Band12	3MHz	QPSK	23095	1	5	Low	19.12	34.8	PASS
Band12	3MHz	QPSK	23095	6	0	Low	17.30	34.8	PASS
Band12	3MHz	QPSK	23165	1	0	High	19.46	34.8	PASS
Band12	3MHz	QPSK	23165	1	5	High	19.45	34.8	PASS
Band12	3MHz	QPSK	23165	6	0	High	17.35	34.8	PASS
Band12	3MHz	16QAM	23025	1	0	Low	17.52	34.8	PASS
Band12	3MHz	16QAM	23025	1	5	Low	17.80	34.8	PASS
Band12	3MHz	16QAM	23025	6	0	Low	17.18	34.8	PASS
Band12	3MHz	16QAM	23095	1	0	Low	18.17	34.8	PASS
Band12	3MHz	16QAM	23095	1	5	Low	18.46	34.8	PASS
Band12	3MHz	16QAM	23095	6	0	Low	17.31	34.8	PASS
Band12	3MHz	16QAM	23165	1	0	High	17.67	34.8	PASS
Band12	3MHz	16QAM	23165	1	5	High	17.81	34.8	PASS
Band12	3MHz	16QAM	23165	6	0	High	17.23	34.8	PASS
Band12	5MHz	QPSK	23035	1	0	Low	19.50	34.8	PASS
Band12	5MHz	QPSK	23035	1	5	Low	19.69	34.8	PASS
Band12	5MHz	QPSK	23035	6	0	Low	18.21	34.8	PASS

Band12	5MHz	QPSK	23095	1	0	Low	19.21	34.8	PASS
Band12	5MHz	QPSK	23095	1	5	Low	19.16	34.8	PASS
Band12	5MHz	QPSK	23095	6	0	Low	18.35	34.8	PASS
Band12	5MHz	QPSK	23155	1	0	High	19.51	34.8	PASS
Band12	5MHz	QPSK	23155	1	5	High	19.80	34.8	PASS
Band12	5MHz	QPSK	23155	6	0	High	18.15	34.8	PASS
Band12	5MHz	16QAM	23035	1	0	Low	19.01	34.8	PASS
Band12	5MHz	16QAM	23035	1	5	Low	19.18	34.8	PASS
Band12	5MHz	16QAM	23035	6	0	Low	18.21	34.8	PASS
Band12	5MHz	16QAM	23095	1	0	Low	19.97	34.8	PASS
Band12	5MHz	16QAM	23095	1	5	Low	20.10	34.8	PASS
Band12	5MHz	16QAM	23095	6	0	Low	18.25	34.8	PASS
Band12	5MHz	16QAM	23155	1	0	High	19.08	34.8	PASS
Band12	5MHz	16QAM	23155	1	5	High	18.91	34.8	PASS
Band12	5MHz	16QAM	23155	6	0	High	18.26	34.8	PASS
Band12	10MHz	QPSK	23060	1	0	Low	19.68	34.8	PASS
Band12	10MHz	QPSK	23060	1	5	Low	19.88	34.8	PASS
Band12	10MHz	QPSK	23060	6	0	Low	18.28	34.8	PASS
Band12	10MHz	QPSK	23095	1	0	Low	19.17	34.8	PASS
Band12	10MHz	QPSK	23095	1	5	Low	19.29	34.8	PASS
Band12	10MHz	QPSK	23095	6	0	Low	18.31	34.8	PASS
Band12	10MHz	QPSK	23130	1	0	High	19.54	34.8	PASS
Band12	10MHz	QPSK	23130	1	5	High	19.88	34.8	PASS
Band12	10MHz	QPSK	23130	6	0	High	18.20	34.8	PASS
Band12	10MHz	16QAM	23060	1	0	Low	19.12	34.8	PASS
Band12	10MHz	16QAM	23060	1	5	Low	19.00	34.8	PASS
Band12	10MHz	16QAM	23060	6	0	Low	18.28	34.8	PASS
Band12	10MHz	16QAM	23095	1	0	Low	19.91	34.8	PASS
Band12	10MHz	16QAM	23095	1	5	Low	20.11	34.8	PASS
Band12	10MHz	16QAM	23095	6	0	Low	18.31	34.8	PASS
Band12	10MHz	16QAM	23130	1	0	High	18.98	34.8	PASS
Band12	10MHz	16QAM	23130	1	5	High	18.72	34.8	PASS
Band12	10MHz	16QAM	23130	6	0	High	18.29	34.8	PASS

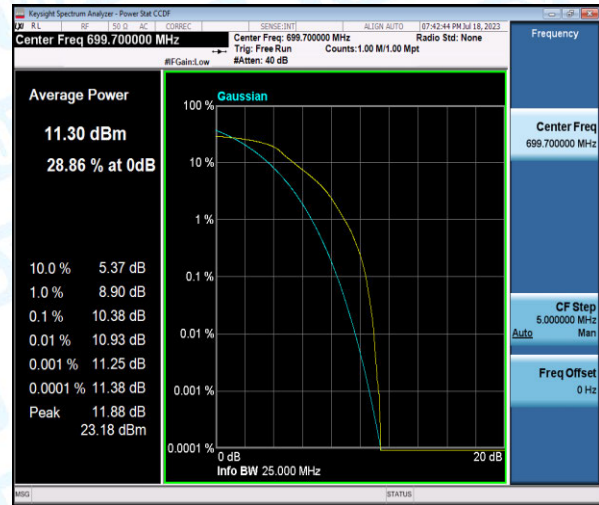
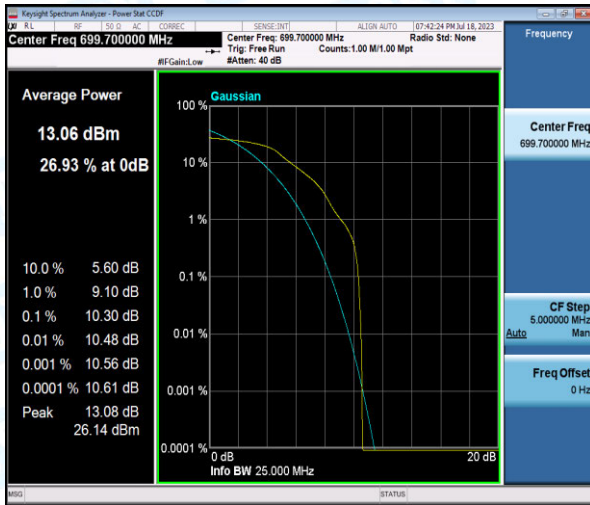
2. Peak-to-Average Ratio(CCDF) for M1

Test Result

Band	Bandwidth	Modulation	Channel	RB Size	RB Start	NBIndex	Result(dB)	Limit(dB)	Verdict
Band12	1.4MHz	23017	QPSK	1	0	Low	10.30	<=13	PASS
Band12	1.4MHz	23017	QPSK	6	0	Low	10.38	<=13	PASS
Band12	1.4MHz	23095	QPSK	1	0	Low	9.71	<=13	PASS
Band12	1.4MHz	23095	QPSK	6	0	Low	10.81	<=13	PASS
Band12	1.4MHz	23173	QPSK	1	0	High	8.53	<=13	PASS
Band12	1.4MHz	23173	QPSK	6	0	High	8.57	<=13	PASS
Band12	1.4MHz	23017	16QAM	1	0	Low	11.56	<=13	PASS
Band12	1.4MHz	23017	16QAM	6	0	Low	10.39	<=13	PASS
Band12	1.4MHz	23095	16QAM	1	0	Low	11.49	<=13	PASS
Band12	1.4MHz	23095	16QAM	6	0	Low	11.62	<=13	PASS
Band12	1.4MHz	23173	16QAM	1	0	High	8.51	<=13	PASS
Band12	1.4MHz	23173	16QAM	6	0	High	8.52	<=13	PASS
Band12	3MHz	23025	QPSK	1	0	Low	10.44	<=13	PASS
Band12	3MHz	23025	QPSK	6	0	Low	9.79	<=13	PASS
Band12	3MHz	23095	QPSK	1	0	Low	8.59	<=13	PASS
Band12	3MHz	23095	QPSK	6	0	Low	8.48	<=13	PASS
Band12	3MHz	23165	QPSK	1	0	High	8.41	<=13	PASS
Band12	3MHz	23165	QPSK	6	0	High	8.59	<=13	PASS
Band12	3MHz	23025	16QAM	1	0	Low	11.34	<=13	PASS
Band12	3MHz	23025	16QAM	6	0	Low	10.06	<=13	PASS
Band12	3MHz	23095	16QAM	1	0	Low	8.55	<=13	PASS
Band12	3MHz	23095	16QAM	6	0	Low	8.56	<=13	PASS
Band12	3MHz	23165	16QAM	1	0	High	8.46	<=13	PASS
Band12	3MHz	23165	16QAM	6	0	High	8.47	<=13	PASS
Band12	5MHz	23035	QPSK	1	0	Low	9.07	<=13	PASS
Band12	5MHz	23035	QPSK	6	0	Low	10.01	<=13	PASS
Band12	5MHz	23095	QPSK	1	0	Low	11.97	<=13	PASS
Band12	5MHz	23095	QPSK	6	0	Low	9.85	<=13	PASS
Band12	5MHz	23155	QPSK	1	0	High	9.13	<=13	PASS
Band12	5MHz	23155	QPSK	6	0	High	10.04	<=13	PASS
Band12	5MHz	23035	16QAM	1	0	Low	9.87	<=13	PASS
Band12	5MHz	23035	16QAM	6	0	Low	10.00	<=13	PASS
Band12	5MHz	23095	16QAM	1	0	Low	10.56	<=13	PASS
Band12	5MHz	23095	16QAM	6	0	Low	10.01	<=13	PASS
Band12	5MHz	23155	16QAM	1	0	High	11.71	<=13	PASS
Band12	5MHz	23155	16QAM	6	0	High	10.53	<=13	PASS
Band12	10MHz	23060	QPSK	1	0	Low	8.61	<=13	PASS
Band12	10MHz	23060	QPSK	6	0	Low	8.45	<=13	PASS
Band12	10MHz	23095	QPSK	1	0	Low	9.67	<=13	PASS

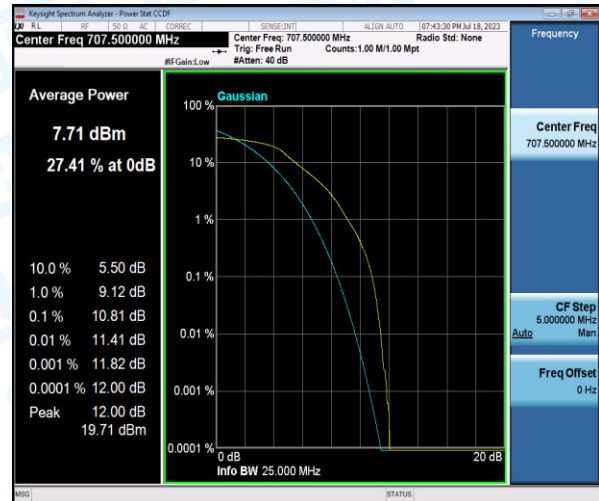
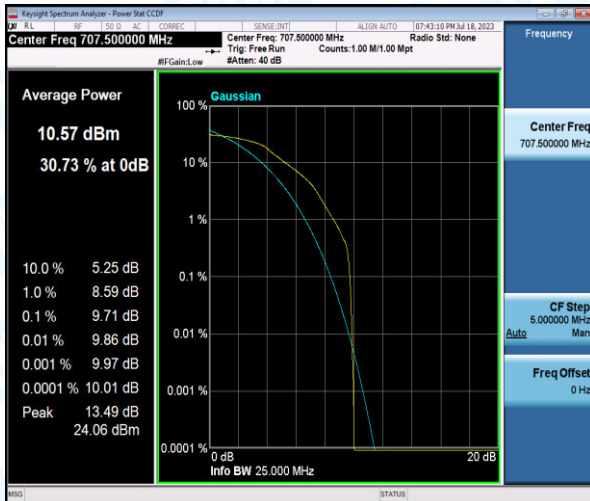
Band12	10MHz	23095	QPSK	6	0	Low	9.38	<=13	PASS
Band12	10MHz	23130	QPSK	1	0	High	9.81	<=13	PASS
Band12	10MHz	23130	QPSK	6	0	High	10.73	<=13	PASS
Band12	10MHz	23060	16QAM	1	0	Low	8.64	<=13	PASS
Band12	10MHz	23060	16QAM	6	0	Low	8.59	<=13	PASS
Band12	10MHz	23095	16QAM	1	0	Low	10.37	<=13	PASS
Band12	10MHz	23095	16QAM	6	0	Low	9.71	<=13	PASS
Band12	10MHz	23130	16QAM	1	0	High	10.86	<=13	PASS
Band12	10MHz	23130	16QAM	6	0	High	11.77	<=13	PASS

Test Graphs



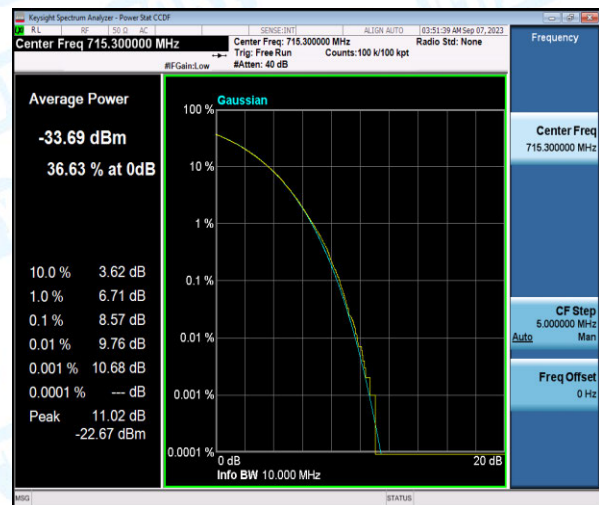
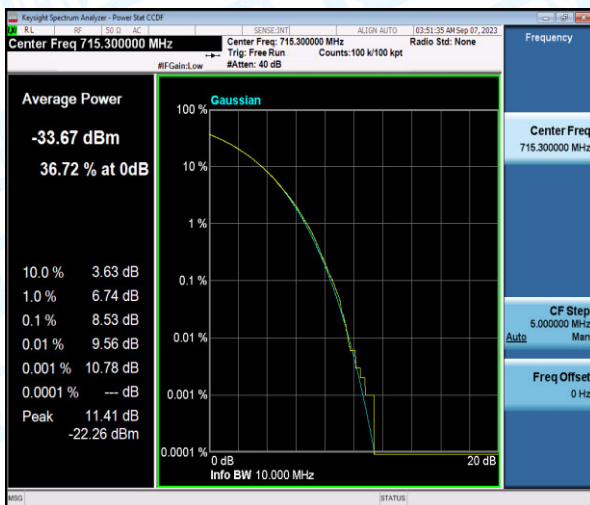
Band12-1.4MHz-QPSK-23017-1-0-Low-10.30-<=13-PASS

Band12-1.4MHz-QPSK-23017-6-0-Low-10.38-<=13-PASS



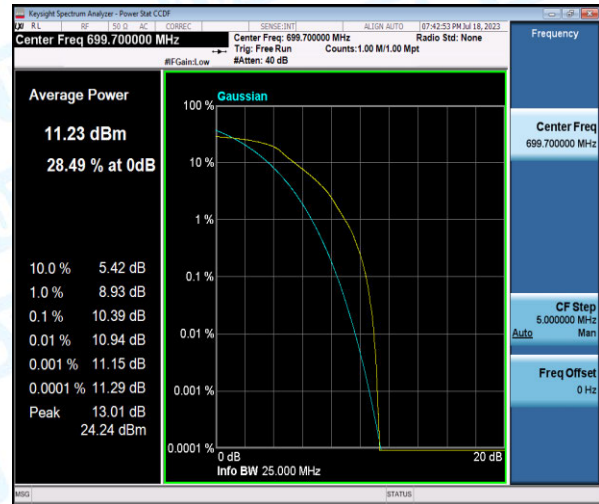
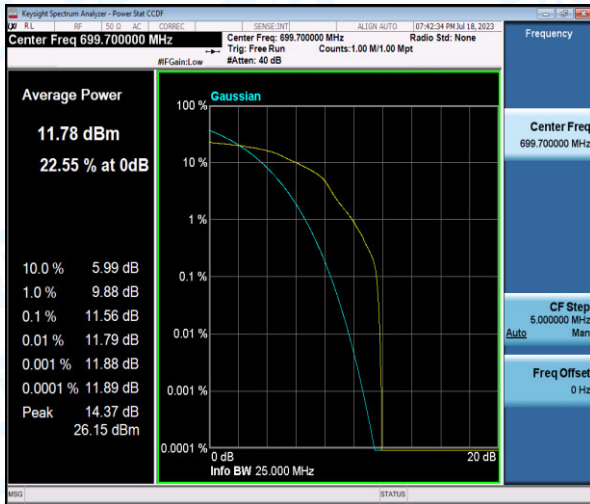
Band12-1.4MHz-QPSK-23095-1-0-Low-9.71-<=13-PASS

Band12-1.4MHz-QPSK-23095-6-0-Low-10.81-<=13-PASS



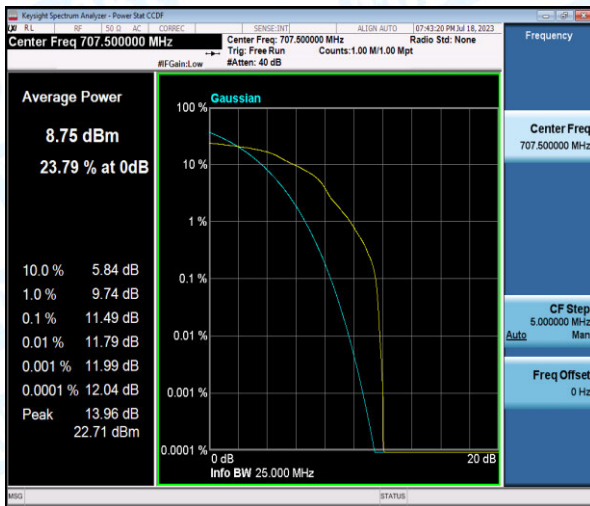
Band12-1.4MHz-QPSK-23173-1-0-High-8.53-<=13-PASS

Band12-1.4MHz-QPSK-23173-6-0-High-8.57-<=13-PASS



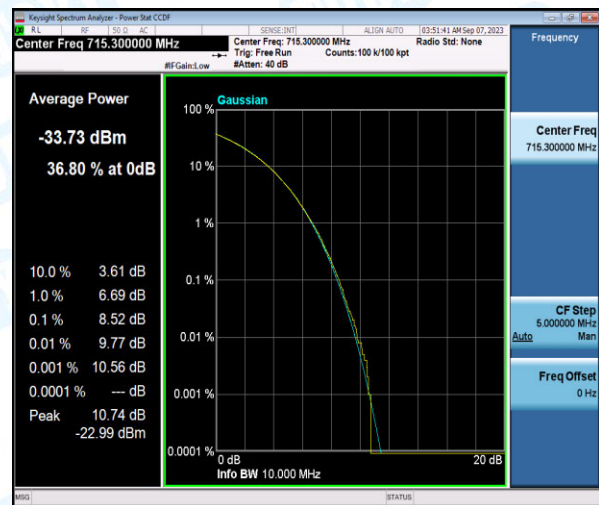
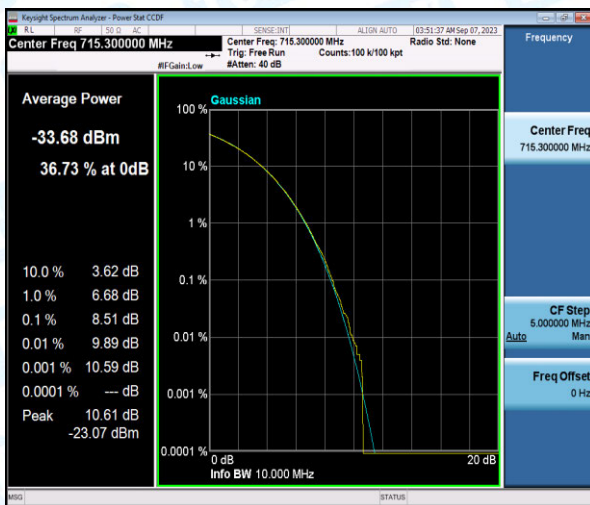
Band12-1.4MHz-16QAM-23017-1-0-Low-11.56-<=13-PASS

Band12-1.4MHz-16QAM-23017-6-0-Low-10.39-<=13-PASS



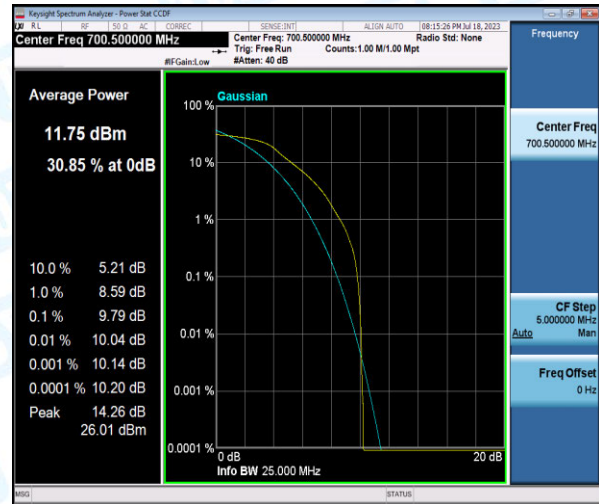
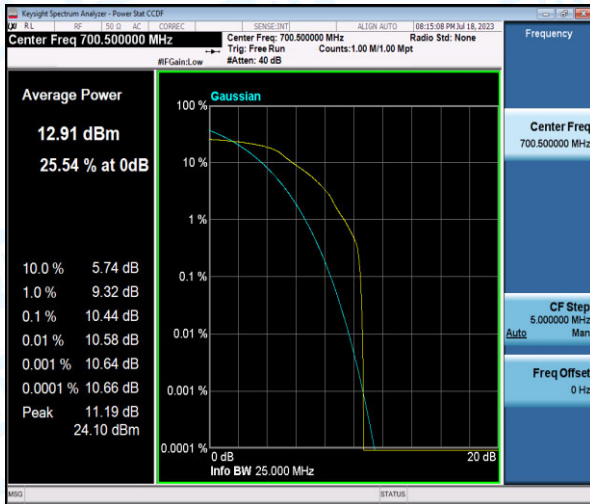
Band12-1.4MHz-16QAM-23095-1-0-Low-11.49-<=13-PASS

Band12-1.4MHz-16QAM-23095-6-0-Low-11.62-<=13-PASS



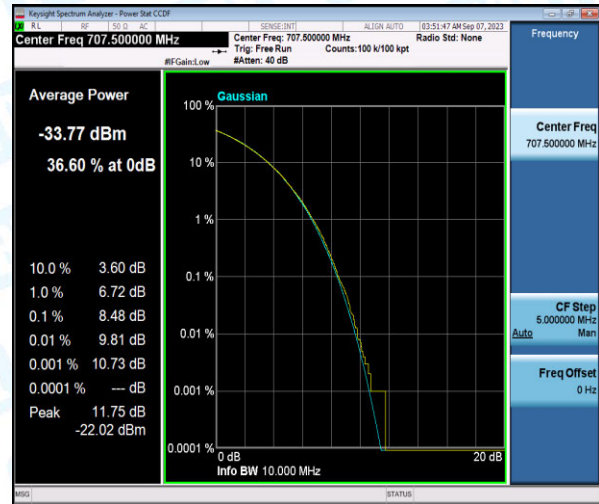
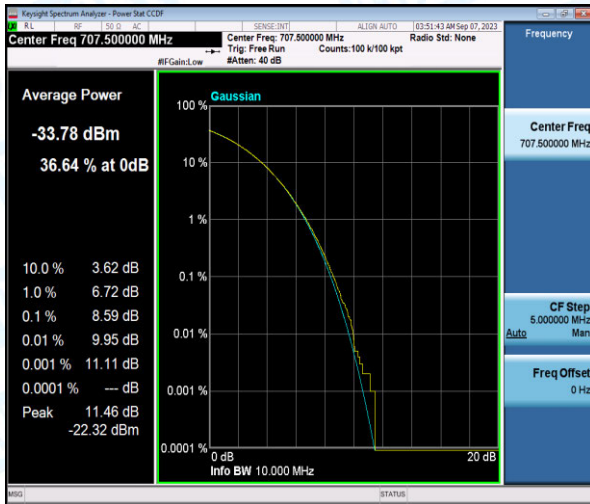
Band12-1.4MHz-16QAM-23173-1-0-High-8.51-<=13-PASS

Band12-1.4MHz-16QAM-23173-6-0-High-8.52-<=13-PASS



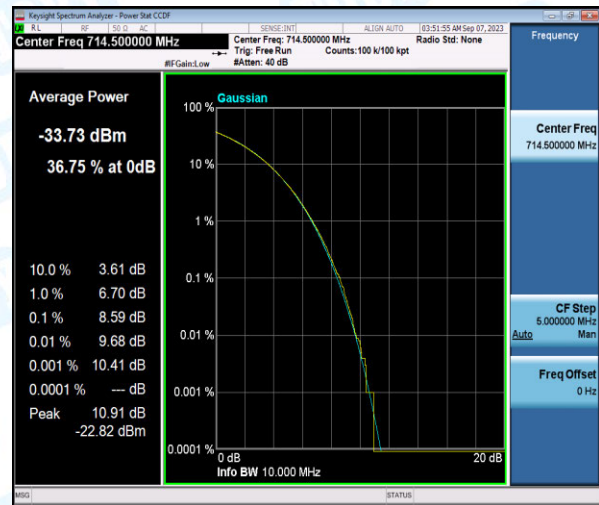
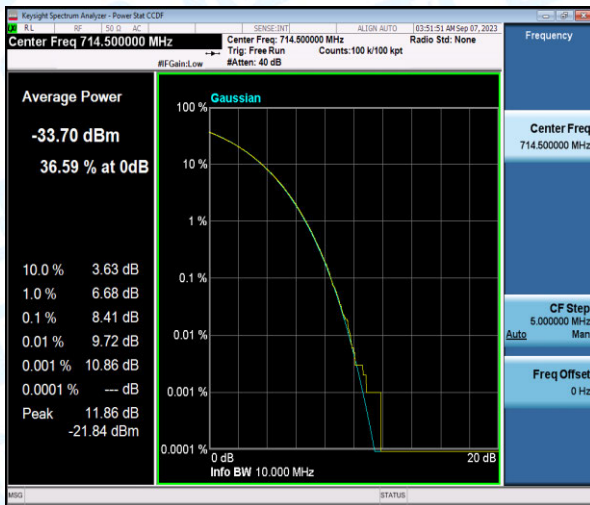
Band12-3MHz-QPSK-23025-1-0-Low-10.44-<=13-PASS

Band12-3MHz-QPSK-23025-6-0-Low-9.79-<=13-PASS



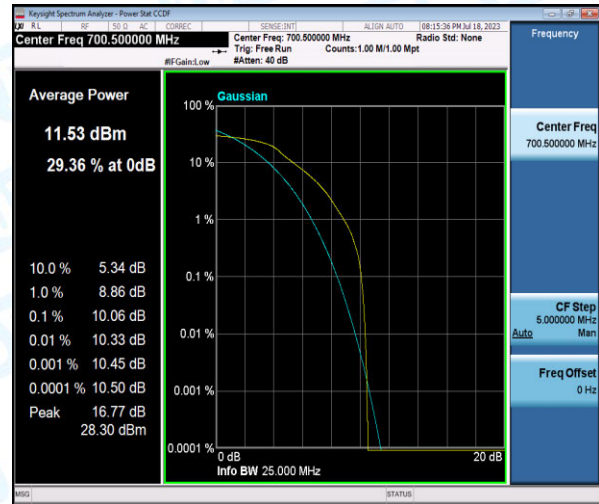
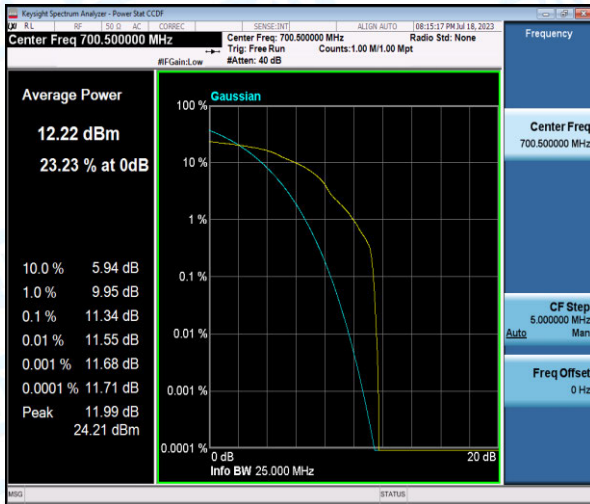
Band12-3MHz-QPSK-23095-1-0-Low-8.59-<=13-PASS

Band12-3MHz-QPSK-23095-6-0-Low-8.48-<=13-PASS



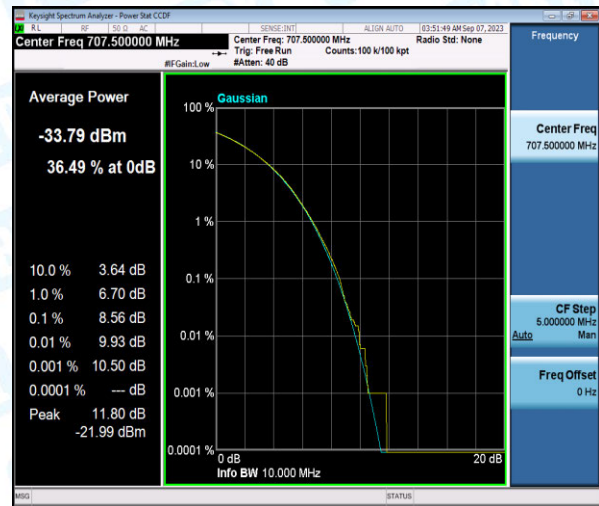
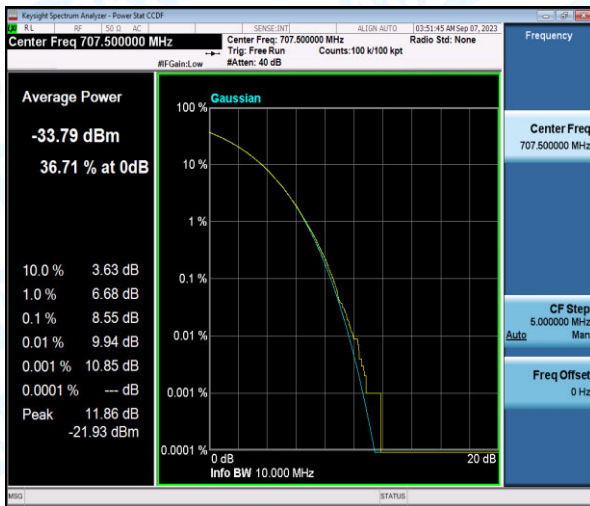
Band12-3MHz-QPSK-23165-1-0-High-8.41-<=13-PASS

Band12-3MHz-QPSK-23165-6-0-High-8.59-<=13-PASS



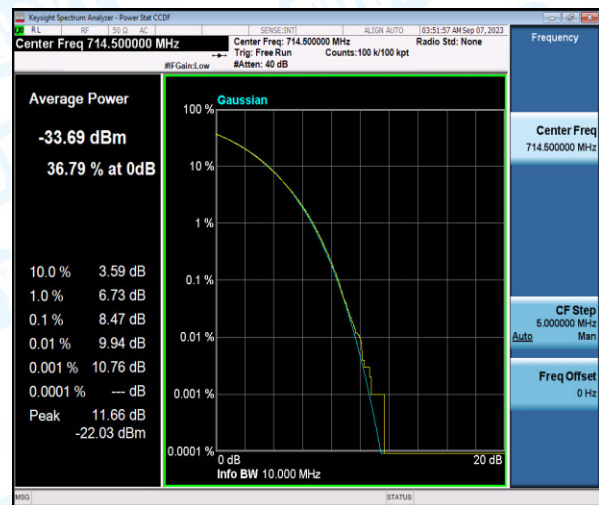
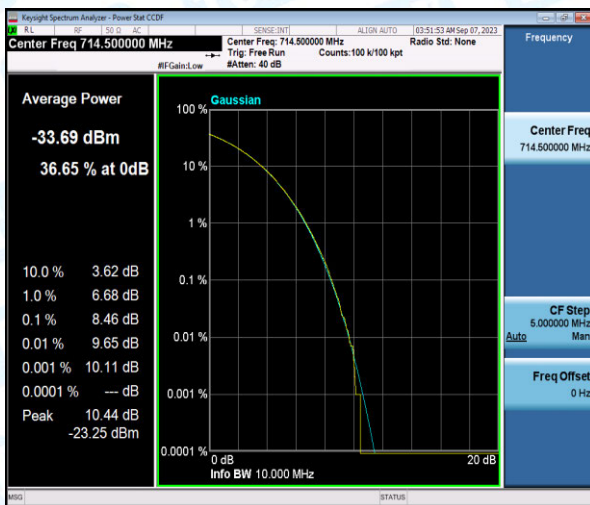
Band12-3MHz-16QAM-23025-1-0-Low-11.34-<=13-PASS

Band12-3MHz-16QAM-23025-6-0-Low-10.06-<=13-PASS



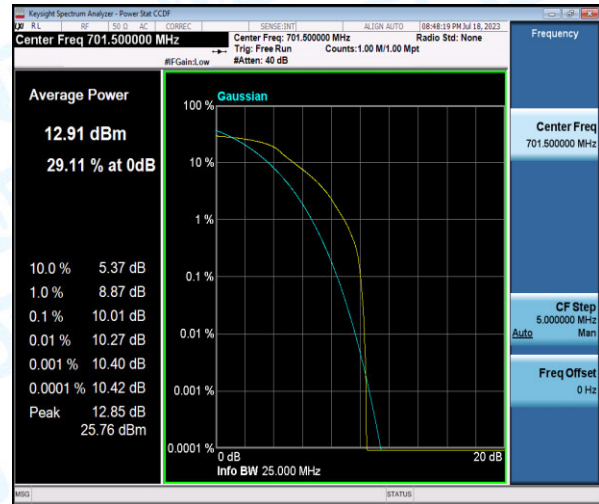
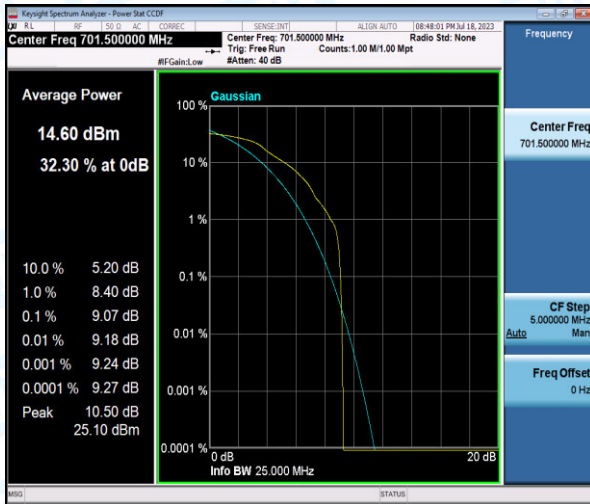
Band12-3MHz-16QAM-23095-1-0-Low-8.55-<=13-PASS

Band12-3MHz-16QAM-23095-6-0-Low-8.56-<=13-PASS



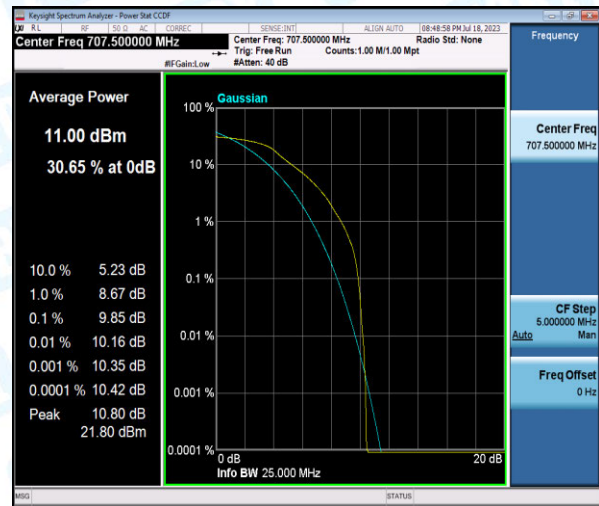
Band12-3MHz-16QAM-23165-1-0-High-8.46-<=13-PASS

Band12-3MHz-16QAM-23165-6-0-High-8.47-<=13-PASS



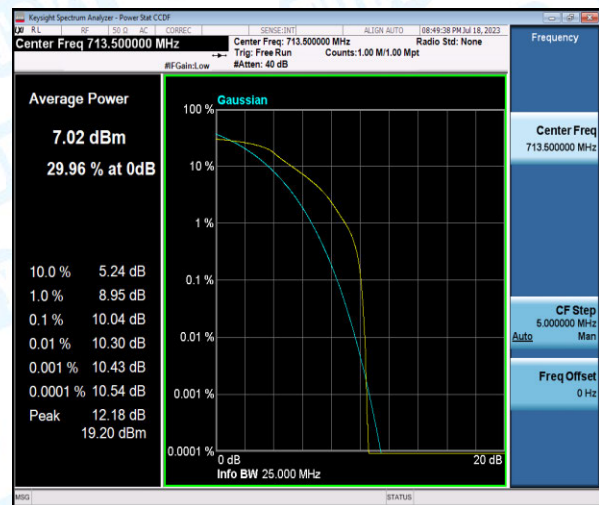
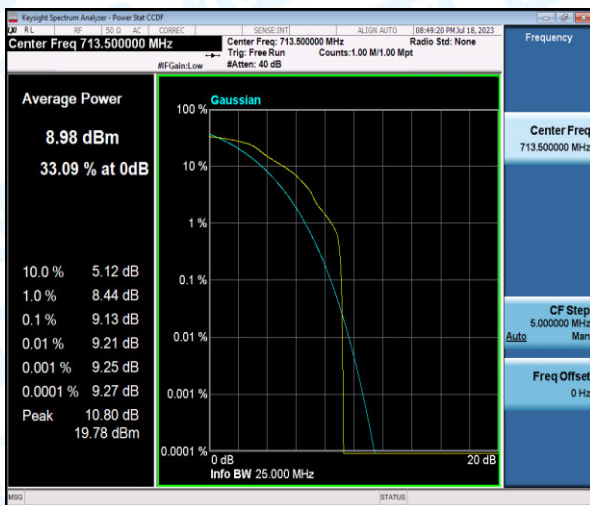
Band12-5MHz-QPSK-23035-1-0-Low-9.07-<=13-PASS

Band12-5MHz-QPSK-23035-6-0-Low-10.01-<=13-PASS



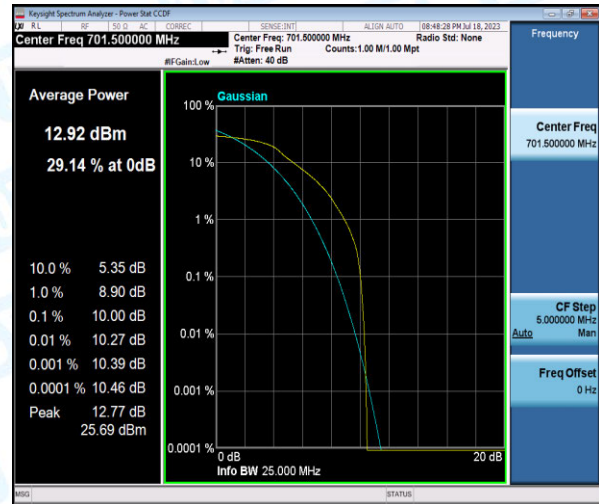
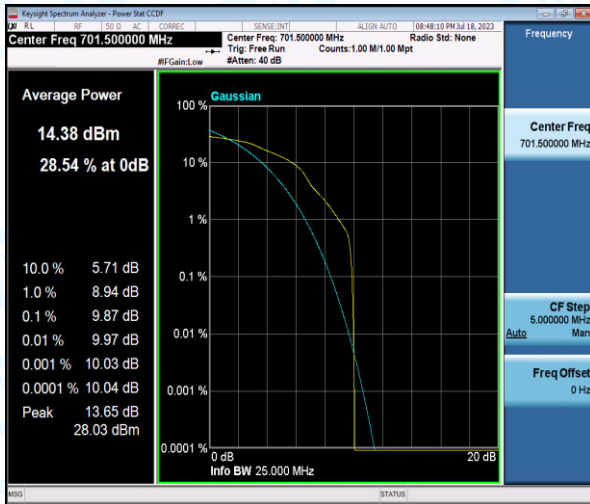
Band12-5MHz-QPSK-23095-1-0-Low-11.97-<=13-PASS

Band12-5MHz-QPSK-23095-6-0-Low-9.85-<=13-PASS



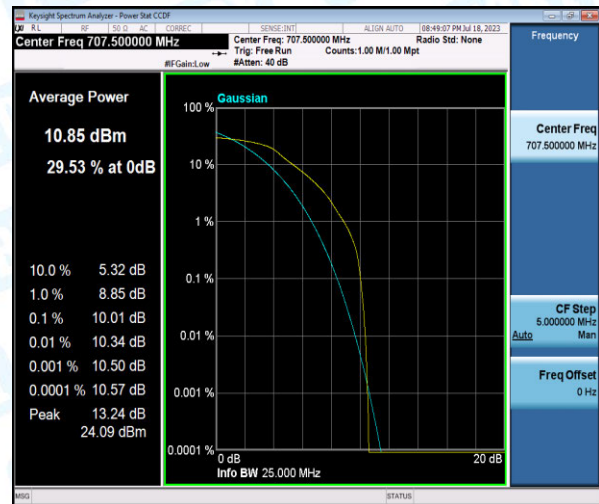
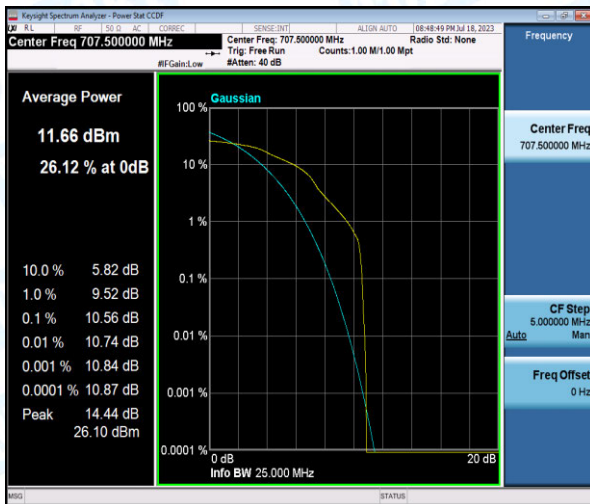
Band12-5MHz-QPSK-23155-1-0-High-9.13-<=13-PASS

Band12-5MHz-QPSK-23155-6-0-High-10.04-<=13-PASS



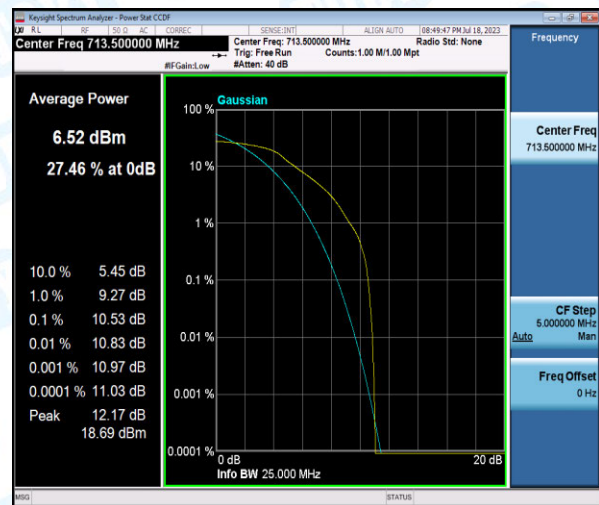
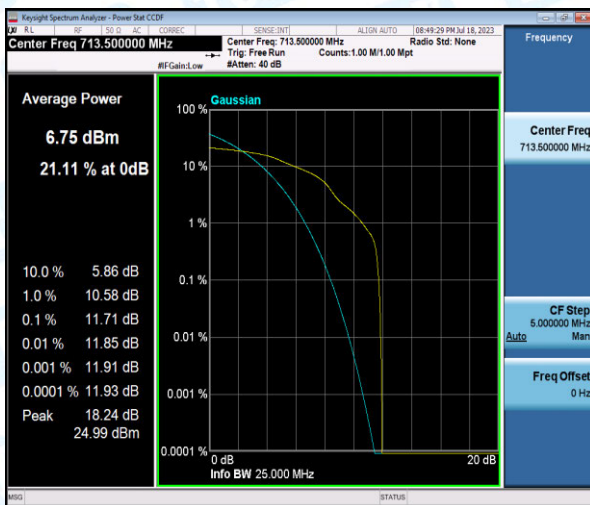
Band12-5MHz-16QAM-23035-1-0-Low-9.87-<=13-PASS

Band12-5MHz-16QAM-23035-6-0-Low-10.00-<=13-PASS



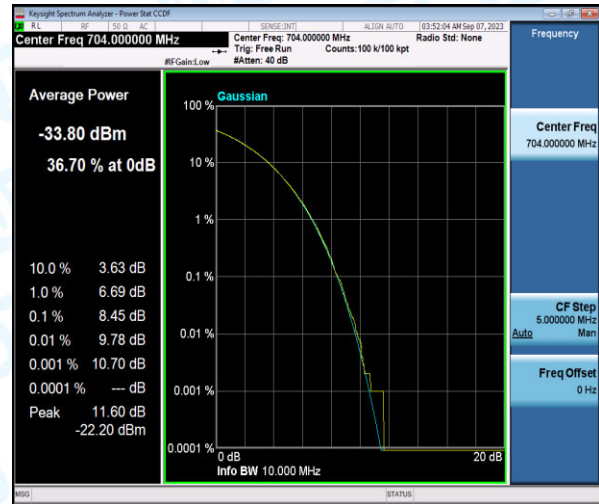
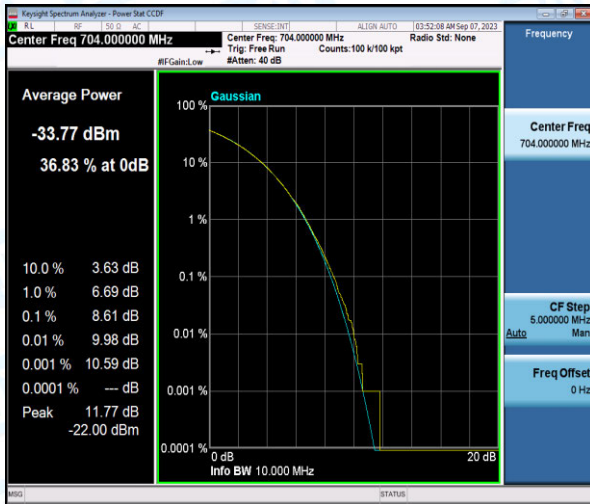
Band12-5MHz-16QAM-23095-1-0-Low-10.56-<=13-PASS

Band12-5MHz-16QAM-23095-6-0-Low-10.01-<=13-PASS



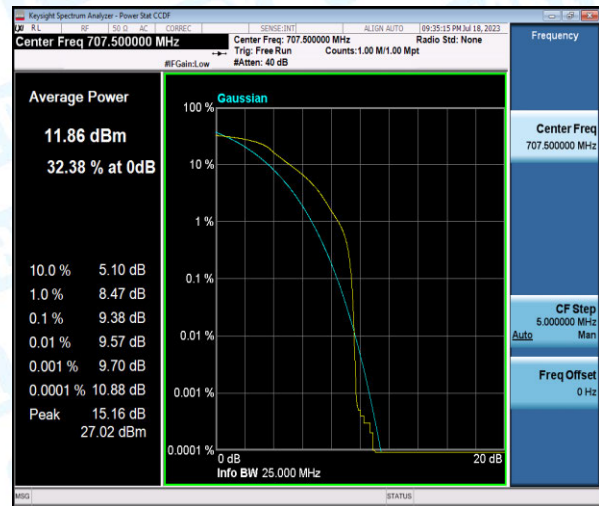
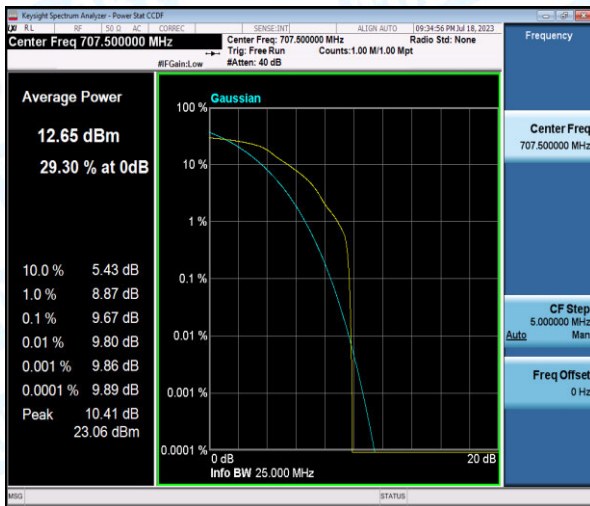
Band12-5MHz-16QAM-23155-1-0-High-11.71-<=13-PASS

Band12-5MHz-16QAM-23155-6-0-High-10.53-<=13-PASS



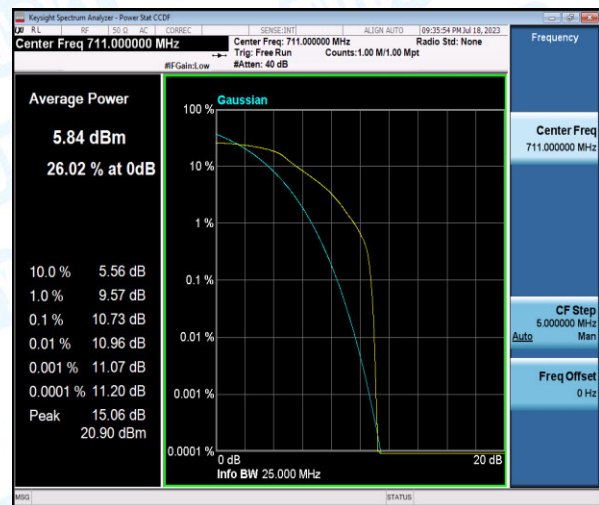
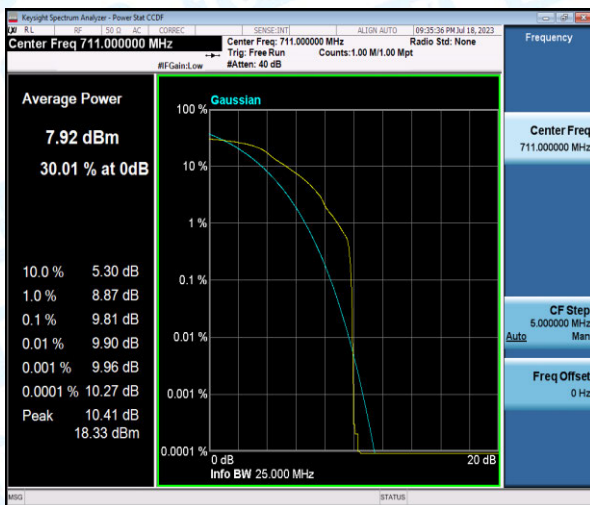
Band12-10MHz-QPSK-23060-1-0-Low-8.61-<=13-PASS

Band12-10MHz-QPSK-23060-6-0-Low-8.45-<=13-PASS



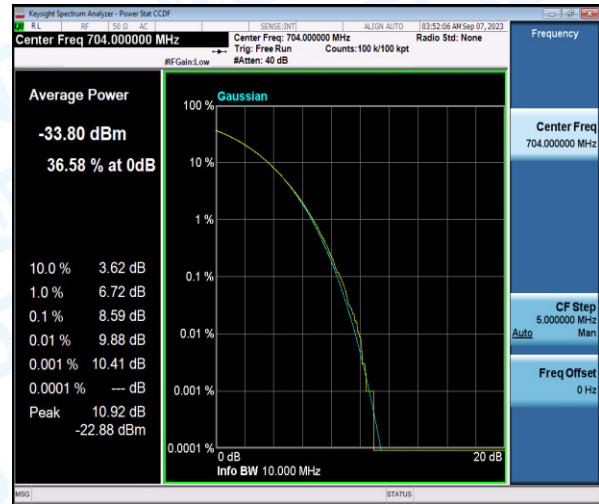
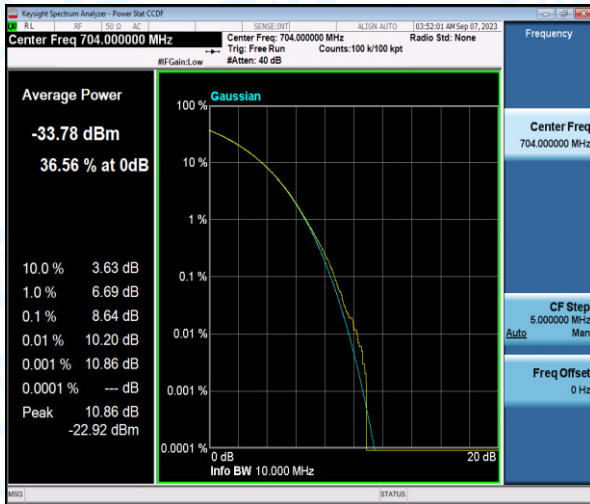
Band12-10MHz-QPSK-23095-1-0-Low-9.67-<=13-PASS

Band12-10MHz-QPSK-23095-6-0-Low-9.38-<=13-PASS



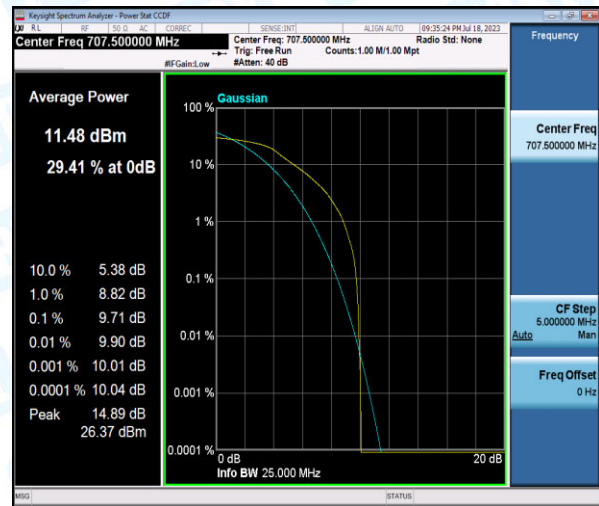
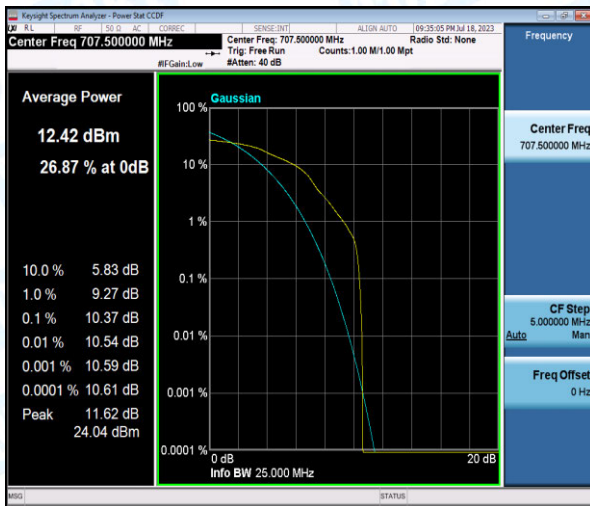
Band12-10MHz-QPSK-23130-1-0-High-9.81-<=13-PASS

Band12-10MHz-QPSK-23130-6-0-High-10.73-<=13-PASS



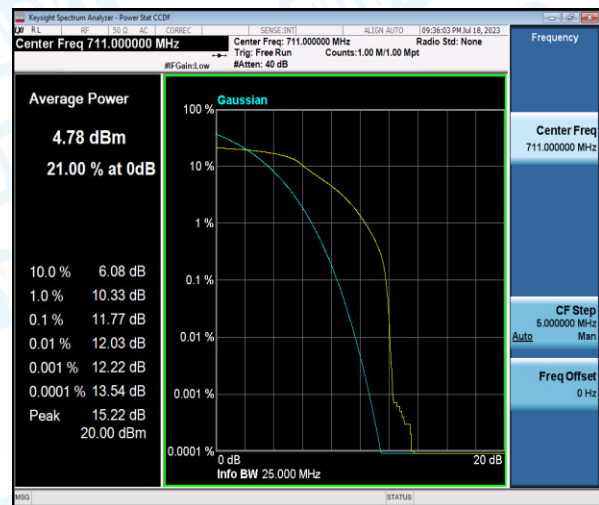
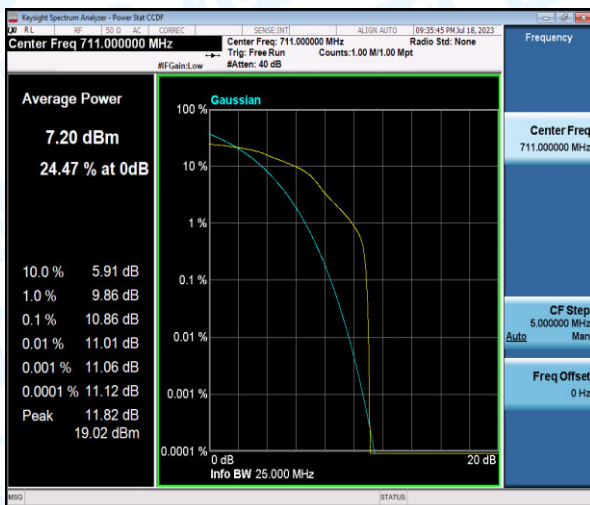
Band12-10MHz-16QAM-23060-1-0-Low-8.64-<=13-PASS

Band12-10MHz-16QAM-23060-6-0-Low-8.59-<=13-PASS



Band12-10MHz-16QAM-23095-1-0-Low-10.37-<=13-PASS

Band12-10MHz-16QAM-23095-6-0-Low-9.71-<=13-PASS



Band12-10MHz-16QAM-23130-1-0-High-10.86-<=13-PASS

Band12-10MHz-16QAM-23130-6-0-High-11.77-<=13-PASS

3. 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
Band12	1.4MHz	23017	QPSK	6	0	Low	1.1024	1.387	PASS
Band12	1.4MHz	23095	QPSK	6	0	Low	1.1055	1.345	PASS
Band12	1.4MHz	23173	QPSK	6	0	High	1.0973	1.304	PASS
Band12	1.4MHz	23017	16QAM	6	0	Low	1.1042	1.324	PASS
Band12	1.4MHz	23095	16QAM	6	0	Low	1.1028	1.348	PASS
Band12	1.4MHz	23173	16QAM	6	0	High	1.1016	1.305	PASS
Band12	3MHz	23025	QPSK	6	0	Low	1.1543	1.653	PASS
Band12	3MHz	23095	QPSK	6	0	Low	1.1562	1.932	PASS
Band12	3MHz	23165	QPSK	6	0	High	1.1493	1.607	PASS
Band12	3MHz	23025	16QAM	6	0	Low	1.1647	1.571	PASS
Band12	3MHz	23095	16QAM	6	0	Low	1.1534	1.733	PASS
Band12	3MHz	23165	16QAM	6	0	High	1.1452	1.571	PASS
Band12	5MHz	23035	QPSK	6	0	Low	1.2305	1.612	PASS
Band12	5MHz	23095	QPSK	6	0	Low	1.2271	1.597	PASS
Band12	5MHz	23155	QPSK	6	0	High	1.2193	1.635	PASS
Band12	5MHz	23035	16QAM	6	0	Low	1.2290	1.597	PASS
Band12	5MHz	23095	16QAM	6	0	Low	1.2319	1.591	PASS
Band12	5MHz	23155	16QAM	6	0	High	1.2225	1.635	PASS
Band12	10MHz	23060	QPSK	6	0	Low	1.7533	3.796	PASS
Band12	10MHz	23095	QPSK	6	0	Low	1.2311	1.598	PASS
Band12	10MHz	23130	QPSK	6	0	High	2.3354	4.387	PASS
Band12	10MHz	23060	16QAM	6	0	Low	1.8068	3.926	PASS
Band12	10MHz	23095	16QAM	6	0	Low	1.2313	1.506	PASS
Band12	10MHz	23130	16QAM	6	0	High	2.2583	4.286	PASS

Test Graphs



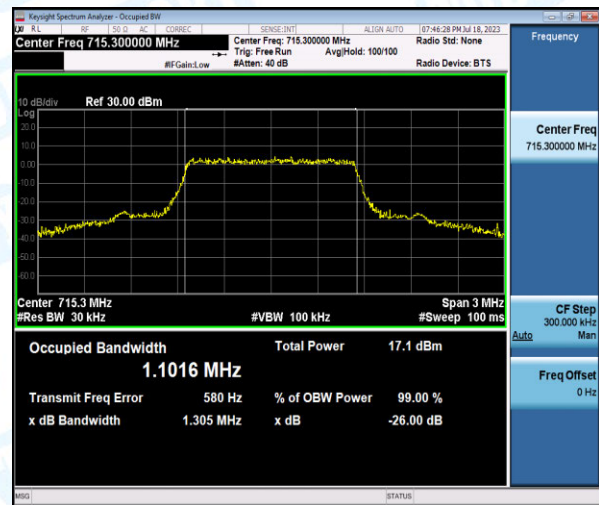
Band12-1.4MHz-QPSK-23017-6-0-Low-1.1024-1.387-PASS

Band12-1.4MHz-QPSK-23095-6-0-Low-1.1055-1.345-PASS



Band12-1.4MHz-QPSK-23173-6-0-High-1.0973-1.304-PASS

Band12-1.4MHz-16QAM-23017-6-0-Low-1.1042-1.324-PASS



Band12-1.4MHz-16QAM-23095-6-0-Low-1.1028-1.348-PASS

Band12-1.4MHz-16QAM-23173-6-0-High-1.1016-1.305-PASS