Test Data for E-UTRA Band 12

EUT： MDVR	**Model：** M51HV.TGWE-A-A
Ambient Condition: 25 ℃, 45 %RH, 101.325 kPa	
Test Engineer: Jack Zhou	

Contents

Appendix A: Effective (Isotropic) Radiated Power Output Data.....3
Test Result..... 3
Appendix B: Peak-to-Average Ratio(CCDF) 8
Test Result..... 8
Test Graphs..... 10
Appendix C: 26dB Bandwidth and Occupied Bandwidth 27
Test Result..... 27
Test Graphs..... 28
Appendix D: Band Edge 37
Test Result..... 37
Test Graphs..... 38
Appendix E: Conducted Spurious Emission..... 55
Test Result..... 55
Test Graphs..... 57
Appendix F: Frequency Stability 74
Test Result..... 74
Appendix G: Modulation Characteristics..... 84
Test Result..... 84
Test Graphs..... 85

Appendix A: Effective (Isotropic) Radiated Power Output Data

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	ERP(dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	23.55	20.50	PASS
Band12	1.4MHz	QPSK	23017	1RB#2	23.90	20.85	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	23.49	20.44	PASS
Band12	1.4MHz	QPSK	23017	3RB#0	23.61	20.56	PASS
Band12	1.4MHz	QPSK	23017	3RB#1	23.72	20.67	PASS
Band12	1.4MHz	QPSK	23017	3RB#3	**24.05**	**21.00**	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	22.59	19.54	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	23.55	20.50	PASS
Band12	1.4MHz	QPSK	23095	1RB#2	23.56	20.51	PASS
Band12	1.4MHz	QPSK	23095	1RB#5	23.64	20.59	PASS
Band12	1.4MHz	QPSK	23095	3RB#0	23.50	20.45	PASS
Band12	1.4MHz	QPSK	23095	3RB#1	23.57	20.52	PASS
Band12	1.4MHz	QPSK	23095	3RB#3	23.57	20.52	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	22.61	19.56	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	23.21	20.16	PASS
Band12	1.4MHz	QPSK	23173	1RB#2	23.24	20.19	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	23.13	20.08	PASS
Band12	1.4MHz	QPSK	23173	3RB#0	23.03	19.98	PASS
Band12	1.4MHz	QPSK	23173	3RB#1	23.02	19.97	PASS
Band12	1.4MHz	QPSK	23173	3RB#3	22.92	19.87	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	22.01	18.96	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	22.52	19.47	PASS
Band12	1.4MHz	16QAM	23017	1RB#2	22.90	19.85	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	22.70	19.65	PASS
Band12	1.4MHz	16QAM	23017	3RB#0	22.56	19.51	PASS
Band12	1.4MHz	16QAM	23017	3RB#1	22.48	19.43	PASS
Band12	1.4MHz	16QAM	23017	3RB#3	22.47	19.42	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	21.60	18.55	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	22.53	19.48	PASS
Band12	1.4MHz	16QAM	23095	1RB#2	22.85	19.80	PASS
Band12	1.4MHz	16QAM	23095	1RB#5	22.78	19.73	PASS

Band12	1.4MHz	16QAM	23095	3RB#0	22.40	19.35	PASS
Band12	1.4MHz	16QAM	23095	3RB#1	22.47	19.42	PASS
Band12	1.4MHz	16QAM	23095	3RB#3	22.43	19.38	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	21.67	18.62	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	22.15	19.10	PASS
Band12	1.4MHz	16QAM	23173	1RB#2	22.49	19.44	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	22.18	19.13	PASS
Band12	1.4MHz	16QAM	23173	3RB#0	21.91	18.86	PASS
Band12	1.4MHz	16QAM	23173	3RB#1	21.90	18.85	PASS
Band12	1.4MHz	16QAM	23173	3RB#3	21.89	18.84	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	21.12	18.07	PASS
Band12	3MHz	QPSK	23025	1RB#0	23.48	20.43	PASS
Band12	3MHz	QPSK	23025	1RB#8	23.39	20.34	PASS
Band12	3MHz	QPSK	23025	1RB#14	23.30	20.25	PASS
Band12	3MHz	QPSK	23025	8RB#0	22.50	19.45	PASS
Band12	3MHz	QPSK	23025	8RB#4	22.50	19.45	PASS
Band12	3MHz	QPSK	23025	8RB#7	22.43	19.38	PASS
Band12	3MHz	QPSK	23025	15RB#0	22.46	19.41	PASS
Band12	3MHz	QPSK	23095	1RB#0	23.33	20.28	PASS
Band12	3MHz	QPSK	23095	1RB#8	23.30	20.25	PASS
Band12	3MHz	QPSK	23095	1RB#14	23.36	20.31	PASS
Band12	3MHz	QPSK	23095	8RB#0	22.45	19.40	PASS
Band12	3MHz	QPSK	23095	8RB#4	22.46	19.41	PASS
Band12	3MHz	QPSK	23095	8RB#7	22.59	19.54	PASS
Band12	3MHz	QPSK	23095	15RB#0	22.47	19.42	PASS
Band12	3MHz	QPSK	23165	1RB#0	23.26	20.21	PASS
Band12	3MHz	QPSK	23165	1RB#8	22.96	19.91	PASS
Band12	3MHz	QPSK	23165	1RB#14	22.97	19.92	PASS
Band12	3MHz	QPSK	23165	8RB#0	22.16	19.11	PASS
Band12	3MHz	QPSK	23165	8RB#4	22.15	19.10	PASS
Band12	3MHz	QPSK	23165	8RB#7	22.01	18.96	PASS
Band12	3MHz	QPSK	23165	15RB#0	22.06	19.01	PASS
Band12	3MHz	16QAM	23025	1RB#0	22.32	19.27	PASS
Band12	3MHz	16QAM	23025	1RB#8	22.70	19.65	PASS
Band12	3MHz	16QAM	23025	1RB#14	22.33	19.28	PASS
Band12	3MHz	16QAM	23025	8RB#0	21.24	18.19	PASS
Band12	3MHz	16QAM	23025	8RB#4	21.23	18.18	PASS

Band12	3MHz	16QAM	23025	8RB#7	21.60	18.55	PASS
Band12	3MHz	16QAM	23025	15RB#0	21.51	18.46	PASS
Band12	3MHz	16QAM	23095	1RB#0	22.16	19.11	PASS
Band12	3MHz	16QAM	23095	1RB#8	22.58	19.53	PASS
Band12	3MHz	16QAM	23095	1RB#14	22.47	19.42	PASS
Band12	3MHz	16QAM	23095	8RB#0	21.65	18.60	PASS
Band12	3MHz	16QAM	23095	8RB#4	21.50	18.45	PASS
Band12	3MHz	16QAM	23095	8RB#7	21.44	18.39	PASS
Band12	3MHz	16QAM	23095	15RB#0	21.51	18.46	PASS
Band12	3MHz	16QAM	23165	1RB#0	22.31	19.26	PASS
Band12	3MHz	16QAM	23165	1RB#8	21.83	18.78	PASS
Band12	3MHz	16QAM	23165	1RB#14	21.85	18.80	PASS
Band12	3MHz	16QAM	23165	8RB#0	21.16	18.11	PASS
Band12	3MHz	16QAM	23165	8RB#4	21.15	18.10	PASS
Band12	3MHz	16QAM	23165	8RB#7	21.28	18.23	PASS
Band12	3MHz	16QAM	23165	15RB#0	21.23	18.18	PASS
Band12	5MHz	QPSK	23035	1RB#0	23.54	20.49	PASS
Band12	5MHz	QPSK	23035	1RB#12	23.46	20.41	PASS
Band12	5MHz	QPSK	23035	1RB#24	23.16	20.11	PASS
Band12	5MHz	QPSK	23035	12RB#0	22.48	19.43	PASS
Band12	5MHz	QPSK	23035	12RB#6	22.36	19.31	PASS
Band12	5MHz	QPSK	23035	12RB#13	22.15	19.10	PASS
Band12	5MHz	QPSK	23035	25RB#0	22.34	19.29	PASS
Band12	5MHz	QPSK	23095	1RB#0	23.41	20.36	PASS
Band12	5MHz	QPSK	23095	1RB#12	23.67	20.62	PASS
Band12	5MHz	QPSK	23095	1RB#24	23.47	20.42	PASS
Band12	5MHz	QPSK	23095	12RB#0	22.39	19.34	PASS
Band12	5MHz	QPSK	23095	12RB#6	22.49	19.44	PASS
Band12	5MHz	QPSK	23095	12RB#13	22.53	19.48	PASS
Band12	5MHz	QPSK	23095	25RB#0	22.51	19.46	PASS
Band12	5MHz	QPSK	23155	1RB#0	23.47	20.42	PASS
Band12	5MHz	QPSK	23155	1RB#12	23.15	20.10	PASS
Band12	5MHz	QPSK	23155	1RB#24	22.85	19.80	PASS
Band12	5MHz	QPSK	23155	12RB#0	22.30	19.25	PASS
Band12	5MHz	QPSK	23155	12RB#6	22.40	19.35	PASS
Band12	5MHz	QPSK	23155	12RB#13	22.02	18.97	PASS
Band12	5MHz	QPSK	23155	25RB#0	22.16	19.11	PASS

Band12	5MHz	16QAM	23035	1RB#0	22.00	18.95	PASS
Band12	5MHz	16QAM	23035	1RB#12	22.45	19.40	PASS
Band12	5MHz	16QAM	23035	1RB#24	22.34	19.29	PASS
Band12	5MHz	16QAM	23035	12RB#0	21.41	18.36	PASS
Band12	5MHz	16QAM	23035	12RB#6	21.51	18.46	PASS
Band12	5MHz	16QAM	23035	12RB#13	21.31	18.26	PASS
Band12	5MHz	16QAM	23035	25RB#0	21.51	18.46	PASS
Band12	5MHz	16QAM	23095	1RB#0	22.43	19.38	PASS
Band12	5MHz	16QAM	23095	1RB#12	22.57	19.52	PASS
Band12	5MHz	16QAM	23095	1RB#24	22.24	19.19	PASS
Band12	5MHz	16QAM	23095	12RB#0	21.62	18.57	PASS
Band12	5MHz	16QAM	23095	12RB#6	21.61	18.56	PASS
Band12	5MHz	16QAM	23095	12RB#13	21.53	18.48	PASS
Band12	5MHz	16QAM	23095	25RB#0	21.53	18.48	PASS
Band12	5MHz	16QAM	23155	1RB#0	21.80	18.75	PASS
Band12	5MHz	16QAM	23155	1RB#12	21.92	18.87	PASS
Band12	5MHz	16QAM	23155	1RB#24	21.68	18.63	PASS
Band12	5MHz	16QAM	23155	12RB#0	21.34	18.29	PASS
Band12	5MHz	16QAM	23155	12RB#6	21.43	18.38	PASS
Band12	5MHz	16QAM	23155	12RB#13	21.07	18.02	PASS
Band12	5MHz	16QAM	23155	25RB#0	21.32	18.27	PASS
Band12	10MHz	QPSK	23060	1RB#0	23.43	20.38	PASS
Band12	10MHz	QPSK	23060	1RB#24	23.23	20.18	PASS
Band12	10MHz	QPSK	23060	1RB#49	23.41	20.36	PASS
Band12	10MHz	QPSK	23060	25RB#0	22.43	19.38	PASS
Band12	10MHz	QPSK	23060	25RB#12	22.42	19.37	PASS
Band12	10MHz	QPSK	23060	25RB#25	22.56	19.51	PASS
Band12	10MHz	QPSK	23060	50RB#0	22.48	19.43	PASS
Band12	10MHz	QPSK	23095	1RB#0	23.04	19.99	PASS
Band12	10MHz	QPSK	23095	1RB#24	23.87	20.82	PASS
Band12	10MHz	QPSK	23095	1RB#49	23.39	20.34	PASS
Band12	10MHz	QPSK	23095	25RB#0	22.49	19.44	PASS
Band12	10MHz	QPSK	23095	25RB#12	22.37	19.32	PASS
Band12	10MHz	QPSK	23095	25RB#25	22.52	19.47	PASS
Band12	10MHz	QPSK	23095	50RB#0	22.43	19.38	PASS
Band12	10MHz	QPSK	23130	1RB#0	23.41	20.36	PASS
Band12	10MHz	QPSK	23130	1RB#24	23.62	20.57	PASS

Band12	10MHz	QPSK	23130	1RB#49	22.95	19.90	PASS
Band12	10MHz	QPSK	23130	25RB#0	22.67	19.62	PASS
Band12	10MHz	QPSK	23130	25RB#12	22.67	19.62	PASS
Band12	10MHz	QPSK	23130	25RB#25	22.31	19.26	PASS
Band12	10MHz	QPSK	23130	50RB#0	22.42	19.37	PASS
Band12	10MHz	16QAM	23060	1RB#0	22.43	19.38	PASS
Band12	10MHz	16QAM	23060	1RB#24	22.38	19.33	PASS
Band12	10MHz	16QAM	23060	1RB#49	22.48	19.43	PASS
Band12	10MHz	16QAM	23060	25RB#0	21.47	18.42	PASS
Band12	10MHz	16QAM	23060	25RB#12	21.35	18.30	PASS
Band12	10MHz	16QAM	23060	25RB#25	21.59	18.54	PASS
Band12	10MHz	16QAM	23060	50RB#0	21.42	18.37	PASS
Band12	10MHz	16QAM	23095	1RB#0	22.34	19.29	PASS
Band12	10MHz	16QAM	23095	1RB#24	23.22	20.17	PASS
Band12	10MHz	16QAM	23095	1RB#49	22.25	19.20	PASS
Band12	10MHz	16QAM	23095	25RB#0	21.57	18.52	PASS
Band12	10MHz	16QAM	23095	25RB#12	21.56	18.51	PASS
Band12	10MHz	16QAM	23095	25RB#25	21.47	18.42	PASS
Band12	10MHz	16QAM	23095	50RB#0	21.50	18.45	PASS
Band12	10MHz	16QAM	23130	1RB#0	22.59	19.54	PASS
Band12	10MHz	16QAM	23130	1RB#24	23.01	19.96	PASS
Band12	10MHz	16QAM	23130	1RB#49	21.92	18.87	PASS
Band12	10MHz	16QAM	23130	25RB#0	21.69	18.64	PASS
Band12	10MHz	16QAM	23130	25RB#12	21.78	18.73	PASS
Band12	10MHz	16QAM	23130	25RB#25	21.23	18.18	PASS
Band12	10MHz	16QAM	23130	50RB#0	21.37	18.32	PASS

Appendix B: Peak-to-Average Ratio(CCDF)

Test Result

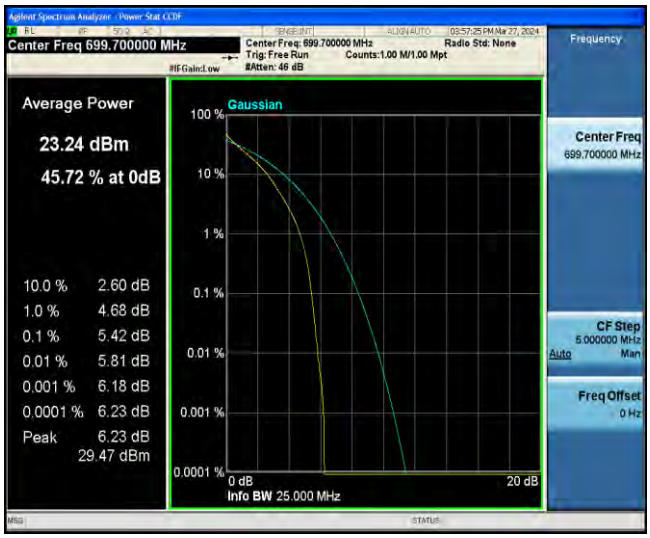
Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dB)	Limit(dB)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	4.79	13	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	5.42	13	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	4.43	13	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	5.28	13	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	4.17	13	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	4.93	13	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	5.71	13	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	6.20	13	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	5.41	13	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	6.13	13	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	5.16	13	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	5.77	13	PASS
Band12	3MHz	QPSK	23025	1RB#0	4.78	13	PASS
Band12	3MHz	QPSK	23025	15RB#0	5.31	13	PASS
Band12	3MHz	QPSK	23095	1RB#0	4.33	13	PASS
Band12	3MHz	QPSK	23095	15RB#0	5.35	13	PASS
Band12	3MHz	QPSK	23165	1RB#0	4.39	13	PASS
Band12	3MHz	QPSK	23165	15RB#0	5.09	13	PASS
Band12	3MHz	16QAM	23025	1RB#0	5.66	13	PASS
Band12	3MHz	16QAM	23025	15RB#0	6.14	13	PASS
Band12	3MHz	16QAM	23095	1RB#0	5.28	13	PASS
Band12	3MHz	16QAM	23095	15RB#0	6.17	13	PASS
Band12	3MHz	16QAM	23165	1RB#0	5.44	13	PASS
Band12	3MHz	16QAM	23165	15RB#0	5.93	13	PASS
Band12	5MHz	QPSK	23035	1RB#0	4.71	13	PASS
Band12	5MHz	QPSK	23035	25RB#0	5.07	13	PASS
Band12	5MHz	QPSK	23095	1RB#0	4.18	13	PASS
Band12	5MHz	QPSK	23095	25RB#0	5.34	13	PASS
Band12	5MHz	QPSK	23155	1RB#0	4.77	13	PASS
Band12	5MHz	QPSK	23155	25RB#0	5.12	13	PASS
Band12	5MHz	16QAM	23035	1RB#0	5.65	13	PASS
Band12	5MHz	16QAM	23035	25RB#0	5.88	13	PASS
Band12	5MHz	16QAM	23095	1RB#0	5.14	13	PASS
Band12	5MHz	16QAM	23095	25RB#0	6.14	13	PASS
Band12	5MHz	16QAM	23155	1RB#0	5.59	13	PASS

Band12	5MHz	16QAM	23155	25RB#0	5.96	13	PASS
Band12	10MHz	QPSK	23060	1RB#0	4.69	13	PASS
Band12	10MHz	QPSK	23060	50RB#0	5.18	13	PASS
Band12	10MHz	QPSK	23095	1RB#0	4.17	13	PASS
Band12	10MHz	QPSK	23095	50RB#0	5.39	13	PASS
Band12	10MHz	QPSK	23130	1RB#0	4.29	13	PASS
Band12	10MHz	QPSK	23130	50RB#0	5.16	13	PASS
Band12	10MHz	16QAM	23060	1RB#0	5.55	13	PASS
Band12	10MHz	16QAM	23060	50RB#0	5.96	13	PASS
Band12	10MHz	16QAM	23095	1RB#0	5.01	13	PASS
Band12	10MHz	16QAM	23095	50RB#0	6.18	13	PASS
Band12	10MHz	16QAM	23130	1RB#0	5.17	13	PASS
Band12	10MHz	16QAM	23130	50RB#0	6.05	13	PASS

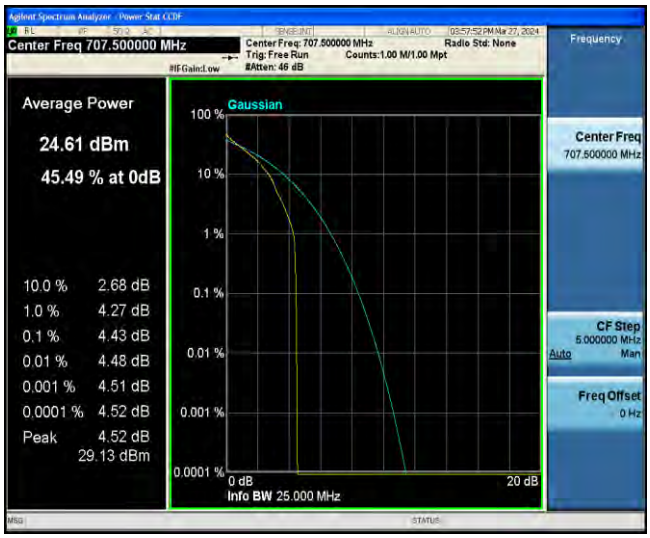
Test Graphs

Band12-1.4MHz-QPSK-23017-1RB#0

Band12-1.4MHz-QPSK-23017-6RB#0

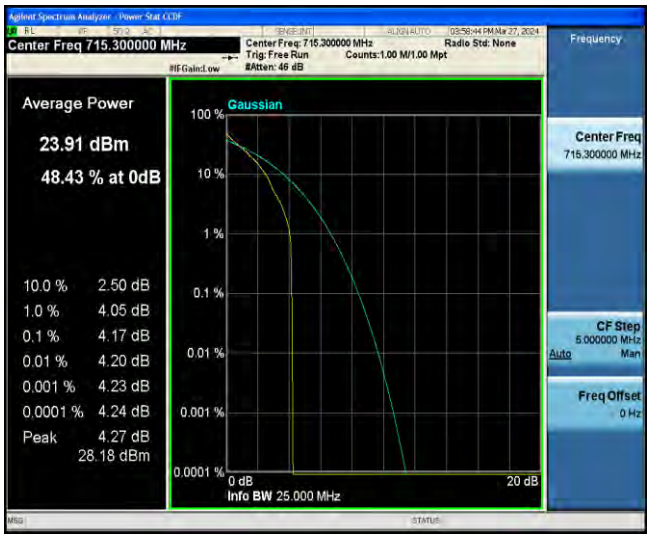


Band12-1.4MHz-QPSK-23095-1RB#0

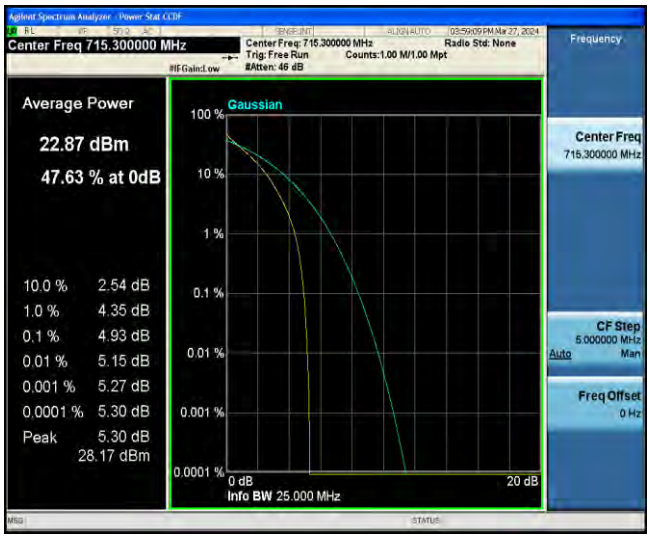


Band12-1.4MHz-QPSK-23095-6RB#0

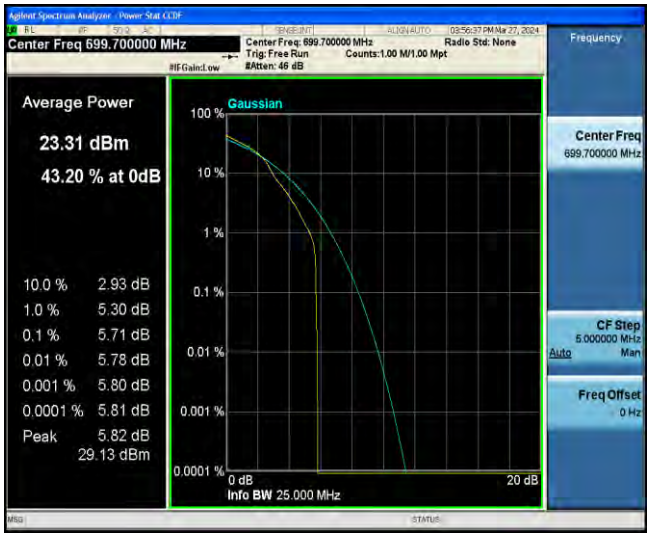
Band12-1.4MHz-QPSK-23173-1RB#0



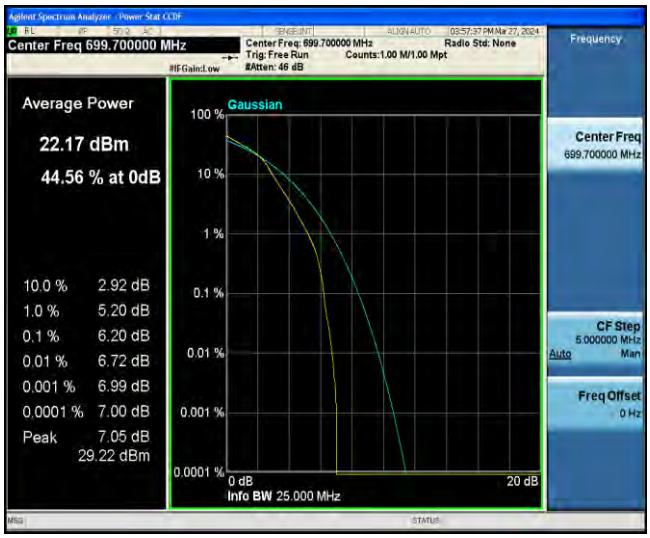
Band12-1.4MHz-QPSK-23173-6RB#0



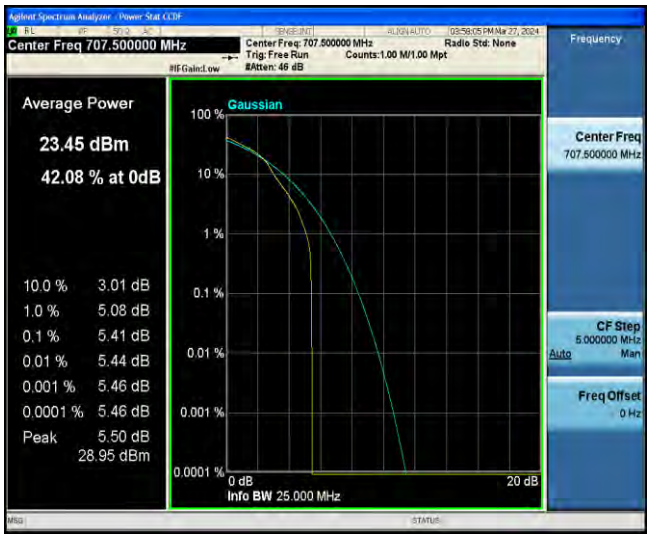
Band12-1.4MHz-16QAM-23017-1RB#0



Band12-1.4MHz-16QAM-23017-6RB#0

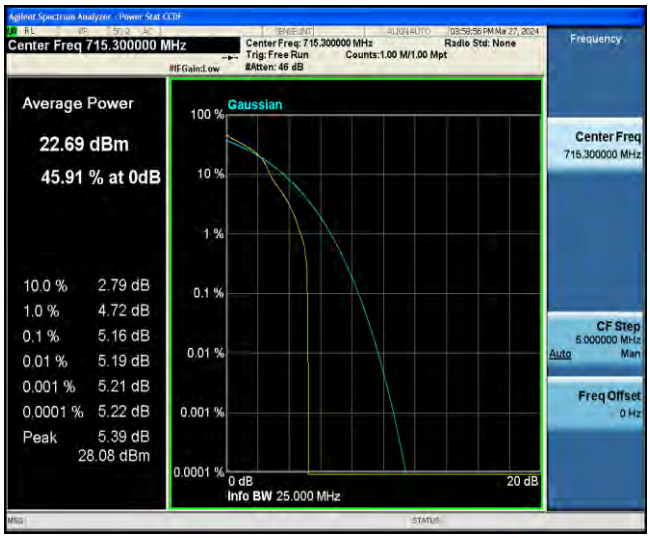


Band12-1.4MHz-16QAM-23095-1RB#0

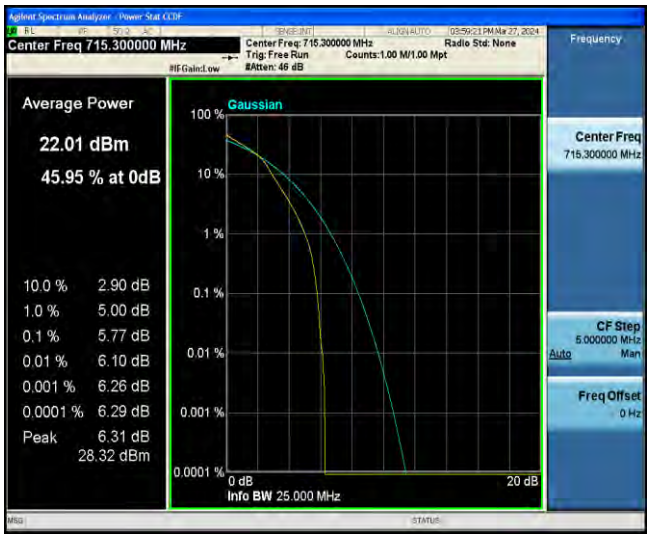


Band12-1.4MHz-16QAM-23095-6RB#0

Band12-1.4MHz-16QAM-23173-1RB#0

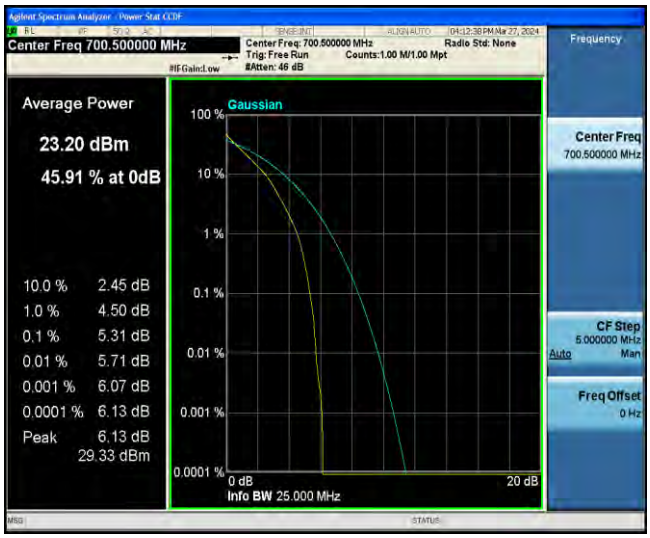


Band12-1.4MHz-16QAM-23173-6RB#0

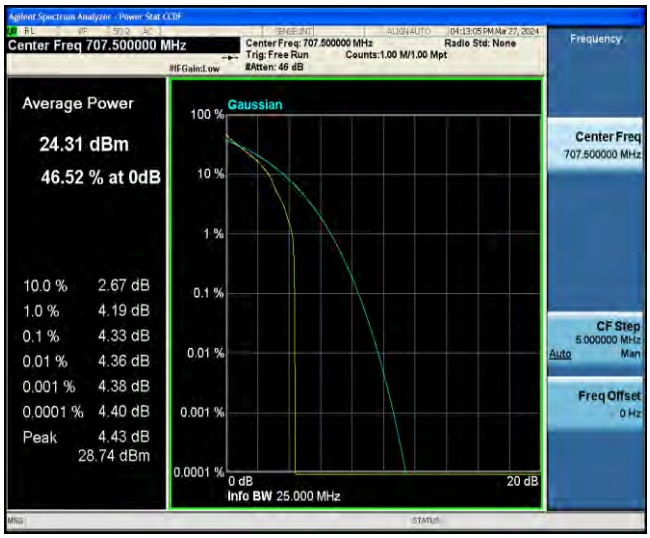


Band12-3MHz-QPSK-23025-1RB#0

Band12-3MHz-QPSK-23025-15RB#0

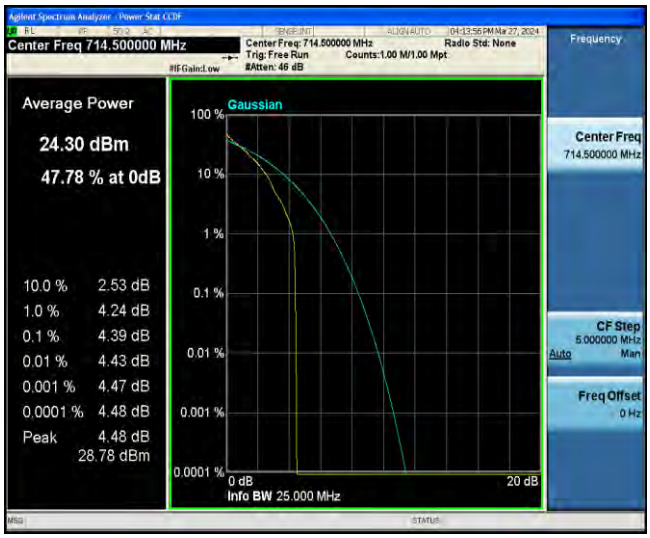


Band12-3MHz-QPSK-23095-1RB#0



Band12-3MHz-QPSK-23095-15RB#0

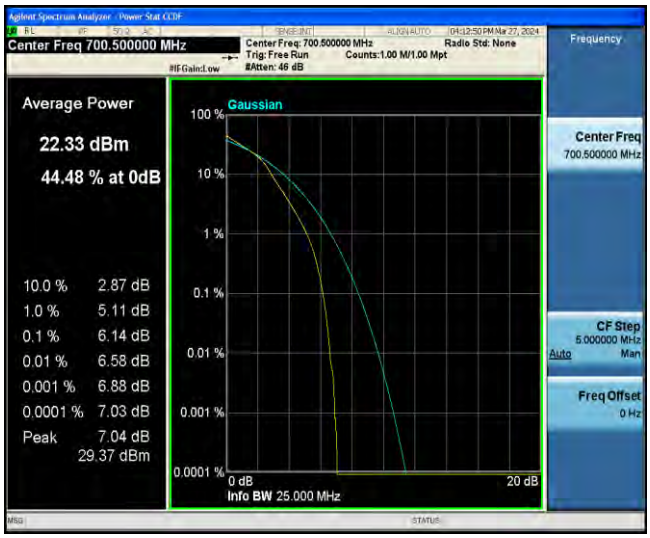
Band12-3MHz-QPSK-23165-1RB#0



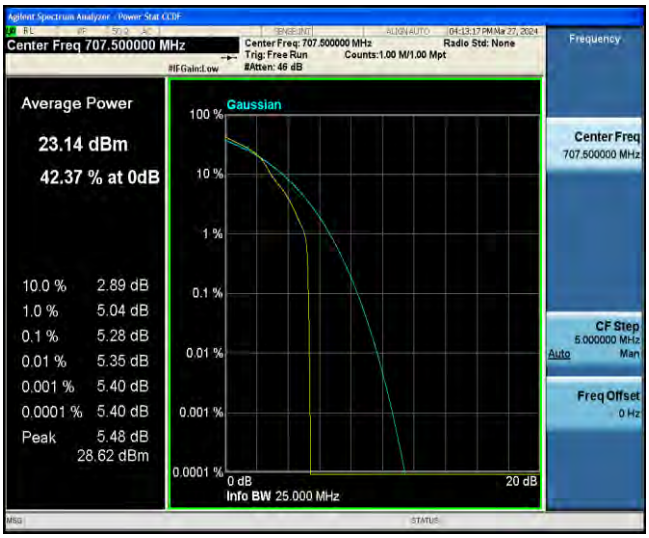
Band12-3MHz-QPSK-23165-15RB#0

Band12-3MHz-16QAM-23025-1RB#0

Band12-3MHz-16QAM-23025-15RB#0

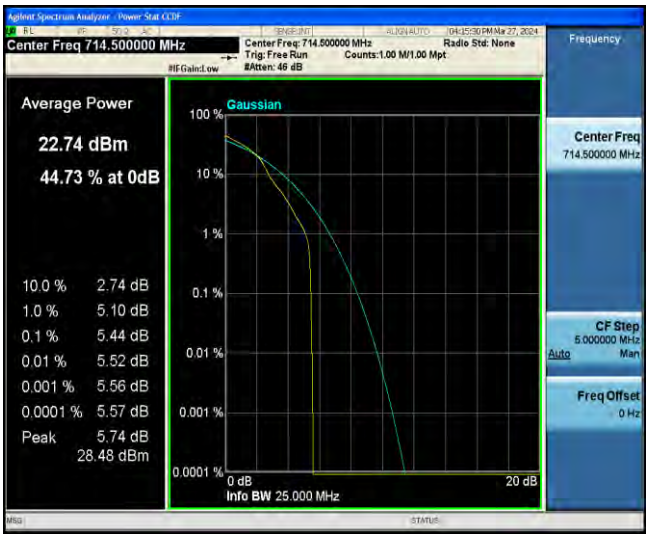


Band12-3MHz-16QAM-23095-1RB#0

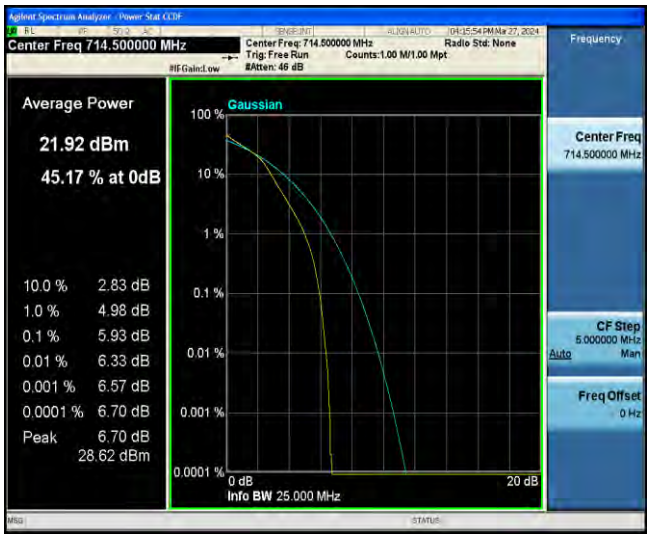


Band12-3MHz-16QAM-23095-15RB#0

Band12-3MHz-16QAM-23165-1RB#0



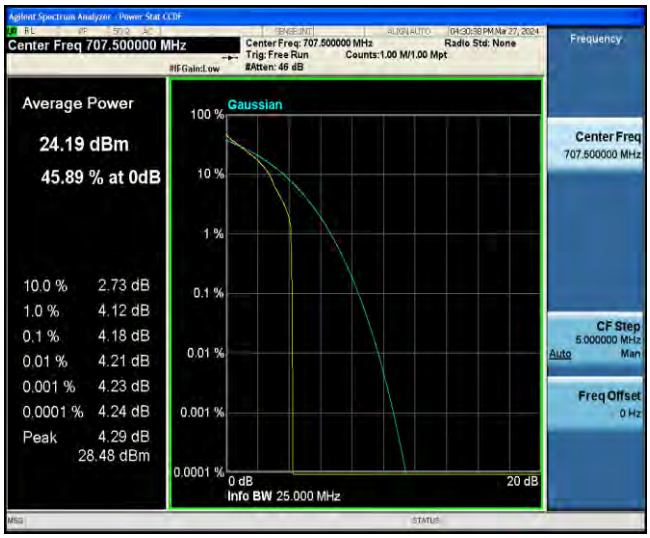
Band12-3MHz-16QAM-23165-15RB#0



Band12-5MHz-QPSK-23035-1RB#0

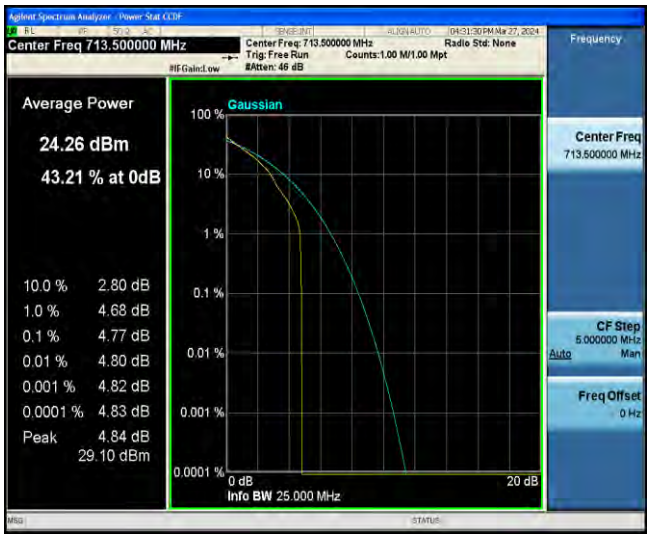
Band12-5MHz-QPSK-23035-25RB#0

Band12-5MHz-QPSK-23095-1RB#0

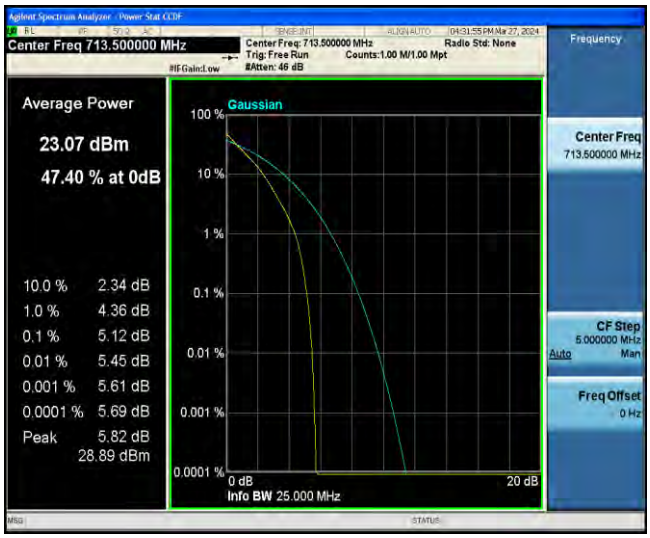


Band12-5MHz-QPSK-23095-25RB#0

Band12-5MHz-QPSK-23155-1RB#0



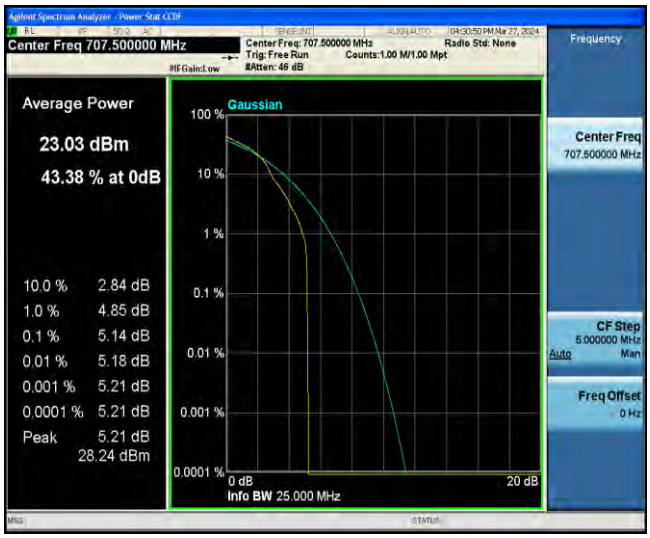
Band12-5MHz-QPSK-23155-25RB#0



Band12-5MHz-16QAM-23035-1RB#0

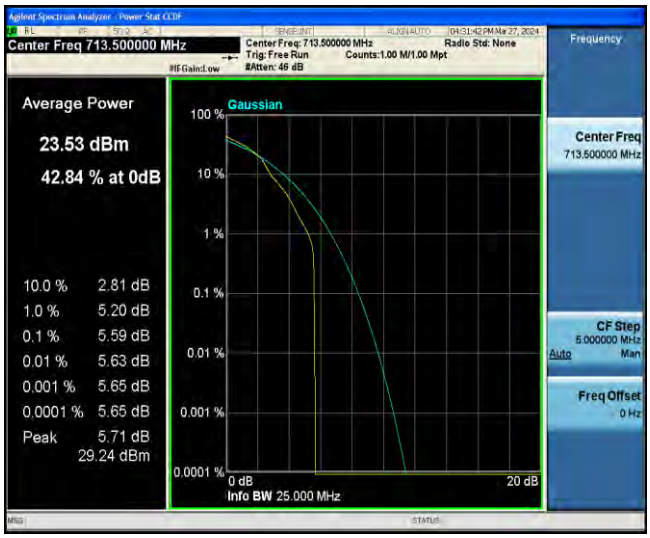
Band12-5MHz-16QAM-23035-25RB#0

Band12-5MHz-16QAM-23095-1RB#0

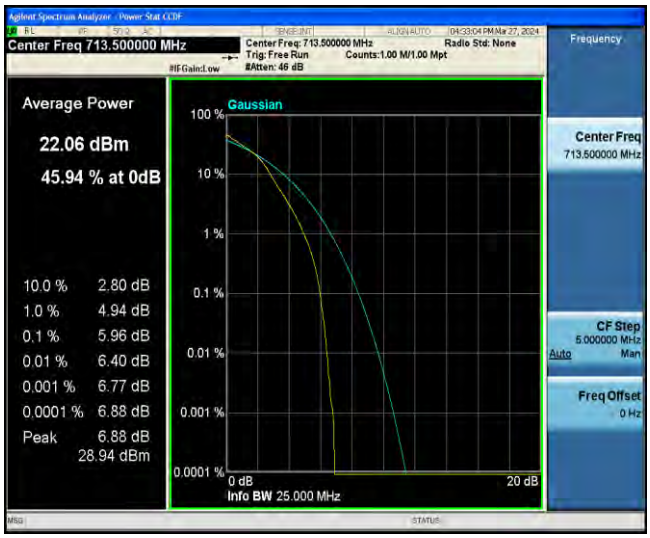


Band12-5MHz-16QAM-23095-25RB#0

Band12-5MHz-16QAM-23155-1RB#0

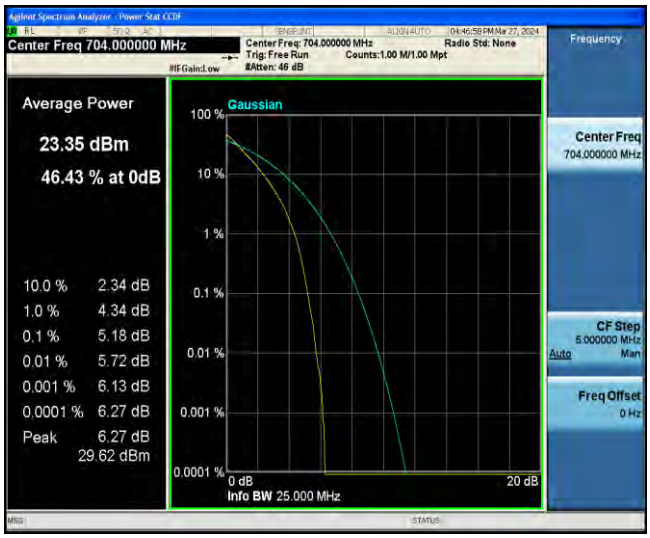


Band12-5MHz-16QAM-23155-25RB#0

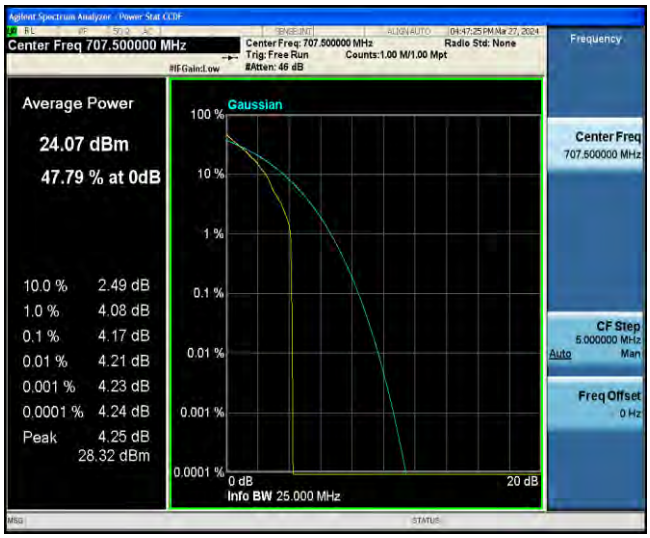


Band12-10MHz-QPSK-23060-1RB#0

Band12-10MHz-QPSK-23060-50RB#0

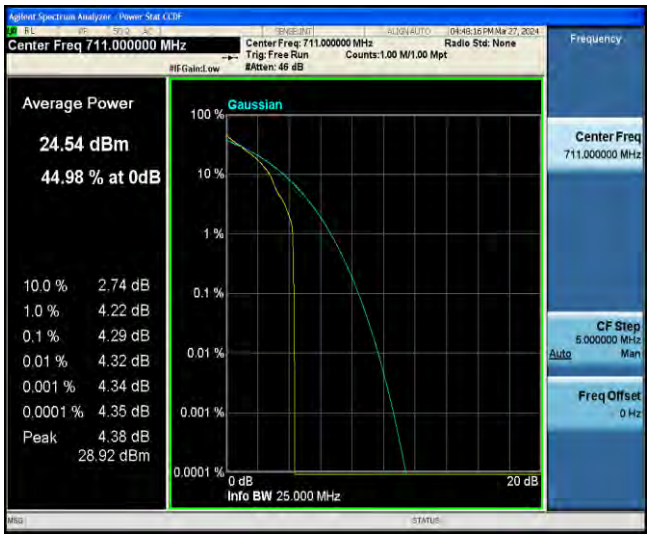


Band12-10MHz-QPSK-23095-1RB#0



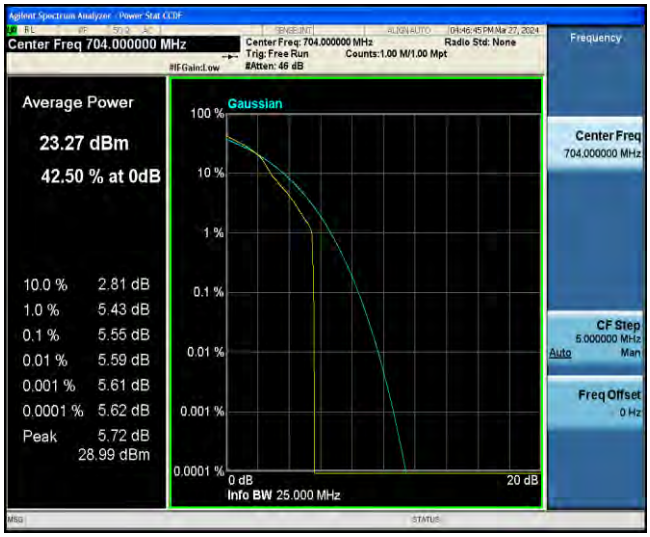
Band12-10MHz-QPSK-23095-50RB#0

Band12-10MHz-QPSK-23130-1RB#0

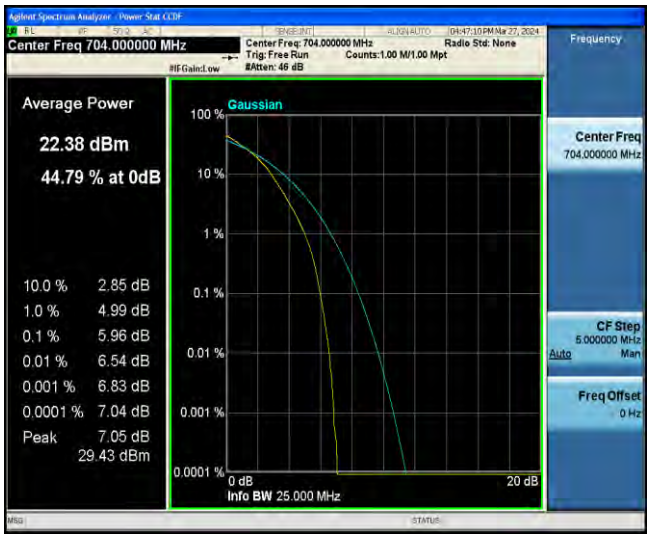


Band12-10MHz-QPSK-23130-50RB#0

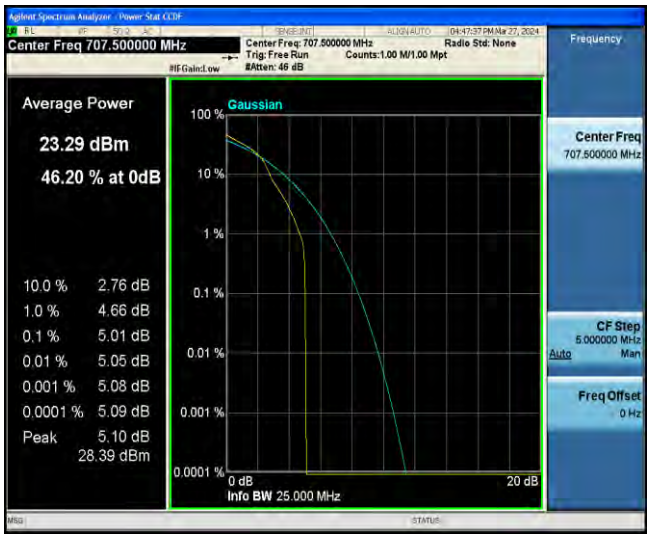
Band12-10MHz-16QAM-23060-1RB#0



Band12-10MHz-16QAM-23060-50RB#0

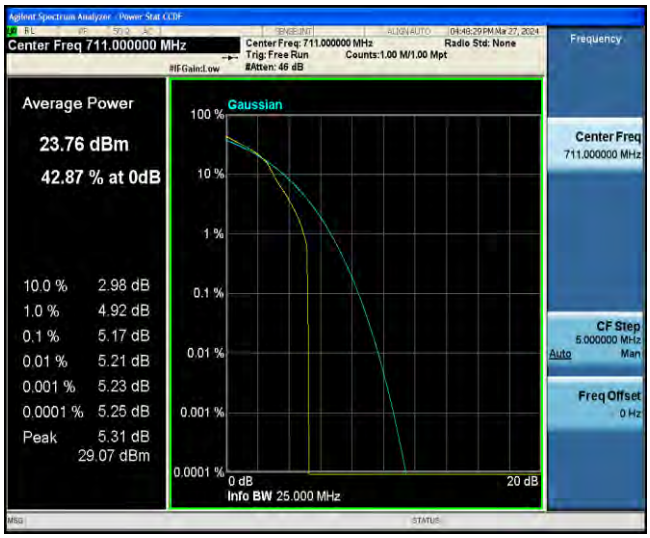


Band12-10MHz-16QAM-23095-1RB#0

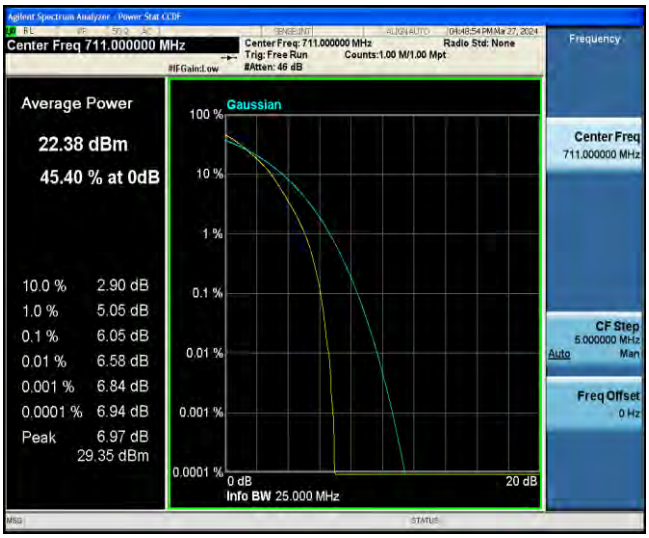


Band12-10MHz-16QAM-23095-50RB#0

Band12-10MHz-16QAM-23130-1RB#0



Band12-10MHz-16QAM-23130-50RB#0


Agilent Spectrum Analyzer - Power Stat CCDF
Center Freq 711.000000 MHz
Center Freq: 711.000000 MHz
Trig: Free Run
#Atten: 46 dB
Counts:1.00 M/1.00 Mpt
Radio Std: None
Frequency
Average Power
22.38 dBm
45.40 % at 0dB
10.0 % 2.90 dB
1.0 % 5.05 dB
0.1 % 6.05 dB
0.01 % 6.58 dB
0.001 % 6.84 dB
0.0001 % 6.94 dB
Peak 6.97 dB
29.35 dBm
Gaussian
100 %
10 %
1 %
0.1 %
0.01 %
0.001 %
0.0001 %
0 dB
20 dB
Info BW 25.000 MHz
Center Freq
711.000000 MHz
CF Step
5.000000 MHz
Auto
Man
Freq Offset
0 Hz

Appendix C: 26dB Bandwidth and Occupied Bandwidth

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Occupied Bandwidth (MHz)	26dB Bandwidth (MHz)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	1.0886	1.263	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	1.0940	1.249	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	1.0903	1.258	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	1.0926	1.255	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	1.0898	1.268	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	1.0889	1.238	PASS
Band12	3MHz	QPSK	23025	15RB#0	2.6887	2.901	PASS
Band12	3MHz	QPSK	23095	15RB#0	2.6942	2.885	PASS
Band12	3MHz	QPSK	23165	15RB#0	2.6954	2.900	PASS
Band12	3MHz	16QAM	23025	15RB#0	2.6922	2.925	PASS
Band12	3MHz	16QAM	23095	15RB#0	2.6932	2.921	PASS
Band12	3MHz	16QAM	23165	15RB#0	2.6924	2.919	PASS
Band12	5MHz	QPSK	23035	25RB#0	4.4930	4.850	PASS
Band12	5MHz	QPSK	23095	25RB#0	4.5072	4.921	PASS
Band12	5MHz	QPSK	23155	25RB#0	4.4907	4.859	PASS
Band12	5MHz	16QAM	23035	25RB#0	4.4921	4.863	PASS
Band12	5MHz	16QAM	23095	25RB#0	4.5064	4.880	PASS
Band12	5MHz	16QAM	23155	25RB#0	4.4880	4.880	PASS
Band12	10MHz	QPSK	23060	50RB#0	8.9556	9.486	PASS
Band12	10MHz	QPSK	23095	50RB#0	8.9874	9.571	PASS
Band12	10MHz	QPSK	23130	50RB#0	8.9509	9.521	PASS
Band12	10MHz	16QAM	23060	50RB#0	8.9522	9.493	PASS
Band12	10MHz	16QAM	23095	50RB#0	8.9923	9.535	PASS
Band12	10MHz	16QAM	23130	50RB#0	8.9318	9.507	PASS

Test Graphs

Band12-1.4MHz-QPSK-23017-6RB#0

Band12-1.4MHz-QPSK-23095-6RB#0

Band12-1.4MHz-QPSK-23173-6RB#0

Band12-1.4MHz-16QAM-23017-6RB#0

Band12-1.4MHz-16QAM-23095-6RB#0

Band12-1.4MHz-16QAM-23173-6RB#0

Band12-3MHz-QPSK-23025-15RB#0

Band12-3MHz-QPSK-23095-15RB#0

Band12-3MHz-QPSK-23165-15RB#0

Band12-3MHz-16QAM-23025-15RB#0

Band12-3MHz-16QAM-23095-15RB#0

Band12-3MHz-16QAM-23165-15RB#0

Band12-5MHz-QPSK-23035-25RB#0

Band12-5MHz-QPSK-23095-25RB#0

Band12-5MHz-QPSK-23155-25RB#0

Band12-5MHz-16QAM-23035-25RB#0

Band12-5MHz-16QAM-23095-25RB#0

Band12-5MHz-16QAM-23155-25RB#0

Band12-10MHz-QPSK-23060-50RB#0

Band12-10MHz-QPSK-23095-50RB#0

Band12-10MHz-QPSK-23130-50RB#0

Band12-10MHz-16QAM-23060-50RB#0

Band12-10MHz-16QAM-23095-50RB#0

Band12-10MHz-16QAM-23130-50RB#0

Agilent Spectrum Analyzer - Occupied BW
Center Freq 711.000000 MHz
Center Freq: 711.000000 MHz
Trig: Free Run
Avg|Hold: 30/30
#Atten: 40 dB
Radio Std: None
Radio Device: BTS
Frequency
Ref Offset 4.83 dB
10 dB/div
Ref 35.00 dBm
Center Freq
711.000000 MHz
Center 711 MHz
#Res BW 200 kHz
#VBW 620 kHz
Span 20 MHz
#Sweep 100 ms
CF Step
2.000000 MHz
Auto
Man
Occupied Bandwidth
8.9318 MHz
Total Power
23.4 dBm
Transmit Freq Error
4.033 kHz
OBW Power
99.00 %
x dB Bandwidth
9.507 MHz
x dB
-26.00 dB
Freq Offset
0 Hz

Appendix D: Band Edge

Test Result

Band	Bandwidth	Modulation	Channel	RB Configuration	Result(dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	-27.65,-15.53	PASS
Band12	1.4MHz	QPSK	23017	1RB#5	-43.64,-44.51	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	-28.10,-24.19	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	-47.81,-45.19	PASS
Band12	1.4MHz	QPSK	23173	1RB#5	-16.13,-27.66	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	-23.71,-29.43	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	-29.53,-18.89	PASS
Band12	1.4MHz	16QAM	23017	1RB#5	-44.26,-48.06	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	-28.58,-24.11	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	-48.37,-46.37	PASS
Band12	1.4MHz	16QAM	23173	1RB#5	-17.16,-28.49	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	-22.51,-29.93	PASS
Band12	3MHz	QPSK	23025	1RB#0	-30.74,-18.21	PASS
Band12	3MHz	QPSK	23025	1RB#14	-45.35,-52.51	PASS
Band12	3MHz	QPSK	23025	15RB#0	-36.05,-25.42	PASS
Band12	3MHz	QPSK	23165	1RB#0	-52.28,-46.14	PASS
Band12	3MHz	QPSK	23165	1RB#14	-20.31,-34.27	PASS
Band12	3MHz	QPSK	23165	15RB#0	-25.70,-37.07	PASS
Band12	3MHz	16QAM	23025	1RB#0	-32.58,-19.91	PASS
Band12	3MHz	16QAM	23025	1RB#14	-46.30,-53.75	PASS
Band12	3MHz	16QAM	23025	15RB#0	-35.85,-25.94	PASS
Band12	3MHz	16QAM	23165	1RB#0	-52.99,-47.24	PASS
Band12	3MHz	16QAM	23165	1RB#14	-18.81,-33.72	PASS
Band12	3MHz	16QAM	23165	15RB#0	-25.34,-36.41	PASS
Band12	5MHz	QPSK	23035	1RB#0	-17.85	PASS
Band12	5MHz	QPSK	23035	1RB#24	-53.99	PASS
Band12	5MHz	QPSK	23035	25RB#0	-26.59	PASS
Band12	5MHz	QPSK	23155	1RB#0	-53.38	PASS
Band12	5MHz	QPSK	23155	1RB#24	-18.08	PASS
Band12	5MHz	QPSK	23155	25RB#0	-25.98	PASS
Band12	5MHz	16QAM	23035	1RB#0	-19.98	PASS
Band12	5MHz	16QAM	23035	1RB#24	-53.92	PASS
Band12	5MHz	16QAM	23035	25RB#0	-27.12	PASS
Band12	5MHz	16QAM	23155	1RB#0	-54.18	PASS
Band12	5MHz	16QAM	23155	1RB#24	-18.77	PASS
Band12	5MHz	16QAM	23155	25RB#0	-27.51	PASS

Band12	10MHz	QPSK	23060	1RB#0	-29.46,-20.82	PASS
Band12	10MHz	QPSK	23060	1RB#49	-46.36,-43.07	PASS
Band12	10MHz	QPSK	23060	50RB#0	-27.49,-24.91	PASS
Band12	10MHz	QPSK	23130	1RB#0	-42.72,-44.41	PASS
Band12	10MHz	QPSK	23130	1RB#49	-20.00,-28.92	PASS
Band12	10MHz	QPSK	23130	50RB#0	-25.25,-28.55	PASS
Band12	10MHz	16QAM	23060	1RB#0	-29.62,-21.34	PASS
Band12	10MHz	16QAM	23060	1RB#49	-46.30,-43.04	PASS
Band12	10MHz	16QAM	23060	50RB#0	-29.01,-25.53	PASS
Band12	10MHz	16QAM	23130	1RB#0	-44.05,-45.33	PASS
Band12	10MHz	16QAM	23130	1RB#49	-21.57,-30.09	PASS
Band12	10MHz	16QAM	23130	50RB#0	-27.97,-30.63	PASS

Test Graphs

Band12-1.4MHz-QPSK-23017-1RB#0

Band12-1.4MHz-QPSK-23017-1RB#5

Band12-1.4MHz-QPSK-23017-6RB#0

Band12-1.4MHz-QPSK-23173-1RB#0

Band12-1.4MHz-QPSK-23173-1RB#5

Band12-1.4MHz-QPSK-23173-6RB#0

Band12-1.4MHz-16QAM-23017-1RB#0

Band12-1.4MHz-16QAM-23017-1RB#5

Band12-1.4MHz-16QAM-23017-6RB#0

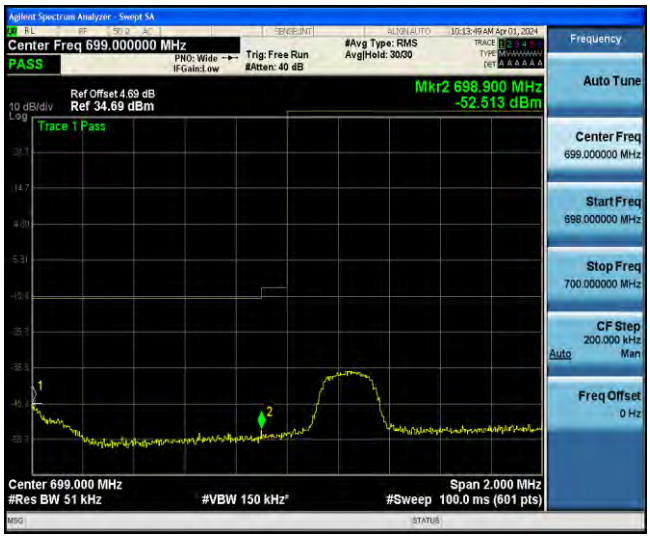
Band12-1.4MHz-16QAM-23173-1RB#0

Band12-1.4MHz-16QAM-23173-1RB#5

Band12-1.4MHz-16QAM-23173-6RB#0

Band12-3MHz-QPSK-23025-1RB#0

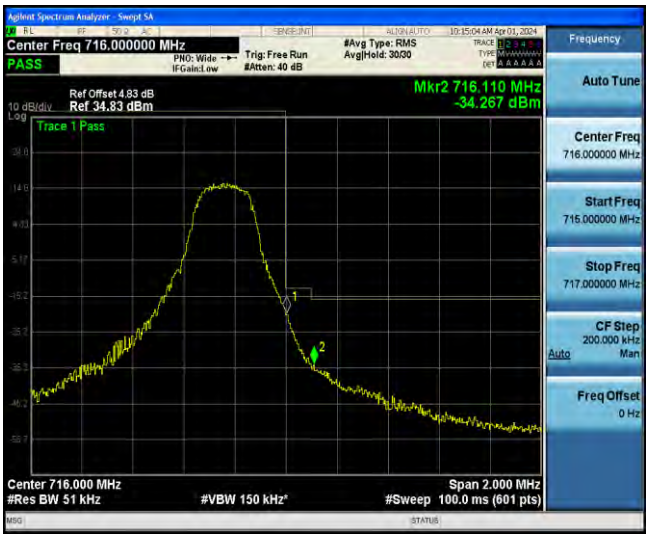
Band12-3MHz-QPSK-23025-1RB#14



Band12-3MHz-QPSK-23025-15RB#0

Band12-3MHz-QPSK-23165-1RB#0

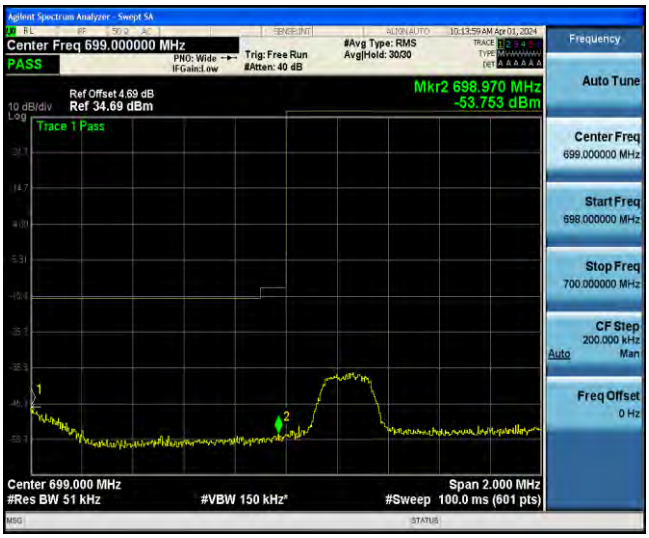
Band12-3MHz-QPSK-23165-1RB#14



Band12-3MHz-QPSK-23165-15RB#0

Band12-3MHz-16QAM-23025-1RB#0

Band12-3MHz-16QAM-23025-1RB#14



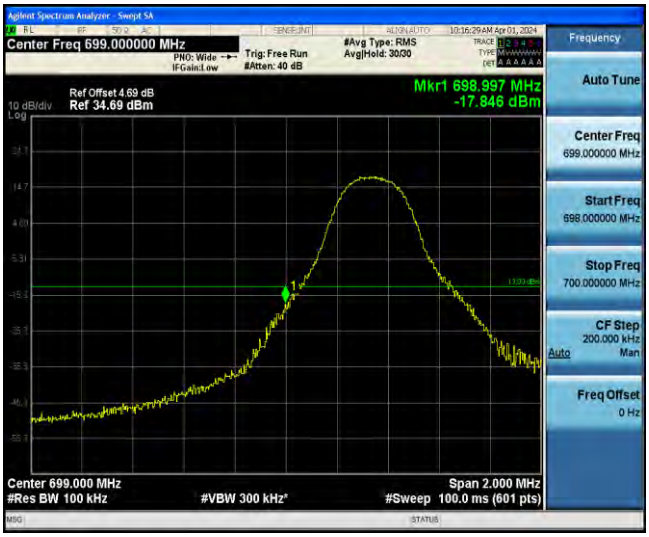
Band12-3MHz-16QAM-23025-15RB#0

Band12-3MHz-16QAM-23165-1RB#0

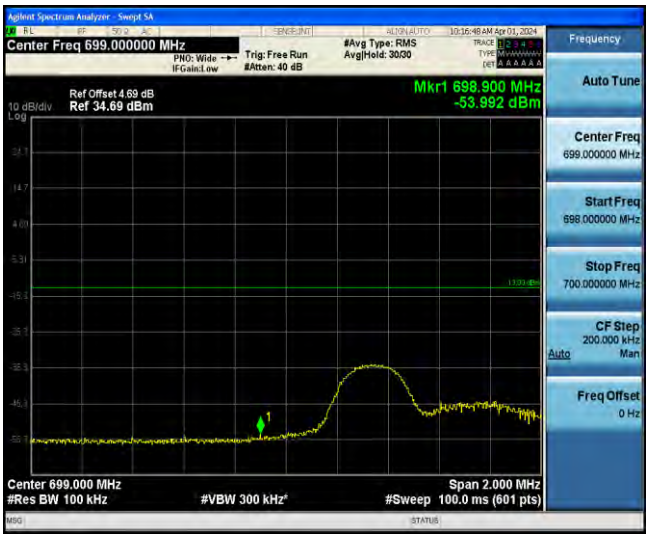
Band12-3MHz-16QAM-23165-1RB#14

Band12-3MHz-16QAM-23165-15RB#0

Band12-5MHz-QPSK-23035-1RB#0



Band12-5MHz-QPSK-23035-1RB#24



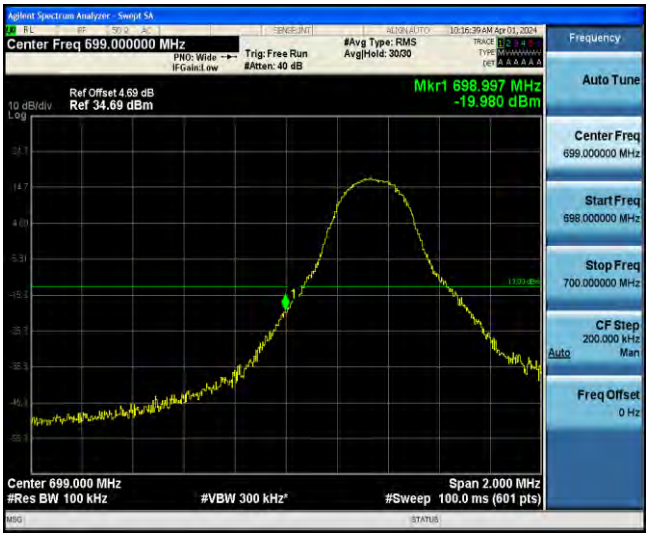
Band12-5MHz-QPSK-23035-25RB#0

Band12-5MHz-QPSK-23155-1RB#0

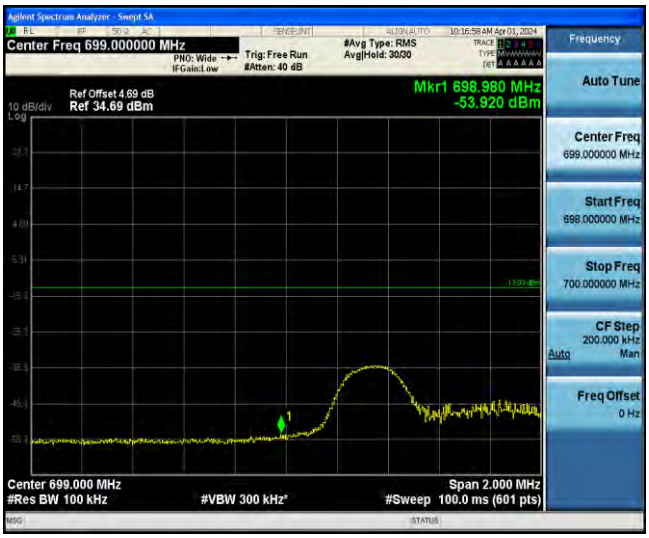
Band12-5MHz-QPSK-23155-1RB#24

Band12-5MHz-QPSK-23155-25RB#0

Band12-5MHz-16QAM-23035-1RB#0



Band12-5MHz-16QAM-23035-1RB#24



Band12-5MHz-16QAM-23035-25RB#0

Band12-5MHz-16QAM-23155-1RB#0

Band12-5MHz-16QAM-23155-1RB#24

Band12-5MHz-16QAM-23155-25RB#0

Band12-10MHz-QPSK-23060-1RB#0

Band12-10MHz-QPSK-23060-1RB#49

Band12-10MHz-QPSK-23060-50RB#0

Band12-10MHz-QPSK-23130-1RB#0

Band12-10MHz-QPSK-23130-1RB#49

Band12-10MHz-QPSK-23130-50RB#0

Band12-10MHz-16QAM-23060-1RB#0

Band12-10MHz-16QAM-23060-1RB#49

Band12-10MHz-16QAM-23060-50RB#0

Band12-10MHz-16QAM-23130-1RB#0

Band12-10MHz-16QAM-23130-1RB#49

Band12-10MHz-16QAM-23130-50RB#0

Agilent Spectrum Analyzer - Swept SA
Center Freq 716.000000 MHz
PASS
PNO: Wide
IFGain:Low
Trig: Free Run
#Atten: 40 dB
#Avg Type: RMS
Avg|Hold: 30/30
Ref Offset 4.83 dB
10 dB/div Ref 34.83 dBm
Log
Trace 1 Pass
Mkr2 716.110 MHz
-30.626 dBm
Center 716.000 MHz
#Res BW 200 kHz
#VBW 620 kHz*
Span 2.000 MHz
#Sweep 100.0 ms (601 pts)
Frequency
Auto Tune
Center Freq
716.000000 MHz
Start Freq
715.000000 MHz
Stop Freq
717.000000 MHz
CF Step
200.000 kHz
Auto
Man
Freq Offset
0 Hz

Appendix E: Conducted Spurious Emission

Test Result

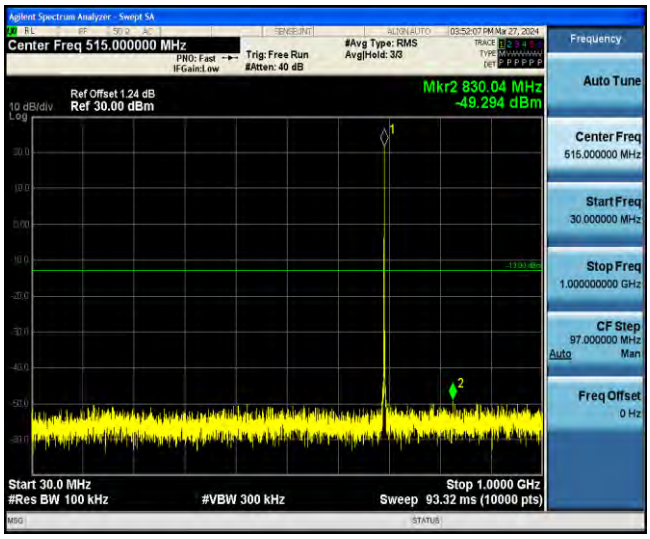
Band	Bandwidth	Modulation	Channel	RB Configuration	Frequency Range	Result (dBm)	Verdict
Band12	1.4MHz	QPSK	23017	1RB#0	Range1:30~1000MHz	-49.29	PASS
Band12	1.4MHz	QPSK	23017	1RB#0	Range2:1000~10000MHz	-37.02	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	Range1:30~1000MHz	-49.12	PASS
Band12	1.4MHz	QPSK	23095	1RB#0	Range2:1000~10000MHz	-43.75	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	Range1:30~1000MHz	-49.85	PASS
Band12	1.4MHz	QPSK	23173	1RB#0	Range2:1000~10000MHz	-43.01	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	Range1:30~1000MHz	-48.9	PASS
Band12	1.4MHz	16QAM	23017	1RB#0	Range2:1000~10000MHz	-42.64	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	Range1:30~1000MHz	-48.67	PASS
Band12	1.4MHz	16QAM	23095	1RB#0	Range2:1000~10000MHz	-42.58	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	Range1:30~1000MHz	-49.99	PASS
Band12	1.4MHz	16QAM	23173	1RB#0	Range2:1000~10000MHz	-43.42	PASS
Band12	3MHz	QPSK	23025	1RB#0	Range1:30~1000MHz	-49.33	PASS
Band12	3MHz	QPSK	23025	1RB#0	Range2:1000~10000MHz	-39.36	PASS
Band12	3MHz	QPSK	23095	1RB#0	Range1:30~1000MHz	-49.44	PASS
Band12	3MHz	QPSK	23095	1RB#0	Range2:1000~10000MHz	-41.31	PASS
Band12	3MHz	QPSK	23165	1RB#0	Range1:30~1000MHz	-49.08	PASS
Band1	3MHz	QPSK	23165	1RB#0	Range2:1000~10000M	-40.3	PAS

2					Hz	4	S
Band12	3MHz	16QAM	23025	1RB#0	Range1:30~1000MHz	-49.64	PASS
Band12	3MHz	16QAM	23025	1RB#0	Range2:1000~10000MHz	-41.98	PASS
Band12	3MHz	16QAM	23095	1RB#0	Range1:30~1000MHz	-49.33	PASS
Band12	3MHz	16QAM	23095	1RB#0	Range2:1000~10000MHz	-37.49	PASS
Band12	3MHz	16QAM	23165	1RB#0	Range1:30~1000MHz	-47.74	PASS
Band12	3MHz	16QAM	23165	1RB#0	Range2:1000~10000MHz	-42.25	PASS
Band12	5MHz	QPSK	23035	1RB#0	Range1:30~1000MHz	-48	PASS
Band12	5MHz	QPSK	23035	1RB#0	Range2:1000~10000MHz	-42.56	PASS
Band12	5MHz	QPSK	23095	1RB#0	Range1:30~1000MHz	-48.41	PASS
Band12	5MHz	QPSK	23095	1RB#0	Range2:1000~10000MHz	-42.13	PASS
Band12	5MHz	QPSK	23155	1RB#0	Range1:30~1000MHz	-48.44	PASS
Band12	5MHz	QPSK	23155	1RB#0	Range2:1000~10000MHz	-42.93	PASS
Band12	5MHz	16QAM	23035	1RB#0	Range1:30~1000MHz	-49.08	PASS
Band12	5MHz	16QAM	23035	1RB#0	Range2:1000~10000MHz	-43.85	PASS
Band12	5MHz	16QAM	23095	1RB#0	Range1:30~1000MHz	-48.91	PASS
Band12	5MHz	16QAM	23095	1RB#0	Range2:1000~10000MHz	-39.46	PASS
Band12	5MHz	16QAM	23155	1RB#0	Range1:30~1000MHz	-48.08	PASS
Band12	5MHz	16QAM	23155	1RB#0	Range2:1000~10000MHz	-43.72	PASS
Band12	10MHz	QPSK	23060	1RB#0	Range1:30~1000MHz	-48.69	PASS
Band12	10MHz	QPSK	23060	1RB#0	Range2:1000~10000MHz	-41.08	PASS
Band12	10MHz	QPSK	23095	1RB#0	Range1:30~1000MHz	-48.31	PASS

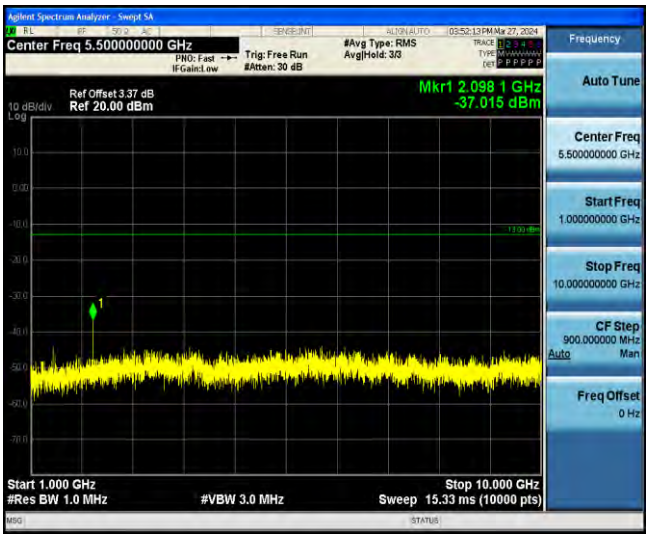
Band12	10MHz	QPSK	23095	1RB#0	Range2:1000~10000MHz	-40.34	PASS
Band12	10MHz	QPSK	23130	1RB#0	Range1:30~1000MHz	-48.45	PASS
Band12	10MHz	QPSK	23130	1RB#0	Range2:1000~10000MHz	-40.62	PASS
Band12	10MHz	16QAM	23060	1RB#0	Range1:30~1000MHz	-48.37	PASS
Band12	10MHz	16QAM	23060	1RB#0	Range2:1000~10000MHz	-43.25	PASS
Band12	10MHz	16QAM	23095	1RB#0	Range1:30~1000MHz	-48.24	PASS
Band12	10MHz	16QAM	23095	1RB#0	Range2:1000~10000MHz	-39.41	PASS
Band12	10MHz	16QAM	23130	1RB#0	Range1:30~1000MHz	-48.3	PASS
Band12	10MHz	16QAM	23130	1RB#0	Range2:1000~10000MHz	-43.16	PASS

Test Graphs

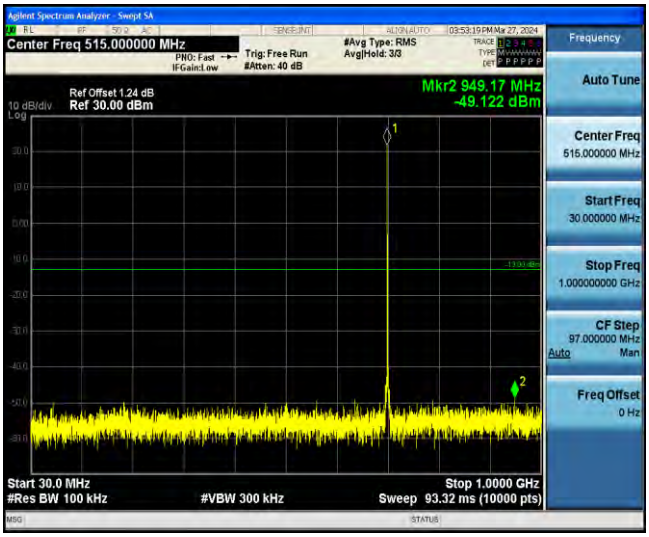
Band12-1.4MHz-QPSK-23017-1RB#0-Range1:30~1000MHz



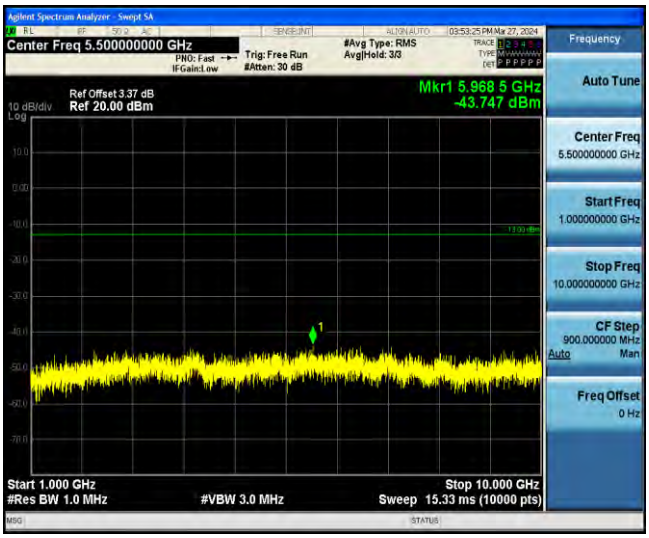
Band12-1.4MHz-QPSK-23017-1RB#0-Range2:1000~10000MHz



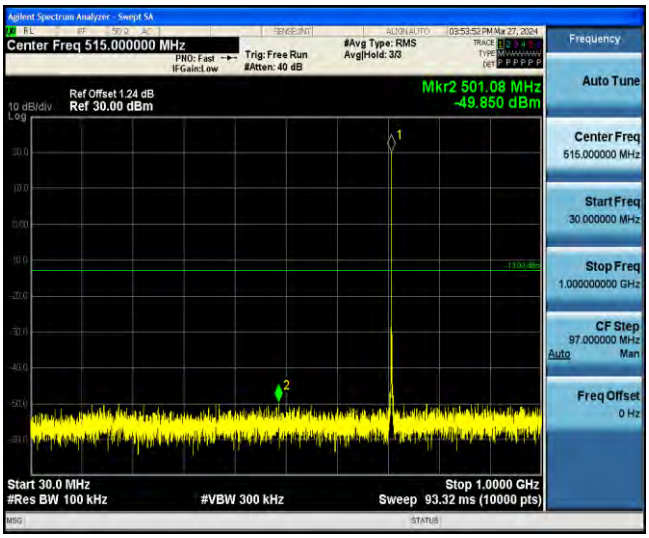
Band12-1.4MHz-QPSK-23095-1RB#0-Range1:30~1000MHz



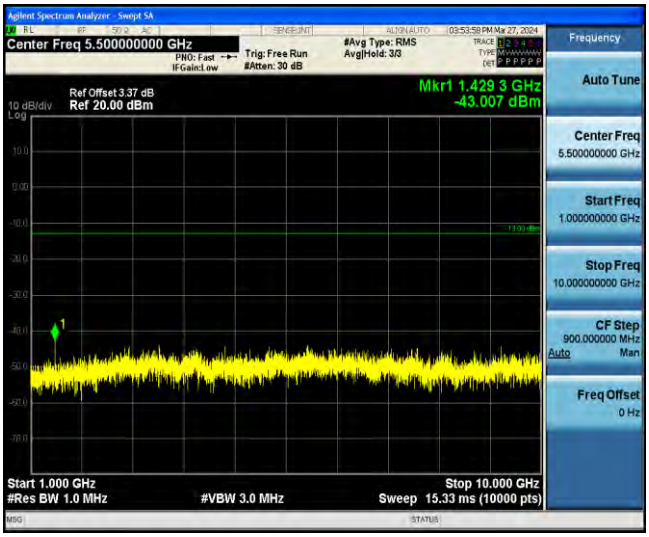
Band12-1.4MHz-QPSK-23095-1RB#0-Range2:1000~10000MHz



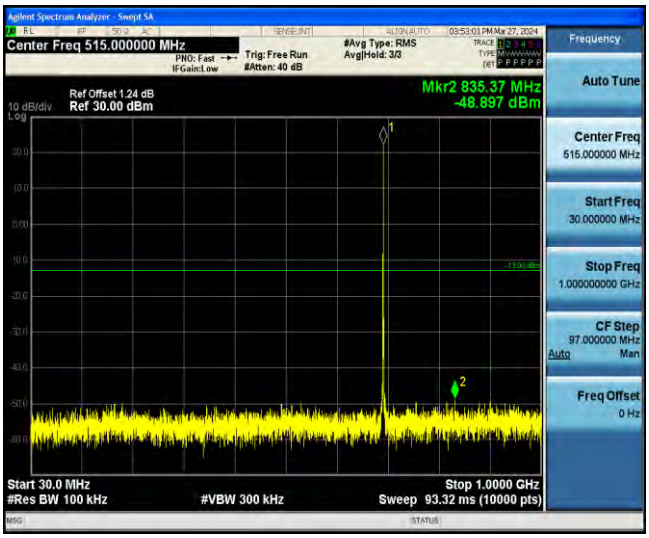
Band12-1.4MHz-QPSK-23173-1RB#0-Range1:30~1000MHz



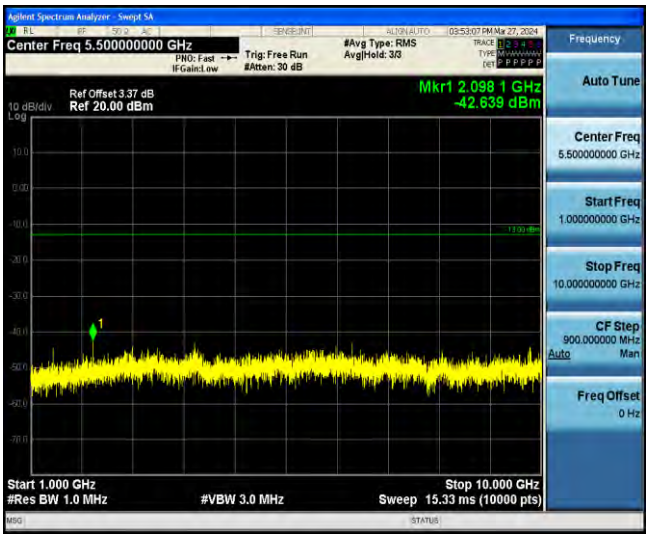
Band12-1.4MHz-QPSK-23173-1RB#0-Range2:1000~10000MHz



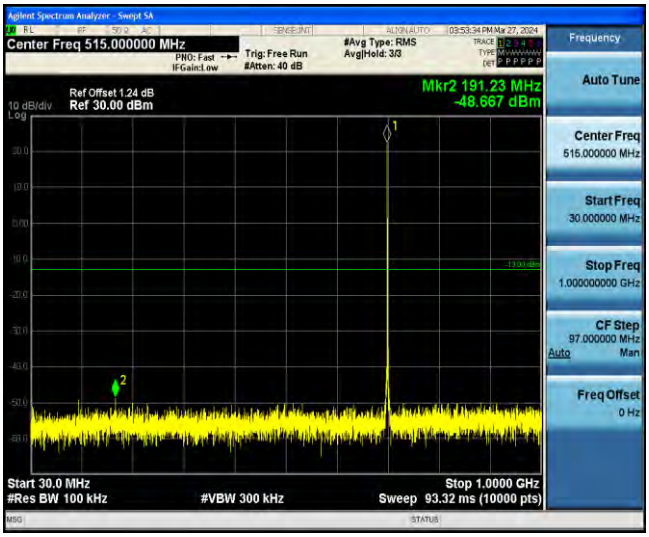
Band12-1.4MHz-16QAM-23017-1RB#0-Range1:30~1000MHz



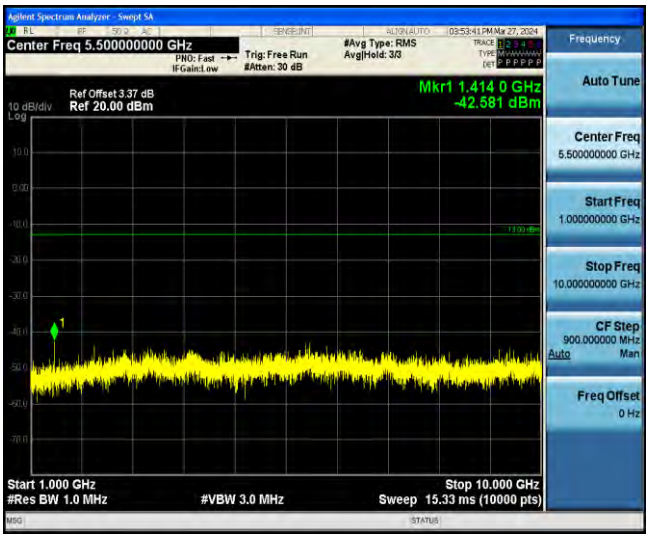
Band12-1.4MHz-16QAM-23017-1RB#0-Range2:1000~10000MHz



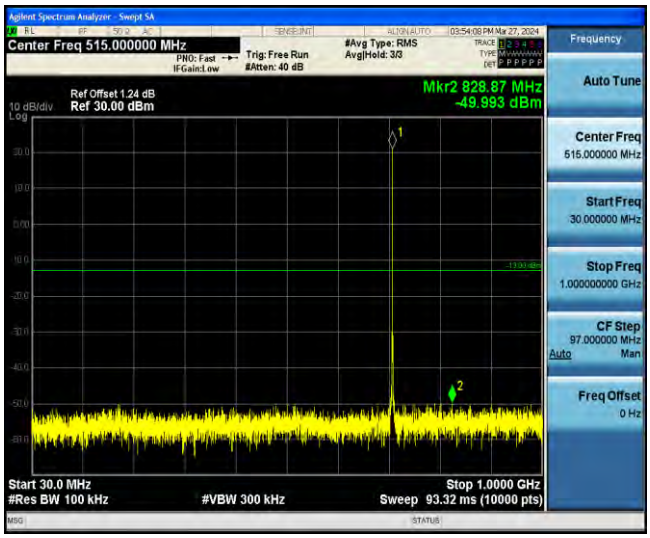
Band12-1.4MHz-16QAM-23095-1RB#0-Range1:30~1000MHz



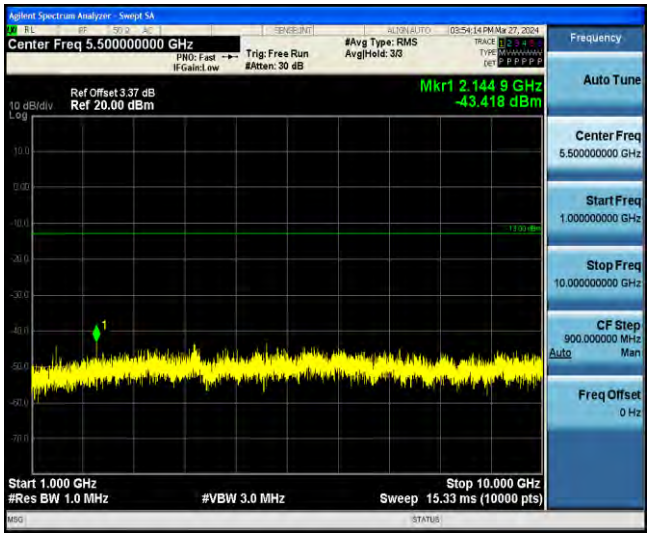
Band12-1.4MHz-16QAM-23095-1RB#0-Range2:1000~10000MHz



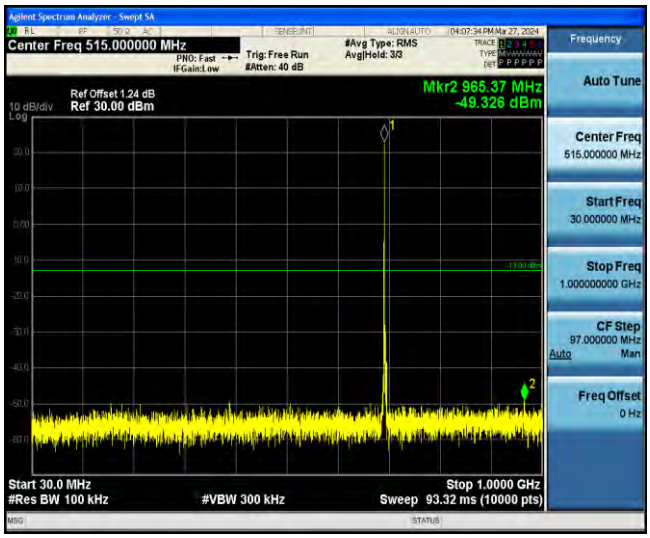
Band12-1.4MHz-16QAM-23173-1RB#0-Range1:30~1000MHz



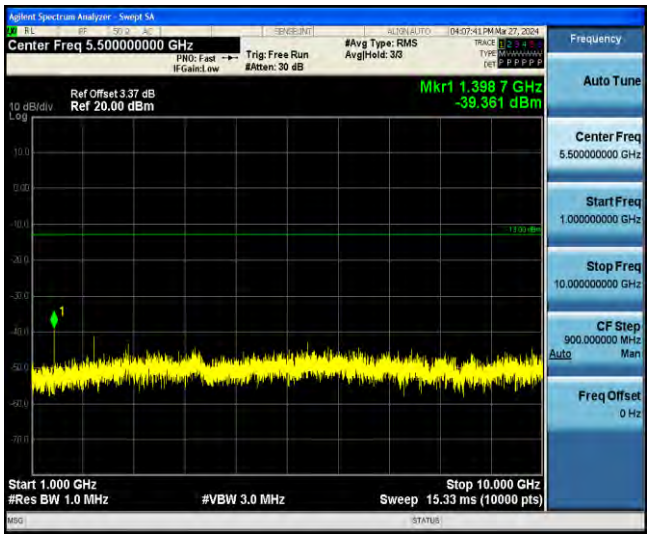
Band12-1.4MHz-16QAM-23173-1RB#0-Range2:1000~10000MHz



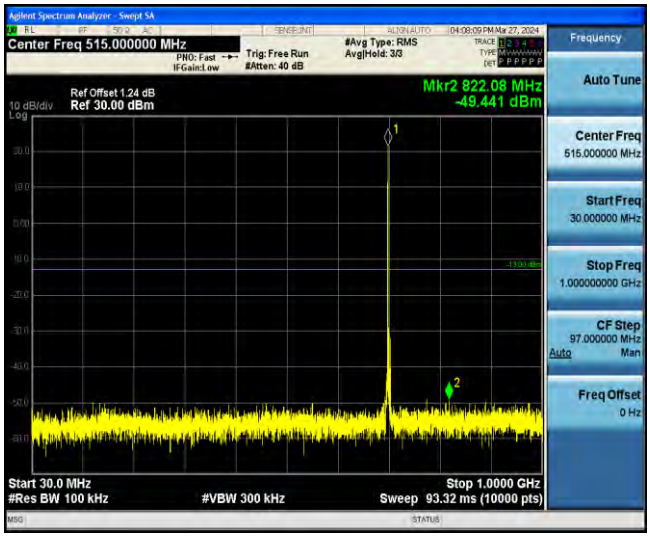
Band12-3MHz-QPSK-23025-1RB#0-Range1:30~1000MHz



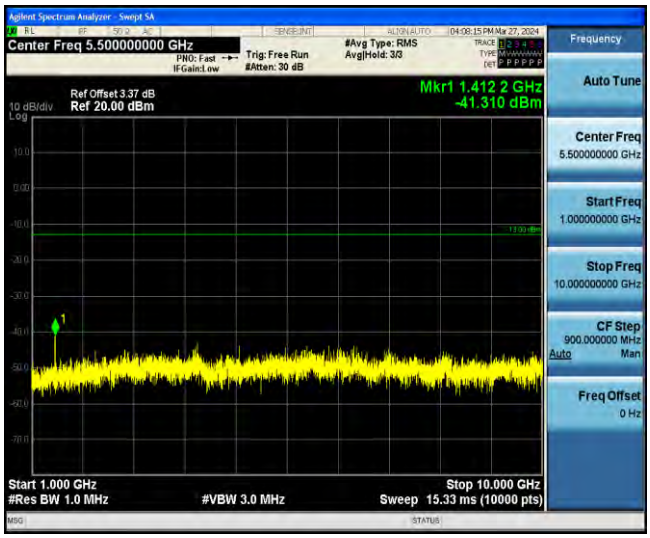
Band12-3MHz-QPSK-23025-1RB#0-Range2:1000~10000MHz



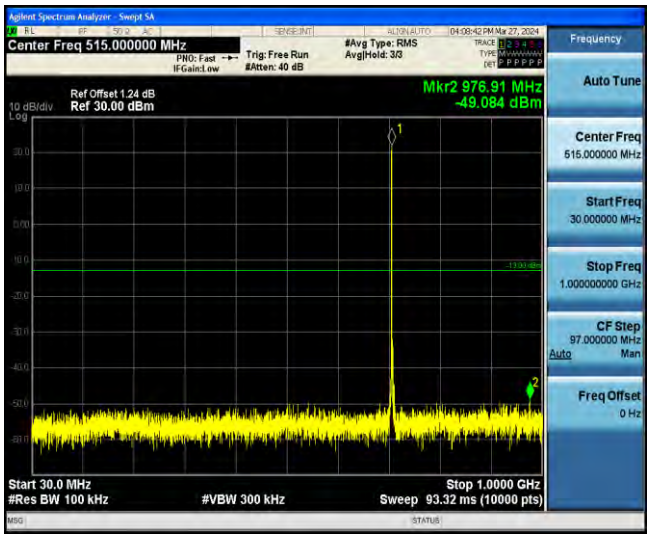
Band12-3MHz-QPSK-23095-1RB#0-Range1:30~1000MHz



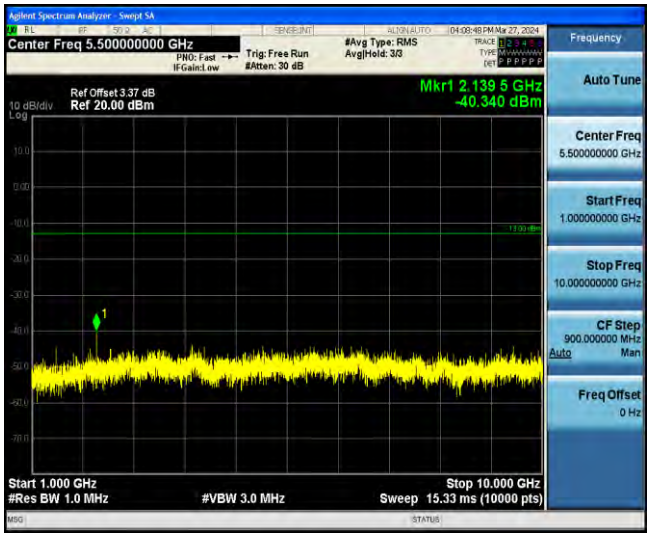
Band12-3MHz-QPSK-23095-1RB#0-Range2:1000~10000MHz



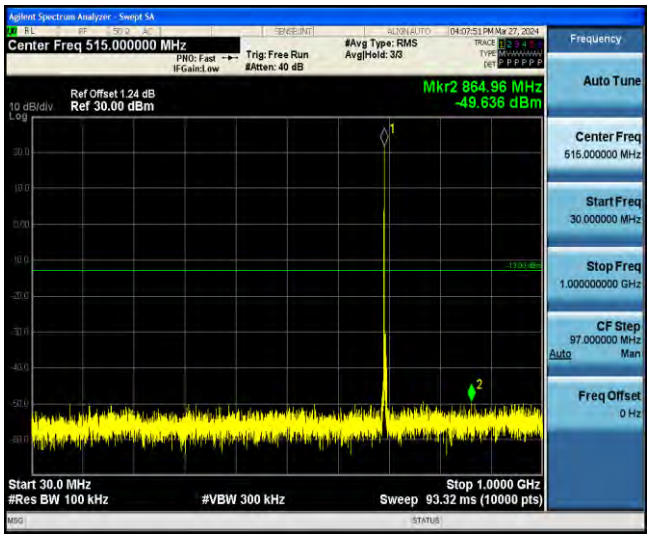
Band12-3MHz-QPSK-23165-1RB#0-Range1:30~1000MHz



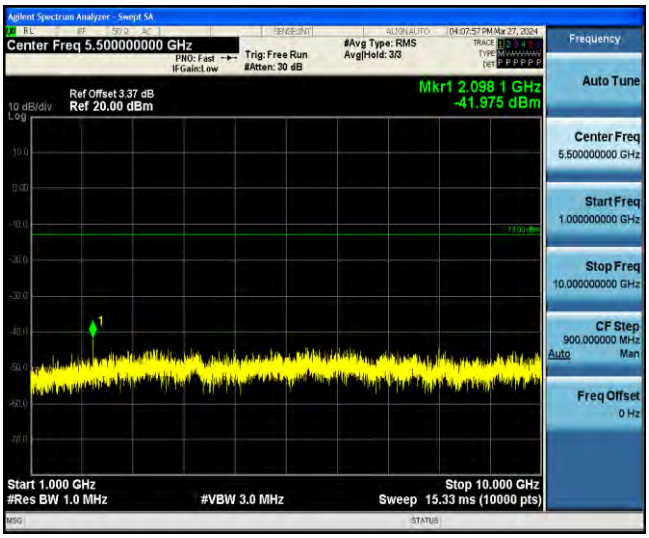
Band12-3MHz-QPSK-23165-1RB#0-Range2:1000~10000MHz



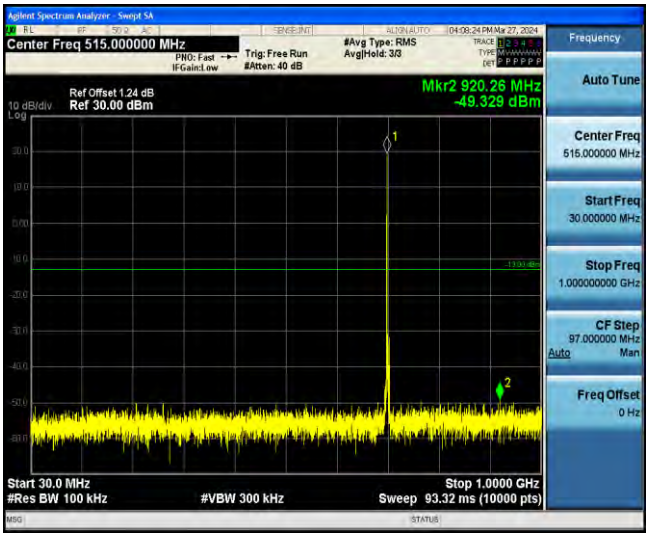
Band12-3MHz-16QAM-23025-1RB#0-Range1:30~1000MHz



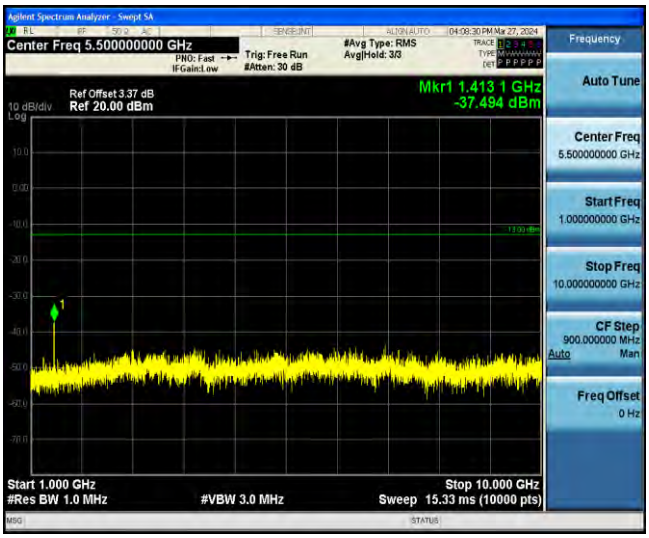
Band12-3MHz-16QAM-23025-1RB#0-Range2:1000~10000MHz



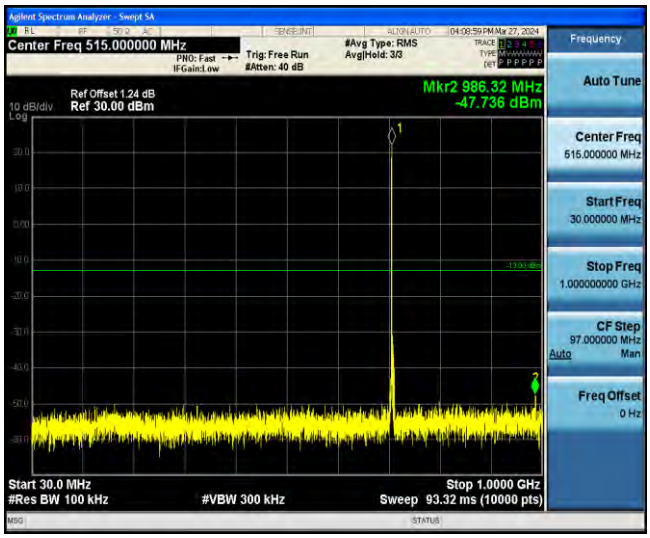
Band12-3MHz-16QAM-23095-1RB#0-Range1:30~1000MHz



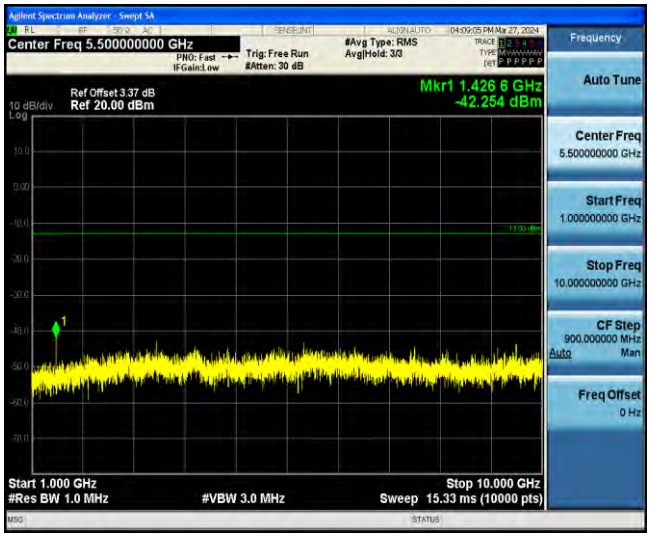
Band12-3MHz-16QAM-23095-1RB#0-Range2:1000~10000MHz



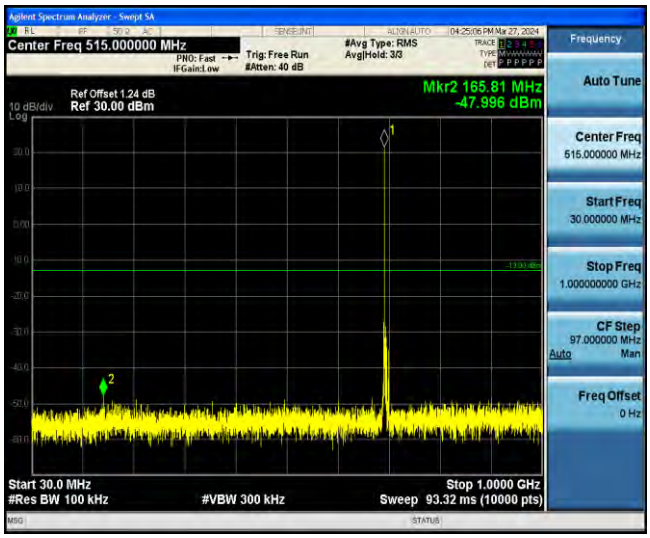
Band12-3MHz-16QAM-23165-1RB#0-Range1:30~1000MHz



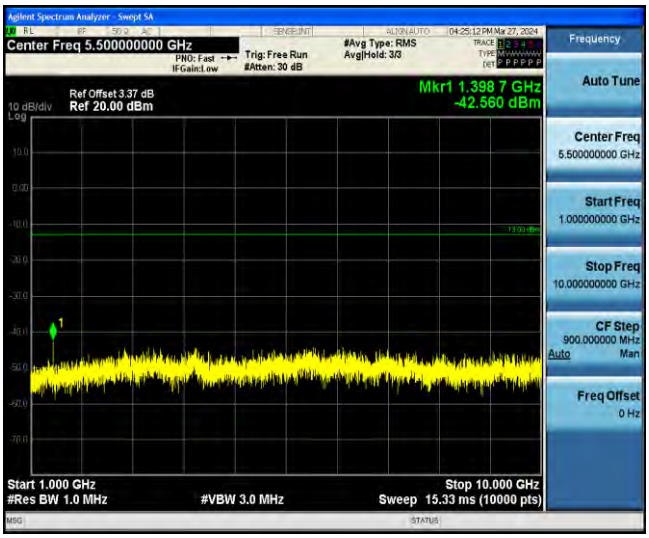
Band12-3MHz-16QAM-23165-1RB#0-Range2:1000~10000MHz



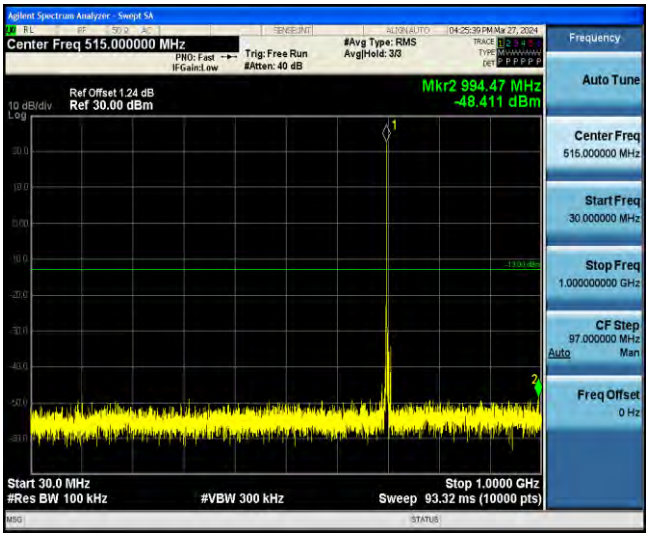
Band12-5MHz-QPSK-23035-1RB#0-Range1:30~1000MHz



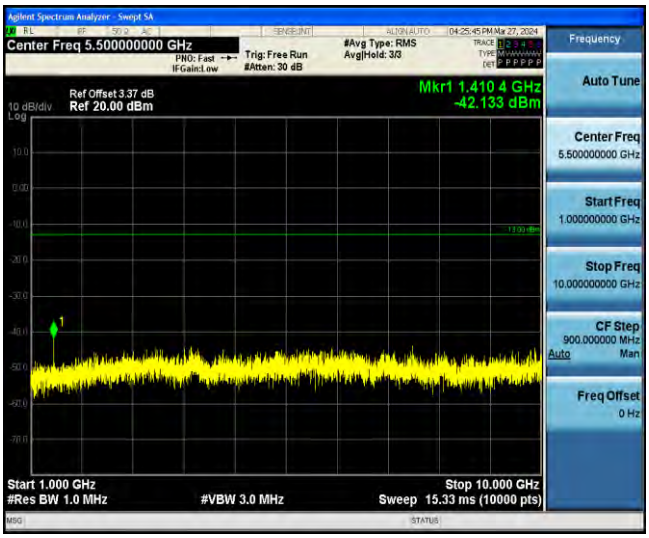
Band12-5MHz-QPSK-23035-1RB#0-Range2:1000~10000MHz



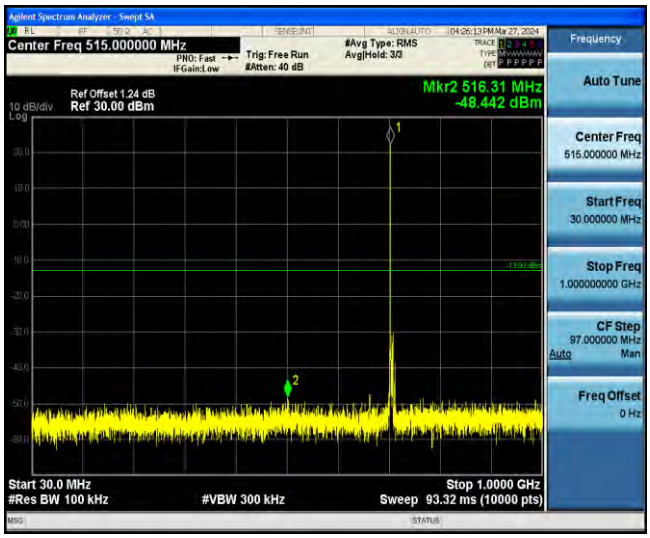
Band12-5MHz-QPSK-23095-1RB#0-Range1:30~1000MHz



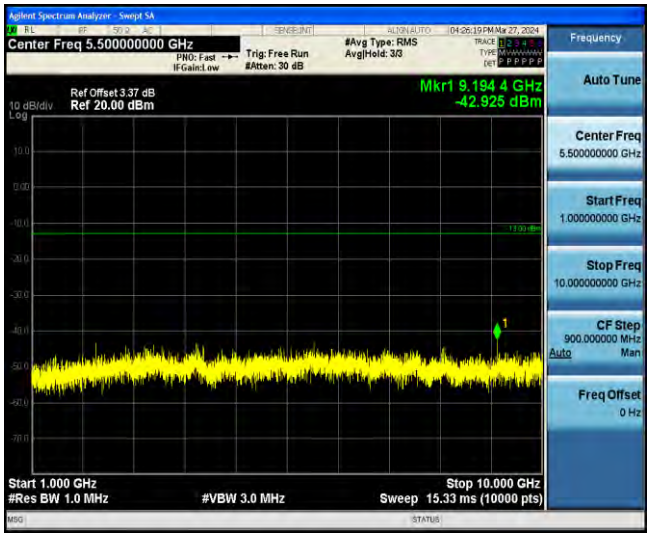
Band12-5MHz-QPSK-23095-1RB#0-Range2:1000~10000MHz



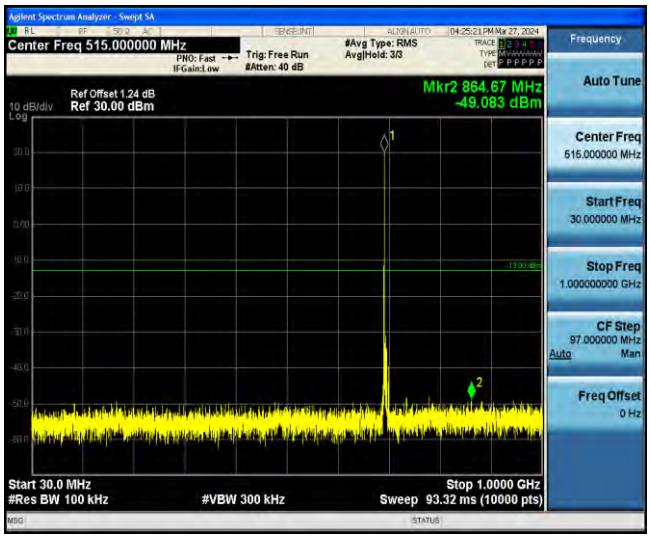
Band12-5MHz-QPSK-23155-1RB#0-Range1:30~1000MHz



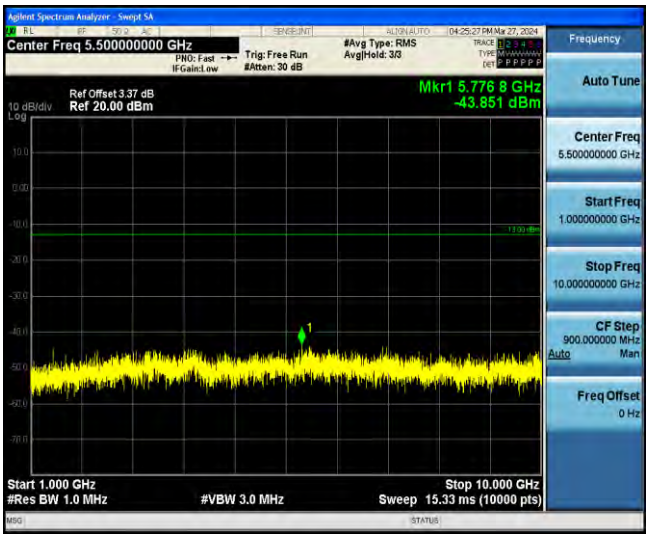
Band12-5MHz-QPSK-23155-1RB#0-Range2:1000~10000MHz



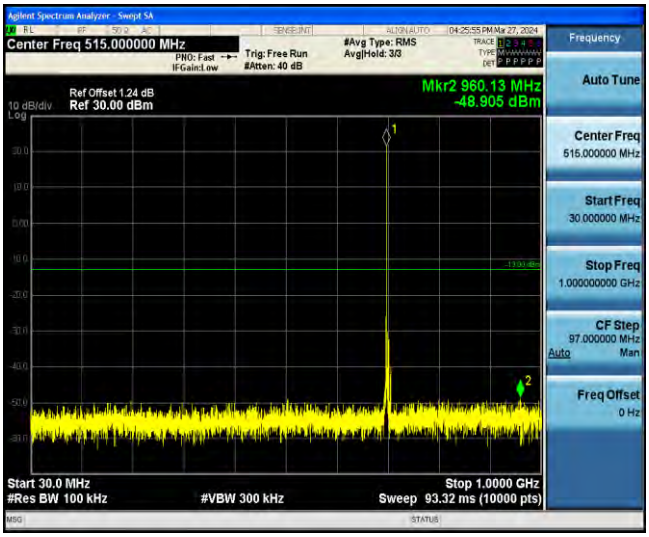
Band12-5MHz-16QAM-23035-1RB#0-Range1:30~1000MHz



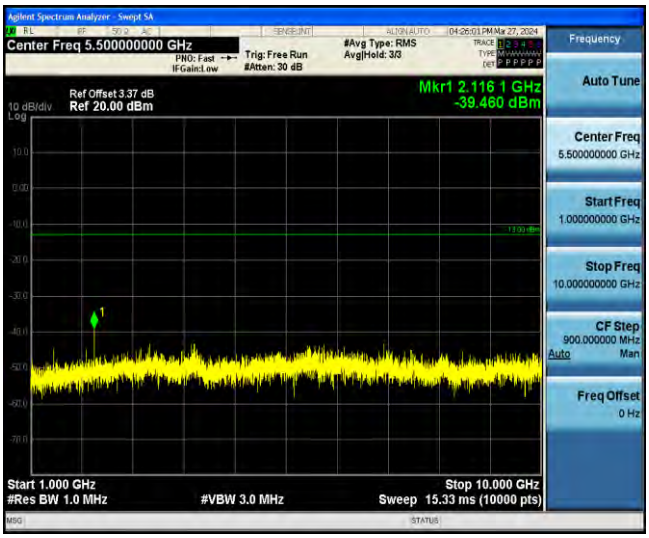
Band12-5MHz-16QAM-23035-1RB#0-Range2:1000~10000MHz



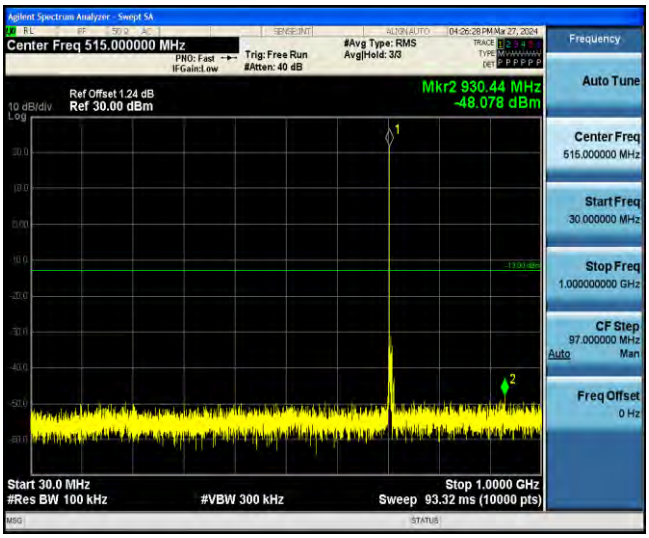
Band12-5MHz-16QAM-23095-1RB#0-Range1:30~1000MHz



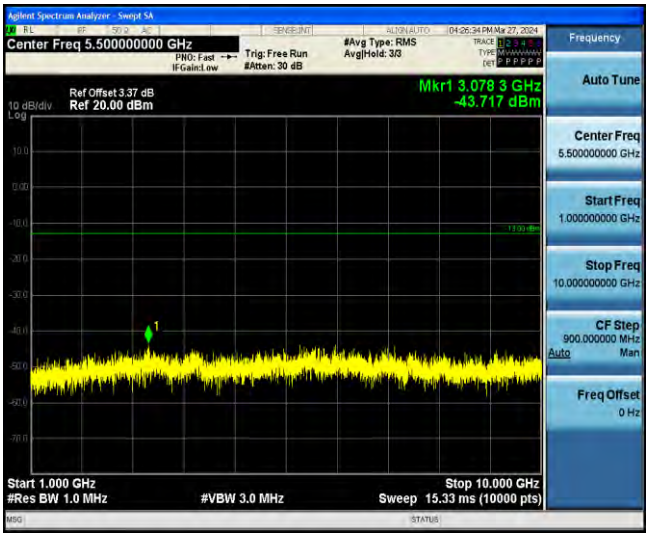
Band12-5MHz-16QAM-23095-1RB#0-Range2:1000~10000MHz



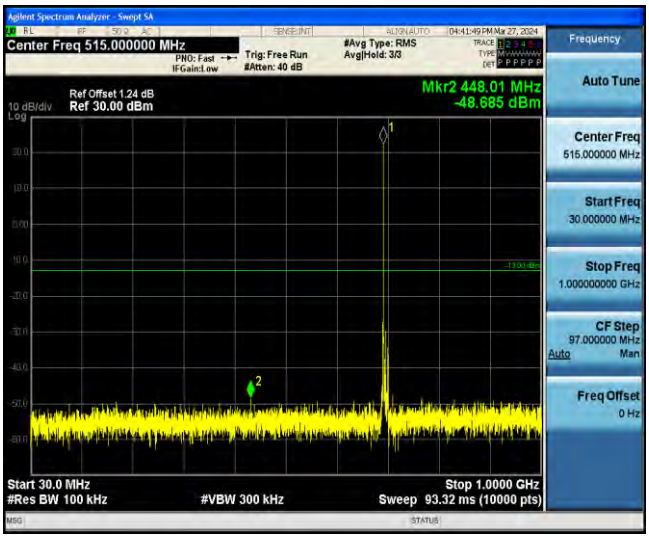
Band12-5MHz-16QAM-23155-1RB#0-Range1:30~1000MHz



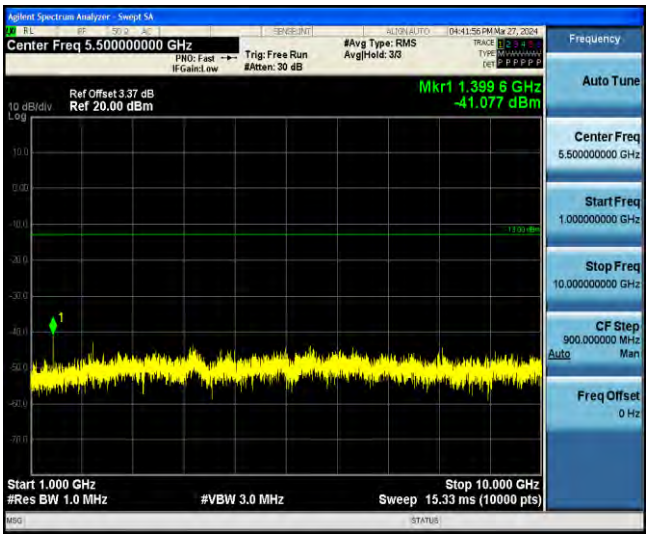
Band12-5MHz-16QAM-23155-1RB#0-Range2:1000~10000MHz



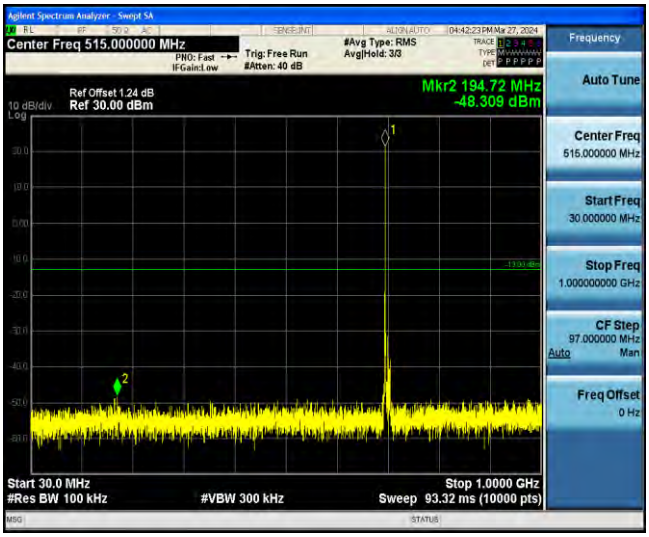
Band12-10MHz-QPSK-23060-1RB#0-Range1:30~1000MHz



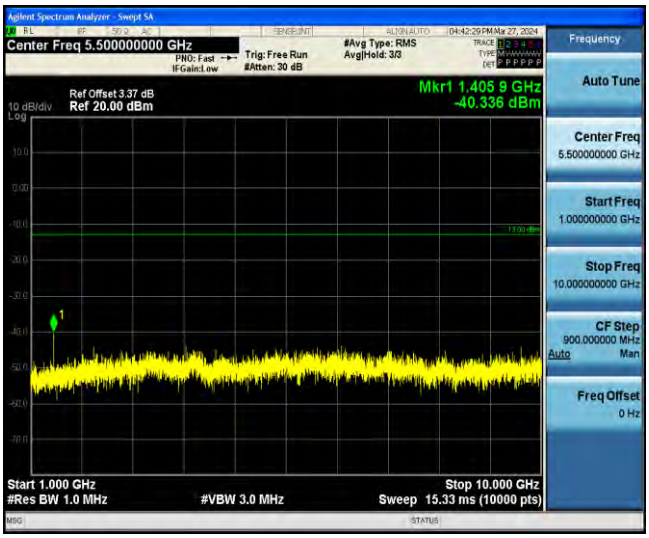
Band12-10MHz-QPSK-23060-1RB#0-Range2:1000~10000MHz



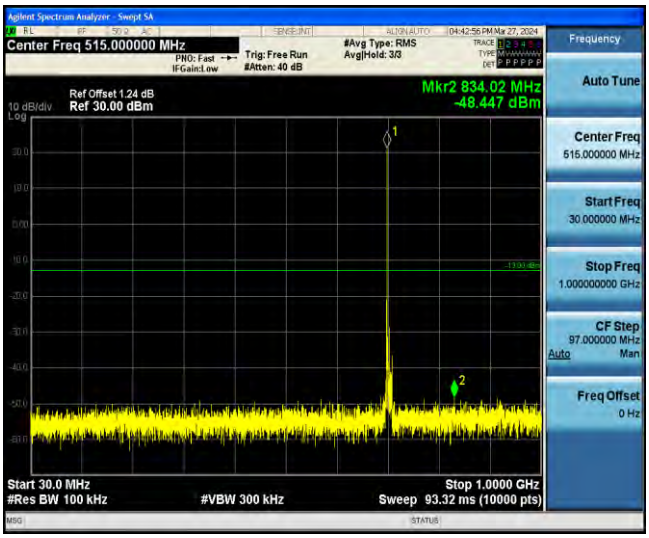
Band12-10MHz-QPSK-23095-1RB#0-Range1:30~1000MHz



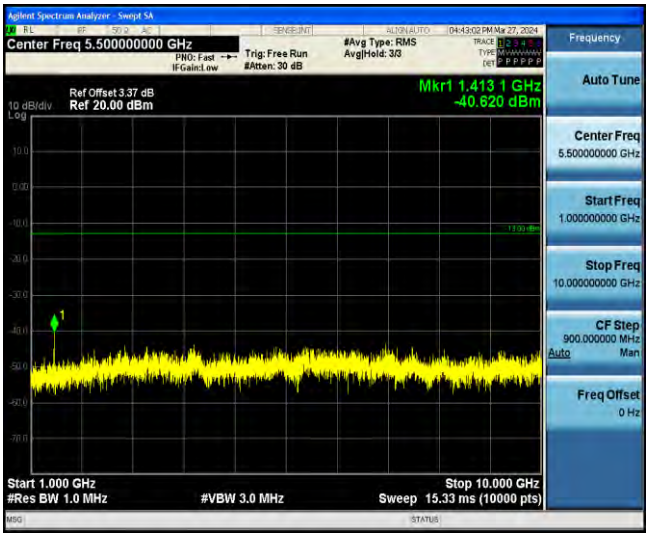
Band12-10MHz-QPSK-23095-1RB#0-Range2:1000~10000MHz



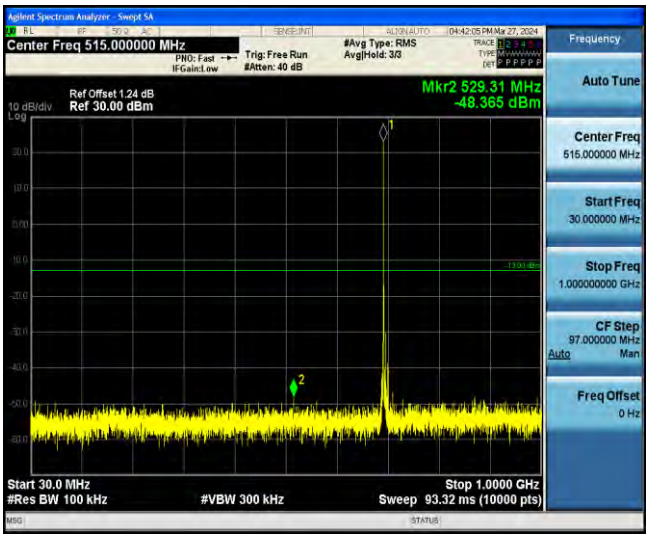
Band12-10MHz-QPSK-23130-1RB#0-Range1:30~1000MHz



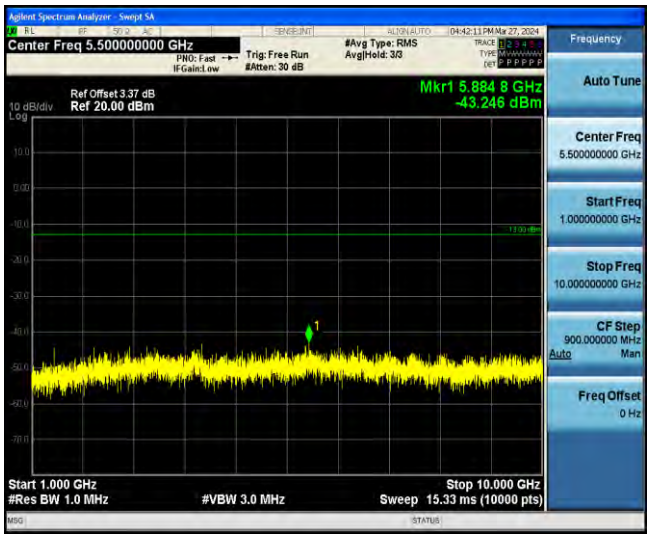
Band12-10MHz-QPSK-23130-1RB#0-Range2:1000~10000MHz



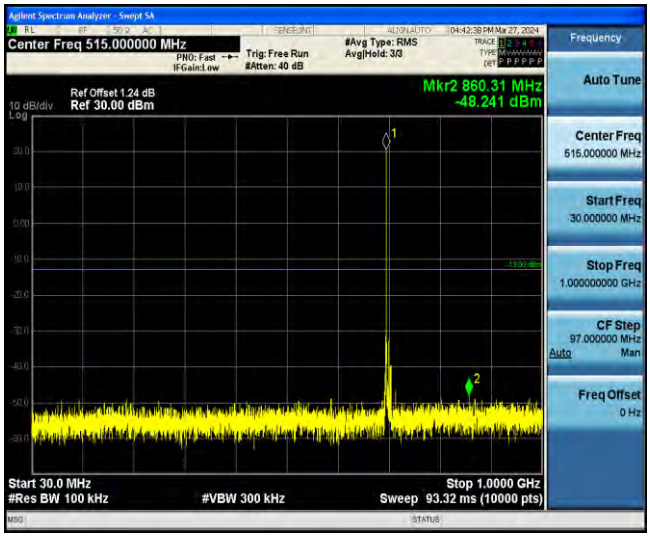
Band12-10MHz-16QAM-23060-1RB#0-Range1:30~1000MHz



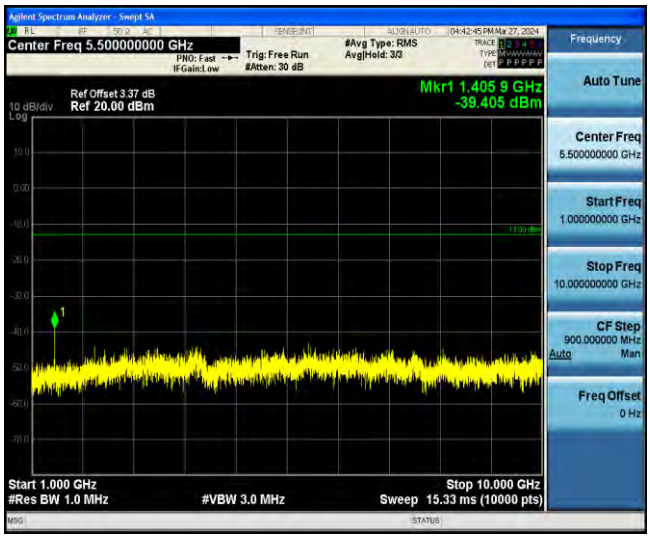
Band12-10MHz-16QAM-23060-1RB#0-Range2:1000~10000MHz



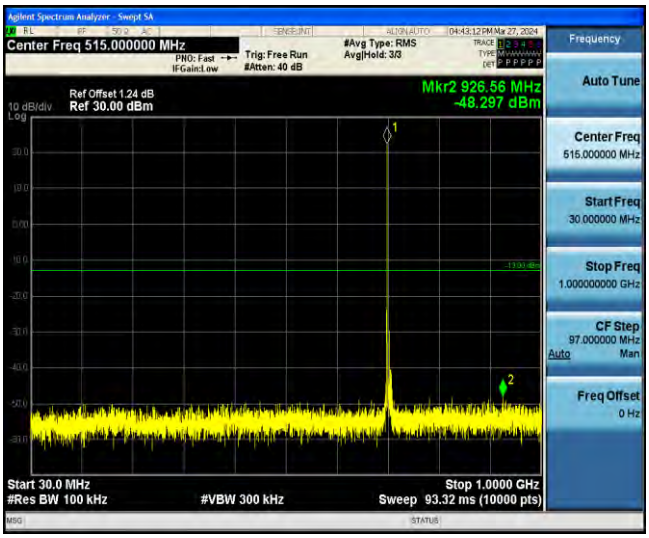
Band12-10MHz-16QAM-23095-1RB#0-Range1:30~1000MHz



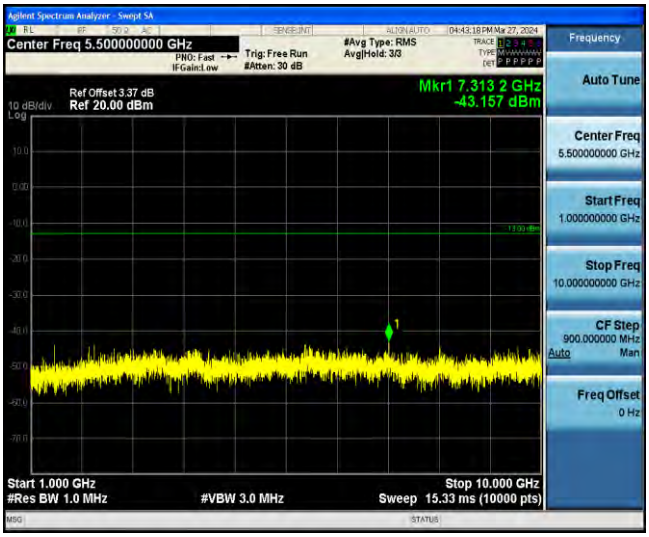
Band12-10MHz-16QAM-23095-1RB#0-Range2:1000~10000MHz



Band12-10MHz-16QAM-23130-1RB#0-Range1:30~1000MHz



Band12-10MHz-16QAM-23130-1RB#0-Range2:1000~10000MHz



Appendix F: Frequency Stability

Test Result

Voltage										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	VL	NT	-1.43	-0.002044	±2.5	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	VN	NT	-2.27	-0.003244	±2.5	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	VH	NT	-2.01	-0.002873	±2.5	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	VL	NT	-2.73	-0.003859	±2.5	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	VN	NT	-1.98	-0.002799	±2.5	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	VH	NT	-2.45	-0.003463	±2.5	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	VL	NT	-2.69	-0.003761	±2.5	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	VN	NT	-2.44	-0.003411	±2.5	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	VH	NT	-3.22	-0.004502	±2.5	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	VL	NT	-2.49	-0.003559	±2.5	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	VN	NT	-3.19	-0.004559	±2.5	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	VH	NT	0.82	0.001172	±2.5	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	VL	NT	-1.98	-0.002799	±2.5	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	VN	NT	-3.31	-0.004678	±2.5	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	VH	NT	-3.20	-0.004523	±2.5	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	VL	NT	-2.43	-0.003397	±2.5	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	VN	NT	-3.60	-0.005033	±2.5	PASS
Band1	1.4MHz	16QAM	23173	6RB#0	VH	NT	-2.46	-0.003439	±2.5	PASS

2										
Band12	3MHz	QPSK	23025	15RB#0	VL	NT	-3.22	-0.004597	±2.5	PASS
Band12	3MHz	QPSK	23025	15RB#0	VN	NT	-2.08	-0.002969	±2.5	PASS
Band12	3MHz	QPSK	23025	15RB#0	VH	NT	-3.00	-0.004283	±2.5	PASS
Band12	3MHz	QPSK	23095	15RB#0	VL	NT	-2.58	-0.003647	±2.5	PASS
Band12	3MHz	QPSK	23095	15RB#0	VN	NT	-3.80	-0.005371	±2.5	PASS
Band12	3MHz	QPSK	23095	15RB#0	VH	NT	2.46	0.003477	±2.5	PASS
Band12	3MHz	QPSK	23165	15RB#0	VL	NT	-1.77	-0.002477	±2.5	PASS
Band12	3MHz	QPSK	23165	15RB#0	VN	NT	1.26	0.001763	±2.5	PASS
Band12	3MHz	QPSK	23165	15RB#0	VH	NT	1.44	0.002015	±2.5	PASS
Band12	3MHz	16QAM	23025	15RB#0	VL	NT	-4.37	-0.006238	±2.5	PASS
Band12	3MHz	16QAM	23025	15RB#0	VN	NT	-3.92	-0.005596	±2.5	PASS
Band12	3MHz	16QAM	23025	15RB#0	VH	NT	-2.92	-0.004168	±2.5	PASS
Band12	3MHz	16QAM	23095	15RB#0	VL	NT	-3.96	-0.005597	±2.5	PASS
Band12	3MHz	16QAM	23095	15RB#0	VN	NT	-2.25	-0.003180	±2.5	PASS
Band12	3MHz	16QAM	23095	15RB#0	VH	NT	0.93	0.001314	±2.5	PASS
Band12	3MHz	16QAM	23165	15RB#0	VL	NT	-2.97	-0.004157	±2.5	PASS
Band12	3MHz	16QAM	23165	15RB#0	VN	NT	2.32	0.003247	±2.5	PASS
Band12	3MHz	16QAM	23165	15RB#0	VH	NT	-1.60	-0.002239	±2.5	PASS
Band12	5MHz	QPSK	23035	25RB#0	VL	NT	1.80	0.002566	±2.5	PASS
Band12	5MHz	QPSK	23035	25RB#0	VN	NT	2.05	0.002922	±2.5	PASS
Band12	5MHz	QPSK	23035	25RB#0	VH	NT	-2.42	-0.003450	±2.5	PASS

Band12	5MHz	QPSK	23095	25RB#0	VL	NT	1.99	0.002813	±2.5	PASS
Band12	5MHz	QPSK	23095	25RB#0	VN	NT	-2.62	-0.003703	±2.5	PASS
Band12	5MHz	QPSK	23095	25RB#0	VH	NT	-3.38	-0.004777	±2.5	PASS
Band12	5MHz	QPSK	23155	25RB#0	VL	NT	-1.83	-0.002565	±2.5	PASS
Band12	5MHz	QPSK	23155	25RB#0	VN	NT	-2.13	-0.002985	±2.5	PASS
Band12	5MHz	QPSK	23155	25RB#0	VH	NT	-3.32	-0.004653	±2.5	PASS
Band12	5MHz	16QAM	23035	25RB#0	VL	NT	-1.42	-0.002024	±2.5	PASS
Band12	5MHz	16QAM	23035	25RB#0	VN	NT	2.07	0.002951	±2.5	PASS
Band12	5MHz	16QAM	23035	25RB#0	VH	NT	2.40	0.003421	±2.5	PASS
Band12	5MHz	16QAM	23095	25RB#0	VL	NT	-2.64	-0.003731	±2.5	PASS
Band12	5MHz	16QAM	23095	25RB#0	VN	NT	-2.72	-0.003845	±2.5	PASS
Band12	5MHz	16QAM	23095	25RB#0	VH	NT	-3.80	-0.005371	±2.5	PASS
Band12	5MHz	16QAM	23155	25RB#0	VL	NT	-3.89	-0.005452	±2.5	PASS
Band12	5MHz	16QAM	23155	25RB#0	VN	NT	-1.90	-0.002663	±2.5	PASS
Band12	5MHz	16QAM	23155	25RB#0	VH	NT	2.90	0.004064	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VL	NT	-2.93	-0.004162	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VN	NT	-1.91	-0.002713	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	VH	NT	-0.90	-0.001278	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VL	NT	-2.73	-0.003859	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VN	NT	-4.15	-0.005866	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	VH	NT	-1.80	-0.002544	±2.5	PASS
Band1	10MHz	QPSK	23130	50RB#0	VL	NT	-2.41	-0.003390	±2.5	PASS

2										
Band12	10MHz	QPSK	23130	50RB#0	VN	NT	-3.22	-0.004529	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	VH	NT	-3.51	-0.004937	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VL	NT	-2.14	-0.003040	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VN	NT	2.35	0.003338	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	VH	NT	-1.60	-0.002273	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VL	NT	-2.02	-0.002855	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VN	NT	1.38	0.001951	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	VH	NT	0.94	0.001329	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VL	NT	-1.90	-0.002672	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VN	NT	-2.62	-0.003685	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	VH	NT	-1.87	-0.002630	±2.5	PASS

Temperature										
Band	Bandwidth	Modulation	Channel	RB Configure	Voltage [Vdc]	Temperature (℃)	Deviation (Hz)	Deviation (ppm)	Limit (ppm)	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	NV	-30	-1.72	-0.002458	±2.5	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	NV	-20	1.68	0.002401	±2.5	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	NV	0	1.39	0.001987	±2.5	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	NV	10	-1.72	-0.002458	±2.5	PASS
Band12	1.4MHz	QPSK	23017	6RB#0	NV	20	-1.71	-0.002444	±2.5	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	NV	-30	-3.75	-0.005300	±2.5	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	NV	-20	-2.55	-0.003604	±2.5	PASS
Band1	1.4MHz	QPSK	23095	6RB#0	NV	0	-3.26	-0.004608	±2.5	PASS

2										
Band12	1.4MHz	QPSK	23095	6RB#0	NV	10	-2.89	-0.004085	±2.5	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	NV	20	-3.33	-0.004707	±2.5	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	NV	-30	-2.82	-0.003942	±2.5	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	NV	-20	-1.45	-0.002027	±2.5	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	NV	0	1.86	0.002600	±2.5	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	NV	10	-2.99	-0.004180	±2.5	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	NV	20	-2.57	-0.003593	±2.5	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	NV	-30	2.90	0.004145	±2.5	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	NV	-20	-1.36	-0.001944	±2.5	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	NV	0	1.23	0.001758	±2.5	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	NV	10	-1.87	-0.002673	±2.5	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	NV	20	0.51	0.000729	±2.5	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	NV	-30	-3.26	-0.004608	±2.5	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	NV	-20	-1.13	-0.001597	±2.5	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	NV	0	-1.89	-0.002671	±2.5	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	NV	10	-1.40	-0.001979	±2.5	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	NV	20	1.91	0.002700	±2.5	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	NV	-30	-2.50	-0.003495	±2.5	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	NV	-20	-2.54	-0.003551	±2.5	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	NV	0	-2.59	-0.003621	±2.5	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	NV	10	-2.24	-0.003132	±2.5	PASS

Band12	1.4MHz	16QAM	23173	6RB#0	NV	20	-2.13	-0.002978	±2.5	PASS
Band12	3MHz	QPSK	23025	15RB#0	NV	-30	-3.35	-0.004782	±2.5	PASS
Band12	3MHz	QPSK	23025	15RB#0	NV	-20	-3.31	-0.004725	±2.5	PASS
Band12	3MHz	QPSK	23025	15RB#0	NV	0	-5.92	-0.008451	±2.5	PASS
Band12	3MHz	QPSK	23025	15RB#0	NV	10	-2.22	-0.003169	±2.5	PASS
Band12	3MHz	QPSK	23025	15RB#0	NV	20	-3.89	-0.005553	±2.5	PASS
Band12	3MHz	QPSK	23095	15RB#0	NV	-30	-0.89	-0.001258	±2.5	PASS
Band12	3MHz	QPSK	23095	15RB#0	NV	-20	-1.86	-0.002629	±2.5	PASS
Band12	3MHz	QPSK	23095	15RB#0	NV	0	-3.52	-0.004975	±2.5	PASS
Band12	3MHz	QPSK	23095	15RB#0	NV	10	-3.44	-0.004862	±2.5	PASS
Band12	3MHz	QPSK	23095	15RB#0	NV	20	-3.39	-0.004792	±2.5	PASS
Band12	3MHz	QPSK	23165	15RB#0	NV	-30	-2.11	-0.002953	±2.5	PASS
Band12	3MHz	QPSK	23165	15RB#0	NV	-20	-2.58	-0.003611	±2.5	PASS
Band12	3MHz	QPSK	23165	15RB#0	NV	0	-2.36	-0.003303	±2.5	PASS
Band12	3MHz	QPSK	23165	15RB#0	NV	10	-1.49	-0.002085	±2.5	PASS
Band12	3MHz	QPSK	23165	15RB#0	NV	20	-1.05	-0.001470	±2.5	PASS
Band12	3MHz	16QAM	23025	15RB#0	NV	-30	-3.65	-0.005211	±2.5	PASS
Band12	3MHz	16QAM	23025	15RB#0	NV	-20	-3.52	-0.005025	±2.5	PASS
Band12	3MHz	16QAM	23025	15RB#0	NV	0	-4.16	-0.005939	±2.5	PASS
Band12	3MHz	16QAM	23025	15RB#0	NV	10	-3.60	-0.005139	±2.5	PASS
Band12	3MHz	16QAM	23025	15RB#0	NV	20	-3.42	-0.004882	±2.5	PASS
Band1	3MHz	16QAM	23095	15RB#0	NV	-30	-4.92	-0.006954	±2.5	PASS

2										
Band12	3MHz	16QAM	23095	15RB#0	NV	-20	-1.26	-0.001781	±2.5	PASS
Band12	3MHz	16QAM	23095	15RB#0	NV	0	-3.13	-0.004424	±2.5	PASS
Band12	3MHz	16QAM	23095	15RB#0	NV	10	-2.48	-0.003505	±2.5	PASS
Band12	3MHz	16QAM	23095	15RB#0	NV	20	-2.48	-0.003505	±2.5	PASS
Band12	3MHz	16QAM	23165	15RB#0	NV	-30	-3.61	-0.005052	±2.5	PASS
Band12	3MHz	16QAM	23165	15RB#0	NV	-20	-1.31	-0.001833	±2.5	PASS
Band12	3MHz	16QAM	23165	15RB#0	NV	0	-2.62	-0.003667	±2.5	PASS
Band12	3MHz	16QAM	23165	15RB#0	NV	10	-3.13	-0.004381	±2.5	PASS
Band12	3MHz	16QAM	23165	15RB#0	NV	20	-3.80	-0.005318	±2.5	PASS
Band12	5MHz	QPSK	23035	25RB#0	NV	-30	-3.64	-0.005189	±2.5	PASS
Band12	5MHz	QPSK	23035	25RB#0	NV	-20	-3.12	-0.004448	±2.5	PASS
Band12	5MHz	QPSK	23035	25RB#0	NV	0	-3.03	-0.004319	±2.5	PASS
Band12	5MHz	QPSK	23035	25RB#0	NV	10	-3.47	-0.004947	±2.5	PASS
Band12	5MHz	QPSK	23035	25RB#0	NV	20	1.58	0.002252	±2.5	PASS
Band12	5MHz	QPSK	23095	25RB#0	NV	-30	-2.60	-0.003675	±2.5	PASS
Band12	5MHz	QPSK	23095	25RB#0	NV	-20	-1.89	-0.002671	±2.5	PASS
Band12	5MHz	QPSK	23095	25RB#0	NV	0	-1.59	-0.002247	±2.5	PASS
Band12	5MHz	QPSK	23095	25RB#0	NV	10	-2.39	-0.003378	±2.5	PASS
Band12	5MHz	QPSK	23095	25RB#0	NV	20	-3.51	-0.004961	±2.5	PASS
Band12	5MHz	QPSK	23155	25RB#0	NV	-30	-3.02	-0.004233	±2.5	PASS
Band12	5MHz	QPSK	23155	25RB#0	NV	-20	-4.18	-0.005858	±2.5	PASS

Band12	5MHz	QPSK	23155	25RB#0	NV	0	-1.24	-0.001738	±2.5	PASS
Band12	5MHz	QPSK	23155	25RB#0	NV	10	-2.84	-0.003980	±2.5	PASS
Band12	5MHz	QPSK	23155	25RB#0	NV	20	-3.41	-0.004779	±2.5	PASS
Band12	5MHz	16QAM	23035	25RB#0	NV	-30	1.84	0.002623	±2.5	PASS
Band12	5MHz	16QAM	23035	25RB#0	NV	-20	2.02	0.002880	±2.5	PASS
Band12	5MHz	16QAM	23035	25RB#0	NV	0	-1.49	-0.002124	±2.5	PASS
Band12	5MHz	16QAM	23035	25RB#0	NV	10	1.03	0.001468	±2.5	PASS
Band12	5MHz	16QAM	23035	25RB#0	NV	20	-1.14	-0.001625	±2.5	PASS
Band12	5MHz	16QAM	23095	25RB#0	NV	-30	-4.23	-0.005979	±2.5	PASS
Band12	5MHz	16QAM	23095	25RB#0	NV	-20	-4.68	-0.006615	±2.5	PASS
Band12	5MHz	16QAM	23095	25RB#0	NV	0	-4.71	-0.006657	±2.5	PASS
Band12	5MHz	16QAM	23095	25RB#0	NV	10	-3.55	-0.005018	±2.5	PASS
Band12	5MHz	16QAM	23095	25RB#0	NV	20	1.86	0.002629	±2.5	PASS
Band12	5MHz	16QAM	23155	25RB#0	NV	-30	-3.24	-0.004541	±2.5	PASS
Band12	5MHz	16QAM	23155	25RB#0	NV	-20	-2.91	-0.004078	±2.5	PASS
Band12	5MHz	16QAM	23155	25RB#0	NV	0	-2.91	-0.004078	±2.5	PASS
Band12	5MHz	16QAM	23155	25RB#0	NV	10	-2.01	-0.002817	±2.5	PASS
Band12	5MHz	16QAM	23155	25RB#0	NV	20	-1.92	-0.002691	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	-30	1.53	0.002173	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	-20	1.04	0.001477	±2.5	PASS
Band12	10MHz	QPSK	23060	50RB#0	NV	0	-4.15	-0.005895	±2.5	PASS
Band1	10MHz	QPSK	23060	50RB#0	NV	10	-2.21	-0.003139	±2.5	PASS

2										
Band12	10MHz	QPSK	23060	50RB#0	NV	20	-1.69	-0.002401	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-30	-1.20	-0.001696	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	-20	-1.99	-0.002813	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	0	-1.65	-0.002332	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	10	2.02	0.002855	±2.5	PASS
Band12	10MHz	QPSK	23095	50RB#0	NV	20	-2.24	-0.003166	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-30	-2.92	-0.004107	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	-20	-2.11	-0.002968	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	0	-1.20	-0.001688	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	10	-4.12	-0.005795	±2.5	PASS
Band12	10MHz	QPSK	23130	50RB#0	NV	20	-4.41	-0.006203	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	-30	4.42	0.006278	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	-20	2.40	0.003409	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	0	-2.99	-0.004247	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	10	2.21	0.003139	±2.5	PASS
Band12	10MHz	16QAM	23060	50RB#0	NV	20	-1.85	-0.002628	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	-30	-2.18	-0.003081	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	-20	-1.10	-0.001555	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	0	1.82	0.002572	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	10	-1.97	-0.002784	±2.5	PASS
Band12	10MHz	16QAM	23095	50RB#0	NV	20	1.41	0.001993	±2.5	PASS

Band12	10MHz	16QAM	23130	50RB#0	NV	-30	-2.28	-0.003207	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	-20	-2.15	-0.003024	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	0	-2.40	-0.003376	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	10	-2.46	-0.003460	±2.5	PASS
Band12	10MHz	16QAM	23130	50RB#0	NV	20	-4.05	-0.005696	±2.5	PASS

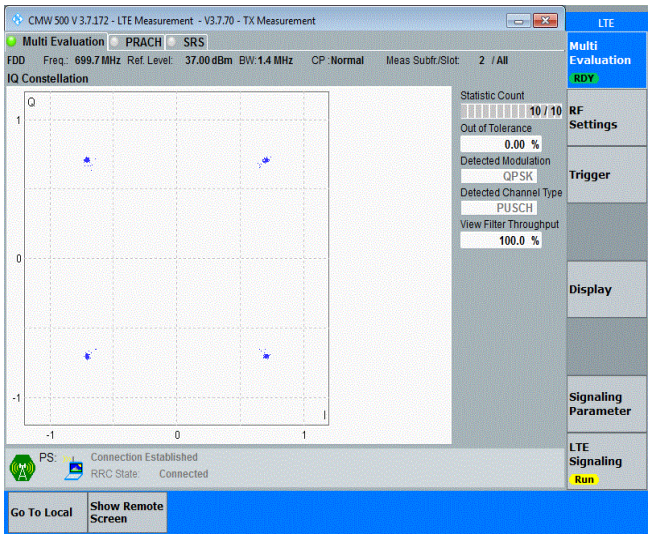
Appendix G: Modulation Characteristics

Test Result

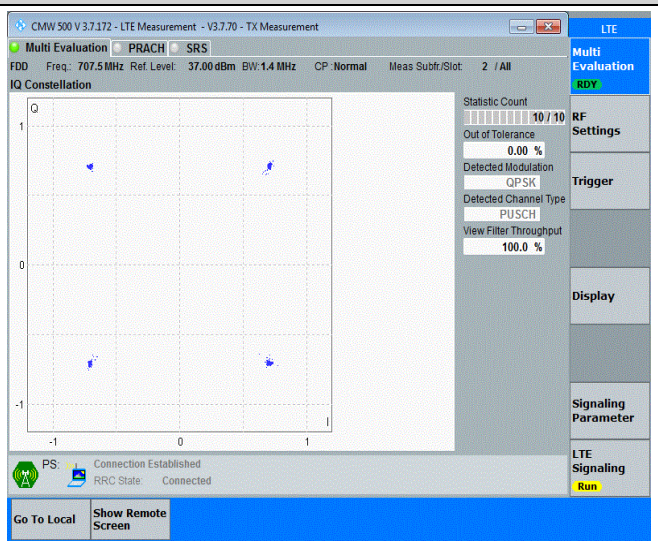
Band	Bandwidth	Modulation	Channel	RB Configuration	Result	Verdict
Band12	1.4MHz	QPSK	23017	6RB#0	PASS	PASS
Band12	1.4MHz	QPSK	23095	6RB#0	PASS	PASS
Band12	1.4MHz	QPSK	23173	6RB#0	PASS	PASS
Band12	1.4MHz	16QAM	23017	6RB#0	PASS	PASS
Band12	1.4MHz	16QAM	23095	6RB#0	PASS	PASS
Band12	1.4MHz	16QAM	23173	6RB#0	PASS	PASS
Band12	3MHz	QPSK	23025	15RB#0	PASS	PASS
Band12	3MHz	QPSK	23095	15RB#0	PASS	PASS
Band12	3MHz	QPSK	23165	15RB#0	PASS	PASS
Band12	3MHz	16QAM	23025	15RB#0	PASS	PASS
Band12	3MHz	16QAM	23095	15RB#0	PASS	PASS
Band12	3MHz	16QAM	23165	15RB#0	PASS	PASS
Band12	5MHz	QPSK	23035	25RB#0	PASS	PASS
Band12	5MHz	QPSK	23095	25RB#0	PASS	PASS
Band12	5MHz	QPSK	23155	25RB#0	PASS	PASS
Band12	5MHz	16QAM	23035	25RB#0	PASS	PASS
Band12	5MHz	16QAM	23095	25RB#0	PASS	PASS
Band12	5MHz	16QAM	23155	25RB#0	PASS	PASS
Band12	10MHz	QPSK	23060	50RB#0	PASS	PASS
Band12	10MHz	QPSK	23095	50RB#0	PASS	PASS
Band12	10MHz	QPSK	23130	50RB#0	PASS	PASS
Band12	10MHz	16QAM	23060	50RB#0	PASS	PASS
Band12	10MHz	16QAM	23095	50RB#0	PASS	PASS
Band12	10MHz	16QAM	23130	50RB#0	PASS	PASS

Test Graphs

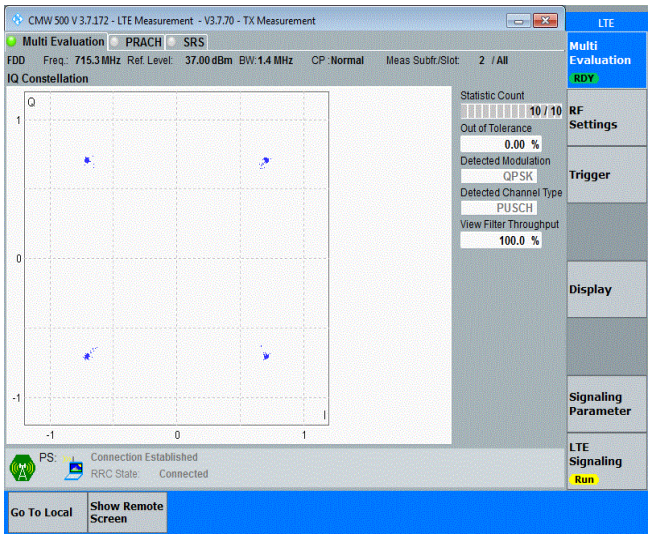
Band12-1.4MHz-QPSK-23017-6RB#0



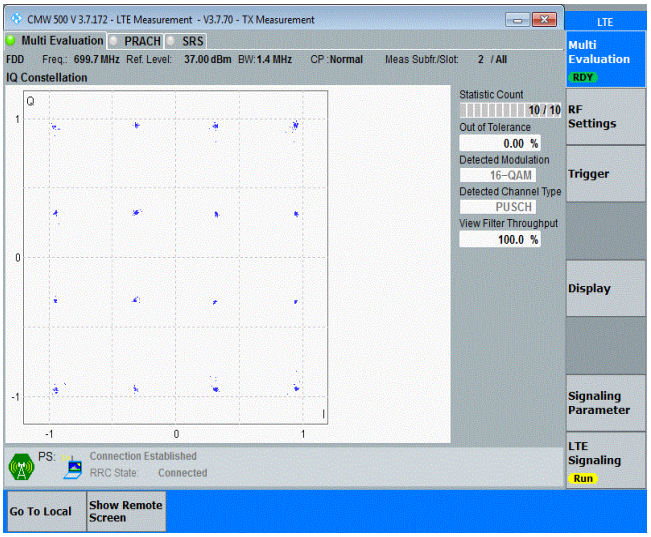
Band12-1.4MHz-QPSK-23095-6RB#0



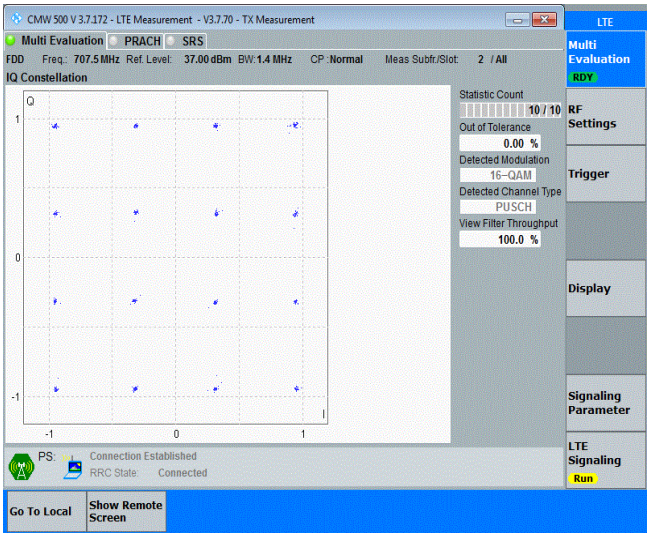
Band12-1.4MHz-QPSK-23173-6RB#0



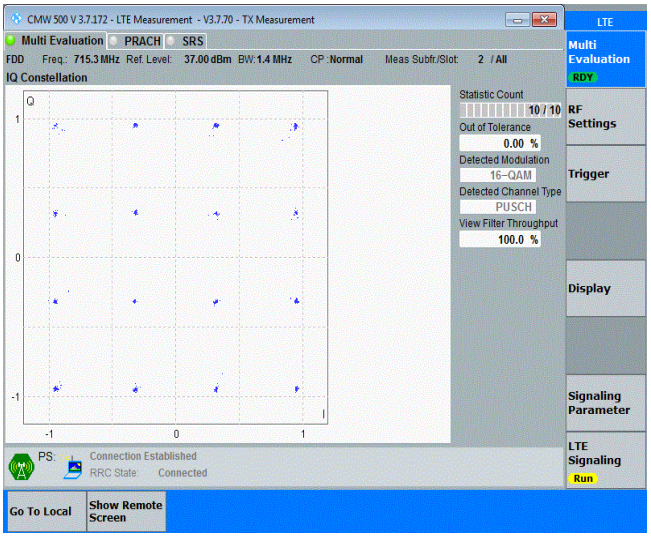
Band12-1.4MHz-16QAM-23017-6RB#0



Band12-1.4MHz-16QAM-23095-6RB#0



Band12-1.4MHz-16QAM-23173-6RB#0



Band12-3MHz-QPSK-23025-15RB#0